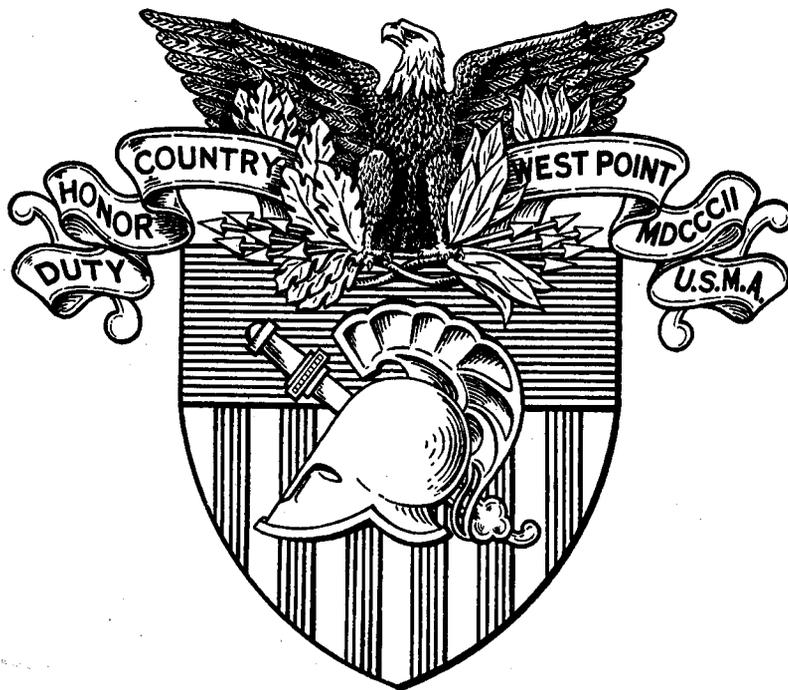


**THE SUPERINTENDENT'S
ANNUAL HISTORICAL REVIEW
1988**



UNITED STATES MILITARY ACADEMY

(RSC CSHIS-6- [R-3])

1 JULY 1987 — 30 JUNE 1988



LTG DAVE R. PALMER

Superintendent

28 July 1986 —



BG ROY K. FLINT

Dean of the Academic Board

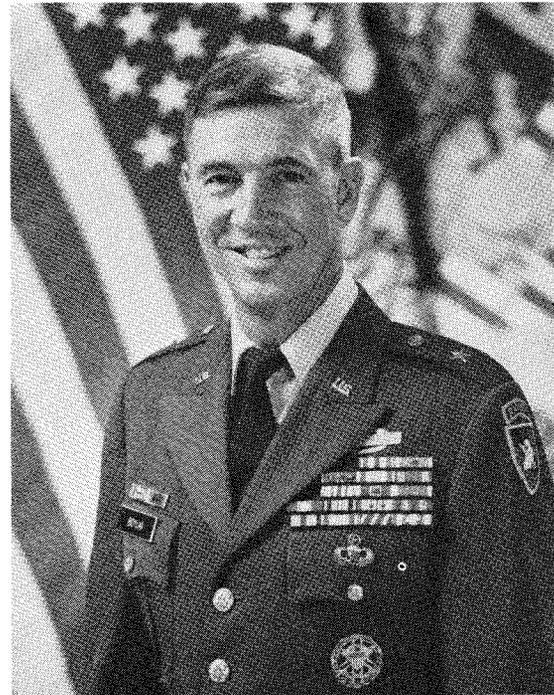
1 August 1985 —



BG FRED A. GORDEN

Commandant of Cadets

10 August 1987 —



BG PETER J. BOYLAN

Commandant of Cadets

26 June 1984 — 10 August 1987

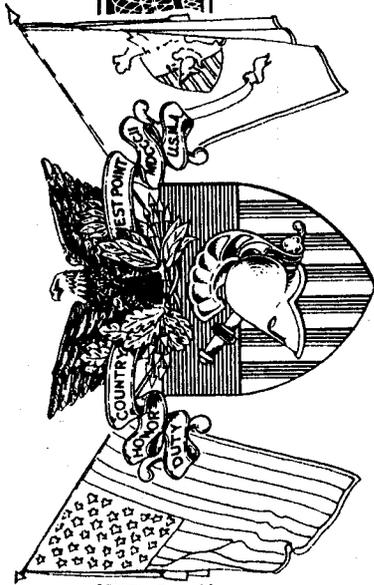


OFFICE OF THE SUPERINTENDENT
UNITED STATES MILITARY ACADEMY
WEST POINT, NEW YORK 10996

This report provides a comprehensive review of the activities of the United States Military Academy during the period 1 July 1987 through 30 June 1988. In this period, we concluded efforts to describe West Point and its guiding principles, published in 2002: A Road Map to Our Third Century. After completing this statement of institutional strategic guidance, we undertook a complex institutional self-study effort in preparation for the future visit of our academic accrediting agency. The purpose of the self-study was to review our structure, policies, and programs to see how well we were prepared to meet our current mission and plans for the future. These efforts showed great promise for further improving the cadet development process to ensure that West Point continues to produce leaders of character for the Army and nation.

A handwritten signature in cursive script that reads "Dave Palmer".

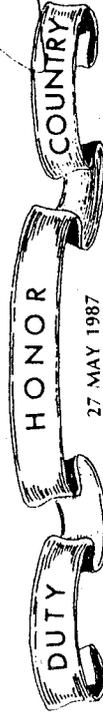
Dave R. Palmer
Lieutenant General, U.S. Army
Superintendent



Mission
of the
United States Military Academy

TO EDUCATE AND TRAIN THE CORPS OF CADETS SO THAT EACH GRADUATE SHALL HAVE THE ATTRIBUTES ESSENTIAL TO PROFESSIONAL GROWTH AS AN OFFICER OF THE REGULAR ARMY, AND TO INSPIRE EACH TO A LIFETIME OF SERVICE TO THE NATION.

Dave Palmer
DAVE R. PALMER
LIEUTENANT GENERAL, U.S. ARMY
SUPERINTENDENT



27 MAY 1987

John A. Wickham, Jr.
GENERAL JOHN A. WICKHAM, JR.
CHIEF OF STAFF
UNITED STATES ARMY

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ADMISSIONS PROGRAM

ADMISSIONS STATISTICS

A record number of 14,664 individuals applied to the Military Academy for the Class of 1992. This figure, and the record-setting total of 1,996 women applicants and 2,729 minority applicants, surpassed all previous Academy levels. There were 5,830 candidates nominated and examined for the Class of 1992, 741 of whom were women. Of this total, 2,804 were found qualified, and 1,319 (162 women) entered the United States Military Academy on 29 June 1988. Eighty-six percent ranked in the top one-fifth and 95 percent ranked in the top two-fifths of their high school classes. Those entering the Academy who took the Scholastic Aptitude Test (SAT) had mean scores of 561 on the verbal portion and 643 in the math, in contrast to the national means of 428 and 476, respectively. More than 97 percent of the new cadets taking the SAT had higher verbal scores, and more than 99 percent had higher math scores than the national average. Those taking the American College Test (ACT) had mean scores of 24.3 on the English and 29.2 on the math portions compared with the national means of 18.5 and 17.2, respectively. All of the new cadets taking the ACT had higher math scores, and 99 percent had higher English scores than the national average. A total of 868 cadets were members of the National Honor Society and 363 were class, student body, or student council presidents while in high school. Some 1,182 lettered in varsity athletics, 749 of whom were team captains. Scouting participants numbered 566 including 143 Eagle Scouts (Boys) or Gold Awards (Girls). Minority cadets totaled 232 or 17 percent of the Class of 1992.

Blue Ribbon Panel

In February 1988, the Superintendent commissioned the Blue Ribbon Panel to Review Admissions comprised of distinguished educators and chaired by Mr. Fred Hargadon, Senior Vice President of the College Board. Their charter was to: "Conduct a general examination of the USMA recruitment and admissions procedures and policies; to evaluate specifically the overall organization of the admissions function with regard to its efficiency, effectiveness, and planning for the future; and to advise the Superintendent with respect to sustaining the overall health and success of the USMA's admissions operations over the next decade, 1988-1998, during the last year of which the Class of 2002 will be enrolled." The panel's review was completed and its final report was forwarded to the Superintendent in June. The panel's final report indicated that USMA admissions is healthy, but that the Academy must ensure that adequate resources are made available to support an energetic admission's effort; an effort that will be increasingly crucial in the face of a demographically-declining pool of applicants in the near future.

ADMISSIONS FIELD FORCE

The Eighteenth Annual USMA/ROTC Liaison Officers' Conference was held at the Academy in June 1988. The liaison officers' program seeks to identify and attract quality candidates to both the Military Academy and to four year ROTC scholarships. (The Admissions Office selects liaison officers from among eligible Individual Ready Reservists.) Of the 120 attendees at this year's conference, 97 were new to the program. The program now consists of 442 officers, 14 of whom are minority group members, seven of whom are women, and 115 of whom are USMA graduates. Colonel Philip W. Leon, the Academy's USAR Adviser, directed the conference. Briefings included presentations by representatives of the Office of the Dean, Commandant, Director of Intercollegiate Athletics, and Director of Admissions. The session

was highlighted by presentations made by Major General Robert E. Wagner, Commander, U.S. Army ROTC Cadet Command, and Major General Ross G. Pickus, Deputy Chief, Army Reserve (Individual Mobilization Augmentee). Participants gained a wider perspective of the interrelationship of the Reserve, ROTC, and USMA policies and programs in effect.

CANDIDATE TESTING

More than 10,660 candidates were scheduled for medical testing by the Department of Defense Medical Examination Review Board (DODMERB). The Physical Aptitude Examination (PAE) was scheduled for more than 11,000 individuals at 169 Army posts, National Guard armories, ROTC facilities, and select independent facilities.

ADMISSIONS MEDIA BRANCH

The Admissions Media Branch initiated and upgraded several publications and audio-visual recruiting products in an effort to ensure that the nation's pool of outstanding college-bound students understand fully the academic program, the physical and military leadership development programs, and the career opportunities available to them at West Point.

The Academy's new general purpose film, "Leaders for a Lifetime," was distributed to USMA liaison officers and admissions participants to use in conjunction with candidate meetings or one-on-one interview sessions with West Point candidates and their parents. The 13-minute film, produced by the Image Technology Division at Aberdeen Proving Ground, Maryland, covers all phases of the "West Point experience." Plans for further distribution of the production, which is available in both VHS format and 16-millimeter film, are being completed.

The Branch coordinated the production of an 11-minute video highlighting the West Point summer military training programs which are designed to help cadets develop a sound military foundation for future career assignments. The new video project, entitled "West Point Summers," produced and edited by Carlos Arranz of the Academy's Audio-visual Technology Division, replaces a decade-old film.

A speech-slide presentation kit, the first update in a decade, was developed to assist cadets participating in Cadet Public Relations Council activities and to support Founders' Day activity requests. The kit contains 80 slides with a recommended text that details the elements of the "West Point experience." An optional Admissions administrative section is also included for use at special school counselor luncheons and presentations.

In the area of publications, the Media Branch produced an award-winning edition of the 1987-88 USMA Catalog. The catalog was cited for its editorial content and graphic design and awarded a Gold Medal by The Admissions Marketing Report during its annual publication and marketing competition in January 1988. The USMA Catalog was honored for the second year in a row as the best in its class among schools with enrollments of 5,000 students or less. The Branch coordinates the editing and production of the catalog and oversees the graphic design work by Corporate Graphics Group, Inc., of East Fishkill, New York. The Branch also received a Silver Medal from The Admissions Marketing Report for its Fall 1987 "Take One" poster.

The Preliminary Scholastic Aptitude Test (PSAT) search mailing brochure was condensed during 1988 to facilitate our most important targeted mailing effort. More than 70,000 of these

four-color brochures were mailed to college-bound juniors who scored well on the test, which is conducted primarily for high school juniors by The College Board in conjunction with the National Merit Examination qualification. The revised edition, sent to 20 percent more students than in 1987, produced a 54 percent response rate increase from the previous year's edition. Coordinating this mailing effort with the Directorate of Information Management (DOIM) Data Processing Center and the Office of Institutional Research (OIR), the Admissions Office completed this direct-mail program during a 28-hour period. Since many colleges and universities make use of the College Board's PSAT database in direct mail efforts to prospective candidates each spring, it was significant that the Admissions Office completed the target mailing so rapidly. That effort "to be at the door first" was a factor in the improved response rate, which now stands at 14 percent overall and 20 percent among minorities.

The Branch continued its selective advertising program in national college and university guidebooks; in a publication entitled "Right Choices," which is targeted to minority students; and in "The College Digest," a publication produced quarterly by a consortium of 32 selective colleges and universities.

The Branch continued to participate in the Learning Research Network program which makes a 10-minute slide-type or laser disc program, highlighting major aspects of the Military Academy, available in nearly 2,000 high schools throughout the country.

CADET PUBLIC RELATIONS COUNCIL (CPRC)

There were over 900 CPRC trips taken as part of the Christmas and Spring Programs during the academic year. In addition, cadets participated in Boys/Girls State Conventions, "By-Invitation" programs, and special speaking engagements. The CPRC also provided cadet escorts at West Point for the Candidate Tours Program for prospective applicants and candidates. During the past academic year, 558 candidates participated in the daily tour program and attended a class, visited the barracks, and ate lunch with their cadet escorts in the Cadet Mess. CPRC also operated an extended tour program which enabled 374 admissible candidates to spend 28 hours at the Academy escorted by a cadet from their home state.

PROJECT OUTREACH

Project Outreach, an Admissions Office minority recruitment program, consists of seven minority officers who travel extensively throughout the United States to promote greater appreciation of the opportunities provided at USMA. Through television and radio interviews and visits to high schools and junior high schools, the theme of preparing oneself properly for higher educational opportunities was stressed. Additionally, contacts were established with high caliber minority youths capable of entering USMA. Follow-up letters and telephone contacts by these officers completed an intensive recruitment effort. USMA's minority staff and faculty members were also encouraged to make contact with outstanding minority candidates and their families to help inform them of opportunities at USMA and in the U.S. Army.

Unfortunately, the Outreach officers discontinued travel on 1 March 1988 due to budget reductions in many admissions areas. In addition, budget reductions required the cancellation of the Urban League portion of the cadet Volunteer Summer Training (VST), which allows minority cadets to make contact with outstanding individuals in nine major cities.

EDUCATOR AND ORIENTATION VISITS

The Educator Visits program continued in 1988, but at a reduced level. Two of the four scheduled Educator Visits and the Congressional Staff Visit were eliminated due to budget reductions. The Educator Visit Program provides an opportunity for educators, guidance counselors, and school administrators to learn first-hand of the scope, quality, purpose, and environment of the Military Academy. This year, a total of 115 educators participated in the three-day orientation at West Point. The annual Congressional Staff Visit provides a similar orientation for congressional staffers responsible for managing the nomination process to the service academies.

INVITATIONAL ACADEMIC WORKSHOPS

In June 1988, the Academy sponsored the 13th Annual USMA Invitational Academic Workshop for 384 high school juniors. The juniors were selected from among the top performers on the Preliminary Scholastic Aptitude Test (PSAT) and from students recommended by the USMA Liaison Field Force. All 50 states and the District of Columbia were represented, including 88 women and 57 minority group members. The workshop is a six-day replication of cadet life. All participants were billeted in cadet barracks and fed in the cadet mess. A total of 36 First Class cadets participated in the workshop as part of the VST program and served as counselors, staff members, and classroom instructor assistants. The Invitational Academic Workshop, consisted of daily academic classes, workshops, athletic activities, and social functions and was supported by all academic departments. Nearly 12 percent of last year's attendees ultimately entered the Academy with the Class of 1992.

FOREIGN CADET ENROLLMENTS

In accordance with Public Law 98-894, passed by Congress in 1983, the maximum number of foreign cadets permitted to be enrolled in the U.S. Corps of Cadets was increased from 24 to 40 effective with the Class of 1989. During the first three years of the foreign cadet expansion, 25 foreign cadets joined the Classes of 1989-1991. During the fourth year, for the Class of 1992, 24 countries nominated candidates, ten were offered admission, and all ten joined the class. The cadets are from Bolivia, Guatemala, Lebanon, Liberia, Malaysia, Malawi, the Philippines, Singapore, Turkey, and Zimbabwe.

ACADEMIC PROGRAM

CADETS

On 25 May 1988, Vice President George Bush delivered the commencement address to 939 members of the "No Task Too Great" Class of 1988 (850 males and 89 women). Twenty-five cadets (21 males and four females) joined the Class of 1988, graduating during the summer after the completion of additional requirements. Finally, 16 cadets (15 males and one female) graduated in December and one male graduated in January 1989, bringing the total number of graduates in the Class of 1988 to 981.

Four graduates from the Class of 1988 received unusually distinguished academic recognition. Lieutenants Douglas E. Fraley and John A. Nagl became the Academy's 62nd and 63rd Rhodes Scholarship recipients, among only 32 Americans to receive the award this year for study at Oxford University. Lieutenant Fraley will study philosophy, politics, and economics, and Lieutenant Nagl will study international relations with a concentration in strategic studies. Lieutenant Fraley was also the third Academy recipient of a Phi Kappa Phi Graduate Fellowship. Lieutenant James D. Pruneski was the Academy's 29th Hertz Foundation Fellowship winner. He was granted a fellowship deferment to serve four years in the military prior to undertaking graduate study in electrical engineering at Stanford University. Lieutenant Christine Siegarth, the 36th Academy recipient of a National Science Foundation Fellowship, will spend two years in the military before attending graduate studies in economics at the Massachusetts Institute of Technology. In addition, during the past year, Floyd M. Miles (USMA '78) became the Academy's 35th recipient when he was awarded a National Science Foundation Fellowship to study international relations at Columbia University.

Under the provisions of Department of Defense policy, up to two percent of each service academy's graduating class may attend medical school immediately upon graduation at either the Uniformed Services University of Health Sciences (USUHS) at Bethesda, Maryland (the military medical school) or civilian medical schools through the U.S. Army Health Professions Scholarship Program. Eleven members of the class were selected for admission as follows: Lieutenants John W. Coursey and John J. Crawford at Vanderbilt University; Lieutenant Shawn P. Granger at the University of Southern California; Lieutenants Daniel E. Simpson and Carol R. Young at Georgetown University; and Lieutenants William C. Conner, Michael E. Doyle, Erin P. Edgar, Gregory Y. Lee, Mark F. Owens, and David J. Wilkie at the USUHS. Conner was also the recipient of a National Collegiate Athletic Association (NCAA) Scholarship.

At the 42nd Annual Eastern Colleges Science Conference held at Ithaca College (New York) in April 1988, with over 200 participants from 30 colleges competing, Cadet Christopher J. Lehner (Class of 1988) won second place in the Physics Papers competition.

Cadet Jeff B. Fuchs (Class of 1988) took first-place honors at both the American Society of Mechanical Engineers (ASME) Regional Student Conference and the American Institute of Aeronautics and Astronautics (AIAA) Northeast Student Regional Conference with an oral presentation on "2-D Inviscid Flow Over an Airfoil in a Wind Tunnel." Cadet Fuchs will compete in the national competition at the annual ASME meeting.

A comprehensive cadet counseling program continued to assist cadets in more clearly defining their academic goals and planning a course of study which will lead to the attainment of those goals. After the counseling process, cadets of the Class of 1990 made general selections somewhat at variance with those made the year before by the Class of 1989:

	<u>Class of 1990</u>	<u>Class of 1989</u>
Applied Science and Engineering*	48%	37%
Basic Science	7%	8%
Humanities	8%	13%
National Security/Public Affairs**	36%	42%

*Includes MSE management.

**Includes HPA management.

The distribution of the Class of 1990 between fields of study and majors was as follows by the end of the 1987-88 Academic Year:¹

	<u>Field of Study</u>	<u>Major</u>
Applied Science and Engineering*	8%	40%
Basic Science	2%	4%
Humanities	4%	4%
National Security/Public Affairs**	<u>25%</u>	<u>11%</u>
Total	40%	60%

*Includes MSE management.

**Includes HPA management.

The proportion of cadets in the Class of 1990 deciding to major was the highest for any class since optional majors were first made available to the Class of 1985. The 60 percent level of the Class of 1990 was markedly higher than the 42 percent level of the Class of 1989 and above the more typical 50 percent level of other classes. The dramatic increase in the number of cadets deciding to major corresponds to a similarly large increase in the number of cadets selected a specialization in the Mathematics-Science-Engineering (MSE) fields. Some 55 percent of the Class selected a major or field of study in MSE, compared to only 45 percent from the previous class. This is the highest degree of concentration in MSE since selections were first made in the Spring of 1982.

Majors continue to be more popular among cadets selecting MSE than among those selecting Humanities and Public Affairs (HPA). In fact, 83 percent of those concentrating in Applied Science and Engineering and 64 percent of those concentrating in the Basic Sciences, but only 47 percent of those concentrating in Humanities and 30 percent of those concentrating in National Security/Public Affairs decided to major in their respective specialties.

Of the optional majors open to cadets in the Class of 1990 at the time of their counseling during the Spring of 1988, Engineering Management (MSE), Computer Science, and Mechanical Engineering (Aerospace) were selected by the largest number of cadets, 7.8 percent, 5.8 percent, and 5.7 percent, respectively. Among all cadets selecting a major, these three areas were selected by 12.9, 9.6, and 9.5 percent, respectively.

Of the fields of study open to cadets in the Class of 1990 at that time, National Security and Public Affairs Interdisciplinary, Management Studies (MSE-Quantitative), and the newly-established Leadership Studies were selected by the largest number, 5.0 percent, 4.3 percent, and 2.4 percent, respectively. Among all cadets selecting a field of study, these three areas were selected by 12.6, 10.8 and 6.2 percent, respectively.

Superintendent's Award

Providing additional recognition for superior cadet performance has been discussed periodically over the past decade. Several studies considered the need for or desirability of establishing awards to recognize cadets who were successful across-the-board in academic, military, and physical development.

During the past year, the Superintendent directed the Chief of Staff to review the subject of a cadet award. After a review by the Academy community, the Superintendent approved the establishment of a Superintendent's Award for individuals excelling in the three measurable components of cadet development.

Cadets eligible to receive this recognition must excel in three areas: academically, they must meet the Dean's List requirement of an academic quality-point average of 3.00 or better for the academic year with a full academic load in each term and no deficiencies; in military development, they must rank in the top one-third of their class in that area and receive an A- or better in their leadership performance indicator (LPI) grade for the second semester; and in physical development, they must meet at least one of several different athletic standards.

The Superintendent's Award is a gold wreath insignia presented to cadets who have met the three-fold criteria. Superintendent's Awards are presented to First Class cadets at the Awards Convocation. Underclass Superintendent's Awards are presented at the Fall Award Review. Eighty-seven members of the Class of 1988 became the first recipients of this award in May 1988.

THE FACULTY

The tenured faculty underwent significant changes during the 1987-88 Academic Year. Three department heads retired and three department heads were appointed. Eight new Permanent Associate Professors were appointed during the period and four tenured faculty members went on sabbatical.

Colonel Robert W. Berry, Professor and Head of the Department of Law since 1978, retired on 31 July 1987 after 37 years of active service. Colonel Dennis R. Hunt, who began to serve as acting Head of the Department in July 1987, was formally sworn in as Professor and Head of the Department in January 1988. Colonel David H. Cameron, Professor and Head of the Department of Mathematics for three years, retired on 30 June 1988 after 28 years in the Department and 38 years of active service. Colonel Frank R. Giordano succeeded him as head of the Department, having served as Professor of Mathematics since 1982 and as Deputy Head since May 1987. Colonel Jack L. Capps, Head of the Department of English since 1977, retired on 1 July 1988, after 29 years in the Department and 40 years of active service. Colonel Peter L. Stromberg, a member of the Department since 1974 and Deputy Head for 11 years, was appointed Head of the Department on 1 July 1988.

Three Permanent Associate Professors retired during the academic year: Colonel Harry G. Rennagel, Permanent Associate Professor in the Department of Chemistry, retired in June 1988

after 27 years of active service; Lieutenant Colonels Cathy Kelly and John A. Dallen, Jr., Department of Geography and Computer Science, both resigned their positions and retired from the Army in September of 1988 after 20 years of commissioned service.

In early 1988, the Department of the Army (DA) approved the following eight individuals as Permanent Associate Professors: Lieutenant Colonels Joseph T. Cox and Terrence M. Freeman and Major Paul P. Christopher, Department of English; Lieutenant Colonel Edward W. Mayer and Majors Merrill S. Blackman and Patrick M. Owens, Department of Chemistry; Major Norman D. Dennis, Department of Engineering; and Major Thomas A. Lainis, Department of Physics. Major Donald A. Ponikvar was selected as the Academic Research Division's Permanent Associate Professor, but became the first officer in recent years to turn down the position of permanent associate professor when he declined the appointment.

Four tenured faculty members went on sabbatical during the past academic year: Colonel James H. Ramsden, Deputy Head of the Department of Chemistry, went on sabbatical to the Department of Chemistry at the University of Florida; Lieutenant Colonel Asa A. Clark IV, Permanent Associate Professor in the Department of Social Sciences, conducted research focusing on the Strategic Defense Initiative and European security issues while on a sabbatical sponsored by the Fulbright Scholar Program at the International Institute of Strategic Studies in London, England; and Lieutenant Colonel David C. Allbee, Permanent Associate Professor in the Department of Chemistry, served as the West Point Fellow to the Army War College, Carlisle Barracks, Pennsylvania, and completed the Army War College course while there. Finally, Colonel Edward E. J. Thomas, Professor and Deputy Head of the Department of Foreign Languages, spent a year on sabbatical dividing his time between conducting research on U.S.-Soviet relations during and after World War II, while a Fellow of the Franklin and Eleanor Roosevelt Institute of Hyde Park (New York), and preparing a study on Soviet military doctrine at the request of the Defense Intelligence Agency.

Lieutenant Colonel Jerry W. Samples, Permanent Associate Professor in the Department of Mechanics, began a two-year Engineer Battalion Command in West Germany in June 1987.

Colonel Larry R. Donnithorne resigned his Permanent Associate Professor position in the Office of the Dean and accepted an extended tour position as the Special Assistant to the Superintendent for Strategic Planning in July 1987.

Sixteen professors and scholars served as visiting professors in fourteen departments during the past academic year: Dr. Robert M. Carter of the University of Southern California in the Department of Behavioral Sciences; Dr. Frank A. Guthrie of the Rose-Hulman Institute of Technology in the Department of Chemistry; Dr. Charles A. Gross of Auburn University in the Department of Electrical Engineering; Dr. Ruth A. Maurer of the Colorado School of Mines in the Department of Engineering; Dr. Elizabeth A. Wolgast of California State University at Hayward (first term only) in the Department of English; Dr. David P. Bensler of Ohio State University and Dr. Margaret Nydell, former director of the Department of State School of Arabic in Tunis, Tunisia, in the Department of Foreign Languages; Dr. Curtis J. Sorenson of the University of Kansas in the Department of Geography and Computer Science; Dr. Robert H. Ferrell of Indiana University in the Department of History; Dr. Edward W. Haughney of the Dickinson College Law School in the Department of Law; Dr. Bernard A. Fusaro of Salisbury State (Maryland) College in the Department of Mathematics; Dr. George D. Catalano of Louisiana State University in the Department of Mechanics; Dr. James M. Tanner of the Georgia Institute of Technology in the Department of Physics; Dr. Howard J. T. Steers, Foreign Service Officer, U.S. State Department, and Dr. George C. Edwards III of Texas A & M University in the Department of Social Sciences; and Dr. William J. Penny of East Stroudsburg (Pennsylvania) University in the Department of Physical Education.

Major John E. Shephard, Jr. (USMA '77), an Assistant Professor in the Department of Social Sciences, was selected to serve for one year as a White House Fellow beginning in the Fall of 1988. He was one of 14 selected from 800 applicants for the 1988-89 year. There have been a total of 33 USMA graduates selected as White House Fellows, 23 of whom have served on the faculty or as tactical officers at USMA.

The academic credentials and composition of the faculty remained stable in most categories for the 1987-88 Academic Year. The percentage of faculty members holding Ph.D. degrees was 22 percent while another four percent had completed all but their dissertations. Officers commissioned from sources other than USMA comprised 35 percent of the faculty, about the level of the last few years. The number of women officers rose by one over the previous year to 20. The number of minority group faculty members rose slightly to 41, the highest level in the Academy's history. The number of sister service officers on the academic faculty increased by one to 17: 12 Air Force (one female) officers and five Naval (one female) officers. Additionally, one officer each from Brazil, France, West Germany, and Mexico served in the Department of Foreign Languages.

CURRICULUM

"An important characteristic of the Military Academy curriculum has traditionally been its balance between stability and innovation. To change with every trend would erode the foundation of the USMA academic program: a broad, general education in the arts and sciences. However, to remain (stationary) in a changing and technologically-oriented world risks stagnation and obsolescence. The academic year just completed (was) marked by curricular change that builds on the Academy's engineering tradition, (and represents the latest step in the) evolution of the cadet intellectual experience."²

With the publication of the Concept for Intellectual Development, one of the nine concepts in the 2002 Plan: A Road Map to the Third Century (and included as an appendix in this report), the Dean of the Academic Board tasked the chairman of the Curriculum Committee, Colonel Frank R. Giordano, Professor and Deputy Head of the Department of Mathematics, on 25 August 1987, to undertake an engineering curriculum study which would evaluate the core courses within the curriculum as well as the organization that supports engineering education at West Point. This study resulted from the perception that over the past decade "the engineering science and engineering design core components (had) eroded from a strong multicourse array to a compromised collection of four common core courses and a single course on civil, mechanical, or electrical engineering. While the cadets who concentrated in engineering still received a comprehensive preparation (it was unclear that the) engineering program for all cadets (was) strong enough to meet the needs of Army officers in the future."³

The study conducted by the Curriculum Committee ultimately led to major decisions in scheduling, curriculum, and departmental structure. One of the initial changes in scheduling resulted in the elimination of regularly-scheduled Saturday classes. "This change was made possible by a new approach to the scheduling of two-hour laboratory periods, a willingness on the part of several academic departments either to accept fewer advance(d) lessons or to trade advance(d) lessons for laboratory hours, and cooperation between the Dean and the Commandant on the issue of dedicated time for the Commandant to deliver his instructional program....These changes make it possible for cadets to organize their time better and to experience longer periods of 'fenced' time....Cadet trips and passes will be restricted to about half the weekends during the year, (and) the Dean and Commandant will still use Saturday mornings for lectures, extra instruction, voluntary laboratories, design project consultation, chain of command performance counseling, and examinations."⁴ The result of the end of

regularly-scheduled Saturday classes will also minimize the impact of class absences from West Point for athletic, extracurricular, and weekend travel, which had been a significant, long-standing problem for the academic program.

The second change occurred in the curricular structure when the Academic Board on 11 May 1988 approved a revised engineering core curriculum effective for the Class of 1991. The revised curriculum affected all cadets to some extent but the most significant impact was upon the half of the class concentrating in non-engineering disciplines. Previously, all students first completed three prescribed engineering science courses--"Statics and Dynamics," "Thermofluid Dynamics," and "Basic Electrical Systems." The HPA students then "took a design sequence consisting of a single civil, mechanical, or electrical engineering course followed by one course in engineering decision methods. (The HPA) design sequence could not develop the desired depth or sophistication because the three common engineering science courses did not provide sufficient background to support the design work."⁵ "The cadet, therefore, was not prepared to address engineering design with any sophistication."⁶ The MSE students, on the other hand, typically took an integrated and concentrated two-semester design sequence in one of several different engineering specialties.

To deal with the problem and as a result of the curriculum study, the Academic Board voted to have all cadets, beginning with the Class of 1991, "select instead a more coherent five-course core engineering sequence in any of the following six areas: civil, mechanical, electrical, systems, computer, or nuclear. Rather than a broad view of all engineering science, as in the past, the three engineering science courses will constitute specific and detailed preparation for the (two-semester) engineering design courses in civil, mechanical, electrical, computer, or systems engineering. (Nuclear engineering is available at the expense of using an elective to take an additional required course.) These (design courses) will be taught at a more appropriate level of understanding and depth. (Faced with a choice) between breadth and depth, the Academy elected depth, reasoning that Army officers should learn the engineering thought process in a coherent progression of courses. In contrast (to) former practice, the three engineering science courses, all of which contribute to a related field, (now will) build the base upon which fully developed design courses can stand. (As a result of the action, all) cadets will now have the opportunity to experience the engineering thought process in depth and will benefit intellectually from this more clearly- defined approach."⁷

In a related action, the third and fourth semesters of the math curriculum were modified to support the revised engineering curriculum. The MA 201 "Multivariable Calculus and Vector Calculus" course was deleted as a core requirement because its subject matter was not essential for all cadets. On the other hand, the former MA 202 "Differential Equations and Probability and Statistics" core course was divided into two separate, semester-long core courses. This restructuring is in line with the academic curriculum of most major universities and is appropriate for the Military Academy because the subject matter is valuable for cadets engaged in most concentrations. The material covered in "Multivariable Calculus and Vector Calculus" now typically will be taken as an elective by only those students requiring it in selected mathematics, science, and engineering concentrations.

Finally, on 22 June 1988, based on Committee recommendations, the Academic Board voted to reorganize the Department of Engineering and realign several departments, effective 1 July 1989. As a result, the Civil and Mechanical Groups from the Department of Engineering will join the Department of Mechanics to form a Department of Civil and Mechanical Engineering. Nuclear engineering courses will now fall under the purview of the Department of Physics. A new Department of Systems Engineering will be created. (The Academic Board had approved the establishment of the 17th major, this one in Systems Engineering on 4 November 1987, and implementation of the program began with the Class of 1990.)

The creation of this latter Department, "recognized that engineering has grown beyond its traditional association with the physical sciences and the design of structures and electro-mechanical systems. Since World War II, engineering has evolved into a science that includes the organization and coordination of concepts, methods, and resources (people, money, time) and draws on such disciplines as mathematical modeling, simulation, probability and statistics, network theory, control theory, optimization techniques, and economics."⁸

At that 22 June meeting, the Academic Board also voted to remove computer science from the Department of Geography and Computer Science and combine it with the Department of Electrical Engineering to form a new Department of Electrical Engineering and Computer Science. The remaining geography section stood alone as a new Department of Geography.

In the words of the Superintendent in his letter informing the Army Chief of Staff of the Academic Board decisions, "the goal of a West Point education is to enable its graduates to anticipate and to respond effectively to the uncertainties of a changing technological, social, political, and economic world. Education in these areas involves not only the acquisition of knowledge but also the development of higher intellectual skills in analysis, problem solving, and decision making on the major issues confronting society, the nation, and the profession of arms. The recent decisions by the Academic Board constitute significant improvements to the intellectual development of cadets consistent with the 2002 planning."⁹

FACULTY DEVELOPMENT

During the 1987-88 Academic Year, faculty participation in the military development program continued to expand over the level of previous years. The participants ranged from Department Heads to Permanent Associate Professors, but each made contributions which furthered Army policies and programs.

During the academic year, four members of the tenured faculty and one non-tenured member served as evaluators of reserve units during annual training. Colonel Peter L. Stromberg, Professor and Deputy Head of the Department of English, served as the chief evaluator for the 69th Infantry Brigade in its annual training for two weeks at Fort Carson in June 1988. Lieutenant Colonel John A. Calabro, Permanent Associate Professor in the Department, served as the senior artillery evaluator for four battalion Army Training and Evaluation Programs (ARTEP) with the Third Armored Division Artillery at the Hohenfels Training Center, West Germany, in the Summer of 1987. Lieutenant Colonel Johnston Beach, Permanent Associate Professor in the Department of Behavioral Sciences and Leadership, served as chief evaluator of the 349th Combat Support Hospital Annual Training Exercise at Fort Stewart in May 1988. Colonel Peter D. Heimdahl, Professor and Head of the Department of Mechanics, served as site chief evaluator for reserve components annual training conducted at Fort Drum, New York, for two weeks in June 1988. He headed a team evaluating the ARTEP training of the 26th Infantry Division Artillery (Massachusetts Army National Guard) and several of its organic units. Major Douglas A. MacGregor, a non-tenured Assistant Professor in the Department of Social Sciences, served as a Brigade S-3 and Chief Evaluator/Controller for a pre-National Training Center (NTC) ARTEP administered to Task Force 4-40 Armor at Fort Carson, Colorado, in the Summer of 1987.

Other permanent faculty members provided key evaluations for other field exercises in the continental United States (CONUS) and overseas. Colonel Kenneth E. Hamburger, Permanent Associate Professor in the Department of History, served as Deputy Commander with the 17CAG (Combat Aviation Group), Seoul, Korea for three weeks through the Ulchi Focus Lens Exercise in the Summer of 1987. During the period, he prepared for the arrival of two attack helicopter (AH-1) battalions, Modified Tables of Organization and Equipment (MTOEs) in

compliance with Army of Excellence program, presented classes on operations during the Korean War, and prepared a staff ride of the Inchon landings for units of the Group and members of the U.N. Joint Armistice Command to conduct. Colonel James R. Golden, Professor and Deputy Head of the Department of Social Sciences, participated in the Certain Strike Exercise in the annual Return of Forces to Germany (REFORGER) field exercises in the Netherlands and West Germany during September 1987 and provided a report on command post operations for the III Corps Commander. Lieutenant Colonel Thomas H. Johnson, Associate Dean for Academic Research and Professor of Applied Physics, also observed the Certain Strike exercise with the 1st Brigade Commander of the 2nd Armored Division in West Germany for two weeks in September. Following this tour, he spent 10 days in the Soviet Union touring Soviet laboratory facilities at the invitation of the Soviet Academy of Sciences. Lieutenant Colonel John K. Robertson, Associate Dean for Resource Management, served as senior controller with the 4th Infantry Division in Operation Halcyon Orbit at Fort Carson in December 1987. Colonel Edward J. F. Thomas, Professor and Deputy Head of the Department of Foreign Languages, served as Senior Controller for the 25th Infantry Division Tropic Lightning field exercise at Ft. Shafter, Hawaii, in June 1988.

Several tenured faculty members provided assessments of Army units, schools, or equipment. In June and July 1987, Lieutenant Colonel Lee S. Dewald, Permanent Associate Professor in the Department of Mathematics, assisted a battalion commander in the 1st Division, 10th Artillery with an evaluation of his companies and spent another week as a special analyst with the Division Artillery of the 3rd Infantry Division in West Germany. Colonel Kenneth R. Grice, Permanent Associate Professor in the Department of Physics, spent the month of July 1987 serving as the senior evaluator on a branch training team for Brigadier General Leon E. Salomon, Commanding General and Commandant, U.S. Army Ordnance Center and School at Aberdeen Proving Grounds, Maryland. He briefed General Salomon in October on the preliminary results which examined the need for technical field grade training for Ordnance officers. Colonel James L. Anderson, Professor and Head of the Department of Physical Education, spent six weeks in the Summer of 1987 with the 3rd Armored Division in West Germany. During the period, he participated in a unit test using the National Training Center model at the Hohenfels Training Center, worked with unit fitness programs, and checked on the status of master fitness trainers. Lieutenant Colonel Daniel J. Kaufman, Permanent Associate Professor in the Department of Social Sciences, reviewed a new light armored tank proposed for the Army and evaluated the operations of a light armored battalion of the 82nd Airborne Division at Fort Bragg, North Carolina, in June 1988. In July 1987, Major Richard C. Graham, Professor of Environmental and Analytical Chemistry in the Academic Research Division, examined the NBC protective system in the M1A1 tank with the 1st of the 37th Armor in Grafenwoehr, West Germany, and wrote a report for Brigadier General Peter M. McVey of the U.S. Army Tank-Automotive Command.

Assisting in the development and improvement of Army leadership continues to be a major source of tenured faculty support. In September, Colonel Howard T. Prince II, Professor and Head of the Department of Behavioral Sciences and Leadership, participated in the Leader Development Workshop in Kansas City, Kansas, to develop recommendations for the Chief of Staff of the Army (CSA) and the Commanding General (CG), Training and Doctrine Command (TRADOC) on currently significant leader development issues to include: Title IV legislation impact, OPMS impact and effectiveness, MAMS problems, and Army education and training for leaders. The workshop resulted in a set of recommendations presented to the CG, TRADOC and the CSA and were part of the Army Commanders' Conference in October 1987. In October, Lieutenant Colonel George B. Forsythe, Permanent Associate Professor in the Department of Behavioral Sciences and Leadership, presented a strategy for teaching decision making and problem solving in the context of a leader development program at the Military Qualification Standards I (MQS I) Precommissioning Conference at Headquarters, TRADOC. His participation helped finalize the MQS I Frame of Reference Paper for inclusion in the next

MQS I Manual. Colonel Louis S. Csoka, Professor of Psychology and Leadership, is directing an Army Research Institute-funded evaluation of the effectiveness of various leadership styles for battalion-sized units which is discussed in greater detail in the Department of Behavioral Sciences and Leadership section of this chapter.

The Academy's leadership role in both computers and education was demonstrated by the contributions of several permanent faculty members. Colonel Gilbert W. Kirby, Jr., Professor and Head of the Department of Geography and Computer Science, continued to develop new terrain analysis, MICROFIX Topographic (T) software for the Minnesota and Arkansas National Guards, the Defense Mapping School and conducted training with it in West Germany in the Summer of 1987. For five weeks in the Summer of 1987, Lieutenant Colonel Lawrence A. Rapisarda, Permanent Associate Professor in the Department of Electrical Engineering, conducted a UNIX familiarization program and established a multi-user system for the Rhode Island National Guard. Colonel Fletcher M. Lamkin, Permanent Associate Professor in the Department of Engineering, participated in the Global War Game at the Naval War College, Newport, Rhode Island. During the July 1987 exercise, he administered a nuclear arms reduction war game to 20 selected participants, as part of an off-line scenario to GLOBAL. Colonel Pat C. Hoy II, Professor of English, presented a set of Effective Writing Seminars at Fort Devens, Massachusetts, in July 1987. Finally, in August 1987, Lieutenant Colonel Lanse M. Leach, Associate Dean for Academic Computing, reviewed the application of automation resources in field engineer units and received updates from personnel ranging from enlisted ranks to senior officers stationed with the 2nd Engineer Group of the Eighth Army in Korea.

Several tenured faculty contributions in special Army projects also were noteworthy. In July 1987, Colonel L. Sam Thompson, Permanent Associate Professor in the Department of Geography and Computer Science, spent several weeks in Germany with all the Army units engaged in surveying and some time with CONUS units engaged in surveying. Under contract from the Belvoir Research and Development Center (BRDC), he prepared a comprehensive listing of the contemporary tasks of surveyors to improve the connection between training and equipment procurement in the field. Lieutenant Colonel Wallace E. Walker, Permanent Associate Professor in the Department of Social Sciences, conducted interviews for four weeks during the Summer of 1987 with the Adjutants General and their staffs in the states of Georgia, New York, Massachusetts, and Utah as part of his project on the National Guard in the Vietnam Era, sponsored by the Director of the National Guard Bureau and funded by the Army Research Institute (ARI). He also discussed reserve component affairs with the commanding generals and staff members at the U.S. Army Forces Command (FORSCOM) and 2nd Army and 3rd Army Headquarters and interviewed commanders and staff officers of a Mechanized Infantry Brigade, two Infantry Divisions, a Division Support Command (DISCOM), an Armored Cavalry Squadron, an Engineer Group, an Artillery Corps, a Special Forces Group, a Military Intelligence (Linguist) Battalion, a Military Airlift Group, a Military Airlift Squadron, an Air Refueling Group, and a Tactical Fighter Squadron. In late Spring 1988, Lieutenant Colonel James S. Wheeler, Permanent Associate Professor in the Department of History, spent six weeks as a special assistant on burdensharing to Major General Philip H. Mallory, Director of the NATO European Policy Division in the Office of Secretary of Defense. Lieutenant Colonel Wheeler prepared a position paper on burdensharing and a message of instruction to the U.S. representative to the NATO Military Council. He also provided background material for Undersecretary William H. Taft IV's trip to NATO countries to promote allied efforts at burdensharing. Lieutenant Colonel Wheeler's work eventually resulted in a joint paper with Major General Mallory on burdensharing which appeared in Signal magazine later in the year.

These activities are only a sample of the numerous and varied contributions made by hundreds of faculty members, both tenured and non-tenured, in support of Army and national issues of

concern. Many other contributions of the faculty are included in the various Departmental sections of this chapter.

In the Fall of 1987, the Superintendent, Lieutenant General Dave R. Palmer, sent letters to all major commands (MACOMs) enlisting their support to find appropriate positions for the tenured faculty available to participate in this program in the Summer of 1988. The correspondence requested 05 and 06 (Lieutenant Colonel and Colonel) positions in the following capacities: "deputy commanders during unit deployments in the field; senior ARTEP evaluators, controllers, and operations officers for major field exercises; roundout unit annual training evaluations with time spent with active partnership units beforehand; directors and evaluators of force development tests and evaluations; or any position that actively involves the officer with troops in the field where the officer must apply his knowledge of war fighting skills."¹⁰ The Academy sought to send about two dozen of the 70 members of the tenured faculty (which totaled 37 Colonels and 33 Lieutenant Colonels in late 1987) representing 11 branches although three-fourths were in infantry, armor, field artillery, and engineering. Most of the general officers responded and their support improved the quality of positions available in the Summer of 1988.

FACULTY RESEARCH

During the 1987-88 Academic Year, Colonel Thomas H. Johnson served as the Associate Dean of Academic Research and Director of the Science Research Laboratory. Captain John P. LaFemina was the executive officer of the Science Research Laboratory.

Funding for faculty research at USMA totaled \$1,800,000 for the 1988 Fiscal Year. This 21 percent decrease in funding from the previous year is due primarily to the transfer of a research project on male and female officer career development from USMA to the U.S. Army Research Institute (ARI) for the Behavioral and Social Sciences at Alexandria, Virginia. Support continues for other projects of the laboratory and for the Departments of Chemistry, Physics, and Electrical Engineering, which is indicative of DA interest in expanding research activities in the physical sciences, particularly laser science, at West Point. These Departments have begun searches to fill six new DA-authorized officer and four new civilian positions to staff a center for study of laser science and technology at West Point. A 35-percent design for a new facility for this research, which will be housed in the subbasement of Bartlett Hall, has been completed with construction to begin in 1991.

Research efforts in other areas, particularly computer science and operational research, have continued to flourish as well. Funding continues to be primarily from DA and Federal government agencies and laboratories. The Association of Graduates, through the West Point Fund and the Faculty Development and Research Fund (FDRF), also provides funds for research. In addition to support from the FDRF, the ARI continues to sponsor research for the social sciences and humanities.

DISTINGUISHED LECTURE SERIES

Because of the national prestige of the institution and the ideals represented here, the Military Academy is able to draw upon the resources of many distinguished speakers. A list of visiting lecturers speaking at the Academy during the past year is included as an appendix in this report. In addition, through the auspices of the USMA Class of 1951, a West Point Distinguished Lecture Series was initiated in the 1984-85 Academic Year which contributes to long-standing efforts to bring notable lecturers to the West Point community.

During the past year, thanks to the Class of 1951, a number of distinguished Americans spoke at the Academy to include the following: Mr. Norman Augustine, Martin Marietta Corporation, "Maintaining the Industrial Base;" Judge Jean G. Bissell, U.S. Court of Appeals, "On the Celebration of Freedom's Birthday;" Dr. Henry Kissinger, Former Secretary of State, "A Geopolitical Outlook for the 1990s;" Dr. William H. McNeill, Professor Emeritus, University of Chicago, "The Historical Legacy of the Three Great Eighteenth Century Revolutions;" Honorable Samuel R. Pierce, Jr., Secretary of Housing and Urban Development, "Reagan Social Policies;" and Burt Rutan, the designer of the Voyager aircraft and President and Chief Executive Officer of SCALED Composites, Inc., "The Design Process and Actual Flight of the Voyager."

ACADEMIC COMPUTING

The integration of computer skills and resources into the USMA curriculum has reached unprecedented levels. Computer utilization is integrated throughout the entire academic experience, from the basic introductory course to the highest-level colloquium and research methods course. It begins with use as a word processor in Humanities-Public Affairs plebe courses and extends to sophisticated computer-generated graphics displays in Mathematics-Science-Engineering senior capstone courses. Nearly every department has devised creative software to enable cadets to utilize the computer as they progress through the curriculum. From quantitative methods to mathematical modeling and from engineering theory to problem solving, the faculty is ensuring that all cadets become familiar with and benefit from the multiplicity of applications of computers. More detailed information on computer usage is included in many departmental sections of this chapter.

USMA LIBRARY

Personnel

The retirement of Mrs. Marie Capps, Maps and Manuscripts Librarian, in June 1988 marked the culmination of a 25-year career at West Point devoted to the acquisition, preservation, and research of historical materials. She became one of the most knowledgeable individuals at the Academy on the history of West Point and made significant contributions to many cadets, faculty members, and researchers.

Mr. Alan Aimone, the Military Affairs Librarian, was selected as Assistant Librarian for Special Collections in November 1987. Mr Aimone has been active in military history and bibliography during his 20 years at the USMA Library and has contributed to many publications on these subjects. During the past year, he was interviewed on an Albany, New York, television station about Revolutionary War soldiers during a living history demonstration at Clermont State Historic Site and prepared a bibliography titled "West Point Fortifications During the Revolutionary War."

Ms. Suzanne Christoff was named Assistant Archivist in 1987 and, because of a vacancy in the USMA Archivist position, has assumed many of the responsibilities of the senior position.

The Library participated in the Manage the Civilian Work Force to Budget (MCB) project during the 1988 Fiscal Year with the Librarian given classification authority. The program provided the flexibility to create new temporary positions to assist in priority areas within the existing personnel budget. When the incumbent Chief of Technical Services left the Library, the USMA Librarian reorganized the Division, dividing the responsibilities between Mr. Joseph

Barth, the Library's Collection Development Librarian, and Mr. Larry Randall, the Library's Systems Librarian. Through the conscientious response of both librarians, this experiment in gainsharing was successfully accomplished. Positions added under the MCB project included: a half-time Reading and Study Skills Center instructor; a half-time computer operator; and a technician in the Technical Services Division. Classification authority also permitted the Librarian to reclassify the two Archivist positions.

Library Services

The major project in the Library this year was the upgrading of the Geac computer system. Many sections within the Library were heavily involved in the planning, preparation, and testing of the expanded system. The Library obtained the Geac 8000 system to replace the present 6000 system hardware in January 1988. The new system will provide additional data base capacity, an on line catalog system to replace manual card catalogs, additional subsystems (including acquisitions and serials control), and additional ports to accommodate users outside the Library. The on line catalog will be available for public use by the Summer of 1988.

The utilization of many Library services continued to expand during the year. Recorded attendance increased to over 238,000 in 1988, an increase over the estimates of previous years.¹¹ Librarians assisted patrons with over 29,000 reference questions, an increase of 45 percent over the previous year. Active efforts of the Library to enhance cadet utilization by providing user instruction early in a cadet's career is believed to be primarily responsible for the increase. The total circulation of all types of materials declined slightly although book circulation remained roughly constant. Interlibrary Loan requests submitted by the USMA community increased by 28 percent, reflecting increased research activities.

The number of library orientation/instructional sessions tripled to 130 during the past academic year; the number of specific, librarian-performed, on line data base searches for patrons increased by one-third to 350; and the number of subject bibliographies published increased from 23 to 30. All of these increases were the result of a more active effort on the part of the library staff to encourage effective utilization of our facilities.

During the academic year, librarians worked closely with faculty members of the Department of Social Sciences to create "A Guide to Research for Political Science Students." Based on formats utilized at the University of Arizona Library and the Hawaii state school system, a workbook was devised which leads cadets on a step-by-step basis through the utilization of library research facilities and resources. The Department utilized these workbooks in the introductory "Politics and Government" (SS 202) and the more advanced "International Relations" (SS 307) core courses as integral components of the graded portion of course research requirements.

Cadets responded well to this approach, and instructors were pleased with the outcome. Librarians were able to provide instruction on a large group basis, early in the semester, rather than trying to react to many individual cadets who often come with inadequate lead time and without the knowledge to conduct effective library research. The project ensured that cadets in the SS 202 course started the research process early, learning techniques through workbook exercises as they proceeded.

This Library instructional approach will be applied to other courses with research requirements in the future. The Library and information sources are too complex, and time is too limited, to expect cadets to conduct effective research without structure or early guidance. Faculty and librarians can work together to ensure that course objectives for cadet library use and research are realized through a coordinated program of library instruction.

Reading and Study Skills Center

The number of cadets participating in Reading and Study Skills Center courses increased by 27 percent during the past academic year. This was partly due to Center efforts to tailor more closely the subject material taught to cadet learning requirements. This increasing utilization of the instructional programs offered by the center is indicative of the meaningfulness of the strategies employed.

The Center offers two courses each semester--Power Reading, a study skills course, and Reading Efficiency, a reading rate and comprehension improvement course. The center is also available for individual instruction as needed.

The Center saw a significant increase in the faculty and staff use of reading rate and comprehension instruction. During the fall, the Director began an in-service program with the Chemistry Department faculty. This was extremely beneficial to both the Department and the Center and led to a special course on reading enhancement offered for the cadets enrolled in the Summer Term Academic Program (STAP) "General Chemistry" (CH 102) course. The Center provides an atmosphere where all cadets, from the Rhodes scholar to the typical plebe, interact and progress in a supportive academic environment.

Library Security

Security improvements were brought about in 1987 through the introduction of a Checkpoint electronic book detection system and creation of a single Library entrance and exit for the public. Better control of circulating material enabled patrons to more easily locate items on the shelf, and enabled the staff to determine an item's status with greater certainty.

The loss of Library cadet guards in 1988 has required security adjustments in the Library. The elimination of the guards occurred because of the revised cadet schedule. The guards played an important role in monitoring access to the building during evening and weekend hours and their presence had a positive effect on cadet behavior in the Library. Staff members responded to this situation, but unavoidable conflicts between providing service and monitoring access have occurred.

U.S. Documents Depository Inspection

A representative from the U.S. Government Printing Office visited the USMA Library in May 1988 as part of periodic, regularly-scheduled reviews of all library depositories. The inspection found the Academy was doing a fine job in providing access to government documents.

USMA Archives

Issues involving Archives operation and staffing received close scrutiny during the past academic year. National Archives and Records Administration (NARA) staff members inspected the Archives in July and presented a written report in October 1987.¹² The report noted that record accessioning and reporting had been improperly handled for a number of years and required correction on a priority basis. The report also observed, with regard to the recruitment and retention of Archivists at USMA, that "it is essential that this leadership position be upgraded and filled with an experienced, competent professional."¹³

Archives staff members, with the assistance of an archivist from NARA, processed the back files and submitted the proper paperwork to NARA to correct the deficiency. The classification issue was addressed by the Librarian through his authority under the MCB test, and the two professional positions were upgraded from GS-08 and 10 to GS-11 and 12. As was noted previously, the Assistant Archivist position is filled, but continued difficulty has been experienced in filling the senior Archivist position. The Office of Personnel Management (OPM) previously ruled against earlier reclassification efforts by incumbents, and Army Auditors who evaluated the results of the MCB test this year warned that the coming audit of reclassified positions would probably, as a result, be unfavorable. The Library decided to suspend recruitment for the USMA Archivist position until this issue is resolved.

Library Cooperation

The Library has important ties to regional and national libraries through membership in cooperative organizations. Vital network computer services are provided through New York's SUNY/OCLC Network Advisory Council for which Mr. Lawrence Randall, Systems Librarian, served as Chairman during the 1987-88 Academic Year. Mr. Randall also was elected Chairman of the Board of Trustees for the Southeastern New York Library Resources Council (SENYLRC) in June 1988. Ms. Georgianna Watson, Assistant Librarian for User Services, participated in planning for state-wide U.S. Documents depository services as a member of the New York State Documents Committee this year. Mr. Kenneth W. Hedman, USMA Librarian, served on the Army Library Committee and the Army Librarian Career Panel. He also participated in the Army Library Institute in August 1987 as chairman of a day's session.

Library Budget and Gift Funds

As part of the Academy's general budgetary constraints during the 1987-88 Fiscal Year, the Library's budget for supplies (primarily books) and equipment was reduced by 23 percent from the previous fiscal year. This resulted in a sharp reduction in our ability to obtain current monographs to support the curriculum. If these budget levels persist in the future, the ability to obtain particular titles will be greatly affected, as many academic titles go out of print within a year or less. Supplementary year-end funds continue to help us acquire needed materials.¹⁴

At the same time, the DOD June 1986 instruction on the management of periodicals purchased by DOD directed a consolidation in the ordering of commercially-acquired periodicals at military facilities. A major objective was to centralize the acquisition of periodicals and hopefully reduce the number acquired. Effective 1 July 1986, the Dean, Commandant, Director of Admissions, Director of Intercollegiate Athletics, and the Chief of Staff were required to approve all requests for subscriptions by their subordinate elements. To implement this effort on the academic side under the Dean, the Library became the focus of periodical acquisition. Unless they were required for instruction, academic departments were encouraged to discontinue their individual subscriptions of periodicals which were received at the main library. They also were urged to review very carefully those periodicals which were ordered to determine how critical their acquisition was. At the same time, the USMA library began to prioritize the array of periodicals currently received in view of the Academy's existing and anticipated curricular requirements.

The Library Gift Fund, a nonappropriated fund account, was transferred to the Military Academy/Corps of Cadets Gift Fund account under the administrative control of the Director of Alumni Affairs at the start of the 1988 Fiscal Year.¹⁵ This change provides the Library with better control and improved general access to gift funds. Library acquisition and accounting

procedures for gift funds were centralized under the Library's budget officer during the year as well.

The Zabriskie fund was established ten years ago for the joint use of the Museum and the Library in acquiring items for the collection. At the recommendation of the USMA Librarian, the fund was converted to an endowment for the long-term preservation of the principal during the past year.¹⁶

The Class of 1953 established an endowment fund of over \$100,000 in 1982 to establish a recreational reading room and to subscribe to the McNaughton Book Service to rent popular books for the Library. This year, the class agreed to increase its support on an annual basis to allow an expansion of the number of books obtained, purchase of book titles of lasting value, and subscription to popular magazines.

The Friends of the West Point Library continued its support by obtaining the Patton Book Collection for the Library. General George Patton, Jr.'s, personal collection of 200 books reflects the progression of his knowledge and understanding of military art and history. His marginal notes in the books provide insight into his evolving philosophy. Instructors encourage cadets to use this collection in seminar studies and research. Colonel Roger Nye, President of the Friends organization, is preparing a bibliographic essay on the Patton collection for the use of cadets and instructors. A number of other projects add to the contributions made by the Friends in 1987, including the processing of the Holbrooke papers, a historical essay on fortification books, a research project on the old Bachelor Officer Quarters (BOQ), and the donation of the first printed work on field fortifications: Giacomo Lanteri's DVO Libri...del Modo di Fare le Fortificazioni di Terra Intorno alle Citta, & alle Castella per Fortificarle (Vinegia: Bolognino Zaltieri, 1559).

The Omar N. Bradley Library collection acquired 17 additional boxes of memorabilia from the Bradley estate during the period, and Colonel (Retired) Russell P. "Red" Reeder donated 154 books to the USMA Library.

The papers and photographic collection of the Honorable Frank Pace, Jr., Secretary of the Army under President Truman, were obtained by the Superintendent, General Dave R. Palmer, for the Library in 1988. The papers of General William C. Westmoreland, including letters and other items relating to the non-Vietnam periods in his military career, were also obtained as were documents from William Allen Harris (USMA '33) and Willard Holbrook, Jr. (USMA Nov '18).

Future Developments

The move of Library and Archives materials to Doyle Hall at New South Post originally was projected to take place in June 1988, but construction delays forced postponement until 1989. Detailed specifications for the move of materials stored in Building 606 and the USMA Archives were prepared by the Library staff during the year.

The renovation of the first floor of the Library was also postponed from the Summer of 1988 to the Summer of 1989. The scope of this Construction and Maintenance Review (COMAR) project will be expanded, and a second renovation project has been requested for 1990-91 to handle the balance of the Library's renovation needs. A major project being completed in the Summer of 1988 is the installation of a new air conditioning system. This is necessary not only for the proper work and study environment, but also for the preservation of books and other Library materials which are adversely affected by excessive fluctuations in temperature and humidity.

The long-range Library space study and proposal was completed by the Library staff, engineers of the Office of the Dean, and members of the Library Committee. The study analyzed the growth of collections and services from the present through the year 2053 and showed that a doubling of existing Library space to some 190,000 square feet would be required based on professional standards and historical growth patterns at USMA. Long-term Library space needs and plans will be included under the Academy's 2002 Plan.¹⁷

DEPARTMENT OF BEHAVIORAL SCIENCES AND LEADERSHIP

During the 1987-88 Academic Year, the Department continued its support of the Academy's purpose--providing the nation with leaders of character who serve the common defense. Offering a fully-integrated curriculum, the Department has provided cadets with a course selection that focuses on the theories, concepts, issues, and skills that are appropriate for effective leadership in peacetime and in combat. The elective courses capitalize on the foundation established in the two core courses, "General Psychology" (PL 100) and "Military Leadership" (PL 300), and concentrate on the role of the leader in developing effective subordinates, teams, and organizations.

Courses offered encourage cadets to investigate the many factors which enable leaders to achieve success in a myriad of situations. The underlying assumption is that a key to the development of effective leadership is in an understanding of human behavior--the leader's and the soldier's. Military leaders must have the ability to motivate and train soldiers and to provide them with appropriate feedback on their performance. All courses in the Department place specific emphasis on action-oriented learning strategies to enable cadets to recognize and use appropriate leadership methods.

The core course, "General Psychology" (PL 100), continued to contribute to the broad base of knowledge essential for the long-term professional development of cadets. This year an increased effort was made to demonstrate the relevance of all lesson content to their present circumstances and to their future as military leaders. All practical exercises, accordingly, were based on military or cadet situations. Personal computers were used to conduct laboratory exercises and computerized tutorials were designed to prepare cadets for classroom exercises and to facilitate out-of-class remediation.

The core course, "Military Leadership" (PL 300), continued to focus on the link between theory and practice by emphasizing the use of course concepts to analyze and solve military leadership problems. Increased emphasis was placed on developing tactical case studies relevant to combat situations. In addition, cadets were assigned to sections on a company basis to promote the transfer of course concepts to the practice of leadership in the Corps of Cadets. This practice has been well-received by cadets, instructors, and tactical officers. The course faculty developed computer-assisted instruction (CAI) to support out-of-class learning to increase the amount of class time that could be devoted to case study analysis and other applied learning activities. The package will be used for the first time in the 1988-89 Academic Year.

Integration of computer skills and resources into the academic area included not only administrative changes--such as full implementation of the microcomputer-based grading system--but also the previously-mentioned introduction of computer instruction in core courses and electives. The general psychology core course now complements instruction with computer-based study programs for each topic area. The human factors psychology electives program now includes applied work with computers in all areas, from experimental process control and data acquisition to statistical analysis and report preparation. Plans are underway

to begin introduction of advanced AI-based instructional systems tailored to individual courses, including automatic diagnostic and heuristic capabilities.

The Department's Human Sciences Laboratory continued to support teaching and research. Major projects last year included (1) completion of a project to devise and test preselection measures for soldiers in specialties that require high visual target detection skills, initiated by the DA Manpower and Personnel Integration (MANPRINT) Office and funded by the Army Research Institute (ARI) for the Behavioral and Social Sciences, and (2) an evaluation, sponsored by the Letterman Army Institute for Research, of the effects of the Ballistic and Laser Eye Protection System (BLEPS) on target acquisition performance. Ongoing projects include a study of decision-making processes employed by members of selection boards and development of an automated model range facility for research in target engagement performance.

The Department-sponsored Behavioral Sciences Club Seminar (BSCS), now in its ninth year, enables cadets to pursue individual interests in the study of leadership, psychology, sociology, and related behavioral science fields, through projects, lectures, trips, and seminars. By the end of the year, its membership totaled 400. Spurred by the efforts of the Seminar, 450 cadets and many local volunteers from area schools, such as Mount Saint Mary's College and James I. O'Neill and Cornwall High Schools, and people from the West Point community participated in the planning and operation of this year's Orange County Special Olympics held at West Point in April. This was the fifteenth year the Academy, and particularly the Corps, have hosted this event. Mr. Michael Murphy, a former participant and gold-medal winner, administered the Special Olympics Oath to the athletes. About 450 of the county's handicapped citizens participated in these events, which are designed to instill a sense of pride in all who compete. The Special Olympics is an opportunity for the Academy and its cadets to demonstrate their commitment to and interest in the area's handicapped. The story of the Club Seminar and USMA's involvement in the Orange County Special Olympics is displayed in the USMA's Visitors' Center.

