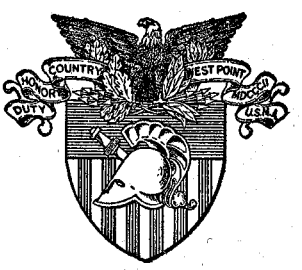
ANNUAL REPORT

of the

SUPERINTENDENT



Academic Year 1963-64

UNITED STATES MILITARY ACADEMY

WEST POINT NEW YORK

THE MISSION
of the
UNITED STATES MILITARY ACADEMY

—●—

The mission of the United States Military Academy is to instruct and train the Corps of Cadets so that each graduate will have the qualities and attributes essential to his progressive and continued development throughout a lifetime career as an officer of the Regular Army.

ARMY-WP-5427-64

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

MASP 1 July 1964

SUBJECT: Annual Report, Academic Year 1963-1964

TO: Chief of Staff
Department of the Army
Washington, D.C. 20310

1. This report on the activities and management of the United States Military Academy records significant events and changes in the continued service of West Point to our country during the period 28 June 1963 to 1 July 1964. The period of this report is that of the Military Academy's 162nd year of operation and the initial year of my superintendency.

2. In Academic Year 1963-1964 the Military Academy continued to move forward in all of its endeavors. With passage of new legislation in March, we entered an expansion period which will make the next decade one of the most important in our history. The curriculum was liberalized by introduction of new elective opportunities. Increased responsibilities were given to the First Class, and they responded to the attendant opportunities with maturity fully justifying the confidence placed in them. The accomplishments of the past year give satisfaction to all of us privileged to serve at West Point. At the same time they outline more clearly the tasks lying ahead. A summary of more important accomplishments appears below. A more detailed report follows.

a. The Academy's curriculum is continually under review in an effort to keep it modern and fully adapted to producing graduates who are well prepared for their part in the Army and as informed public servants. It consists of the Standard Academic Program, the Advanced Studies Program, and a program of electives. The Class of 1964 is the first class to have completed all four years of this curriculum.

(1) The Standard Academic Program - comprised of 178 credit hours, 163 in academic subjects and 15 in tactics and physical education - is the minimum academic course required for

graduation and the award of a Bachelor of Science degree.

(2) The Advanced Studies Program contains more advanced versions of Standard Academic Program courses. Cadets may qualify for this program if they have satisfactorily completed similar courses prior to entering the Academy, or if validation indicates mastery of subject. About one-third of the Corps was enrolled during the academic year in some phase of the Advanced Studies Program; sixty per cent of the graduating class undertook advanced studies at some time during the four years. Although all cadets take two electives during their final year, cadets validating standard program courses may take electives much earlier.

(3) The program of electives includes fifty-five electives offered this year in such fields as Nuclear Reactor Theory, International Law, Space Mechanics, Management Engineering, and Latin American Studies. Beginning in 1964-1965, cadets will be authorized to select two electives during their Second Class year in addition to the two electives already authorized. This offers every cadet two more electives, each of which he can choose as subjects of his own individual interest and aptitude. The program of electives also enables a cadet, if he wishes, to choose all four electives in one area and thus to study in greater depth within a field than has thus far been possible. This can be done by selecting a "Program in Depth" - four subjects in one area, one taken in each of the last four semesters at the Academy. During Academic Year 1964-1965, programs in depth will be offered in eleven areas. The time for two electives to be taken during the Second Class year will be gained through a reduction in the requirements in electricity and mechanics in the Standard Academic Program.

b. A study of the mission of the Department of Tactics led to certain redefinitions on which to base an integrated four-year military instruction program. As a result of the study, the mission of the Department of Tactics was redefined to add a component pertaining to motivation and career orientation. The redefined mission as found in Section II of this report more closely relates the mission of the Department of Tactics to that of the Military Academy and defines those areas of responsibility which are clearly within the charter of the Department of Tactics.

c. The USMA faculty continues to be well suited to accomplish the objectives of this institution. Of our 400 faculty members, 282 have masters degrees, 7 have second professional degrees, and 30 have doctorates. At present, 53 members of the faculty are working toward masters degrees, 5 toward second professional degrees, and 41 toward Ph.D's. The faculty includes a

number of distinguished scholars such as Colonel Alspach, internationally known authority on Yeats; Colonel George A. Lincoln, Rhodes Scholar and author of texts in the Social Sciences; Colonel V. J. Esposito, author of two classical texts and atlases in military history; and others. In addition to many publications by permanent professors, other members of the faculty have written about 200 books and articles. Two changes have occurred among the permanent members of the faculty during the academic year. Colonel Renfroe became Head of the Department of Foreign Languages, succeeding Colonel Barrett, who died in June, 1963. On the occasion of Colonel Esposito's retirement on the 31st of October, Colonel Schilling became Head of the Department of Military Art and Engineering, and Lieutenant Colonel Griess was appointed as the second Professor in the department. This outstanding faculty has given West Point a reputation enjoyed by few colleges.

d. The regular program of instruction is supplemented by a number of related activities, which in the past year included:

(1) A guest lecture program which supplements and reinforces classroom instruction. Included among the nearly 80 prominent individuals who lectured at the Academy this year were: Dr. John H. Heller, Director of New England Institute for Medicine and Research; Honorable Clarence D. Long, Representative, Second District, Maryland; Professor Robert E. Osgood, School of Advanced International Studies, Johns Hopkins University; Dr. Alvin M. Weinberg, Director, Oak Ridge National Laboratory; Mr. Jacob Stockfisch, Deputy Secretary, United States Treasury; Dr. Alain C. Enthoven, Deputy Assistant Secretary of Defense (Systems Analysis); Professor Henry Kissinger, Harvard University; Mr. David E. Bell, Administrator, Agency for International Development, Department of State; the Honorable Averell Harriman, Deputy Undersecretary of State for Political Affairs; and Prince Bernhard of the Netherlands.

(2) A special lecture program for the faculty.

(3) Visiting professors who have been invited to conduct selected courses.

(4) Services of a number of leading educators who have been obtained on consultative basis.

e. During a three-day period in April, 40 distinguished scholars, government officials - both military and civilian, and

business representatives participated in a faculty-level conference on "Latin American Problems." A similar conference, convened to discuss "New Nations and their Internal Defense," was held last year.

f. With the opening of our Academic Computer Center in December of 1962, computer instruction and usage were integrated in appropriate courses throughout the four-year program. A program has been developed to provide cadets with an understanding of the capabilities, limitations, and the method and technique of operation of the electronic computer in a military environment. In April of this year, Department of the Army approved the Academy's request to install a multi-computer system by acquiring two additional computers and a data communications network.

g. Although our use of closed circuit television has been on a very limited basis to date, the highly encouraging results that we have achieved point toward much wider application of this medium as a means of enhancing the effectiveness of certain classroom as well as laboratory type instruction. In May of this year, Department of the Army approved our request for funds ($350,000) to obtain the necessary equipment to install closed circuit television in a number of classrooms. We are now equipping thirty-six classrooms in Thayer Hall with television monitors.

h. For some years we have administered to the graduating class the Graduate Record Examination, an examination prepared by the Educational Testing Service and used extensively by colleges to assist in selecting students who should continue in graduate work. The Class of 1964 achieved the following results on the Graduate Record Examination:

(1) In the verbal section of this aptitude test, covering English grammar and the like, our cadets achieved a mean score lying within the top quarter (76 percentile) of the scores of all senior men taking the test.

(2) In the quantitative, or mathematics, section the class ranked within the top tenth (93 percentile) of all senior men taking the test.

i. Of the 32 First Classmen who competed for National Science Foundation Fellowships this year, five received Fellowships and 23 were extended honorable mention recognition. These cadets were awarded Fellowships in economics and in mechanical, chemical, nuclear, and civil engineering.

j. Members of the First Class were authorized to compete for Fellowships sponsored by the Oak Ridge Institute of Nuclear Studies. This was the first year that cadets have entered this competition; eight cadets competed and all won Fellowships.

k. Seven cadets presented papers at this year's Eastern Colleges Science Conference - an annual forum of undergraduate students majoring in science from colleges located east of the Mississippi River. Cadet research papers have consistently drawn high praise.

l. The establishment of a nation-wide admissions program has stimulated interest among outstanding young men and has increased the competition for available appointments. Over 75% of the cadets admitted to the Class of 1967 stood in the top one-fifth of their high school classes, and one cadet out of every nine was either the valedictorian or salutatorian of his graduating class. The class of 824 cadets had 134 who were either senior class or student body presidents in secondary school; three out of four cadets had won letters in a varsity sport; and 35% of the class had been team captains. Approximately one in ten had been editor of the school paper and 104 members of the class had been high school debators.

m. In order to provide more cadets with increased opportunities to exercise responsibility, three rotational chains of command were established this year. The first two were temporary chains of command and the third, which took office on 23 March, was the permanent chain of command. First Classmen continue to fill the officer and sergeant positions, and Second Classmen serve as corporals. The system has worked well. Its reception by the Corps of Cadets has been good. It was effective in maintaining a high morale, especially in the First Class, throughout the year.

n. After extremely careful study of all aspects of the Fourth Class Program, including the experience in past years as well as current and future conditions, I concluded that the overall advantages of granting Christmas Leave to members of the Fourth Class outweigh the advantages of retaining the class at West Point during the Christmas season. Accordingly, beginning with the Class of 1968, the Fourth Class will be granted Christmas Leave.

o. The Honor Code is based on the recognition that historically the successful military leader has been a man of unquestioned integrity. On this foundation the Honor Code has been constructed and stands firmly emplaced. The Honor Code has never

outgrown its original and simple meaning - that a cadet will not lie, cheat or steal. Today, as in years past, the Corps of Cadets administers the Honor Code. They recognize it as a precious possession and they guard it with great care.

p. During the year, in major athletic competition, Army teams continued to be outstanding representatives of the Corps of Cadets and of the United States Army. They achieved the high standards of excellence expected and they reflected the finest traditions of West Point. Cadets were selected for All-America recognition in baseball, football, soccer, lacrosse, track, swimming, pistol, and rifle. In track, we had nationally recognized competitors. Our swimming team ranked second in the East at the end of a fine season which saw eight Academy and four pool records broken by cadet swimmers. The Army soccer team gained distinction by completing a ten-game season undefeated and moving through two rounds of the NCAA tournament to the semifinals before losing a match. The cadet pistol team was recognized as the National Intercollegiate Champion and the rifle team placed second in the National Intercollegiate competition. The basketball team culminated a very successful season (won 19, lost 7) by defeating Navy in the final scheduled contest by a score of 74 to 55. This record resulted in Army's selection for the National Invitational Tournament, where they won third place. Our hockey team was ranked number one in the East. The Academy's golf team set a new record by achieving more victories in a single season than had previously been recorded - in 12 matches, Army won 11. West Point teams competed in 219 contests and won 167, 76 per cent. Against Navy, we won 10, lost 6, and tied 1.

q. Under the authority granted by Congress with the recent enactment of Public Law 88-276, we initiated the Academy's Expansion Program by preparing to admit, on the first of July, the largest peacetime class in the Academy's history. This step begins a phased expansion programmed over the next decade. The important task of planning and coordinating all aspects of this expansion has been entrusted to a newly created USMA Expansion Planning and Control Office, under the direction of Colonel Charles R. Broshous, Head of the Department of Earth, Space and Graphic Sciences. Since present facilities under significant crowding limit the number of cadets that can be accommodated to approximately 3200, all of our planning is contingent upon the orderly progress of a major construction program to be completed during the next eight and one-half to ten-year period. The initial increment of this expansion includes an addition to the Cadet Mess and construction of adjacent barracks wings with space for about 1200 cadets. Design of the new barracks-mess hall complex is now in progress. Ground breaking is tentatively scheduled for

sometime after June Week of 1965. Other major projects included in the Academy's Master Plan are: a new applied science building, a cadet union, a new family housing area, a new Post hospital, and numerous additions to utilities, Post support, and traffic handling facilities.

r. Construction of the new Library, underway since January of 1962, was completed in March of this year. The Library will be finished and open for business well in advance of Academic Year 1964-1965.

s. Work was to begin early in Fiscal Year 1965 on the renovation of Bartlett Hall, the former East Academic Building. Two million dollars was appropriated by Congress in the Fiscal Year 1964 MCA Program for the badly needed modernization of this building, used today by the scientific departments. The project is scheduled for completion in December of 1965.

t. West Point is host each year to the National Debate Tournament, the championship of U. S. debating. The Student Conference on U. S. Affairs is convened annually at West Point. These two student activities have recently received from the Freedoms Foundation, the George Washington Honor Medal for outstanding achievement in helping to bring about a better understanding of the American way of life.

u. The Sixth Conference of Service Academy Superintendents met at West Point for the three-day period, 10-12 March. A review of the records and reports of five previous conferences indicates that this year's meeting was the largest and perhaps the most productive of these affairs. What initially started, some six years ago, as a two-day conference of Superintendents, Deans, Registrars, and Directors of Athletics of the four Service Academies, this year involved twenty-nine conferees in three days of discussions. The conferees agreed to meet at the Naval Academy in early 1965.

v. The West Point Superintendent's Fund, since its inception in 1961, has received approximately $413,000 which includes $38,500 in securities. In three years of operation the Fund has made it possible to undertake many projects for the welfare of cadets which could not have been otherwise provided. During the year, projects supported by the Superintendent's Fund included: renovation of Benet Hall to create a social and guest hall for the First Class, the purchase of a motor boat for water skiing at Camp Buckner, improved snow-making capability for the cadet ski slope, and maintenance work on the chapel organ. The scope of the fund-raising program was extended during the year to

include a personal appeal directed to all alumni of the Academy. Personal letters have been forwarded to all those who graduated prior to 1947.

w. On the 2nd of May 1964 the Military Academy conducted ceremonies honoring Mr. Robert A. Lovett as the seventh recipient of the Sylvanus Thayer Award. This award is presented annually by the Association of Graduates to the distinguished U. S. citizen whose service and accomplishments in the national interest exemplify outstanding devotion to the ideals expressed in the West Point motto, "Duty, Honor, Country".

x. The Honorable Stephen Ailes, Secretary of the Army, delivered the commencement address to the 565 members of the Class of 1964 who were graduated from the Academy on the 3rd of June. Of those receiving commissions in the Armed Forces of the United States, 491 were commissioned in the Army, 66 in the Air Force, and three in the Marine Corps. The Class included three cadets from foreign countries.