Summer internship opportunities were expanded for selected behavioral sciences major and concentrators. Twenty-seven cadets participated in internships sponsored by several Army organizations. Sponsoring agencies included the Office of the Deputy Chief of Staff of Personnel (ODCSPER), the Academy of Health Sciences, the Center for Army Leadership, and the Walter Reed Institute of Army Research. Internships allow cadets to observe the interdependencies among organizational processes within the Army and to experience the complexity of leadership in large organizations while working as junior officers in responsible positions.

In September 1987, the Superintendent tasked Colonel Howard T. Prince II, Professor and Head of the Department, to develop plans for a one-year graduate program that would prepare young officers for service as company tactical officers at the Military Academy. The program, known as the West Point Fellowship in Leader Development, is discussed elsewhere in the report. By May 1988, four officers were enrolled as students.

The Department continued to provide consultation and expertise to a wide array of organizations and agencies. In July 1987, Colonel Prince spoke on leader development in the Army to 150 civilian educators and others interested in leader development and leadership education at the 5th Annual National Leadership Conference at the Center for Creative Leadership in Greensboro, North Carolina and served as a consultant to those interested in establishing leadership courses or leader development programs. In June 1988, he returned to the center to present a theoretical model of leader development at a college and described how USMA develops leaders.

In August, Colonel Prince consulted with the Commandant and Superintendent of the U.S. Merchant Marine Academy (USMMA) at Kings Point, New York, on the organization, development, and preparation of strategic plans for their institution. Later that month, he and several members of the Department attended the national meeting of the American Psychological Association (APA) in New York City. Colonel Prince was elected a Fellow of both the APA and its Division of Military Psychology.

In November, Colonel Prince served on a panel titled "Civilian and Military Leadership: Stereotypes and Realities" at the 1987 Leadership Conference sponsored by the Center for Applied Management, U.S. Department of Agriculture Graduate School.

In January 1988, Colonel Prince delivered a speech at the Washington Center titled "Developing Yourself as a Leader" to a group of approximately 160 college students participating in a two-week symposium called "Leaders on Leadership" designed to motivate and develop young people for leadership roles.

In June, Colonel Prince presented a workshop on leadership pedagogy using behavioral simulations of intergroup conflict at the 3rd Annual Leadership Institute of the Council on Liberal Learning. The two-hour workshop used a laboratory exercise from the "Military Leadership" (PL 300) course to show other educators how to design and use behavioral simulations to enhance student learning through involvement in experiential learning. Through all of these activities, he continued to enhance USMA's reputation as a center for excellence in leader development and as a key contributor to the Army's leader development policies and programs.

In August 1987, Lieutenant Colonel Timothy R. O'Neill, Permanent Associate Professor, conducted liaison visits to the Human Engineering Laboratories (HEL) and the ARI. Two days were spent working with the HEL Behavioral Research Institute on eye movement analysis techniques for application to the current ARI-funded study of target detection skills. The visit to AKI provided an opportunity to give the funding agency an interim progress briefing and to brief Dr. Hoffman, Deputy Director of HEL, on the present human factors curriculum. Dr. Hoffman and others at HEL participated in the planning stages of that curriculum in 1981. In October, Lieutenant Colonel O'Neill delivered a colloquium on target detection for the Director of the Letterman Army Institute for Research and the ophthalmologists and optometrists on his staff.

For several days in the fall, Lieutenant Colonel and Mrs. John M. Wattendorf conducted a training session for the Spouses' Leadership and Communications Workshop at the United States Army War College (USAWC) for those women who will conduct the workshop this year. The session was requested by Colonel James Schoonover, of the Department of Command Leadership and Management, USAWC.

In November, Captain Gayle L. Watkins and Major Andrew T. Chmar served as guest speakers and seminar leaders on leadership theory and skills for the Company Precommand Module at Fort Sam Houston, Texas.

In April, Lieutenant Colonel Forsythe presented a paper, co-authored with Major Jonathan P. Chase and Captain Dana P. Eyre, titled "Identification and Representation of Leadership Problems" at the Annual Meeting of the American Educational Research Association. Lieutenant Colonel Forsythe also participated in an invited debate titled "Educating Students in the Professions for Ethical Decision Making."

In April, Lieutenant Colonel O'Neill presented a paper on predicting target detection performance at the U.S. Air Force Academy (USAFA) Symposium on Psychology in the Department of Defense.

In the Spring of 1988, Colonel Louis S. Csoka, Professor of Psychology and Leadership, visited FORSCOM to coordinate research in transformational leadership. Dr. Bernard Bass of the State University of New York at Binghamton has hypothesized that this style of leadership, based on such factors as charisma, inspiration, and shared values (the leadership style believed most typical and successful in combat situations), is the most effective leadership style in general. The other major style of leadership (transactional leadership) holds that individuals follow others, or are influenced by them primarily by their ability to provide goods and benefits, or on the basis of equal treatment for all. It has been hypothesized that transformational leadership is more effective than transactional, but this has never been evaluated by an objective criterion. The study Colonel Csoka will direct will evaluate the leadership styles and effectiveness of battalion-sized units from 12 CONUS posts which have rotated in or out of the National Training Center (NTC) at Fort Irwin, California, during the 1987-88 Fiscal Year. The research effort is being funded through a grant with the Army Research Institute.

DEPARTMENT OF CHEMISTRY

The Professor and Head of the Department of Chemistry, Colonel Wilford J. Hoff, Jr., retired on 31 July 1988 after nine years as head of the Department, 29 years on the Academy faculty, and 38 years on active duty. Colonel James H. Ramsden, Associate Professor and Deputy Head of the Department since 1980, who returned from a year-long research sabbatical with the Department of Chemistry at the University of Florida, succeeded Colonel Hoff as Head of the Department.

Three other senior members of the Department faculty also retired during the past academic year. Colonel James F. Palladino, Professor of Chemistry, with more than 25 years of Army service and a member of the tenured faculty since 1976, retired effective 29 February 1988 to become Vice-Chairman of the Department of Chemistry at the University of Pennsylvania. Colonel Harry G. Rennagel, Permanent Associate Professor, with more than 27 years of Army service and a member of the tenured faculty since 1981, retired effective 30 June 1988 to accept a position with the Department of Chemistry at Stanford University. Lieutenant Colonel Gerald R. Jilbert, Associate Professor, with 28 years of Army service including ten years in the Department and three years in the Office of the USMA Dean, retired effective 30 June 1988 to become Registrar at Mount Saint Mary's College in Newburgh, New York.

Lieutenant Colonel David C. Allbee, Permanent Associate Professor, served as the USMA Fellow at the Army War College during the past year.

Three new Permanent Associate Professors were selected for the Department: Lieutenant Colonel Edward W. Mayer, Major Merrill S. Blackman, and Major Patrick M. Owens.

Dr. Frank A. Guthrie, Professor of Chemistry at Rose-Hulman Institute of Technology, Terre Haute, Indiana, was the Department's Visiting Professor for the past academic year. He taught in the core General Chemistry course and assisted with the "Instrumental Methods of Analysis" (CH 471) and "Directed Research" (CH 487) electives.

Colonel Palladino was elected Councilor and Lieutenant Colonel Dwight S. Springer, Permanent Associate Professor, was elected Alternate Councilor of the Mid-Hudson Section of the American Chemical Society.

More than 20 members of the Department faculty participated in National Chemistry Day programs in November, 1987. Colonel Palladino directed efforts commemorating Chemistry Day in a four-county area. Presentations on the nature of matter involving numerous chemical demonstrations were presented to more than 95 elementary school classes and some 3,000 elementary school students. A demonstration-lecture, "The Magic of Chemistry," also was presented by Colonel Palladino and Dr. Guthrie to more than 130 post personnel.

During the academic year, the Department continued its leadership in the integration of computers into the USMA curriculum. The Department officers improved and expanded the existing courseware packages: the Cadet Tutor (CT), the Computer-Assisted Outline Solution (CAOS), and CHEMPLOT. CT was expanded to include keywords and other improvements. CHEMPLOT, a laboratory graphing aid, was significantly improved and integrated into some CAOS files and pre-laboratory CT programs. In addition, ten carts were designed and built by Department personnel to maximize use of our computer assets throughout classrooms, laboratories, and offices. Cadets were able to analyze and graph data more effectively by having computers available during laboratory periods.

The Department is firmly committed to a solid research program involving tenured faculty, nontenured faculty, and cadets. Significant research has been demonstrated in a cooperative research program between the Department of the U.S. Army Chemical Research, Development, and Engineering Center (CRDEC), Aberdeen Proving Ground, Maryland, in the area of Phosphite-Sulfur Reactions Kinetics. During the past year, work was begun by Colonel Ramsden in the area of both phase transfer and transition metal catalysis as related to enhancing the U.S. Army's Chemical and Biological Agent Decontamination Program, another area of interest to CRDEC. The Department is also involved in the establishment of the USMA Photonics Research Cell. As always, nontenured faculty members were encouraged to pursue individual research interests.

A new quarter-million dollar proton/carbon superconducting high resolution Fourier Transform Nuclear Magnetic Resonance (NMR) Spectrometer System was installed and is now available for faculty and cadet research and instruction in material compounds.

Department research projects during the past academic year included: "Kinetics and Thermodynamic Properties of Phosphite-Sulfur Reactions" (in cooperation with the CRDEC); "Study of Correlation Between Muscle Strength and Concentration of Hydroxyproline in Connective Tissue"; "The B- to Z-DNA Transition from the Viewpoint of Base Pair Orientation"; "Computers in Chemical Education"; "Kinetics and Phase Transfer Catalysis Studies"; and "Chemistry Participation in USMA Photonics Research Cell Establishment."

For the fourth consecutive year, the Department, along with the Department of Physics, cohosted the New York State Science Olympiad Finals at USMA in April. Several hundred high school students participated in this test of their skills at solving different math, science, and engineering problems.

During the past academic year, members of the Department had research published in the following publications: volumes 1 and 2 of the Proceedings of the 1987 U.S. Army CRDEC Scientific Conference on Chemical Defense Research, Special Publication, CRDEC-SP-88013; Journal of Physical Chemistry; Intelligent Instruments & Computers; Structure & Expression; DNA Bending & Curvature; and the Annual Report to the U.S. Army CRDEC by the U.S. Army Technology Center, Department of Chemistry, University of Florida at Gainesville.

Several members of the Department made presentations and/or chaired sessions at the American Chemical Society Annual Convention, at the 1987 Scientific Conference on Chemical Defense Research sponsored by the U.S. Army CRDEC, at the Forty-second Annual Eastern Colleges Science Conference, and at the University of Florida at Gainesville.

DEPARTMENT OF ELECTRICAL ENGINEERING

The 1987-88 Academic Year was one of continuing evolution in course development and support equipment upgrades in the Department. A total of 25 academic courses were provided to 2,024 cadets. The Department's laboratory improvement program made significant progress with the installation of a microwave network analyzer, the installation of an advanced digital signal processing computer, and the acquisition of various other types of computers and laboratory test equipment. Particular emphasis was placed on the senior-level design courses where the entire Department faculty became involved in advising students on design projects.

The Department consisted of 24 Army officers, two Air Force officers, one Naval officer, and one visiting professor. Additionally, a civilian electrical engineer, Mr. Richard Horstmann, joined the Department and is serving as the engineering support supervisor in charge of Departmental technical services. He has aided laboratory courses and design projects and is playing a key role in the laboratory upgrade program. Dr. Charles Gross, the visiting professor from Auburn University, completed his second year at West Point and made several significant contributions to the academic programs including service as a key player in the development of long-range plans for the Department.

The faculty has continued to improve the course curriculum in several areas. The Department's largest enrollment course, "Basic Electrical Engineering" (EE 301), is being modified extensively with an increased emphasis next year on systems analysis and applications. Design projects in the senior design sequence courses, "Electronic Circuit Design I and II" (EE 407 and 408), also received major attention. This year, faculty members from all Department courses served as project advisors; this enabled cadets to work "one-on-one" with an experienced engineer, significantly enhancing the educational value of the project. This year, 35 cadets went on to graduate with an electrical engineering major or field of study.

The installation of the fourth AT&T 3B2 minicomputer system, has completed the Department's network. As a result, all instructors now have access to the local area network (LAN) permitting communication with any computer at the Academy and many others nationwide through terminals located on each desk. Features currently available include an electronic mail system, a computer-assisted grades program, and bulletin board features which have vastly improved office communications. Through computers, faculty members have direct links with the Academy SYTEK, enabling them to search for documents and books in the USMA library collection.

Several members of the Department continue to investigate new software applications, particularly for use on the Z-248 personal computers. Additional computer-aided engineering design packages were presented to the faculty members to enhance their computer utilization.¹⁸

During the same period, the Department received almost 170 of a total 211 new Tektronix 2235 oscilloscopes (USM-488). These new instruments replace a number of different types of oscilloscopes, some of which are more than 40 years old. The USM-488 is a standard Army issue item, and the cadets who use it in the laboratory will most likely encounter it again when they are in the field.

The Department's microwave laboratory equipment inventory continued to expand during the past year. The equipment has been used to automatically measure DC and low-frequency characteristics of transistors. Cadets from the Class of 1989 have used this capability to obtain data to support both their laboratory work and design projects. The equipment is also used by faculty members to demonstrate transistor characteristics to non-electrical engineering students. The present inventory constitutes the first phase of the Department's plan to establish a microwave engineering center of excellence.

Other new equipment received this year under the laboratory upgrade program has significantly improved the Department's courses for both majors and field of study concentrators. These cadets now have the ability to measure and characterize the transistors they will use in project designs. This is critical if computer simulations are to be used effectively in the design process. The microwave network analyzers and microwave computer-aided design (CAD) tools which have been procured with the microwave laboratory funding have extended the electronic circuit design capability into the 20 GHz frequency range.

A significant effort is underway in the Department to identify ways to harness advanced technology for the classroom. Captain David J. Smith is researching methods to use manual and automated measurement instruments to perform laboratory exercises. Methods of reducing circuit set-up time to permit automatic data acquisition at a reasonable cost per student are being explored.

Colonel Stanley E. Reinhart, Jr., returned from his one-year sabbatical in Shrivenham, England, at the Royal Academy of Sciences and resumed his duties as Department Head in the Summer of 1987.

Several members of the Department conducted research and presented papers at scholarly conferences. Colonel Daniel M. Litynski, Professor and Deputy Head of the Department, authored four papers in the area of electro-optical signal processing, attended several conferences including the Frontiers in Education Conference, and served as an observer at the 14th Congress of the International Commission for Optics in Quebec, Canada. Colonel Litynski has served as an adjunct research professor at Rensselaer Polytechnic Institute (RPI) and will be the 1988-89 USMA Fellow to the National Defense University's Industrial College of the Armed Forces.

Lieutenant Colonel John R. James continued his research activities in the application of artificial intelligence for automatic control. He authored four papers in the area of knowledge-based systems for design of automatic control systems and presented lectures to various organizations including the Oak Ridge National Laboratory, the Lawrence Livermore Laboratory, the NASA Ames Research Center, and RPI. In addition, he chaired two working groups on knowledge-based systems for the Institute of Electrical and Electronic Engineers (IEEE). He also coordinated research activities with the Picatinny Arsenal in the area of applying personal computers to the design of automatic control systems. In concert with Lieutenant Colonel Lawrence A. Rapisarda, Permanent Associate Professor, he developed a Knowledge-Based Real-Time Control System which is used in cadet laboratory exercises and has a significant application to future Army systems.

Lieutenant Colonel James attended the 10th World Congress of the International Federation of Automatic Control held in Munich, Federal Republic of Germany in July 1987. He attended several meetings of the Center for Intelligent Control Systems (CICS) Review Panel at Cambridge, Massachusetts. The CICS is a consortium of the Massachusetts Institute of Technology (MIT), Harvard, and Brown formed under the Congressionally-mandated University Research Initiative (URI) program which provides DOD research funds to

university programs. The CICS will investigate foundational issues in intelligent control and the funds are being administered by the Army Research Office.

Lieutenant Colonel James conducted research during the Summer of 1987 to evaluate expert systems shells suitable for control system design under a special arrangement with General Electric as part of an Air Force contract. The project involves building a knowledge-based system for Multi-disciplinary Expert-Aided Analysis and Design (MEAD) to be used in designing aircraft. Finally, he was invited to be a member of an International Program Committee of the International Federation of Automatic Control (IFAC).

Major John C. Deal continued research into the conditions and depths of glacial ice layers in the Northern Command areas of Alaska to develop techniques to employ specially designed radar systems for ice-depth measurements.

Majors William J. Luk and Edward C. Shaffer performed research at Los Alamos National Laboratories. Major Luk worked in the Instrumentation Group and was responsible for the electromechanical design of a small remote controlled vehicle and camera system. He also assisted in the design of a two-dimension position encoder system. Major Shaffer served in the Computer Systems Group where he tested and verified a prototype 1 Megabyte memory board which will be used by the Army in a visual terrain display system.

Finally, Major Edward M. Siomacco presented a paper at the 21st IEEE Annual Conference on Signals, Systems, and Computers.

The Department once again hosted the IEEE Region I Student Paper contest, this year adding the "Amazing Micro Mouse" demonstration. Several cadets and faculty members participated in the design of a microprocessor controlled robot which is capable of negotiating a complex maze. This project ties together several disciplines including computers, controls, and electro/mechanical energy conversion.

DEPARTMENT OF ENGINEERING

The 1987-88 Academic Year has been a period of study which will result in significant change not only for this Department, but for the entire engineering curriculum at the Academy. Most of these changes are the direct result of the recommendations of a recent Curriculum Committee study of engineering at West Point. The background of and recommendations from this Committee are discussed in the Curriculum portion of this chapter.

Three major decisions of the Academic Board which grew out of the Report are appropriate to note. The first, a decision to end regularly-scheduled Saturday classes, means that all courses previously taught in the 47-lesson format will be reduced to 40 lessons in the next academic year. As a consequence, the normal class lengths for several of the core engineering courses have been increased. The second decision was that the Department would phase out the "General Engineering" sequence of Mechanical Systems, Structural Systems, and Engineering Design Methods (ER 401, 402, and 403) over the next two years. All cadets will now be required to take a two-semester sequence of engineering from one of six engineering areas offered at the Academy (civil, mechanical, electrical, nuclear, systems, or computer engineering). Third, based on recommendations of the Committee, the Academic Board voted on 22 June 1988 to reorganize this Department. As a result, the Civil and Mechanical groups will join with the Department of Mechanics to form a Department of Civil and Mechanical Engineering. Nuclear engineering courses will now fall under the purview of the Department of Physics. A new Department of Systems Engineering is to be created. The Academic Board

approved the establishment of a new Systems Engineering Major on 4 November 1987 and implementation of the program will begin with the Class of 1990. To enhance this new major further, a systems simulation course has been developed which will be offered during the second semester of the 1988-89 Academic Year.

The Department of Engineering has established coordination with the USMA Operations Research Center (ORCEN) under Colonel James L. Kays. In April 1988, the third Military Operations Research Society (MORS) Colloquium on Teaching Operations Research was held at USMA. Representatives of 12 educational institutions and government organizations who are involved in teaching operations research (OR) attended the session which focused on the use of computer software in teaching OR. Colonel Kays presented a briefing on the OR Field of Study at USMA which addressed the results of a 1987 study of OR education at USMA. Colonel Kays also made a presentation that contrasted the scientific method to the modeling (or OR) methodology.

Since Colonel Allen F. Grum's retirement in December 1986, Colonel Gordon W. Arbogast has served as the Acting Head of the Department.¹⁹ Major Norman D. Dennis, previously an Assistant Professor within the Civil group, will return in June 1989 to fill the position of Permanent Associate Professor for research.

The Department was honored to have Dr. Ruth Maurer of the Colorado School of Mines as the Visiting Professor this year. She made significant contributions during the year by teaching and lecturing to cadets and faculty on numerous topics related to engineering management and OR. In addition, Dr. Maurer has served on several Academy-wide committees and has agreed to remain as the Department visiting professor for a second year. In November 1987, Dr. Robert E. Woolsey of the Colorado School of Mines, the Department's visiting professor during the 1986-87 Academic Year, was presented the Distinguished Civilian Service Award by the Superintendent, recognizing his USMA service and his important contributions to the Army operations research community.

Throughout this period of analysis leading up to the historic changes which will come to fruition in the next academic year, the Department continued to enhance the current high quality of instruction in engineering subjects provided to the Corps of Cadets. It similarly has continued its quest to remain at the forefront of undergraduate education by acquiring new equipment, modernizing older facilities, and encouraging continued professional development by the faculty.

By the end of the 1987-88 Academic Year, virtually every faculty member had been issued a personal microcomputer, and approximately \$500,000 worth of computer/robotics equipment had been received to support academic instruction as well as individual research efforts within the Department. In addition to 20 Zenith personal computers, the equipment included 6 SIR-1 educational robots, 2 PUMA-562 industrial robots, 2 numerically-controlled machines, and assorted conveyor systems and peripheral equipment. In addition to the purchase of the new equipment, a major renovation of the Department laboratory facilities began in May 1988 and should be completed by the Fall of 1989.

Members of the Department have continued to enrich their own professional growth by performing notable research and consultation activities for outside agencies, including a wide variety of Army and DOD organizations. These have included the U.S. Army Materials Technology Laboratory; the Total Army Personnel Agency (TAPA); the White Sands Missile Range; the Central Intelligence Agency (CIA); the Concepts Analysis Agency; TRADOC; the Tank-Automotive Command (TACOM); the Lawrence Livermore National Laboratory; the Picatinny, Redstone, and Watervliet arsenals; the Seneca Army Depot; the Waterways Experiment Station (WES); several field offices of the Bradley Fighting Vehicle (BFV); and

the Office of Industrial Base Assessment of the Office of the Secretary of Defense (OSD). Contacts established by these associations create opportunities to expose cadets in engineering courses to the experience, insight, and bona fide expertise of over 20 guest lecturers throughout the year. Of particular note was the presentation by the Honorable Norman R. Augustine, Vice Chairman and Chief Executive Officer of Martin Marietta Corporation and former Under Secretary of the Army, who was sponsored under the auspices of the West Point Distinguished Lecture Series. The Department also sponsored over 60 cadets in voluntary summer training programs such as assisting in enhancing one component of the AirLand Advanced Research Model (ALARM), a "hands off" corps/division-level combat model, at the Naval Postgraduate School.

Members of the faculty continued to enhance the Department's credentials by actively participating in professional associations. Local chapters of the Society of American Military Engineers (SAME), the American Society of Civil Engineers (ASCE), and the Armed Forces Communications and Electronics Association (AFCEA) all had members of the Department serving in leadership capacities either on the board of directors or as post president. From a more academic perspective, Lieutenant Colonel Roger L. Hoopengardner participated at the MORS Board of Directors Meeting; Lieutenant Colonel Terry D. Hand, Permanent Associate Professor, chaired the ASCE Committee on Software Evaluation; and Major Walter W. Olson completed his Ph.D. in mechanical engineering at Rensselaer Polytechnic Institute (RPI).

Throughout the year, numerous papers and briefings were published and presented by Department officers on a wide variety of engineering topics at symposia and conferences both at West Point and throughout the country to include the Structures Congress of ASCE, the 26th Annual U.S. Army Operations Research Symposium, the TIMS/ORSA Conference, the International Symposium on Forecasting, the 56th Annual Military Operations Research Symposium, the ORSA/TIMS Conference, and the Society for Computer Simulation Conference. Faculty members had papers published in Program Manager and the Journal of Computing in Civil Engineering.

Several projects supporting the post and the community came to fruition this past year. In May 1988, the finishing touches were placed on a 50-foot Haupt truss-covered pedestrian bridge that provides access to the Sports Complex and Michie Stadium from the parking areas. This marked the culmination of a six-year effort by cadets participating in individual study projects within the Department. The cadets managed the planning and construction of the bridge with labor provided by cadet members of the USMA Chapter of the ASCE. The bridge, which followed the patented design of Major General Herman Haupt (USMA 1835) was paid for by the West Point Gift Fund. Other independent cadet study efforts resulted in simulations of the Watervliet Arsenal information processing system and the large machinery rebuild process at the Seneca Army Depot. Engineering and management efforts have helped in the creation of an exciting new playground at the West Point Elementary School and a new boat dock along the Hudson River for the cadet crew team. The construction of the playground received enthusiastic support from virtually all members of this Department and many residents of the West Point community.

DEPARTMENT OF ENGLISH

The English Department continued to offer a carefully-designed sequence of core courses to all cadets. All officers have advanced degrees in either literature or philosophy and each term usually teach the core courses in both composition and their specialty. Teaching cadets to write well is an integrated effort which extends across several core courses. Cadets taking elective courses profited from the teaching of tenured faculty members, who also directed and taught core courses.

During the past academic year, in cooperation with other scholars at the University of Southern Mississippi, USMA Faulkner Concordance researchers placed the concordance to The Mansion into publication. Transcription was completed on The Reivers and The Hamlet and was 80 percent complete on The Unvanquished. Absalom, Absalom! and Pylon were undergoing concordance processing at the end of the reporting period.

The Department's tenured faculty engaged in numerous scholarly activities, the most noteworthy of which were presentations by Colonel Pat C. Hoy II, Professor of English, on literature and leadership in scholarly journals and at conferences, and the publication of Dimensions in Ethical Thought, a book of scholarly essays written and edited by Colonel Anthony E. Hartle, Professor of Philosophy, and former Visiting Professor John Kekes, of the State University of New York at Albany.

Colonel William A. McIntosh, Professor of English, one of 20 international scholars participating in a National Endowment for the Humanities Institute on Medieval Spain, concluded his research at Fordham University with a study of Las Cantigas de Santa Maria and presented a section of that investigation at the International Medieval Congress in May 1988.

Professor Elizabeth A. Wolgast of the University of California at Hayward served as the Department's Visiting Professor of Philosophy during the first term. She taught an elective class, chaired a seminar on ethics, and established an active discussion group among the philosophy instructors.

Members of the Department presented papers at professional meetings with groups such as the Hastings Center of Hastings-on-Hudson, New York, and participated in the Modern Language Association (MLA) Convention, the Northeast MLA Convention, Conferences on College Composition and Communication, and the International Professional Communication Society Convention in Winnepeg, Manitoba.

DEPARTMENT OF FOREIGN LANGUAGES

During the 1987-88 Academic Year, the Department continued the integration of technology-assisted language learning (TALL) into its pedagogy. Departmental research in computer-assisted instruction (CAI) and adoption of the Computer-Assisted Language Instruction System (CALIS) enabled instructors in all languages to develop their own CAI materials without special programming training. Final hardware selection for a new 64-position, language-learning laboratory with interactive video/audio capabilities was completed with installation to begin in Fiscal Year 1989. Additionally, the Department, with the assistance of the Association of Graduates (AOG), has procured funding for a satellite reception facility for live worldwide television transmissions scheduled for construction during the coming fiscal year. Upon completion, full-time foreign language reception (in German, French, Spanish, Arabic, and other languages) from several nations around the world will be available on a closed-circuit

system for cadets and faculty. Instructional editing capability and large-screen projection are included.

Colonel Craig W. Nickisch, Permanent Associate Professor since 1982, retired on 31 July 1988 after more than 27 years of active Army service to accept a position as Professor in the Foreign Language Department at the University of Idaho at Pocatello.

Faculty member participation in professional organizations and the greater academic community continued last year. Colonel John J. Costa, Professor and Head of the Department, and Dr. Robert A. Quinn, Language Education Specialist, represented the Department at several meetings of the Defense Exchange Committee on Language Efforts (D'ECOLE). At the November 1987 meeting held in Washington, D. C., Colonel Costa led discussions on the Electronic Information Delivery System (EIDS) and chaired the Rationale Committee. Dr. Quinn's activity throughout the year consisted of his continuing research on TALL, collaboration with scholars working in the same area at other institutions, and collection of research data on the effectiveness of CAI. Other major contributors were Dr. John C. Haggstrom, Civilian Professor of Portuguese, who published several articles and reviews and made presentations on CAI at conferences; Dr. David P. Benseler, Visiting Professor of German, who served as editor of the Modern Language Journal and attended a meeting of the Executive Committee of the Joint National Committee for Languages; and Dr. Samuel G. Saldivar, Professor of Spanish, who taught at the 1987 Spanish Summer School of Middlebury College, Middlebury, Vermont. Understanding Arabs: A Guide for Westerners, by Dr. Margaret K. Nydell, Visiting Professor of Arabic, was published in the Fall of 1987 and became required reading for Central Intelligence Agency analysts- and operatives-in-training. Finally, during the past year, Colonel Nickisch produced three articles, five reviews, and co-authored an intermediate-level German text for USMA use. For his efforts over the years, developing bonds of friendship and harmony between Americans and Germans, and for furthering awareness and knowledge of the German language and culture, Colonel Nickisch was awarded the Federal Cross of Merit, Degree of Officer, by Dr. Thomas Fischer-Dieskau, Consul General of the Federal Republic of Germany in December 1987.

Other significant activities of Department members include the service of Colonel Edward J. F. Thomas, Professor and Deputy Head of the Department, conducting independent study while on sabbatical; the service of Colonel Arthur J. Parr, Jr., on call to assist the U.S. On-Site Inspections Agency team to ensure implementation and compliance with the US-USSR Intermediate Nuclear Force (INF) Treaty; and Lieutenant Colonel James F. Madison's chairmanship of a session on "Sea Power in the Age of Napoleon" at the Eighth Naval History Symposium at the U.S. Naval Academy.

Department members presented papers at the Annual Meeting of the American Association of Teachers of Spanish and Portuguese (AATSP); the 37th Annual Mountain Interstate Foreign Language Conference; the German Studies Association Conference; the Midwest Modern Language Association annual convention; and at the Northeast Conference on the Teaching of Foreign Languages.

Major Richard J. Pevoski and Captain Robert J. Edwards, Assistant Professors of German, were awarded scholarships by the Goethe Institute to participate in six-week summer seminars on West German Area Studies in West Berlin and Munich in 1988.

A wide range of extracurricular activities enriched cadet experiences in foreign-language learning. These included language club trips to New York City, Washington, D.C., and Montreal to become acquainted with foreign cultures and related activities. Of special value to the cadets were the trips abroad on Language and Area Orientations and on Foreign Academy

Exchange Program visits. Most cadets concentrating in a foreign language-related discipline have had an opportunity to participate in one of these trips, which is an excellent boost on the road to achieving mastery of a foreign language and understanding of a foreign culture.

DEPARTMENT OF GEOGRAPHY AND COMPUTER SCIENCE

During the 1987-88 Academic Year, the Department of Geography and Computer Science continued its tradition of excellence in academic instruction and counseling, faculty and cadet research, cadet military training, and extracurricular activities. Through all of these activities, the Department continued to contribute, both inside and outside the classroom, to the overall growth and development of the Academy, its cadets and faculty, and to the Army as a whole. The Department sponsored five extracurricular cadet clubs, including the USMA Orienteering Club which earned its ninth national intercollegiate championship. In the cadet military training arena, Department officers again organized and conducted land navigation training for Third Class cadets during Cadet Field Training at Camp Buckner. The guest lecturer program remains vigorous with many civilian and military scholars representing all relevant fields in this Department. The faculty is prepared to move into the new fifth- and sixth-floor wings of Washington Hall which are due to be completed prior to the beginning of the next academic year. Colonel Gerald E. Galloway, Professor and Deputy Head, has just returned after a year as the Academy's Chief of Staff.

Geography

Eighty-nine members of the Class of 1988 completed the Geography program. Of these, fifteen graduated as majors (eight in National Security and Public Affairs), and sixty-six graduated in the more general field-of-study (FOS) tract. Twenty-four geography faculty members taught the 33 geography core, area, and elective courses. Each cadet's program sequence was tailored according to personal interests and abilities. Throughout the program, special attention was focused on the analysis and evaluation of significant man-environment problems, both real and potential, as they pertain to the earth as a whole or to specific regions and as they relate to planning and conducting military operations.

Lieutenant Colonel Cathy Kelly retired this year after having served as the Department's Permanent Associate Professor for Cultural and Political Geography and as the Academy's first female Permanent Associate Professor.

This past year's visiting professor was Dr. Curtis J. Sorenson from the Department of Geography at the University of Kansas. Dr. Sorenson taught both terrain analysis and geology in his first semester and then geomorphology in the spring term. He returns to Kansas to become the Chairman of his Department.

The geography program this year can be best described as one of great solidity and stability. Consistency of course offerings was ensured along with sequence structures which avoided redundancy and provided depth in a chosen stem. The result has been more clearly focused programs that are being well-received by our students.

The volunteer summer training (VST) program continues to thrive. This year, there were considerably more applicants than spaces and, hence, the Department was more selective with these assignments. Besides adding a practical side to the cadets' education, many students carried their projects back to West Point and extended their research as Individual Research Projects.

The West Gulkana Glacier research project is coming to a close. USMA's three-year effort with Arizona State University involved glaciology, climate, and mapping components sponsored largely by the Cold Regions Research and Engineering Laboratory, the Army Research Office, and the Association of Graduates. A report that contains the research findings, edited by Colonel William J. Reynolds, Permanent Associate Professor, and Dr. Melvin Marcus (Arizona State University), is about to be published.

Finally, in April, six members of the Department presented papers at the 1988 Annual Meeting of the Association of American Geographers: Colonel Reynolds and Colonel Galloway, "Anatomy of a Coastal Project"; Colonel L. Sam Thompson, Permanent Associate Professor, "Remote Sensing - USMA Style"; Lieutenant Colonel R. Craig Ham, "Prime-Time Crime: A Study in Habituation"; Captain Jean S. Kelleher, "Gibraltar: Political Identity in a Periphery"; Captain James P. Moye, "Chinese Trade with the United States, 1975-1984"; and Dr. Sorenson, "Soils Derived From Glacial Deposits in the Central Andean Piedmont, Argentina."

During the Summer of 1987, Colonel Galloway was elected to the Board of Directors of the Universities Council on Water Resources (UCOWR) which represents 85 universities engaged in water resource study and research. He also serves on the Board of Directors of the Hudson River Environmental Society.

In October, Lieutenant Colonel Kelly chaired a paper session on historical geography, presented a paper, and served as co-editor of the Proceedings of the annual meeting of the Middle States Division, Association of American Geographers. She later presented a paper at the annual meeting of the Eastern Historical Geographers.

Mapping, Charting, and Geodesy (MC&G)

The Department's MC&G course offerings continued to serve as the skill courses for those cadets adopting a FOS/Major in Geography. Effective with the 1988-89 Academic Year Redbook, Geography (MC&G) will be offered as a FOS/Major under the Math-Science-Engineering discipline. This was done to ensure that cadets embarking in this discipline have the technical background and mathematical appreciation necessary to succeed in this field.

The Department's geographic, MC&G, and research efforts were enhanced as the result of the installation of two geographic information systems. The Construction Engineering Research Laboratory's public domain software package called Geographic Resources Analysis Support System (GRASS) was recently installed. Additionally, a grant from Synercom, totaling approximately \$274,000, was arranged in which the Department received Synercom's "Informap" geographic information system. Plans are currently underway to receive a similar grant from the Environmental Systems Research Institute for their ARC/INFO system. The receipt of these geographic information systems is in concert with research being conducted with the Engineer Topographic Laboratories at Fort Belvoir, Virginia. The ultimate purpose of the research is to facilitate the introduction of these powerful systems into today's Army.

The completion of the joint glacial research mapping project was marked in January 1988 with a ceremony at which a completed map of the West Gulkana Glacier was presented to the Head of the Department. Representing the culmination of nearly three years of planning, field work, and extensive management, the map is a continuation of a National Academy of Sciences legacy started in 1957 when the glacier was last mapped. With the completion of the second map and computations of the change in glacial mass balance over the past three decades, scientists can add climatological data and compute estimates of the overall effect of the earth's

temperature. Hopefully, the 1987 map will become the second in a series of maps which, over time, will assist in unlocking the mystery of the future of glaciers.

Lieutenant Steven E. Smith (USMA '87), using the Department's UNIMAP software while enrolled in an Advanced Individual Study Project under the tutelage of Colonel Thompson, displayed the glacier in three-dimensions from digitized data based on the 1957 and 1987 maps. He further computed the difference in mass using innovative digital methods. His work was of sufficient academic value that Colonel Thompson included him as a co-author of a paper titled "Volumetric Glacial Changes from Digital Data," which was presented at the 1988 Annual Convention of the American Congress of Surveying and Mapping/American Society of Photogrammetry and Remote Sensing in St Louis, Missouri.

Colonel Thompson served as a consultant to Major General William Reno, then the commanding general of the U.S. Army Engineering Center and Fort Belvoir, concerning the establishment of a new Department of Topography at the Engineer School.

"Principles of Surveying" (EF 384) was significantly improved with the acquisition of five new Cubic precision electronic distance measuring devices. Originally, these were arranged on a six-month loan, but, with a change in our table of distribution and allowances (TDA), they were transferred to the Department on a permanent basis.

Computer Science

The Class of 1988 graduated with 45 members having completed the computer science program of study. Of these, 27 were awarded a major in computer science; the remainder completed the more general computer science field of study. The Class of 1989 had 62 cadets in the program, of whom 37 were pursuing the major. Sixty-seven members of the Class of 1990 joined the program in the Spring of 1988, initially with 59 cadets intending to pursue a major. In addition to the core course (and an advanced version) in computer science, the Department taught 13 elective courses to cadets in the computer science program and three service courses appropriate for all cadets. Twenty instructors shared the teaching duties.

Once again, the core course "Introduction to Computers and Pascal Programming" (EF105) was taught to all students using the Zenith Z-248 microcomputers and the Turbo Pascal language. Improvements to the core course were based on the experiences of the previous year. In-class laboratories were increased and scheduled earlier in the course to improve cadet familiarization and competency with microcomputers. Most homework was completed on the cadets' personal machines.

Cadets continue to enter the Academy with some background in computers. For the Class of 1991, 37 cadets validated the core course, compared to 43 the year before. Another 128 cadets were transferred to the advanced version of the core course "Advanced Placement Computer Programming" (EF155) and, of these, 82 performed well enough in the course to validate a follow-on computer science elective.

With the availability of three microcomputer laboratories (one of which is devoted to computer science electives), the restructuring of electives to take advantage of microcomputers continued. In particular, "Software Engineering with Ada" (EF474) was taught using microcomputers and is perhaps the first Ada language-based course in the world to be so oriented. The service course, "Microcomputing for the Engineer and Scientist" (EF382A), completed its transition from minicomputers and now features both FORTRAN and spreadsheet programming using microcomputers. While many computer science electives will remain based on larger minicomputers in order to better support disciplinary studies, movement

to microcomputers will continue through the next year, when all cadets will possess a personal computer. Even so, one-half of the computer science students have voluntarily purchased a personal computer. Interest in microcomputing has grown and correspondingly the Department's service courses have grown in popularity. Enrollment in "Microcomputing for the General User" (EF382B) grew from 51 in the 1985-86 Academic Year to 77 in the 1986-1987 Academic Year and 139 this past year.

The Department expanded its resources thanks to an additional grant from the AT&T Corporation. The Department was the recipient of a 3B2/600 super-microcomputer, five graphics terminals, a laser printer, and a wide assortment of software. This equipment supplemented the three 3B2/400 super-microcomputers granted the year before. This equipment uses the U.S. Army standard operating system, Unix, and was set up as a laboratory for cadet use in several of the computer science courses.

In the Spring of 1988, the Academic Board approved several changes to the academic program that had a direct and positive effect on the computer science program. These changes resulted in the establishment of a sequence of engineering core courses oriented to computer science studies. This was another step in the process toward eventual accreditation of the computer science program by the Computing Sciences Accreditation Board (CSAB). The senior sequence, Computer Systems and Software Design, is to be taught as a required course of instruction in the 1988-89 Academic Year, replacing two elective courses (EF401 and 402) covering the same topics.

Courses in computer theory and military computer systems were taught for the first time this past year. "Computer Theory" (EF475B) will become a required course for all computer science students. "Military Computer Systems" (EF471B) is an elective, capstone course that specifically addresses automation issues of concern to the military. Several other courses had a major restructuring of topics. Overall, these changes will go a long way toward making the graduates of the computer science program better prepared to meet the needs of the Army.

In July, at the request of Major General Billy M. Thomas, Commander, U.S. Army Communication Electronics Command (CECOM), Captain Robert L. Reyenga supervised the installation of an automated system for producing and maintaining TDAs at Fort Monmouth.

In July, members of the Department traveled to Atlanta, Georgia, for the integration of application software at the Georgia Tech Research Institute (GTRI) for the Microfix Version 2.2 Topographic Workstation. Personnel from the Atmospheric Sciences Laboratory (ASL) brought the latest versions of their Tactical Weather software. This effort produced a pre-release version of the workstation software that Department members would train and exercise in at the Defense Mapping School in Washington, D.C., later in the month. In addition to training the DMS instructors who will be teaching the Version 2.2 software, the session served as the "final" testing of this software. At the conclusion of integration, FORSCOM provided 20 blank video tapes to be used in creating copies at USMA of the final version of the software for mailing to CONUS and selected OCONUS units.

In August 1987, Colonel Gilbert W. Kirby, Jr., Professor and Head of the Department, Colonel Galloway, and Captain Ressler traveled to the Engineer Topographic Laboratories (ETL) to provide briefings on recent Computer Graphics Laboratory (CGL) projects including the latest MICROFIX version 2.2, DigiTAS, LANDSAT, and COORD. The rest of the meeting was a discussion of a potential role for the CGL in writing software for soon-to-be fielded portions of the All-Source Analysis System.

Much of the Army Topographic Engineering Coordinating Committee meeting concerned the Battlefield Assessment concept being developed at the Office of the Chief of Staff for

Intelligence. This concept calls on Engineers to reassume responsibility for battlefield terrain information that is now with the G-2.

Members of the Department participated in the final FORSCOM MICROFIX Configuration Management Board meeting in September in Atlanta where the impending transfer of responsibility for MICROFIX from FORSCOM to the U.S. Army Intelligence Center and School (USAICS) and CECOM on 1 October 1987 was discussed.

In March, Captain Reyenga met with representatives of the HQDA Artificial Intelligence Center and civilian personnel managers from the Office of the Secretary of the Army (OSA). The OSA was interested in developing an automated solution to civilian personnel management similar to what Captain Reyenga was associated with at CECOM at Fort Monmouth.

In April, Colonel Kirby and several members of the Department conducted briefings and coordination on the TerraBase Military Terrain Information System, developed by the Department for the directors of several DA research and development agencies.

Major Robert Richbourg, Acting Director of the Office of Artificial Intelligence Analysis and Evaluation (OAI/AE), attended several coordination meetings at ETL between agencies known to be applying artificial intelligence techniques to problems that rely on cartographic knowledge and a meeting sponsored by the HQDA Artificial Intelligence Center where various Knowledge Engineering Groups (KEG) throughout the United States made presentations. He visited the Naval Postgraduate School (NPS) in Monterey, California, to establish cooperation between NPS and the OAI/AE where similar research is being pursued. Although there is currently little commonality in their research efforts, it was agreed to share results wherever possible. He also attended a class on neurocomputing and neurocomputer models sponsored by the Institute for International Research, attended the First Annual Symposium on Neural Computing, the Institute for Electronics and Electrical Engineers (IEEE) Conference on Artificial Intelligence Applications, and the Society of Photo-optical Instrumentation Engineers (SPIE) Advances in Robotics Conference.

In April, Colonel Thompson conducted a research meeting at the ETL. The Department will conduct funded research for ETL on the applications of Geographic Information Systems to today's Army. The Department currently has two geographic information systems and will be receiving a third.

For four weeks in June 1988, members of the Department made hardware modifications and installed the TerraBase software which allows microcomputers to analyze digital terrain data and conducted training in the use of TerraBase at the 29th Engineering Battalion at Fort Shafter, Hawaii.

Office of Artificial Intelligence Analysis and Evaluation

During the 1987-88 Academic Year, the OAI/AE marked its second year of support for Artificial Intelligence programs at West Point and throughout the Army with emphasis on education and application development. In addition to teaching "Artificial Intelligence" (EF487B), the office has conducted numerous seminars for agencies throughout the Army, to include TRADOC, Aviation Systems Command, and CECOM.

The office culminated its educational efforts with the week-long Senior Officer (Automation) Seminar held in July 1987, titled "Advances in Automation: Artificial Intelligence and Software Engineering with Ada." The seminar was extremely well-received by the general officers who attended.

In addition, the office has undertaken several development projects during the 1987-88 Academic Year. The office has modified existing executive-level TDA and modification table of organization and equipment (MTOE) support software developed by HQDA to support the specific needs of CECOM initially and then other agencies, to include USMA. Currently, the package is being evaluated for conversion to microcomputers and modification to encompass other similar planning problems. Second, the office is developing a set of map-based planning tools for use at battalion level. To date, the office has developed applications to automatically extract feature classification information from map overlays. These applications permit a 97 percent reduction in the operator work load over previous labor-intensive methods of feature extraction. The heart of this new methodology is an algorithm for recognizing hand-lettered characters on an overlay. These programs were field tested in support of REFORGER 88 and are continuing to be used in Europe. Alternative methods of feature extraction are being investigated that are based on map sheets rather than factor overlays. Having reduced the problem of acquiring digital data, the office is now beginning development of a series of microcomputer-based, map-oriented tools to assist the planners at battalion level. Initial tools include applications for route planning and site selection.

Members of the OAI AE attended the Army Micro/Information '87 Seminar in August 1987. The conference was sponsored by the Information Systems Command and co-hosted by the Command and Control Microcomputer User's Group (C2MUG) and HQ Information Systems Engineering Command. The seminar was the first in what is envisioned as an annual gathering of Army microcomputer users and supplants the annual C2MUG seminar. During the seminar, attendees were informed of the establishment of the OAI AE at West Point.

In December, an OAI AE member participated in a review of the research in artificial intelligence being conducted at the University of Pennsylvania. This is one of two universities in the country identified as Artificial Intelligence Centers of Excellence by the Army and has received a significant grant from The Army Research Office (ARO) to conduct basic research in selected areas of interest to the Army.

A member of OAI AE attended the 1988 Technology in Training and Education (TITE) Conference, the sixth annual gathering of educators, trainers, and vendors focusing on the current use of technology to solve problems in training and education.

A member also attended the Artificial Intelligence Applications for Military Logistics Conference in March, sponsored by the Logistics Directorate (J-4), Joint Chiefs of Staff. The conference was the second annual gathering of military logisticians interested in applying artificial intelligence technology to logistics problems.

Tenured Department faculty members attended numerous meetings and conferences during the past year to include: the Joint Service Academy Computing Conference, the Engineer Center Team Meeting, a Defense Mapping Agency System Center Research and Development Symposium, the Federal Computer Conference, the Army Topographic Conference, the 1987 Workshop on Computer Architecture for Pattern Analysis and Machine Intelligence (CAPAMI), meetings of the Army Topographic Engineering Coordinating Committee, the Amphibious Warfare Conference, the Artificial Intelligence Technology Base Committee meeting, and the Software Engineering Institute's Conference on Software Engineering Education.

DEPARTMENT OF HISTORY

During the 1987-88 Academic Year, the Department faculty of 50 officers and one visiting professor taught six two-semester core courses and 27 one-semester elective courses.

In September 1987, for the first time the Department conducted a staff ride of the American Revolution fortifications at West Point. Some 1,200 cadets in the core "History of the Military Art" (HI 301) course and the "History of Military Art" (HI 351) course participated. During the year, Department members also offered staff rides on the Battles of Gettysburg and Antietam and on the Normandy Invasion.

In April 1988, the Department sponsored the 1988 USMA History Symposium titled "The Theory and Practice of American National Security, 1960-68." The two-day symposium featured presentations from 16 distinguished scholars and commentators and attracted over 90 civilian and military participants from within as well as outside the West Point community. Among the distinguished participants were John Lewis Gaddis, David Rosenberg, Marc Trachtenberg, Joseph Tulchin, George Herring, David Calleo, and Donald Cameron Watt. A highlight of the conference was the Symposium Banquet, which attracted 230 people to hear the address of General (Retired) William C. Westmoreland.

In June 1988, the Department conducted the 20th Annual Reserve Officers Training Corps (ROTC) Military History Workshop, a demanding four-week program of instruction in military history. Eighteen officers from the Department and several distinguished guest lecturers trained 27 college professors to teach courses in military history more effectively to ROTC cadets at their respective universities.

The Department's most extensive effort to integrate computers into its curriculum is centered in the "History of Military Art" (HI 301-302) core courses. In conjunction with the Department of Geography and Computer Science, the Department is working to produce software that will supplement and enhance the classroom instruction of military history through 3-D video displays of key historical terrain. By the end of the first semester, terrain displays of West Point, Gettysburg, and Fredericksburg were completed. Once the software and associated techniques have been perfected, cadets will be able to gain a new appreciation for terrain and its impact on military operations and tactics not available from 2-D maps alone. Computer use is also offered to upperclass cadets in the elective "Quantitative Methods in Historical Analysis" (HI 498) course which is offered periodically. The primary emphasis in this course is familiarizing cadets with basic statistical techniques, exposing them to current historical literature, and providing hands-on exercises with both computer software and data bases compiled from primary sources.

Lieutenant Colonel James M. Johnson, Permanent Associate Professor, who previously served as one of the Army Chief of Staff's speech writers, acted as assistant editor of the Collected Works of the Thirtieth Chief of Staff, United States Army, a series of addresses delivered by General John A. Wickham, Jr., during his tenure.

Lieutenant Colonel Thomas J. Blake acted as the USMA Project Officer for collecting military quotations concerning training to support TRADOC's preparation of FM 25-100.

Major John Shortal's Forged by Fire: Robert L. Eichelberger in the Southwest Pacific was published in 1987 by the University of South Carolina Press.

Majors Larry L. Ghormley and Thomas R. Veleker edited a Department book titled Highland Fortress: The Fortifications of West Point During the American Revolution 1775-1783, which was published in May 1988.

Throughout the year, several articles prepared by members of the Department were published in various scholarly journals to include: Major Michael W. Cannon's "Task Force Smith" published by Military Review in February 1988; Major Roger Kaplan's "Cohesion: The U.S. Army in Vietnam" published in the September 1987 issue of Parameters; Captain David M. Finkelstein's "Vietnam: A Revolution in Crisis" published in the September 1987 issue of Asian Survey; and various articles and book reviews published in Armor magazine and the Field Artillery Journal.

Members of the Department also addressed numerous academic, military, and civilian audiences on topics of current interest in history. In addition to numerous presentations in the immediate vicinity and in the New York metropolitan area, to include the City University of New York (CUNY) and Columbia University, were presentations to the 14th Congress of the French Colonial Historical Society; the Politics Club at the University of Dallas; the Northeast Oklahoma State University; the Oklahoma Historical Society's Annual Meeting; the Plymouth (New Hampshire) State College; LaSalle University; the International Wellington Congress at the University of Southampton, England; the Annual Convention of the American Society for the Advancement of Philosophy; the Citadel; York College, Pennsylvania; and the Monmouth (New Jersey) County Library History Series.

The visiting professor, Robert H. Ferrell, Professor of History at the University of Indiana, lectured in various courses and taught the core course "History of the United States to 1877" (HI 103) and an elective, "The United States and World War I" (HI 382), to upperclass cadets. His book, Atlas of American History, was published by Bison Books of Greenwich, Connecticut, in 1987. Professor Malcolm Muir, Professor of History at Austin Peay State University, accepted an appointment as Visiting Professor of Military History for the 1988-89 Academic Year. One officer completed requirements for a doctoral degree, making a total of six in the Department.

DEPARTMENT OF LAW

Colonel Robert W. Berry, Professor and Head of the Department since 1978, formally retired on 31 July 1987 after 37 years of Army service. His successor, Colonel Dennis R. Hunt, a graduate of Harvard Law School with undergraduate and Master of Laws degrees from Northwestern University, began to serve as acting Head of the Department on 3 July 1987. On January 17, 1988, Colonel Hunt was sworn in formally by the Superintendent as Professor and Head of the Department. The visiting professor for the past academic year was Dr. Edward W. Haughney of the Dickinson Law School, Carlisle, Pennsylvania.

The "Seminar in the Military Aspects of International Law" (LW 482) was redesigned as the "Seminar in Military Operations Law" in the Spring of 1988 to reflect the increasing emphasis in the Army on resolving legal issues associated with the operational use of armed forces. This has arisen primarily due to the increased legal complexity of military deployment and operations in low-intensity conflicts. Current events, historical scenarios, sample operations plans, and wargaming are employed in the seminar to permit cadets to apply international rules to situations which may be encountered by unit commanders in future military deployments.

The existing elective course, "Business Law" (LW 488), was revised in the Fall of 1987 to include principles of government contracting, an area which has become increasingly important in recent years.

The Law Department took an active role in Academy activities commemorating the Bicentennial of the U.S. Constitution. From celebrations in September 1987, commemorating the signing of the document, to Law Day festivities in May 1988, the Department was heavily involved. Specific activities are discussed in the Special Events Chapter of this report.

In June 1988, the Department conducted its annual Legal Reorientation Class for departing officers. The four-hour class informs officers departing the Military Academy of recent changes in military law that have occurred during their time at West Point which affect their responsibilities in matters involving military justice and administrative law.

In the spring, the Department published the 1988 edition of the "Field Legal Guide for Officers," a booklet updated annually to aid small unit commanders in carrying out their military justice and administrative law responsibilities. Each graduating cadet and all departing officers who attended the Department's legal reorientation class received a copy.

DEPARTMENT OF MATHEMATICS

On 30 June 1988, Colonel David H. Cameron retired as the Head of the Department after 38 years of active Army service, 28 of which were spent with the Department. Colonel Frank R. Giordano, having served as Professor of Mathematics since 1982 and Professor and Deputy Department Head since May 1987, was selected to be the new Department Head effective 1 July 1988.

During the 1987-88 Academic Year, the Department, consisting of 62 officers and one visiting professor, taught core courses in calculus, probability and statistics and differential equations. These courses provide the knowledge and skills necessary for completing the follow-on courses in applied sciences and engineering. Furthermore, elective courses were offered in applied and theoretical mathematics to support 853 cadets concentrating in mathematics and to support requirements of other engineering and science programs.

The mathematics core program consisted of three semesters of calculus and one semester of differential equations, probability, and statistics. An enhanced program was added to Calculus II and 80 students took part. The enhanced program supplements the work in the basic course with interesting applications problems, extended theoretical developments, and student projects and presentations. The program was well-received and will be offered again next year. Incoming cadets may still validate (or be exempted from taking) any of the core courses and begin their required mathematics program at the next course in the sequence. For instance, with the use of advanced placement test scores and streamlined validation procedures, over half (or 139 cadets) of the 262 cadets offered the opportunity to validate the first semester of calculus did so and nearly three-fourths (42 of 58) offered the opportunity to validate the second semester of calculus did so.

The Department continues to use the Zenith Microcomputer in all courses. Both core and elective courses use numerous computer demonstrations to introduce and reinforce important topics. The Classes of 1990 and 1991 were required to do homework using the "Calculus Toolkit" and "Minitab" software packages in the core program. The other elective courses made use of both the microcomputer and mainframe "PRIME" computers for demonstrations and problem solving.

The Department supported two three-person teams in the 4th Mathematical Competition in Modeling held in February 1988. The team of Cadets Andrew Fedorchek (Class of 1989), David Bailey (Class of 1989), and Larry Schauer (Class of 1990), one of 204 teams from colleges throughout the United States and Canada, won an "outstanding" designation and tied Harvard University, California Polytechnic Institute, and Toronto University. The team's paper will be published in the international research journal Mathematical Modeling and the UMAP Journal. Ten cadets participated in the Virginia Polytechnic Institute Mathematics Contest and Cadets Fedorchek and Anton Pineda (Class of 1990) finished in the top ten out of more than 200 competitors.

Colonel Giordano continued to present seminars and workshops on teaching mathematics modeling to the undergraduate. This year, he conducted workshops in Atlanta, Georgia, and Kansas City, Missouri, for members of the Mathematical Association of America.

Major David C. Arney was the Department Research Officer and continued his work on adaptive numerical techniques for multi-dimensional time dependent partial differential equations. He presented papers to both the Fluid Dynamics Congress and the Army Conference on Applied Mathematics and Computing. Major Arney also served as consultant to Watervliet Arsenal on several problems they were having in simulation and modeling.

In March 1988, Major Bruce T. Robinson was a member of a team which visited the four brigades and the division headquarters of the 8th Infantry Division in Germany. The team conducted training on and upgraded the Brigade Planner System, a developmental computer that conducts detailed terrain analysis, aids in preparing courses of action, and facilitates evaluation of these alternatives. The division is serving as an operational test bed for this system.

In early 1988, Captain Vincent Marucci, Jr., began assisting the Corps of Engineers Waterways Experiment Station in developing an algorithm for dynamically selecting avenues of approach. If successful, the algorithm will eliminate the need for manual selection of routes in war-gaming models.

During the Summer of 1987, the Department detailed eleven officers to on-site research and consultation activities with Army field agencies and staffs. Agencies supported included the Office of the Deputy Chief of Staff for Research, Development, and Acquisition (ODCSRDA), the Office of the Deputy Chief of Staff for Military Operations and Plans (ODCSOPS), the Air Defense School, TRADOC Analysis Centers, Missile Command, Natick Laboratories, Engineer Cold Regions Research Laboratory, Los Alamos National Laboratory, and the Naval Post Graduate School.

Several faculty members also presented papers covering their research at the Sixth Army Math Conference, 114th Meeting of the Acoustical Society of America, 33rd Army Design of Experiments Conference, The Institute of Management Science Conference, 56th Military Operations Research Society Symposium, and the International Number Theory Conference. At the Military Operations Research Conference, Captains Michael L. McGinnis and Scott T. Forster served as working group cochairmen and Captain McGinnis was also a session chairman at the Institute of Management Science Conference. Major John S. Robertson gave invited lectures on "Applications of the Parabolic Approximation Method to Atmospheric Acoustic Propagation" at the NASA Langley Research Center, Virginia, and on "Adaptive Algorithms" at the Naval Underwater Systems Centers of New London, Connecticut, and Newport, Rhode Island.

DEPARTMENT OF MECHANICS

Dr. George C. Catalano from Louisiana State University served as the Department's visiting professor for the first semester. In addition to teaching and helping revise the basic "Fluids Mechanics" (ME 362) course, he conducted research in the Department's low speed wind tunnel. Dr. Catalano was instrumental in establishing a viable research program in the Department which will continue in subsequent years. Lieutenant Colonel Thomas A. Lenox joined the Department's faculty as a Permanent Associate Professor in August 1987.

Lieutenant Colonel Thomas M. Kiehne, the Department's Thermomechanics Group Director, received the 1987 Life Quality Engineering Award from Region II of the American Society of Mechanical Engineers (ASME). This award was presented for his many contributions to the society.

The Department sponsored 28 cadets in 1987 on voluntary summer academic training with various government research and development agencies. Cadets from this Department most frequently went to various Aviation Systems Command laboratories and program management offices or to the Los Alamos National Laboratory.

During the period, the Department received, at no cost from the Army Aviation Systems Command (AVSCOM), the first of three Blackhawk gas turbine auxiliary power unit engines for the gas turbine laboratory. These engines will make a significant contribution to cadet understanding of gas turbines and add the possibility of future research.

Research also was begun this year to validate and improve the efficiency of the DYNAMIC System COUPLER (DYSCO), a sophisticated program which includes the capability to simulate helicopter dynamics. Two cadets worked on this effort as part of their individual mechanics projects with Lieutenant Colonel Kip P. Nygren, Permanent Associate Professor. The research is being conducted in coordination with NASA Langley Research Center and the Aviation Applied Technology Directorate.

Colonel Edward G. Tezak, Deputy Head of the Department, served as a session moderator for "Innovations in Mechanics" and, along with Captain Thomas P. Bostick, coauthored and presented a paper titled, "A Teaching Aid for Visualization of Structural Mode Shapes" at the Annual American Society for Engineering Education (ASEE) Conference.

Department members presented papers at the American Helicopter Society National Specialist's Meeting on Rotorcraft Flight Controls and Avionics, the Winter Annual Meeting of the American Society of Mechanical Engineers, and the Fifth International Conference on Numerical Methods in Thermal Problems, and also published articles in such periodicals as the Journal of Construction Engineering and Management.

Burt Rutan, the designer of the Voyager aircraft which flew around the world non-stop without refueling in 1986, presented a lecture to cadets enrolled in Mechanics electives on 17 February 1988 in the Mahan Hall Auditorium. Mr. Rutan, President and Chief Executive Officer of SCALED Composites, Inc., presented his lecture on the design process and actual flight of the voyager under the auspices of the West Point Distinguished Lecture Series. This lecture was the first sponsored by the Department in conjunction with the West Point Distinguished Lecture Series program. Approximately 550 persons attended the lecture, which was well-received by both the cadet and faculty audience.

DEPARTMENT OF PHYSICS

For the first time in five years, all cadets took the same two-semester physics sequence courses, "Classical Physics I and II" (PH 201/202). This was part of the new academic program which stipulates that all cadets take the same core courses. This action occurred as a result of an Academy desire that all cadets be treated equally academically, and the return to a more common core was seen as one way to ensure that. The Humanities and Public Affairs (HPA) concentrators had been perceived to have been taking easier physics courses than their Mathematics-Science-Engineering (MSE) counterparts. A result of the action, however, was that HPA concentrators receive only two semesters of classical physics, with no exposure to modern physics; most MSE concentrators receive their modern physics in a required third semester.

The Department received two additions to its tenured faculty and the return of a third from sabbatical during the past academic year. Lieutenant Colonel John G. Campbell and Major John E. LaSala arrived during the Summer of 1987 to assume their new positions as permanent associate professors. Lieutenant Colonel James H. Stith, Permanent Associate Professor, returned in July 1987 from a one-year sabbatical at the Lawrence Livermore National Laboratory. He had worked with the x-ray diagnostics group, with particular emphasis on the characteristics and fabrication of x-ray mirrors and beam splitters.

Colonel Raymond J. Winkel, Jr., Professor and Head of the Department, and Colonel Daniel M. Litynski, Associate Professor and Acting Head of the Department of Electrical Engineering, represented USMA at the first program review meeting of the newly-formed Center for Opto-Electric Systems Research at the University of Rochester (New York). Also attending the July 1987 meeting were Dr. Jay R. Sculley, Assistant Secretary of the Army for Research, Development, and Acquisition (RDA), and representatives of the Army Research Office (ARO) and numerous other Army laboratories. The center is funded under the Army's University Research Initiatives (URI) program administered by the ARO. The meeting was particularly relevant in light of the May 1987 DA establishment at USMA of a Center for Electromagnetic Science and Technology research as a joint effort by the Departments of Physics, Chemistry, and Electrical Engineering.

In 1988, Colonel Winkel represented USMA at a meeting of Physics Department Chairs in Washington, D.C., in February and attended a meeting of the military physics department chairmen at the U.S. Air Force Academy in May.

Lieutenant Colonel Rodney I. McCormick was invited to serve on a government review panel for the Army Center for Fast-Reaction Kinetics of Energetic Species at the University of Southern California. Also founded under the URI program, this center is concentrating on the chemistry and photo-physics necessary to study the behavior of the highly-energetic molecular fragments produced in the burning of propellants and explosives.

In October, Major Robert J. Bonometti represented the Department and the Academy at a meeting held at the Army Space Agency at Colorado Springs to update the Army Master Plan for Space.

Colonel Winkel visited the University of California at Berkeley in August 1987 to conduct research on the spectrum of a molecule of astrophysical interest. He successfully identified and parameterized two bands of zirconium sulfide not previously analyzed. In May 1988, Colonel Winkel attended the Los Alamos Workshop on Fourier Transform Spectroscopy at the Los Alamos National Laboratory. In June, he returned to continue his research at Los Alamos, becoming one of the initial users of this spectroscopy facility. With colleagues from Berkeley,

he produced and recorded the spectra of three diatomic sulfides of current astrophysical interest.

Colonel Winkel presented a talk on "The USMA Computerized Physics Homework Problems" at The Introductory Physics Course for Engineering and Physical Sciences Workshop held at the State University of New York at Stony Brook in September 1987. He also served on the Advisory Council and chaired one of the sessions at the Rochester Symposium for Physics Students at the University of Rochester, New York, in April.

Lieutenant Colonel Stith spoke on "Recent Advances in Multilayer Optics" to the Society of Physics Students, Virginia State University, Petersburg, Virginia, in October 1987. In January 1988, he chaired a conference session and served on several individual committees at the annual meeting of the American Association of Physics Teachers and American Physical Society (AAPT/APS).