3. During the period of this report two events occurred which brought feelings of particularly great loss to all in the military service. West Point was shrouded in deep sadness on the 22nd of November 1963 when President John F. Kennedy fell victim to an assassin's bullet. Throughout the period of his Presidency, our late Commander-in-Chief had shown great interest in our nation's Service Academies. He expressed strong personal interest in the Service Academy expansion legislation. President Kennedy visited West Point in June of 1962 to address members of the graduating class during their commencement exercises, and accepted honorary membership in the Class of 1962. His strong hold on young people was especially evident among the Corps of Cadets. West Point suffered a second loss on the 5th of April 1964 with the death of General of the Army Douglas MacArthur. Perhaps more than any other graduate, General MacArthur represented throughout his career of dedicated service to country the ideals of West Point. The General's lifelong interest in the Military Academy brought continuing contacts between him and recent superintendents. His sage advice and wise council will be sorely missed.

4. The accompanying report gives a more detailed account of the activities of the 1963-1964 Academic Year. The foregoing summary is intended to cite items of major interest. In reviewing my first year as Superintendent, I believe these points deserve emphasis:

a. As a collegiate institution, West Point is at the

first level of excellence in the United States. This is demonstrated by analyses of the performance of our cadets and graduates; and by the intercollegiate contacts of our faculty.

b. The military and physical training given the cadets is modern, devoid of non-essentials, and productive of outstanding results.

c. We continue to attract the finest young men from throughout the United States. Once here, they soon take on and thereafter manifest the bearing, the morale, and the unique attributes of character that have traditionally made up the hallmark of the West Pointer.

d. Service at West Point is perhaps the highest privilege that can come to an officer of the United States Army.

J. B. LAMPERT
Major General, USA
Superintendent

ANNUAL REPORT

OF THE

SUPERINTENDENT

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APPENDICES

Public Law 88-276
88th Congress, H. R. 7356
March 3, 1964

An Act

To amend title 10, United States Code, relating to the nomination and selection of candidates for appointment to the Military, Naval, and Air Force Academies.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That chapter 403 of title 10, United States Code, is amended as follows:

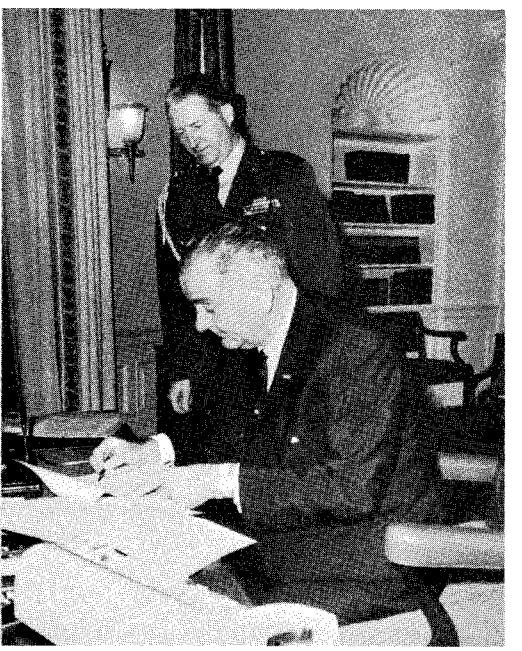
(1) Section 4342 is amended to read as follows:

PRESIDENT JOHNSON SIGNS THE ACADEMY BILL

The White House
March 3, 1964

President Lyndon B. Johnson signs Bill HR7356 increasing the strength of the United States Military Academy and the United States Air Force Academy to the same size as the United States Naval Academy as his Military Aide, Major General C. V. Clifton, U. S. Army, looks on. The bill increases the authorized number of cadets at the Military and Air Force Academies from approximately 2500 cadets each to approximately 4400 cadets each. The bill also increases the number of Congressional appointments from 4 to 5 so that all members of Congress have the same number of appointments to all service academies. In addition, the period of obligated service for the graduates of the service academies, including the Coast Guard Academy, is increased to five years, effective with the cadets and midshipmen appointed after the effective date of the bill. This bill was requested and pushed vigorously by President John F. Kennedy.

Pen used by President Johnson to sign the Academy Bill



"(3) Ten cadets from each State, five of whom are nominated by each Senator from that State.

"(4) Five cadets from each congressional district, nominated by the Representative from the district.

"(5) Five cadets from the District of Columbia, nominated by the Commissioners of that District.

"(6) Five cadets from each Territory, nominated by the Delegate in Congress from the Territory.

"(7) Six cadets from Puerto Rico, five of whom are nominated by the Resident Commissioner from Puerto Rico and one who is a native of Puerto Rico nominated by the Governor of Puerto Rico.

"(8) One cadet nominated by the Governor of the Panama Canal from the sons of civilians residing in the Canal Zone or the sons of civilian personnel of the United States Government, or the Panama Canal Company, residing in the Republic of

ANNUAL REPORT OF THE SUPERINTENDENT
28 JUNE 1963 TO 1 JULY 1964

I. INTRODUCTION

This report summarizes significant accomplishments of the 162nd year of the United States Military Academy. The achievements of the year have been recorded through the endeavors of the members of the Staff and Faculty, the assigned enlisted men and women, and the civilian personnel of the Post.

II. MISSION AND EDUCATIONAL PHILOSOPHY

The mission of the United States Military Academy is to instruct and train the Corps of Cadets so that each graduate will have the qualities and attributes essential to his progressive and continued development throughout a lifetime career as an officer of the Regular Army.

Inherent in this mission are the objectives:

(1) Mental - to provide a broad collegiate education in the arts and sciences leading to the Bachelor of Science degree.

(2) Moral - to develop in the cadet a high sense of duty and the attributes of character with emphasis on integrity, discipline, and motivation essential to the profession of arms.

(3) Physical - to develop in the cadet those physical attributes essential to a lifetime career as an officer of the Regular Army.

(4) Military - to provide a broad military education rather than individual proficiency in the technical duties of junior officers. Such proficiency is, of necessity, a gradual development, the responsibility for which devolves upon the graduates themselves and upon the commands and schools to which they are assigned after being commissioned.

An essential difference between the Academy and civilian institutions is that we must provide in the same four-year period not only a basic academic education but also a broad military education - and at the same time develop physical agility, coordination, stamina, and courage in the cadets. A second essential difference lies in the degree of emphasis which every member of the Staff and Faculty must place on the continuous development in the cadets of integrity, of a keen sense of responsibility, of devotion to duty, of a strong feeling of self-confidence, and of complete dedication to the service of the nation.