In November 1987, Major William M. Decker IV reported the results of laser damage studies being conducted at USMA at a conference on "Laser Effects on Night Vision Goggles" at the Naval Research Laboratory.

Major LaSala presented a paper, "Optical-Guiding Measurements on the Mark III Free-Electron Laser Oscillator," at the 9th International Free Electron Laser Conference in September 1987 at Williamsburg, Virginia. The subject of the presentation was the first measurement of optical guiding, an effect previously predicted in theory but not heretofore observed. The optical guiding effect is critical to the performance of the ground-based Army Strategic Defense Command free electron laser program at the White Sands Missile Range. The following month, he made a similar presentation in a colloquium for the Department and other interested faculty members.

In October 1987, the Department sponsored a colloquium for the West Point community at which Colonel Richard M. Mullane, U.S. Air Force (USMA '67), and Colonel Sherwood C. Spring, U.S. Army (USMA '67), discussed and showed films of their experiences in space as NASA astronauts.

DEPARTMENT OF SOCIAL SCIENCES

During the 1987-88 Academic Year, the Department presented core, advanced, and elective courses in economics, political science, and international relations, and elective courses in management and anthropology. The Department's faculty included two visiting professors: Dr. George C. Edwards III of Texas A&M University, and Dr. Howard J. T. Steers of the U.S. Department of State. The Department faculty was supplemented by one Naval and two Air Force officers.

The Military Academy hosted the 39th Annual Student Conference on United States Affairs (SCUSA) in November 1987. This year's conference brought 151 students and 40 academic and government officials to West Point for four days of discussions on "Global Change: Implications for U.S. Leadership." Some 106 institutions from across the United States and Canada were represented. The three principal addresses were delivered by Admiral Stansfield Turner (USN-Ret), Former Director of the Central Intelligence Agency; Mr. Doyle McManus, Washington Correspondent for the Los Angeles Times; and Mr. Richard N. Gardner, former U.S. Ambassador to Italy.

Cadets were extensively involved in the planning and conduct of the conference. Nearly 100 cadets planned and carried out the many logistical and administrative requirements of SCUSA. Ninety cadets competed for the opportunity to represent West Point as delegates to the conference and 42 were ultimately chosen.

The 26th Annual Senior Conference was held at West Point in June 1988 and supported by the Department. Sixty distinguished scholars, government officials, military leaders, and journalists addressed the topic: "U.S. National Strategy in the 1990s." Banquet speakers were Professor Samuel P. Huntington of Harvard University and Dr. Edward Luttwak of the Center for Strategic and International Studies. Members of the Department intend to publish an edited volume of the papers presented at the conference. An edited volume of last year's conference NATO at Forty: Change, Continuity, and Implications for the Future by Colonel James R. Golden, Professor and Deputy Head of the Department, and Lieutenant Colonel Daniel J. Kaufman, Permanent Associate Professor, was published during the past year.

More than 1,000 cadets participated in the Debate Council and Forum activities sponsored by this Department during the past year. The Debate Team participated in national competition; at one time, the USMA team was ranked in the top 20 schools in the nation. Additionally, members of the Speech Team had an enormously successful year. Although participating in only eight tournaments during the academic year, 21 team members qualified for the National Forensic Association National Tournament held at the University of Arizona in April 1988.

The Domestic Affairs Forum sponsored two trips which permitted interested cadets to meet many of the nation's leaders in government, business, and the media. Participants discussed current events with Edward Koch, Mayor of New York City, Rudolph Giuliani, U.S. Attorney for the Southern District of New York, Peter Jennings, Anchorman for "ABC World News Tonight," Drew Middleton, Military Affairs Correspondent for the New York Times, and others. In Washington, D.C., cadets met with such distinguished officials as: Sandra Day O'Connor, Associate Justice of the U.S. Supreme Court; William Sessions, Director of the Federal Bureau of Investigation; James Miller, Director of the Office of Management and Budget; Morton Halperin, President of the American Civil Liberties Union; Ben Bradlee, Executive Editor of the Washington Post; and others.

More than 200 cadets participated in events sponsored by the Finance Forum. The activity offered three programs designed to increase cadet knowledge of financial management. The forum sponsored a lecture series which brought speakers from the Wall Street community to educate cadets in various aspects of financial markets. Second, the Forum took 25 cadets each semester to Wall Street to meet with investment managers and executives. Finally, the Greyhog Select Investor's mutual fund continued its tradition of far outperforming the Dow Jones Industrial Average, attaining better than a three percent annualized return during a period when the average declined over 20 percent.

Members of the Department compiled an array of notable honors during the past year. Among them, Lieutenant Colonel Asa A. Clark IV was promoted to Professor of International Relations and Lieutenant Colonel Wallace E. Walker was promoted to Professor of Public Policy. Lieutenant Colonel Walker's book, Changing Organizational Culture, was selected by Choice (the Journal of the American Library Association) as an "Outstanding Academic Book for 1987-88." Dr. Edwards was named issue leader for presidential-congressional relations in the National Academy of Public Administration's Presidential Transition Project. Captain Chris Demchak was awarded the American Political Science Association's Leonard D. White Award in 1987 for the best doctoral dissertation in public administration. Finally, Lieutenant Colonel Augustus R. Norton, Permanent Associate Professor, accepted an invitation to become a member of the Council on Foreign Relations.

Lieutenant Colonel Norton made considerable contributions to the study of international relations during the past year. He was coauthor with Emmanuel A. Erskine from Ghana and B. L. Kaploor from India of Peace, Security and Humanitarian Relief in Northern Mozambique published by the International Peace Academy and wrote chapters on "Lebanon" for three scholarly journals. Touring Nam, which he coedited with Martin H. Greenberg of the University of Wisconsin and was published by William Morrow in 1985, was accepted for publication in a paperback edition by Bantam Books. Finally, his most famous recent work, Amal and the Shi'a: Struggle for the Soul of Lebanon, published in 1987 by the University of Texas Press, received an unauthorized Arabic translation and has been published in Beirut by the Dar Bilal Press. In the Spring of 1988, the pirated version of the book was reported to be selling briskly. He was interviewed on National Public Radio on three separate occasions to discuss his book and the current situation in Lebanon. He appeared on the ABC's "20/20" program in August 1987 during which excerpts from his commentary in the 90-minute Grenada TV documentary "The Sword of Islam" were shown. "The Sword of Islam," which aired on the Public Broadcasting System in January 1988, won an "International Emmy" Award. Lieutenant Colonel Norton also served as a member of the Board of Advisors in a planning meeting with the producers of "Out of Eden," a 12-hour documentary on the Middle East being developed for public television. He participated in a one-day Ford Foundation Conference on the hostages in Lebanon.

Among Lieutenant Colonel Norton's presentations during the past year were lectures on the current situation in Mozambique to a United Nations audience at the International Peace Academy, a discussion of Middle East politics with editors and staffers of the New York Times, and participation, at the invitation of former President Carter, at a discussion of peace prospects in the Middle East in Washington, D.C. Several of his articles on various world trouble spots were published in New Leader, the Christian Science Monitor, and The New York Times. He also participated in the yearly planning meeting of the Conference Group on the Middle East, attended a meeting of the Association for Middle East Women's Studies, and spoke at the Middle East Studies Association. He lectured on "Lebanon, Syria, and the Shi'a Revolution" at the 92nd Street "Y" in New York City and served as a lecturer and panelist on "Violence and Instability in the Middle East" held at the College of William and Mary. He was asked to become a regular reviewer for Choice magazine, and he participated in a Carnegie Endowment program on the origins of authoritarian government in Africa and in the University Seminar on the Middle East at Columbia University. He served on panels or lectured to various audiences to include: the Political Science Department of the University of Washington at Seattle; a group participating in the "Great Decisions" program at the University; the International Association of Chiefs of Police; the University of Houston; North Texas State University; the University of Texas at Austin; the State University of New York at Binghamton; Trinity College; New York University; the Harvard Club; the International Peace Academy; and the Board of Directors of the American University of Beirut.

Dr. Edwards chaired the Executive Politics Section at the annual meeting of the American Political Science Association and chaired a panel at the meeting. He attended an editorial board meeting of the American Journal of Political Science, lectured at the Columbia University Seminar on American Politics and Society, the University of Maryland, the University of Rochester, the Office of Research and Improvement in the U.S. Department of Education, and presented a paper to the Midwest Political Science Association. He provided a chapter in The Presidency and the Political System edited by Michael Nelson of Vanderbilt University and is coauthor with Dr. Stephen Wayne of George Washington University of The American Presidency. Finally, Dr. Edwards, along with Lieutenant Colonel Walker, coedited National Security and the U.S. Constitution.

Lieutenant Colonel Walker prepared a chapter in Democracy, Strategy and Vietnam, edited by Colonel (Retired) George K. Osborn III, former Professor of Social Sciences, and published by Lexington Books; prepared an article which appeared in Leadership and Innovation published by Johns Hopkins Press; authored and coauthored articles in Parameters; and presented a lecture at the Massachusetts Institute of Technology and another to senior executives of the U.S. Department of Justice.

Lieutenant Colonel Kaufman participated on a panel at the International Studies Association's Section on Military Studies, attended a Secretaries of Defense Conference, presented a paper at a conference sponsored by The Center for Strategic and International Studies, and published an article in Armed Forces and Society.

Major Douglas A. MacGregor, Permanent Associate Professor, prepared a chapter which appeared in Jeffrey Simon's Comparative Study of Mobilization in NATO and the Warsaw Pact, presented a paper at a National Defense University conference, and had an article published in the Los Angeles Times.

Lieutenant Colonels Robert H. Baldwin, Jr., and Hobart B. Pillsbury, Jr., Permanent Associate Professors, coedited The Armed Forces Guide to Personal Financial Planning which featured articles from four current and many former members of the Department.

Other Department members presented papers at the annual meeting of the American Political Science Association, the International Studies Association Conference, contributed to International Security Issues, Vol I, lectured to Columbia University graduate students, and were panelists for a conference held at the International Security Studies of the University of Maryland. One member received a Ph.D. degree from Harvard University. Other members of the Department had articles published in such diverse periodicals as the Journal of International Law and Commerce, Syracuse Scholar, Armed Forces and Society, Parameters, and The British Journal of Political Science.

The Department also participates in special studies for the Army. This year a group of faculty members, under the guidance of Lieutenant Colonel James M. Smith, USAF, began a study of Defense Issues and the 1988 Election for the Chief of Staff's Assessment and Initiatives Group (CAIG).

Lieutenant Colonel Frederick H. Black, Permanent Associate Professor, visited the 25th Infantry Division (Light), Schofield Barracks, Hawaii, in June 1988, where he participated in a Division Command Post Exercise, visited training, and met with recent graduates, commanders, and staff officers. He also received briefings from the U.S. Army Western Command (WESTCOM) and the Pacific Command (PACOM) on Pacific issues.

Other officers performed in various capacities during the Summer of 1987 to include service in the Office of the Undersecretary of Defense for Policy, Force Modernization, and Planning; in the Office of Net Assessment in the Office of the Secretary of Defense; in the Office of the Undersecretary of Defense for Acquisition; in the Strategy, Plans, and Policy Directorate, Deputy Chief of Staff for Operations; and at the National Security Agency.

FOOTNOTES

¹The column totals are greater than the apparent sums of individual items in each column because of rounding.

²Ltr, LTG Palmer, USMA Supt, to GEN Vuono, CSA, 15 Aug 88, p. 1.

³"Academic Limits," Assembly, Sep 88, p. 28.

⁴Ltr, LTG Palmer, USMA Supt, to GEN Vuono, CSA, 15 Aug 88, pp. 1-2.

⁵Information Sheet, Office of the Superintendent, 14 Oct 88.

⁶Ltr, LTG Palmer, USMA Supt, to GEN Vuono, CSA, 15 Aug 88, p. 3.

⁷This paragraph is adapted from Ltr, LTG Palmer, USMA Supt, to GEN Vuono, CSA, 15 Aug 88, p. 3. and the Information Sheet, Office of the Superintendent, 14 Oct 88.

⁸Ltr, LTG Palmer, USMA Supt, to GEN Vuono, CSA, 15 Aug 88, p. 2.

⁹Ibid., p. 5.

¹⁰Msg, Cdr FORSCOM to subordinate elements, 181429Z Nov 87, sub: Military Professional Development of USMA Permanent Faculty. See also Ltr General Palmer to General Burba, 19 Oct 87 and DA MSG DAMO-TR, 052124Z Dec 86 and 271943Z Feb 87

¹¹This was at least primarily due to the fact that the 1987-88 Academic Year was the first full year for use of an automatic turnstile counter rather than the manual counts conducted sporadically in the past.

¹²Inspection Report, National Archives (George C. Chalou), December 4, 1987, sub: "Inspection of the United States Military Academy Archives at West Point, New York, July 28-30, 1987."

¹³Ibid., p. 2.

¹⁴Since deleting periodicals would result in breaks in the collection which could not easily be filled, the Library held the line as much as possible in periodical subscriptions. However, with regard to books, unless they were required for instruction, the library reduced purchases in the hope that they might be obtained at a future date or through supplemental year-end funding.

¹⁵DF, MALI (Kenneth W. Hedman), 1 Oct 87, sub: "Fund Equity Adjustment--Library Gift Fund."

¹⁶Memo, MALI (Kenneth W. Hedman), 18 Nov 87, sub: "Zabriskie Fund Proposal."

¹⁷Memo, MALI (Kenneth W. Hedman), 13 Jun 88, sub: "Long-Term Space Study."

¹⁸The advent of the 3B2 minicomputer system network is discussed in greater detail in the 1987 Annual Historical Review.

¹⁹Because of the ongoing review of the entire engineering curricular structure at West Point, the Academy did not act to make him the formal Head of the Department.

MILITARY TRAINING PROGRAM

Brigadier General Fred A. Gorden, completing a tour as an assistant division commander (maneuver) of the 7th Infantry Division (Light) at Ford Ord, California, became the Academy's 61st Commandant of Cadets on 10 August 1987. He succeeded Brigadier General Peter J. Boylan, who had served as Commandant for three years and was designated for promotion to major general and an assignment as Deputy Commanding General, Fourth U.S. Army at Fort Sheridan, Illinois.

Brigadier General Gorden (USMA '62) holds a master's degree in Spanish language and literature from Middlebury College and served for three years as an instructor in the Department of Foreign Languages. He is the first black to serve as Commandant.

Cadet Gregory H. Louks was appointed Brigade Commander for the 1987-88 Academic Year. Cadet First Captain Louks is a graduate of Cherry High School in Iron, Minnesota. Cadet Patricia A. Abt, a graduate of Theodore Roosevelt High School in San Antonio, Texas, was appointed as Deputy Brigade Commander. Cadet Abt is only the second woman to be selected for this position.

During the past academic year, in an effort to communicate more effectively and frequently with the Corps of Cadets, the Office of the Commandant began to prepare "The Right Guide," a brief, biweekly newsletter with various items of interest. Regular columns are prepared by the Commandant and First Captain and the historians of each class. The response from the cadets during the initial year indicates that it is well-read and popular.

The Cadet Alcohol and Drug Dependency Intervention Council (ADDIC), expanding its contacts with the Boosting Alcohol Consciousness Concerning the Health of University Students (BACCHUS) organization, had a very busy year. Council members were active in teaching company level professional development classes on drug and alcohol abuse, focusing the content to the appropriate year group.

The Council developed and implemented the "Taxi Program" as a means to combat drinking and driving among cadets. This cadet-designed program, adapted after similar activities in other universities, provides an alternative for those First Class cadets who have consumed too much alcohol to drive safely. Cadets may call any taxi and if they have insufficient funds to cover the tab, it will be picked up by a fund in the Central Guard Room. The cadet will later reimburse the fund from his pay. The taxi program, complements the designated driver program and the use of pledges by cadets not to drink and drive on weekends. Together they have become increasingly well-received by the Corps of Cadets and increasingly effective in promoting responsible drinking habits.

The National Defense Authorization Act for Fiscal Year 1988-89 required all persons to undergo testing for drug, chemical, and alcohol use or dependency before they became members of the Armed Forces effective 1 June 1988. A memorandum from the Secretary of Defense dated 15 January 1988 specified that among the personnel to be tested were "Applicants for the United States Armed Forces Academies, scholarship or advanced course reserve officers' training corps (ROTC), and all other armed forces special officer procurement programs." The new cadets of the Class of 1992, entering on Reception Day (R-Day), 29 June 1988, were the first to be tested before they took the official oath.

Information Systems

During the past year, approximately 180 micro computers were fielded, 108 of which were directly issued to tactical officers for use in company administration in the United States Corps of Cadets (USCC). Two major broad-band wiring contracts were completed for Washington Hall and Building 720 (housing the Center of Leadership and Personal Development) which significantly improved telecommunications reliability between the USMA main computer in Thayer Hall and remote terminal/micro computers in Washington Hall. Many improvements were made possible with the expansion of computer resources in USCC. The major advances made in the utilization of computers in USCC are attributable to Captain John R. Grobmeier, Chief of the Information Systems Division.

Numerous personal computer-based software systems were fielded which have improved the productivity of the USCC staff. The two most significant advances were the Academy-wide fielding of the Sequential Leader Development System (SLDS) and micro-computer automation of the Cadet Advanced Training (CAT) assignment and management system. This latter process, which previously required the full-time attention of five individuals for several months, has been reduced to a two-week task for one person.

The USCC staff now routinely makes computer-aided presentations to the command group interfacing with large screen projectors and monitors. The Chief of Staff of the Army received a briefing using this technology in January 1988. The level of success attained in this area led the Training and Doctrine Command (TRADOC) to request USCC assistance in developing these capabilities.

Utilizing computers, administrative clerks in each of the four Regiments can now record cadet disciplinary information directly into a program on the mainframe. This dramatically improves the accuracy of the data. The biannual Cadet Record Briefs, for instance, which detail the disciplinary record of each cadet and had frequently included inaccurate and outdated information, were improved to such an extent that the information on 98 percent of cadets was accurate. This level of accuracy is the highest in recent years.

The introduction of desktop publishing within USCC, primarily via "The Right Guide" (a USCC newsletter), has generated wide-spread interest in our work in this state-of-the-art discipline. Major Robert L. Coxe, Chief of the Information Center in the Directorate of Information Management (DOIM), and Captain Grobmeier were selected as two of twelve national consumer representatives to advise Aldus, a major corporation in the field, on the future direction of this industry based on the success and expertise attained at West Point.

LEADER DEVELOPMENT INITIATIVES

In many respects, the main focus of the year was the Academy's actions to enhance leader development in the Corps of Cadets. Since so many facets of a cadet's leader development are shaped in the areas of military and physical training and in terms of duty consciousness and personal accountability--prime areas of responsibility of the Commandant--it is not surprising that many initiatives were undertaken here. This chapter, in addition to providing a review of the activities of the various departments and agencies under the Office of the Commandant, includes discussion of some of the most significant initiatives taken in leader development at the Academy.

Actions to promote and facilitate cadet leader development impacted upon nearly every aspect of the cadet military and physical training experience last year. Efforts were undertaken which ranged from expanding previous attempts to promote positive leadership in the training of

Fourth Class cadets (to make the training "demanding but not demeaning") to the creation of a commissioning certification program prior to entry into the Army. The Academy sought to begin to create a cadet military training experience which would progressively develop a civilian into an officer through a series of steps from the day the cadet leaves civilian life to the day the cadet becomes an officer. The intended result was to establish a program which would develop more effective leaders for the Army.

One key decision was to revise the cadet rank structure. Following a successful test in one cadet company this year, a new rank structure will be extended throughout the Corps of Cadets during the 1988-89 Academic Year. To provide a leader development responsibility for each of the three upper classes, all First Class cadets will be cadet officers, Second Class cadets will be sergeants, Third Class cadets will be corporals, and plebes will be privates. The focus for the First Class will be Corps leadership and the final preparation and transition to commissioned officer leader. Second Class sergeants assume a greater responsibility within cadet companies as first sergeants, platoon sergeants, and squad leaders, while Third Class corporals lead a team of one or two plebes within squads. Upper class cadets who are not serving in these chain of command positions in line platoons are assigned to a headquarters platoon. End-of-semester rotation of cadet duties continues to attain maximum developmental opportunities for all cadets.

To further expand cadet leader development opportunities, decisions also were made to enhance the role of cadets as trainers at CBT and CFT and to reduce the requirements for off-post support troops starting in the Summer of 1988. In the plans for the 1988 summer training, the cadet leadership role was broadened by assigning Second Class cadets as noncommissioned officer squad leaders in Cadet Basic Training (CBT), Cadet Field Training (CFT), and Drill Cadet Leader Training (DCLT); First Class cadets were assigned as officers in CBT, CFT, and Cadet Troop Leader Training (CTLT). To involve instructors more in military training and to enhance the integration of academic, military, and physical development of cadets, the TRADOC Platoon Trainer concept was adopted, especially for CFT.

In the physical development area, action was taken last year to broaden and deepen cadet talents and capabilities by bringing the Army Master Fitness Trainer concept to the instructional program and by including a requirement for cadets to participate in a team contact collision sport. This latter requirement promotes teamwork and toughness as values equal in importance to individual effort.

Among the many already mentioned, these are three initiatives which are perhaps the most significant and representative of the general efforts to enhance leader development: the First Class Project, the cadet rank structure test, and the three and one-half year leader development program.

The First Class Project and Cadet Rank Structure Test

For many years, there has been concern that while the Academy successfully advanced the academic, military, physical, and character development of cadets, it was less effective in improving their social maturity. To advance the maturity of First Class cadets, those closest to commissioning, the Superintendent directed that several initiatives be tested. Two tests were developed to assess the feasibility of changing the role of First Class cadets and their subordinates to facilitate the transition from cadet to officer leader. One test would separate a portion of the First Class physically from underclass cadets and provide them different living arrangements, but continue to hold them accountable to fulfill the same duties and responsibilities. At the same time, a related but independent test would modify the cadet rank structure in one company to expand the developmental nature of the cadet experience. In this

company the opportunity would be provided for Second Class cadets, acting as cadet sergeants, to perform small unit tasks earlier in their cadet career. Responsibilities and tasks that a former Second Class cadet might have performed would then be made available for Third Class cadets. Although both of these tests were independent they contributed to the overall three and one-half year leader development model which was implemented to track the development of the future officers.

First Class Project

In the Summer of 1987, the Superintendent tasked the Commandant to conduct a First Class Project, to determine if a physical separation and change in the living arrangements of First Class cadets could contribute to their maturity and enhance the transition to officership. In August 1987, a joint officer and cadet committee began to develop operating rules for the test which was initiated when the academic year began on 14 August. In the test, the First Class cadets in the 3rd Battalion of the 1st Regiment were physically separated from the rest of the battalion. These First Class cadets were segregated in Pershing Barracks while the rest of their battalion remained in Lee Barracks. The physical separation of these First Class cadets was done to more closely approximate the physical environment cadets would soon enter upon becoming commissioned officers. Rather than living with the soldiers, officers live apart and only enter a barracks environment periodically to check on the performance of sergeants.

In this test, First Class cadets would now visit the barracks to conduct official business and were prohibited from socializing in underclass cadet rooms. At the same time, action was taken to ensure that plebes, whose duties have traditionally included some requirements of a personal nature, such as delivering laundry and mail for upperclass cadets, would not perform such duties for the separated First Class cadets. Accordingly, plebe duties of a personal service nature were confined to their own barracks. Items for First Class cadets were taken to a central company headquarters in their own barracks. The First Class cadets were then required to pick up their individual items from that site. Although Fourth Class cadets were prohibited from entering the First Class barracks, other upperclass cadets could visit in an off-duty status. With the physical absence of First Class cadets from the barracks environment, Second Class cadets served as cadet sergeants and assumed that role in the Battalion, thereby expanding their responsibilities considerably.

In January 1988, after the First Class Project had been in operation for three and a half months, a survey was made to measure the results. The First Class cadets performance of duty did not decrease in the new barracks. The First Class cadets did spend more time in duty responsibilities, setting expectations and clearly overextending themselves by personally ensuring that tasks were completed. After a time, they discovered how to complete their tasks more effectively by delegating responsibility and following up. Test results revealed that the First Class cadets felt more confident and perceptions of both their effectiveness and maturity increased in the eyes of their subordinates. Class cohesion was strengthened for both First and Second Class cadets in the test battalion. As the responsibilities of the Second Class cadets increased, the study conditions in the company areas improved. On the other hand, since the First Class cadets were suddenly less visible, this aspect of company integrity and overall company cohesion declined somewhat. At the same time, the remainder of the company developed a stronger company identification and cohesion, with subordinates feeling they were led by more caring leaders and the First Class assuming a role more akin to that of an officer in the Army.

Cadet Rank Structure Test

In the other test, F company in the Third Regiment tested the modified rank and company structure. Those First Class cadets not needed to fulfill a cadet officer direct chain of command responsibility were placed in a special headquarters platoon so that Second Class sergeants would not be assigned First Class cadets within their squads.

After a period of time, an analysis was made to compare the environment in the modified rank structure company with three other companies elsewhere in the Corps. Unit identification and cohesion were found to be higher in the test company than in others, but cadets reported less opportunity for First Class cadets to provide feedback and observe subordinates. In the test company, both First and Second Class cadets were viewed as more mature by their subordinates than in the other companies. Interestingly, however, individual psychological measures did not find significant improvements in the social maturity of the cadets. Leaders in the test company were perceived to be more caring, and the subordinates expressed greater confidence in their chain of command and rated it more effective than subordinates in other companies. There was no negative impact upon academic grades for the participants; however, the Second Class cadets, even with more responsibilities, did do somewhat better than the Second Class cadets in the comparison companies.

The Future

Based on the initial year's positive results, the Superintendent has expanded the modified rank and company structure test to the entire Corps and has expanded the First Class Project to the entire Fourth Regiment. Thus, for the 1988-89 Academic Year, the Third Battalion of the First Regiment will be conducting the First Class Project for the second year, the Fourth Regiment will be testing it for the first year, and the rest of the Corps will be under the old system.

Leader Development and Commissioning Certification

Historically, cadets have progressed to graduation and commissioning without a systemic periodic, comprehensive review of their progress. DA had expressed concerns about the absence of periodic evaluations which would ensure that all First Class cadets had the proficiencies and leadership capabilities required of second lieutenants in the Army. On some occasions, in fact, some cadets approached graduation despite serious doubts about the propriety of their becoming officers. The issue of separating a second semester First Class cadet on the basis of leadership or disciplinary deficiency was a most difficult problem for the Academy as well as the cadet.

In 1987, the Superintendent tasked the Office of the Commandant to design a leader development model for the Corps of Cadets which would include periodic assessments of cadet performance. The Leader Development Branch in the Office of the Commandant was given the assignment of designing such a program. During the past academic year, a three and a half year model of leader development was prepared and initiated specifying "whole person" reviews of each First Class cadet.¹

The reviews are conducted to ensure that each cadet is prepared for graduation and commissioning, possessing the qualities and attributes of a soon-to-be commissioned second lieutenant. The three and a half year model defines the Academy's approach to the leader development of cadets through three progressively demanding periods: development, evaluation, and transition.

The initial, or development period, spans the cadet's first two years at West Point. During this period, the institution accepts its responsibility for further developing cadets who have difficulties meeting established standards and expectations. This period includes one "checkpoint" or whole person review by the cadet's tactical officer, during the spring of the Third Class year (fourth cadet semester). Those cadets identified as either marginal or substandard in multiple areas of cadet performance could be designated "cadets of concern" and receive closer developmental or remedial attention during the following year.

The second, or "evaluation" period, extends from the beginning of Second Class year (start of the fifth cadet semester) to the end of the first semester of the First Class year (end of the seventh cadet semester). During this period, cadets receive more frequent reviews and evaluations and are held accountable to a higher standard of performance. Cadets are placed in meaningful small unit leadership positions in which significant leader development opportunities may be provided. A second whole person review or checkpoint, to again identify cadets of concern, occurs during the spring of the Second Class year (sixth cadet semester). These cadets receive closer scrutiny during the remainder of the period which concludes with the First Class Commissioning evaluation.

Receiving a First Class Commissioning Certification indicates that the cadet is fully prepared to begin the final phase: the transition from cadet to officer. A cadet who has satisfactorily progressed to this phase and has been certified for graduation and commissioning by the Commandant is focused on transitioning from cadet to officer. The cadet still, however, must fulfill the typical requirements for graduation and commissioning.

Cadets who are not certified are evaluated by a Certification Review Board. Those cadets not certifiable at this point are then enrolled in a special development program as a final effort to determine if they can attain the skills and qualities necessary for officership. Should they still not meet the standards, their case will be forwarded to the Academic Board for final determinations regarding graduation and commissioning.

USMA is seeking approval from the Department of the Army for required changes to Regulations, USMA to support this concept. A draft implementing regulation, USCC Regulation 623-2 "First Class Commissioning Certification," was being staffed within USMA at the end of the reporting period.²

In conjunction with leader development initiatives, the Academy devised a program beginning in the Summer of 1988 to ensure that all suspended cadets returning to the Academy go through an individualized special leader development program (SLDP) geared to work on their particular area(s) of deficiency.

CENTER FOR LEADERSHIP AND PERSONAL DEVELOPMENT

The Center for Leadership and Personal Development (CLPD) serves the Commandant by providing a variety of services which contribute to the development of leaders of character. One activity of the CLPD, the Cadet Counseling Center (CCC), offers comprehensive counseling services to the Corps of Cadets and psychological consulting services to the Office of the Commandant. The second CLPD activity, the Leadership Development Branch (LDB), provides for planning, direction, and coordination of a growing number of cadet leader development programs within the Office of the Commandant.

During the past year, CLPD programs grew from interpersonal skills to group and individual counseling efforts in such diverse areas as assertiveness training, stress management, women's support, eating disorders, two time management groups, and three groups dealing with

enhancing military performance as well as interpersonal skills. All of these programs evolved as a result of identifying specific problem areas in individual counseling sessions and then developing proactive efforts to deal with the causes of these problem areas. To accommodate a 25 percent increase in cadets requesting developmental assistance in these areas, the CLPD added two civilians and two military interns on the staff as co-worker cadet counselors.

A quality assurance program was also begun in preparation of the Academy's Accreditation Review of 1989 and as part of a long-term effort to seek accreditation for the Academy's counseling center. The quality assurance program included auditing counseling cases, establishing internal guidelines and standard operating procedures for privacy and release of information considerations, and enhancing existing training programs to upgrade counselor skills. The Center is also seeking to ensure that all of its counselors are licensed or nationally certified. (All Center psychologists are licensed and certified in accordance with DA regulations.)

A liaison program was also initiated to ensure a periodic consultation with company and regimental tactical officers. The communication provided feedback on individual cadets and groups of cadets referred for counseling and on trends and issues occurring in the company. The center provided supplemental programs to assist tactical officers engaged in the development of "cadets of concern" identified in the three and a half year Leader Development Program. A member of the center staff saw each tactical officer every other month. All of these efforts increased the contacts with tactical officers nine-fold over the past.

With computer support from the Office of Institutional Research, unit climate surveys were conducted of cadet companies. Tactical officers and members of the cadet chain of command were provided with comparative data to see how their units compared with others at the Academy, in the Army, and in other armies.

LEADERSHIP DEVELOPMENT

Service Academies Leadership Conference

The seventh annual Robert T. Stevens Service Academies Leaders' Conference was held at West Point in September 1987. The purpose of the conference, part of the Robert T. Stevens Leadership Development Program, is to study and develop those attributes, skills, and ideals that support the highest level of service to our nation by present and future officers of our armed forces. The conference was held to give the senior cadet/midshipmen leaders at the four service academies additional leadership skills to enable them to carry out their duties more effectively. As has been the case since its inception, the seminar leader was Colonel Dandridge M. "Mike" Malone. This year's conference started on a Thursday morning and ended with the formal dinner on Friday evening. Lieutenant General Frederic J. Brown, Commanding General, Fourth U.S. Army, was the guest speaker at the dinner. The conference continues to be a high point in leader training for the cadet cadre during the academic year.

Fourth Class System

In January 1988, Cadet John Edwards (Class of 1989) of Portland, Texas, was separated from the Academy because of a second consecutive failure in military development. Cadet Edwards, a cadet who ranked in the top ten of his class academically, publicly charged that he was separated because of his unwillingness to participate in the Fourth Class System which he saw primarily as a means to haze plebes. His charges were the latest in a series of concerns about the Fourth Class System which have been voiced periodically at the Academy. Recent

discussions of the system are included in the Borman Commission Report of 1976, the West Point Study Group Report of 1977, and the Robinson Committee Report of 1984.

Because of the controversy raised by the Edwards Case in the news media and by a letter from Congressman Les Aspin, Chairman of the House Armed Services Committee to Secretary of the Army John O. Marsh, Jr., the Chief of Staff, General Carl E. Vuono tasked a senior three-member Board of Officers chaired by Lieutenant General James E. Moore, Jr. (USMA '54) to review the "current state of the Fourth Class and Conduct Systems at USMA" in the Spring of 1988.

During April, the Board visited West Point and interviewed the Superintendent, key personnel, staff members responsible for the Fourth Class System, the Academy Staff Judge Advocate, the Academy Inspector General, and numerous cadets at various settings, and interviewed recent graduates of the Military Academy now in the field.

Their report, which was forwarded to General Vuono at the end of April, was generally complimentary about all aspects of the system and the disciplinary system in general at the Academy. The board applauded the mission, goals, and administration of the System and found them clearly stated in USCC Circular 351-1. The board found that the officers and cadets generally understood the system goals and could articulate them. The Board recommended that the statement "cadets must learn to be followers before they become leaders," which was expressed at various times during their visit, be specifically included among the formal goals of the system. They approved the Superintendent's change of class rank structure which would give the Third Class cadets more responsibility than just overseeing plebes. The Board was supportive of the developmental nature of the system, believed that it provided a framework for the development of cadet leadership, that it taught proper senior/subordinate relationships and rules governing fraternization, and that it was sound and fulfilled Army requirements. The Board was supportive of changes which had occurred in the system over the past decade. It stressed that both the Superintendent and Commandant should continue to emphasize the philosophy of 'demanding but not demeaning' when giving guidance and supervising the system.

To avoid confusion, the Board recommended that use of the term "hazing," which in cadet usage typically has meant the use of a loud voice in making corrections, be discontinued. Hazing more typically refers to physical abuse or threats to do bodily harm, which is forbidden at West Point. It was felt that those unfamiliar with cadet terminology would misconstrue what cadets meant when they referred to hazing in the Fourth Class System.

HONOR

Official Questioning

As a result of the Superintendent's concern about the potential conflict between the demands of the honor system and requirements to respond to official questions, he provided guidelines for cadets at the August 1987 Fall Honor Conference and again in a memorandum dated 20 October 1987 to the Academy community. The memorandum provided definitive guidance to the staff and faculty regarding the subject and was indicative of the Superintendent's strong commitment to maintaining a strict separation of regulation enforcement from honor.

The issue had long been a subject of concern because of the potential difficulties cadets (required under the precepts of the Honor Code to answer truthfully) could face when undergoing official questioning by a member of the staff and faculty, by the cadet chain-of-command, or by a cadet performing an official duty function. These potential difficulties

concerned both the conflict between the obligations of friendship and duty and the protection against self-incrimination and self-implication.

The memorandum reasserted the traditional requirements that the questioner must have independent evidence that a breach of regulations has occurred and have reasonable cause to believe that the cadet questioned was involved or has knowledge of the involvement of others in the breach of regulations.

The memorandum also was the first definitive statement of the 24-hour "cooling off" period after a cadet had been hesitant to provide information about another cadet in responding to an official question. Although the practice had been standard, it was felt to be perhaps the first time the Academy had explicitly stated the policy. If the cadet fails to respond to an official question about another cadet's participation in a potential breach of regulations, or requests that he/she not be required to respond at that time, the questioner is required to reexamine the necessity of obtaining a response on the subject. The memorandum states "should a response from the cadet be deemed essential to the ongoing investigation, the cadet will be directed, in writing (following a 24 hour 'cooling-off' period), to respond to the question(s) posed. At this time, a response to the question would be required.....The 'cooling off' period is provided for both questioner and cadet to clearly analyze the events which are occurring and not force a cadet into making a hasty, ill-advised statement which could impeach his/her personal integrity. The period is not designed to impede the investigation process."³

Annual National Honor Conference

In October 1987, the Academy sponsored its Second Annual National Honor Conference. This year's conference doubled last year's attendance, attracting 47 students from 23 fine institutions of higher learning to exchange ideas and information on honor codes and systems, to aid in the initiation of new systems, and to help develop a national awareness regarding proper ethical behavior among college students. Among the speakers featured at this year's conference were: Brigadier General Fred A. Gorden, Commandant of Cadets; Dr. Daniel Callahan, Director of the Hastings Center, Hastings-On-Hudson, New York; The Honorable Eugene R. Sullivan (USMA '64), a Federal Judge on the Court of Military Appeals; Mr. Roy Jones (USMA '64), Associate Staff Director of the Interior Committee, U.S. House of Representatives; Mr. Paul "Buddy" Bucha (USMA '65), Congressional Medal of Honor recipient in Vietnam; Colonel Anthony E. Hartle (USMA '64), Associate Professor in the Department of English at USMA; and Dr. Robert H. Gurland, Professor of Philosophy from New York University and former visiting professor in the Department of English.

Ketron Case

Another particularly noteworthy event in the area of honor during the past year was the Ketron honor case. Cadet Anthony S. Ketron (Class of 1988) had been accused of committing an honor violation in conjunction with his preparation for the Rhodes Scholarship competition. A Full Honor Investigative Hearing in February found him guilty. In March, the Superintendent approved the decision and recommended separation. When the case was submitted to DA for the normal review process, Mr. Delbert L. Spurlock, Jr., Assistant Secretary of the Army for Manpower and Reserve Affairs, reversed the decision in April. Cadet Ketron later graduated with his class.

Although this was the fifth case to be overturned by DA in 12 years (since the cases associated with the 1976 Honor incident), it was an unusual event and caused some discontent at the Academy in general and within the Corps of Cadets in particular. By the end of the reporting

period, the Academy had not been informed of the basis upon which the decision had been made. It was not until the summer that the Superintendent was informed of the factors which led to the decision. The decision to return Ketron to the Academy centered on the views that the case was not handled in an orderly manner and that there were procedural elements that "clouded" the case. The case was clouded because there were divergent recommendations of what to do in the case at different points in the investigation; that the two officers to whom the cadet lied offered conflicting testimony; and that the meeting of the Vice-Chairman for Investigations with these officers to determine what happened was viewed as "collaboration of witnesses" which is procedurally incorrect.

Posvar Committee Review

In May 1988, the Superintendent asked the Army Chief of Staff, General Carl E. Vuono, to establish an outside panel to review the Honor Code and System at the Military Academy. In his letter to the Chief of Staff, the Superintendent noted that it had been over a decade since there had been major outside reviews and many changes in the Honor System had occurred since then. In addition, the Superintendent's Honor Review Committee had concluded a two-year review and had made major recommendations. The Academy was on the verge of making changes in the Honor System and the Superintendent had designated the Honor System a subject of special focus for the upcoming academic year. The Army itself had concentrated, in recent years, on values and leader development, and it was important for the Military Academy's programs to be in concert with the Army's. For all of these reasons, "the time is ripe to have an outside panel look at what we are doing in order to help assure that our efforts are in fact in harmony with the ethic, values, and direction of today's Army."⁴

Soon thereafter, Wesley W. Posvar (USMA '46), President of the University of Pittsburgh, was asked and agreed to head the panel. The Committee will be established during the summer and begin the review in the fall.

CLASS OF 1988 BRANCH SELECTIONS

The Class of 1988 held its specialty selection in January 1988. This year 980 cadets were branched into 16 specialties. Some 93 percent of the class (95 percent of the men and 92 percent of the women) received either their first or second choice of a branch or specialty.

Quotas for the Military Intelligence, Medical Service, and the Military Police Corps were filled before physically-qualified male cadets were restricted to the Infantry, Armor, Field Artillery, Air Defense Artillery, and Aviation combat arms branches. There were no minimum quotas for female cadets in the combat arms branches this year. Male cadets filled only the minimum quotas in all combat arms except the Corps of Engineers in which they nearly filled the maximum quota. The branches of Infantry and Armor are closed to women but women selected assignments in the branches of Air Defense Artillery, Aviation, and the Corps of Engineers. In this year's branch selections, nearly 91 percent of the men (the same percentage as the year before) selected combat arms and again exceeded minimum DA quotas.

Over 84 percent of the Class of 1988 selected a combat arms branch or specialty. Some 91 percent of the men and 24 percent of the women selected combat arms specialties in 1988.

This was the first time that cadets were permitted to select the Medical Service Corps, and the first time in 10 years that they could select the Adjutant General or Finance Corps as their branch of service. Cadets were permitted to go directly into the Medical Service Corps, but those cadets selecting the Finance or Adjutant General Corps were required to "serve a detail in

1988 SPECIALTY SELECTIONS

<u>SPECIALTY/ BRANCH</u>	<u>QUOTA</u>				<u>SELECTIONS</u>	
	<u>MALE</u>		<u>FEMALE</u>		<u>TOTAL ASSIGNED</u>	
	<u>MAX</u>	<u>MIN</u>	<u>MAX</u>	<u>MIN</u>	<u>MALE</u>	<u>FEMALE</u>
11 (IN)	265	236	N/A	N/A	236	N/A
12 (AR)	148	131	N/A	N/A	131	N/A
13 (FA)	212	189	14	N/A	189	0
14 (AD)	81	72	28	N/A	72	2
15 (AV)	96	85	23	N/A	85	6
21 (EN)	101	90	35	N/A	100	15
25 (SC)	20	0	25	0	18	7
31 (MP)	5	0	9	1	5	9
35 (MI)	18	0	15	0	18	15
42 (AG)	6	0	7	0	2	2
44 (FI)	2	0	2	0	0	0
67 (MS)	4	0	3	0	4	3
74 (CM)	11	0	4	0	3	4
91 (OD)	15	0	16	0	11	16
92 (QM)	14	0	10	0	4	10
95 (TC)	7	0	8	0	5	8
TOTAL					883	97

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the combat arms before assignment to their advanced course and assignment in career-developing positions in their chosen specialty."⁵ The Medical Service Corps proved to be very popular: it was the first branch to be filled among women and the second (after Military Intelligence) to be filled among men.

Seven cadets chose the Medical Service Corps (four male and three female cadets), four cadets chose the Adjutant General's Corps (two male and two female cadets), and no one selected the Finance Corps. Even though the four cadets selecting the Adjutant General Corps will begin service in a combat arms branch, they are not counted in the branch for quota purposes.

For the second consecutive year, cadets were permitted to select a voluntary branch detail (VBD) at the time of their branch selection. The VBD requires that individuals selecting combat support and combat service support branches enter the combat arms initially for three or four years and then go to advanced branch school in their original branch. This permits young officers to gain initial combat arms experience prior to their service in other branches and helps improve the integration of the force. Three male cadets in the Class of 1988 elected to participate. Two cadets selecting Ordinance chose the detail: one selected Field Artillery, the other Air Defense. One other cadet selecting Military Intelligence chose Air Defense as a detail. All combat support and service support branches except the Chemical Corps and Military Police had this option. All combat arms branches except Aviation and Engineering were open to them.

This year, USMA medical applicants again selected branches to preclude branching problems in the event that their applications to Medical School were not accepted.⁶ Medical applicants' branch selections do not count against branch maximum or minimum quotas, nor against the DA requirement that at least 80 percent of cadets be branched in the combat arms. They do not count because most applicants will enter medical school and never enter the other branches. Counting 12 medical school applicants (five of which selected the Medical Service Corps as a branch), a total of 992 cadets selected branches in the Class of 1988.

DEPARTMENT OF MILITARY INSTRUCTION

Military Science

During the 1987-88 Academic Year, the Department of Military Instruction (DMI) continued to refine and improve the military science curriculum.

The "Introduction to the Military Profession" (MS 101) course provides new cadets with initial insight into their chosen profession in the United States Army. In this course, cadets trace the evolution of military officership from its origins in America to the modern concept of a professional in the U.S. Army. The course features a lecture and seminar program on professional behavior and ethics themes which receive reinforcement throughout the course.

The "Map Reading and Small Unit Tactics" (MS 102) course introduces cadets to map reading and basic infantry squad- and platoon-level tactics. Cadets receive exposure to troop-leading procedures with an emphasis on preparing the leader's estimate of the situation and developing and writing an operations order. MS 102 is the foundation for cadet tactical training in the military science curriculum, and is intended to provide the basic knowledge for follow-on field training at Camp Buckner.

The "Combined Arms Operations" (MS 200) course focuses on operations at the company and platoon level in a combined arms team and the support provided by the appropriate combat support and combat service support elements. Emphasis is placed on instruction to prepare

cadets for DCLT/CTLT. Examinations require cadets to make tactical decisions and to write operations orders, rather than just memorizing facts.

The "Readiness: The Role of the Platoon Leader and Public Speaking" (MS 300) course provides Second Class cadets an introduction to the Army's functional sub-systems (personnel, training, supply, maintenance, and readiness) in platoon-, company-, and battalion-sized organizations, and explores the role of the small unit leader within these environments. Public speaking presents a theory of effective oral communication and develops cadet speaking skills through a series of speaking exercises which culminates in the delivery in class of a ten-minute persuasive speech by each cadet. This speech, as well as others, is videotaped and played back during the critique by the cadet's instructor.

In January 1988, with the completion of eight map reading Interactive Video Disk (IVD) lessons, the Department established an IVD Learning Center, which was used by Fourth Class cadets during the Spring of 1988. IVDs combine the benefits of individualized instruction with video disk technology to make a very powerful instructional tool. Initial results revealed positive instructional benefits in map reading from this educational medium. The entire map reading program of instruction will be utilized during CFT at Camp Buckner in the Summer of 1988 as well as in next year's map reading program of instruction.

Cadet Professional Development Program

The Cadet Professional Development (PD) Program is designed to teach professional attributes desired in every cadet and officer. The goal is to broaden the cadets' professional foundation through instruction in the Duty Concept and to increase their awareness of unit human relations and alcohol and drug abuse problems.

This training consists of 55-minute sessions conducted by the company tactical officers, their designated representatives, or cadets. Lesson plans developed by the PD Branch of the Department of Military Instruction (DMI) use films, scenarios, or past cadet/officer experiences as catalysts for meaningful discussions.

In the Summer of 1987, the Branch developed a Cadet PD Instructor Guide to serve as a single source reference for conducting PD sessions in all three areas: duty concept, human relations, and alcohol and drug abuse prevention. Each section contained an overview, a selected reference bibliography, and individual lesson plans with instructional materials. Tactical officers received the guide in August 1987 for instructional use during the 1987-88 Academic Year.

The scheduling of cadet PD sessions was changed from various daytime, evening, and weekend sessions to the Commandant's Hour, immediately after lunch. This change was primarily due to Academy efforts to open up the evening hours for cadet academic study. The PD programs officer specified the cadet class and academic semester in which each of the sessions should be scheduled and the S-3 integrated the sessions into the overall USCC cadet training schedule.

In the PD program, 14 Duty Concept training sessions are distributed throughout the cadet's four years: six in CBT, two in CFT, two in both Fourth and Third Class academic years, and one in both Second and First Class academic years. The purpose of this training is to instill a strong duty concept in cadets. This development evolves from an emphasis on obedience during Fourth Class year, to commitment training during Third and Second Class years, and then progresses to spirit-of-service training during First Class year. To emphasize the spirit-of-

service phase of the duty concept, a session on the American Soldier's Code of Conduct, which included a film on the American prisoner of war experiences, was added during First Class year.

The Human Relations training consists of five sessions: one in the Fourth, Second, and First Class years and two during Third Class year. The purpose of the training is to increase the awareness and sensitivity of cadets toward prejudice, discrimination, sexual harassment, and equal opportunity problems; to expose cadets to the Army equal opportunity program; and to ensure cadets understand the leader's role in providing a positive equal opportunity environment in a unit. In keeping with the Superintendent's interest in this subject and in conjunction with Prevention of Sexual Harassment (POSH) and Program of Education for Leadership in a Mixed-Gender Army (PELMA) efforts, a lesson plan was added Third Class year, dealing specifically with the issue of sexual harassment. The DOD Equal Opportunity Management Institute at Patrick Air Force Base, Florida, reviewed all of the Human Relations lesson plans, gave the program an excellent assessment, and provided input to improve the training further. These recommendations are currently being incorporated into the Human Relations program for the next academic year.

The Alcohol and Drug Abuse prevention training again consists of five sessions, one during Fourth, Second, and First Class years, and two during Third Class year. The purpose of the training is to lay the foundation for cadets to make responsible decisions regarding alcohol use consistent with regulations and social development goals of USMA and to gain an insight into the leadership challenges associated with alcohol/drug abuse in a unit. This year's cadet Alcohol and Drug Dependency Intervention Council (ADDIC) representatives, under the guidance of company tactical officers, taught Alcohol and Drug Abuse sessions. This provided the cadet ADDIC representative a valuable leadership experience and provided the tactical officer an additional source of training expertise. Besides reducing the burden on over-committed tactical officers, the cadet leadership role in the instruction seemed to stimulate cadet attentiveness and responsiveness. Feedback from both cadets and tactical officers cited this as an outstanding addition to the Alcohol and Drug Abuse program.

Professional Development

The Professional Development Branch of the Department conducts an Academy-wide Professional Development Program to help the USMA staff and faculty and cadets stay abreast of the latest Army developments in such areas as equipment, organization, doctrine, and training. The program included a series of television tapes broadcast regularly on the USMA television network. These tapes focused on such topics as the "threat" doctrine, training initiatives, logistical and maintenance changes, and contemporary leadership issues. The tapes were supplemented by written material disseminated through branch representatives and professional development classes sponsored by the Department and open to all officers, noncommissioned officers, and cadets at USMA.

Seventeen briefings were presented during the year, covering the latest developments in the Army. The most notable of these presentations included: Lieutenant General Dave R. Palmer, Superintendent, who discussed topics of common interest; Colonel Dennis Benchoff, Chief of Staff, U.S. Army Recruiting Command, who spoke on "The American Soldier"; Lieutenant Colonel Franklin Hagenbeck, Chief of the Infantry Branch, Combined Arms Division, Total Army Personnel Agency (TAPA), who provided an Infantry Branch update; and Major Fiona Walthall, British Exchange Officer, U.S. Army Chemical School, who spoke about "Extended MOPP -- Combined Arms Degradation of Unit Effectiveness."

TRAINING

Cadet Basic Training 1987

Cadet Basic Training (CBT) in 1987 began on 1 July (Reception Day) and concluded on 13 August with the return footmarch to West Point. The Class of 1991 was received into the Corps during ceremonies conducted on 22 August. Its mission of education, training, equipping, and developing the new cadets and enhancing leadership skills among the First Class cadre was successfully accomplished. The Class of 1991 began training with a total of 1,359 cadets, which included 1,203 men and 156 women.

The training program, only slightly modified from previous years, was designed to be tough, challenging, professional, and performance-oriented. Strong emphasis was placed on leading by example and establishing a supportive and challenging command climate. The First Class cadre led by personal example, teaching, demonstrating, and assisting the new cadets in making a positive transition from civilian life to the rigors of a West Point cadet.

CBT in 1987 was 44 days, a decrease of five days from 1986 and the result of constraints imposed by the academic year calendar. As a result, the Program of Instruction decreased by 57 hours (from 643 in 1986 to 586 in 1987). The time devoted to physical training, moral/ethical and values development, and social training was reduced by 27 percent. Most of the reductions in physical training occurred in mass athletics/corps squad screening (to eight hours) and in the time devoted to footmarches (to 14 hours). Most of the reductions in moral/ethical and values development occurred in squad leader time (reduced to 46 hours) and in company commander's time and Fourth Class System instruction (cut in half to 10 hours). Most of the reductions in social training resulted from reductions in class authorizations (cadet privileges). On the other hand, military training time remained generally intact from the previous year, and the time devoted to academic, administrative, and logistics matters was increased by 14 percent.

One of the more noteworthy changes in CBT 87 was the movement of the 16 hours of bayonet/pugil training to CFT. Chaplain Richard P. Camp, Jr., USMA Chaplain, had previously argued that he felt new plebes were being inadequately prepared morally for the "spirit of the bayonet" training conducted during CBT. Although there was insufficient statistical evidence to indicate that many cadets were resigning because of this, several resigning cadets during previous summers had noted that they felt unprepared morally to handle that portion of the training. The requirement to reduce or eliminate some of CBT, the Chaplain's concern, and the comments of some of the resigning cadets prompted Colonel Robert E. Seger, Commander of the 1987 Cadet Basic Training, to recommend to the Commandant, Brigadier General Peter J. Boylan, to move that training to CFT. With the Commandant's approval, the bayonet/pugil training was then moved to CFT. Since the cadets undergoing CFT in 1987 had already experienced pugil/bayonet training during their CBT the year before, the training was not added to the CFT program until the Summer of 1988.

The Military Qualification Standards, Level 1 (MQS-1) continued to be a primary reference for military instruction. New cadets were taught and evaluated on 26 tasks, such as weapons, operations and tactics, first aid, and NBC. The apparent increase in MQS Level 1 tasks from 11 in 1986 to 26 in 1987 was merely the result of better accounting procedures based on new MQS guidance.

Moral/ethical and value development continued to receive emphasis during CBT in 1987. Squad leader time remained a critically-protected scheduled event to allow squad leaders the maximum amount of time to provide small unit leadership to the new cadets. Duty and Honor instruction remained training priorities.

The physical training program conducted during the 1987 CBT again utilized a Partner Resisted Exercise (PRE) program rather than the usual Army's daily dozen. The PRE uses a series of 10 activities designed to provide weight training without using weights by pitting one participant against an individual serving as the resistance. The results achieved during the 1987 CBT were dramatic. Although the initial Army Physical Fitness Test (APFT) results for the class were below those of the previous class, by the end of the CBT training period the class achieved higher levels of attainment than their predecessors. Research is continuing in the Department of Physical Education to provide a more comprehensive scientific measure to test the validity of this exercise method.

For the third year in-a-row, the parents of entering plebes were informed of the initial experiences of their sons and daughters in the first weeks at West Point. This Parent's Transition Seminar, conducted by the Center for Leadership and Personal Development (CLPD), is designed to acquaint the parents with the initial environment the new cadets will be exposed to and the coping strategies and support elements available to cadets at West Point. It is hoped that through this seminar parents will have a better understanding of how to deal with their sons and daughters when they next speak to with them.

Of the 1,359 cadets who entered the Academy as members of the Class of 1991, 1,258 successfully completed their six-week summer training program and joined the Corps of Cadets in August. The 7.4 percent attrition rate of the Class was comparable to the attrition of recent classes. An intensified program for the upperclass cadre was conducted again this year to impress upon them the developmental nature of the training program. The emphasis was placed on using CBT as a forging process for qualified entrants to the Academy, not a weeding-out process. Overall, cadets were exposed to the many diversified facets of cadet life to enable them to make an intelligent decision about remaining with the Corps of Cadets at the conclusion of CBT 87.

Third Class Summer Training 1987

The transition between committee-based training and leader-based training for Cadet Field Training (CFT) occurred during the 1987-88 Academic Year. CFT 1987 again utilized committee-based training and major training events did not change from the year before. A significant review of the program of instruction was begun during the summer to determine how to reorganize the training so that cadet leaders could become responsible for the training of the Third Class.

CFT 87 was conducted from 23 June--12 August 1987, one week shorter than CFT 86. Approximately 1,200 members of the Class of 1990 were trained by 321 First Class cadets serving either on training committees or as leaders in the CFT Regiment. Additionally, approximately 1,500 soldiers from active Army, Army Reserve, and Army National Guard units supported the training program.

The mission of CFT 87 was changed by the Commandant to provide a greater emphasis on both First and Third Class leader development and on enhancing Third Class cohesion and esprit de corps by using weekends for intramurals, social functions, and activities to emphasize class identity, rather than as an extension of the training week. As a result, the time devoted to both Infantry training and the Third Class Combined Arms Training (TCCAT) program at Fort Knox were reduced slightly to provide additional weekends and class authorizations for the Third Class were limited to require their presence on Camp Buckner for most weekends. For their part, the First Class was made primarily responsible for the organization and conduct of the weekend periods.

A constant factor in the CFT program is the Military Qualifications Skills I (MQS-I) requirements. CFT 1987 focused more directly on these skills and moved away from the more specific branch orientations of the past. Once again, cadets were trained and tested in 37 MQS-I skills, and over 97 percent of the Third Class qualified in these skills.

Signal training eliminated the orientation on the duties of a Signal Corps second lieutenant, instead focusing on the skills required under MQS-I and on the platoon-level operations conducted later during Infantry training.

Land Navigation Training was conducted as a three-day company Field Training Exercise (FTX) to provide increased leadership challenges for the First Class. The cadre went on a four-mile road march, established a bivouac area, and conducted land navigation training from this site. A squad exercise was added to emphasize the tactical aspects of navigation skills.

Nuclear-Biological-Chemical (NBC) training continued to rely on cadre-taught NBC survival skills to reinforce the committee instruction that the Third Class received during CBT the previous summer.

Weapons training again used representatives of the U.S. Army Marksmanship Training Unit at Fort Benning, Georgia, to train the cadre in the latest marksmanship training techniques. The cadre then trained the Third Class in Preliminary Marksmanship Instruction, before the cadets underwent qualification firing with the M-16 rifle.

Field Artillery training added a night phase to the Reconnaissance, Selection, and Occupation of Position (RSOP) training. First Class cadre carried out the training which significantly increased their level of challenge in Field Artillery. The Ground Laser Designator (GLD) was again demonstrated this year during the call-for-fire instruction.

Infantry training added specific periods of preliminary training, which focused on preparation for operations (fieldcraft) and on training the cadre to lead small unit operations.

Engineer, Air Assault, and the TCCAT programs did not change significantly during the 87 CFT.

The physical training program added two events. A biathlon (swim/run) added variety to the morning physical training program. Soldier Fitness Day was expanded to incorporate military missions that required both leadership planning and physical effort with the water confidence events (suspension traverse, beam walk/rope drop, stream crossing) that had traditionally been part of Infantry training. The day was conducted like a highly-competitive, physically-demanding military stakes exercise which tested many aspects of leader development and cadet cooperation.

Following CFT in 1987, S-3, USCC began to change the focus of CFT, based on the Superintendent's desire to (1) increase the leadership challenge for the upper classes at CFT; (2) where possible, reduce the off-post augmentation to USMA; and (3) increase the number of academic faculty members used at CFT.

Lieutenant Colonel Robert A. Legere, S-3 and Special Project Officer, led a Summer Training Cell which surveyed CFT 87 and sought to implement the Superintendent's guidance by identifying all of the skills taught during CFT and assigning skill levels to them. For those skills that were determined to be appropriate for the cadre to train, augmentation resources were removed. Cadets were then removed from military training committees and assigned to the regimental cadre to conduct training. Additionally, Second Class cadets were assigned as

squad leaders, which expanded the leadership opportunities at CFT beyond the First Class. To provide a mentor to the cadet leaders, academic officers were assigned as Platoon Trainers, with responsibility for ensuring the quality of the training efforts of the cadet cadre.

The restructure of CFT will result next summer in programmed reduction in off-post augmentation by more than one-fifth, increasing the academic augmentation and removing 158 cadets on training committees to cadre positions. Most important, however, will be the establishment of a training environment at Camp Buckner where the cadre are fully involved in the training of their subordinates, and the leader opportunities for cadets from Team Leader to Regimental Commander are realistic, challenging, and directly relate to better preparation of the graduate for commissioned service in the Army.

Cadet Advanced Training (CAT) 1987

Summer training for the classes of 1988 and 1989 consisted of Cadet Troop Leader Training, Drill Cadet Leader Training, Cadet Military Specialty Training, and Volunteer Summer Training.

To make better use of existing military leadership opportunities, beginning with the Summer of 1987, the CAT program was changed to coordinate the summer training periods of Second and First Class cadets and to reduce summer leave periods. In the past, cadets could participate in DCLT one summer and in CTLT another and some First Class cadets could have up to six-weeks leave during their final summer. Beginning this summer, cadets selected as cadre members for CBT or CFT during their Second Class summer will typically be sent to CTLT during the following First Class summer. Most cadets not selected for cadre positions during their Second Class summer will participate instead in DCLT and then return as cadre members during their subsequent First Class summer. Participation in a CMST will continue to be integrated into cadet schedules whenever possible.

The Academy also expanded efforts to place as many cadets as possible in combat arms leadership positions. Since this is occurring at the same time as a competing effort by the Reserve Officer Training Corps (ROTC) to achieve the same result, the Academy may not be as successful as we desire.

Giving each cadet "hands on" leadership experience at the small unit level remains the primary objective of Cadet Troop Leader Training (CTLT). This is accomplished by assigning cadets to platoon leader positions within active Army units with the commensurate responsibilities of junior officers. Some 583 cadets from the Class of 1989, or one quarter of those engaged in CAT, participated in the 1987 CTLT program. Cadets served in one of two five- or six-week cycles at 23 posts: 18 in U.S. Army Forces Command (FORSCOM) and five others in the Western Hemisphere, Europe, or Korea. Cadets had assignments in 11 branches, all but three of which (Infantry, Armor, and Field Artillery) were open to women cadets. Two hundred forty-three cadets trained at FORSCOM sites; 277 trained in Europe; 61 trained in Alaska, Hawaii, or Panama; and 41 trained in Korea. Cadet training with active Army units remains one of the most valuable experiences of cadet life.

As in the CTLT Program, increasing the cadet's leadership experience continues to be the primary goal of the Drill Cadet Leader Training (DCLT) Program. DCLT places cadets in basic training companies performing the duties of noncommissioned officers. Participation in DCLT was increased slightly; nearly half of the Second Class cadets participated in the CAT Program. The same eight posts as last year were utilized in the program. Women cadets continue to be restricted to assignments at Forts Dix, Jackson, McClellan, or Leonard Wood. A

total of 539 cadets from the Class of 1989 participated in the program. Three-fifths of the total trained at Forts Benning, Dix, Sill, and Leonard Wood.

Cadet Military Specialty Training (CMST) consists of six individualized military skill training programs conducted at different military schools. The primary objective of the CMST Program is to provide a motivational and confidence-building military training experience for cadets. Women participated in all training on the same basis as men with comparable results. The CMST Program for Fiscal Year 1987 underwent dramatic change from the previous year. In the past, cadets were only permitted to participate in one CMST while attending West Point. This year, for the first time, cadets were given the opportunity to complete two CMSTs prior to graduation. Cadets, primarily from the Class of 1989, were represented in varying strengths in each of the following training programs as indicated: Airborne (615), Jungle Operations Training (417), Air Assault (279), Survival, Evasion, Resistance, and Escape (SERE) at the U.S. Air Force Academy (127), Northern Warfare (101), and the Strategic Mobility Planning Course offered at Ft. Eustis, Virginia for medically-profiled cadets (10). Of the 1,549 cadets participating in CMST programs, 1,363 (or 88 percent) successfully completed the training. The least successful participation was in Jungle School where 67.5 percent of the cadets were successful. Significant problems were encountered by cadets with a squad land-navigation exercise that was added to the instruction this year. Excluding Jungle School, nearly 96 percent of the cadet attendees passed the other training programs.

Tragedy struck the CMST program this year when a fatal accident occurred during a training exercise on the Gulkana Glacier near Anchorage, Alaska. Cadet John T. Kilfeather of the Class of 1989 and another cadet, participating in the Northern Warfare Training, fell into a crevasse and were pulled out and taken to the base medical clinic. The other cadet was treated for injuries and released, but Kilfeather was pronounced dead that evening. This is the first fatality in a USMA training activity since Cadet Reginald E. Johnson's drowning in Sandhurst competition in 1980.

In addition to CTLT, DCLT, CMST, and First Class Leadership Details, which occur during the summer training period, over 514 cadets participated in 40 Volunteer Summer Training (VST) Programs. These programs consist of special summer options, academic summer programs, summer admissions programs, summer sports programs, and other summer training.

Cadets participating in each of the three programs under the special summer options (Cadet Summer Intern, Operation Crossroads Africa, and Cadet Summer Research Program) participate in lieu of a First Class Detail. Each of the four cadets participating in the Crossroads Africa Program served seven weeks duty in different civic affairs projects in Botswana, the Ivory Coast, Liberia, Sierra Leone, and Tanzania. The six cadets participating in the Cadet Summer Research Program, coordinated by the Science Research Laboratory, trained in a variety of scientific fields. Eight cadets served eight-week tours in the Summer Intern Program, coordinated through the Social Sciences Department, with a variety of government departments and agencies in the Washington, D. C., area.