Our program of education and training must provide graduates with a solid foundation on which to build lifetime careers as military leaders. The programs must be broad basic ones. The specialization, the additional detailed education, training, and experience needed to become an officer of one of the Arms or Services, an expert in nuclear engineering, business management or other specialty must be acquired after graduation. We must focus our attention on providing the leadership qualities, the physical qualities, and the basic knowledge and intellectual capacity for "commencement" of a lifetime career of service.

The military training mission derived from the Academy's mission has these aims:

> To develop the qualities and attributes of leadership with emphasis on character as exemplified by integrity, morality, discipline, and a strong sense of duty and responsibility;
>
> To provide a broad basic military education;
>
> To develop high standards of physical fitness;
>
> To instill the motivation essential to the profession of arms and to provide orientation for a career in the United States Army.

The academic educational mission derived from the Academy's mission has these aims:

> To provide each graduate a broad collegiate education consisting of a carefully designed sequence of studies in both the arts and sciences leading to the Bachelor of Science degree and constituting a suitable academic base for graduate study in one of the many fields demanded by the modern Army;
>
> To stimulate intellectual curiosity and challenge individual aptitudes and abilities;
>
> To develop the powers of analysis, logical reasoning, and effectiveness of expression;
>
> To contribute to the achievement of the Academy's objectives of developing integrity, responsibility, and self-confidence.

The mission dictates that both the academic program and the military training program be oriented on the special needs of the prospective military leader. Hence, the curriculum includes courses such as Military Psychology and Leadership, the History of Military Art, Military Heritage, Military Fundamentals, and

Ordnance Engineering which are clearly identified as being unique by their titles alone. In addition, the courses with familiar names such as mathematics, physics, and electricity are reenforced with military applications and taught by carefully selected and trained uniformed officers. Throughout the four years of a cadet's training there is an accent on pride in military heritage and motivation for the military career. The design and conduct of programs which will meet these multi-purpose aims of the Military Academy constitute a difficult and challenging assignment.

The following statement of educational philosophy is an extension of the Academy's mission:

> "The United States Military Academy prepares selected young men for service to their country as professional officers of the United States Army. Since it is the only institution of higher learning with this specific mission, its philosophy of education is unique. The Military Academy must produce enlightened military leaders of strong moral fiber whose minds are creative, critical, and resourceful. The academic curriculum and military training encourage logical analysis, clear and concise expression of considered views, and independent thought and action along with a readiness, developed within the framework of military discipline, to carry out orders without reservation once a decision has been reached.
>
> "The total curriculum is designed to develop those qualities of character, intellect, and physical competence needed by the officer who is prepared to lead the smallest combat unit or to advise the highest governmental council. The program includes the sciences, the humanities, and military and physical training. It forms a basis both for graduate education and for further professional development.
>
> "In the academic curriculum, standard courses provide the essential core of knowledge of mathematics, science, engineering, the social sciences, and the humanities and an understanding of the application of this knowledge to the solution of problems. Advanced and elective courses afford the opportunity to develop intellectual capacities and to concentrate in areas of particular interest.
>
> "Military training provides the requisite knowledge of professional fundamentals and doctrine and of the basic military skills. Service in positions of responsibility in the Corps of Cadets and participation in intensive summer training provide the opportunity to apply and test principles and to learn techniques by practice and observation.

"Fitness for military leadership requires physical strength, agility, stamina, and a competitive spirit. These are acquired from a comprehensive course in physical education and from participation in intramural and intercollegiate sports.

"The increasing complexity of the world scene requires constant adaptation by the military profession and by the institutions which prepare its leaders. But while adapting itself to the changing world, the Academy must continue to emphasize the devotion to Duty, Honor, and Country which has traditionally been the hallmark of its graduates."

III. PROVISIONS FOR REVIEW AND EVALUATION

The academic programs and methods of instruction at the Military Academy are the responsibility of the Academic Board, which consists of the Superintendent, the Dean, the Commandant of Cadets, the Heads of the Academic Departments, and the Director of Admissions and Registrar, who serves as Secretary. Local examination of programs and recommendations based thereon are made by agencies and committees for the approval of the Academic Board. The Academic Board is also responsible for the establishment of standards and procedures for the appointment of candidates; the admission, readmission, advancement from class to class; and the graduation and commissioning of cadets.

Through the Superintendent, the Academic Board reports to and proposes improvements to the Department of the Army on the course of studies and methods of instruction at the Military Academy.

In addition to provisions that have been made locally for review and modification of our programs, there are a number of periodic reviews by outside agencies that examine and evaluate the operation of the Military Academy in considerable detail. These reviews, through their totally objective appraisal, have contributed significantly toward the development of a balanced perspective in viewing the endeavors of the Military Academy. Periodic reviews of special importance to the Military Academy include those made by:

The Department of the Army General Staff
The United States Military Academy Board of Visitors
The Superintendents of the Academies of the Armed Forces in joint conference
The Middle States Association of Colleges and Secondary Schools

Annual Visit of the Department of the Army General Staff- The following representatives composed the Department of the Army General Staff Team that visited West Point during the three-day period, 25-27 March 1964, to review and make recommendations concerning the programs of the Military Academy:

Major General R. E. Haines, Jr.
Deputy Assistant Chief of Staff for Force Development (Team Chief)

Major General A. J. Maroun
Director of Programs, Office of the Deputy Chief of Staff for Personnel

Major General K. G. Wickham
Commander, United States Army Data Services and Administration Systems Command, Office of The Adjutant General

Brigadier General F. J. Chesarek
Assistant Chief of Staff for Logistics (Materiel Readiness), Office of the Deputy Chief of Staff for Logistics

Brigadier General W. E. Brinker
Assistant Director, Operations, Office of the Director of the Army Budget, Comptroller of the Army

Brigadier General F. W. Boye, Jr.
Deputy Chief of Legislative Liaison

The conclusions and recommendations of the report submitted by the Department of the Army Staff Team to the Chief of Staff of the Army appear in Appendix B. This report was approved by Department of the Army on the 19th of May 1964.

The United States Military Academy Board of Visitors - The Board is constituted annually under the provisions of Section 4355, Title 10, United States Code, to inquire into morale and discipline, curriculum, instruction, physical equipment, fiscal affairs, academic methods, and other matters relating to the Academy that the Board decides to consider. The specified composition of this Board along with the 1964 membership follows:

General Composition	1964 Membership
The Chairman of the Committee on Armed Services of the Senate (or his designee).	Senator Daniel K. Inouye, Hawaii, (representing Senator Richard B. Russell)
Three other members of the Senate designated by the Vice President or President pro tempore of the Senate, two of whom* are members of the Committee on Appropriations of the Senate.	Senator Kenneth B. Keating, New York Senator Alan Bible*, Nevada Senator Spessard L. Holland*, Florida
The Chairman of the Committee on Armed Services of the House of Representatives (or his designee).	Honorable Richard H. Ichord, Missouri (representing Honorable Carl Vinson)
Four other members of the House of Representatives designated by the Speaker of the House of Representatives, two of whom** are members of the Committee on Appropriations.	Honorable William H. Natcher**, Kentucky Honorable Harold C. Ostertag**, New York Honorable R. Walter Riehlman, New York Honorable Olin E. Teague, Texas
Six persons designated by the President.	General J. Lawton Collins, Retired, Vice-Chairman, Pfizer International, Inc., Washington, D. C. Dr. Robert F. Goheen***, President, Princeton University Mr. Joseph A. Bierne, President, Communications Workers of America, Washington, D. C. Mr. Edward Benno Hanify, Ropes and Gray, Boston, Massachusetts Mr. Robert St. Clair Conahay, III, Hackettstown, New Jersey Dr. Eric A. Walker, President, Pennsylvania State University

***Dr. Goheen resigned from the Board of Visitors for personal reasons. His resignation was accepted by the President and the position was vacant at the time of the Board's 1964 meeting.

Following their annual visit to the Military Academy, during the period 9-11 April 1964, the Board submitted to the President of the United States a written report relative to their inquiry.

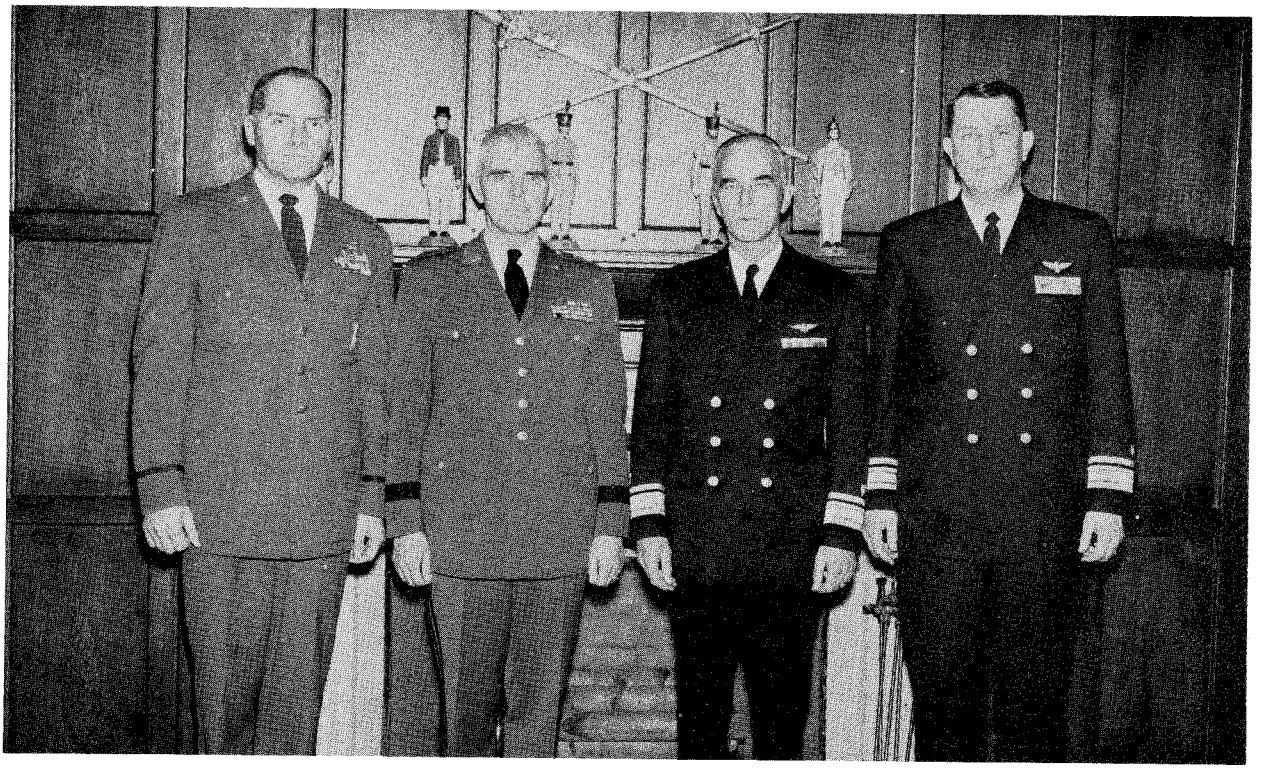
A summary of the findings and recommendations incorporated in this report appears in Appendix C.

The Superintendents' Conference - The Superintendents of the Service Academies have periodically met in joint conference to exchange ideas and information of mutual interest and concern. The first conference was convened at the United States Coast Guard Academy in April of 1958 and annual meetings were scheduled in the succeeding four years in accordance with this schedule:

Conf	Host	Location	Dates
First	Coast Guard Academy	New London, Conn	18-19Apr58
Second	Military Academy	West Point, NY	7-9May59
Third	Naval Academy	Annapolis, Md	29-31Mar60
Fourth	Air Force Academy	Colorado Springs, Colo	5-7Apr61
Fifth	Coast Guard Academy	New London, Conn	9-11Apr62

At the conclusion of the Fifth Conference, it was agreed by the Superintendents that the following meeting would be scheduled sometime in 1964 at the United States Military Academy. In accordance with this general agreement, the Sixth Conference of Service Academy Superintendents was held at West Point during the period 10-12 March 1964. Those who attended this conference are shown below:

ACADEMY OFFICIAL	REPRESENTING			
	USMA	USNA	USAFA	USCGA
Superintendent	Major General James B. Lampert	Rear Admiral Charles S. Minter, Jr.	Major General Robert H. Warren	Rear Admiral Willard J. Smith
Dean	Brigadier General William W. Bessell, Jr.	Dr. A. Bernard Drought	Brigadier General Robert F. McDermott	Captain Stanley L. Smith
Commandant	Brigadier General Michael S. Davison	Captain Sheldon H. Kinney	Brigadier General Robert W. Strong, Jr.	Captain Chester I. Steele
Director of Athletics	Colonel Raymond P. Murphy	Captain William S. Busik	Colonel Edmund A. Rafalko	Commander Otto E. Graham
Director of Physical Education	Colonel Frank J. Kobes, Jr.		Lieutenant Colonel John S. Sparks, Jr.	Lieutenant Commander Carl W. Selin
Medical Officer	Colonel Charles H. Gingles	Captain Herbert H. Eighmy	Colonel Harry C. Green	
Registrar	Lieutenant Colonel Robert S. Day	Dr. William S. Shields	Colonel Virgil J. O'Connor	Captain Malcolm J. Williams



Gen. Warren *Gen. Lampert* *Adm. Smith* *Adm. Minter*

The four Superintendents, in general session with the other conferees, reviewed plans for the expansion of the Service Academies and discussed means of achieving more uniform admissions procedures in addition to other matters of mutual interest.