First Class cadets also participate in academic summer programs, sponsored by various academic departments, which occur during the cadets' summer leave periods and do not interfere with required military training. For instance, 29 cadets participated in the Cadet District Engineer Program. They each spent four weeks working as Assistant Project Inspectors/Engineers at Engineer Districts worldwide including Frankfurt, West Germany; Riyadh, Saudi Arabia; Seoul, South Korea; Japan; and at numerous other locations in the continental United States (CONUS). Twenty-seven cadets participated in the Behavioral Sciences Summer Intern Program. In addition to intern positions on the Army Staff, the program places cadets in the major CONUS commands such as TRADOC and FORSCOM and in separate commands such as the Recruiting Command, the Criminal Investigation Command,

and the U.S. Army Military Personnel Center. Twenty-eight cadets participated in the Mechanics Summer Program and worked at a wide variety of agencies including the Aeromechanics Laboratory, the Applied Technology Laboratory, Los Alamos National Laboratory, and the Advanced Attack Helicopter Program Management Office. Eighteen cadets participated in the Computer Science Summer Intern Program and worked at a wide variety of agencies including the Engineering Topographic Laboratory, the Defense Mapping Agency, the Joint Tactical Fusion Office, the Ada Joint Programs Office, and the Lawrence Livermore National Laboratories. Overall, 221 cadets participated in the 20 different academic programs during the summer. Cadet contributions in this area in 1987 were highlighted by Cadet Marcie L. Seiner (Class of 1988) who performed an independent simulation and analysis of the "sense and destroy armor (SADARM)" munitions and prepared a paper for the Deputy Under Secretary of the Army for Operations Research, and Lieutenant William E. Bardon (USMA '87) and Cadet Jorge Martin-Cintron (Class of 1988) who worked on a portion of an intelligent control system by integrating two different pieces of computer hardware at the U.S. Army Armament Research, Development, and Engineering Center at Picatinny Arsenal.

Forty-nine cadets participated in summer admissions programs such as the Cadet Public Relations Council and the Invitational Academic Workshop sponsored by the Director of Admissions.

Several dozen cadets participated as members of corps squad, club squad, or as individuals in a variety of international, national, or regional competitions representing USMA. Normally, the cadets participated during their leave periods.

Over 140 cadets participated in other summer training programs which included the Foreign Academy Exchange Program, the U.S. Army Alcohol and Drug Abuse Team Training at Fort Sam Houston, and the Empire State Military Academy at Camp Smith. All of that training was conducted during the cadets' leave periods.

Although 20 cadets were chosen as Ranger candidates in May 1987, two did not participate due to administrative conflicts. Of the 18 who began the course, 16 successfully met Ranger course requirements and were awarded the Ranger tab. Michael A. Carlino (Class of 1988) was selected an Honor Graduate of the Ranger Class, a distinction given to approximately the top two percent of Ranger class graduates.

The 1988 Ranger Orientation Program began in January with 41 Second Class cadets submitting volunteer statements. After initial screening, 30 cadets were selected to begin the extensive qualifying training program which includes a comprehensive land navigation program, a patrolling exercise, and several physical evaluation/development periods. Finally, 20 highly-motivated, well-prepared First Class cadets were selected for Ranger Training.

SANDHURST TROPHY COMPETITION

The Sandhurst Trophy, awarded annually during the spring to the Regiment achieving the highest degree of military excellence, was presented to the 1st Regiment of the U.S. Corps of Cadets by Major General Simon Cooper, Commandant of the Royal Military Academy, Sandhurst, Great Britain. This was the 11th time since the competition began in 1967 that the 1st Regiment has won this recognition. Company B of the First Regiment, led by Tactical Officer Captain Peter M. Champagne, was judged the winning company of the Corps of Cadets. The competitors, consisting of two, nine-person squads from each company (72 squads in all), were tested in an eight-station course, measuring stamina, agility, and military knowledge. This was a change from the four, four-person teams from each company which had been utilized in the past. The change was made in concert with the deletion of map reading

and navigation portions from the competition which were found to be too simple. In its place, crossing a wall obstacle was added which contributed to making the competition more of a team event.

In addition to crossing a wall obstacle, the military skills consisted of squads being tested in swift movement, NBC, communications, constructing and crossing a one-rope bridge, rappelling, rifle marksmanship, and inspecting equipment. The marksmanship phase consisted of target shooting on an outdoor range with squads required to fire 20 rounds using an M16 rifle in a timed exercise.

The inclusion of squad-sized teams led by First Class cadets and requiring each company to have a minimum of one female cadet ensured a more challenging and realistic competition and helped to promote teamwork, military excellence, and leadership.

To ease the administrative burden of Sandhurst, a major change in the competition this year required all cadets to compete on one weekend instead of on weekday afternoons as was done in the past.

DEPARTMENT OF PHYSICAL EDUCATION

During the 1987-88 Academic Year, the Department of Physical Education (DPE) was fortunate to have Dr. Edward Shea, Professor Emeritus at Southern Illinois University, serve as its tenth visiting professor. Dr. Shea served on several departmental committees and represented the Academy at numerous national conventions. Dr. Shea and Colonel James L. Anderson, the Master of the Sword and Professor and Head of the Department, began the preparation of a paper titled "The Role of Competitive Sports in Support of the Purpose and the Mission of the Academy." The paper was begun as a result of Colonel Anderson's desire to articulate the contribution that competitive athletics makes in fulfilling the Academy's purpose. He sought to describe how athletics promotes positive expressions of character in the Academy's overall leadership development effort. The paper denotes those values which cadets can achieve through their participation in competitive sports--values comprising the character of leaders and giving structure to leadership development.

Colonel Alfred S. Rushatz, Deputy Director of the Department and a former all-America in football and wrestling, received the Seventh Annual Robert Stewart Memorial Award for contributions in physical fitness at the Downtown Athletic Club of New York City in September 1987. This award, presented by the President's Council on Physical Fitness and Sports, was given in recognition of Colonel Rushatz's "outstanding and significant contributions to physical fitness and sports nationally." Also recognized with other athletic awards at the Club that evening were Olympic gold-medalist Mary Lou Retton and pro-basketball superstar Julius Erving.

Instructional Program

The major change in the instructional program this year was the incorporation of the Master Fitness Trainer program into the curriculum. The goal of this program is to equip Military Academy graduates with the tools necessary to implement a mission-oriented physical training program in the units to which they are assigned. The basic requirement for achieving the additional skill identifier of the Master Fitness Trainer will essentially be the same for cadets as it is for officers and NCOs trained at the Soldier Fitness School at Fort Benjamin Harrison, Indiana.

As part of the integration of the Master Fitness Trainer Program into all levels of the Department curriculum, the 19-lecture "Fundamentals of Physical Fitness" was restored to plebe year and wrestling was moved back to the Third Class year. Thus, for the 1987-88 Academic Year, the core courses for the Fourth Class were: gymnastics, swimming, boxing (men), "Fundamentals of Physical Fitness," and "Self-Defense I" (women). The core courses for the Third Class were wrestling and "Self Defense II" (with four lessons of unit fitness plan development). The core courses for the Second Class cadets next year will be close quarters combat. (This class had already taken the close quarters combat course during their Third Class year and, therefore, took carryover electives this year.) It is anticipated that mandatory Master Fitness Trainer classes will be taken during the First Class year, by those cadets who fail a comprehensive exam given their Second Class year.

Testing

Each cadet again took three physical fitness tests during the academic year. All classes took an Army Physical Fitness Test (APFT) in the fall. This year, for the first time, all cadets became eligible to receive the Army Physical Fitness Badge when the Academy's APFT standards were aligned with those of the Army. The introduction of the badge provides an additional opportunity to recognize those cadets who excel in athletics. This badge is awarded to soldiers who score 90 points or higher on push-ups, sit-ups, and the two-mile run and score 290 points or higher (out of 300 possible points) overall.

The comparative performances of Army soldiers and USMA cadets in the Fall 1987 APFT resulted in this initial distribution of APFT Badges:

Percentage Receiving APFT Badge

<u>Army</u>		<u>USMA Cadets</u>							
		<u>Fourth Class</u>		<u>Third Class</u>		<u>Second Class</u>		<u>First Class</u>	
Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
4%	3%	2%	4%	8%	20%	13%	19%	13%	25%

USMA cadet standards were made identical to the Army's at the minimum score level and for 90 points and above, but remain above those of the Army for those performances which receive between 61 to 89 points. However, to pass the APFT, cadets must not only attain at least a minimum score (of 60 points) in all three events, but their total must be over 200 instead of the Army standard of 180.

The upper class cadets took the Indoor Obstacle Course Test (IOCT) during the fall term; plebes took it during the spring. Initiated this year, cadets who score an A- or better on the IOCT are eligible to receive an IOCT tab. This tab is authorized for wear on specified cadet uniforms.

In place of the spring APFT, the Fourth Class took the Physical Aptitude Test. This test measures the physical ability of each cadet to perform pull-ups, a standing long jump, a basketball throw, and a 300-yard shuttle run. The three upper classes took the APFT again in the spring.

As part of the Academy's effort to smooth the transition from cadet to officer, additional action was taken to hold First Class cadets accountable for their physical proficiency. Effective with the Spring of 1988, First Class cadets who failed the spring APFT, unless there were extenuating medical circumstances, would be unable to graduate in May with their class. At a minimum, these cadets instead would be sent to the DPE Summer Term Academic Program (STAP). In previous years, cadets were provided several additional attempts to pass the test in subsequent weeks. This did not teach cadets self-discipline and accountability and was thus counterproductive to what the Academy was seeking to instill in cadets. In the Spring APFT, four First Class cadets failed the test and did not graduate in May with their class. It is anticipated that this year's action will set an example for future cadets.

The alternate testing program, discussed in last year's report, continued to be utilized for cadets having a medical profile which prevented them from doing certain exercises. This enabled the testing office to evaluate specifically the physiological variables measured by the primary test while taking into account the nature of the cadet's medical profile. The alternate test program held the number of cadets unable to complete an APFT or equivalent test to less than two percent.

Research and Publication

For two weeks in the Spring of 1988, Dr. Robert W. Stauffer, Director of Research for the Department, was a member of the first sports medicine/physical fitness delegation to officially visit the Republic of China. The trip, to exchange sports medicine information, was sponsored by the People-to-People Ambassador Program, originally started by President Dwight D. Eisenhower in the 1950s.

Dr. Stauffer presented papers at the American Alliance for Health, Physical Education, Recreation, and Dance Annual Convention and at the Army War College advanced course program.

A research study by Dr. Stauffer and Major Margaret McCarter from the Department, Lieutenant Colonel John G. Campbell of the Physics Department, and Colonel Leigh F. Wheeler, Jr., of the Medical Activities Command (MEDDAC), titled "Comparison of Metabolic Responses of United States Military Academy Men and Women in Acute Military Load Bearing," was published in the November 1987 edition of Aviation, Space, and Environmental Medicine. The study found that when carrying a given military load (up to 42 pounds) horizontally, women expend a significantly greater share of their metabolic capacity than do men. This was the first study to quantify the comparable effects on men and women of carrying military loads. The study found that USMA men and women metabolically respond differently to various military load-bearing tasks. Although the oxygen consumption relative to body weight was the same for both men and women, at the maximum weight tested (42 pounds), the absolute oxygen consumption of men was 70 percent but approached 100 percent for women.

The research project entitled "Metabolic Requirements of Heavy Military Load Bearing of USMA Cadets" neared completion. Preliminary results demonstrated that almost 50 percent of the maximal metabolic (heart/lung) capacity of male cadets is utilized while walking vertically with heavy military loads (defined as 42 pounds), but that about 90 percent of the maximal metabolic capacity of women is utilized doing the same work.

The research project entitled "Validity of a Visual Screening Procedure to Determine Physical Fatigue" is in the final stages of writing. Preliminary results indicate that the degree of visual sharpness (acuity) can identify maximal physical fatigue.

Intramural Program

Cadets who did not participate directly in an intercollegiate or a competitive club program were required to participate as players, coaches, or officials in the intramural program. This year, there were four intramural seasons--early fall and late fall during the first semester and winter and spring during the second semester. Participation was mandatory for at least one season per semester. In addition to this requirement, each cadet, beginning with the Class of 1991 this year, will be required to participate, for at least one season, in a team contact collision sport on an intramural, corps squad, or club squad level. Team contact collision sports include: football, hockey, rugby, basketball, lacrosse, team handball, flickerball, and soccer. This requirement, growing out of a directive by the Superintendent in 1986, is mandatory for the Class of 1991, but every effort will be made to ensure compliance for the Classes of 1989 and 1990.

At the close of the boxing season, Cadet Tony Fletcher (Class of 1989) was runner-up at 160-pounds and Cadet Gary Duncan (Class of 1988) took third place in the heavyweight division at the National Collegiate Boxing Association Championships held at the Virginia Military Institute.

Cadets participated in football, 5' 10" basketball, soccer, and racquetball during the early fall season and wrestling, team handball, and three-on-three basketball during the late fall season. During the second semester, cadets participated in boxing, basketball, swimming, area hockey, and wallyball during the winter season and cross country, lacrosse, flickerball, and handball during the spring. Wallyball, three-on-three basketball, area hockey, and 5' 10" basketball were all introduced for the first time this academic year.

Sports Medicine

During the 1987-88 Academic Year, 283 plebes reported to the reconditioning program in lieu of their physical education class. Although some of these cadets had limited "profiles" (which excludes cadets from participating in some physical activities), this level still represented a 46 percent decline from the previous year. Each cadet made an average of 7.2 visits to reconditioning and only 13.3 cadets per day of physical education class reported to reconditioning. In the previous year, the average morning attendance had been 19.9 cadets per day. This decline appears to reflect the removal of wrestling from the Fourth Class curriculum.

The total number of moderate injuries suffered by cadets during physical education instruction was 179; 144 of which occurred during plebe instruction. Again, this is possibly attributable to the absence of wrestling this academic year. A moderate injury results in a designation of an individual being on a "profile" status for seven days or more.

During the intramural season, football-related injuries (195) again represented the largest single share of the 462 total moderate injuries. The total number of moderate injuries rose by 35 from 427 the year before and the number of football injuries increased by 10. Nine cadets required knee surgery as a result of playing intramural football.

This was the last year for the prophylactic knee brace study. This study, in the second year of data collection, investigates the effect of a prophylactic knee brace on the incidence of knee injury with select Army football players.

The Sports Medicine Section again administered the USCC weight management program. Some 33 (15 men and 18 women) cadets were identified as exceeding the USCC body fat standards in the January 1988 screening. By the end of the academic year, only 11 cadets (two men and nine women) still exceeded the standards. This level is typical of the improvement in recent years. It should be noted that the Academy body fat standards are more stringent than the Army and that no member of the Class of 1988 exceeded AR 600-9 standards, which must not be exceeded to be commissioned in the Army.

During the 1987 CBT, new cadets were again screened for postural deficiencies and 137 cadets were identified as exhibiting poor postural habits and/or muscular imbalance. This level, notably below the figures in past years, is the result of a decision made to only report the most serious cases for formal evaluation by the Sports Medicine Section. Other individuals, with only minor problems easily correctable by the cadet cadre, were left to the cadet leadership. The problems of most individuals were correctable after one visit and some subsequent practice although a minority needed additional work. By the end of the academic year, 90 percent were corrected; the remainder will continue to receive help next year.

Guidance Program

The Department's Guidance Program emphasized the development of positive cadet attitudes toward personal fitness based on personal satisfaction and success in an individualized workout program. The Program again this year concentrated on providing the individual cadet with the information and personal guidance necessary to develop his/her own workout program and carry it through to successful completion. As always, the heart of the Program is the work of the DPE guidance officer who assists the cadets in his/her company with physical education course work and periodic testing or individualized and specialized physical development goals.

A more rigorous survey of cadet physical development was undertaken this year which resulted in 96 failures in DPE, compared with only a total of 81 for the preceding two years. The increase is partly due to the change in grading policy for DPE, which now provides that cadets who fail two physical fitness tests in one semester and are not strong performers in the rest of the course will fail the entire course. Some 25 cadets enrolled in STAP '88 compared with 16 the year before. All cadets passed the program in STAP this year except for one who was medically deferred to the following summer.

Supply and Service

The handball/racquetball courts and squash courts received extensive renovations during the period. Six courts were rebuilt to regulation size, two courts were converted to international squash courts, and all other courts had the walls and floors refinished. A project to resurface the library tennis courts was submitted. The request to level the river tennis courts was resubmitted. This project was delayed because of the parking study in progress.

CADET CLUB ACTIVITIES

During the 1987-88 Academic Year, the Directorate of Cadet Activities (DCA) continued to provide a variety of cultural enrichment and athletic opportunities that contributed to cadet development. Supplemental funding from the Association of Graduates (AOG) and the Daughters of the United States Army (DUSA) was instrumental in enabling the Directorate to continue to provide sufficient support for cadet activities. DCA and the Office of the Director of Intercollegiate Athletics (ODIA) continued to work closely this past year to enable more cadets to attend and support away varsity competitions at little or no cost to the individual cadet.

The "Report of the Select Panel on Competitive Sports Programs at USMA" of March 1988 reviewed and evaluated the entire spectrum of athletic competition at the Military Academy. It found that the 24 sports programs under DCA were "well-planned and executed."⁷ A majority of the panel felt the present three-tiered approach of intercollegiate athletics under the Office of the Director of Intercollegiate Athletics (ODIA), club sports under DCA, and intramural athletics under the Department of Physical Education (DPE) was superior to any others suggested. The panel assessed what role was appropriate for each level and stated with regard to club sports that these "provide an intermediate level, with teams recruited from the Corps at large, coaching by volunteers from the staff and faculty, and competition with outside groups."⁸

The panel identified three major problems in club sports: limited cadet authorizations (which were being impacted upon by changes in the cadet schedule but which in time and with fine-tuning on a sport-by-sport basis were felt to be resolvable); facility support (which required continuing cooperation and coordination as well as a visionary approach for the future); and, finally, transportation support (which would require involvement by the USMA staff to develop a coordinated, more supportive plan). Yet, overall, the panel reported that cadet opportunity for "involvement in wholesome, challenging...in the main vigorous, often combative activities represented in the array of sports in the DCA program is one of the very positive optional features of cadet life."⁹

The fall schedule included Ring Weekend, during which 2,400 cadets and guests attended the Ring Banquet and Dance. Autumn Weekend featured two formal dances--one for the Fourth Class and one for the upperclass cadets. The Army/Navy Rally and Post-Game Party again were held in the Adam's Mark Hotel in Philadelphia.

During the second semester, 2,400 cadets and guests attended the 500th Night Banquet at which Medal of Honor winner Brigadier General Patrick H. Brady, Chief of the Public Affairs Office, was the speaker. Yearling Winter Weekend was held in early February featuring a banquet for 1,600 cadets and guests. The Cadet Restaurant served an Italian Buffet for the Friday evening meals of both Yearling and 500th Night Weekends. Over 1,500 cadets and their guests were served each Friday evening.

100th Night weekend was held in February. The banquet was attended by 2,200 cadets and guests and featured Major General (Retired) George S. Patton III as guest speaker. The 118th Annual 100th Night Show, titled "The Graytest Gift," was an adaptation of It's a Wonderful Life, the Christmas classic, and followed the trials and tribulations of the Class of 1988 throughout their four years at West Point.

The Plebe-Parent Weekend activities in March included a Formal Banquet held at Washington Hall which was attended by nearly 4,000 cadets and guests followed by a Formal Hop at Eisenhower Hall.

Graduation Week activities featured a banquet and formal dance for some 4,700 cadets and guests with Mr. W. E. B. Griffin, author of the Brotherhood of War, as main speaker.

The most popular entertainment programs this year included Mr. James Mapes, a mentalist, and the Club Coca Cola music video show, which is sanctioned by the Department of the Army. The show had an "alcohol awareness" theme, and the proceeds were donated to the Special Olympics.

The Cultural Arts Branch of DCA, in association with the Cadet Fine Arts Forum, the Dialectic Society, and the Theatre Arts Guild presented a wide array of noted performers and cultural arts events. Some of the most noteworthy presentations and performances were "South Pacific," Andy Williams in "A Special Salute to the Bicentennial of the Constitution," The London Philharmonic, "The King and I," Pearl Bailey, and The Alvin Ailey American Dance Theatre. Additionally, the Cadet Theatre Arts Guild directed, produced, and acted in their own productions of "Moby Dick Rehearsed," "The 100th Night Show," and "The Philadelphia Story." The Class of 1929 Gallery presented a variety of visual offerings and a group show of West Point's Studio Six Art Guild.

Extracurricular Activities

During the 1987-88 Academic Year, cadets participated in over 100 clubs and organizations. Support for the clubs is provided by officer, NCO, and civilian volunteers from the USMA staff and faculty. The number of clubs and variety of activities (academic, hobby, religious, support clubs, and competitive teams) have remained generally constant during recent years. These organizations sponsored over 450 trips and hosted some 200 home events. From a generous contribution from the Association of Graduates, DCA was able to provide increased financial assistance to the competitive teams participating in national competitions.

The Tactics Club was divided into separate Armor and Infantry organizations. These two elements had always operated independently with separate officers-in-charge and this administrative separation was merely a reflection of reality. In addition, the Ski Club was divided into Nordic and Alpine Teams in recognition of the fact that the two were distinctly different teams with different competitions as well as different administrations. Similarly, the Mule Riders, which had always existed, were formally listed as a separate and independent organization for the first time. Finally, The Institute of Management Sciences (TIMS) was begun as a club because of expanding cadet interest in this field. At the same time, the Chess, Geology, and Society of Automotive Engineers Student Clubs disbanded from lack of cadet interest.

The major concern impacting on nearly all the cadet activities for Academic Year 1987-88 was the availability and cost of the transportation resources. The cost of transportation to both the individual cadet and DCA was reviewed as an engineering project by several groups of cadets. DCA intends to incorporate several of their suggestions in the extracurricular program next year. Most notable of these suggestions was the use of a variable cost to the individual cadet based on distance. In addition to providing more equity in the assessment of transportation costs, this policy will additionally reinforce the institution's guidance on the feasible length and purpose of trips.

The USMA Orienteering Team won the National Intercollegiate Championships at Sam Houston National Forest, near Houston, Texas, for the fourth-straight year and the ninth time in eleven years. The team swept the competition by capturing five out of a possible seven titles and placed second in the other two. Members of the winning senior team were Tom Jarzen,

Dean Flint, Kelly O'Rourke, and Dale Manry. In the Senior Men's Division, Steve Koski and Flint finished second and third, respectively; O'Rourke finished second in the senior women's category.

Under the auspices of the Cadet Mountaineering Club, ten cadets and four officers went to the British Joint Service Mountain Training Center at Ballachulish, Scotland, for six days of ice and mountaineering training in the Scottish Highlands, culminating with a climb of Ben Nevis, the highest mountain in the British Isles.

In its best season in years, the Cadet Judo Team won both the overall team championship at the Northeast Open Judo Championships and, for the first time in five years, the Eastern Collegiate Judo Team Championship. The cadets took three first-place medals--Diana Strickland (145 pounds), Albert Yazawa (143 pound), and Victor Nakano (172 pounds)--among a total of seven medals during the Eastern Championship. Major Gary Melton, the cadet team coach, was awarded the Eastern Collegiate Coach of the Year Award by the Eastern Collegiate Judo Association. At the 29th Annual National Collegiate Judo Championships at San Jose State University three cadets received all-America honors--Lee Stubblefield for 2nd place in the 123-pound women's division, Diana Strickland for 2nd place in the 145-pound women's division (she also placed third in the Open Overall Division), and Edward Mattison for third place in the 209-pound men's division. Based on their overall performance, the women captured first place in the national competition and the men finished third.

In the National Tang Soo Do Tournament in Bal Harbour, Florida, the Karate Team won nine medals out of 20 division competitions, including one gold and four silver.

Nine cadet powerlifters qualified for the National Collegiate Championships as the Army team dominated the New York State Championships. The women lifters were especially competitive, winning each of the four weight classes entered. In March, Kathy Solomon and Kimberly Ashton earned all-America status as the Army women finished second at the National Collegiate Powerlifting Championships held at Temple University. Kevin Hartzel was selected as an all-America for the second consecutive year as the Army men finished fifth. The Army men's powerlifting team crushed Navy for the second consecutive year by taking six firsts and four seconds in the nine weight categories contested. The victory came as a shock to the midshipmen who finished second (ahead of Army's fifth place) at the Collegiate Nationals only a month earlier.

In competition this year, the Army Rugby Team retained the Commandant's Trophy, awarded annually to the overall winner of the rugby competition between the three service academies. The team also defeated Pensacola, the 1987 Military Club Champions. The Army club, which has won the Metropolitan New York League Championship every year since its inception in 1980, is now ranked second in the Eastern Collegiate Territorial rankings. Five of our players were selected to play in an all-star play competition.

The Cadet Parachute Team took top honors at the Eastern Collegiate Parachute Championship held in North Carolina in November. In December, the cadets went on to take 15 individual medals in competition among 82 parachutists from 19 colleges at the National Collegiate Parachuting Championships at Marana, Arizona. Charles Tully earned top honors overall, finishing first in both accuracy and style in the Novice Class. Scott Byrnes recorded the best accuracy score by anyone in any class and was first in accuracy and tied for second overall in the Advanced Class. In addition to numerous jumps in the Northeast, the team brought in the game ball for the opening round of the Little League World Series Championships in Williamsport, Pennsylvania.

The cadet crew team maintained an unbeaten record in home competition in rowing for the third consecutive season and secured its first rowing championship by defeating a strong Metro Atlantic Athletic Conference field at Glenn Island Cove, New York.

Both the men's and women's Team Handball Teams were gold medalists, winning the Division II Championships at the 1988 U.S. Team Handball Federation National Championships in Marquette, Michigan. However, both the men and women were runners-up in the Collegiate Division behind the Air Force Academy. Even with this loss, the Academy's men's team has won the collegiate championship for seven out of the past ten seasons; the women have won twice during the same period.

Seven members of the men's team ranked among the top 60 players in the nation and were eligible to compete at the Olympics Sports Festival in July 1987. At the same time, seven of the women qualified to participate among the 60 top women competitors. Although many of the qualifying cadets were unable to participate because of Academy commitments, the recognition is indicative of the quality of the team handball team program at West Point. At the Pan American Games that summer, Peter Lash (USMA '81) was the leading scorer in the gold medal game in which the U.S. defeated Cuba and won the right to compete in the Olympics the following summer. In addition, Richard Oleksyk (USMA '85) served as first alternate for the U.S. Olympic team.

The Cadet Women's Alpine Ski Team finished the regular season third of 16 teams in the Mid-East Division and qualified for the Eastern Championships in Waterville Valley, New Hampshire. Against the best teams in the east, the cadets placed sixth. The men's team finished seventh in the Mid-East Division, and fell short of qualifying for the Eastern Championships.

At the 12th Annual Marine Corps Marathon in November 1987, Cadet Philip Sobiesk finished tenth in a field of over 12,000 competitors and led all military finishers with a time of 2:28:08.

FOOTNOTES

¹A "whole person" review is one which combines measures of the academic, military, and physical development of the individual to assess his leadership development. The individual's character is to be molded in an environment where duty, honor, country is to be a way of life, not merely a patriotic phrase.

²This section is largely based upon a Fact Sheet, sub: "3 1/2 Year Model of Leader Development and First Class Commissioning Certification," CPT Lamb, 27 Apr 88.

³Memo, USMA Supt, MACC-H, 20 Oct 87, sub: "Official Questioning," p. 3.

⁴Ltr, LTG Palmer, USMA Supt, to GEN Vuono, CSA, 14 May 88, reported in the Assembly, Oct 88, p. 3.

⁵Ltr, LTG Palmer, USMA Supt, to LTG Elton, DCSPER, 6 May 87. See also ltr, LTG Elton, DCSPER, to LTG Palmer, USMA Supt, 5 Apr 87.

⁶In view of the fact that each year most of the USMA applicants to medical school were accepted and reduced the available officers for some branches, MILPERCEN agreed not to have the medical school applicants select branches starting with the Class of 1984. Those individuals not selected for medical school were permitted to select a branch later based on the position they held at the time of the January branch selection. This policy lasted for only three graduating classes and ended with medical school applicants in the Class of 1987 again selecting branches with the other cadets.

⁷"Report of Select Panel on Competitive Sports Programs at USMA," 29 Mar 88, COL John J. Costa, chairman, p. 4.

⁸Ibid., p. 7

⁹Ibid., p. 17

ACADEMY COMMITTEE HIGHLIGHTS

FELLOWSHIP IN LEADER DEVELOPMENT

In 1987, the Superintendent ordered a pilot project to test the proposition that the Military Academy could use in-house faculty resources to conduct a post-graduate academic program to prepare officers to serve as company tactical officers in the Corps of Cadets. The proposal was based on the perception that the quality of the Academy's faculty was such that it might be capable of instructing officers at the graduate level in the leadership skills required of tactical officers more effectively than any other academic institution.

The tactical officer, the individual most intimately involved in cadet leader development, integrates information on cadets from all Academy developmental programs, provides feedback as both counselor and teacher, and establishes an environment that contributes directly to cadet development.

"The program has a professional emphasis because it prepares officers for professional practice as leader developers, not just at the Military Academy but also during their later service as leaders and commanders in the field Army. The program also is designed to develop more general education objectives such as analysis, problem solving, communications, investigation, critical thinking, synthesis, and design....Our program provides the graduate student with experiences that lead to the effective translation of knowledge into action (i.e., we are developing reflective practitioners)."¹

The curriculum of the program, much of which was to be taught by Academy tenured military faculty members with doctoral degrees, will be based on the specific skills and talents required of a company tactical officer. The multi-disciplinary curriculum, drawing from both the humanities and behavioral sciences, consists of 14 courses taken during three terms of a single year.

The initial guidance for the graduate degree program stated that the content of the program would provide "interdisciplinary preparation in leader development, involving instruction offered by the faculty of probably several academic departments at USMA (e.g., Behavioral Sciences and Leadership, History, English, Social Sciences) as well as perhaps an internship with the Commandant's Center for Leadership and Personal Development. Officers who complete the program will be granted masters level degrees."²

Colonel Howard T. Prince II, Professor and Head of the Department of Behavioral Sciences and Leadership, was designated as the interim executive agent for the program. In November 1987, Colonel Prince began the coordination with the Department of Education to seek approval of the West Point Fellowship prior to seeking legislative authority to award the master of arts (MA) degree. By the end of the reporting period, the evaluation process was still ongoing.

Program applicants were required to demonstrate superior academic credentials and to have completed the first phase of an Army career which had included significant leadership positions at platoon and company levels in regular Army units.

A test of the academic portion of the program began in May of 1988 with the enrollment of four captains. The exact nature of the entire program will be resolved during the 1988-89 Academic Year.

LEADERSHIP DEVELOPMENT COMMITTEE

In August 1987, Lieutenant Colonel Larry N. Donnithorne, the Special Assistant to the Superintendent for Strategic Planning (SASP), responded to Lieutenant General Dave R. Palmer's request that options be considered for implementing the Superintendent's leadership development integration responsibilities more effectively. At the outset, Lieutenant Colonel Donnithorne agreed that the Superintendent is the "only person in a position to integrate the developmental programs which are at the heart of our institutional purpose and, thus....(has) an inescapable responsibility that cannot be delegated to any one of (his) principal subordinates."³

Lieutenant Colonel Donnithorne reviewed various proposals which included focusing greater attention on the Leadership Committee to make it more responsive to the Superintendent's desires; assigning a personal staff element to be his right arm for program integration; and forming an organizational element--a center of excellence--to tap the expertise of members of the Dean's and Commandant's staff experienced in leadership and/or character development activities.

After an analysis of the strengths and weaknesses of each proposal, Lieutenant Colonel Donnithorne recommended the integration of all alternatives. He urged, at the outset, reinvigorating the Leadership Committee (but placing the Superintendent's personal staff representative at the top) and giving the committee the responsibility of devising a plan for the integration of all programs in the cadet experience that impact upon leadership and character development. At the same time, he recommended selecting a permanent staff officer to serve as the "program integrator" with the view that the individual might eventually be the director of a center of excellence when it is created.

In November 1987, the Superintendent met the Leadership Development Committee and provided some initial guidance for their review of the issue. He stressed that leader development is the institution's fundamental purpose and is a responsibility beyond that of any college. The Superintendent stated that the Committee's purpose was to organize a structure or office which would integrate and enhance leader and character development programs at the Military Academy, bringing efforts from many agencies together into a mutually-supportive endeavor. The structure was to be supportive, but not subordinate to any existing organization or agency and would be responsible and accountable to the Superintendent. The organization should have the authority to act on behalf of the Superintendent. Agencies making changes that could affect leader development would have to, at a minimum, check with this organization before implementing them. Finally, he made it clear that although the Academic and Policy Boards would remain intact and that there were no funds available to establish such an organization, the status quo and the existing role of the Leadership Development Committee were unacceptable.

After several months work, the Leadership Development Committee, chaired by Colonel Howard T. Prince II, Professor and Head of the Department of Behavioral Science and Leadership, and consisting of representatives from both the Commandant's and Dean's side of the institution, the SASP, and the Director of Institutional Research, made a report to the Superintendent. In a Memorandum of 1 March 1988, the Committee recommended the establishment of an Assistant Superintendent for Leader Development (ASLD) who would work directly for and be accountable to the Superintendent. The Committee argued that a colonel in an extended tour position, selected with the appropriate background and expertise and given time to develop continuity and expertise in the field, could best meet the Superintendent's objectives and the Academy's needs. They were conscious of the guidance the Superintendent had provided in an earlier in-process review that they must avoid an organization or title which might give others who are less directly involved in leader

development the feeling that they are relatively unimportant in this area. They felt the title and role of the Assistant Superintendent would meet that requirement. A key point in their memorandum was the feeling that the quality academic programs which supported leader development were integrated across many departments and needed to be retained under the Dean and that the Commandant similarly needed to retain the head of the Center for Leadership and Personal Development (CLPD), as an extended tour position and his only source of continuity, to meet his leader development responsibilities. They similarly thought that specific programs should not be under a central planning or coordinating agency for fear that would give primacy to those activities and give the impression to others that their contributions were less important.

Their proposal, in the end, was for "creating an organization to centrally plan, coordinate and integrate leader development while leaving specific programs or operations in their present organization."⁴ Their proposal to create a staff cell to accomplish the responsibility was accepted by the Superintendent and was integrated into the work of the Structures Review Committee which was being established at this time.

STRUCTURE REVIEW COMMITTEE

The Department of the Army (DA) has operated in a constrained manpower environment for several years. The restrictions had been recently exacerbated by a Congressionally-mandated officer strength cut. As a result, in January 1988, DA tasked the Academy, along with other Major Commands (MACOMs), to review their TDAs (Table of Distribution and Allowances). Each review was to have structural discipline and streamlined organization as an objective.⁵ This request came shortly after the Academy's year-long strategic analysis which resulted in a purpose and a revised mission statement. Therefore, in addition to the DA requirement for a TDA review, the Superintendent also argued that it was appropriate at this time to review our Academy organizational structure to ensure that it provided the most effective means to accomplish our mission. It was also deemed appropriate to do it now because the Academy's accreditation review was scheduled for 1989.⁶

The Dean was already in the process of reviewing his own organization via the Curriculum Committee's analysis (discussed in the Academic Program chapter) and the Superintendent felt the need to take a corresponding look at the Academy structure primarily in the critical area of leader development. He sensed that a partial vacuum, or an organizational void, existed in the Academy's effort to produce leaders and he wanted to formulate a strong central direction and focus for that effort. But, in addition, he wanted to know how the Academy planned and organized people and programs for cadets, soldiers, and families at West Point.⁷

Accordingly, in February 1988, the Superintendent tasked the Structure Review Committee (SRC), chaired by Colonel Joseph E. Gross, Special Assistant to the Superintendent, to take a top-down look at the overall organization. The Committee used a zero-based approach growing out of the Academy's new purpose and missions statements at the top and then reviewed how well the institution was structured below to implement those statements.⁸

Using methodology utilized by the Secretary of the Army's Reorganization Committee in 1986, the Committee gathered extensive information from historical reports and recent studies of the Academy structure, visited civilian institutions similar in curriculum to USMA, gathered organizational charts from other Army organizations and Defense academies, and received briefings from a variety of USMA staff agencies. The responsibilities and staff functions of the major activity directorates (MADs) were analyzed and a number of issues were identified including possible staff redundancies, supervisory layering, and unfocused functional responsibilities. Input was sought on many subjects from functional area experts. Finally, an

extensive staff analysis was conducted which led to recommendations for a revised organizational structure to support the USMA mission and purpose more effectively and for a new staff structure which would reduce identified areas of inefficiency.⁹

A major area of concern was to satisfy the Superintendent's desires for a more centralized focus for leadership development activities at the Academy. Building on the work of the Leadership Development Committee, the SRC recommended a staff office be created reporting directly to the Superintendent which would plan, develop, coordinate, and evaluate a cohesive leadership development program at the Academy. They proposed an Office of Leader Development Integration (OLDI) which would be headed by a permanent professor who would serve as Director of Leader Development with a staff divided into both planning and operations functions. Although the office would have no directive authority over other organizations at the Academy, it would include the Office of Institutional Research (OIR) and oversee the USMA graduate program (see the Fellowship in Leader Development discussed in the Academy Committee Highlights chapter). The Committee also recommended that a Leader Development Board be established, chaired by the Superintendent and with a membership composed of the Dean, Commandant, Director of Leader Development, and Head of the Department of Behavioral Sciences and Leadership to provide centralized direction for leadership development policies throughout the institution.¹⁰ The Superintendent decided shortly after the 12 May SRC Decision Conference to create an office headed by a colonel with functions along the basic lines recommended by the Committee. The utilization of a Leader Development Board, of the type recommended by the Committee, had not been decided by the end of the reporting period.¹¹

In early discussions concerning the physical development of cadets, the concept of a centralized Director of Physical Development who would be responsible for all four elements of physical development--intercollegiate, club, intramural, and physical education--was considered. The Superintendent decided at the Committee's March In Progress Review (IPR) review to remove the intercollegiate program from consideration because he wanted to enable the Office of the Director of Intercollegiate Athletics to deal directly with him and continue to exist as a separate entity. He noted the special attention that needed to be paid to the NCAA, the importance of intercollegiate sports as the Academy's most visible external exposure, and finally the demands of running a \$10 million a year business.¹² Since the Commandant already had responsibility for the remaining three physical development elements, the creation of a separate Director of Physical Development to oversee them was deemed unnecessary and inappropriate by the SRC. The Committee did recommend that the Commandant consider the feasibility of removing club sport control from the Directorate of Cadet Activities (DCA) and giving it to the Directorate of Physical Education (DPE), although this was contrary to the recommendations of Colonel Costa's Competitive Sports Review Committee.¹³ Ultimately, DPE's degree of oversight for club sports would be decided by the Commandant.¹⁴

The Committee did not feel they had requisite expertise to make significant recommendations in the area of intellectual development. The SRC noted the curricular review underway at the time and recommended that the Dean consider a divisional grouping which would reduce the required attendance at Academic Board meetings by all Department Heads and might assist in accreditation efforts.¹⁵

Since the Commandant was responsible for the military development of the Corps of Cadets, there was already consolidation in this area. The Committee recommended that the Department of Military Instruction not be included in the previously-recommended OLDI organization, but rather remain with the Commandant.¹⁶

Many significant recommendations were made pertaining to the Academy's organizational structure. At the April IPR, the Superintendent directed that the "oversight for...staff functions

dealing with installation support should be transferred from the Chief of Staff to a Garrison Commander to allow for proper span of control and increased focus on installation support."¹⁷ The Committee, therefore, recommended that the two positions be separated and noted that "this fixes responsibility for installation support under one individual and allows the Chief of Staff more freedom to coordinate/arbitrate major issues of the USMA."¹⁸ The Garrison Commander, in accordance with Army Regulation 5-3, would report to the Chief of Staff, command the garrison or installation for the Superintendent, and coordinate the installation staff. The Committee contended that this would relieve the Superintendent of unnecessary involvement in running the installation. In the Committee's analysis, the agencies to be placed under the Chief of Staff would include the Directorate of Operations, Plans and Security; the Public Affairs Office (renamed Directorate of Academy Relations); the Staff Judge Advocate; the Secretary of the General Staff; the USMA Chaplain; the Inspector General; the Internal Review Office; and the Equal Opportunity Office. On the other hand, the Garrison Commander would have staff supervision over the Directorate of Personnel and Community Activities (renamed Directorate of Community and Family Activities); the Directorate of Logistics; the Directorate of Engineering and Housing; the Directorate of Information Management; the Directorate of Resource Management; Directorate of Health Services; Directorate of Dental Services; the Provost Marshal Office; the Adjutant General; the Civilian Personnel Office; the Safety Office; the Deputy Garrison Commander (Stewart); the Deputy Garrison Commander (West Point)/First Battalion, First Infantry; and tenants.¹⁹ By June, the Superintendent had approved the basic structural recommendations and decided that both the Chief of Staff and the Garrison Commander would be colonel positions. All of the present colonel directorate staff reporting to the Chief of Staff or Garrison Commander would be headed in the future by lieutenant colonel directors; exceptions would depend on the weight of their MACOM functions performed (their contact with DA). The downgrading of the positions would be implemented through attrition.²⁰

Implementation of the numerous lower-level structural reorganizations did not commence until after the end of the reporting period. The basic organizational structure before and after the revision are included as appendixes in this report.

VISITING PROFESSORS REPORT

The Superintendent formed a Visiting Professors' Panel in an attempt to provide a formal mechanism for capturing the insights of the distinguished visiting professors who each year serve at the Military Academy. The Superintendent asked the 1987-88 Visiting Professors to provide advice regarding the academic program.

Their twenty-nine page "Report of the Visiting Professors to the Superintendent of the United States Military Academy" of 12 April 1988 was widely distributed and given serious consideration by many in the Academy's command group and by committees engaged in the preparation of the institution's accreditation review report. Although the report is too extensive to summarize in detail, several recommendations are reflective of general themes and the flavor of the report.

The visiting professors stated at the outset that:

"The thrust of this report is clearly reformist. We feel the academic program requires strengthening in fundamental ways. Nevertheless, we recognize that there are many admirable aspects of a West Point education, not the least of which are the aspirations of the institution, the dedication of the staff and faculty, and the high quality of the student body. Our goal is try to help USMA achieve its goal of providing a first-rate education to cadets."²¹

The Committee recommended strengthening the faculty by various means to include increasing "the number of properly educated permanent military faculty members" and changing tenure rules "so that evidence of quality work permits a faculty member's service to continue beyond 30 years"; by employing qualified civilians; by more carefully supervising the selection of graduate schools and programs by the senior faculty; by providing the opportunity to extend faculty graduate schooling beyond two years; and by extending teaching assignments at the Military Academy by one year. Finally, the committee recommended making a more concerted effort to identify and utilize a greater share of qualified Reserve Officer Training Corps (ROTC) graduates on the faculty, arguing that "most have stronger academic majors upon which to build than do USMA graduates; and they have an academic heritage that places more emphasis on intellectual development."22

The committee spent one-fourth of the entire document analyzing and discussing academic standards and the grading system. The Committee felt that the academic standards were not as high as they should be based on the quality of the student body and the Academy's commitment to academic excellence. They recommended that the Academy "(1) Formulate philosophical definitions for all academic letter grades; (2) Implement more traditional academic grading standards that are compatible with the Academy's philosophical grade definitions....(3) Give individual instructors, particularly senior faculty, the greatest possible autonomy in grading, after ensuring that they are familiar with Academy and department grading policies."23

In the often-discussed issue of cadet time, the Committee argued that "cadets clearly do not have the time to pursue academic excellence. What is therefore necessary is an effort on the part of the Academy's leadership, academic faculty members, athletic training staff, and military training officers to inculcate in cadets the principle that academic achievement is important... Translating the principle of academic excellence into action, the Academy must allocate a block of time (we compute forty-one hours per week) to academics, and take appropriate measures to ensure that cadets honor this commitment."24

While finding much in the Academy culture and environment to admire, the visiting professors talked of problems brought on by the Academy's isolation, emphasis on physical development, and limitations of what cadets have frequently called "the inability to fail."

Although positive in many respects and endorsing the Academy's fundamental guiding principles, some felt that the report did not place sufficient emphasis on the legitimate demands of the military and physical programs. Some of the suggestions pertaining to the faculty were not consistent with constraints imposed on the Academy by the government and the Army. Nevertheless, the comments were reflective of criticism leveled at the Academy at many times in the past and prompted serious discussion which proved useful to many of the groups preparing the Academy's self-evaluation for the 1989 Accreditation review by the Middle States Association of Colleges and Universities.

ACCREDITATION COMMITTEE

During the past academic year, the Military Academy began preparation for its fifth decennial accreditation evaluation by the Middle States Association of Colleges and Schools. To coordinate the Academy's required self-study effort, the Superintendent appointed a Middle States Accreditation Steering Committee on 1 September 1987.

The Committee was charged with the following tasks: to serve as coordinating agency for the decennial accreditation; to recommend a self-study sequence with milestones; to recommend a broad-based self-study plan to maximize institutional capabilities for future periodic reviews;

to coordinate all self-study committees and coordinating activities; and to prepare the Institutional Self-Study Report.

In October, the Committee met with the Superintendent and received strong support for a candid, open self-study that would be truly useful in raising issues, focusing immediate actions, and guiding long-term planning. He urged the committee to coordinate closely with Project 2002, the centerpiece of the Academy's strategic planning process.

In November, the Committee membership was modified and Colonel James R. Golden, Professor and Deputy Head of the Department of Social Sciences, was named chairman. Committee members attended the Rutgers/Middle States Association Self-Study Workshop, reviewed plans for Project 2002 in detail, and developed preliminary drafts of a study plan.

In December, the Committee reviewed major studies conducted since the last decennial accreditation, determined which institutional studies that were underway or planned would impact on the self-study, and surveyed some 50 key Academy leaders to build support for and to help identify key issues that should be addressed in the self-study.

In January 1988, the Committee recommended that the design concept call for the completion of an open, comprehensive self-study, building on the review of USMA's purpose, mission, and concepts for leader development in Project 2002. The study would incorporate on-going studies of the curriculum, the athletic program, admissions, and facilities and focus on program coordination and the central issues of faculty and teaching.

The design called for (1) creation of seven self-study subcommittees: leader development coordination, the academic program, the military program, faculty and teaching, cadets, outcomes analysis, masters programs, and modification of three existing committees; (2) continuation of the Project 2002 committee; (3) continuation of the Panel on Competitive Sports Programs as the Physical Development Committee; and (4) some additional tasks for the Library Committee. The work of the subcommittees would be coordinated by the Steering Committee through a Working Group of subcommittee chairmen. The subcommittees would conclude final reports by late Autumn 1988. The Steering Committee would then integrate the findings into the Self-Study Report during the Spring of 1989, and submit them in the summer prior to the Fall of 1989 accreditation visit. The Superintendent approved this design and added a survey of junior leaders to other self-study tasks. A schematic representation of the Academy's self-study effort is included as Appendix H.

Dr. Robert Kirkwood, Executive Director, Middle States Association Commission on Higher Education, met with the Committee and the Superintendent on 9 February 1988. He praised the Committee's design and suggested the following additions to the Academy's review: identification of opportunities as an explicit objective; careful sequencing of self-study activities; review of the implications of moving to masters-level programs; and consideration of a joint visit of the Middle States Association Commission and the Accreditation Board for Engineering and Technology (ABET). After subsequent review and discussion, the Superintendent decided to stay with the previous plan for a Middle States visit in the Fall of 1989 and an ABET visit in 1990. The Superintendent directed an increase in the size of the Steering Committee for the next phase, the establishment of various accreditation subcommittees, and the addition of one cadet to several subcommittees. Members attended the briefing by Major General Gordon R. Sullivan, Deputy Commandant, U.S. Army Command and General Staff College, Ft. Leavenworth, Kansas, on the Army's Leader Development Study.

Subcommittees were established involving 108 members of the staff and faculty and six cadets. Subcommittee chairmen were chosen from members of the tenured faculty to ensure

institutional background and continuity to the implementation stages, but individuals were assigned to areas where they did not have operational responsibilities to ensure a neutral peer audit. Volunteers were sought from all activities and assignments to ensure a diversified perspective. Total participation included 38 members of the tenured faculty, 11 civilian members of the staff and faculty, and 14 women.

In April, the initial meeting of the Working Group, made up of Heads of Subcommittees, was held to coordinate study efforts. Questions were solicited, reviewed, edited, and integrated for the comprehensive faculty survey. The faculty surveys were reproduced and distributed by the Office of the Director of Institutional Research (ODIR). The Report of the Visiting Professors Panel was disseminated to relevant subcommittees and an in-progress review of the OIR study of "The Impact of the Revised Cadet Schedule" was provided.

In May, 480 responses to the faculty survey were received. In addition to extensive statistical data, individual responses included short answer replies to many subjects which were of concern to the Committee. These responses were organized and distributed to relevant subcommittees after review by the Chairman of the Self-Study Committee.

By the end of the academic year, the information-gathering phase was well underway and preliminary evaluations and assessments were scheduled for the summer and fall.

FACULTY COUNCIL

The purpose of the USMA Faculty Council is "to improve communications between the Superintendent, the Dean, and the faculty by providing a forum for obtaining faculty views on specific issues and providing an opportunity for faculty members to bring academic matters of interest or concern to the attention of the USMA leadership."²⁵

Colonel Robert A. Doughty, Professor and Head of the Department of History, was the Chairman of the Faculty Council during the academic year. Membership was comprised of representatives of all academic departments, the Office of the Commandant, the Department of Physical Education, and the Department of Military Instruction.

At the October 1987 meeting, the "communications problem" and the Mentor Program at West Point were discussed. The Council recommended that the Dean and Commandant consider informing the staff and faculty routinely on issues of significant concern through periodic information papers; that tactical officers meet periodically with academic departments to inform them of current United States Corps of Cadets (USCC) issues; and that a similar conduit be established so that the Office of the Commandant is kept informed of significant academic matters. The Council recommended that the Dean inform the Superintendent that the Faculty perceives the Mentor Program as well intended, but insensitively implemented; and that the Dean recommend a review and analysis of the Mentor Program after one year.

At the November 1987 meeting, the Council recommended that "someone in authority at USMA" provide information to the faculty on the advantages and disadvantages of a USMA assignment on an officer's career.

In the Superintendent's talk to the Academy staff and faculty on 11 December 1987, he addressed two Faculty Council concerns: (1) the impact of a Military Academy assignment on a career and (2) the importance of communication.

The Council's Committee on Academic Progress provided a report in February. After hearing the report, the Council agreed that instructor/cadet one-on-one dialogue is the best means of

informing cadets on academic proficiency and that the Dean should devise a method to provide tactical officers easier access to grades.

In March, the Council discussed the Sequential Leader Development System (SLDS) and the "Two Hour Preparation Rule." The Council was concerned that there were major problems with SLDS and recommended that a careful analysis of the real costs and benefits of the System be completed. There also was concern expressed that some cadets were not using a full two hours to prepare for each class and that even this amount of time (based on the perceived study time required for an average student to maintain a "C" average) might be insufficient to enable cadets to excel.

At the final meeting in May, the Council agreed that cadets have difficulty discerning priorities between different elements of the academic, military, and physical dimensions of cadet development; and that policies that encourage cadets to violate regulations in pursuit of academic excellence must be reexamined. The Council recommended that at least one visiting professor should be on the Council and that the Offices of the Superintendent, Dean, and Commandant should be represented to clarify policy and answer technical questions.

ADMISSIONS COMMITTEE

The Admissions Committee is a standing committee of the Academic Board and an integral part of the admissions system. It is made up of representatives from various Academy offices and departments that deal directly with cadets. The Committee spent eight months during the past academic year evaluating applicants and selecting qualified members for the Class of 1992. The Admissions Committee ensured that the 1,319 candidates who joined the Corps of Cadets on 29 June 1988 met the legal and medical requirements specified by the laws and regulations governing USMA, that their demonstrated academic, physical, and leadership qualifications indicated a high probability for meeting the demands and standards of the Military Academy, and that they were properly suited for progressive careers as Army officers. The committee also ensured that those selected for admission comprised a class of the composition directed by DA and the Academic Board. The Committee carried the broadened Foreign Cadet Admission Program into its fourth year.

Nearly 15,000 individuals expressed an interest in admission to the Class of 1992 and established initial files with the Admissions Office. That office collected relevant materials submitted by those applicants, of whom 5,830 acquired the nominations that precede selection for admissions. The files of those nominated individuals who completed all basic requirements were forwarded to the Committee for consideration. From these completed files, the Committee found some 2,804 candidates fully qualified for admission. Offers of admission were made to 1,791 of the qualified candidates; 1,319 accepted offers and entered as new cadets on Reception Day. Of that number, ten were foreign cadets. The 74 percent acceptance of offers of admission was slightly lower than the 76 percent level of acceptance for the Class of 1991, making the yield slightly below the 1,325 class size approved by the Superintendent in January 1988.

The Early Action Plan, now in its seventh year, continued to yield a higher rate of accepted offers of admission than the candidate pool as a whole. Under this plan, applicants who notify the Academy by 1 November that West Point is their first choice and complete their files by 1 December receive early action consideration. Some 84 percent of the 663 qualified early applicants who were offered admission, conditional upon medical qualification and obtaining nomination status, accepted the offer. This percentage was comparable to that of the previous year, although nearly 80 fewer qualified early applicants were offered admission.

The Class of 1992 generally met class composition goals, which are annually proposed by the Committee and approved by the Academic Board.²⁶ Some 25 percent of the entering class were identified as "scholars," 24 percent as "leaders," and 22 percent as "athletes." Twelve percent of the class are women, eight percent are Black Americans, and four percent are Hispanic Americans.

SUPERINTENDENT'S HONOR REVIEW COMMITTEE

The 1986-88 Superintendent's Honor Review Committee (SHRC) submitted its final report to the Superintendent on 14 March 1988. The SHRC, appointed on 16 June 1986 and chaired by Colonel L. Sam Thompson, Permanent Associate Professor in the Department of Geography and Computer Science, had the mission of advising the Superintendent of the state of health of the Honor Code and System while reporting on several other issues.

Two primary subcommittees were formed. The Evaluation Subcommittee, headed by Colonel William D. Hughes, Chief of Staff of the United States Corps of Cadets (USCC), was responsible for formulating the issues that would be examined in depth by the Survey Subcommittee, led by Colonel Daniel B. Limbaugh, Deputy Staff Judge Advocate.

The Evaluation Subcommittee conducted a series of interviews with 45 cadets from all four cadet classes and with 10 members of the staff and faculty. All participants volunteered to meet with the Subcommittee and share their opinions, beliefs, and complaints concerning the Honor Code and System. In addition, officers from the Subcommittee attended many honor classes to assess the overall quality of honor instruction.

The Survey Subcommittee prepared a carefully worded survey which, when analyzed, revealed not only information about the health of the Code and System, but also cadet feelings on other important and potentially-divisive issues. The survey began with a core of 24 common questions for all cadets. These questions, which had been asked in the past on other surveys, would enable comparisons to be made with previous attitudes, trends, and concerns. Because the population to be surveyed (the entire Corps of Cadets) was so large, it was decided to compile five separate surveys of approximately 68 questions each. These five surveys (with their 24 common core questions) were administered to the Corps of Cadets in May 1987. The analysis of the surveys formed the basis for the conclusions and recommendations contained in the report.²⁷

The Committee contended that the overall health of the Honor Code and System is satisfactory and improving. The number of cadets that described the Honor Code and System as "alive and productive/satisfactory" has risen from 55 percent in 1981 to 63 percent in 1987. It should be noted that 83 percent of entering cadets reported that they had tolerated the acts of friends who had lied, cheated, or stole in high school. Now, after having been enrolled at West Point for between one and four years, 84 percent would turn in another cadet for a clear cut violation. A movement of opinion of this dimension is a significant change and a credit to the West Point environment and to the Honor Education System.²⁸

Specific Findings and Recommendations

1. In discussions of the range or coverage of the Honor Code, the Committee found that one-half of the Corps of Cadets feel that the Code is unrealistically interpreted and that a cadet can be separated for an act which is not truly dishonorable. The Cadet Honor Committees of the past have consistently broadened the definitions of lying. Cadets are confused and differ widely as to whether "small" deceptive measures (e.g., alcohol in mouthwash bottle) are honor violations. In the Committee's view, trivializing the Code by including acts such as placing

articles in one's laundry bag, bedstuffing, etc., under the umbrella of the Honor Code confuses the cadets, weakens the honor principles the Code attempts to teach, and seriously erodes confidence in the Code and System.²⁹

The Committee recommended that the definition of a lie should be precisely that which was recommended by the West Point Study Group in 1977 (and endorsed by the 1984-86 SHRC), i.e., a lie is "...an oral or written statement or gesture of communication in the presence of and to another, intended to deceive or mislead." The Honor Committee must halt its attempt to include all unethical acts under the umbrella of the Honor Code. The Commandant's Special Assistant for Honor should be charged with the responsibility to ensure that this occurs.³⁰

2. Seventy percent of the cadets perceive that the Honor Code and System are used excessively to enforce regulations. Cadets perceive the Absence Card as a prime example of honor being used to enforce regulations. The 23 pages of instructions concerning the Absence Card in "Regulations for the USCC," USCC Regulation 600-1, are too complicated to be understood in a practical/operational sense. The Absence Card does not tell the inquiring person what time the cadet departed the room, what time the cadet will return, nor precisely where the cadet is located. It only states that the cadet is not breaking limits; hence, the harmful tie between regulations and honor. There is extensive cadet dissatisfaction with the Absence Card which could lead to the ignoring of its requirements and a possible erosion of the Honor Code. Although the practice of using drill rolls for after-the-fact accountability has been discontinued, it was not done soon enough to have its impact measured in this survey. Recent informal verbal surveys have revealed that the number of "using honor to enforce regulations" allegations has decreased. Finally, the "new" policy on official questioning is expected to improve cadet perceptions regarding questioning by officers.³¹

The Committee recommended the following with regard to honor being used to enforce regulations: that a working group, composed of members from the Office of the Dean, the Office of the Commandant, and the SHRC, be staffed to explore abolishing the Absence Card; that the Corps be informed that the elimination of the drill roll was a direct result of their initial concerns. In addition, the Committee recommended that the Corps be educated regarding the new policy on questioning techniques and that cadets be made to understand that a question, the answer to which may result in an adverse action being taken against the cadet, does not, in itself, constitute an improper question.³²

3. Only 38 percent of cadets agree that the Honor Code is uniformly adhered to throughout the Corps. There is a perception by 42 percent of the cadets that some groups (either women, men, minorities, majorities, varsity athletes, or foreign cadets, etc.) receive favorable treatment under the Honor System. The group most often designated as receiving favorable treatment in the Corps is women. However, over the period 1980-89, women cadets were separated or resigned for honor at a percentage nearly twice as high as that for men. Obviously, they did not receive preferential treatment. Cadets also state that they would treat friends differently than other cadets in honor matters, and indeed, some cadet companies are significantly weaker in honor than the Corps as a whole.³³

The Committee argued that it was important to educate the Corps on "perceived favoritism" by providing factual data in honor classes. The Academy should continue to administer the Corps-wide survey in such a manner that the responses from the cadet companies may be differentiated to monitor the presence of attitudes which conflict with essential Academy norms.³⁴

4. Three-fourths of the Corps believe that some honor violations warrant less serious sanctions than others, and that self-reported cases should be treated less severely. Cadets, in some cases, want the person who admits to a wrong doing and expresses remorse to be given the chance to

develop from the experience rather than be dismissed. Cadet discretionary voting does take place in the Full Honor Investigative Hearing (FHIH). Although this voting probably cannot be eliminated, it can surely be decreased through an extensive education program. In summary, cadets prefer a system or mechanism which provides for some flexibility in honor sanctions.³⁵

The Committee contended that the Honor Education Program must emphasize that: the Superintendent has the power to grant discretion and he has frequently done so, thus the System is working; where the FHIH has voted to "find" a cadet, the Board's recommendation for discretion is transmitted directly to the Superintendent; and, finally, that cadet Board members have a moral and ethical duty to base their votes on the evidence, and not on extraneous factors. The previous recommendations, to have a wider distinction between regulations and honor, and that fewer "small" acts be included under the umbrella of the Code, should be implemented. This will reduce the trivialization of the Code and, in turn, reduce the incidents where discretion seems warranted.³⁶

5. Ninety percent of cadets understand that a computer copyright violation is not an honor violation in the eyes of the Code and System. However, only about one-fourth of the cadets believe that violating copyright laws is personally dishonorable. Nevertheless, the Honor Code and System should not become embroiled in the software business except in the most flagrant cases. In the Committee's views, violations of copyright laws should continue to be handled administratively and Honor Education classes should stress the reasons why this is the case, but also should emphasize that violating copyright laws when using any medium (computer, written material, etc.) is a practice to be discouraged and reflects ethical shortcomings.³⁷

6. Nontoleration, although absolutely basic to the Honor Code, is a difficult concept to teach because it is seemingly at odds with the precepts of the great religions of the world as well as some of the values taught in the family. Friendship, peer pressure, and the fear of social ostracism are additional, powerful forces restraining cadets from adhering to the requirements of nontoleration. However, some 80 percent of the respondents in the Corps-wide survey indicated support for the nontoleration clause.³⁸

Scrambling the Corps is sometimes proposed as a means to expand cadet adherence to the nontoleration clause. The Committee noted cadets do not want to be scrambled and recommended that the Academy not scramble for honor reasons. To scramble a single class or the entire Corps in an attempt to reduce the toleration of honor violations would have little or no significant impact on the issue of toleration.³⁹

The Committee argued that it was essential to ensure that instructors with experience and maturity are utilized in the education process, particularly for the more difficult classes dealing with friendship, toleration, plagiarism, improper questions, honor board duties, and how to deal with pressures to be dishonorable. The Committee contended that it was important to improve the interface between tactical officers and company honor representatives. Company honor representatives should "seek out" the tactical officer for guidance: to discuss/finalize the Honor Education schedule; to rehearse/prepare classes with the tactical officer; and to ensure tactical officer attendance and participation, but not necessarily instruction of classes. It also found that it was important to ensure that a detailed evaluation plan (with feedback on classes) is prepared and followed and that the Honor Committee relays to the Corps the changes that have been made based on Corps involvement/interest.⁴⁰

COUNCIL OF SPORTS SCIENCE AND MEDICINE

The cause and prevention of training injuries were once again an ongoing topic for discussion at the Council's monthly meetings. Of particular interest is the number of injuries that occur during Cadet Basic Training (CBT) and Cadet Field Training (CFT). Compared to past years, the number of injuries occurring during CBT and CFT 1987 was not significantly different. However, there was an improvement in the number of injuries that occurred during Squad Competition in CBT, at least partly due to frequent consultations between members of the Council and the CBT staff on ways to enhance safety procedures when training.

Colonel Barry W. Wolcott, USMA Surgeon and Director of Health Services, expressed a recurring parental concern about the perceived weight loss of plebes due to food deprivation in CBT. At the end of CBT 1987, a comparison was made of entry weights (on R Day) and weights recorded during the August height/weight survey of the Corps. There was no significant difference in weight for the Class of 1990 between these two periods.

Preparing for CBT 1988, the Council, led by Lieutenant Colonel John B. Ryan, Chief of Orthopedics, briefed the new USCC chain of command concerning the nature of CBT injuries. The Council realizes that some training injuries will occur. However, by ensuring that the chain of command is made aware of the scope of the problem, then perhaps the number of injuries can be reduced.

The Council spent considerable time discussing the Department of Defense (DOD) Directive 1010.10 "Health Promotion" of 11 March 1986. AR 600-63 "Army Health Promotion" was implemented in October 1987. West Point is one of fifteen sites selected to establish a viable program to maximize the readiness and combat efficiency of the force as well as to enhance the quality of life for all soldiers, DA civilians, and family members. The organization of the Health Promotion Council, as directed by the AR 600-63, was discussed, but budgetary constraints, existing work loads, and other logistical problems prevented the establishment of the Council by the end of the academic year.

The Class of 1991 was surveyed to determine the usage of anabolic steroids. This is a continuation from the Council's recommendation to the Superintendent in July 1986 that questions should be included in the Class Characteristics Inventory to assess prior knowledge and use. The survey found that while most cadets knew the use of anabolic steroids was harmful, two or three percent of the cadets said they still might take them. Indeed, of the two percent who had taken them in high school, three-fifths recognized the danger, but took them anyway.

ATHLETIC COMMITTEE

The Athletic Committee serves as a policy advisor to the Superintendent for two of the three athletic programs at West Point: the intercollegiate athletic program that is the responsibility of the Director of Intercollegiate Athletics (DIA) and the competitive club athletic program supervised by the Director of Cadet Activities (DCA) under the Commandant of Cadets. The third, the intramural athletic program, is managed by the Director of Physical Education, also under the Commandant of Cadets, and is not within the purview of this committee. The function of the Committee is to make recommendations to the Superintendent on athletic matters and to provide advice to the DIA and Commandant of Cadets. The Athletic Committee is also a nonappropriated fund council tasked to fulfill regulatory requirements for review of the nonappropriated fund budgeting of the Army Athletic Association (AAA). A principal responsibility of the Committee is to monitor the financial status and functioning of ODIA and AAA.

During the past academic year, most of the activity of the Committee involved routine responsibilities; however, several actions were worthy of note.

Throughout the year, the Committee paid close attention to budgeting and performance. The AAA budget and capital improvement plan for Fiscal Years 1988-93 was presented during the August 1987 meeting. Concern was expressed about the level of appropriated fund reimbursement, an extremely important factor in the support for the athletic program. These funds reimburse ODIA for the cost of civilian coaches and are indispensable to the financial success of the office. ODIA was fortunate to have another successful year in Fiscal Year 1988.

The Athletic Committee finalized and approved the sports criteria to be used when considering the establishment of an intercollegiate sport. The sports criteria included such factors as cost, cadet interest, and facility availability for the sport, as well as the physical contact demands of the sport, physical exertion or vigor required by the sport, and whether the sport is primarily a team or individual exercise. Team sports are valued more highly by the Military Academy because the skills utilized in team participation are more closely related to the leadership qualities desired of graduates. These criteria were also used by the study conducted by the Competitive Sports Review Committee, which is discussed in the Directorate of Cadet Activities section of the Military Training Chapter of this report.

During the year, the Committee noted progress in its previously-approved capital improvement program. The Michie Stadium football coaches' offices, "A" Room expansion, and half-time room improvements were all completed. The Blaik Gallery, named for the legendary Earl "Red" Blaik and located at Michie Stadium, and the Army Athlete "A" Monument on the grounds of the Sports Complex were both dedicated on 11 September 1987, the day prior to the first home football game. The Lacrosse Facility at Howze Field is well underway and should be completed in the Fall of 1988.

THE INSTALLATION PLANNING BOARD

The Installation Planning Board (IPB) focused its effort during the period on responding to the Superintendent's desire to achieve a truly futuristic view in the long-range planning effort for the Academy's bicentennial in 2002 and beyond. The Chief of Staff proposed and the Superintendent supported a revision of the planning process which delegated much of the day-to-day administration to the USMA staff with final decisions made by the Chief of Staff/Deputy Post Commander. The Superintendent viewed "the IPB (as) the top-level management team for the long-range planning of the physical aspects of the Military Academy. As such, it must provide guidance for facilities planning and compel consistency of programs with our overall strategic objectives. The IPB planning process should not be constrained by resource considerations--it must instead, focus on our long-term objectives and strategies. Too much energy has been directed by the Board to near-term regulatory requirements and routine post operations--the short-term horizon rather than the long-term strategy. These are matters better left to the staff and the Policy Board."⁴¹ The Five-Year Planning Process, which focuses on operational resources issues, which is prepared through the Facilities Modernization Committee (FMC) and IPB, was also relegated to Policy Board action.

The IPB reviewed the completion of step two of the Hillier Contract with the assistance of the Facilities Modernization Committee (FMC) and approved plans for the completion of subsequent steps in the contract. The IPB approved the Analysis and Existing Condition Report (a periodically-prepared report which differentiates between various states of usable and unusable structures and facilities) and approved final installation data maps required by HQDA before the planning process at installations is completed. Finally, based on general guidance

from the Superintendent, the IPB defined a series of policy and planning issues which were presented to the Top Team at a key meeting in February 1988 and directed the FMC to pursue the space-planning processes based on the Top Team guidance provided at the meeting. Following the FMC review of the Top Team recommendations and their modifications of conceptual principles, the material was sent to the Hillier Group for integration into their overall master plan activities. The Hillier Group was engaged in contract disputes with the U.S. Army Corps of Engineers and nothing was accomplished in the planning arena for several months. When the Academy finally became aware of the problem, the differences were resolved and the planning process began again in June of 1988.

The FMC completed a prioritization of the USMA Five-Year Military Construction Army (MCA) Program covering Fiscal Years 1991-95. The Fiscal Year 1990 program is comprised of three projects: Eisenhower Hall renovation, the cadet barracks addition, and a Cemetery annex project. The Fiscal Year 1991 prioritization consisted of four projects: modernization of the telecommunications systems, road intersection improvements (associated with the diversion of traffic from the cadet area), upgrade of the ventilation system in the indoor firing range (Building 665), and modernization of the band training facility (Building 685). Twelve additional projects were identified for Fiscal Years 1992-95 funding.

The IPB also prioritized Nonappropriated Fund (NAF) Construction projects, which included a current-year requested authorization for the development of a Consolidated Gift Shop at the Visitors Center, presently under construction at New South Post. The IPB evaluated the costs and benefits of such a project and recommended that local NAF organization resources be pooled to complete the gift shop construction to coincide with the West Point Museum reopening in 1989.

The other NAF projects included a package beverage store construction at the one-stop shopping center complex, the development of the mezzanine deck at the Army Field House to provide additional flat indoor athletic space, improvements to the West Point golf course, an overpass for golf cart access to the nine holes of the course located west of Route 9W, a project to replace the artificial surface at Michie Stadium, a project for a new community center at Stewart Army Subpost, and a hydraulic lift for the Eisenhower Hall auditorium stage area.

FOOTNOTES

1 "West Point Fellowship in Leader Development," undated USMA pamphlet.

2 Memo for Distribution, MAPP, LTC Donnithorne, 18 Aug 87, sub: "Initial Planning Guidance for an Officer Graduate Degree Program at USMA."

3 Memo, LTC Donnithorne, SASP, to LTG Palmer, USMA Supt, 5 Aug 87, sub: "Options for Organizational Integration of Leadership and Character Development Programs at USMA," p. 1.

4 Memo, COL Prince, Ch, Leadership Development Committee, to LTG Palmer, USMA Supt, 1 Mar 88, sub: "Report of the Leadership Development Committee," p. 5.

5 Msg, Vuono, sub: "Review of Army Structure," to Palmer, 271750Z Jan 88 and Memo, MAPP, COL Gross, Ch, Structure Review Committee, for LTG Palmer, USMA Supt, 25 May 88, sub: "Report of the Structure Review Committee."

⁶Memo, MARM, LTG Palmer, USMA Supt, for COL Gross, Special Assistant to the Supt, 12 Feb 88, sub: "Structure Review Committee." In the Decision Conference of the Structure Review Committee in May, the Supt reiterated that the primary reason for the study was to find the most effective way to run the Academy.

⁷Extract from comments of Supt at initial 10 Mar 88 SRC IPR.

⁸Memo, MARM, LTG Palmer, USMA Supt, for COL Gross, Special Assistant to the Supt, 12 Feb 88, sub: "Structure Review Committee."

⁹Memo, MAPP, COL Gross, Ch, Structure Review Committee, for LTG Palmer, USMA Supt, 25 May 88, sub: "Report of the Structure Review Committee," pp. 1-2.

¹⁰Ibid., pp. 2-3.

¹¹Memo for Record, MAPP, COL Gross, Ch, Structure Review Committee, 20 May 88, sub: "Superintendent's Decisions Resulting from SRC Recommendations, 12 May 1988."

¹²Extract from comments of Supt at initial 10 Mar 88 SCR IPR.

¹³Memo, MAPP, COL Gross, Ch, Structure Review Committee, for LTG Palmer, USMA Supt, 25 May 88, sub: "Report of the Structure Review Committee," p. 3.

¹⁴Memo for Record, MAPP, COL Gross, Ch, Structure Review Committee, 20 May 88, sub: "Superintendent's Decisions Resulting from SRC Recommendations, 12 May 1988."

¹⁵Memo, MAPP, COL Gross, Ch, Structure Review Committee, for LTG Palmer, USMA Supt, 25 May 88, sub: "Report of the Structure Review Committee," p. 4.

¹⁶Ibid.

¹⁷Ibid.

¹⁸Ibid., p. 5.

¹⁹Memo for Record, MAPP, COL Gross, Ch, Structure Review Committee, 20 May 88, sub: "Superintendent's Decisions Resulting from SRC Recommendations, 12 May 1988." This document noted that the final placement of DRM and the USMA Engineer might be changed.

²⁰Memo, MARM-ME, Mr. Sundby, Acting Director, Resource Management, for BG Gorden, Cmdt, 14 Jun 88, sub: "Implementation of Structure Review Committee (SRC) Recommendation."

²¹"Report of the Visiting Professors to the Superintendent of the United States Military Academy," 12 Apr 88, Enclosure 2, p. 1.

²²Ibid., p. 8.

²³Ibid., pp. 19-20.

²⁴Ibid., pp. 24-25.

²⁵Faculty Council Charter.

²⁶To come within class composition goals, the Admissions Office and the Committee strive to identify candidates with particularly strong credentials in athletics, scholarship, or leadership and those who are members of population groups whose representation will sustain the diversity in the Corps of Cadets appropriate to DA requirements. Because some individuals may belong to as many as five of the seven composition categories, the total percentage distribution usually differs from the number of cadets in the class. In other words, this distribution does not define the entire class population.

²⁷"Report of the Superintendent's Honor Review Committee, AY 86-88," Apr 88, p. 9.

²⁸Ibid., p. 2.

²⁹Ibid.

³⁰Ibid., p. 6.

³¹Ibid., p. 3.

³²Ibid., p. 6.

³³Ibid., pp. 3-4.

³⁴Ibid., p. 6.

³⁵Ibid., p. 4.

³⁶Ibid., p. 7.

³⁷Ibid., pp. 4, 7.

³⁸Ibid., p. 5, and Ltr, MACC-H, 27 May 77, sub: "Report of Superintendent's Special Committee on Nontoleration."

³⁹"Report of the Superintendent's Honor Review Committee, AY 86-88," Apr 88, p. 4.

⁴⁰Ibid., p. 8.

⁴¹Memo, MACS, LTG Palmer, USMA Supt, to Dean of the Academic Board, USMA, 1 Sep 87, sub: "Installation Planning Board."

BOARD OF VISITORS

The Board of Visitors (BOV) to the United States Military Academy is appointed in accordance with the provisions of Section 4355 of Title 10, United States Code. It is the duty of the Board to inquire into the morale and discipline, curriculum, instruction, academic methods, physical equipment, fiscal affairs, and other matters relating to the Academy that the Board decides to consider.

The six Presidential appointees and three Congressmen visited West Point for the July summer meeting and observed Cadet Basic Training (CBT) and Cadet Field Training (CFT). The Board received reports on women's issues at West Point, the status of federal aid to the local school district, the status of the child care center civil suit, and the status of appropriations for construction at West Point. The Board also received briefings on the 2002 long-range planning, the cost/price/worth of West Point, the cadet schedule, entering cadet class characteristics, and tactical officer career patterns.

The annual meeting of the 1987 BOV was held at West Point in December. Four Presidential appointees and two Congressmen attended.

The following conclusions and recommendations were prepared and approved by the majority of members present and appear in the Board of Visitors 1987 Annual Report to the President.

The Board recommended that the Academy continue to refine its 2002 project with its assistance. The Board recommended that efforts be undertaken, particularly by the Association of Graduates, to prepare a concept for the establishment of an Institute for American Leadership.

The BOV continued to seek increased attendance from Congressional members and pointed to the restrictive language in the U.S. Code which prescribes representation from the highly-demanding Armed Services and Appropriations Committees. It recommended that the Secretary of Defense propose a legislative change which would provide added flexibility in Congressional membership and facilitate increased attendance at Board meetings.

In its continuing concern with the adequacy of cadet pay, the Board recommended that the subject be brought up at the next meeting of the Annual Conference of Academy Superintendents and that the Secretary of Defense submit legislation to reconnect the pay of cadets to the military compensation system.

The Board believes that USMA tactical officers should have graduate-level education and supports the Superintendent's efforts to establish an internal, degree-granting alternative for tactical officer education which would more closely support the requirements of their unique assignment.

The Board applauds the Academy's increasing desirability and attractiveness to young people, reflected in the record number of some 14,500 applicants which helped provide a distinguished entering class.

The Board believed, in this 200th anniversary of the establishment of the U.S. Constitution, that the required (core) curriculum offered at West Point presents cadets a uniquely-thorough opportunity to understand this fundamental document. The Board commended the Academy for the extensive coverage given to discussion of the Constitution: its array of speakers from the Supreme Court and other courts, historians, and lecturers from many facets of American

society who helped instill respect and appreciation for this indispensable document which governs our lives. A discussion of the "Exposure to the Constitution at USMA" is included in the Board of Visitors 1987 Annual Report.

Perhaps the most significant topic of discussion for the Board in 1987 was the issue of the price/cost/worth of West Point. Extensive briefings were provided in the December annual meeting at West Point by Lieutenant Colonel Thomas W. Fagan, Director of the Office of Economics and Manpower Analysis in the Department of Social Sciences. Indeed, one-fifth of the Board of Visitors 1987 Annual Report consisted of extracts from the statistical analysis provided in his presentation.

The subject had arisen from a desire on the part of the Academy to consider this sensitive issue at a time when it could be done carefully and dispassionately so that when the issue rose in the future, as it had in the past, the Academy could provide a better response to the questioner.

A fundamental point made by Lieutenant Colonel Fagan at the outset is the notable difference between the "price (what students are charged as tuition and fees) and cost (the actual expenses to an institution for research, public service, and instruction)."1 In this country, the difference between the price the student pays and the cost for the institution is covered by endowments by private colleges or from tax revenues by state-supported colleges and universities. Since West Point cadets are on a full scholarship and are not usually charged for their tuition, the price is hard to estimate. However, for those students who fail to complete their obligated service and for foreign students, the law requires about \$20,000 a year, which is comparable to the "price" at some of the nation's more prestigious private institutions. When costs are compared, West Point may be no more costly than those other selective, comprehensive undergraduate colleges which it most closely resembles.

Another issue is the cost of commissioning second lieutenants through USMA compared with the cost of commissioning through the Reserve Officer Training Corps (ROTC). The cost of a ROTC second lieutenant is estimated at \$103,000 for the cost per graduate at a college, plus \$14,000 tuition (paid by the Army), plus \$66,000 of ROTC overhead for a total of \$183,000, a figure which is quite similar to USMA's \$191,000.2

The conclusion of the BOV was: "Considering the full costs of education, the costs to the nation of educating West Point students are approximately the same as those for educating ROTC students. When the benefits derived by the nation are considered as well (the greater proportion of Military Academy graduates commissioned in the combat branches, the greater number of officers with academic backgrounds in engineering and physical sciences commissioned in combat branches, the higher retention rates and longer years of service, and the general quality and dedication of Military Academy graduates), West Point actually is a bargain for the Army and the nation."3

The organizational meeting of the 1988 USMA BOV was held in Washington, D.C., in May. The Board elected Mr. William D. Mounger (USMA '48) as Chairman and Representative Owen N. Pickett (D-VA) as Vice-Chairman. In addition to Mounger and Pickett, Senator Daniel P. Moynihan (D-NY), Congressmen Hamilton Fish, Jr. (R-NY) and Bill Lowery (R-CA), and Ms. Marta T. Caldera were named to the Executive Committee.

At the meeting, the Special Assistant on Honor provided a briefing on the honor code and system, and the Superintendent answered questions concerning the case of John Edwards (which is discussed in the Fourth Class System section of the Military Training Chapter). The members of the Board then proposed a wide range of topics worthy of discussion by the Board in future meetings.

By the end of June 1988, in addition to the Executive Committee noted above, the members of the Board of Visitors included: Senators Don Nickles (R-OK), Richard C. Shelby (D-AL), and Alfonse M. D'Amato (R-NY) and Representative W. G. (Bill) Hefner (D-NC).

FOOTNOTES

1"Special Advisory for College and University Presidents: National Task Force on Higher Education and the Public Interest" by the Council for Advancement and Support of Education (CASE), Jun 88, pp. 2, 6-7.

21987 BOV Report, 31 Dec 87, p. 32. See a more detailed discussion of the subject in "Price/Cost/Worth of West Point," by COL Donnithorne, SASP, Assembly, Oct 88, pp. 6-7. See also a discussion of the subject in "West Point: Worth the Cost," Army Times, 9 May 88.

3"Price/Cost/Worth of West Point," by COL Donnithorne, SASP, Assembly, Oct 88, pp. 6-7.

INTERCOLLEGIATE ATHLETICS PROGRAM

Army's intercollegiate athletic teams finished out the 1987-88 Academic Year winning over 57 percent of their contests. The 28 cadet teams competed 501 times and came away with 286 victories, 209 losses, and six ties. The 19 men's teams won 52 percent of their contests while the nine women's squads won 69 percent of their competitions, their third best performance at West Point. Although Army won only one-third of its overall contests against Navy, the Army women won two-thirds of their contests in the inter-service rivalry.

Twelve teams won over 70 percent of their games and 17 won two-thirds of their contests. Men's cross country, women's cross country, and women's outdoor track (5-0, 3-0, and 2-0, respectively) were all undefeated in dual-meet competitions. Other teams with unusually impressive records include the pistol team (13-1) the women's indoor track team (5-1), the rifle team (15-4), the wrestling team (15-5), the men's swimming team (9-3), the women's softball team (33-11), and the golf team (3-1 in dual-meet competition), each of which won at least three-fourths of their contests.

On the national level, the women enjoyed immense success. Three of the nine women's teams--cross country, volleyball, and basketball--were invited to National Collegiate Athletic Association (NCAA) post-season play. The women's cross country team was ranked as high as third nationally, the women's softball team as high as 11th, and the women's volleyball team as high as 24th. The women's basketball team finished third nationally in scoring defense and reached the finals of its regional tournament.

The women's cross country squad finished sixth at the Division II NCAA championships, winning its first NCAA Division I bid. The outdoor team placed seventh at the championships, its best finish ever. At the NCAA Division II Swimming Championships, Army finished seventh.

On the men's side, the football team finished fifth in Division 1-A in rushing (298 yards). The pistol team placed third at the National Rifle Association (NRA) nationals. The wrestlers, at one point ranked as high as 17th nationally, had four grapplers qualify for the NCAA championships. The soccer team shared the conference title.

Beyond the won-loss record, as distinguished as that may be, are the performances of individual cadets in intercollegiate athletic competition over the past year.

Army football quarterback Tory J. Crawford, ranked second in the nation in scoring, and Linda M. Schimminger, captain and leading scorer on the women's basketball team, received the Army Athletic Association Award for most valuable service to athletics during their cadet careers.

Golfer Tim Johnson was named an NCAA Division I all-America Scholar. The Eastern College Athletic Conference (ECAC) Merit Medal, awarded for combined excellence in academics and athletics, was given to eight cadets: William C. Conner, the football team's strong safety and the recipient of a NCAA scholarship; Samuel P. Fagone, an all-America in pistol; Terrance V. Harshfield, a second team all-Conference soccer player; Robert H. Kewley, a conference all-Academic team golfer; Scott A. Maitland, captain of Army's water polo team; Randy E. Powell, a NRA all-America in rifle; Erick A. Reinstedt, an all-America in pistol; and Laura I. Slattery, a member of the conference all-Academic team in women's softball.

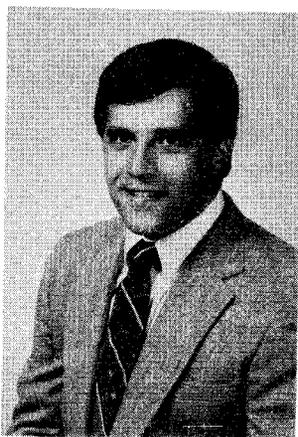


Tory Crawford



Linda Schimminger

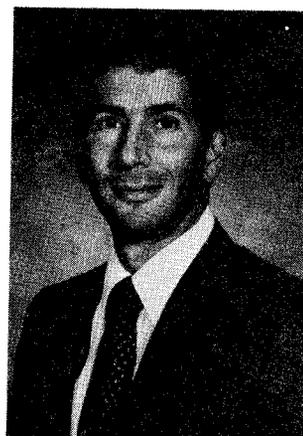
Three Army coaches, including the husband and wife team of Joe and Lynn Chiavaro, were singled out for "Coach of the Year" honors. Lynn Chiavaro, completing her first season at the helm of the Lady Knights basketball team, was named the Division II "Coach of the Year" by the Metropolitan Coaches Association while husband Joe was selected for that same honor in soccer by the Metropolitan Atlantic Athletic Conference (MAAC). Bob Gambardella was named the Tachikara Division II Northeast Region volleyball "Coach of the Year."



Bob Gambardella



Lynn Chiavaro

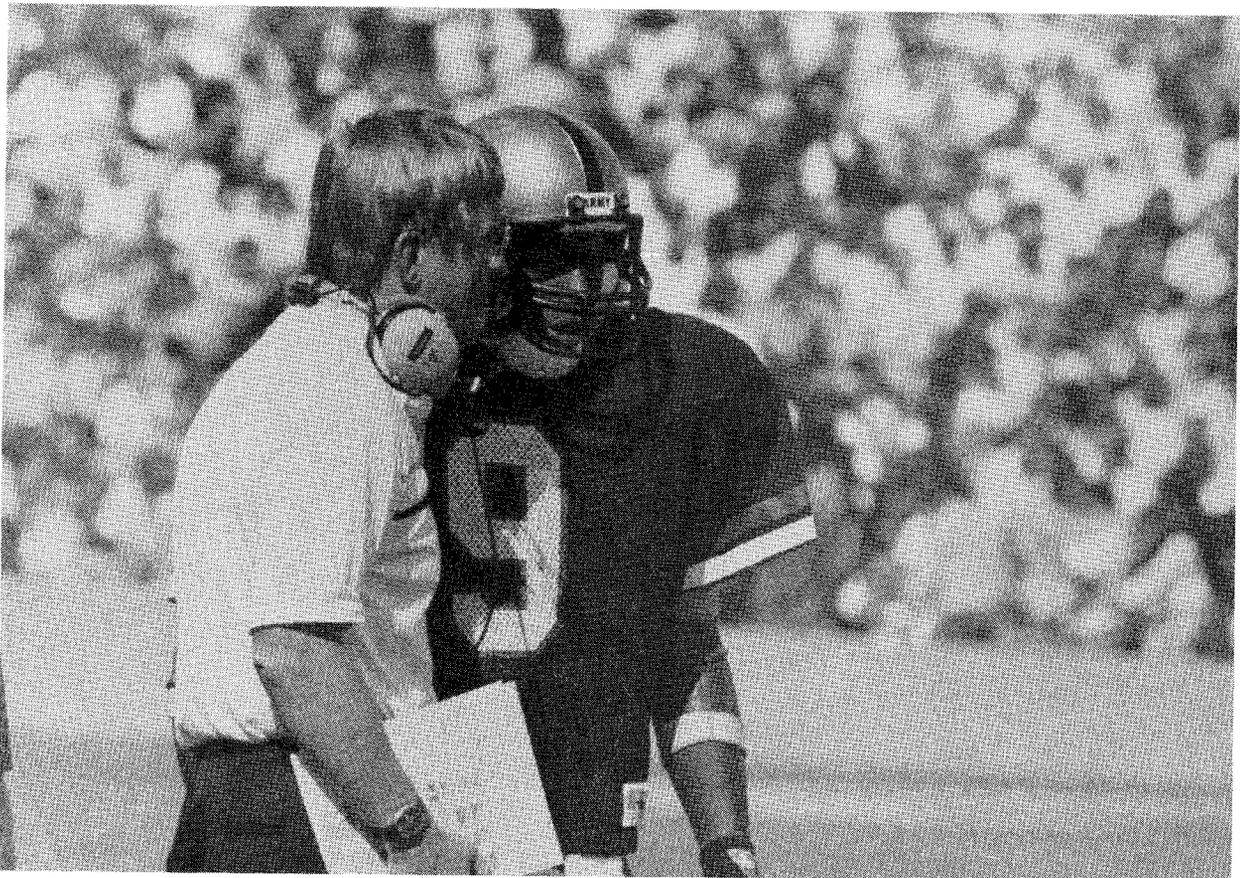


Joe Chiavaro

Football -- The Army football team, rocked by injuries at the key quarterback position throughout the year, battled through a hard-fought 5-6 season brightened by a 17-3 win over Navy. That second-straight victory over the Middies was the first time since the early 1970s that Army football teams were able to win back-to-back contests.

In the final national rankings, the cadets finished fifth in Division 1-A in rushing (298 yards); 39th in total offense (370.3 yards); 38th in scoring offense (25.2); and 43rd in scoring defense (20.3).

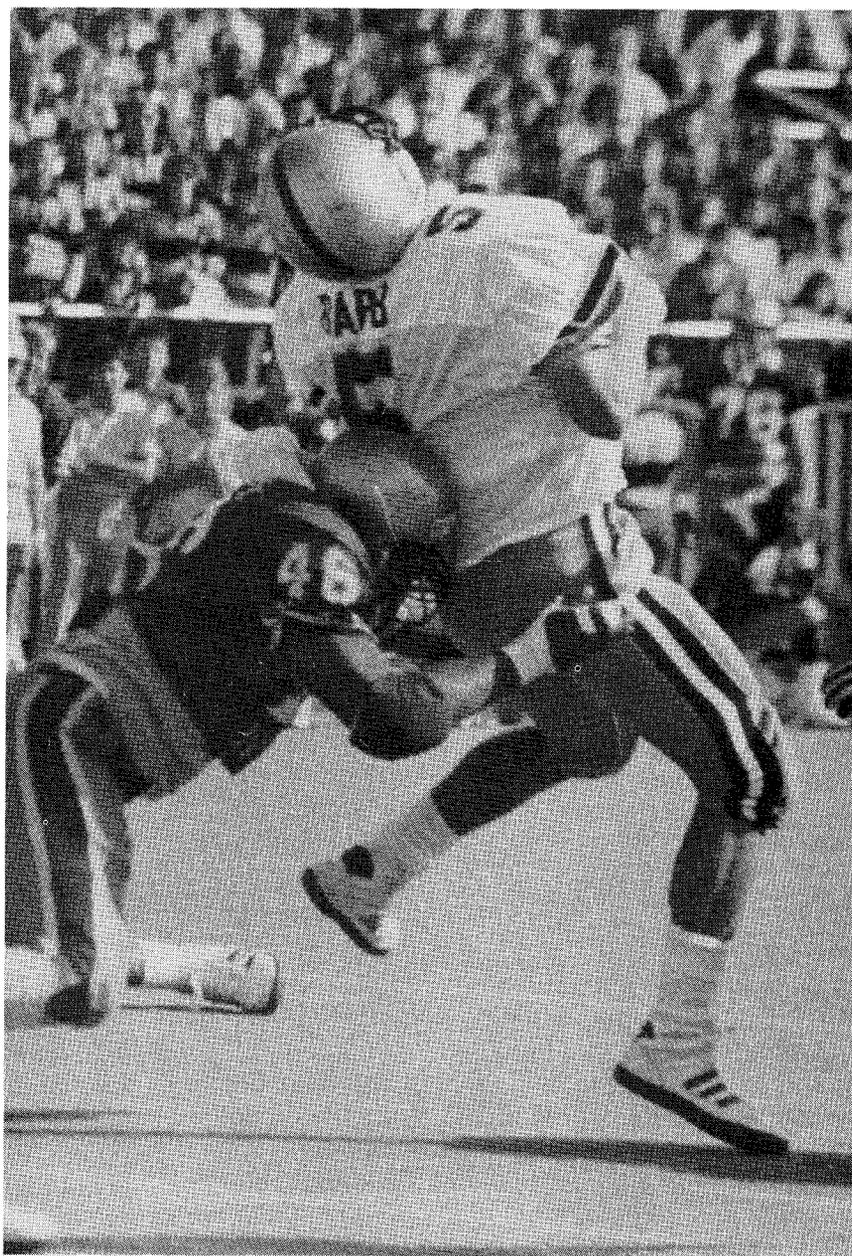
After a disappointing loss to Holy Cross in the opener (a team which would go on to its first undefeated season in 40 years), strong victories over Kansas State and the Citadel seemed to portend another bright season for the Army football team in 1987. After the first three games, quarterback Tory Crawford was ranked second nationally in scoring and 11th in rushing, and the team was ranked sixth nationally in offense with 324 yards per game.



Coach Young giving instructions to Crawford at the Citadel game

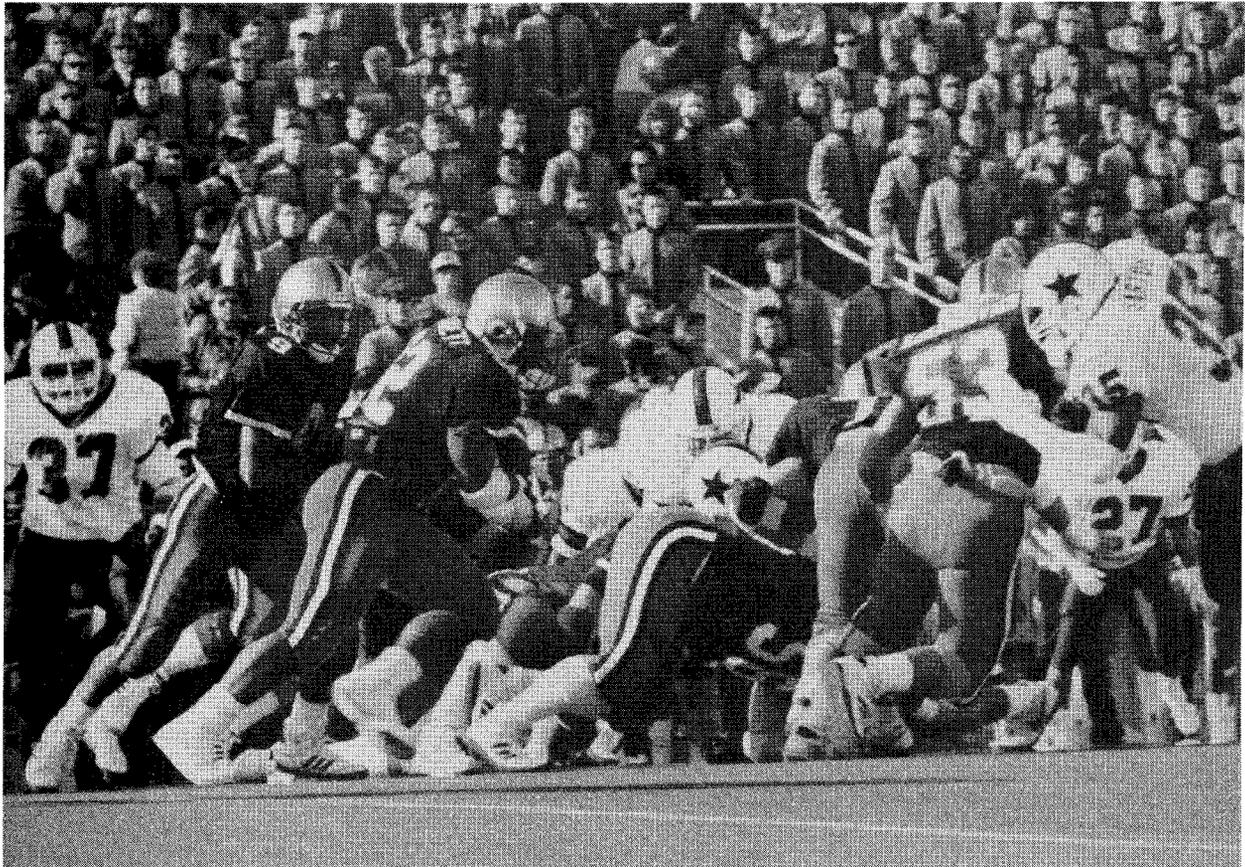
However, in the ill-fated game against unbeaten Wake Forest, injuries began to take their toll on the Army squad. In the second quarter, Crawford suffered a moderate knee injury which would keep him out of the action for several weeks. The team rallied behind back-up quarterback Mark Mooney to take the lead scoring the first touchdown against Wake Forest in four games, before finally losing 17-13.

Army then faced Boston College, a three-touchdown favorite. In this game, Mooney suffered a dislocated toe and was replaced by Bryan Babb. Babb, making his first varsity start, rushed for 119 yards and two touchdowns, on the way to being named ECAC "Rookie of the Week." Despite Army's success in most of the game's statistics, the team fell short, suffering a narrow 29-24 loss.



Bryan Babb taking a hit in the Boston College game

In the Homecoming game against Colgate, Babb suffered an injury and had to be replaced by Mooney. Injuries also kept linebacker Ray Griffiths, the team's second leading tackler, and other key players on the sidelines during the game. By the end of the contest, fullback Ben Barnett, the team's leading rusher, had been added to the growing list of injured.



Barnett advances up the middle

In the following week's loss to Rutgers, the list of those sidelined grew even longer. Babb had undergone surgery for the removal of a cancerous tumor at Walter Reed Hospital the previous week and Mooney, in his first varsity start, suffered a shoulder separation and a broken toe. Furthermore, Morrell Savoy, his replacement, twisted his ankle and pulled a hamstring and had to be helped off the field. Also absent from the field were the top two rushers (Barnett and Crawford) on the team and several of the more successful tacklers.

Plebe and fifth-string quarterback Bryan McWilliams next assumed the mantle of leadership to face Temple. McWilliams was injured with a broken finger on his passing hand in the first period and was replaced by another plebe, sixth-string Otto Leone who had not seen action in any of Army's previous seven games. Backed by the return of Barnett and his 114 yards of offense and a 64-yard touchdown pass to tight end Mark Charette on his only pass attempt of the game, Leone successfully led the team to a stunning 17-7 victory over Temple.

Hopes for a winning season were dashed in the following game, however, when the cadets, even with Crawford at the helm, lost 27-10 to Air Force at Colorado Springs. Crawford's exploits against Lafayette, 105 yards of offense, three touchdowns rushing, and an 89-yard pass to Sean Jordan (the longest pass play in Army football history), earned him the ECAC "Offensive Player of the Week" as Army won 49-37. Happily, the season ended on an upnote for the cadets when they handily defeated Navy 17-3.



Crawford sprinting upfield against Holy Cross

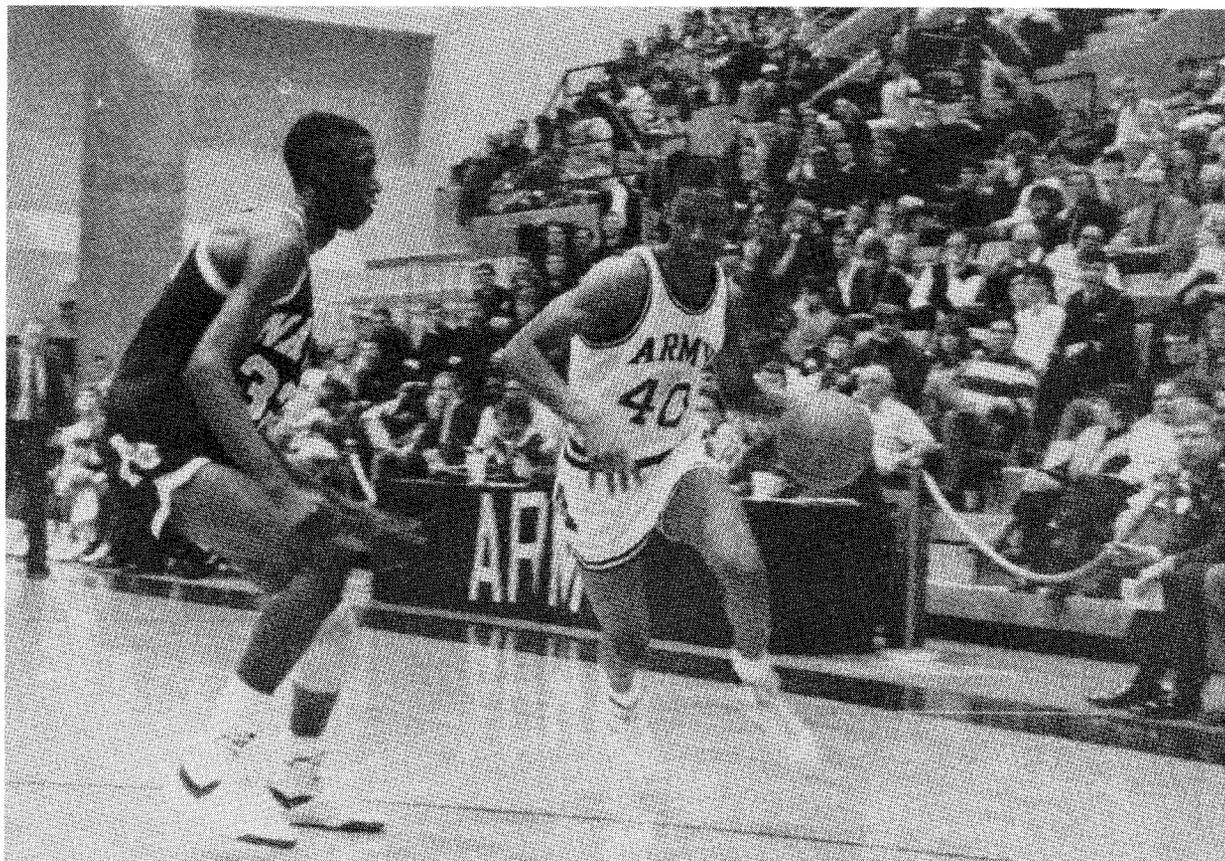
Even with injuries, Crawford finished his cadetship ranked fourth on the Army career charts for total offense (3,949), fifth in rushing (2,313 yards), and 10th in passing (1,636).

Bill Rambusch led all ECAC Division I-A punters with a 40.4 yard average and was named to the all-East first team by the ECAC and, along with defensive back Dave Berdan, by the Associated Press (AP). In the Wake Forest game, Rambusch kicked an 80-yard punt, the longest ever by any Army punter. Seven others received honorable mention recognition: Crawford, Bill Schleiden, Craig Raymond, Andy Peterson, and Mike Mayweather on offense and Griffiths and Josh Haines on defense.

Men's Basketball - The young and inexperienced Army men's basketball team closed out its season with a disappointing 9-19 record. The cadets posted a 4-10 mark in the MAAC to finish sixth of eight teams in the regular season standings.

There were, however, silver linings in the team's performance as two of the freshmen - guard Derrick Canada and forward Kevin Berry - won noteworthy recognition for their conference play. Canada, who led the team in scoring with a 13.9 points per game average, was named the MAAC "Rookie of the Year" as well as the Metropolitan "Co-Newcomer of the Year." He joined Berry, who finished with an average of 9.5 points and four rebounds, on the MAAC all-Rookie squad.

Center Todd Mattson led the team in rebounding with eight a game and with a total of 10 blocked shots, while finishing third in scoring at 10.5 points. At the end of the season, he ranked 38th on Army's all-time scoring charts with 416 points. Guard Ron Wilson was second in scoring (11.5) and led the team in assists (127) which was fourth best in the league. He also set a school single-game mark with 15 assists in Army's upset victory over Holy Cross. Forward Steve Rotherth led the conference with a .833 free throw percentage.

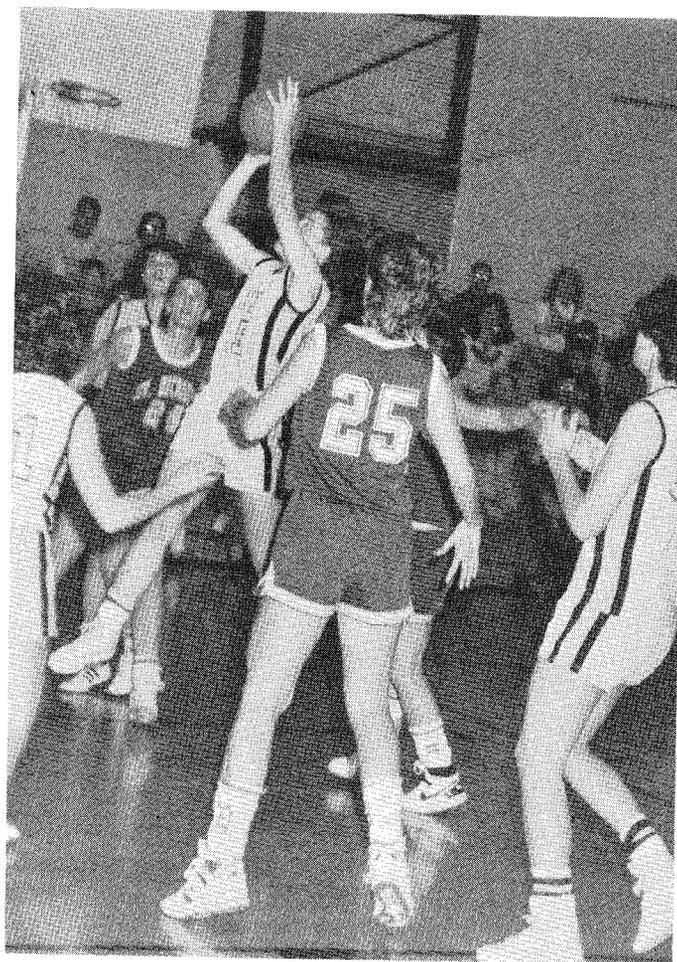


Kevin Berry drives for the basket

Women's Basketball - After opening the season by capturing the Randolph-Macon tournament, the Lady Knights ran into difficulties, but rallied late in the season to win the Empire State Conference (ESC) Championship and with it an NCAA Division II bid. This marked the second time the team received an NCAA bid and the first since the 1983-84 season. The Lady Knights reached the finals of the Eastern Regionals before bowing to nationally sixth-ranked University of Pittsburg at Johnstown 71-66 to close out the year at 19-13.

Point guard Jennifer Fleming was named the most valuable player (MVP) of the Tournament and, along with Leslie Texas, was picked for the NCAA Regional Tournament team. Captain Linda Schimminger, the team's leading scorer (12.6 points per game), was an all-Conference selection. She finished her cadet career as the all-time steals leader on both season (71) and career (190) levels. Texas authored the second-best scoring (11.3) and third best rebounding (4.4) averages, while Leeann Duhoski finished second in both points (305) and rebounds (211). Karen Dunn led the rebounders with 221 to stand fifth on the career charts with 746 while Fleming broke the USMA record for assists with 182.

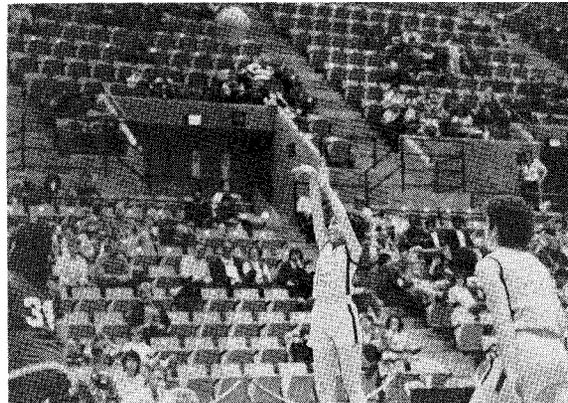
Coach Lynn Arturi-Chiavaro was chosen "Coach of the Year" in Division II by the Metropolitan Basketball Coaches Association. In her first year of coaching, her team held their opponents to just 56 points per game and finished third nationally in scoring defense.



Jennifer Fleming goes up for a shot



Leslie Texas in action against Pace

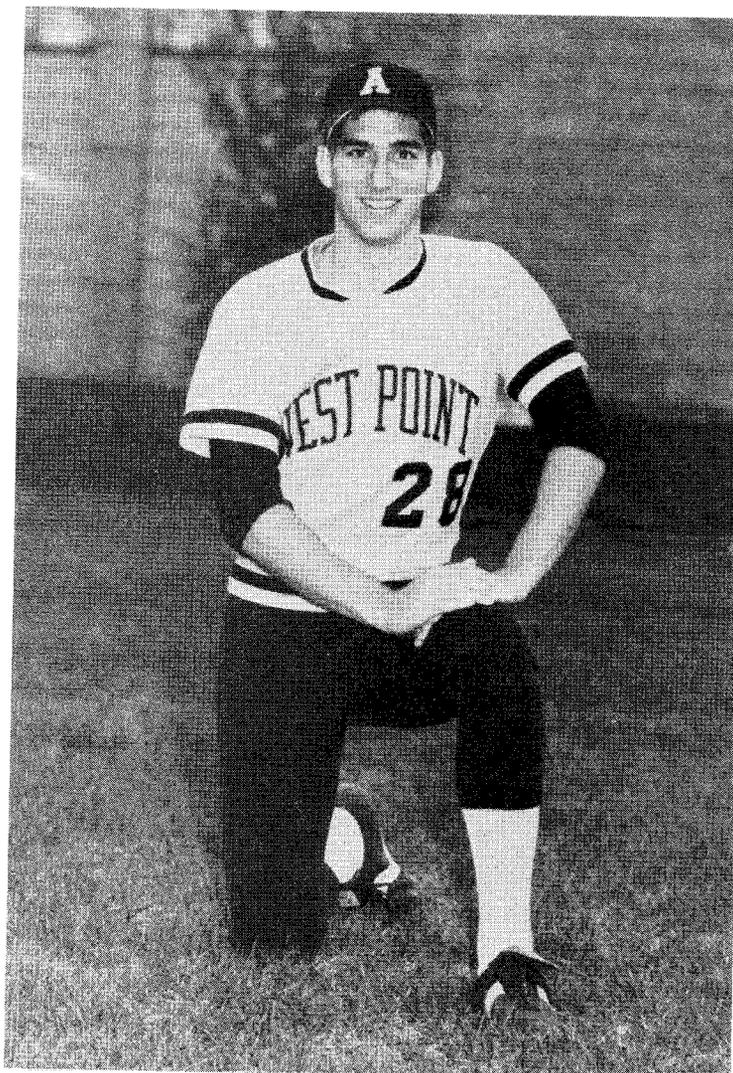


Linda Schimminger shooting

Baseball - Though the diamondmen failed to post a winning season, they played the role of spoiler in eliminating Harvard from the Eastern Intercollegiate Baseball League (EIBL) pennant race which in turn gave Pennsylvania its first league championship since 1975. The cadets closed out the year at 15-22-1 while posting a 7-11 record to tie with Brown for seventh place out of ten in the league.

Relief pitcher Chad LeMay, who set Army records for season (21 of 38 games) and career (56) appearances, was named to the EIBL first team, while outfielder Chris Helixon, who batted .344 in league play, grabbed second-team honors. Helixon's .304 overall average was second for the cadets behind Glenn Donelin's overall .350 average.

Ken Toney fashioned the most wins on the mound with a 5-2 record over 52.2 innings and finished with a 3.25 earned run average (ERA). Shannon Smith led the team in runs (24), hits (38), home runs (7), total bases (67), runs batted in (RBIs) (23), and stolen bases (9 of 10) in compiling a .284 batting average.



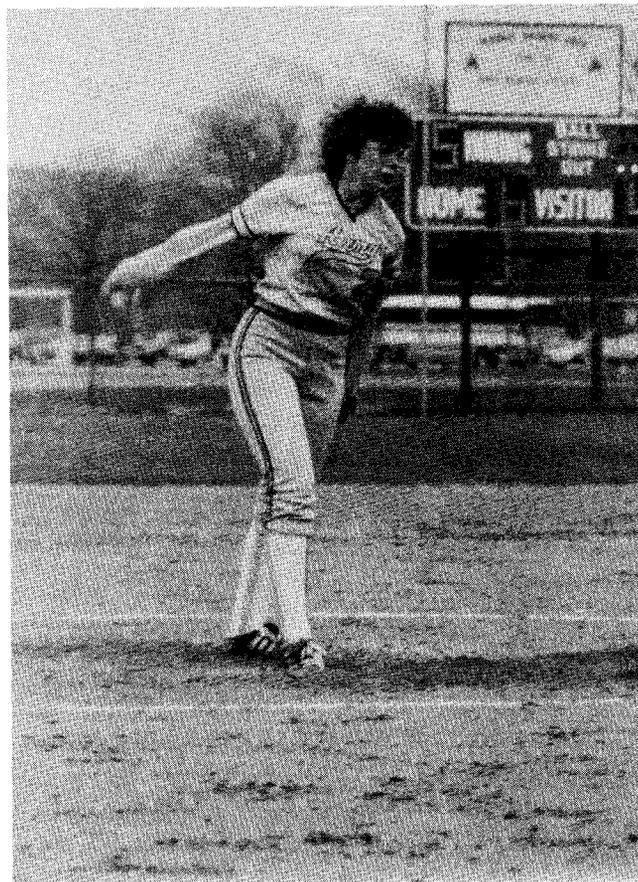
Chad LeMay

Women's Softball - The Lady Knights, ranked as high as 11th nationally in Division II and second in the Northeast Region, closed out their best season. Coach Al Arceo's nine won their final 11 games en route to a school record 33 victories. Overall, the team set 23 records (19 individual and four team) while tying three others.

Army won a pair of titles at the MAAC and ECAC Division II South Regional Tournament. Pitcher Colleen McCabe was chosen MVP of the MAAC and joined Bernie McLaughlin, Laura Slattery, and Melody Smith on the all-tournament team. Slattery and Lori Klinger were also named to the MAAC all-Academic team.

The key to Army's success was the performance of McCabe who recorded an unprecedented 29 wins on the mound. McCabe set school marks for her 0.76 ERA, innings pitched (248), games pitched (36), and season (236) and single-game (12) marks for strikeouts while hurling the first perfect game by a Lady Knight (against Manhattan College). She shattered the school individual record for shutouts (17), for consecutive scoreless innings pitched (46), and for consecutive wins (11).

McLaughlin set Army career marks for total bases (212), hits (130), RBIs (77), triples (22), and tied the record for singles (79). Slattery and LeeAnn Craft broke the school season mark for hits (44). Smith, who led the team with a .360 batting average, broke the season record for singles with 38 and set season (13) and career (27) marks for stolen bases.



Colleen McCabe

Lacrosse - Playing one of the toughest schedules in the nation took its toll on the laxmen. Nonetheless, the team rallied in the season finale to pin an 11-6 victory over Rutgers evening the season record at 7-7. That marked the 14th-straight year that Army ended its season at .500 or better.

Co-captain Bob Betchley who led the team in scoring (53) and goals (35) while finishing third in assists (18) this year, became Army's all-time scorer with 191 points, including 127 goals. He was honored for his efforts by being named a second-team all-America by the U.S. Intercollegiate Lacrosse Association. He competed in the annual North-South all-Star game with goalie Joel Portuese.

Portuese, who appeared in all 14 regular-season games, was credited with 163 saves while allowing 97 goals for a saves percentage of 62.7. Attackman Tom Desperito, second in scoring (48 points) and in goals (28), led the team in assists (20). John Cunniffe finished third in scoring ((30 points), while Mike Hoynes finished second in assists (19).

Wrestling - The Army grapplers compiled a 15-5 mark during the season, highlighted by a national ranking of 17th along with their first victory over Lehigh since the 1967-68 season. This year's 20-17 decision came after the cadets had won their third-straight New York State title, the fifth in eight years under coach Ed Steers.

Capturing individual titles at the State Tournament were co-captain Tony Malba at 118 pounds, Paul Kuznik at 126 pounds, John Rippley at 167 pounds, and Dave Bottcher at heavyweight. Kuznik was also voted the "Outstanding Wrestler" by the coaches at the tournament.

Bottcher captured the heavyweight title at the Eastern Championships, leading Army to fifth place. Qualifying with Bottcher for the NCAAs were Kuznik at 126, Rippley at 158, and Ed Hartford at 167. Bottcher was riding the crest of a 31-2 mark, including 26 straight, as he entered the NCAAs seeded ninth in his weight class. Unfortunately, he fell in his opening match as did all of the West Point participants.

Men's Indoor Track - After winning their first four meets of the indoor season, the cadets fell to Dartmouth and Navy to close out their dual-meet season at 4-2. On the tournament circuit, the cadets were first in five of 17 events at the annual West Point Invitational along with a sixth-place finish at the ten-team Heptagonal Championships.

Joining the winners circle at Army's invitational were Mike Stuart, long jump; Mike Eggleston, shot put; Jim Orange, 55-meter high hurdles; Ron Davis, 55-meter dash; and Tyno Carter, mile.

The opening day of the Heptagonals found Army in second place on the strength of Carter's second in the 3,000-meter run and John Seamon's fourth in the long jump and sixth in the triple jump. The final day, Orange and Davis set the pace with runner-up honors in the 55-meter high hurdles and 55-meter dash, respectively, while the cadets' distance medley relay team finished third.



Diana Wills racing for a jump

Women's Indoor Track - The lady tracksters closed out the dual-meet season by romping to an 83-35 victory over Navy. Army put the finishing touches on the winter by taking several firsts at the Annual West Point Invitational Tournament along with runner-up honors at the Heptagonal Championships.

Diana Wills grabbed three firsts at the West Point Invitational and won four events in meet record times in the Army-Navy matchup. At the Heptagonals, Wills was voted the "Outstanding Woman Performer" after setting meet records in winning the triple (41' 7 3/4") and long jumps (19' 6") and finishing first in the 55-meter dash (17.15 seconds). Also crowned champions were Lynn Yagiela in the shot put (42' 8 1/2") and Kim Seminiano, who set a meet record in the high jump (5' 9 1/4").

Men's Outdoor Track - The highlight of the season was Tyno Carter's performance at the NCAA Championships where his seventh-place finish in the 5,000-meter run earned him all-America honors.

Army finished fifth at the Heptagonal Championships, behind the efforts of Mike Stuart, Andrew Cameron, Pablo Mariano, and John Seamon. Stuart broke his school mark in the triple jump with a winning effort of 50' 5 1/2". Cameron was crowned a champion in the 400-meter intermediate hurdles (52.62 seconds) and also ran a leg on the 4x400-meter relay which placed fifth. Mariano broke his school record in the javelin with a second-place finish of 221' 1", while Seamon posted a personal best in finishing second in the long jump. Several members of the team also qualified to compete at the Intercollegiate Amateur Athletic Association of America (IC4As) Relays.



Tyno Carter leads the pack in the steeplechase at the West Point Invitational

Women's Outdoor Track - The lady tracksters posted an unblemished 2-0 record, including a 115-39 thrashing of Navy, and put the finishing touches on the season with the crowning of two NCAA Division II champions. Army also walked off with seven Division II and two Division I all-America certificates along with a seventh-place finish at the NCAA Division II meet and fifth-place at the 10-team Heptagonals.

At the Atlantic Coast Relays, Diana Wills' winning leap of 43' 2 1/2" set school, meet, and track marks and was the ninth best triple jump by an American woman ever. She led the Lady Knights in the annual rivalry with Navy where she had a hand in five firsts, four of which were meet marks (in the triple jump, 100-meter and 200-meter dashes), and set an Academy and Shea Stadium record in the long jump. At the Heptagonals, where Army finished fifth, Wills successfully defended her long and triple jump titles. Kim Seminiano captured the title in the high jump while Teresa Sobiesk was runner-up in the 10,000-meter run.

Wills and Sobiesk were crowned national champions in their specialties of the triple jump and 10,000-meter run, respectively, in Division II competition and won all-America honors at both the NCAA Division II and I Championships. Wills wrote her name in the NCAA Division II annals with a meet and USMA mark in winning the triple jump with a leap of 43' 5 3/4" (which, though longer than her previous 43' 2 1/2" jump, was still the ninth-best triple jump by an American woman). Sobiesk claimed the title in finishing first in the 10,000-meter run (34:39.68).

Wills and Sobiesk were also accorded all-America honors in the long jump and 5,000-meter run, respectively, following fifth-place finishes at the Division II meet. Seminiano, Sigrun Denny, and Lisa Benitez garnered all-America recognition as well. Seminiano set a school record in recording the second-best leap in the high jump (5' 9 1/4") while Denny took eighth in the 3,000-meter run as did Benitez in the 10,000-meter run.

Sobiesk and Wills both qualified for the Division I meet where they again walked off with all-America certificates. Sobiesk finished tenth, but since she was the eighth American to cross in the 10,000-meter run, she won the recognition. Her Academy record time of 33:48.33 also qualified her for the Olympic trials. Wills, placed eighth in the triple jump and also won all-America designation.



Teresa Sobiesk

Men's Cross Country - The cadets closed out the 1987 campaign with a perfect 5-0 mark, defeating Navy in the finale, 23-32. It was only the seventh time in Academy history that the cadets went undefeated in dual-meet competition and the first victory over the Middies since 1971.

Army captured the MAAC title for the second-straight year and was led by Tyno Carter who took runner-up honors in the five-mile course.

Women's Cross Country - Army closed out its second unbeaten season in three years in posting a 3-0 dual mark including its second-straight win over Navy.

Teresa Sobiesk defended her titles at the ECAC and NCAA East Coast Regional meet and at the MAAC Championships. In winning the team title at the ECAC regional meet, the Lady Knights beat 30 schools by placing three runners in the top 10.

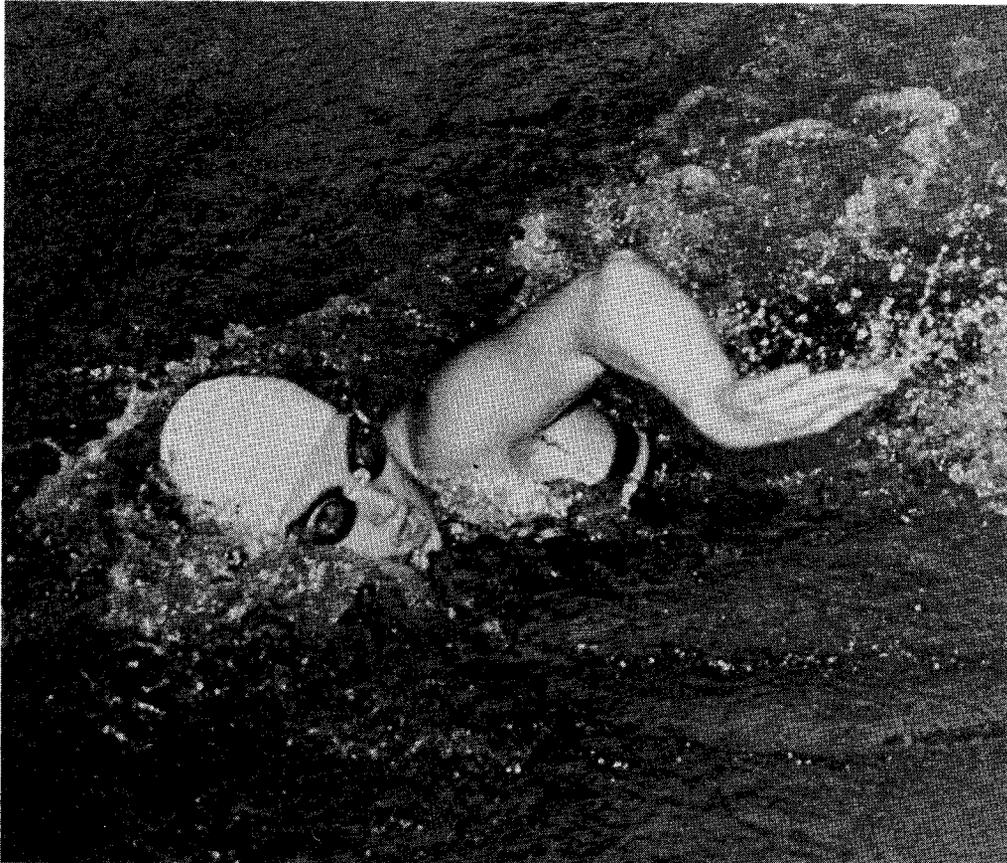
The lady harriers were ranked as high as third nationally in Division II at one point in the season and Army qualified for the NCAA Division II Championships for the first time.

Army turned in a sixth-place effort at the NCAAs, where three members of the team took all-America honors. Sobiesk, chosen an all-America for the second straight year, led Army's efforts in a ninth-place finish, while Sigrun Denny, finishing 13th, and captain Lisa Benitez, finishing 28th, also gained all-America recognition.

Men's Swimming - The Army mermen put together a string of seven-straight victories to close out the season at 9-3 overall and a 6-3 mark in Eastern League competition. A highlight of the season was winning its first MAAC team title, ending LaSalle's four-year domination. This occurred at least partly because it was the first time in the five-year history of the conference championship that the schedule permitted Army to participate with a full squad. The cadets won eight events and set five meet marks. Coll Haddon, who won three events in meet-record time and swam legs on two winning relays, was one of three swimmers who shared the honor of being named the "Top Men's Swimmer" at the championship.

At the Eastern Seaboard Swimming and Diving Championships, the cadets finished seventh out of 31 schools. Haddon claimed two of Army's three second-place finishes. He also was named to the all-ECAC in the 50-yard freestyle, the 100-yard and 200-yard breaststrokes, and, along with Mark Matheson, in the 1,650-yard freestyle.

Women's Swimming - During the regular season, the Lady Knights took their second-straight MAAC title, their third in five years. Anne Marie Wycoff won three events and swam on two winning relays while Colleen Criscillo won in two events and swam a leg on a winning relay at the MAAC championship.



Ann Marie Wycoff in action

The Army mermaids put the finishing touches on an 8-4 season by finishing seventh out of over 30 teams at the NCAA Division II Championships. At the NCAA Championships, Wycoff was named the "Outstanding Female Swimmer." She broke an NCAA record, four Academy marks, and became the first Army athlete to capture four national titles at a single championship event. Wycoff also earned five all-America certificates. She received four individual certificates by defending her title in the 400-yard individual medley with a meet and Academy mark and by setting Academy marks while winning the 200-yard individual medley, 200-yard butterfly, and the 1,650-yard freestyle. She also swam on three relays, one of which won her all-America and the other two honorable mentions.

Also earning all-America plaudits were Criscillo, second in the 100-yard breaststroke, and Carol Ann Heller, sixth in the 200-yard freestyle. Criscillo grabbed honorable mention honors in the 200-yard breaststroke (where she set an Academy mark), the 200-yard individual medley, and the 400-yard individual medley. Heller was awarded honorable mention in the 500-yard freestyle, while Jenny Grzbek earned similar honors in both the 100-yard and 200-yard backstroke events, setting an Academy mark in the 200-yard backstroke. Wycoff and Criscillo qualified for the U.S. Senior National Championships.

Water Polo - Ranked 20th in an NCAA coaches poll early in the season, the water polo team ran into rough waters but managed to pull out a winning season, posting a 15-14 overall mark while going 11-12 in intercollegiate competition.

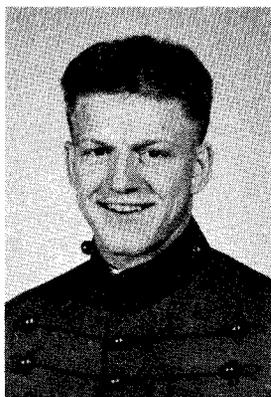
For the second straight year, the cadets received an invitation to the Eastern Championships where they finished seventh out of eight teams competing.

Jeff Sauer led the team in goals with 50, followed by captain Scott Maitland with 35, Dan Ewen with 33, and Brian Cook with 32. Ewen and goalie Stacy Starbuck were named to the all-MAAC squad.

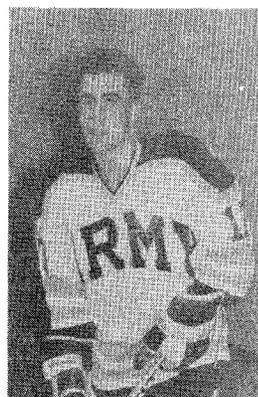
Hockey - Army's young skaters closed out the season on a winning note by posting back-to-back ECAC wins over Brown and Yale, finishing at 9-19-2.

Rich Sheridan led the team in scoring with 18 goals and 18 assists for 36 points while Rob Tobin was second with 15 goals and 16 assists for 31 points. Tobin was selected to the ECAC all-Rookie team and led the cadets in the ECAC scoring with 13 goals, seventh-best in the league.

A highlight of the season was a 4-3 come-from-behind win over the Royal Military College in Kingston, Ontario. The cadets scored twice in the closing minutes to defeat the Redmen.