During separate meetings of the Deans and Registrars, the discussion centered upon the expanding curricula of the Service Academies and policies and procedures which had proved effective in the educational motivation of cadets and midshipmen. Particular attention was focused during their discussions on the challenges offered the student through advanced and accelerated courses, enrichment programs, majors, areas of concentration, and programs of independent study and honors programs. While the Deans concurred that each Academy should maintain its own curriculum to meet its individual mission, they also stressed a continuing need for a core curriculum to insure a sound educational foundation. Recognizing that such a curriculum should be preserved, they also saw a need to provide opportunities for some degree of specialization tailored to the interests and aptitudes of the students and the needs of the Services.

The Commandants, who also discussed areas of common interest in separate sessions, covered such subjects as reduction of

attrition, the Fourth Class System, obligated service, the cadet/midshipman exchange program, and cadet/midshipman pay.

Increased athletic participation between the Army-Navy-Air Force Academies was a major topic of discussion among the Directors of Athletics. The Directors of Physical Education met to evaluate cadet and midshipman physical performance standards and the feasibility and desirability of joint research projects.

The next Superintendents' Conference will be held at the United States Naval Academy during the spring of 1965.

The Middle States Association of Colleges and Secondary Schools - Prior to 1949 the United States Military Academy, like other colleges, had been accredited to award the Bachelor of Science degree by the American Association of Universities. In 1949 a regional accrediting system was adopted, and the Middle States Association of Colleges and Secondary Schools became the designated accrediting agency for the region in which the Military Academy lies. In order to insure maintenance of high standards, every ten years accredited institutions must undergo resurvey by the Middle States Association. The United States Military Academy was initially examined and accredited by this Association in 1949. In 1959 the Military Academy was reexamined, in accordance with established procedures, and in confirming the accreditation the Chairman of the Association's Commission on Institutions of Higher Learning stated:

> "The Commission appreciates the opportunity it and others have had to examine the purposes and affairs of an outstanding institution and takes this means to commend the United States Military Academy for setting and revealing, in this additional way, standards and procedures for distinguished work, thereby performing a service to the whole community of higher education. Even in an Association devoted to the pursuit and interpretation of educational excellence, there is only so much room at the top; this space is reserved for a few, including in the Commission's judgment, the United States Military Academy."

Since World War II, in addition to the routine and periodic surveys and examinations of our programs by the Curriculum Committee and other Academic Board committees, by members of the General Staff of the Army, by the Board of Visitors, and by the Middle States Association of Colleges and Secondary Schools, there have been eighteen surveys by special committees and boards. Of particular significance and value to the Military Academy were the surveys of the Postwar Board of Consultants (The Compton Board) of 1945; the Service Academy Board (the Stearns-Eisenhower Board) of 1949; the Aptitude for the Service Panel (the Wood Panel) of 1953; and the Superintendent's Curriculum Review Board (the Bowles Board) of 1959.

The most recent survey and the one which has had a profound effect upon the academic program of the Military Academy is the Superintendent's Curriculum Study which was conducted by a number of different agencies during the period 1957-1960. This comprehensive survey led to adoption by the Academic Board of the modified academic program which was initially presented during Academic Year 1960-61.

Provisions for the ready availability of expert advice and counsel in guiding the development of the curriculum have been made by the Academic Board by securing the services of educational consultants. We have been successful in securing the services of outstanding civilian educators who occupy positions of leadership and have established enviable reputations in their endeavors. Serving for the third year were Dr. James Phinney Baxter, President Emeritus of Williams College, and Dr. C. Richard Soderberg, Dean of Engineering, Emeritus, the Massachusetts Institute of Technology. Dr. Baxter, who was a member of the Board of Visitors for four years, 1955-1958, serves as a consultant especially in the social sciences-humanities area. Dr. Soderberg is the advisor in the engineering-science field.

Other eminently well-qualified educational consultants have been secured as advisors in departmental or subject areas as requirements for their services have developed. Dr. Lucien W. Pye, Professor of Political Science at the Massachusetts Institute of Technology, serves as advisor in the complex and increasingly important area of counterinsurgency. Dr. Robert E. Weigle, Chief Scientist, Watervliet Arsenal, and Dr. Robert Ehrlich, Director of Research, Transportation Group at Stevens Institute of Technology, provide technical counsel in the fields of ordnance engineering and land locomotion. In addition, Dr. Paul Dudley White, Advisor to The Surgeon General; Dr. Seward Charles Staley, Dean Emeritus, College of Physical Education, University of Illinois; Dr. George D. Deaver, Institute of Physical Rehabilitation, Bellevue Hospital; and Mr. Glen Swengros, Director of Program Development, the President's Council on Physical Fitness, served as consultants to the Office of Physical Education.

The Academic Departments seek the opinions and advice of our distinguished guest lecturers on an informal basis in a continuing effort to obtain new ideas and improve upon the effectiveness of the Academy's curriculum.

IV. ACADEMIC PROGRAMS

The Standard Academic Program augmented by the Advanced Studies Program forms the foundation of the West Point curriculum. Appendix D summarizes the present curriculum.

The Standard Academic Program is the basic minimum academic course required for graduation and the award of the Bachelor of

Science degree. It consists of the prescribed Core Curriculum plus two electives which every cadet chooses and pursues in his last year. It is a carefully designed program which provides the graduate with an unusually sound educational foundation for success as an officer as well as for future graduate studies.

The Advanced Studies Program contains augmented and more advanced versions of the standard courses, plus additional electives. A cadet can progress to this program in two ways: he can be validated for a standard course which he has completed at another institution prior to entering the Academy and take in lieu thereof an Advanced Studies Program course, or he can qualify for an advanced or augmented version of a required course by demonstrating excellence in prior work at the Academy and/or passing qualification tests. Approximately one-third of the cadets are enrolled in the Advanced Studies Program each year and nearly two-thirds of the cadets complete work in the Program prior to graduation. In order to challenge the cadets and encourage them to work to their maximum capacity, the Advanced Studies Program contains an advanced version of nearly every standard course. For example, the cadet who has satisfactorily completed Freshman English at a civilian college before coming to the Military Academy may be enrolled in Evolution of American Ideals, an advanced course taught by the Department of English.

The wide variety of elective courses extends to each cadet an opportunity to pursue his own particular aptitudes and interests. (A summary of elective courses offered during Academic Year 1963-64 is presented in Appendix E). Elective offerings have increased significantly in number and scope since the initiation of the Program. Sixteen electives were presented during Academic Year 1960-61, the initial year of the Program; fifty-five electives were presented this year.

During Academic Year 1963-64, members of the First and Second Classes were authorized to take, on an optional basis, one additional elective each semester as an overload. Cadets were allowed to drop the additional elective if the academic burden proved to be too heavy. Participation in this program during the two semesters of the academic year is summarized below:

	First Term			Second Term		
	Started	Completed	%	Started	Completed	%
First Class	84	67	80%	51	40	78%
Second Class	28	25	89%	27	23	85%
	112	92	82%	78	63	81%

Comparison of the class order of merit for cadets who have completed additional electives indicates no adverse effect on their

overall performance. Next year the privilege of pursuing additional electives will be extended to the Third Class. Thus all three upper-classes will have this privilege.