Rich Sheridan

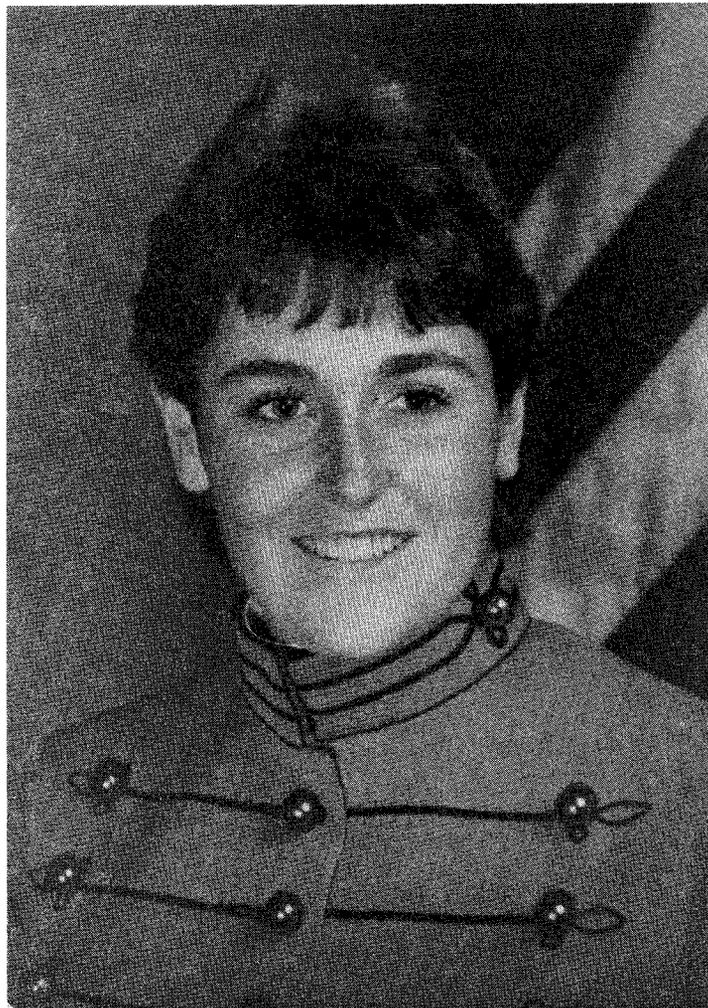


Rob Tobin

Women's Volleyball - The spikers, at one point ranked as high as 11th nationally, set a school mark for consecutive wins by opening the season with a string of 18-straight victories. They also defended their MAAC title, captured three other tournaments, and posted their seventh-straight win over Navy.

The Army spikers realized a pre-season goal when they earned their first NCAA Division II bid. Ranked first in the Northeast Region and 18th in the final national poll, the Lady Knights closed out the season at 29-12 after bowing in opening round play at the NCAA regionals.

Coach Bob Gambardella and Joy Ebberson were singled out for post-season honors. Gambardella was named the 1987 Tachikara Division II Northeast Region "Coach of the Year." Ebberson, who led the team in kills (328) and service aces (76), was selected an NCAA second team all-America. She was one of five athletes presented the Flo Hyman Award by the American Volleyball Coaches Association. Ebberson was also named to the all-Region team along with Gwen Zemaitis. Zemaitis was chosen the MVP of the MAAC tourney for the second-straight year.



Joy Ebberson

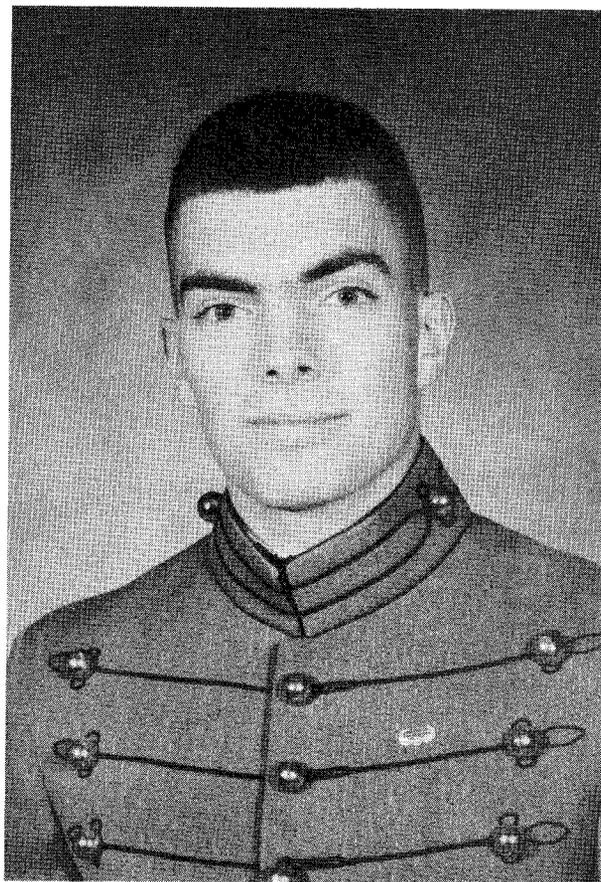
Gymnastics - The gymnastics team compiled a 10-7 record and climaxed the season with strong performances at the ECAC and Eastern League Championships.

Scott Curtis tied the Academy mark on pommel horse (9.4) in a fourth-place finish at the Easterns and James Frezell, who finished fourth in the finals in floor exercise, set a USMA record at the ECAC preliminaries with a 9.75. He was also sixth in vaulting, while Curtis' mark of 9.35 in the preliminaries on pommel horse was just .05 of a point off the school record.

Taft Blackburn was named co-ECAC "Gymnast of the Week" in turning in a school record on still rings of 9.45 in the meet against Massachusetts.

Pistol - The cadet pistol team turned in a 13-1 effort, placed first in the NRA sectionals, and third at the Eighth NRA National Pistol Championships. The lone cadet loss was to Navy which would ultimately go on to take the team title at the nationals. Army, however, defeated Navy in Northeast Intercollegiate Pistol League competition. The cadets finished second in standard and fourth in both free and air pistol at the nationals.

Five cadets were chosen for all-America honors and qualified for the Olympic trials: Deron Kaseberg was named in all three disciplines (air, free, and standard); Erick Reinstedt and Peter Szelwach were picked in both free and standard; Sam Fagone in air; and Franz Huber in free. Three team members -- Reinstedt, Fagone, and Huber -- participated in the trials, but none finished in the top four in their competition.



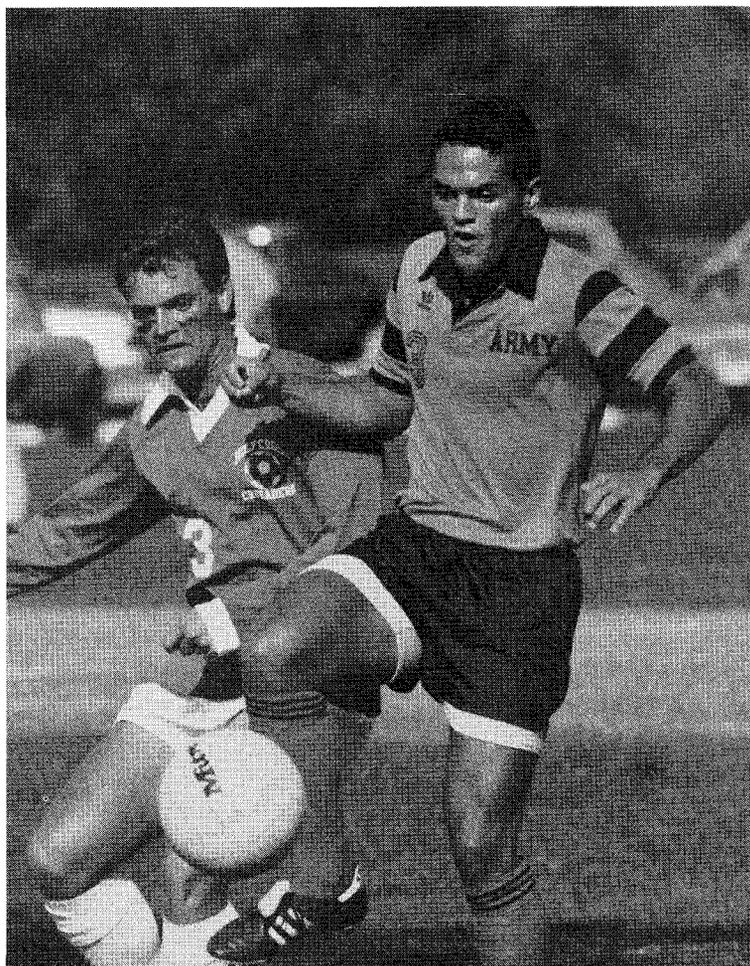
Deron Kaseberg

Rifle - The riflemen turned in a strong performance in compiling a 15-4 record. The cadets placed first in smallbore and second in air rifle at the Mid-Atlantic and Metropolitan Conference Championship and took second in both disciplines at the West Point Invitational. At the NRA Sectionals, Army tied for first in smallbore and was second in air.

Randy Powell and Dale Herr qualified for the NCAAs and were tabbed for all-America honors by the NRA. Powell was a second-team choice in both air rifle and smallbore, while Herr was an honorable mention in air. Powell closed out his Army career as an eight-time all-America spread over four years. Herr, who tied the USMA and Range records in air rifle (391), placed 11th in air (387), and 26th in smallbore (1143) at the NCAAs.

Men's Soccer - The cadets shared a third of the Metro Atlantic Conference title with Fordham and LaSalle and walked off with the top individual honors. Captain Sean Mitchiner was named the MAAC "Player of the Year" while Coach Joe Chiavaro was chosen "Coach of the Year."

Chiavaro led his booters to a 6-1 league mark while posting a final 10-7 record including a 1-0 victory over Navy. The cadets also finished ninth in the final New York State coaches poll while Mitchiner was named a New York State Regional second-team all-America.



Sean Mitchiner in action

Mitchiner tied for first in goals (12) in the conference and finished second in the conference in scoring (27 points). The top Academy scorer of the decade, Mitchiner closed out his cadet career with 91 points (37 goals and 17 assists). Mitchiner and seniors Aaron Kuzemka and Paul Bento were all selected for the all-conference first team for the second-straight year. Bento, who finished second in scoring, led both the cadets and the conference in assists with ten. Second-team conference honors were garnered by Terry Harshfield, Mitch Johnson, Malcolm Frost, and David Robinson.

150-Pound Football - The Army lightweights shared the Eastern Lightweight League title with Navy after rallying to beat the Middies, 16-14, in the season finale. The cadets registered a 4-1 mark in the league while finishing 5-2 overall. The cadets also maintained their perfect record in the Anthracite Bowl, winning their fifth-straight victory.

It was the fifth time that the cadets shared the Eastern Lightweight Football League (ELFL) title, having won it outright 15 times. Six members of the team were named to the all-league first team and another half-dozen were second team choices. Named to the first team on offense were tackle Troy Faber, wide receiver Dan O'Neill, running back Tony Fletcher, and quarterback Carl Woods, while the defensive picks were linebacker Vic Mondo and defensive back Tom Shuler.

Golf - The linksmen's 24-match winning streak was snapped as Navy bested the cadets in the final dual meet of the season. Army, which closed its regular season at 3-1, was defeated by the Middies for only the first time since 1983.

The highlight of the season was the cadets capture of their seventh-straight MAAC tournament title which Army has won every year since its inception. Robb Craddock posted top individual honors in the Army victory.

In the fall, the cadets set a USMA five-man course record in finishing runner-up at the Black Knight Invitational with a 283 paced by Tim Ertmer. Army finished third at the qualification round just missing an invitation to the ECAC tournament.

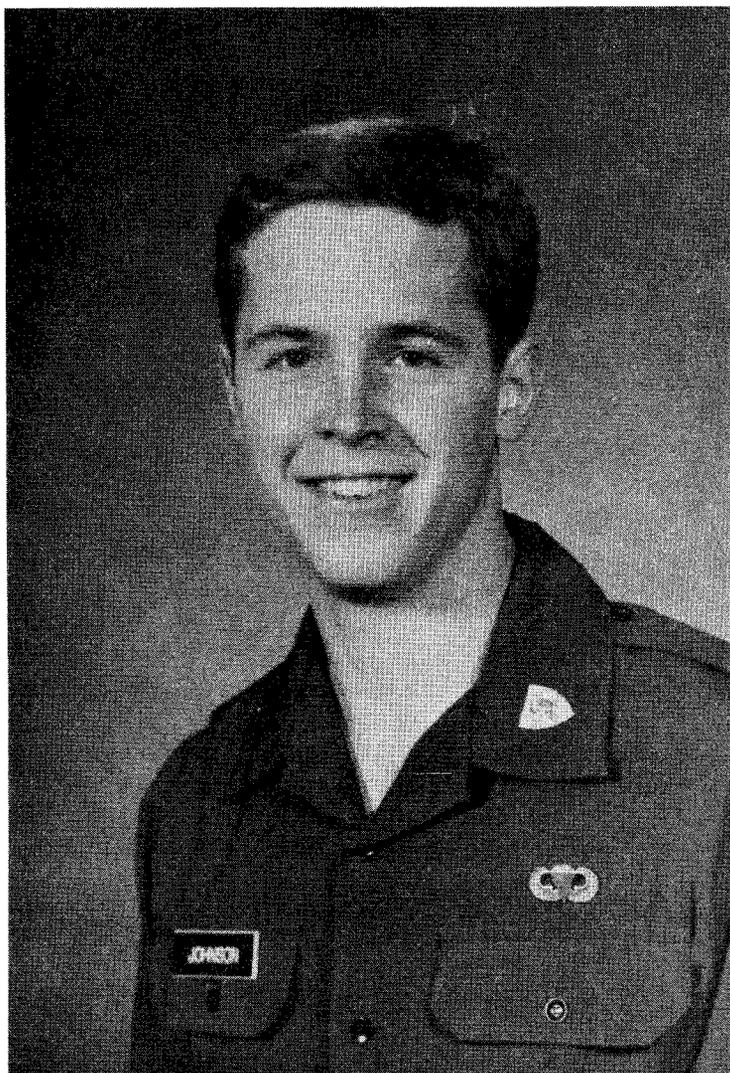
The cadets also placed third at the Black Knight Invitational in the spring where Ernie Blankenship was runner-up. Army was ninth at the Easterns and third at the Metropolitan Championships although Ertmer took first place.

Ertmer was named to the NCAA District II team and joined Craddock, Blankenship, Tim Johnson, Pat Mullin, and Dave Williams on the MAAC all-Conference team. Johnson, selected an NCAA Division I all-America Scholar by the Golf Coaches Association, joined Rob Kewley on the MAAC all-Academic team.

Squash - After pulling out a 3-2 mark during the first half of the season, Army's young squash team fell onto hard times in compiling an 8-16 mark.

Men's Tennis - The netters posted a 9-16 overall mark despite a perfect 5-0 fall record. In the fall, the cadets took second at the MAAC Championships where they crowned four individual champions and two consolation winners. Titles were won by Mark McMullen at number one, Kevin Lemke at number two, Rob Warren at number five, and Alex Clug at number six.

In the spring, O. J. Tatsuta and Chris Harris led the cadets with six wins apiece while Mark McMullen and Mike Purpura each had five. Tatsuta finished with the best overall record with 11 wins.



Tim Johnson

Women's Tennis - The lady netters captured their final four matches and six of their last eight to close 10-9 overall. At one point the squad was ranked fourth in the East and later finished 25th nationally in the final Intercollegiate Tennis Coaches Association (ITCA) rankings.

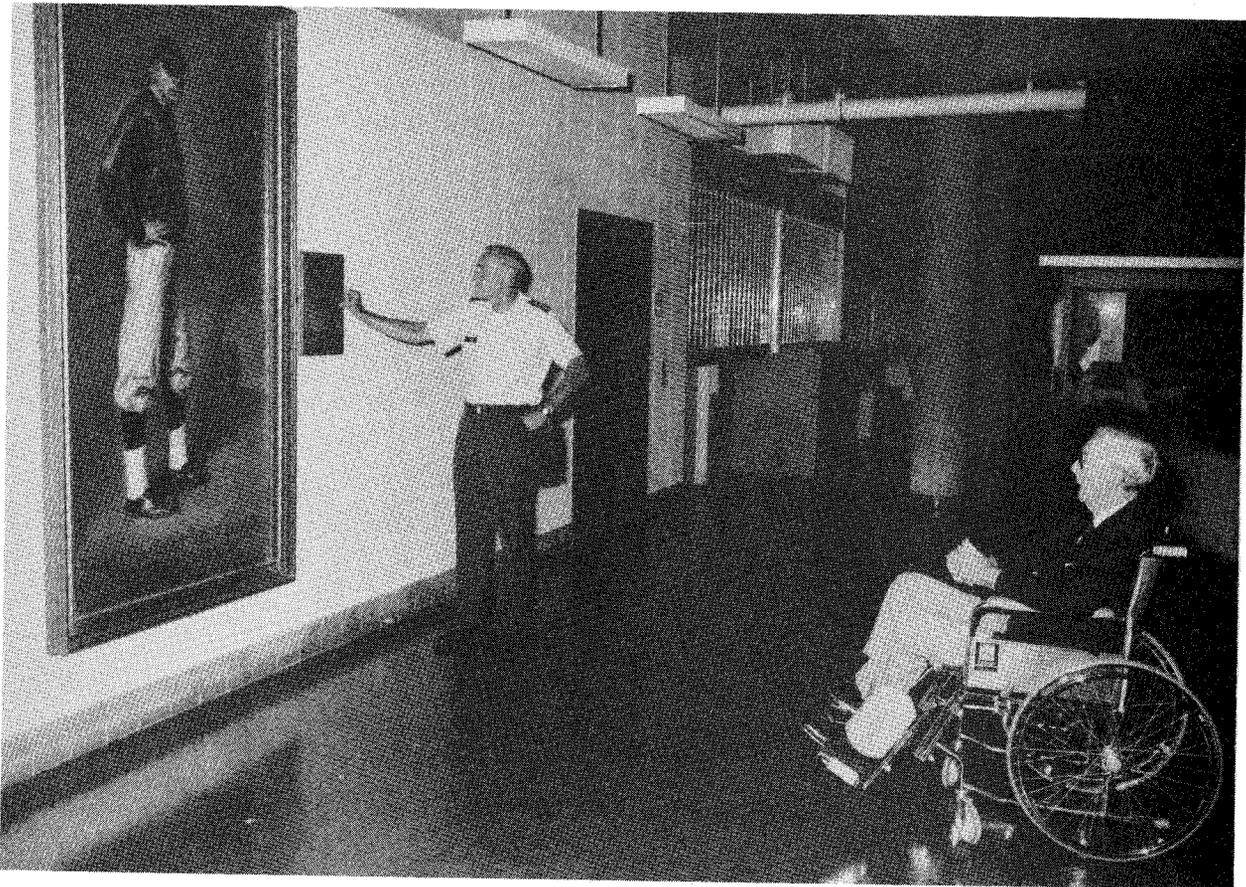
In the fall, the Lady Knights finished third at the MAAC. Julie Hiebert and Carolina Moore reached the finals of the number five and six singles matches. Army was ninth at the New York State Championships where Lisa Haylett reached the quarter-finals of the consolation singles.

Haylett and Captain Ellen Dexter were also ranked by the ITCA during the spring. Haylett, playing most of the year at number one, was ranked 12th in the East while Dexter, at number two, was 13th. In doubles competition, they were ranked seventh.

The two best overall records were compiled by Dexter at 13-7 in the number two position and Hiebert at 14-5 in the number five position. Dexter advanced to the semi-finals in the number two position at the Metropolitan Collegiate Tennis Conference Championships.

MONUMENTS AND MEMORIALS

The Blaik Gallery in Michie Stadium and the Army Athletic Monument on the grounds of the Sports Complex were dedicated and unveiled at ceremonies on 11 September 1987, on the eve of Army's home football opener. The Blaik Gallery was named after the legendary Earl "Red" Blaik (USMA '20), who served as Army football coach from 1941-59 and as Director of Athletics from 1948-59. Mr. Blaik donated the monument which features the famous words of General Douglas MacArthur: "Upon the fields of friendly strife, are sown the seeds that, upon other fields, on other days, will bear the fruits of victory." The Academy was honored to have Mr. Blaik, Mrs. MacArthur, and many players who played for the famed coach on hand for the ceremonies.



The Superintendent and Mr. Blaik view the coach's portrait at Michie Stadium

On 20 May 1988, Lieutenant General Dave R. Palmer, the Superintendent, announced that several of the Academy's athletic facilities would be named in memory of distinguished graduates who were leaders in the Corps of Cadets, prominent Army athletes, and who fell in combat early in life. The Army Multi-Purpose Sports Complex was named the Holleder Center, after Major Donald W. Holleder, a 1956 graduate and all-America in football (subsequently elected to the NCAA Football Hall of Fame), who was killed in Vietnam in 1967. The hockey rink in the complex was named Tate Rink, after Lieutenant Colonel Joseph S. Tate, Jr., Class of 1941 and goalie for the hockey team, who was shot down over Germany in 1943, and his brother, Captain Frederic H. S. Tate, Class of 1942 and captain of the hockey team, who was shot down over France nine months later. The basketball court in the complex was designated the Christl Arena after Lieutenant Edward C. Christl, Jr., a 1944 graduate and captain of Army's basketball team (which was undefeated and ranked number one in the country), who was killed in Austria in 1945, three days before the Germans surrendered. The Cadet Gym was named the Arvin Gymnasium after Lieutenant Carl R. "Bob" Arvin, a 1965 graduate and First Captain and captain of the wrestling team, who was killed in Vietnam two years later. The indoor olympic swimming pool in the gym was designated the Crandall Pool after Major Robert W. Crandall, a 1939 graduate and captain of the Army Swim Team, who was killed in action in Italy in 1945 after being repatriated out of a German prison camp. The East Gym in the Cadet Gym (previously the Central Gym) will be called the Hayes Gym after Captain Thomas J. Hayes IV, a 1966 graduate and Chairman of the Cadet Honor Committee and all-around athlete, who was killed in Vietnam during the Tet Offensive of 1968. The Army Field House was named the Gillis Field House after Major William G. Gillis, Jr., a 1941 graduate and captain of the football team, who was killed in action in France in 1944. The future Lacrosse (Locker and Weight Room) Complex will be named the Truxton Lacrosse Complex after Lieutenant Colonel Thomas Truxton, Class of 1937 and captain of the lacrosse team (later chosen for the National Lacrosse Foundation Hall of Fame), who was killed on Luzon in June 1945.

Finally, Mr. Joseph E. Dineen, formerly with the Sports Information Office, authored The Illustrated History of Sports at the United States Military Academy. The book, recently published by the Donning Company of Norfolk, Virginia, covers the development of organized sports at West Point dating back to the first Army-Navy Football Game played in 1890. It features an in-depth historical coverage of football, baseball, basketball and many of the other intercollegiate athletic teams of the Military Academy.

PROJECT 2002

The 2002 Project, begun in 1986 and continued into the first half of the 1987-88 Academic Year, focused on creating documents describing the West Point environment, setting forth predictable requirements and demands on Army Leaders during the next century, and expressing the guiding principles of the Military Academy. The latter included analysis of the processes of intellectual, military, and physical development, integrated by a solid moral-ethical foundation, and it serves as the underpinning for all the Academy seeks to do to develop future leaders for the Army and nation. The Dean's Office prepared a draft of the statement on intellectual development; the Commandant's Office prepared drafts of the physical and military development; and the Superintendent and his Special Assistant for Strategic Planning (SASP), Colonel Larry R. Donnithorne, devised initial drafts of the other documents. After this initial preparation, a 2002 Review Committee, headed by Lieutenant Colonel Louis S. Csoka, Professor of Psychology and Leadership in the Department of Behavioral Sciences and Leadership, edited and revised all the statements before they were returned to the Superintendent and the SASP for final review.

When the document was finally completed at the end of 1987, it was published along with the Academy purpose, revised mission statement, and description of the West Point environment which had been completed by the Summer of 1987.

The document, titled "2002: A Road Map To Our Third Century," was published in March 1988 and distributed throughout the West Point and Army communities as well as to the members of Congress.

The 2002 strategic plan had been prepared to ensure that West Point maintained an environment where both the essential but competing forces of creativity and stability could flourish. In the Superintendent's introduction to 2002, he noted that the plan "provides general guidance and direction for all subordinate levels of planning at USMA. It will guide the development of specific goals, objectives, and programs for the Military Academy. It is the touchstone against which every initiative or activity will be measured."¹

In the minds of many readers, the 2002 document captured as clearly as any in the past the essence of West Point. All that the institution hoped to be in the future was set forth in this document, called a statement of institutional strategic guidance. This vital document is reprinted as Appendix A in this report. A chart indicating the relationship of key concepts in our development of leaders of character is displayed at Appendix G.

As the strategic guidance was reaching its final, published form, USMA was organizing to perform an institutional self-study in preparation for an impending visit by its accrediting agency, the Middle States Association of Colleges and Schools. USMA chose to turn this necessity into an opportunity to perform a thorough review of the Academy's structure, programs, and resources to see whether the institution was in a position to become in the future what it had set for itself as a goal in the recently-completed 2002 strategic guidance. Thus, the accreditation self-study became the second of two major stages comprising the whole strategic planning effort.

Accreditation

Since the 1930s, the Academy had participated in decennial institutional accreditation analyses. But the effort begun for the 1989 review surpassed all previous attempts. The Academy took seriously the notion expressed by the Commission on Higher Education when it said "Institutional improvement is the objective and the accrediting process should facilitate the

attainment of the goal rather than make accreditation an end in itself."² In the words of the Dean of the Academic Board, "The selection of a comprehensive self-study format with emphasis on selected areas of special interest, and the decision to begin the process early in calendar year 1988, is a reflection of the Academy's commitment to use the accreditation process as a springboard to institutional self-improvement. Conducting a comprehensive evaluation will of necessity entail wide involvement by the USMA staff and faculty--in itself a major goal of the accreditation process--as every area of Academy activity is scrutinized with regard to its support of the Academy's mission."³

From the outset of the accreditation effort, the Superintendent let it be known that a thorough and extensive analysis of all realms of the institution was appropriate. The dimensions of the Academy study are indicated simply by a review of the titles of the various subcommittees: Academic Program, Physical Development Program, Military Development Program, Cadets, Faculty and Teaching, Leader Development Coordination, Masters, and Outcomes Analysis. The dimensions of the Academy's preliminary preparation for the accreditation review, initiated more than a year before the accreditation team would arrive, is detailed in the Accreditation Committee section of the Academy Committee Highlights chapter of this report.

Leader Development

Perhaps the impact of the global review was most obvious in that section of the Academy most specifically involved in the overriding objective of the institution--the preparation of young men and women for leadership in the Army. For one of the Academy's most extensive efforts of the past academic year was its initiatives in the promotion of leader development.

From the 2002 strategic plan itself to the Fellowship in Leader Development and the Superintendent's Award, from the accreditation efforts to the review of the Honor Code and System by external and internal agencies, the Academy, during the past year, undertook a massive, all-encompassing review of our efforts to develop leaders for the Army. From the continuing efforts to promote positive leadership in the Fourth Class System to the efforts to create a First Class Commissioning Certification; from revisions in the cadet rank structure to the physical separation of the First Class cadet living accommodations, the military training program was reviewed and modified in a consistent, comprehensive effort to facilitate the character and leadership development of the young men and women at the Military Academy. The leader development initiatives described in the Military Training Chapter of this report were designed to formulate a developmental process in every aspect of the cadet environment. The creation of the Director of Leader Development, discussed in the Academy Committee Highlights chapter, is one explicit example of the Superintendent's desire to focus attention and resources in that vital area of responsibility.

Facilities

As work was ongoing to describe the nature of the 2002 Project, the Superintendent also expressed concern with the lack of long-range facilities planning at the Academy. He articulated his concerns in October 1987 when he briefed the Installation Planning Board (IPB) and Facilities Modernization Committee (FMC) on some of his basic goals and objectives to ensure that our basic planning efforts specified the array and placement of facilities required to support the goals and objectives being articulated in the 2002 Project. The objective of the plan update was "to provide flexibility for future changes in facility and land use at the Academy; and to establish the basic land use and circulation patterns for development based on the existing mission of the institution."⁴

One of the major initiatives which grew out of the planning process during the past year was the zoning of West Point's land into four zones or categories reflecting the different functional uses of the land. The following description of the division is from a pamphlet titled "West Point 2002: Facilities Improvement Plan," an interim summary of long-range improvements planned for the near future, prepared by Colonel Gerald E. Galloway, Professor of Geography and Computer Science. In the Superintendent's words, the document "is to be used by those activities involved in master planning and facilities development as a point of departure in preparation of detailed facility developments."

1. Cadet - Areas used by the Corps of Cadets for billeting, messing, intramural athletics, parades, and academics. No portion of the cadet area should be farther than a five-minute walk from Washington Hall, the center of the area. This area is known as the Central Post Area.
2. Cadet Support - Athletic fields in support of intercollegiate athletics; cadet facilities such as movies, tailor, etc., which are used less frequently than those in the cadet zone. The North Athletic Field/Eisenhower Hall area and Lusk/Michie Stadium areas are in this section.
3. Post Support - Functions required to support the staff and faculty and their families (housing, religious, medical, schools, etc.), military personnel not assigned to West Point, and retirees, and facilities providing commercial-type services to the total West Point population, e.g., PX, commissary. Buffalo Soldier Field, New South Post, the Cemetery, Lee and Grey Ghost housing areas, and Stony Lonesome are in this area.
4. Recreational, Industrial, and Field Training - Buildings and storage areas needed to support installation industrial operation, cadet and other military field training areas, general recreation area (golf, skiing), and open space. Camps Buckner and Natural Bridge are in this area.⁵

When one reviews the dimensions of the energies expended during the year for the 2002 strategic plan, the accreditation effort, leader development initiatives, and master planning efforts, it was evident that the Academy had entered a period of significant change and innovation. Evaluating and improving the ability of the Academy to fulfill its mission responsibilities, of providing leaders to meet the needs of the Army and nation now and in the twenty-first century was at the forefront of our endeavor. The efforts begun in this year put the Academy well on the road of ensuring that institutional programs and policies are positioned in such a way as to ensure that West Point fulfills our nation's sacred historic trust.

FOOTNOTES

¹"2002: A Road Map to Our Third Century," SASP, Mar 88, preface.

²Commission on Higher Education, "Handbook for Institutional Self-Study," Philadelphia, 1984, as it appears in "Academic Limits," BG Flint, Assembly, Dec 87, p. 39.

³"Academic Limits," BG Flint, Assembly, Dec 87, p. 53. Emphasis added by the editor.

⁴Policy Board Minutes, 23 Dec 87, p. 1.

⁵"West Point 2002: A Facilities Improvement Plan," Jul 88, interim report, p. 13.

OPERATIONS, PLANS, AND SECURITY

RANGE CONTROL

In March 1987, a three-member assistance team from the Directorate of Army Ranges and Targets/National Training Center (DART/NTC) of the U.S. Army Training Support Center at Fort Eustis, Virginia, visited USMA at our request to make an assessment of West Point's ranges. The DART/NTC team made a number of recommendations concerning various aspects of the ranges and suggested that a safety survey be conducted. The USMA Safety Officer also had been concerned that a substantial survey of the ranges had not been conducted for several years.

In January 1988, Mr. Jack T. Kornfield, Range Safety Program Manager at the U.S. Army Training and Doctrine Command (TRADOC), visited the ranges at our request. He made a number of safety-related recommendations which were adopted. Among the more noteworthy were: (1) to limit the M60 machine gun firing on Range 3A to a maximum elevation of 200 mils on the traversing and elevation (T & E) mechanism when Mine Torne Road remained open to traffic; (2) that Range 8, the known distance range, be closed because firing from the 300-meter line places several Camp Buckner buildings in the surface danger area; (3) training areas and hunting areas should be jointly designated on maps and boundaries between the areas should be along easily-recognizable man-made or natural boundaries; and (4) a 300-meter surface danger area should be placed on Range 9 when firing a charge of any weight up to 27 pounds. This latter recommendation was adopted although it interfered with traffic during summer training because it resulted in the frequent closing of Bull Pond Road.

Construction of the new West Point Commissary required that USMA relocate its Ammunition Supply Point to Range 2. Construction of the temporary facility was completed in time for its use in support of Summer Training in 1988.

The conversion of the 20-lane, record-fire Range 5 into a Remote Engagement Target System (RETS) modified fire range is on schedule for construction in Fiscal Year (FY) 1989. However, the Range 3A upgrade from an M60 machine gun firing range to a Squad Automatic Weapon (SAW)/M60 range has been deferred until FY 92.

In June 1988, Company C of the 854th Engineer Battalion from Poughkeepsie, New York, made a number of significant improvements to the ranges after the Directorate of Engineering and Housing (DEH) was unable to accomplish to task because it was too labor intensive. The Company upgraded the Leadership Reaction Course, largely rebuilt the Range 9 bunker, and made significant enhancements to the usability of the 300-meter Bayonet Assault Course to include moving the targets from Camp Buckner to Lake Frederick. After their work, the full course was used for the first time in several years during cadet summer training.

FOREIGN ACADEMY EXCHANGE PROGRAM

USMA participated in cadet exchange programs with 31 foreign nations during the 1988 Fiscal Year. Saudi Arabia and Austria, and Greece did not participate due to budgetary and/or domestic difficulties. In addition, cadets did not visit Costa Rica or Uruguay and did not receive visitors from Portugal, Peru, and Mexico due to budget constraints or conflicts with cadet schedules. These exchanges and/or cultural orientations provide a unique opportunity for the cadets involved to travel and to learn more about a foreign country--the customs and culture, the language, and the armed forces.

In May 1987, the Director of the Operations, Plans, and Security (DOPS) submitted a proposal to the USMA Policy Board to return the administration of the Program to the United States Corps of Cadets (USCC) which had operated the program for 22 years. The movement of the administration to DOPS in 1985 had improved coordination with HQDA as was anticipated, but internal coordination with the various elements of West Point had been degraded. The problem arose because DOPS could not manage the program without actually controlling the most critical assets, i.e., the cadets and their training schedule. The DOPS proposal called for DOPS to retain proponency, but return the day-to-day operation of the program to USCC.

The Policy Board, however, declined to change the present administration but asked DOPS, in conjunction with the representatives for the Dean's office, USCC, and the Department of Foreign Languages, to make recommendations for making the process run more efficiently. In August, the review committee made a number of recommendations for improving the administration by having the program deal with foreign academies collectively instead of individually, as had been done in the past.¹ In concert with that proposal, the committee recommended that USMA cadets visit all participating foreign academies over their March spring break and that USMA host all foreign cadets during one four-week block during the second detail of summer training. In the past, most of these exchange visits had occurred during the summer leave periods and varied between 10 and 15 days in duration. The change would lessen the disruption to cadet schedules and reduce the administrative burden of the program.

The Policy Board decided to retain administrative supervision in DOPS, but to accept the recommendations for the rescheduling of the exchanges. The changes were implemented for the first time during this reporting period.

During the 1988 Fiscal Year, 56 cadets from 22 foreign military academies were hosted by USMA and 74 USMA cadets visited 26 foreign countries and the U.S. Army Russian Language Institute. West Point hosted cadets from 13 Latin American countries and Belgium, France, West Germany, Spain, Morocco, Jordan, Australia, Japan, and Korea. West Point cadets visited 14 Latin American countries and Belgium, France, Great Britain, Portugal, Spain, West Germany, and the Netherlands, Morocco, Jordan, Australia, Japan, and Korea.

USMA MUSEUM

Planning for the Museum Move

The past academic year began the culmination of a nearly six-year effort of planning and working with other West Point agencies to accomplish renovations of the Museum's new home, the movement of Museum artifacts out of its existing facility in Thayer Hall, and ultimately the reopening of the Museum at a new site in 1989.

The Museum staff focused all efforts on planning the renovation of Olmsted Hall at New South Post, which will house the new Museum, and on the preparation for the move itself in July 1988.

Over a six-month period, the Museum staff prepared the contract to provide for the safe packing and transportation of the Museum's nearly 45,000 historic artifacts valued at nearly \$30 million to Olmsted Hall. To assure a safe and timely move from Thayer Hall to New South Post, the contract for the move specified the proper handling, packing, and storage of objects as well as assessing the Museum's conservation requirements while materials were in storage. In June 1988, the \$390,000 contract was awarded to the Fine Arts Express Company of Boston, Massachusetts, for a Summer of 1988 move.

The refurbishing of Olmsted Hall to administrative standards was completed by the New York District Corps of Engineers in June 1988, under the Academy's Academic Modernization Program (Phase 1A), using Congressionally appropriated Military Construction, Army (MCA) funds. A private donation of \$4.5 million from the George Olmsted Foundation provided for a number of improvements to the Hall which were required to accommodate the Museum. Three of them were completed during the past year: the first was the upgrade of the building-related mechanical systems (such as climate control and fire control Haalon devices) necessary for the long-term care of the Museum's historical collections; the second was the funding for a \$2 million contract awarded to Design and Production, Incorporated, of Lorton, Virginia, to design and fabricate all six exhibition galleries in the Museum; and, a third portion of the fund was used in July 1987, for architectural studies for the design and construction of a Museum Annex. The Annex, which is planned for the north end of the Museum, will serve both as a heavy object storage area and a temporary exhibition gallery.

Museum Operations

Although the Library staff was concentrating on preparing for the move of the collection, the Museum continued to be open to the public. The Museum hosted over 236,000 visitors during its final year of operation in Thayer Hall. Although this is a slight decline from the previous year, the Museum continues to attract a wide variety of individuals of all ages and nationalities and receives the largest attendance of any indoor facility open to the public and cadets at West Point. Similarly, Fort Putnam, also operated by the Museum, attracted an estimated 50,000 visitors, about the same as the year before. Finally, the Museum continued its unique mission of supporting the academic curriculum by providing nearly 1,000 museum artifacts for classroom instruction by the Department of History.

While the Museum discouraged gifts during this period when storage of artifacts was a prime concern in preparation for the move, the Museum received nearly 75 artifacts ranging from weapons, military models, and uniforms to portraits, military drawings, and sculptures. Among the more noteworthy of the gifts were the personal memorabilia, including a flight suit, from Astronaut Frank Borman, several World War II drawings by U.S. Army staff artist, Emanuel Bromberg, and General Mark Clark's West Point class ring.

The outstanding purchase of the year was an 1849 U.S. Topographical Engineer's Sword, purchased through the Museum Gift Fund. The sword is the earliest-known piece of its type, is in nearly perfect condition, and is well-suited for Museum display.

The West Point Chapter of the Daughters of the United States Army (DUSA) donated nearly \$20,000 to establish a Museum library facility in the Olmsted Hall site. Their gift is a substantial boost to the Museum's ability to provide an appropriate setting for rare books, folios, manuscripts, and other items related to the Museum collection. DUSA has supported the Museum generously in the many years that the Museum and DUSA jointly managed a sales desk in the Museum. The DUSA organization shall continue to operate a sales/bookstore in the new museum, but on a more limited basis than in the past in accordance with the requirements of Army Regulation 870-20.2

FOOTNOTES

¹Memo, MAAS-S, COL Cunningham, DOPS, for Policy Board, 3 Aug 87, sub: "Reorganization of the Foreign Academy Exchange Program (FAEP)."

²In accordance with this regulation, DUSA will be permitted to sell only materials relating directly to the Museum instead of general West Point memorabilia as in the past. Since government museums do not charge sales tax, there has been Internal Revenue Service (IRS) concern that selling general merchandise, which had been done at some facilities, unfairly competed with local communities whose products are taxable. To correct that problem, the AR 870-20 severely restricted the type of items which can be sold at Army museums.

RESOURCE MANAGEMENT

Fiscally speaking, Fiscal Year (FY) 88 got off to a slow start since final approved funding levels in our principal appropriation, Operations and Maintenance, Army (OMA), were not issued by HQDA until 23 February 1988. Moreover, we were short obligation authority--our \$109 million initial funding authorization document was fully \$11 million less than our July 1986 Command Operating Budget (COB) submission for FY 88. Comparison with the previous year's funding level of \$121.8 million led to a similarly dismal initial prognosis.

The impact was not confined to our maintenance and repair program where we could not halt further decay of the physical plant. Civilian payroll could not be fully funded, so to initiate the Manage the Civilian Workforce to Budget (MCB) Test, the Program Budget Advisory Committee (PBAC) underwrote the gainsharing part of the test at the expense of other command sensitive programs.

Fortunately, third quarter increases by HQDA of \$2 million in recognition of the cost of moving to New South Post following MCA-funded renovations, prevented Real Property Maintenance and Repair, Army (RPMA) spending from falling even lower and allowed the PBAC to fulfill its commitment to MCB. In the fourth quarter, OMA received another increase (\$1.3 million) so that we ended the fiscal year on a more positive note at \$112.3 million.

In our Army Family Housing (AFH) account, we fared quite well and finished FY 88 at an all-time high of \$11.2 million.¹ Similarly, MCA spending at \$26 million was at a post expansion high and Academic Modernization moved ahead.

The Military Academy's input to the Army Guidance, Volume 1, "The Army Plan," December 1987, resulted in the continuation of an entry within the manning functional area of the plan which specifies "continued support of the academic modernization and renewal program at the U.S. Military Academy." Recognition of this requirement in the Army's overall plan provided additional support for USMA's requests for financial resources to meet the objective.

The Military Academy submitted the Program Analysis and Resource Review (PARR) for FYs 1990-94 in November 1987. This was the first biennial PARR and the first (decrement) PARR requiring our identification of a seven percent reduction below budget guidelines for each year. However, the Military Academy demonstrated the necessity of each item among the proposed cuts so that West Point survived the PARR cycle with funding largely intact. However, subsequent annual (FY 90-94) program cuts, ranging from \$4.5 million to \$7.5 million, effectively threatened the Academy's future ability to improve its position, not only in the repair and maintenance of aged buildings and infrastructure but also in the education, training, and support of cadets as well.

The July 1988 submission of the FY 90-91 Command Operating Budget (COB) for OMA and AFH was similarly the first decrement budget, requiring identification of how a five percent reduction in OMA funding could be accommodated. UFRs were limited to one percent of total obligation authority (TOA) when TOA for the COB was comprised of the OMA, AFH, and MCA projected funding levels. The Commander's Statement accompanying the COB stressed that USMA shared in the DOD decade of growth only in FY 87.

Manpower resources authorized USMA by HQDA as of 30 September 1988, totaled 3,282. This was a net increase of 34 spaces (or one percent) from the total authorized one year earlier and the first minimal increase since the two space increase in FY 83. (The Academy still declined by 419 spaces or 11 percent over the past five fiscal years.)

	<u>30 Sep 87</u>	<u>30 Sep 88</u>	<u>Net Changes</u>
Officer (and Warrant Officer)	756	750	- 6
Enlisted	470	514	+44
Civilian Full-Time Permanent	<u>2,022</u> 3,248	<u>2,018</u> 3,282	<u>- 4</u> +34

There was a reduction of seven morale, welfare, and recreation (MWR) officer spaces as a result of an 1987-91 Total Army Analysis (TAA) action, and a reinstatement of one officer space to head a USMA engineer platoon that was restored by DA after the inactivation of our 528th Engineer Detachment in FY 87.

In a related action, 41 enlisted spaces were restored by DA for the engineer platoon. Fifteen other spaces were reinstated due to an inadvertent DA action that had previously deleted 15 spaces twice. Nine enlisted MWR spaces were lost due to the TAA action noted above. Two spaces were lost due to a separate MWR action and one additional space was cut in a follow-on of the Table of Distribution and Allowances (TDA) cook reduction.

Civilian strength during the same period was reduced as a result of a Program Budget Decision (PBD029) unspecified reduction of 11 spaces. On the other hand, authorizations increased four spaces for the Army Center for Electromagnetic Science and Technology (the photonics laboratory), one space for a chaplain, and two spaces for Army Community Services (ACS).

The most significant action affecting manpower resources in FY 88 was the Superintendent's decision to conduct an internal top-down review of the organizational structure of the Military Academy. Actions coming out of the Structure Review Committee (discussed in the Academy Committee Highlights chapter of this report) began to be implemented during the final quarter of FY 88. These actions will result in the realignment of the installation staff more in accordance with Standard Installation Organization (SIO) and a reduction in the military grade structure. The creation of a Fellowship in Leader Development, a graduate program to educate future tactical officers, will result in an internal reallocation of eight officer spaces and the integration of the function of the Special Assistant for Strategic Planning Office into an Office of Leader Development Integration. (This is also discussed in the Academy Committee Highlights chapter of this report.)

The Military Academy continued the conduct of two Commercial Activities (CA) cost studies under the Office of Management and Budget (OMB) Circular A-76 (revised) of August 1983. The two functions under review, the Base Real Property Maintenance and Fixed Plants Operation at West Point (i.e., water, sewage, and boiler) and the Logistics Support Study (previously designated the Supply and Services Study of warehousing and property control), together, affect 465 positions. Solicitations awarded in the past fiscal year were the Custodial contract, awarded to Harris Systems International of San Antonio, Texas, and the Full Food Services solicitation for the USMA and Stewart Army Subpost (STAS) Troop Dining Facilities, awarded to Transcontinental Enterprise, Inc., of Dunn, North Carolina. Contracts previously awarded under the CA program and resolicited during the past fiscal year included

the Garbage and Refuse Removal contract, awarded to Milton Sanitation of Milton, New York, and the Real Property Maintenance and Repair contract at STAS, awarded to the Burns & Roe

Services Corporation of Oradell, New Jersey, which already had the Vehicle Operations and Consolidated Maintenance contract at STAS.

During FY 88, efforts focused on the promotion of productivity programs such as the Productivity Enhancement Capital Investment Program (PECIP), the Model Installation Program (MIP), and the Army Suggestion Program (ASP). As part of this effort, training was introduced in the Basic Supervisory Development Course and in the New Employee Orientation Course offered by the Civilian Personnel Office. Individualized instruction within organizations was encouraged and presented upon request. This resulted in broader participation by the USMA community and better quality PECIP projects and evaluations of ASP and MIP proposals.

FOOTNOTE

¹A \$2 million increase in Army Family Housing provided additional funds used to purchase contractual replacement of windows in the Stony Lonesome housing area.

INFORMATION MANAGEMENT

During the year, in concert with the requirements of Army Regulation (AR) 25-1, "The Army Information Management Program," effective 1 March 1986, an Information Management Steering Committee chaired by the USMA Chief of Staff was established to review information management architecture and policies at West Point. Its charter and responsibilities are specified in USMA Regulation 25-1 "Information Management," which will go into effect in September 1988.

COMPUTER SYSTEM DIVISION (CSD)

The UNISYS 5000/80 computer systems will begin to replace the existing Instructional Support System (ISS) Prime computer systems by the Summer of 1988. Approximately \$375,000 of Productivity Enhancement Capital Investment Program (PECIP) funds were allocated to purchase some of these machines. The new systems use the UNIX operating system and will be used to support cadet and faculty academic work.

The \$4.2 million Cadet Barracks Local Area Network (CBLAN) became operational in January 1988. The CBLAN computer network links some 1,903 rooms and will be expanded to the remaining 259 rooms in Scott Barracks after that barracks' renovation in the Summer of 1989. The CBLAN, based on the most advanced integrated computer technology available, permits the cadet's personal computer to connect to many other computer resources at the Academy. Through CBLAN, a cadet can not only connect to other cadet rooms, to department computers, and to the library card catalogue, but can also send mail or transfer files. CBLAN supports over 4,000 cadets, staff, and faculty personal computers in use at the Academy. When the installation of CBLAN was completed, the Computer Networking Branch (CNB) of this Directorate assumed operational and maintenance responsibility from the contractor, the Rochester Telephone Company (Rotelcom) of Rochester, New York.¹

The broadband Local Area Network (LAN), of which CBLAN is a part, also grew during the year to serve an even larger share of the Academy community. This state-of-the-art computer network was expanded to link key administrative areas, including the Command Group, the Dean's Office, the Directorate of Resource Management, and the Directorate of Logistics (DLOG) management office.

The Defense Communications Agency (DCA), Washington, D.C., approved a request for a Defense Data Network (DDN) packet switch node. This communications node will provide direct ready access to the DDN and eliminate the previous requirement to utilize leased communications through a university in New York City. The communications node will permit the connection of four USMA host computer systems (selected on the basis of their ability to serve the widest range of local users), to the worldwide DOD digital data network. The node equipment, to include a Very Small Aperture Terminal (VSAT) satellite dish, will be installed in the Summer of 1988 on the top of the Headquarters Building (Bldg 600). During the period, the USMA electronic mail system was extended to numerous additional users, including those at the Stewart Army Subpost (STAS).

Upgrades were made to the Academy Management System (AMS) by acquiring XEROX laser printers. The main justification for the acquisition of this equipment was to permit in-house printing of work for the Director of Admissions which had been done previously by a commercial printing firm. The in-house printing by the government is anticipated to save \$60,000 annually in Admissions work alone.

During the past year, the DOIM Information Center continued to serve as the focal point for the evaluation and introduction of new software and hardware technologies. The Center selected, with the approval of the Information Management Steering Committee, software packages in such areas as word processing, graphics, and desktop publishing in an effort to promote uniformity among Academy software users. Finally, for the first time, the Center used state-of-the-art desktop publishing techniques to create camera-ready copy for high-quality graduation and awards convocation booklets at the 1988 May Graduation.

AUDIOVISUAL INSTRUCTIONAL TECHNOLOGY DIVISION (AVIT)

Visual information and audio services were constantly highlighted during a year that was characterized by events of major historical and operational significance.² Foremost was the support provided for the visit of the President of the United States. This support included live television broadcasts of both a review and the President's address to the Corps of Cadets; extensive still photographic documentation; refurbishing of a wall-size USMA crest; relocation of the parade speaker system; and production of a video essay on the President's visit that was made available to all Academy personnel. Other major historical events that received substantial media and audio support included the Red Blaik Ceremony, the dedication of the Jewish Chapel, and the graduation address by the Vice President of the United States.

Visual information facility and equipment modernization efforts continued to ensure quality media and sound-reinforcement support for academic staff requirements. One-half inch video tape (VHS) camcorders, high-grade video monitors, and portable sound systems were added to the AVIT inventory for faculty and cadet support. Television receivers, viewgraphs, and opaque projectors were obtained as part of the ongoing classroom upgrade program. Production capability was enhanced with the acquisition of color printers for use with a graphics-automated workstation laboratory. The three major academic auditoriums located in Washington, Mahan, and Thayer Halls underwent complete visual information equipment upgrades under the DA Visual Information Facilities Modernization Program.

INFORMATION MANAGEMENT SUPPORT DIVISION (IMSD)

For the first time at the Military Academy, a secure voice system, Secure Telephone Unit (STU-II), was installed in the Telecommunications Center (TCC) in November 1987. This secure voice system is already scheduled for an upgrade to STU-III in the 1989 Fiscal Year.

Progress toward relocation of DOIM functions to New South Post (NSP) continues. A communications contract was issued for a multimode (data and voice) fiber optic cable and telephone cable between the Dial Central Office (DCO) and New South Post. The contract should be completed to allow for relocation in September 1988.

As part of a general DA systems purchase, to provide a state-of-the-art facility, Standard Remote Terminal (SRT) telecommunications equipment was installed in July 1987, replacing the DCT-9000 equipment in use since 1979. Also as part of a general DA upgrade, KG-13 encryption devices on the AUTODIN circuit were replaced with state-of-the-art KG-84A equipment (only one-sixth the size of the previous unit).

In concert with actions underway in the civilian sector, a customer-premise equipment buyout program was completed at STAS which enabled the Government to replace all leased telephone instruments with Government-furnished equipment (GFE).

A contract was issued to the Calso Communication Corporation of Maryland for the replacement of 430 rotary dial telephone sets at West Point with touch-tone telephones. Conversions of other phones will be completed by in-house personnel.

FOOTNOTES

¹For additional information on the project, see article, Pointer View, 15 Jan 88.

²The term "audiovisual information" is passing out of use in the Army in the Information Management Age. Instead, the term "visual information" is more commonly used.

PERSONNEL AND COMMUNITY ACTIVITIES

ADJUTANT GENERAL

The Military Academy's Fourteenth Annual Retiree Open House was conducted in conjunction with the celebration of Armed Forces Day in April. Some 1,000 area retirees, dependents, and guests attended the scheduled events held in recognition of their dedicated service to the country. Retired Command Sergeant Major Douglas Russell, retired director of the Association of the United States Army (AUSA) was the guest speaker. The day's activities included a cadet review, an exhibition by the Cadet Sport Parachute Team, a luncheon in the cadet mess, a static display of weapons, equipment and uniform items dating back to World War I put on by the 83rd Infantry Division Association and AUSA, and several helicopters provided by the Maryland Army National Guard's 1-158th Air Cavalry. Many attendees called this the best open house since our program began, partly due to the World War I displays.

In the Spring of 1988, for the twelfth year in-a-row, the Military Academy received the Fiscal Year (FY) 1987 Headquarters, Department of the Army (HQDA) Major Command Reenlistment Award for surpassing all HQDA reenlistment objectives, reenlisting 13 percent more individuals than the objective. In addition, the quality of the West Point reenlistments also exceeded Department of the Army (DA) goals. West Point's reenlistments averaged 86 points on the Initial Term Quality Point Average (a composite rating based on education and Skills Qualification Training (SQT) scores, Army Physical Fitness Test (APFT) performance, and honors), far above the DA objective.

During the 1987-88 Academic Year, the Military Academy further defined and implemented the previously established policy understanding, ensuring that our rotating staff and faculty satisfied both institutional requirements and met individual developmental needs with respect to the 48 month time-on-station policy.

In conjunction with the Director of Officer Personnel Management in the Total Army Personnel Agency (TAPA), an understanding was reached in 1987 whereby officers attending advanced civilian schooling for 18 months or more immediately prior to their West Point tour could depart USMA for professional development purposes after three years time-on-station, if so recommended by the Superintendent. The approval, which is routinely provided, has ensured that our officers return to the mainstream Army and continue to professionally develop in challenging assignments.

COMMUNITY OPERATIONS DIVISION

In concert with a DA-directed redesignation in the Summer of 1988, the Installation Club System was redesignated the Community Operations Division.

During the 1987-88 Academic Year, the West Point Officer's Club's major project was the renovation of the main kitchen and storage area at a total cost of approximately \$823,000. The project included purchase of equipment. During this time frame, carpeting, drapes, and sunscreens were installed in the Main Ballroom. Total net income for the Club in FY 88 was \$112,000. On the other hand, the NCO/Enlisted Club Branch had a net loss of \$8,600 in FY 88 due primarily to the loss of business during the total renovation of the air conditioning/air handling system in the club.

The Package Beverage Branch (PBB) net income totaled \$152,300 in FY 88. This is a ten percent decline in net income from the previous fiscal year. This decline was due in part to the

relocation of the West Point Store to a temporary site on Wilson Road, a move necessitated by the relocation of the Visitors Information Center (where the West Point store was located) from New South Post to main post during the building renovations. The decline in net income is also in line with national decreases in hard alcohol consumption in favor of less expensive light beers and wines, deglamorization of alcohol consumption in society, and a harder line by the Army and the civilian sector against such alcohol-related problems as driving while intoxicated.

A West Point Deli was opened in October 1987 due in part to efforts to promote sales in the Package Beverage Store. The Deli was designed by management to provide a food service outlet in close proximity to the soldiers living in the barracks, as well as for civilian employees. However, because of the building configuration, only one entrance was available for entry into both the Deli and the Package Beverage Store. Since only authorized military identification card holders are permitted to enter Package Beverage Stores, the number of Deli Market customers were lower than anticipated. In the Spring of 1988, a door was placed between the Package Beverage Store and the Deli permitting civilians to enter the Deli for the first time. However, overall for FY 88, the Deli experienced a net loss of \$13,600.

COMMUNITY RECREATION

In concert with a DA-directed redesignation, the Morale Support Division was redesignated the Community Recreation Division (CRD), but still continued to provide recreational opportunities for the Military Academy's morale, welfare, and recreation patrons by expanding programs, acquiring new equipment, and broadening its scope of operation.

Renovation of CRD facilities continues to be a priority and FY 88 is no exception. The Bonneville Cabin and Bathhouse at Round Pond received extensive repairs and modernization, two tees at the USMA Golf Course were rebuilt and the long-awaited Ski Lodge expansion project has been awarded and will be completed prior to the 1988-89 ski season. The Equipment Rental Shop was relocated to Round Pond and proved to be a well-received change by the West Point Community.

The CRD purchased more than \$150,000 in supplies and equipment to replace and augment old, worn-out equipment. One recent addition, a miniature Golf Course at the Youth Activities Center has enjoyed early success and promises to be a popular addition for the West Point Community.

The Information, Tour, and Travel (ITT) Program expanded services and activities. Added to an already full schedule was a travel show, an All Army Talent Contest winners show, two additional summer condominiums in Myrtle Beach, South Carolina, and many additional trips. A new 16-person passenger van was purchased to transport patrons.

HUMAN RESOURCE DIVISION

As a result of the National Defense Authorization Act for FY 88-89, cadet candidates for the Class of 1992 underwent accession biochemical drug and alcohol testing on Reception Day, 30 June 1988. The USMA Preparatory School candidates were not tested due to their active duty status. The installation Alcohol and Drug Abuse Prevention and Control Program (ADAPCP) coordinated the urinalysis collection process with the aid of 93 detailed personnel from various activities on post. The specimens were tested at Compuchem Laboratory, Raleigh, North Carolina. There results in this testing were all negative. The alcohol breath

analysis was supervised by Mr. Vern Davis, of Alcohol Countermeasure Systems, Inc., of Detroit, Michigan. The results of the alcohol breath tests were also all negative.

The Division, in conjunction with the Hudson Valley Blood Services, conducted two post-wide blood drives. The August 1987 and March 1988 drives gathered 5,491 units of blood for the Hudson Valley Community, making this again one of the largest contributions in the Northeast. The Walter Reed Army Medical Center Blood Drive was conducted in January and collected an additional 2,247 pints.

In April, the Education Center administered Graduate Record Examinations (GRE) to 641 First Class cadets (or more than 60 percent of the graduating class). This was the largest number of administrations in the past five years, an increase of 15 percent over last year, and more than quadruple the number the year before that. This dramatic increase in the number of cadets taking the GRE resulted from the Department of Defense (DOD) decision to make one free GRE test available to each college-educated service member beginning in 1987.

Child Development Services

In January 1988, the USMA Child Development Services were evaluated by the U.S. Army Child Care Evaluation Team (ACCET) as part of an Army-wide evaluation of its child development programs. The purpose of the visit was to evaluate the Child Development Services and Family Child Care system at West Point and Stewart Army Subpost (STAS) to determine if they were in compliance with DA and DOD standards. The evaluation centered on the child development service programs, the family child care system, fire, safety, and health and nutrition.

In March, the ACCET report on the services was completed. The report praised the child development service here as "responsive to community needs for child care." The Academy's health and safety record was commended as was their enrollment in the U.S. Department of Agriculture food program. The report found the need to install vision panels in all classroom doors to allow adequate visual supervision at all times, an action which was completed by May 1988.¹

The report also found unsanitary diaper changing practices, that centers incorrectly mixed some cleansers, that several small rooms did not have smoke detectors, and that one kitchen door was insufficiently fire retardant. Most of these deficiencies were minor and had been eliminated by the time the report was released. The ACCET said that background checks for the entire family of the care providers (including children 13 years of age and older) had to be completed before the family child care provider could be provisionally certified. Background checks, which previously had been limited to the child care provider, were thereupon extended to all members of the child care provider's family.

One innovation accomplished by the Child Development Service during the past year was the school-age latch key program begun in September 1987. Designed to meet the needs of children between the ages of 5 and 12, it features youth activities, scouts, "Dancersize," "Jazzersize," and a creative rhythm movement program.

In June 1988, a DA-directive that all Morale, Welfare, and Recreation (MWR) activities must be self-supporting resulted in the price of child care increasing an average of 21 percent at West Point. Although the new rates were on a sliding scale based on the combined family income, with reduced rates for lower income parents, they still represented an increase in cost for most families. While the action was unpopular with parental users of the facility, the convenience of the West Point facility and the comparable cost of off-post child care did not

reduce the total overall enrollment. However, it did result in a decline in participation at the child care center and a corresponding increase in participation in the family child care provider program.

PROVOST MARSHAL

The Provost Marshal completed a wide range of special commitments during the period. The most noteworthy was security assistance provided for a variety of dignitaries including President Ronald Reagan and Vice President George Bush. The Provost Marshal supported the complete spectrum of Corps of Cadet activities, from athletic events to Eisenhower Hall performances and from the march from Lake Frederick to Reception Day and Graduation.

The Provost Marshal promoted community crime prevention efforts through the innovative use of McGruff, a bicycle rodeo (co-sponsored with Highland Falls, New York, Police Department), and selective enforcement with walking patrols. Community safe driving consciousness has been further enhanced by a vehicle monitoring system used in the housing areas.

Finally, the USMA Military Police Company sponsored the sixth annual Toy Bowl and raised over \$200 in cash and a two and one-half ton truck full of toys for Army Community Services.

The USMA Military Police Company won the Superintendent's trophy for sports for the fourth year in-a-row; won the sports trophy at the Soldiers' Appreciation Day competition; and was awarded the 1987 Superintendent's Unit Reenlistment Trophy for the academic year.

RESOURCE MANAGEMENT OFFICE

At the direction of DA at the start of FY 88, most of the Academy's nonappropriated fund instrumentalities (NAFIs) were consolidated. While there were 24 NAFIs at one time, by the start of FY 87, only eight remained, as 13 different morale, welfare, and recreational activities (such as Morale Support Activities and Installation Club Management) had merged into the Installation Morale, Welfare, and Recreational Fund (IMWRF). The other separately existing NAFIs are the Elementary School, Cadet Activities, Hotel Thayer, Treasurer, USMA (which controls the Cadet Store/Bookstore), Army Athletic Association, Cadet Mess Ration Fund, and the Chaplain Funds. The Library and Museum Gift Funds were converted to private organizations.

This action is in concert with DA guidance to utilize the single fund concept in dealing with NAFIs and is also in concert with Lieutenant General Willard W. Scott's 1984 guidance to consolidate NAFIs normally found at installations into the IMWRF.

In an effort to provide sufficient appropriated fund support to the most critical MWR activities which sustain the community and supplement the support of those beneficial activities which can generate some revenue, a complete review of appropriated fund support for MWR was completed during the past year by the DOD. As a result, MWR activities were grouped in four categories with mission essentiality and the inability to generate revenue the primary criteria for appropriated fund support. Those which were the most essential to a community's morale, welfare, and recreation environment would receive appropriated funding to sustain them.

Category A consists of mission-sustaining activities which promote the physical and mental well-being of the military member (such as libraries and physical

fitness facilities) and which will be supported almost entirely with appropriated funds.

Category B consists of basic community support activities (such as arts and craft and youth activities), which satisfy basic physiological and psychological needs of service members and families and should receive a substantial amount of appropriated fund support.

Category C consists of enhanced community support activities (such as clubs and bowling) which contribute to the military mission by fostering a sense of community spirit and can generate some funds to cover operating expenses. These agencies should receive sufficient appropriated fund support to sustain them.

Category D consists of business activities (such as flying clubs, golf courses, and package beverage stores) which are less essential to the military mission but are highly desirable as recreational outlets. These activities can generate revenue and should generally not receive appropriated funding to sustain them.

As a result of this hierarchy and designation, some USMA MWR activities will no longer be eligible for appropriated funding, the costs of others will dramatically rise, and still others will require additional nonappropriated funding support to maintain them.

SAFETY

The Army Motorcycle Rider's Course (AMRC) was developed in accordance with Army Regulation 385-55, "Prevention of Motor Vehicle Accidents," of 12 March 1987. AMRC is an eight-hour program with both classroom and hands-on-training. All military personnel who ride a motorcycle or moped must attend AMRC. Additionally, civilians who ride motorcycles or mopeds on an Army installation must also attend AMRC.

A Back Awareness Program was developed by the Office to address the number one injury causing missed duty time. The course, taught by the Chief of Physical Therapy, is primarily directed to Directorate of Engineering and Housing (DEH) and Cadet Mess employees.

During the past year, the Safety Office and DEH established Standard Operating Procedures (SOP) to prescribe proper procedures for workers active in a confined space, eg., tanks, vaults, or underground containers. The action was done in conjunction with similar efforts in the private sector to expand worker knowledge and safety consciousness. The SOP outlines specific requirements to reduce the danger to workers active in confined enclosures where reduced oxygen levels, dangerous air contaminants, or fumes could present a danger to employee health or safety.