A natural outgrowth of the steadily expanding Electives Program is Programs in Depth, a modification to the curriculum approved by the Academic Board on the 15th of May 1964. Programs in Depth will be offered during Academic Year 1964-65. The basis for the program will be the addition of two electives to the class schedules of all cadets during their Second Class year. This will offer every cadet not only two more electives, each of which he can choose as subjects of his own individual interest and aptitude, but also enables him, if he wishes, to choose all four electives in one area and thus to study a field in greater depth than has thus far been possible. This can be done by selecting a Program in Depth - four subjects in one area, one taken in each of the last four semesters at the Academy. During Academic Year 1964-65, Programs in Depth will be offered in the following areas: English, International and National Security Affairs, Electricity and Nuclear Physics, Mathematics, Foreign Languages, Civil Engineering, Physics and Chemistry, Engineering Science, Ordnance Engineering, Military Studies, and Nuclear Engineering. The time for the two additional electives (8 credit hours) will be obtained through a contraction of the applied engineering and science courses of the Standard Academic Program, specifically the requirements in electricity and mechanics. These four electives will constitute $6\frac{1}{4}\%$ of the prescribed academic credit hours.

While cadets will have the opportunity to develop a Program in Depth by the selection of their four elective choices, it is not a mandatory program. They may, if they desire, select electives in more than one area. It is expected that by means of validation, qualification, and enrollment in additional electives, many cadets will be able to complete more than the four electives of the Standard Program, and thus go even more deeply into programs of their own selection.

The number of cadets of all classes validating standard program courses has grown steadily during the four years that the modified curriculum has been offered. Because about one-third of all entering cadets have completed one or more semesters of college, or are able to demonstrate proficiency in a subject, a significant number of Fourth Classmen are eligible to enroll in upper-class subjects. Based upon a restriction imposed by Department of the Army in 1960 when the curriculum study was approved, Fourth Classmen have not been able to attend classes with upperclassmen. Unless a sufficient number of Fourth Classmen could be enrolled in a separate section, it was not possible for them to take a course offered to upperclassmen. Three years experience with the modified curriculum pointed up the need for removal of this restriction to ensure that all cadets are provided with an academic

challenge commensurate with their abilities. Believing that this restriction was unnecessary, the Military Academy recommended to Department of the Army in November of 1963 that it be removed and this recommendation was approved. Fourth Classmen capable of undertaking advanced work may now be enrolled in upper-class courses and attend with upperclassmen. This procedure allows much more latitude in scheduling each Fourth Classman according to his academic background and abilities.

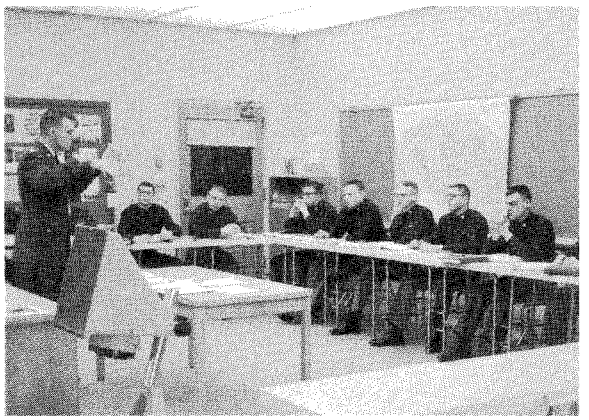
The course content of these Academic Programs is that which recent curriculum surveys have indicated would best give the United States Military Academy graduate the foundation of knowledge on which he must progressively build during his career as a military leader. The proportion of engineering-science subjects to social science-humanities is approximately 60-40%, but this proportion will vary for individual cadets in accordance with the electives they choose. The course content is, therefore, a general one which cannot be strictly classified as either engineering or liberal arts. The course content takes into account also the need to give an adequate basis for graduate study in a variety of areas.

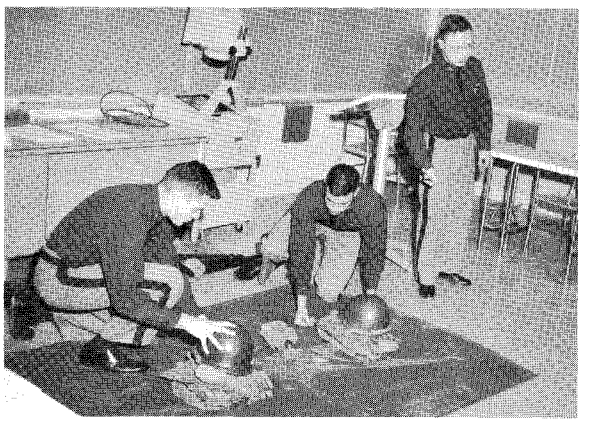
The foundation of the West Point educational system was established more than a century ago by Colonel Sylvanus Thayer, the fourth Superintendent of the Academy. While the curriculum has been dynamically revised to meet the needs of the changing times, Thayer's principles, tested and proven through the years, have remained almost intact. Cadets continue to receive the bulk of their instruction in small sections of twelve to fifteen students with assignments determined by the cadet's demonstrated proficiency in each subject. This insures not only a close instructor-student relationship, but also enables the instructor to tailor his instruction to the capabilities of the cadets, thereby imparting the maximum of learning at all levels. Cadets are required to participate actively in classroom activities. Through oral questioning, participation in seminar discussions, preparation of written work, conduct of experiments, and examinations, cadets are trained to reason logically and to express themselves clearly and concisely. Daily preparation, frequent grading, and periodic reviews insure day-to-day mastery of the subject matter which leads to comprehensive understanding of course material.

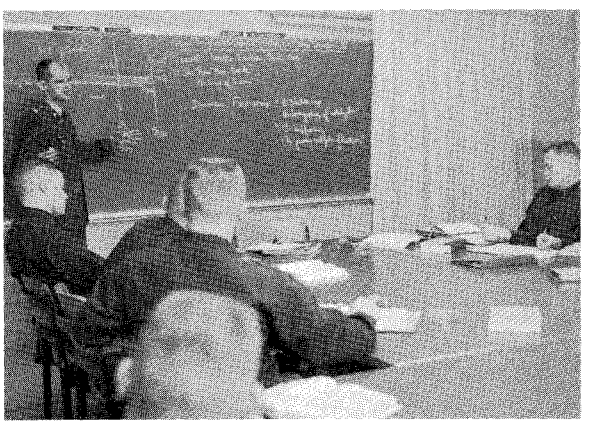
Various instructional techniques; e.g., lectures, conferences, seminars, panel discussions, television, and movies are utilized as appropriate to the subject matter.