SERVICES DIVISION

In accordance with Army Regulation 5-3, "Installation Management and Organization," of 10 November 1986, the Directorate of Personnel and Community Activities (DPCA) established the Services Division on 31 December 1987. The mission of the Services Division is to provide general support services to the other divisions in the community activities area. This includes the centralization of MWR supply and maintenance, purchasing and contracting; Military Construction, Army; nonappropriated fund (NAF) major and minor construction; training and marketing. Initiatives for the 1987-88 Academic Year included the establishment

of a concessionaire-operated tour bus shuttle contract; approval for the construction of a package beverage store in the Stony Lonesome one-stop shopping complex; and a solicitation packet for car rental service.

WEST POINT ELEMENTARY SCHOOL

During the Summer of 1987, additions to the middle (Building 705) and elementary schools (Building 705A) were completed.² Taking advantage of the additional classroom space at the start of the 1987-88 school year, the West Point Board of Education took the educationally sound action of initiating a full-day kindergarten program. For the same reason, the Board also began a pre-first grade class for youngsters who have spent a full year in kindergarten but need additional growth in social development and maturity before entering first grade. The Board also established a separate computer classroom and expanded computer education in the schools. In an effort to expose every student to the computer and to provide instruction in its basic uses and academic applications, each class had at least one computer. Computer classes were held for all teachers and students.

In concert with the New York State Regent's Action Plan, beginning with the past school year, Spanish language instruction was expanded to five-days-a-week for seventh and eighth graders. As a result, foreign language teachers, who had been dividing their time between students in all classes, now devoted their full-time to the upperclasses. At the same time, the Board decided not to expand the number of instructors and the teaching of French was discontinued. The Board of Education will review this decision after an eighteen-month trial period.

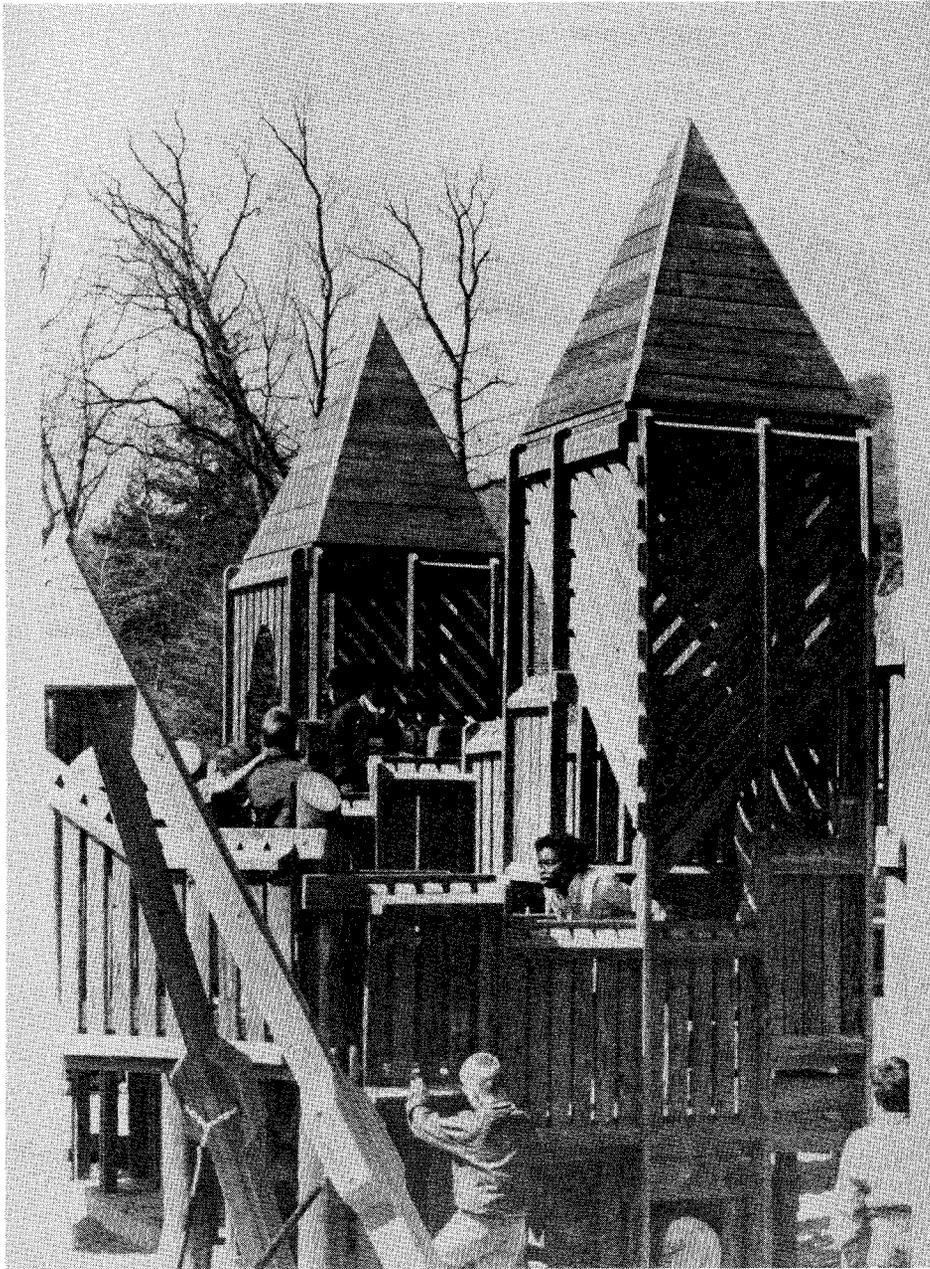
In the Summer of 1987, the Board of Education voted to build a community-based playground because much playground space was lost with the additions to the two schools. The Board decided to use the Robert Leathers Corporation of Ithaca, New York, for this project. The largest share of the \$35,000 cost for materials came from a \$20,000 donation from the Daughters of the United States Army (DUSA), although contributions were also received from civic organizations and private individuals. The design of the creative playground was based on recommendations from both students and teachers. Based on student suggestions, the playground includes a "two-headed dragon" and a wooden "tank" to climb on. A massive community effort of almost 1,000 volunteers under the direction of the Leathers Corporation brought the project from the drawing board to reality during one week in April 1988.

Peak student enrollment rose slightly by six students to 682 during the 1987-88 school year. The increase, in line with the change in demographics nationally and the reduction in senior officers at the Academy, suggests that the decline in enrollment in the 1980s in the elementary school may be coming to an end.

A survey of the West Point community's attitudes about the elementary schools was conducted by the School Board under the guidance of the Office of Institutional Research (OIR). It found that the community had highly positive perceptions about the quality of the educational program.

Similarly, a New York State Education Department's Effective School Consortium made available a survey of the instructional staff. It found that the staff had a very accurate perception of the degree of success of their instructional activities.

Finally, in April 1988, a new three-year contract between the Military Academy and the West Point Elementary School Teacher's Association was signed.



A section of the new West Point playground

FOOTNOTES

¹For additional information, see Pointer View, 25 Mar 88, p. 1.

²These additions are discussed in the 1986 Superintendent's Annual Historical Review.

LOGISTICS

The Purchase and Contract Division converted from the Air Force Customer Integrated Automated Purchasing System (CIAPS) to the Standard Army Automated Contracting System (SAACONS) in June 1988. This Department of the Army (DA)-directed transition from an aging, "nonfriendly" statistical procurement system to the new "user-friendly" system will reduce document lead time and enable this office to prepare all purchase orders and bids almost instantaneously.

In preparation for the system, the Division was rewired for dedicated circuits, cabled for individual workstation processing, and equipped with a newly constructed, climate-controlled room to house the central processing unit.

The long-awaited ground breaking ceremony for the new West Point commissary occurred in January 1988. The need to relocate and expand the existing commissary was identified a quarter of a century ago. The current 44,000 square foot commissary will be replaced with a 71,000 square foot facility which is anticipated to open in the Spring of 1989. The contract to build the \$10.2 million facility was awarded to the Hoffman Construction Company of Oregon in December 1987.

Effective 1 October 1986, the entire Transportation Motor Pool (TMP) portion of the 377 USMA general purpose (nontactical) vehicle fleet was transferred from DA to the General Services Administration (GSA). The transfer to GSA has provided the Military Academy a completely modernized fleet of vehicles without the use of any capital dollars. At the same time, the TMP is able to provide superior service without any increase in the budget.

ENGINEERING AND HOUSING

The Directorate of Engineering and Housing (DEH) continued its mission to manage and execute Real Property Maintenance (\$41 million), Family Housing Management (\$11.2 million), facilities utilization at West Point and Stewart Army Subpost (STAS), and to develop and manage the Academy's Military Construction, Army (MCA) Program.

COMMERCIAL ACTIVITIES (CA)

DEH is currently involved in several CA cost comparison studies. An award was made to the Harris System International, Inc., of San Antonio, Texas, for the West Point custodial contract; a resolicitation of a contract for the Real Property Maintenance Activities (RPMA) functions at STAS has yet to be completed. The RPMA study for West Point is ongoing with a 1990 initial decision date projected.

MASTER PLAN

Master Planning accomplishments included review of the bicentennial Master Plan Update project contracted to the Hillier Group of Princeton, New Jersey, and the continuation of the Academic Master Plan MCA program. The update of the installation Master Plan, which is a Department of Defense (DOD) requirement of every installation (specified in Army Regulation 210-20), was initiated in 1985. Some basic studies and existing conditions analyses were completed in August 1987 for the final report, the Bicentennial Master Plan for the year 2002. The Facilities Modernization Committee (FMC), in conjunction with the Hillier Group's master planning services, prepared the Analysis of Existing Facilities,¹ the Environmental Assessment Report,² and the Condition Capacity Analysis for the utilities system.³ A series of 27 basic information maps was approved by the Installation Planning Board (IPB) and submitted to Headquarters, Department of the Army (DA), as required.

Master Plan Update publications during this period prepared by the Hillier Group included an examination of both functional space requirements of each Major Activity Director (MAD) and a study of USMA future directions and precepts. A comprehensive survey of existing space was compiled and organized in an inventory data base. Each MAD was then asked to identify personnel and functional changes anticipated by Fiscal Year (FY) 1989, as well as future operational requirements. With this data, a Master Plan Update Space Program was published in August 1987, which identified all interior space requirements for Military Academy activities. These figures are used in defining new facility requirements and in planning for space redistribution between activity directors. A total long-range 2002 space shortfall of 366,000 square feet was identified in the report, half of which already existed at the time of the report's preparation.

Based on the space requirements and shortfalls identified in the Space Program report, efforts were initiated to delineate the interrelationships between space requirements, tasks, and existing facilities. The FMC analysis of the requirements resulted in an innovative functional relationships diagram which served as the basis for the creation of a zoning pattern specifying long-range land use at the installation. The zoning pattern, which segregated and grouped facilities by function was based on distances from the Central Post Area and Corps of Cadets. The final element completed in the planning effort was the draft Future Directions and Precepts Report of April 1988, which provides a synopsis of the FMC's academic modernization plans, examines the historical basis for existing facilities plans, and reviews the programs of comparable academic institutions.

The process was highlighted by the Superintendent's convening of a "Top Team", or panel, consisting of senior members of the command group and representatives of the FMC and IPB on 4 February 1988. In the course of briefings to the Superintendent, the Top Team identified a series of guiding assumptions pertaining to future planning. Some 14 assumptions and 27 long-range planning issues were developed to provide guidance in the preparation of the Hillier Group's Bicentennial Master Plan Update, which also included the FMC's conceptual plan for long-range land use.

The specific assumptions were that: (1) the Bicentennial Facilities Master Plan will be based on strategic planning concepts of Project 2002; (2) the United States Military Academy will not get larger; (3) USMA Program of Instruction will remain essentially unchanged; (4) the focus of facilities planning will be modernization/upkeep/rehabilitation of existing facilities; (5) new housing will be constructed at Stony Lonesome; (6) the number of tourists visiting USMA will increase; (7) research will continue as a complementary function, which may have an impact on facilities; (8) vehicular traffic should be restricted in the Central Area; (9) USMA will continue summer military field training on post, and facilities will be made available for active and reserve components at other times of the year; (10) the basic purpose of USMA is to prepare Army leaders to serve in time of war; (11) the Plain should be preserved as the aesthetic center for cadet parades, athletics, historical memorialization, and enjoyment of visitors; and (12) troop facilities should be consolidated. Two contingency assumptions also articulated that (1) changes of basic rules (e.g., on cadet marriage; religious facilities; graduate school program) could impact facilities and (2) the Leadership institute will be external to West Point. This is an Association of Graduates' (AOG) action, separate from what we know as the Military Academy.

The long-range planning issues specified nine building relocations: DEH, administrative space in the Office of the Director of Intercollegiate Athletics (ODIA), the Military Police Company, the print shop, the NCO club, the youth activities center, the service station, the uniform factory, and the book distribution warehouse. The issues also included expansions of the USMA Library, Hotel Thayer, New South Post parking, and Building 720 for cadet barracks, as well as consideration of a parking garage near the gymnasium, the parking structure on Williams Road, and parking along Mills Road. Construction of Stony Lonesome II and a one-stop shopping center in that area were listed along with the use of reclamation land (presently in the ammunition supply point) and the use of the vacant land east of the reservoir. Finally, the list included the use of the Post Exchange (Building 683) as a community center, the restoration of the Plain, the central energy plant conversion, the issue of a site for the leadership institute (offering the Fellowship in Leader Development), future use of Central Apartments, the construction of indoor tennis facilities (as a mezzanine addition to the Field House), and that the closing of the cemetery is within five years.

The Military Academy also participated in the National Transportation Issues Forum and submitted its Transportation 2020 project listing at the New York State Highway Users Forum in Albany. The document identified 16 critical highway access issues associated with long-range operations, including improvements to the Route 9W and Route 218 interchange to facilitate the movement of military vehicles and cadets. The Military Academy also identified highway access issues relating to tourism, which are a significant component of current traffic.

In addition to future military construction programming actions, Master Planning continued reviewing of the ongoing projects for Academic Modernization. Congressional subcommittee appropriation procedures were supported for the FY 1989 program, consisting of the Camp Natural Bridge Modernization project (\$8.6 million), Record Fire Range Modernization (\$2.75 million), Regional Sewage System Connection funding (\$2.5 million), and Academic Facilities Modernization Phase 4 (\$5.9 million). The latter three projects received a total

House and Senate Appropriations Committee authorization of \$11.15 million. The Camp Natural Bridge Modernization Project was successfully defended on the Senate side and was committed to joint House-Senate conference committee action for later determination.

The IPB activities were supported by Master Plan studies on hazardous waste siting, cadet recreation areas development, and revisions to the ongoing construction of the commissary at the one-stop shopping center. Revisions were also made to the packaged beverage store and the Credit Union sitings, the Gift Shop facility siting at New South Post, the prioritization of Nonappropriated Fund projects, and the evaluation of the parking and circulation study revisions. A traffic and transportation study was completed with Military Traffic Management Command (MTMC) representatives in November 1987. Local projects were identified to execute the most recent changes to post circulation and access, including revisions to the Mills Road signs for through traffic and safety improvements to the Washington Gate entrance to the Post.

ENERGY PROGRAM

Total energy consumption in FY 88 was 1.342 trillion British Thermal Units (Btus). This was only 7 billion Btus above the FY 1987 level (and only 2.9 percent above the program goal). The good performance in energy consumption compared to previous years was primarily attributable to increased efficiencies at the Central Boiler Plant. In addition to repairing the condensate return system at the plant (an energy reconversion effort reutilizing excess steam to heat water), maintenance at the plant was improved.

During FY 88, USMA electricity use was 75.3 million kilowatt hours (kwh).⁴ This is an increase of only 600,000 kwh (.8 percent) over the previous year, but 10.4 percent over the program goal.

Two Energy Conservation Improvement Program (ECIP) projects are underway at West Point. The first, the replacement of the old Energy Management Control System (EMCS) with a new state-of-the-art EMCS, which began in late 1986 includes 41 buildings, 12,000 points, direct digital control, and fiber-optic communication cables.⁵ The first building is scheduled to come on-line in the Fall of 1988 and the entire project should be completed in 1990. The second project, for asbestos removal and conversion from oil to gas-fired boilers, was completed for 54 sets of quarters. Another 80-100 quarters are scheduled for conversion in the next fiscal year.

ENVIRONMENTAL MANAGEMENT

The DEH continues to coordinate construction, repair, and maintenance projects with the New York State Historic Preservation Office (SHPO) and the President's Advisory Council on Historic Preservation. Because the Military Academy is a National Historic Landmark, coordination with federal and state agencies is required under the National Historic Preservation Act and its implementing regulations. A Memorandum of Agreement (MOA) between USMA, federal, and state agencies concerning historic preservation went into effect on 28 September 1987. Under the MOA, certain actions will not have to be coordinated if the project has no historic impact on the significance of the structure or on the National Historic Landmark. Prior to commencing work, the Historic American Buildings Survey (HABS) of the National Park Service may require that photographic and narrative documentation of architectural features and construction be submitted to the National Archives if the project has significant historic impact. In addition, archeological surveys may be required for certain new construction projects.

Schmidt Associates, Inc., an architectural/engineering firm from Cleveland, Ohio, was hired to design and replace combustion controls in the Central Power Plant to bring the plant emissions within federal standards. The design for the new plant was completed and approved in June 1988 and construction of the new facility should begin in the next fiscal year.

The asbestos removal or repair projects in various buildings has been undertaken by DEH using both in-house and contract employees. The Environmental Management Office personnel, working with the Preventive Medicine Service personnel, assess asbestos conditions in various buildings and family quarters and initiate projects to correct problem areas. The asbestos abatement program will continue for a number of years. Some \$430,000 was spent during the past academic year, more than one-third of the total devoted to work in the family housing areas.

During the Spring of 1987, the U.S. Army Environmental Hygiene Agency (USAEHA) from Aberdeen Proving Ground, Maryland, conducted a preliminary survey of radon levels in family quarters, cadet and troop barracks, and public buildings. The Military Academy was the first of three installations selected by DA for a survey because of its location in a geographical area believed to have high radon levels--a geological formation known as the Reading Prong. This formation is known to emit radon, a colorless, odorless, radioactive gas which occurs naturally in the environment, but is a known carcinogen. Results of the survey in 1987 revealed insufficient levels of the gas to warrant further testing or any remedial action.

Many activities use hazardous materials and, therefore, generate hazardous waste. Cleaning solvents, laboratory chemicals, outdated pesticides, and waste solvents are just a few of the typical hazardous wastes which DEH must dispose. In calendar year 1986, DEH disposed of approximately 19 tons of hazardous waste material. Some 33 tons of hazardous waste was disposed of in 1987, but the level increased dramatically to 82 tons in 1988. (The 1988 figure was high because several steel electrical transformers had to be replaced because they used polychlorinated biphenyl (PCB) along with mineral oil in the dielectrical fluid.) Architectural plans were prepared for the construction of a central hazardous waste storage facility along the Range 3 Road next to the solid waste transfer station. When funding is obtained and the structure is completed, this structure will ease the task of Hazardous Waste Management and bring USMA into compliance with Environmental Protection Agency (EPA) standards.

The 1969 National Environmental Policy Act requires environmental impact reviews before initiating federally-funded projects. This is accomplished by writing a record of Environmental Consideration, an Environmental Assessment (EA), or an Environmental Impact Statement (EIS) explaining the details of the project and what potential environmental consequences may occur. An EA or EIS, as appropriate, is submitted for public review. During the past academic year, three EAs were prepared by DEH: the first was the proposed leasing of Cranston Dock to the town of Highland Falls for construction of a park; the second was the proposed siting of the Commissary facility along Stony Lonesome Road; and the third was the program of aerial spraying of insecticide to control gypsy moths in uninhabited forest land on the military reservation.

MAJOR IN-HOUSE PROJECTS

A great deal of effort was expended by the in-house workforce to prepare sites for relocation of activities from New South Post (NSP) to the main post so that extensive renovations of NSP facilities could take place. The Visitor's Information Center was relocated from Building 2107 to Building 618, the Class VI Package Store from Building 618 to Building 628, and the Software Computing Branch of the Directorate of Information Management from Spellman Hall (2101) to Building 635 (the First Class Club).

In light of the emphasis placed on child care facilities, numerous repairs, improvements, and upgrading projects were completed on these facilities, some of which are described in the Child Development Services section of the Personnel and Community Activities chapter.

Changes in West Point traffic flows and parking requirements were instituted in order to reduce vehicular congestion in the Central Post Area.

An unexpected visit by the President of the United States in October 1987 created the need for a concentrated short-term effort by the in-house workforce. Many security projects, to include moving bleachers to the other side of the Plain for the Parade review were executed. These projects then had to be reversed when the visit was over.

The realignment of the Plain, begun in March 1987, was completed in September 1987. This alteration, described in some detail in the 1987 Annual Historical Review, had the effect, during cadet reviews, of centering the reviewing stand and Corps on Washington Hall and the Washington equestrian statue. Modifications resulting from the realignment of the parade grounds has brought greater symmetry to cadet reviews, a more standard line of march, and a reduction of traffic flow in the central cadet area.⁶

ENGINEERING PLANS AND SERVICES DIVISION

During the past academic year, this Division's Construction Design Program has completed a substantial number of projects. With the cooperation of the New York District, U.S. Army Corps of Engineers, 41 projects, valued at \$13.8 million, were awarded with Operation and Maintenance Army (OMA), Family Housing, and Nonappropriated Funds.

The Job Order Contract (JOC) Program, initiated in October 1987, has been an effective tool for completing small, highly-visible projects in a relatively short period of time. Some 32 delivery orders, totaling \$1.3 million, were awarded by the end of the academic year.

The academic modernization of Mahan Hall began in 15 May 1988. This construction will upgrade and modernize the Mechanics laboratories and office spaces. Construction is scheduled to be completed in two years.

NATURAL RESOURCES

In 1987, the National Advisory Committee of the American Tree Farm System voted a special exception to standard policy to recognize the USMA forests. Federally owned land is not ordinarily certified by the Tree Farm System, as the intent of the system is to encourage good forestry on private forests. However, the Tree Farm certification and a plaque recognizing excellent long-term forestry on the Academy's land were presented to the Superintendent on 22 July 1987. The presentation was made under the copper beech tree located in the Superintendent's garden by Dale Robertson, Chief of the U.S. Forest Service, and Lester DeCoster, Vice-President of the American Forest Council.⁷

Agreements with the U.S. Fish and Wildlife Service, Cornell University, and the New York State-sponsored Adirondacks Lake Survey Corporation resulted in the collection of a great deal of biological and physical information on many USMA lakes and ponds. The improved statistical data from their survey will help fine-tune Academy fishery practices in our Fisheries Management Program.

Efforts to reduce high deer densities on the reservation continued with another large harvest (285 deer, following the record high of 400 in 1987) during the hunting season. Efforts to remove the deer from the main post area where hunting is not permitted include both deer trapping and darting efforts. With the wide variety of tasty vegetation at West Point, the deer were not enticed into the traps very frequently. Use of immobilizing darts for deer relocation similarly led to the transfer of only nine deer from the main post area to the outlying reservation.

USMA FIRE DEPARTMENT

The USMA Fire Department received two important pieces of emergency equipment in early 1988: the 110-foot aerial ladder truck and the Vetter 56-ton Air Bag Lifting and Sealing System.

The aerial ladder fire truck, which is one of the few trucks requested specifically by a post, replaces an 85-foot ladder truck which could not reach some of the taller buildings in the Central Post Area. The aerial ladder truck has many features that make it unique in the Department of the Army; it is equipped with a four-door cab that allows all the firefighters to ride under cover and secured by seat belts, the sirens and air horn are located on the bumper rather than the roof top (a safeguard for firefighters' hearing), and it is constructed of aluminum which reduces the conductivity and rusting which is a problem with most steel apparatus. It also has the valuable dual capability of providing water support not normally found in a ladder company. The 1500 gallon-per-minute fire pump adds to the flexibility of the operation. Finally, it has a 5,000-watt generator and a 12-volt lighting system which provides the maximum amount of power in disaster or emergency situations by providing a short-term power source for life-threatening situations. The aerial ladder fire truck represents the finest, safest, and best-equipped of modern fire-fighting equipment.

The Vetter 56-ton Air Bag Lifting and Sealing System provides a new response capability in two types of emergency situations. The lifting system can move great weights when only a small opening is present; one of its most dramatic applications involves releasing people from wrecked vehicles. The leak sealing portion of the system uses a bandage approach to apply pressure in sealing holes or cracks. The leak sealer can prevent a liquid gas flow and can be instrumental in managing a hazardous materials incident successfully.

FOOTNOTES

¹A document analyzing all features of the post, specifying the demography and interior dimensions in each building at an installation.

²A master plan requirement to weigh each element of a plan against appropriate state and federal EPA guidelines.

³A comprehensive reference providing an analysis and directory of existing utility systems.

⁴Some 4.7 million kwh of the total was generated at West Point.

⁵The term "points" refers to the locations the computer scans--to include such sites as thermostats, temperature controllers, on-off switches, etc.,--to determine the environmental conditions in a room or appliance. The computer scans can be undertaken automatically at set points in time or manually as desired by the energy monitors.

⁶For a more thorough discussion of the subject, note "Shift of Parade Ground to Give New Look," by Patrick J. Cooney, Assembly, Jun 87, pp. 4-5.

⁷The award provided an opportunity for the Forestry Service to highlight the program in a high-visibility location. The Military Academy, like other government installations, has been involved in good forestry management practices since the turn of the century.

CIVILIAN PERSONNEL

EMPLOYMENT

Obtaining a sufficient number of well-qualified employees to fill the needs of the Military Academy continues to be one of our greatest challenges. The county unemployment rate has continued to decline and hit an all-time monthly low of 2.8 percent in April 1988. The growth in industry in the surrounding area, in addition to the problems of our physical location, the relatively high cost of living, and limited promotional opportunity for our more specialized and professional employees, resulted in a vacancy rate ranging from 5-10 percent. The turnover rate of permanent positions is 22 percent. With current indicators forecasting continued growth in the area, we anticipate an increasing challenge to recruit and retain a well-qualified work force.

The Civilian Personnel Office (CPO) pursued several initiatives in an attempt to deal with this situation. A member of the Recruitment and Placement staff was designated as an External Employment Coordinator with the responsibility of intensifying our outreach efforts and specifically targeting high school/college graduates and the hard-core unemployed. Attendance at job fairs and career days and interaction with community-based organizations have become commonplace for individuals in CPO. In addition, the Civilian Personnel Officer served as a member of a special committee for the Orange County Community College Board of Directors. This committee was organized to assess the need for an off-site community college campus to be located in the Newburgh, New York, area (where we obtain approximately 80 percent of our employees). If that site is opened, it will provide an additional recruitment source. The Chiefs of the Recruitment and Placement and the Nonappropriated Fund Employment Branches are also serving on an advisory committee for the Orange County Community College placement office. Members of the CPO actively represent the Academy at the Eastern Orange County Chamber of Commerce. Recently, we have begun operating a satellite employment office at the New York State Department of Labor's Newburgh office. The External Employment Coordinator is on-site at that office one day a week.

While USMA civilian employee salaries remain relatively competitive for many occupations, we are losing the ability to employ specialists and professionals. A higher salary is being considered for entry-level clerical positions because in addition to competing with the salary offerings of other companies, we are relatively isolated. Many companies in the surrounding area are paying equivalent salaries and featuring an easier commute for employees. Federal pay has not been keeping pace with those in the private sector. In an effort to overcome the problem that this presents for employment and retention, we are starting to look at various categories of employment and have submitted a request for a special salary schedule for nurses. Other occupations and categories of employment will be studied in the upcoming year. Our problems in employment have been helped in part by initiatives that are being taken within the Department of the Army (DA) and the Office of Personnel Management (OPM). The relaxation of requirements, regulatory changes, and specific requests that we have initiated have resulted in additional direct-hire authorities. During the last year, we have increased such authorities to include nurses, entry-level federal wage system (blue collar) positions, secretarial positions up to the GS-08 grade level, and guards. We also have been able to obtain more local examining authority which results in the more timely ability to fill jobs. Through cooperation with Occupations, Inc., of New Windsor, New York, we established an employment enclave in the Hotel Thayer, consisting of six handicapped/learning disabled individuals who are employed as a group in a work environment.

MANAGE THE CIVILIAN WORK FORCE TO BUDGET (MCB)

On 1 October 1987, the Military Academy began participating in the MCB test program, becoming one of only ten Army installations participating in this two-year program. The test, an outgrowth of the Civilian Personnel Modernization Project, places budget and classification authority, responsibility, and accountability into the hands of managers/ supervisors at the lowest practical level.¹ During the first year of the test, approximately 30 positions were classified by managers/supervisors who exercised their MCB classification authority.

The initiation of the test began with approximately 95 managers/supervisors receiving basic classification and position management training. As the test progressed, the need for additional training in classification was recognized and made available to manager/supervisors as was several full-day classification and position management MCB training sessions. The number of trained managers/supervisors increased to approximately 120.

As part of the MCB program, the Office of the Deputy Chief of Staff for Personnel (DCSPER) requested that the U.S. Army Audit Agency (USAAA) and the San Francisco Field Office of the Total Army Personnel Agency (TAPA) perform a joint review of the test operation at the Military Academy, as well as the other commands. This review of the test program consists of two phases. Phase 1 was conducted during January to May 1988 and was a review of the test implementation. Phase 2 will be scheduled from October 1988 to March 1989 and will be a review of first-year test results.

The Phase 1 review resulted in recognition of the need for adjustments to the implementation of the test, based on observations made by the two teams. The adjustments cover such areas as classification accuracy, training to managers/supervisors, delegation of both budget and classification authority, and changes to the Memorandum of Understanding which outlined the test procedures and policies.

TRAINING

Civilian employees participated in 2,600 training classes during the past year, in 65 different courses offered through the on-site program. Over 500 civilian employees attended training away from the Academy, including government-sponsored classes and college courses. The Personnel Management for Executives Program (PME), administered locally for the DA civilian and military managers, held four conferences this year. Frontline Leadership, a management development program for first-line supervisors, was added to the on-site program. A Toastmasters Club was formed with 39 civilian and military personnel wishing to develop public speaking and leadership skills.

CONTRACT NEGOTIATIONS

Negotiations between the USMA and the West Point Elementary School Teachers' Association (WPESTA) concluded with an agreement signed by Lieutenant General Dave R. Palmer, USMA Superintendent, and Mrs. Marion Tierney, President, WPESTA, on 20 April 1988. This new agreement will be in effect for the next three years.

It has been six years since the last negotiated agreement was signed. The WPESTA was granted exclusive recognition as a bargaining unit at the Military Academy on 21 June 1976, and the first negotiated agreement was approved on 11 October 1977. There has been one agreement since then which was signed on 30 March 1982, and provisions of the agreement have been honored to date. Significant changes to the old agreement include: omission of

articles related to health benefits, leave, professional compensation, and employee status (all of which USMA declared nonnegotiable); addition of articles allowing for limited use of official time to conduct union business and for contract amendments; and, modification of articles regarding discipline, grievances, and reductions in force.

Finally, Mr. Sam Scalise, shop supervisor in the Department of Mechanics, retired 30 September 1987, after 35 years of service with the Department and 45 years at West Point.

FOOTNOTE

¹The MCB program is discussed in an article in the Pointer View, 25 Sep 87, p. 3, and an update is printed in the 4 Mar 88 issue, p. 2.

ALUMNI AFFAIRS

In September, the Association of Graduates conferred its most prestigious award when General (Retired) Michael S. Davison presented the Honorable Barry M. Goldwater with the Sylvanus Thayer Award. The ceremony, attended by the Corps of Cadets and many distinguished guests, marked the 29th time the gold medal has been awarded by the Association. This award is presented annually by the Association to an outstanding citizen of the United States whose service and accomplishments in the national interest exemplify personal devotion to the ideals expressed in the West Point motto, "Duty, Honor, Country." Goldwater called the award "the greatest honor I've ever received." Senator Goldwater's service began as a pilot with the Air Transport Command during World War II, organizer and chief of staff of the Arizona Air National Guard, and culminated with his retirement in 1967 as a major general, United States Air Force Reserves. For nearly four decades, he also served as a U.S. Senator, consistently urging a strong national defense posture while advocating a balanced national budget and the greatest possible freedom for individual action.

The 1988 Founders Day speakers program sponsored by the Military Academy enjoyed one of its finest years. The Superintendent, Commandant of Cadets, Dean of the Academic Board, Director of Intercollegiate Athletics, and members of the the Association of Graduates' Board of Trustees, appeared at over 60 Founders Day events throughout the United States, including Alaska, Hawaii, and Europe. The appearance of these speakers at events celebrating the anniversary of the founding of the Military Academy was instrumental in continuing to seal bonds with graduates and friends of the Academy.

INSTITUTIONAL RESEARCH

During the 1987-88 Academic Year, the Office of Institutional Research (OIR) conducted analytic studies and provided research data in support of planning, decision-making, and policy formation at USMA. In pursuit of USMA's goal of providing the nation with leaders of character, research was undertaken in the general areas of leader development, to include cadet intellectual, physical, and moral-ethical development. Research was also conducted on the admissions process as well as in many other areas to meet the specific operational requirements of various post activities.

With respect to leader development, OIR initiated a multi-year study designed to: (1) improve understanding of candidate leader potential, (2) improve measurement of cadet performance and development and, (3) develop insight into USMA graduate contribution to the common defense. Work is proceeding simultaneously in all three areas, but some reports have been completed. One large-scale study showed that company and battalion commanders and platoon sergeants rated USMA commissioned platoon leaders very positively on 24 attributes vital to platoon leader performance. Among the highest-rated attributes were integrity, physical fitness, character, potential for advancement, and devotion to duty (all of which are at the core of USMA's programs of training and education). USMA platoon leaders were less well-rated in such areas as concern for troops, ability to communicate with troops, and developing subordinates. Analyses of selection board results for captain, major, and colonel showed that USMA graduates continue to exceed overall Army selection rates. Coordination is underway with the Army Research Institute (ARI), Center for Army Leadership (CAL), Total Army Personnel Agency (TAPA), and all activities at USMA that impact on leader development.

Research in the intellectual/academic area was conducted in several topics. One study of Math-Science-Engineering (MSE) grades for the Curriculum Committee determined that MSE grades have been awarded in a consistent manner throughout the past eight years, and that Scholastic Aptitude Test (SAT) math scores were related to retention and grade point average. A second study in the intellectual area evaluated a special method of teaching in "General Chemistry" (CH 101) and indicated that there was some value in giving extra instruction to cadets who are likely to do poorly. A third study consisted of an analysis of data from a survey of the organizational functioning of the Department of Behavioral Sciences and Leadership designed to measure organizational effectiveness and the level of satisfaction of organization members. OIR also consulted with cadets on 12 operations research projects.

Work in the physical development area for the Physical Development Subcommittee of the Middle States Accreditation Steering Committee measured, for the first time, the impact of corps squad participation in 25 sports on academic, leadership, and physical education performance. Another study, concerning the proportion of corps squad athletes in leadership positions, demonstrated that corps squad athletes do not receive a disproportionate share of key leadership positions in the Corps.

In cooperation with the Superintendent's Honor Review Committee (SHRC), research in the moral-ethical area focused on data analysis of a corps-wide survey dealing with the health of the Honor Code and System. The analysis found the Honor Code and System working properly, but that some improvements in honor education were needed in such areas as discretion, nontoleration, plagiarism, and coping with pressures to be dishonorable. Additional research in the moral-ethical area included initial analysis of data from a four-year longitudinal study of value and character development for members of the Class of 1991. Results indicated the Cadet Basic Training had a positive impact on cadet values. A report on the impact of the plebe year on cadet values is being prepared. Reports for the Chairman of the SHRC were completed on honor losses among athletes, honor system attitudes of Third Class cadets, and

trends in attitudes toward honor from 1974-1987. Lastly, a study completed for the Board of Visitors found that the Honor Code appears to have a long-term positive impact upon the character and integrity of USMA graduates.

A major study related to all areas of cadet development was undertaken to evaluate the impact of the revised cadet schedule. Input from cadets and staff and faculty indicated that reactions to the revised schedule were primarily positive and that "poaching" on cadet time was infrequent. However, some dissatisfaction with the 2400 hours lights-out policy and mandatory breakfast was reported.

In admissions, OIR completed a study of the use of standardized tests for the USMA Standardized Test Review Committee. Results confirmed the propriety of USMA's use of the SATs and the validity of weights assigned to them in the CEER equation.¹ The study suggested that USMA should consider adopting some form of averaging when candidates submit multiple SAT scores. A study on the effectiveness of a developmental assessment center for training new admissions officers showed the center to be valuable and beneficial in the training of new admissions officers. OIR also published its annual report examining ten-year trends in the variables used to evaluate the qualifications of candidates and provided geographical and high school listings of minority group members who excelled on the PSATs to facilitate recruitment efforts. Lastly, OIR presented a briefing to the Board of Visitors dealing with twenty-year trends of new cadets' backgrounds, attitudes, and goals in comparison with freshmen at other colleges.

Research specific to post activities was conducted in a number of areas. Two studies were completed for the Director of Intercollegiate Athletics (DIA): one found general satisfaction with the system for assigning season tickets to home football games; the other found that varsity team coaches received strong support from organizational elements within Office of the Director of Intercollegiate Athletics (ODIA). Some suggestions by coaches were used by the DIA to improve support to coaches. OIR also furnished the DIA data about the academic performance of athletes for an annual report to the National Collegiate Athletic Association (NCAA), and reported entering cadet use of and attitudes towards anabolic steroids.

OIR provided, developed, implemented, and analyzed survey results in such diverse areas as Graduation Week activities, Fourth Class Mentor Program, High School Invitational Academic Workshop, the ODIA Gift Shop, cadet food preferences, inprocessing and sponsorship of officers, West Point Elementary School, child development services, NCO/Enlisted Club, Pointer View readership, and the cadet radio station (WKDT). Annual surveys were administered to the new and graduating classes, and annual reports were prepared on new cadet characteristics, trends in cadet attitudes and admissions scores, graduating cadet program evaluations, and retention of cadets and officers. Consultation was provided to cadets, officers and civilians regarding research methodology. Members of OIR published articles in professional journals, presented papers at professional conferences, served on several national professional conference committees, and reviewed articles for professional journals. OIR personnel have maintained active liaison with the Superintendent's Honor Review Committee, the Accreditation Committee and its many subcommittees, the Council of Sports Sciences and Medicine, the Human Use Committee, the Institutional Review Board, the Standardized Test Review Committee, and the Admissions Review Panel.

OIR gave technical advice, computer programming, and optical scanning support to many USMA activities and continued to maintain candidate, cadet, and graduate historical data files for use by USMA policy-makers. In addition, OIR provided data support services to Senators, Congressmen, Department of Army, and other service academies and institutions of higher learning.

FOOTNOTE

¹CEER is a composite score based on a candidate's College Board scores and high school rank.

STAFF JUDGE ADVOCATE

The Office of the Staff Judge Advocate (OSJA) fulfilled its mission of providing responsible legal services in both routine and extraordinary circumstances to the United States Military Academy.

The Magistrate Court Program continued to expand and, with the appointment of a new Federal Magistrate to handle West Point cases almost exclusively, the administration of justice on offenses committed at West Point by civilians has become more expeditious and professional. The earlier procedure of prosecuting West Point cases in the Federal District Court in White Plains, New York, was a burden not only for West Point personnel traveling to the site, but for the Magistrate as well. To alleviate the problem, an additional Magistrate was added to the program and assigned to West Point periodically.

The OSJA provided litigation support to the U.S. Attorney's Office, Southern District of New York, and to the Litigation Division, Office of the Judge Advocate General (TJAG), in some 21 civil cases pending before various federal courts.

The OSJA provided over 2,000 administrative law opinions on a variety of legal issues of interest to the command. Additionally, it provided eight academic classes on copyright law as it pertains to computer software and presented "Law of War" instruction to various units at the installation.

The OSJA represented USMA's interests in three adverse action appeals before the Merit Systems Protection Board (MSPB); two complaints of discrimination brought before the U.S. Army Civilian Appellate Review Agency (USACARA), one of which was ultimately litigated before the U.S. Equal Employment Opportunity Commission; and represented the USMA in one case before the State Division of Human Rights successfully arguing the Commission's lack of jurisdiction in USMA employment cases. Additionally, the OSJA provided review and legal opinions in over 60 disciplinary cases which did not reach the hearing stage; rendered several legal opinions in labor-related matters; and provided legal counsel in negotiating the collective bargaining agreement between West Point and the West Point Elementary School Teachers Association.

The Legal Assistance/Defense Section completed 7,892 legal assistance actions and advised 153 cadets and 215 soldiers requiring defense counsel services. The office staff was augmented on weekends and annual training periods by reserve Judge Advocate General (JAG) officers assigned to the 4th JAG Detachment (Military Law Center), Bronx, New York.

The Claims Section of the OSJA settled 409 individual claims totaling over \$210,000; it recovered a total of \$111,000 for damage done to government property or for medical care provided. In conjunction with reductions at other installations, the U.S. Army Claims Service at Fort Meade doubled the area jurisdiction of the OSJA to 22 counties in upstate New York and the entire state of Connecticut. This has resulted in a dramatically increased work load for this section.

The OSJA processed 15 court-martial cases, a ten-fold increase over prior years. One officer and three cadets were court-martialed during the year. Article 15s for the Summer Augmentation Task Force continue to increase dramatically.

The OSJA advised the command in over 40 contract claims, totaling more than \$1 million; and provided Field Attorney services for the Army Chief Trial Attorney of Falls Church, Virginia, on four claims totaling \$500,000 before the Armed Services Board of Contract Appeals.

Additionally, the OSJA reviewed over 300 proposed contract actions for legal sufficiency and successfully defended eight bid protests.

The OSJA processed and provided support to the command in 60 cadet honor cases, 39 disciplinary cases, and 23 misconduct cases. Advice and administrative assistance was provided on 278 cadet resignations and six medical boards.

The OSJA also worked extensively with the Commandant and representatives from the Center for Leadership and Personal Development (CLPD), advising on proposed improvements for assessing cadet military development under the Sequential Leadership Development System (SLDS).

Special Actions of Interest

Action is underway to establish the basis to obtain authorization to change the present proprietary legislative (state) jurisdiction at New South Post to concurrent (federal and state) jurisdiction.

The OSJA provided legal advice to the USMA staff on various options available for obtaining needed hotel/conference center space at USMA. Alternative methods are being explored to obtain third-party financing to provide the necessary services at little or no cost to the government.

In 1983, the New York State Department of Conservation (NYSDEC) assessed Pollution Control Regulatory Fees on the Military Academy. Through discussions involving the Directorate of Engineering and Housing (DEH), the SJA, and Department of the Army (DA), it was determined that these fees should not be applicable to USMA. The DA staff agreed with the local SJA determination that these fees, comparable to taxes, were not applicable to West Point and other federal installations in New York State. DA requested the U.S. Department of Justice to take action to determine the validity of these fees. New York State then modified the terminology and assessed environmental program fees without any apparent service or benefit to USMA. The DEH was advised by SJA again to make no payments; DA concurred, and the matter is being pursued once more by the Department of Justice.

The OSJA provided legal advice and technical expertise in drafting change 14 to Regulations, USMA which, following DA approval, will introduce, for the first time, the concept that First Class cadets must be formally certified for commissioning in their seventh semester, and which provides for their separation absent such a certification. In addition, the OSJA participated in the complete redrafting of an early rewrite of Regulations, USMA which had not been acted upon by DA for several years. In the meantime, other changes had occurred and a new redraft was initiated. The new regulation is presently being reviewed for approval at Headquarters, DA.

The West Point Jewish Chapel Fund, Inc., a private nonprofit corporation, donated the completed chapel to USMA. The Secretary of the Army granted the Fund office space in the new chapel for a 10-year period to assist the fund in obtaining and offering additional gifts for the benefit of the chapel. The OSJA has rendered advice on the proper relationship between the USMA Chaplain and his staff and the fund's representative; the legal implications arising from a donated and accepted chapel becoming a public building, subject to the control of the Superintendent and his staff; the process by which gifts for the chapel can be offered and accepted; and the ability of the Military Academy to recognize these gifts through memorial plaques permanently affixed to the chapel.

The chapel was finally dedicated on 5 May 1988. An address by Mr. Max M. Kampelman, counselor of the State Department, highlighted the dedication ceremony which was attended by 300 visitors to include members of the Jewish Chapel Fund, distinguished Jewish community leaders, and senior Academy personnel.

DENTAL ACTIVITIES

During this reporting period, a historical memorialization display was completed in the clinic. The display is highlighted by an oil portrait by Helen Lang of William Saunders, the first Army dentist at West Point. This will be a permanent display that will document historical events in the life of William Saunders and the memorialization of the clinic.¹

In May 1988, the World-wide Dental Commanders Conference was held at the Hotel Thayer for the second-consecutive year. This conference brought 150 DENTAC Commanders, executive officers, and sergeants major together for their annual meeting. Honored guests attending this year's conference included General Arthur E. Brown, Vice Chief of Staff of the Army, and Miss Grace Saunders, granddaughter of William Saunders.

The four-day Dental Activities Command (DENTAC) Field Training Exercise (FTX) of September 1987 began with an 11-mile march to the training site at Lake Frederick and included various aspects of field training.

During the past academic year, the Saunders Dental Clinic was manned one weekend per month by dental reserve personnel, thus expanding the dental care provided to space available beneficiaries. The clinic was again assisted by Colonel Francis Keith, our Individual Mobilization Augmentee (IMA), who served as the Executive Dental Officer during his annual training in April 1988.

This dental activity has recently received a new upgraded automation capability which will enable the Dental Command to monitor the dental fitness program and review records in a more timely manner.

DENTAC participated in the 2nd Annual Children's Health Fair in April 1988. At this popular event, children were given oral hygiene and tooth brushing instruction, an Allycroc toothbrush kit (a toothbrush with an alligator/crocodile handle), and a dental coloring book.

A document on the history of military dentistry at West Point is currently being reviewed prior to publication. This document will be published in late 1988 and distributed to various libraries and U.S. Army dental activities.

FOOTNOTE

¹For information on the life of Saunders, see John M. Hyson's "William Saunders: The United States Army's First Dentist--West Point's Forgotten Man," Military Medicine, Vol 149, Aug 84.

MEDICAL ACTIVITIES

The mission of the USMA Medical Department Activities Command (MEDDAC) is to provide health services to authorized personnel within the U.S. Army Military Academy Health Services Area, including: inpatient dental care, inpatient and outpatient medical care, and treatment of active and retired military personnel, their dependents, and other personnel as authorized by the Department of the Army; veterinary food inspection, animal care, and zoonotic control; and preventive medicine services. Emphasis is upon health care rendered to the Corps of Cadets.

TRAINING

Specialist Rebecca Long, of the Internal Medicine Clinic, reached the number-two position in the nation-wide U.S Army MEDDAC Soldier of the Year competition. The contest, sponsored by the Health Services Command (HSC) at Fort Sam Houston, Texas, matched seven regional winners from around the country. Long took the Army MEDDAC Soldier of the Year title at the Eastern Regional competition at Washington, D.C., in February.¹

Keller Army Community Hospital (KACH) Nursing Department personnel interacted with Reserve components throughout the reporting period. The 320th Reserve Evacuation Hospital of Newburgh, New York, continued to satisfy their frequent weekend training requirement at KACH; the 105th New York Army National Guard began affiliation and periodic training here; the Naval Reserve unit from New Rochelle, New York, conducted two weekend training sessions here with excellent results. Affiliation with these two additional units will continue in the next fiscal year.

KACH is designated as a Community Center for Cardio-Pulmonary Resuscitation (CPR) instruction by the American Heart Association. The hospital serves West Point and the adjacent community of Highland Falls, maintaining records and equipment and conducting CPR training classes at least once a year. The Nursing Education and Development Office currently offers CPR classes to the community on a monthly basis.

Fifty-four assigned personnel received or renewed Advanced Cardiac Life Support (ACLS) certification at four courses taught by KACH physicians and nurses during the reporting period. All emergency personnel are required to have this certification and approximately 60 percent of the entire MEDDAC staff maintain this certification. In addition, the Basic Cardiac Life Support (BCLS) classes continue to be offered to the West Point community. BCLS Instructor Courses were conducted which generated ten instructors in the MEDDAC/DENTAC and five instructors in the community.

Twenty-five health care providers successfully completed a four-credit Emergency Medical Technician (EMT) course conducted at the hospital by the State University of New York at New Paltz. EMT qualification is a HSC requirement for all emergency room personnel.

The Expert Field Medical Badge training program was conducted for the second year. This extensive training program, first offered at West Point in April 1987, is designed to prepare military medical personnel for all phases of this highly-competitive test which includes the Army Physical Fitness Test (APFT), a comprehensive written examination, and hands-on examination on medical and military subjects. Only about one-fourth of MEDDAC personnel Army-wide attain this badge. Two 90-day training sessions were conducted this year in preparation for the test which is taken at Fort Bragg or Fort Drum. Twenty-one personnel were

trained and took the test, and 14 passed all requirements and received the Expert Field Medical Badge during the reporting period.

Six Health Professional Scholarship Program (HPSP) students completed a 45-day summer rotation through various KACH clinics. This training is a mandatory part of the HPSP which occurs after the students' second year of medical school. This program provides future Army doctors an opportunity to work at Army hospitals on a professional basis with Army physicians.

The Optometry Clinic successfully continued its externship program with the State University of New York (SUNY) College of Optometry of New York City during the past year. In this program, one fourth-year optometry student rotates through the KACH optometry clinic every three months when the university is in session, working under the guidance of clinic doctors. Less than one-fourth of Army facilities have externship optometry programs. This program recognizes the high standards of the KACH clinic and the fact that it is one of the very few clinics in the Army in which both doctors are board certified. Based on the success of the externship program, a residency program through the same SUNY college was also begun in September 1987 with one residency provided. This is the only optometry residency program in the U.S. Army at the present time. This program also provides additional optometric expertise at a time when there is a critical shortage of Optometrists in the Army.

Two Reserve Officer Training Corps (ROTC) cadets with nursing majors completed the second ROTC Advanced Leadership Training Course to be held at West Point. One cadet was assigned to the MEDDAC Medical Company, working with the Company Commander; the other worked with the Cadet Health Clinic and the 101st Division Liaison Officer during Cadet Basic Training (CBT).

PATIENT CARE

The Operating Room caseload increased from a total of 1,291 cases in 1986 to 1,466 in 1987, an increase of 12 percent.² Fluctuations in the caseload occur yearly due to the change in the number of surgeons available to operate each year.

A 12-bed Cadet Health Clinic Inpatient Unit (CHIPU) was opened in September 1987 to provide cadets an inpatient care unit for short term illnesses in the cadet area. It was begun to conserve cadet time, to provide easier access for additional instruction (AI), and to provide a more accessible area for the treatment of plebes during Cadet Basic Training. In the first seven months of operation, operating on a four-day-a-week basis, 488 cadets were admitted to the facility. It initially shared a limited space with the Community Mental Health Service and Occupational Health. On 1 March 1988, the Unit was moved within the same building to a ward setting on a five day-a-week basis with a 16-bed patient capacity. Although it will continue to operate this summer, space is not available for it to continue during the next academic year.

In June 1987, as part of the MEDDAC effort to provide the active duty soldier and dependents the best possible care, KACH implemented a unique Army Family Needs Assessment Program (AFNAP). The goals of this program are to identify the family's health needs (routine, as well as special) and to match them with our capabilities. Upon completion of a short health history questionnaire for each family member, the medical staff "custom designs" a specific health plan for the family's medical needs. The immediate priority is to have all active duty soldiers and dependents enroll in the program.

The Hospital's Resource Management Division implemented a fully-automated Supplemental Care Program which will keep a closer watch on payments by active duty personnel for supplemental care received outside of KACH. The use of MEDDAC Commitment Registers at the start of the 1988 Fiscal Year will dramatically expedite the review of costs of specific medical procedures and keep better track of total medical costs in general.

In November 1987, the decentralization of the Patient Appointment System was completed. The Central Appointments office, located in Building 606, took calls for all appointments and then relayed appointment schedules to the various clinics. The new system allows each individual clinic to make its own appointments and gives doctors and health care providers a much greater awareness of the patient population and their needs.

A DOD Resource Sharing Agreement was made between the Veterans Administration (VA) Medical Center in Montrose, New York, and KACH to have 15 appointments a week available to our beneficiary population at the VA Medical Center. These appointments are offered to patients as an alternative to excessive delays in acquiring an appointment at KACH and to provide access to tests that are not available here at KACH (eg., kidney, brain, and bone scans and optometry services). In return, KACH shares our resources with the VA Medical Center in various clinics that they do not have. This resource is important in saving money since we receive the inner-service rate for services and the utilized facility gains by having a more regular flow of patients which aids in scheduling and reduces the cost per operation. Another Resource Sharing Agreement with the Castle Point, New York, VA Hospital enabled CAT scan facilities to become available to our population at a significant cost savings.

In February 1988, the Tri-Service Micro Pharmacy Computer System was implemented in the outpatient section of the pharmacy. It is a fully-integrated software program which will allow the pharmacy to obtain and retain valuable information on all patients at the hospital. By using the computer, prescriptions are screened for overlapping therapy (two drugs being used for the same purpose), potential drug interactions, and allergic reactions. The information obtained acts as an additional safeguard for the patient.³ The Pharmacy also began a prescription mail-in refill procedure which enables the patient to record certain information on a card, mail it to the pharmacy, and pick up their filled prescription seven days later.

One of the biggest "mini-epidemics" to hit the Corps of Cadets in several years appeared in August 1987 when some 250 plebes became ill soon after completing a 12-mile march to West Point from Lake Frederick. These cadets, along with nearly 1,000 of their classmates, had just completed their Cadet Basic Training. The most frequent cadet complaints were stomach pain, nausea, and vomiting, and flu symptoms. Food poisoning and water contamination were quickly ruled out and very few symptoms of bacterial infection were noted among the cadets. It was noted that the close concentration of the new cadets during training and the rigorous training they had undergone made them more susceptible to a viral infection, which ultimately turned out to be an acute gastroenteritis outbreak. The viral infection hit quickly with the first reports on Thursday, but most of the 225 admitted cadets were treated and released within 24 hours. By Sunday only 15 cadets were still hospitalized.

All cadets were seen and successfully treated using a mass casualty format. For two days, the 65-bed KACH facility was taxed beyond the limits with cadets seated or lying in hallways, in waiting rooms, and in chairs outside the emergency room. Off-duty hospital personnel were called in and most spent many extra hours over the weekend treating the patients.

In May 1988, another medical problem hit the Military Academy, this time striking employees working in Thomas Hall (Bldg 626). Problems had dated back to November 1986 when one patient experienced eye irritation. Initial tests found no connection between the individual's complaint and the building.

By the Spring of 1988, additional employees had been reporting a series of illnesses such as headaches, eye and respiratory problems, and nausea and vomiting, which they blamed on environmental factors. The MEDDAC Industrial Hygienists identified a ventilation problem as the most likely cause. Two separate inspection teams, one from the State Occupational Safety and Health Administration (OSHA) and the other from the Army Environmental Hygiene Agency of Aberdeen Proving Ground, Maryland, did not find any dangerous health condition in the building, also blaming poor ventilation for the outbreak. By improving the ventilation, the reports of problems and health complaints began to decline by the end of the reporting period.

A walk-in hearing aid repair service was initiated in October 1987 through the Audiology service, and hearing aids have been made available on a loaner basis.

JOINT AND SOFT TISSUE FELLOWSHIP

In May 1987, Lieutenant Colonel John B. Ryan, the Chief of Orthopaedic Services in KACH, proposed to the Surgeon General that a Joint and Soft Tissue Fellowship be established. In his memorandum on that subject, Lieutenant Colonel Ryan pointed out that "during wartime, casualties with wounds of the joints, extremities, and soft tissue constitute about 70 percent of the total casualty population."⁴ He noted that there are presently no active duty orthopaedists specifically trained in joint and soft tissue trauma, although some had developed the necessary skills by informal training. Orthopaedic surgeons trained in joint and soft tissue trauma could serve as consultants dealing with joint instability and specialized soft tissue injuries to the extremities and would perform duties of a general orthopaedist, but with specific additional expertise which could help return the injured service member to duty as soon as safely possible. He argued, because of the shortage of trained individuals in this area, some individuals who might otherwise be retained on active duty are not if they demonstrate an inability to return to active duty with rehabilitation.

He noted that the "Military Academy has a significant number of injuries associated with military training, intramural sports, and varsity athletics." Lieutenant Colonel Ryan reported that at KACH, "there are over 11,000 outpatient clinic visits annually of which 70 to 80 percent involve joint or soft tissue trauma"; more than 60 knee reconstructions, 50 shoulder reconstructions, and 300 arthroscopies are performed each year; and nearly half of the acute care beds at KACH are allocated to the Orthopaedic Service on average.⁵

He recommended that the Fellowship be divided between time at West Point and at the Letterman Army Institute of Research (LAIR) in San Francisco, California. He noted that LAIR has the most advanced facilities in the Army and is a front runner in trauma research and especially extremity research.

He lastly argued that the training should be performed in a military facility rather than Army-sponsored civilian training program to enable the Fellow to appreciate fully the Army resources available to return injured troops to duty in the quickest and safest possible manner.

In March 1988, the Surgeon General approved the establishment of a Joint and Soft Tissue Fellowship Program at KACH in conjunction with LAIR. This 18-month graduate medical education training program will be equally divided between clinical training at KACH and research at LAIR. Space for one candidate was authorized for this program which will begin in July 1988.⁶

VETERINARY AND PREVENTIVE MEDICINE SERVICES

The Second Annual Children's Fair was conducted in April 1988. The fair was created to teach children basic concepts of health in an entertaining and educational manner. Approximately 188 parents and children attended.

Preventive Medicine Services provided approximately 2,700 hours of training to cadets, military, retired military and civilian personnel at West Point and Stewart Army Subpost (STAS) in such diverse areas as: Cadet Basic Training, Cadet Field Training, Crossroads Africa, basic food service sanitation, child abuse, child care, stop smoking, human sexuality, asbestos training, wellness/injury prevention, prevention and control of communicable diseases, infection control, Female and Male Anatomy (Part I and II), administering medicine to children in Child Development Centers, prenatal education and counseling, contraception, feminine hygiene, breast and testicular self-examination, HIV/AIDS, heat and cold injury, WBGT Index Training, supervision orientation, new employee orientation, rabies prevention, proper care of pets, and animal first-aid classes.

The Veterinary and Preventive Medicine Services continued the Lyme Disease Vector (ticks that carry lyme disease) Surveillance begun in 1985. The testing is conducted during the autumn deer hunting season at a hunt-control station where a timed tick pull is done to determine the prevalence of ticks that carry Lyme disease. In 1985, 310 ticks were collected, only one of which was a deer tick (.3 percent); in 1986, 582 ticks were collected but none were found to be deer ticks; in 1987, 464 ticks were collected and only one was a deer tick (.2 percent). The Veterinary Services also initiated additional Lyme Disease surveillance to include dragging and small mammal trapping procedures, which will be expanding yearly due to increased concern about this disease. By all indications, the West Point and Stewart Army Subpost Communities can expect an increase in the prevalence of the deer tick and a subsequent increase in the number of cases seen annually. An Army Environmental Health Agency member also gave a lecture at KACH concerning Lyme Disease with emphasis on tick surveillance and control.

Finally, in the Fall of 1987, just before the Army-Navy Football Game, the Animal Medicine section of the Veterinary and Preventive Medicine Services performed the valuable service of assisting in the apprehension and return of two U.S. Naval Academy mascots which had been "borrowed" by some West Point cadets. The two goats were hospitalized, given physicals, and returned to Annapolis before the game.

FOOTNOTES

¹For additional information on her recognition, see article in Pointer View, 29 Apr 88.

²"Operating Room Monthly Report," Chief Nurse's Office, KACH.

³"Keller Pharmacy Implements New System to Help Patients," Pointer View, 11 Mar 89.

⁴Memo, HSUD-HO, USMA to CDR, USAMPA, 5 May 87, sub: "The Army Joint and Soft Tissue Trauma Fellowship," p. 1.

⁵Ibid., p. 3.

⁶Memo, COL Milton Turner, Office of the Surgeon General, SGPS-EDM, thru Cdr, US Army Health Services Command, Fort Sam Houston, TX, for Cdr, U.S. Army Medical Department Activity, West Point, NY, 16 MAR 88, sub: "Establishment of a Joint and Soft Tissue Fellowship."

STEWART ARMY SUBPOST

The initial steps toward activation of a U.S. Marine Corps Reserve C-130 Aerial Refueling Squadron commenced during the first half of 1988. The unit, an element of the 4th Marine Aircraft Wing, took possession of the first five of a requested twelve USMA buildings at Stewart Army Subpost (STAS). Two of the buildings serve as administrative space while three are being renovated by the USMA job order contractor (JOC) to serve as temporary barracks. Construction of a new 100-man barracks by the U.S. Marine Corps (USMC) is programmed for Fiscal Year 1990. By 30 June, the first 30 of what will eventually become 300 full-time personnel were on station. In April, members of the USMA staff briefed the Deputy Assistant Secretary of the Army (Installation and Housing) on the impact of the USMC activation at STAS. At full strength, a short-fall of 101 units of family housing is projected. Off-post housing is both scarce and expensive. The unit activation is expected to have a significant impact on existing medical care, community recreation, child care services, schools, and other facilities.

PUBLIC AFFAIRS

The 1987-88 Academic Year provided many opportunities to inform the American public of the U.S. Military Academy's role in providing leaders of character for a lifetime of service to the country and of the values which West Point represents.

The public was most frequently informed through media coverage of events at West Point. Highlighting the year's activities was a visit by President Ronald Reagan which was attended by some 300 members of national and international media and resulted in extensive, favorable coverage of West Point. Graduation exercises for the Class of 1988 were covered by approximately 100 members of the media and focused not only on the speaker, Vice President George Bush, but also on the Vice President's announcement of the 1988 Thayer Award recipient, former Chief Justice of the U.S. Supreme Court, Warren E. Burger. The Vice President's announcement kicked off an active effort to publicize the Thayer Award which will culminate with the actual presentation in September 1988.

The Superintendent provided numerous interviews to the local, national, and international press including the Army Times, U.S. News and World Report, Time, The New York Times, The Washington Post, and The Sunday London Times. Of particular note was the Superintendent's participation in an editorial board with the New Orleans Times-Picayune as part of his Founders Day speaking tour.

Brigadier General Fred A. Gorden, the 61st Commandant of Cadets, received extensive media attention initially from USA Today, the Cable News Network, and NBC and CBS network news because he was the Academy's first black Commandant. That interest has continued over the past year with numerous press agencies interviewing him for news and feature articles.

West Point continued to be a source of interest to the international media as well. Foreign Press Center visits resulted in Academy features on Dutch radio and television, German magazines, Japanese television, and several other foreign press outlets.

Two cases involving cadet separations attracted national media coverage. The first involved Second Class cadet John Edwards, who was highly ranked in academics, but was dismissed for failing military development. The second case involved First Class cadet Anthony Ketron who was dismissed for an honor violation, but was subsequently reinstated by the Office of the Secretary of the Army and allowed to graduate. These cases focused national interest on the Fourth Class System and Honor System and highlighted the multifaceted West Point experience which requires cadets to be academically sound, physically fit, honorable, and ethical leaders. (Both cases are discussed in the Military Training Chapter of this report.) That interest continues and will result in continued coverage, to include a segment in a CBS "60 Minutes" program during the Fall of 1988.

A variety of Command Information and Community Relations programs rounded out the Public Affairs effort for the year. "On the Air," a monthly West Point-produced television program began in December 1987 and provided residents of the community an opportunity to call in questions to major activity directors, the USMA Chief of Staff, and the Superintendent. The biennial Pointer View readership survey was also conducted in the Spring of 1988 and indicated that while some fine-tuning might be in order, the Pointer View is viewed as a widely read, credible source of information for the West Point community.

Negotiations to convert the Pointer View from an Army-authorized publication (paid for by the government) to a commercial-enterprise newspaper (published at no cost to the government)

were initiated during the 1987-88 Academic Year. The Department of the Army encourages the use of commercial enterprise publications as "an economical means to support Command Information." It is anticipated that a contract will be awarded to a commercial publisher later in 1988.

Community relations programs targeted local audiences during the year, featuring an active speakers bureau, local-leaders breakfast meeting with the Superintendent and his staff, an Academy-wide commemoration of the Bicentennial of the U.S. Constitution, and the annual trip to Albany to commemorate West Point Day with State Legislators and the Governor.

SPECIAL EVENTS

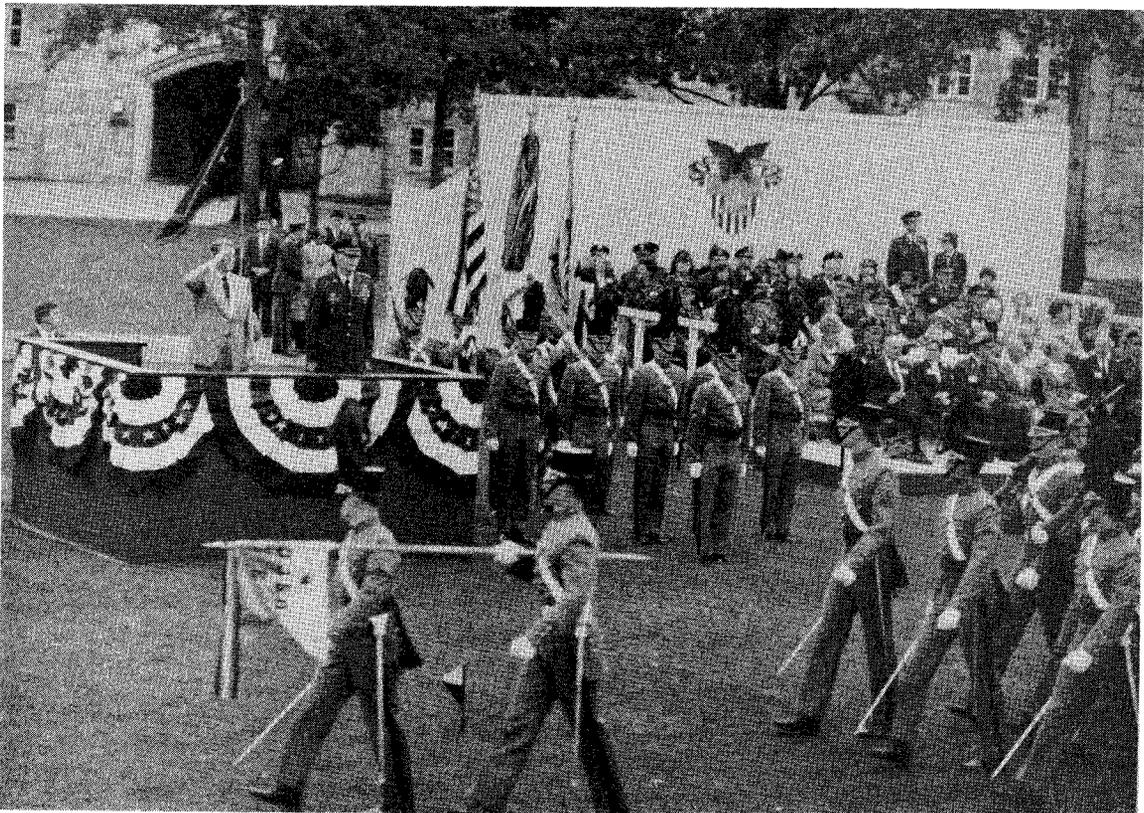
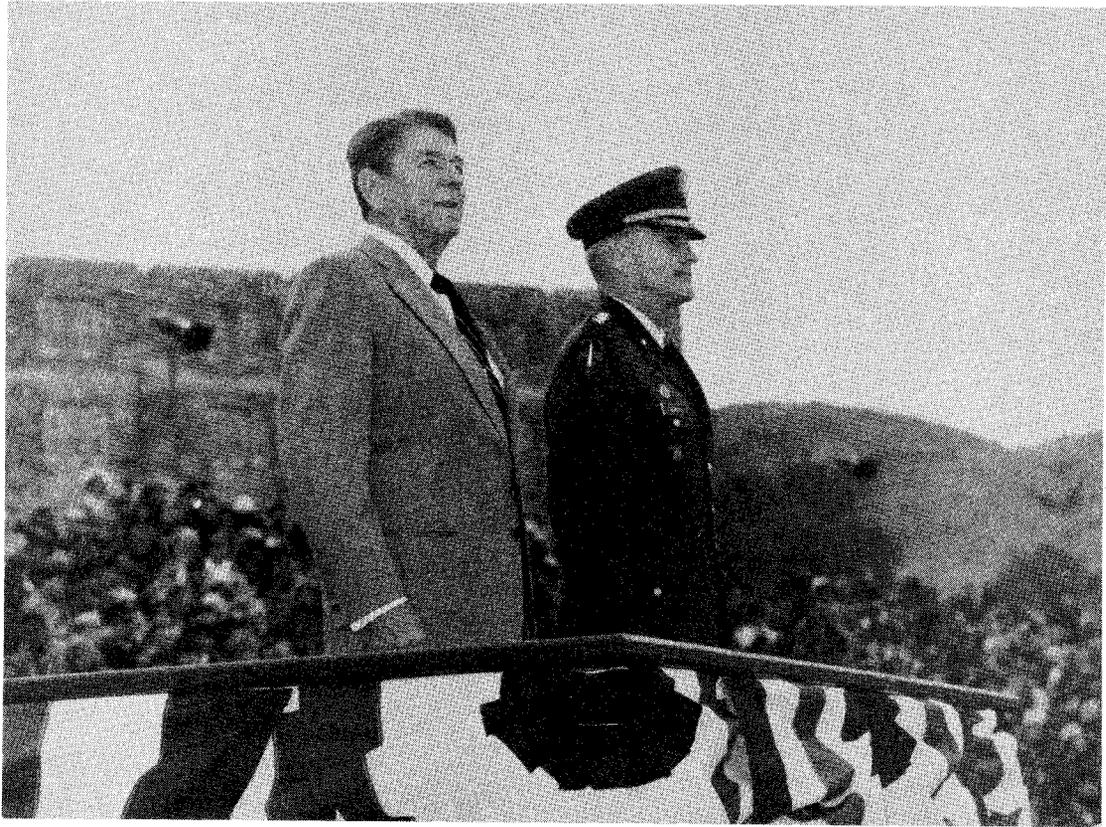
THE PRESIDENTIAL VISIT

Perhaps the most noteworthy event of the year at West Point for the American public occurred on 28 October 1987 when President Ronald Reagan visited the Military Academy. During the visit, he saw a Brigade Review, had lunch in the Cadet Mess, and endeared himself to cadets by granting amnesty to those serving punishment tours on the area or in room confinement. Following the granting of amnesty, the President delivered an address on the state of U.S.-Soviet relations.

The President had come to the Academy to give an accounting of the current diplomatic situation with the Soviet Union to some of our nation's future leaders. He commented to the cadet audience that these relations "are likely to shape the whole course of your careers as professional soldiers. I want in particular to discuss our present efforts for arms reduction--efforts that may soon be yielding historic results."¹ He noted that while we seek negotiations to reduce the threat of war we also will continue to be conscious of our responsibility to maintain our essential national defense which has done so much to preserve peace in the world. He went on with, "Let us remember that we've reached this point only as a solid alliance--an alliance made up of NATO, Congress, and the American people. If we're to continue to see real results and to convince the Soviets to bargain seriously, this cohesion must continue."² He closed with words which recalled a moving address made by a distinguished graduate just 25 years before:



President Reagan reviewing the Corps of Cadets



"Permit me to say as well that I feel something today of what General MacArthur must have felt. Your youth, your optimism--they give me strength. And as I look out upon your young faces, I feel as one who will depart the stage almost before you've made your first entrance--I feel in my heart a great confidence in the future of our country. For I know that you will defend that future. And it's true--the long gray line has never failed us. Thank you and God bless you all."³

Following the visit, Army Chief of Staff Carl E. Vuono who, along with the Secretary of Defense, accompanied the president on the trip, wrote a thank you note to the U.S. Corps of Cadets. In it he noted in part: "As they have done so many times before, the Cadets at West Point have made the Army and our nation proud. The pride of the Corps on parade and the sounds of martial music in the autumn air were memorable and stirring. Your discipline and high standards of drill were obvious to all and inspirational to our Commander-in-Chief."⁴



President Reagan addressing the Corps of Cadets

THE BICENTENNIAL OF THE U.S. CONSTITUTION

On 17 September 1987, the Academy joined the nation in celebrating the 200th anniversary of the signing of the U.S. Constitution. Earlier in the week, the West Point Elementary School had students dressed in red, white, and blue recite the "Pledge of Allegiance" in unison with President Ronald Reagan's telecast. A "Constitution Tree" was planted on the Plain near Quarters 100, followed by the Star Awards ceremony which featured a 13-gun salute to the original states of the Union. This event was immediately followed by the playing of "The Elizabeth Phillips Irwin Carillon Presentation" on the bells of the Cadet Chapel. More bells followed as personnel from the USMA Directorate of Information Management rang them for 200 seconds on the roof of Thayer Hall as part of the "Bells Across America" celebration.⁵



The Commandant addressing crowds at a Constitution Bicentennial commemoration

As part of Constitution Day, the Law Department joined the Social Sciences Department in sponsoring Judge Jean Galloway Bissell, U.S. Court of Appeals for the Federal Circuit, who addressed the West Point community on "The Celebration of Freedom's Birthday." In support of the year-long activities, members of the Law Department wrote periodic articles which appeared in the post newspaper, The Pointer View.

In September, several tenured faculty members of the Social Sciences Department made presentations on aspects of the Constitution's role in American life.

Lieutenant Colonel Frederick H. Black, Permanent Associate Professor, delivered an address titled "The Constitution and the Tradition of Civil-Military Relations" to the Fort Drum Post of the Society of American Military Engineers (SAME).

Lieutenant Colonel Daniel J. Kaufman, Permanent Associate Professor, presented a paper titled "National Security and the Constitution: Organizing for Defense" at the American Political Science Association Convention in September 1987. It was part of "The Contributions and National Security Project."

Lieutenant Colonel Wallace E. Walker, Professor, chaired a panel on "The U.S. Constitution and National Defense" at the American Political Science Association Convention in September 1987. Papers from the panel contributed by Walker and three other members of the permanent departmental faculty were published in a special Fall 1987 issue of Armed Forces and Society titled "National Security and the U.S. Constitution." Expanded versions of the papers subsequently appeared in The U.S. Constitution and National Defense published by the Johns Hopkins University Press.

In November, Dr. George C. Edwards III, Visiting Professor in the Department, presented a paper titled "The Constitution and National Security Policy: Can the President Lead?" at a symposium on "Congress, the Presidency, the Judiciary, and National Security: A View from the Bicentennial of the Constitution" at the National Defense University in Washington, D.C. He delivered an address titled "The Presidency in a System of Separation of Powers" at a Seminar on the U.S. Constitutional Process held at Brasilia, Brazil, in May 1988.

On Law Day, 1 May 1988, as part of the Law Department's activities in support of the celebration of the Bicentennial of the U.S. Constitution, several members of the Department faculty visited elementary classes at the West Point Elementary School, where they staged a fictional account of U.S. vs. Goldilocks to demonstrate how a trial is conducted.

Captain Gregory A. McClelland, Assistant Professor, presented a program on "The Bill of Rights in High School" to students in the seventh and eighth grades at the West Point Elementary School.

FOOTNOTES

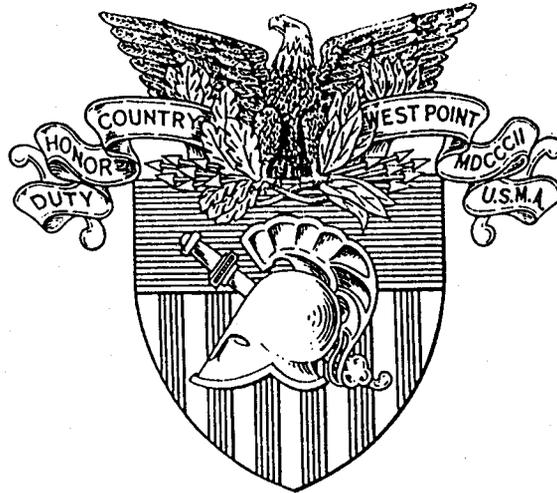
1" The President Visits West Point, 28 October 1987," Assembly, Feb 88, p. 6.

2Ibid., p. 7.

3Ibid.

4The entire speech of the President and complete letter of General Vuono is reprinted in the Assembly, Feb 88.

5" We the People...200," Pointer View, 25 Sep 87, p. 6.



2002

A ROAD MAP TO OUR THIRD CENTURY

UNITED STATES MILITARY ACADEMY

WEST POINT, NEW YORK

The proponent for the 2002 Strategic Plan is the Special Assistant for Strategic Planning, Office of the Superintendent, United States Military Academy, West Point, New York. The plan is a living document; it will be reviewed and revised as appropriate at least every two years. Comments and recommendations for revision are invited and should be sent to the above office.



OFFICE OF THE SUPERINTENDENT
UNITED STATES MILITARY ACADEMY
WEST POINT, NEW YORK 10996-5000

March 1988

Shortly after the turn of the century, John Dewey posed a question in his book, How We Think, that has challenged us ever since: How can an educational institution continually renew itself through regenerative creativity, and, at the same time, maintain the stability required for its own longevity?

To remain unchanging in a changing world risks decay from irrelevance; to chase every whim blowing in risks erosion from irresoluteness. Our imperative is to find the balance, to create a framework for both creativity and stability. The United States Military Academy must work to harness change, it must have the vision to get ahead of events. It must also have a foundation from which to withstand the winds of whimsy and fad. The key to both is the 2002 strategic plan--a roadmap to our third century.

This roadmap has been drawn painstakingly for over a year. The process involved individuals outside the institution and within, individuals outside the military as well as within. The net was spread widely, and the results reflect the quality contribution of those who participated. All were engaged in assessing the traditional strengths of West Point and the ways in which these strengths can be brought to bear upon satisfying anticipated leadership needs of the Army of the 21st Century.

This strategic plan for the Military Academy provides general guidance and direction for all subordinate levels of planning at USMA. It will guide the development of specific goals, objectives, and programs for the Military Academy. It is the touchstone against which every initiative or activity will be measured.

A handwritten signature in black ink, appearing to read "Dave R. Palmer".

Dave R. Palmer
Lieutenant General, U.S. Army
Superintendent

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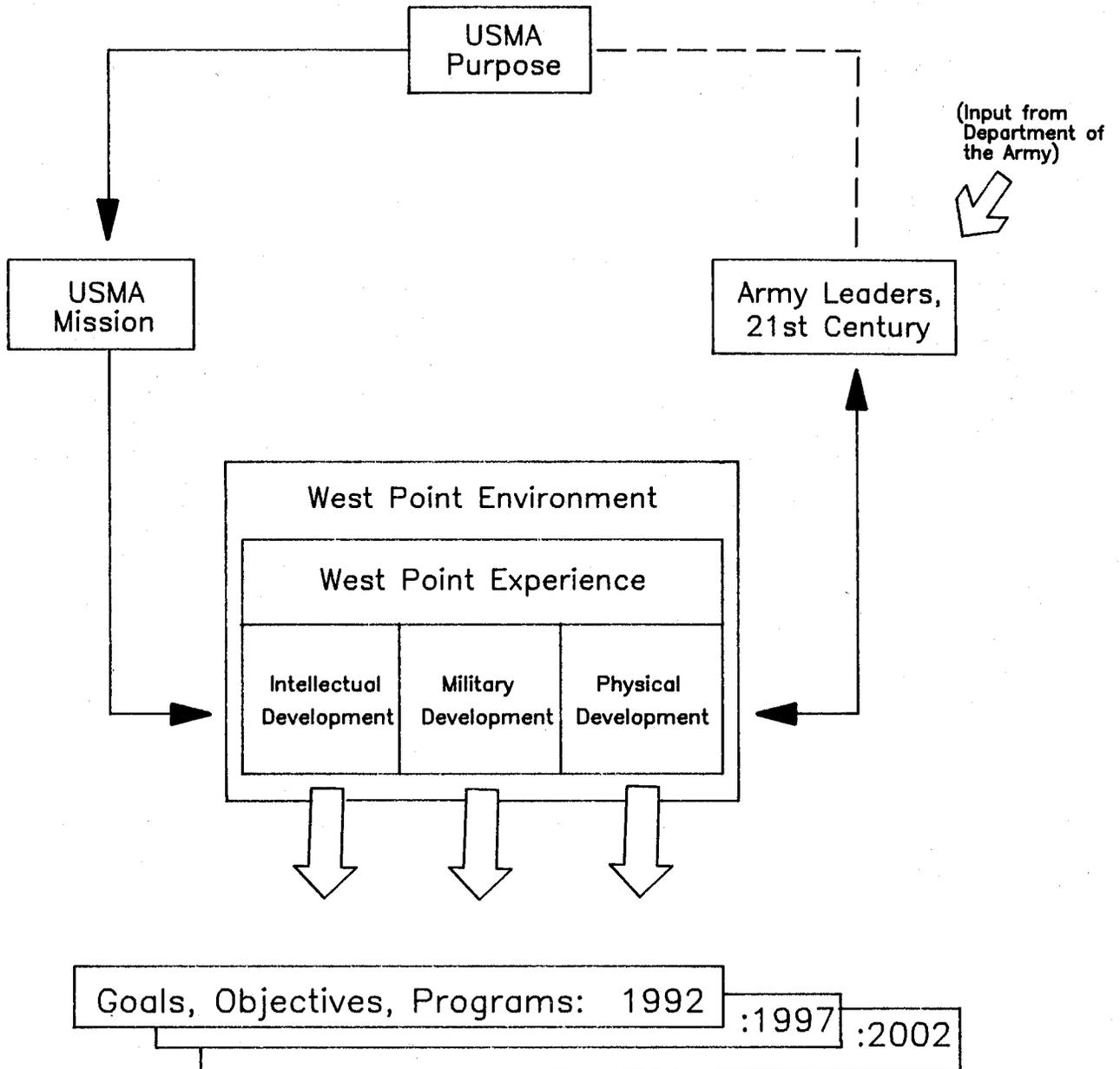
Concept for Intellectual Development

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A GRAPHIC PORTRAYAL OF USMA'S STATEMENT OF STRATEGIC GUIDANCE



(This chart shows the relationship of the nine following papers. Taken together, those nine constitute a statement of institutional strategic guidance. From that statement will flow phased plans to lead the Academy into the 21st Century, to 2002 and beyond.)

The PURPOSE of the United States Military Academy is:

TO PROVIDE THE NATION WITH LEADERS OF CHARACTER
WHO SERVE THE COMMON DEFENSE.

(The purpose statement answers the question, "why?" Why does America have the Military Academy?)

Founded during war, the Army was retained "to provide for the common defence." The nature of the American republic demanded officers with democratic values and unquestioned character. To meet that need, the United States founded the Military Academy in 1802. As the Nation has matured, this need has endured. Our military leaders must be exemplars of the values that frame the Nation. The Military Academy must be the wellspring of those values and its graduates must be leaders who adhere to the highest standards. Their character, the embodiment of virtue and personal excellence, must place them above the common level of life and lead them always to choose the harder right over the easier wrong. As leaders of character, they depart West Point with a strong sense of DUTY and a deeply ingrained code of HONOR, inspired to serve their COUNTRY -- in its common defense, in peace and war, in whatever capacity the Nation needs.

NOTE: EVERY SUCCEEDING STATEMENT, EVERY SEPARATE PART OF THIS PACKET OF STRATEGIC GUIDANCE, IS AIMED SOLELY AT THIS SINGULAR PURPOSE. LEADER DEVELOPMENT IS THE MILITARY ACADEMY'S **SINE QUA NON**. IT BEARS REPEATING THAT NOT MERELY LEADERS ARE WE TO PROVIDE, BUT LEADERS OF CHARACTER.

The MISSION of the United States Military Academy is:

TO EDUCATE AND TRAIN THE CORPS OF CADETS SO THAT EACH GRADUATE SHALL HAVE THE ATTRIBUTES ESSENTIAL TO PROFESSIONAL GROWTH AS AN OFFICER OF THE REGULAR ARMY, AND TO INSPIRE EACH TO A LIFETIME OF SERVICE TO THE NATION.

(The mission statement answers the question, "what?" What does the Army require the Military Academy to do in order to achieve its purpose?)

The United States Military Academy provides the Corps of Cadets a broad undergraduate education culminating in a bachelor of science degree. At the same time, the Academy educates and trains cadets physically and militarily. Inextricably imbedded in both education and training are ethical development and the molding of character. Immersion in the West Point Experience instills in graduates the foundational attributes of leadership.

West Point also motivates graduates toward a commitment to serve the nation. Imbued with the soldierly virtues, graduates are prepared for continued and progressive growth in the profession of arms. Starting as lieutenants, they will advance as far as their talents and the needs of the service take them. Their education to selfless service, even beyond the time in uniform, is both a national need and an historical expectation.

THE WEST POINT EXPERIENCE

The West Point experience is the process which transforms cadets into leaders for a lifetime. The very essence of the Military Academy's uniqueness, this experience is one of continuous and progressive challenge. It starts on the cadet's first day with a solemn oath to support the Constitution. Four years later a second oath marks the end of the process -- the graduate this time swears to support and defend the Constitution.

Transformation from promising new cadet to inspired new leader is a complex and arduous passage. The compass for the journey is the simple but great moral code -- Duty, Honor, Country. This powerful expression of the ethos of the American soldier shapes from the outset the very fiber of those who undergo the West Point experience. The way is marked and measured along three distinct but intertwined developmental roads: intellectual, physical, and military. Each road is required travel for every cadet. That travel, shaped indelibly by the Academy's Spartan life-style and sustaining environment, nurtures the development of character. Omnipresent in the environment are: an abiding emphasis on a moral-ethical code; a structure of discipline; a proud linkage to tradition; and a climate promoting personal growth.

Ultimately this experience, this unique process of forging and strengthening, produces leaders of character and forms an enduring foundation for their dedicated service to country.

THE WEST POINT ENVIRONMENT

West Point provides a special environment to foster the development of leaders. Located on terrain strategically central to the American Revolution, it is hallowed in history. It is also a place of striking natural beauty -- framed by granite mountains, embraced by a fold in the Hudson, marked in Gothic magnificence. Standing sentinel around the Plain, monuments to heroes of America's wars invoke ghostly images of the "Long Gray Line" -- two centuries of graduates whose tradition of valor and service provide the standard by which future leaders will be measured.

Within this stony citadel flourishes a vibrant union of people, ideas, activities, challenges. The Academy is a community of professionals and carefully selected aspirants, all striving toward a common cause, the cause of individual growth, of personal development. Social interaction is spirited, for here are young men and women drawn from all corners of the nation, diverse in their origins but alike in their dedication to excellence and commitment to service. Living and working closely together, motivated to follow and to lead, toughened in the crucible of challenge, cadets experience an expanding social consciousness and deepening sense of camaraderie in the profession of arms.

The Military Academy reflects the military strengths of order, precision, and organization. Living a Spartan life-style, responding to strenuous physical demands, challenged daily to think and act under pressure, given increasing leadership opportunities, cadets develop poise and self-control, pride and self-confidence. Over time, the disciplined and sustaining environment leads them to subordinate personal considerations to a duty to a higher cause, thus inspiring selflessness.

Integrity is the essential and binding theme in the environment. The Honor Code and System are the most evident manifestation of this imperative. With teachers and mentors exemplifying the values inherent in true public service, each cadet's appreciation of these ideals proceeds apace with the development of mind and body. West Point's moral-ethical environment calls from the past the ethos of "Duty, Honor, Country," passing it to those who will be leaders in the future. Encouraging both spiritual inspiration and human understanding, the Academy supports opportunities for religious growth and diverse cultural expressions. The cadet ultimately comes to internalize and practice the moral imperatives of the Cadet Prayer: "...to choose the harder right instead of the easier wrong, and never to be content with a half truth when the whole can be won."

Reflecting the nation's values, steeped in a tradition of selfless and disciplined service, promoting creativity out of challenge, the West Point environment nurtures leaders of character -- young men and women of integrity, commitment, and courage.

ARMY LEADERS OF THE TWENTY-FIRST CENTURY

Leaders of the Army in the Twenty-First Century will be called upon to accomplish missions primarily by influencing people in teams--in organizations. They will lead people and manage resources toward the ultimate goal of winning battles and wars. Successful leaders must: possess strength of character and have an abiding commitment to the values of both the nation and the profession of arms; be well educated in a variety of disciplines; be able to act decisively. They will work in a milieu of rapid change.

They must be men and women of character, imbued with the judgment to know what ought to be done and the courage to do it. Their professional military growth, paced by continuing self-development, will be marked with expanding selflessness, bravery, frankness, competence, farsightedness, and dedication. Self-discipline will progressively strengthen their fitness to lead morally, intellectually, and physically. They must be inspiring leaders -- stimulating enthusiasm, mutual trust, and willing obedience among subordinates. They will be teachers and trainers, with a warrior's focus. Above all, they will need a determined will to win.

The world is evolving more rapidly than in the past. The years ahead will be marked by unprecedented technological complexity. Operating in peace or war, leaders must be able to handle that technology. Accordingly, in order to develop and acquire sophisticated weaponry, they must have a thorough knowledge of the physical world; to employ that weaponry, they must be able to solve problems and make decisions under conditions of uncertainty and ambiguity. However, despite the rapid changes in human circumstances, human nature will change hardly at all. Therefore, leaders must understand human nature and be able to deal with it; they must have a sound historical perspective; they must know how to operate in a cross-cultural setting; and they must be able to communicate effectively. For all these reasons, leaders must be broadly educated in both the physical sciences and the liberal arts.

Leaders must balance the imperative of mission accomplishment with the demand to care for subordinates, and place both before personal welfare. They must treat humans as humans. They must establish and maintain an ethical climate for their organizations. They will need to think clearly, decide wisely, and act decisively under pressure and in a variety of leadership situations. They must demonstrate initiative, creativity, and independent action as part of a larger whole. They will pursue goals vigorously and persistently. While accepting accountability for their own actions, they will encourage freedom of thought and action in subordinates. From all this, they will derive the foundation to dare, to take risks, to operate boldly.

Finally, their world will likely be one of accelerating change -- change so dramatic as to be potentially paralyzing. They must, as the summation of all other attributes, be able at the very least to adapt to such change; at the very best, to shape and direct it.

CONCEPT FOR INTELLECTUAL DEVELOPMENT

Intellectual development is achieved by selecting academically talented students and providing a broad-based and challenging program of academic instruction presented by an accomplished military faculty working in first-rate facilities. Education is a complex, time-consuming, and dynamic process whereby understanding merges with experience to produce wisdom. It provides the foundation for progressive and continued intellectual development.

The goal of a West Point education is to enable its graduates to anticipate and to respond effectively to the uncertainties of a changing technological, social, political, and economic world. This is accomplished with a demanding, broad, basic education in both the arts and sciences. Education in these areas involves not only the acquisition of knowledge but also the development of higher intellectual skills which allow for analysis, problem solving, and decision making on the major issues confronting society, the nation, and the profession of arms.

The academic program is defined less by specific courses than by educational objectives which identify competencies essential for successful development as a professional officer. Cadets develop creativity and intellectual curiosity which insure their continued intellectual growth. They learn quantitative and qualitative methods which allow them to allocate resources, manage the development and acquisition of technologically based systems, and achieve innovative solutions to complex problems. They gain a cultural perspective, become historical minded, and understand the human element in organizations--all imperatives to lead soldiers and exercise military power consistent with American values in a complex national and international environment. To achieve these objectives, the curriculum has a core program in the humanities and social sciences and in the basic and applied sciences. That core is complemented by an elective program providing focused study in a chosen discipline.

Intellectual development is guided by a military faculty selected on the basis of outstanding professional and intellectual qualities. With sound postgraduate education and exemplary service in the Army, faculty members serve as both academic and military role models. Small student-faculty ratios insure close interaction between student and teacher, employment of a wide range of teaching strategies, and active student involvement in the learning process. Good teaching and currency in subject matter are supported by excellent facilities and a carefully tailored research program.

Undergraduate education at West Point provides fundamental knowledge, basic principles, analytical frameworks, and methods of sound reasoning, all fostered in an environment that stimulates and promotes intellectual curiosity and integrity. It provides a solid foundation for continued intellectual growth throughout a lifetime of service to the nation.

CONCEPT FOR MILITARY DEVELOPMENT

Military development occurs through education and training which imparts the values of the profession of arms, teaches the basic skills required for commissioning, and provides active leadership experience both within the Corps of Cadets and in Army units.

A key theme of the military development program is the inculcation of the values and ethics of the military profession, starting with the proposition that warfighting is the Army's basic business. Interacting with officers on the staff and faculty, cadets internalize the meaning of duty and honor. They learn to meet and to demand high standards. They learn that officers are accountable--that they are responsible for all that their units do and fail to do. They learn that an officer's word is indeed his or her bond.

During the academic year, cadets study the Army's history, its customs and traditions, and its role in providing for the common defense. They also learn the Army's mission, organization, weapons and tactics. In the summer months, they acquire military skills and have opportunities to lead small military units. They experience the adventure of a military career by participating in activities such as parachute training, tank gunnery, Northern and jungle warfare at Army posts around the world. Cadets experience the challenges of leadership while serving as trainers for soldiers in units in the United States and abroad as well as for other cadets at West Point. During their four years, they assume progressively greater responsibilities for leading the units and activities of the Corps of Cadets. From these opportunities, cadets improve their military skills, gain confidence, and experience the personal satisfaction that comes from seeing the impact of their leadership on the motivation and performance of others.

West Point graduates enter the Army with basic military knowledge and skills and the motivation to continue their professional development through progressive training, formal schooling, and self-study. They are excited about the possibilities of military service and have the values and skills required for exemplary leadership. They accept the challenge of maintaining military readiness to deter war. They are also prepared, if the nation calls, to pay the price of battle.

INTEGRATION OF MORAL-ETHICAL DEVELOPMENT

Of the thirteen words in West Point's statement of purpose -- to provide the nation with leaders of character who serve the common defense -- one is preeminent. Character. It is not merely leaders we are to provide, but leaders-of-character. Although character is more readily recognized than defined, its importance to the nation is inestimable.

The inculcation of character includes a solid component of moral-ethical development. Every concept paper within USMA's strategic plan for 2002 embraces the element of moral-ethical development, illuminating the centrality of this aspect of the West Point Experience. It is integral to the intellectual program, imbedded in the military training, included in physical development, a part of extracurricular and religious activities. In short, it is a fundamental element in the environment in which cadets live.

USMA's strategic plan for 2002 does not contain a separate concept for moral-ethical development for one reason: it is too important and too all-encompassing a factor. Were it to be treated separately, some activities might be led to conclude that they had no direct responsibility for pursuing it within their spheres. To the contrary, every activity has a major role to play in the process of moral-ethical development, just as every member of USMA's staff and faculty has a responsibility to exemplify for cadets the highest moral-ethical standards.

PURPOSE: TO PROVIDE THE NATION WITH LEADERS OF CHARACTER WHO SERVE THE COMMON DEFENSE.

MISSION: TO EDUCATE AND TRAIN THE CORPS OF CADETS SO THAT EACH GRADUATE SHALL HAVE THE ATTRIBUTES ESSENTIAL TO PROFESSIONAL GROWTH AS AN OFFICER OF THE REGULAR ARMY, AND TO INSPIRE EACH TO A LIFETIME OF SERVICE TO THE NATION.

....HERE WE TRAIN THE MEN AND WOMEN WHOSE DUTY IT IS TO DEFEND THE REPUBLIC -- THE MEN AND WOMEN WHOSE PROFESSION IS WATCHFULNESS -- WHOSE SKILL IS VIGILANCE -- WHOSE CALLING IS TO GUARD THE PEACE, BUT IF NEED BE, TO FIGHT AND TO WIN.

--President Ronald Reagan
West Point, New York
October 28, 1987

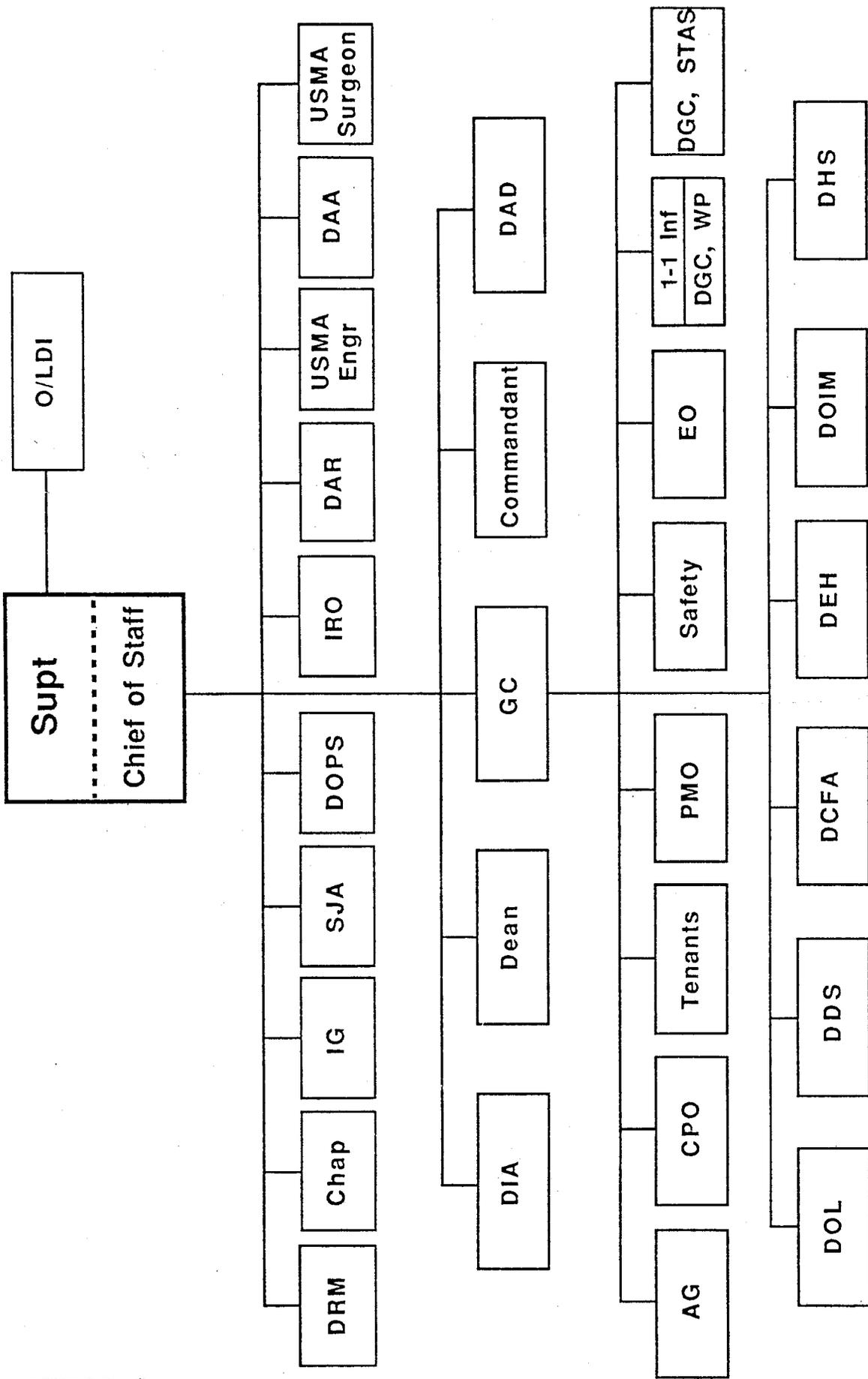
CONCEPT FOR PHYSICAL DEVELOPMENT

Physical development provides leaders with physical skills, self-confidence, the warrior spirit, and a commitment to maintain their own physical fitness and that of their soldiers. Physical development encompasses both physical education and athletic programs. Emphasis is on the physical and mental aspects of fitness, teamwork, perseverance, and the will to win.

Cadets are challenged to achieve high standards of strength, agility, speed, and endurance to meet the physical demands encountered in military service. This is achieved through participation in a comprehensive program of formal education, involvement in competitive sports, and constant evaluation. Formal education encompasses instruction and practice of skills in individual and team sports, as well as in combative sports such as boxing and self-defense. Evaluations are frequent, standards are high, testing is emotionally charged and physically demanding. Every cadet is an athlete, participating at the highest level of physical ability in intercollegiate, club, or intramural competition.

The physical development process takes into account the psychological, motivational, and emotional aspects of total body fitness. As a consequence, cadets increase their self-esteem and self-confidence, determination, will to win, courage to take risks, and ability to think and act purposefully under physical and mental stress. These qualities are developed and strengthened as cadets learn how to succeed in competitive, highly demanding physical activities.

Because Army officers are required to maintain the highest standards of physical readiness, individual responsibility for physical fitness is very important. Cadets must independently engage in frequent and rigorous conditioning activities in order to succeed in the USMA physical development program. The habit of self-development, nurtured over the four-year cadet experience, becomes a lifetime value.



KEY USMA PERSONNEL
1987-1988 Academic Year

SUPERINTENDENT AND PERSONAL STAFF

Superintendent	LTC Dave R. Palmer	7/28/86-
USMA Command Sergeant Major	CSM Leo A. Dobmeier	8/29/83-
Special Assistant for Strategic Planning	COL Larry R. Donnithorne	6/30/87-
Chief of Staff/Deputy Post Commander	COL Michael B. Allen COL Gerald E. Galloway COL Richard A. Behrenhausen	5/25/88- 10/5/87-5/25/88 9/22/85-10/5/87
Secretary of the General Staff	LTC Robert M. Currey	6/15/87-
Director of Operations, Plans, and Security	LTC F. Edward Schwabe, Jr. COL Thomas N. Cunningham	7/25/88- 7/13/86-7/25/88
Director of Personnel and Community Activities	COL Billie L. Hughes COL Michael W. Gilmartin	7/20/87- 2/21/84-7/20/87
Director of Logistics	COL William J. Liepis	7/1/87-
Director of Resource Management Acting Head	COL George F. Mergner Mr. David A. Sundby COL Edward T. Counts	7/17/88- 6/27/88-7/17/88 6/23/86-6/27/88

SPECIAL STAFF

Adjutant General	LTC Howard E. Wilcox, Jr. COL Lawrence T. Daly	7/30/88- 6/15/85-7/29/88
Director of Alumni Affairs	COL Charles K. Flint III	10/1/86-
Bandmaster Acting Bandmaster	LTC L. Bryan Shelburne MAJ Thomas R. Davis	8/1/87- 6/30/87-7/31/87
Chaplain, USMA	Rev Richard P. Camp	12/20/79-
Civilian Personnel Officer	Mr. Michael S. Heller	8/14/83-
Commander, USA Dental	COL Raymond B. Bersano COL Terry H. Hake	7/15/88- 7/8/84-7/7/88

Contracting Officer	MAJ Randolph C. Barta MAJ James D. Babington	5/31/88- 7/1/86-5/25/88
Director of Admissions	COL Pierce A. Rushton, Jr.	7/8/85-
Director of Information Research	COL Daniel E. Bartholomew	9/2/85-
Director of Institutional Research	LTC Patrick A. Toffler Acting Head Dr. Richard P. Butler	8/24/87- 6/12/87-8/24/87
Director of Engineering and Housing	LTC Richard M. Ely Acting Head LTC James E. Stevens, Jr. COL James P. Oppenheim	7/9/88- 2/2/88-7/8/88 8/1/85-2/1/88
Finance & Accounting Officer	LTC Paul R. McDowell	7/1/86-
Inspector General	LTC Richard C. Ashley, Jr. LTC William F. Hausman, Jr.	8/17/88- 9/4/84-7/22/88
Provost Marshal	MAJ Michael L. Kimel LTC Robert N. Pritchard	6/30/88- 6/22/87-6/30/88
Public Affairs Office	COL James N. Hawthorne COL John P. Yeagley	1/4/88- 4/7/84-12/9/87
Staff Judge Advocate	COL William P. Greene, Jr.	7/9/86-
Surgeon	COL Barry W. Wolcott	8/23/85-
Treasurer	LTC Ernest F. Poland LTC John L. Throckmorton, Jr.	6/27/88- 6/1/86-6/24/88
Director of Intercollegiate Athletics	Mr. Carl Ullrich	9/29/80-

ACADEMIC DEPARTMENTS

Dean	BG Roy K. Flint	8/1/85-
Associate Dean	COL David J. Phillips	6/84-
Operations Division	COL James H. McEliece	8/6/86-
Plans and Programs Division	LTC Michael F. Fisher LTC Donald S. Rowe	7/1/88- 6/11/84-6/30/88
Science Research Laboratory	LTC Thomas H. Johnson	12/22/80-
Academic Automation Division	COL Lanse M. Leach	8/1/82-

Departments:

Behavioral Sciences and Leadership Dept. Head	COL Howard T. Prince II	7/1/78-
Chemistry Dept. Head	COL James H. Ramsden COL Wilford J. Hoff, Jr.	7/29/88- 7/9/79-7/29/88
Electrical Engineering Dept. Head	COL Stanley E. Reinhart, Jr.	4/2/79-
Engineering Dept. Head Acting	COL Gordon W. Arbogast	1/1/87-
English Department Head	COL Peter L. Stromberg COL Jack L. Capps	7/1/88- 5/1/77-7/1/88
Foreign Languages Dept. Head	COL John J. Costa	8/1/80-
Geography & Computer Science Dept. Head	COL Gilbert W. Kirby, Jr.	3/1/72-
History Dept. Head	COL Robert A. Doughty	8/1/85-
Law Dept.	Head COL Dennis R. Hunt Acting Head COL Dennis R. Hunt Acting Head COL Robert C. Handcox Acting Head COL Jerome X. Lewis II Head* COL Robert W. Berry	1/88- 7/3/87-1/88 6/26/87-7/2/87 7/86-6/25/87 6/30/78-7/86
Mathematics Dept. Head	COL Frank R. Giordano COL David H. Cameron	6/30/88- 7/1/85-6/30/88
Mechanics Dept. Head	COL Peter D. Heimdahl	7/1/85-
Physics Dept. Head	COL Raymond J. Winkel, Jr.	4/1/87-
Social Sciences Dept. Head	COL Lee D. Olvey	9/1/72-
USMA Librarian	Mr. Kenneth W. Hedman	5/31/87-

HEADQUARTERS, U.S. CORPS OF CADETS

Commandant of Cadets	BG Fred A. Gorden BG Peter J. Boylan	8/10/87- 6/26/84-8/10/87
Deputy Commandant**	COL Joseph E. Gross COL Seth F. Hudgins	6/13/88- 8/10/87-6/13/88

USCC Chief of Staff	COL Seth F. Hudgins COL William D. Hughes LTC Stephen K. Cook	6/13/88- 11/23/87-6/13/88 8/8/87-11/23/87
Special Asst to Commandant for Systems and Planning	MAJ William J. Pokorny LTC Fred B. Johnson	7/1/88- 1/16/81-7/1/88
Command Sergeant Major	CSM Timothy D. Hanna	7/1/87-
Department of Military Instruction	COL Robert A. Turner	7/15/85-
Department of Physical Education	COL James L. Anderson	9/4/74-
Director of Cadet Activities	COL Charles E. Johnson	10/1/83-
1st Regimental Tactical Officer	LTC James M. Hayes	8/3/87-
Acting RTO	MAJ Brenda A. Bradley	7/2/87-8/2/87
2nd Regimental Tactical Officer	LTC Marvin E. Fuller LTC Blaine S. Ball	8/19/87- 8/12/85-8/19/87
3rd Regimental Tactical Officer	LTC James R. Siket LTC Patrick D. J. Kenny	7/6/87- 7/9/85-7/2/87
4th Regimental Tactical Officer	LTC Gregory K. Wade LTC Stephen K. Cook COL William D. Hughes	7/8/88- 11/23/87-7/8/88 6/16/85-11/23/87

HEADQUARTERS, 1ST BATTALION, 1ST INFANTRY

Commander	LTC Donald W. Shive, Jr.	7/8/87-
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*COL Berry had been on a permanent change of station since July 1986. Although away from the Academy, he retained his chairmanship until his retirement at the end of July 1987. During the interim, the three colonels listed served as acting heads of the Department.

**Title of Deputy Commandant was redesignated Brigade Tactical Officer on 13 Jun 88.

ACADEMIC CALENDAR

(Academic Year 1988-89)

Reorganization Week Begins	11 Aug 88
First Term Begins	18 Aug 88
Labor Day (No classes)	5 Sep 88
Homecoming (No classes)	15 Oct 88
Veteran's Day (No classes)	11 Nov 88
Thanksgiving Recess (No classes)	24-27 Nov 88
Navy Game (No classes)	3 Dec 88
Final Class Day, First Term	13 Dec 88
Term End Examinations Begin	14 Dec 88
Term End Examinations End/Christmas Leave Begins	20 Dec 88
December Graduation	20 Dec 88
Christmas Leave Ends	8 Jan 89
Second Term Begins	9 Jan 89
King's Birthday (No classes)	16 Jan 89
President's Weekend (No classes)	18-20 Feb 89
Spring Leave	4-12 Mar 89
Final Class Day, Second Term	9 May 89
Term End Examinations Begin	10 May 89
Term End Examinations End	
First Class	13 May 89
Other Classes	16 May 89
Graduation Day	24 May 89
Summer Academic Term	17 May-16 Jun 89
Late Graduation	17 Jun 89

SUPERINTENDENT'S LECTURES

GEN Sir Richard F. Vincent, Vice Chief of the Defense Staff, United Kingdom, The Kermit Roosevelt Lecture, "The East-West Balance -- Where Next?"

Mr. Elie Wiesel, 1986 Nobel Peace Laureate, Sol Feinstone Lecture, "The Meaning of Freedom."

DEPARTMENT OF BEHAVIORAL SCIENCES AND LEADERSHIP

Mr. Bruce Anniballi, Orange County Executive Office;
Mr. Louis Heimbach, Orange County Executive;
Honorable William J. Larkin, New York State Assembly;
Honorable George Pataki, New York State Assembly;
Mr. Richard Rose, Orange County District Legislator,
"Different Aspects of Local Government."

Mr. Ray Jenkins, Baltimore Evening Sun; Mr. William B. Ketton, Quincy Patriot Ledger; Mr. Seymour Topping, New York Times, "The Role of the Press."

Dr. David Segal, University of Maryland, "Issues Concerning Peacekeeping Forces in the Sinai."

Dr. Mady Segal, University of Maryland, "Issues Concerning Army Families."

Dr. Christopher Wickens, University of Illinois, "Human Factors Psychology."

DEPARTMENT OF CHEMISTRY

Dr. Robert Joy, Uniformed Services University of Health Sciences, "The Command of Health - Health of the Command."

Dr. Paul M. Lahti, University of Massachusetts, "Superaromaticity."

Dr. George Odian, City University of New York, "Zwitterion Polymerization."

Dr. Ken Schrankie, International Flavors and Fragrances, "Toxicology and the Flavors and Fragrances Industry."

MG Gerald G. Watson, Commandant, U.S. Army Chemical School, "Chemical Corps Update."

DEPARTMENT OF ELECTRICAL ENGINEERING

Mr. William C. Howard, Rotelcom, "Design and Philosophy of the Cadet Barracks Local Area Network (CBLAN)."

Mr. R. J. Henning, Motorola, "Development of Radar Operated Proximity Fuzes for Artillery Shells."

Mr. Randy Reitmeyer, Electronic Technology and Devices Laboratory, Ft. Monmouth, "Very High Speed Integrated Circuits Hardware Description Language (VHDL)."

DEPARTMENT OF ENGINEERING

Mr. Norman R. Augustine, Martin Marietta Corporation, "Warfighting with a Service Economy: A Challenge for America's Third Century."

Mr. Gene Baker, TACOM, "The Army's Armored Family of Vehicles R&D Program."

1LT Richard Beaffer, Army Materials Technology Laboratory, "Advances and the Use of Ceramic Materials in the Army."

Dr. W. Ronald Brown, Physics International Company; Mr. Richard Davitt, General Defense Corporation; and Mr. Robert Riesman, Picatinny Arsenal, "Smart Munitions, Kinetic Energy Penetrators, and Applied Physics of Terminal Ballistics."

Mr. Peter Dehmer and Mr. Dana Granville, Army Materials Technology Laboratory, "The Use of Polymers and Composites in the Army."

Dr. James Dilworth, University of Alabama/Birmingham, "The Japanese System of Just-In-Time Inventory Control."

Mr. Bruce Heron and Mr. Sebald Stahl, FMC Corporation, "Design of Heavy Armored Vehicles."

Mr. Walt Hollis, Deputy Under Secretary of the Army for Operations Research, "Live Fire Tests of the Bradley and Abrams Armored Vehicles."

LTC John P. Kuspa, Department of Energy, "DOD Space and Terrestrial Applications of Nuclear Power Technology."

Mr. William Lynd, NCR, "The Implementation of Manufacturing Resource Planning Systems (MRP)."

MAJ Richard McClelland, TACOM, "Automotive Design."

Mr. John Mescall, Army Materials Technology Laboratory, "Aspects of Terminal Ballistics."

Mr. Dino Papetti, Army Materials Technology Laboratory, "Processing and Evaluation of Armor Steels."

COL Gene Reed, Armament Research, Development, and Engineering Command (ARDEC), Picatinny Arsenal, "Organization of ARDEC, Current Research, and Future Development in Weapon System Design."

BG John D. Robinson, Commander, TRADOC Analysis Command, "Combat Modeling and Simulation."

Mr. Charles H. Thornton, Lev Zettlin Associates, "Trends in Modern Steel Design and Construction."

MAJ L. Ullrich, TACOM, "The Design of Light Armored Vehicles."

Mr. E. V. Vandiver, Concepts Analysis Agency, "Army Analysis."

MAJ Dennis Wagner, FMC Corporation, "Military Vehicle Project Management."

LTG John F. Wall, Commander, USA Strategic Defense Command, "The Army's Role in SDI."

DEPARTMENT OF ENGLISH

Dr. E. Maynard Adams, University of North Carolina, Chapel Hill, "Ethics of War and Peace."

Mr. George Core, Sewanee Review, "Teaching of Composition."

Dr. Richard DeGeorge, State University of New York at Buffalo, "Applied Ethics."

Ms. Gretel Erlich, essayist, "Writing."

Dr. Richard Gabriel, St. Anselm's University, "The Limits of Obedience."

Dr. Newton Garver, University of Kansas, "War, Violence, and Citizen's Responsibility."

Dr. Milton Munitz, Professor Emeritus, City University of New York Graduate School, "Cosmology."

Dr. Thomas Nagel, New York University, "War and Moral Responsibility."

Dr. Robert Phillips, University of Connecticut, "Ethics and Grand Strategy."

Dr. George Ray, Washington and Lee University, "Hamlet and the Teaching of Drama."

Dr. Carl Wellman, Washington University, "The Right to Self-Defense."

DEPARTMENT OF FOREIGN LANGUAGES

BG Clarke M. Brintnall, Office of the Assistant Secretary of Defense for International Security Affairs, "The Strategic Importance of Latin America."

Mr. Jose Manuel Casanova, Inter-American Development Bank, "Economic Development in Latin America."

Dr. Margaret K. Nydell, Former Director of the Foreign Service Institute School of Arabic, Tunis, Tunisia, "The Arabic Language."

DEPARTMENT OF GEOGRAPHY AND COMPUTER SCIENCE

Dr. Jon L. Bentley, Bell Laboratories, "Little Languages" and "Problem Solving."

Dr. Alan Best, Boston University, "Field Research in Botswana" and "Spatial Implications of Apartheid in South Africa."

Mr. Robert Boyle, New York Times, "The Hudson River."

Dr. Christopher Dagget, Regional Administrator, U.S. Environmental Protection Agency (EPA), "EPA Perspective: New York and New Jersey."

Dr. Jerry Delli-Priscoli, Army Institute for Water Resources, "Public Participation."

Mr. Steven Duggan, Chairman Emeritus, Natural Resources Defense Council, "Cornwall Pump/Storage Project."

Dr. Edward Evenson, Lehigh University, "Geology."

Dr. Rose Greaves, University of Kansas, "Oil Company Operations in the Middle East."

Mr. J. V. Harrison, IBM, "Multivirtual Systems."

MG Henry J. Hatch, Director of Civil Works, U.S. Army Corps of Engineers, "Federal Water Resources Policy."

CPT Glenn Hughes, DISC4, "Army Ada Implementation Plan."

Dr. Robert Holz, University of Texas, "Remote Sensing-Lake Chad," "Satellite Imagery Application in Kenya," and "The Use of High-Resolution Radiometer Imagery to Study Large Scale Vegetation Changes in Egypt."

COL John J. Kelly, Deputy Commander, Air Weather Service (AWS), "AWS Functions and Organization."

Dr. Ksenya Khinchuk, Boston University, "Geography of the USSR" and "The Nationalities of the Soviet Union."

Dr. James Knox, University of Wisconsin, "Physical Geography."

Dr. Melvin G. Marcus, Arizona State University, "Wall Emittance of Longwave Radiation."

Dr. Fred Maryanski, University of Connecticut, "Semantic Databases."

Dr. John R. Mather, University of Delaware, "Hydroclimatic Effects of Increased CO₂ Concentrations."

Mr. Randy McKinley, TGS, Inc., "Oil/Gas Development."

Dr. Michael Oksenberg, University of Michigan, "Political/Economic Reform in China."

Dr. Robert Sheets, National Hurricane Center, "Hurricane Tracking."

LTC Paul Thies, U.S. Army Environmental Hygiene Agency, "Army Environmental Issues."

Mr. Paul Thomas, Bureau of Mines, "Strategic Minerals."

Mr. Carl Weiss, Meteorologist, "Satellite Meteorology."

DEPARTMENT OF HISTORY

LTC Arthur B. Alphin, Jefferson Proving Grounds,
"Military Technology."

Dr. H. R. Cathcart, The Queens University of Belfast,
"General Richard Montgomery and the American Campaign
Against Canada 1775-1776."

Dr. Edward Coffman, University of Wisconsin,
"World War I."

Dr. Patrick K. Dooley, Saint Bonaventure University,
"Stephen Crane, Ethics, and War."

BG Roy K. Flint, Dean, USMA, "Korea."

Dr. Donald Howard, Florida State University at
Tallahassee, "Napoleonic Warfare."

Dr. Richard H. Kendall, State University of New York at
Albany, "Vietnam."

Dr. Peter Maslowski, University of Nebraska at Lincoln,
"Early American Wars and the Evolution of U.S. Military
Policy" and "American Defense Issues."

COL Paul L. Miles, USMA, "World War II, Strategy."

LTC Kenneth R. Pierce, Combat Studies Institute,
"The ROTC History Program."

Dr. Charles P. Roland, University of Kentucky, "Lincoln
as a National Strategist."

Dr. John W. Shy, University of Michigan, "The American
Revolution."

Dr. Ronald Spector, Chief of Naval History, "World
War II, The Pacific Theater."

BG William A. Stofft, Chief, Center for Military
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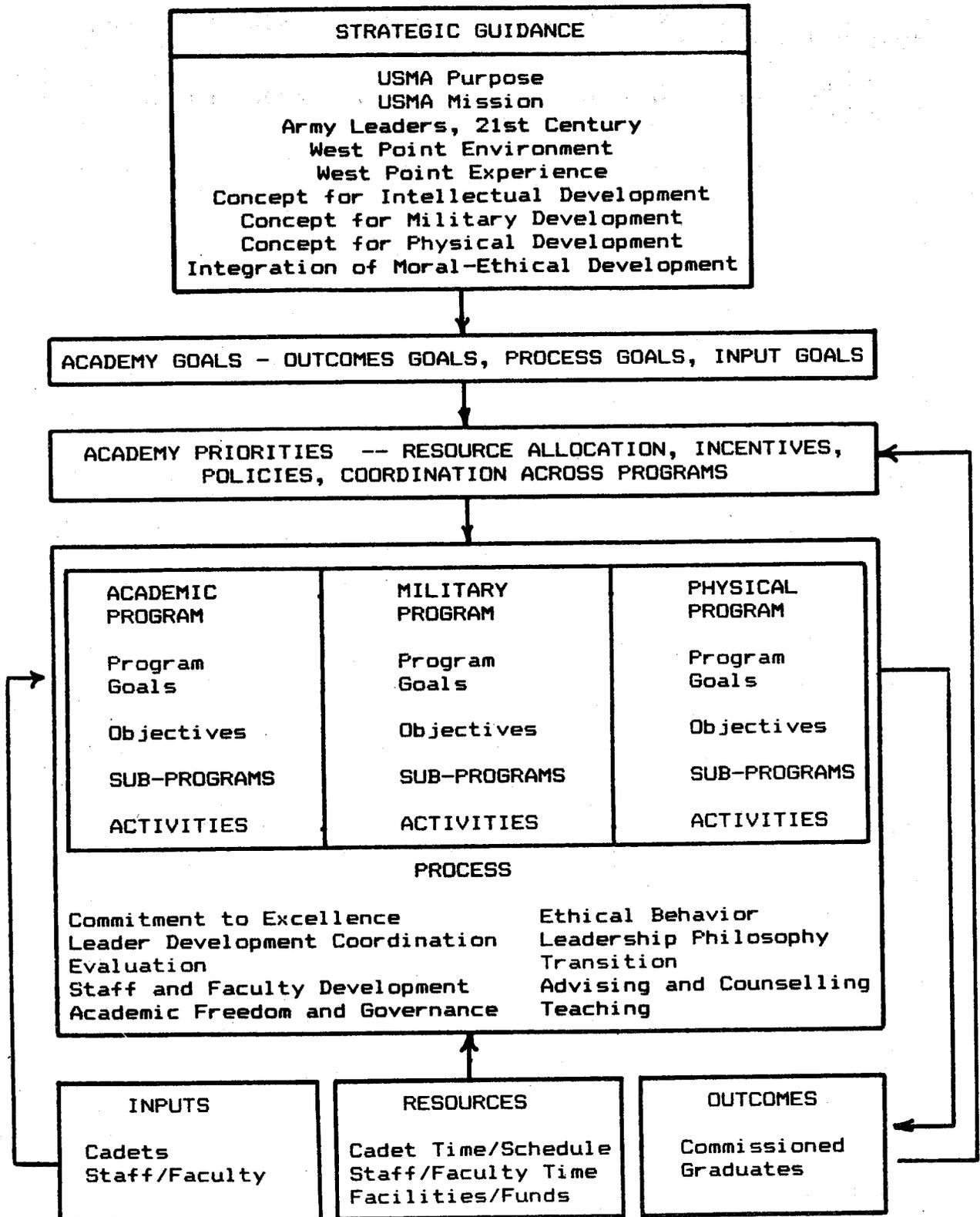
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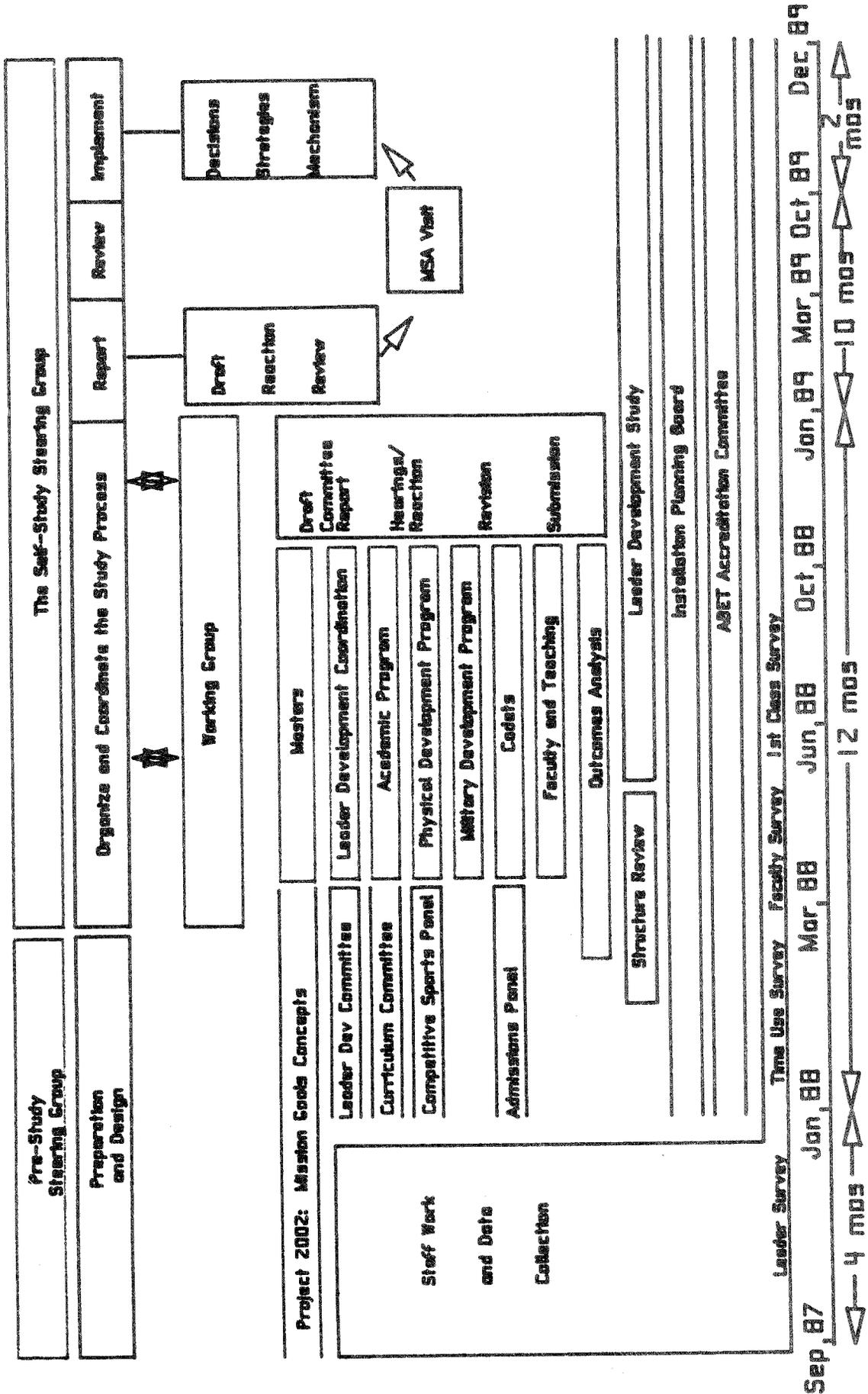
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RELATIONSHIP OF KEY ACADEMY CONCEPTS



USMA ACCREDITATION SELF-STUDY PLAN



VARSIITY SPORTS SUMMARY

Team	Games	Won	Lost	Tied	Pct.	Navy	Captains
Men's Cross Country	5	5	0	0	1.000	Won	Tom Fedder
Women's Cross Country	3	3	0	0	1.000	Won	Lisa Benitez
Women's Outdoor Track	2	2	0	0	1.000	Won	Lisa Benitez/Sherise Tuggle
Pistol	14	13	1	0	.929	Lost	Danny Morgan
Women's Indoor Track	6	5	1	0	.833	Won	Sherise Tuggle
Rifle	19	15	4	0	.789	Lost	Randy Powell
Wrestling	20	15	5	0	.750	Lost	Darrel Nerove
Men's Swimming	12	9	3	0	.750	Lost	David Krall
Women's Softball	44	33	11	0	.750	---	Laura Slattery
Golf	4	3	1	0	.750	Lost	Robert Kewley
150-lb Football	7	5	2	0	.714	Won	Vic Mondo/Carl Woods
Women's Volleyball	41	29	12	0	.707	Won	Shelly Shumaker
Women's Swimming	12	8	4	0	.667	Lost	Carol Ann Heller/Jacquelyn Haug
Men's Indoor Track	6	4	2	0	.667	Lost	Tom Feder
Men's Outdoor Track	3	2	1	0	.667	Lost	Pablo Mariano
Women's Basketball	32	19	13	0	.594	Lost	Linda Schimminger
Men's Soccer	17	10	7	0	.588	Won	Sean Mitchiner
Gymnastics	17	10	7	0	.558	Lost	Morgan Hanlon
Women's Soccer	19	9	7	3	.553	---	Kimberly Knur/Karen Weglinski
Women's Tennis	19	10	9	0	.526	---	Ellen Dexter
Water Polo	29	15	14	0	.517	Lost	Scott Maitland
Lacrosse	14	7	7	0	.500	Lost	Robert Betchley/John Janowski
Football	11	5	6	0	.455	Won	Dave Berdan/Tory Crawford
Baseball	38	15	22	1	.408	Lost	Chad LeMay
Men's Tennis	25	9	16	0	.360	Lost	William Degutis
Hockey	30	9	19	2	.333	---	Vinny Bono
Squash	24	8	16	0	.333	Lost	Scott Clark
Men's Basketball	28	9	19	0	.321	Lost	Scott King/Scott Whipp
TOTAL	501	286	209	6	.571	8-16	

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