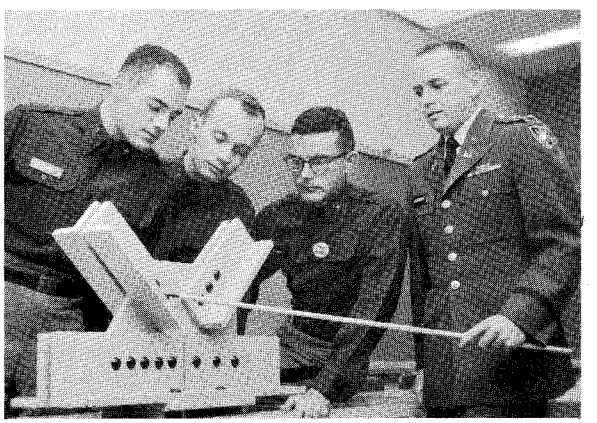
Some recent developments in instructional techniques have been the following:

Laboratory periods in Thermodynamics are given in two-hour blocks. During Academic Year 1963-64, each of these two-hour blocks was divided into two distinct parts. During the









first hour cadets discussed, reviewed, and were examined on their previous laboratory period. During the second hour the cadets undertook a new laboratory experiment. By scheduling the instruction in this manner cadets are able to relate the results of their laboratory work with the accompanying classroom work with much greater effectiveness. Previously, the entire two-hour block had contained the new problem and the review, which gave some cadets insufficient time to relate their study assignments, the lab equipment, and their findings.

In elective and honors courses which are conducted on an individual or small-group research basis, interdepartmental instruction has provided cadets greater latitude in their choice of subjects and has established a clearer understanding for the students of the relationship between application and theory of basic sciences. A group of three cadets worked during Academic Year 1963-64 on the problem of reinforcing concrete with fiberglass rather than with steel. While taking the Individual Engineering Projects course presented by the Department of Military Art and Engineering, this group received instruction from several other departments while undertaking the research required by the problem. The Department of Chemistry provided instruction on the chemistry of plastics and on the chemical reaction between concrete and fiberglass. The Department of Ordnance instructed the group on the x-ray diffraction unit and electron microscope in studying the fiberglass-concrete bond. The Audio-Visual Section of the Signal Division provided the training required to fabricate end connectors for the fiberglass rods. Instruction on technical report writing was provided by the Department of English. Another group of cadets, enrolled in the Honors Course in Civil Engineering, conducted a research project on measuring the strain in concrete beams, cylinders, and columns. The Department of Mechanics assisted with instruction in the use of strain gauges. In both the Ordnance Engineering Honors Course and the Individual Ordnance Project, elective extensive use has been made of the opportunities available for interdepartmental assistance.

As part of management analysis in the Management Engineering Elective Course, case studies of local post support activities (cadet clothing manufacture, post laundry, etc.) have been conducted.

Third Class History was rearranged and presented using a "block" system for scheduling instruction. A five-lesson block provided the basis for the development of lessons. The first lesson is a lecture which introduces the subject matter to the cadets as a single group, the next three lessons are conducted in the section rooms where smaller classroom groups discuss the subject in greater detail, and the final lesson consists of an examination.

In the Physical Geography course given by the Department of Earth, Space and Graphic Sciences, a unique teaching device, a Terrain Study Atlas, is in use. The atlas is composed of carefully selected map sheets annotated to illustrate and permit testing on characteristic landforms. This publication, which was conceived and prepared by Department personnel, has drawn favorable comment from educators from other universities. The Department has a refined version of the Terrain Study Atlas under preparation. Plans entail printing by the U. S. Government Printing Office so that copies can be made available for sale to other universities.

For the summer of 1964, the Department of Military Art and Engineering has planned a departmentally-guided tour of a few battlefields in Western Europe for selected cadets assigned to Army Orientation Training. The primary purpose of this tour will be to give the participating cadets an appreciation of the setting of certain battles. Cadets making the tour will be called upon to give their terrain analyses in appropriate classes in the History of the Military Art which they take in subsequent years. Originating in Frankfurt, the tour will circle through Belgium, Luxembourg, and Eastern France, concentrating on the battlefields around Bastogne, Verdun, St. Mihiel, Metz, the Maginot Line near Bitche, and the Siegfried Line at Pirmasens. The tour will take four days--from 10-13 August. Cadets will make the tour while on leave status and will meet all expenses associated with the trip other than transportation. USAREUR Special Services will provide buses for the tour; Bitburg Air Force Base and U. S. Army Verdun Depot Complex will billet and mess the cadets.

During the second semester of the Academic Year, the Office of the Dean assumed responsibility for the supervision and coordination of a Great Films Program as another means of broadening classroom instruction. In those instances where a commercially produced motion picture film classic supporting the classroom instruction could be obtained, after-class shows were scheduled for the cadets to attend on a voluntary basis. The movie, Julius Caesar, was shown at the time that Shakespeare's plays were being studied in the classroom. Fifteen other classic films were shown as part of this program at various times during the semester.

Every academic department, the Library, and the Museum maintain teaching displays in the hallways of the academic buildings. These displays are coordinated with and extend the current classroom instruction. This "between class" teaching is most effective and is well received by cadets and faculty alike.

Modern, well-equipped laboratories are utilized to demonstrate scientific principles and to teach research techniques. Cadets plan and execute experiments in support of classroom

instruction; selected cadets are encouraged to conduct original laboratory research. The following laboratory facilities are available:

ELECTRICITY LABORATORIES

The Radar Laboratory contains an AN/TPS 1D Search Radar and a Sperry Marine Radar, and is used in connection with instruction in electronics and communications.

The Electronics Laboratory is equipped with central power, audio frequency, and radio frequency generators. This laboratory is used in the standard and advanced circuits and electronics courses, and can accommodate about 80 cadets at one time.

The Computer Laboratory (not to be confused with the Academic Computer Center) contains a RECOMP II all-transistorized digital computer, together with associated magnetic tape and x-y plotter equipment, and is used in an elective course on Digital Computers. The laboratory also contains modular digital circuit equipment from which cadets construct typical portions of a rudimentary computer in investigating the properties of digital circuits.

The Nuclear Reactor Laboratory is equipped with a water moderated subcritical reactor and associated measurement equipment. The reactor contains 2500 kilograms of natural uranium on loan from the AEC. It is used to amplify and demonstrate principles presented in the elective course in Nuclear Reactor Theory and to provide radioactive material for use in the standard Nuclear Physics course.

The Research and Measurements Laboratory contains more elaborate and specialized electronic equipment with which the cadets and officers pursuing special projects may conduct their activities without interference with and from regular laboratory instruction.

Miscellaneous laboratory demonstration and experimental equipment which may be used in section rooms includes:

Philco electronic teaching demonstrators, one for each electronics classroom,

Crow Machinery kits, one for each machinery classroom,

Radiation counters and scalers,

Small cloud chambers, microwave equipment sets, and numerous lecture demonstration items.

FOREIGN LANGUAGE LABORATORY - Tape recording facilities have been used to aid the oral-aural aspects of language teaching since 1949. A modern laboratory with 53 individual booths is in use. Each cadet during his first two years spends 10 to 14 sessions per semester in the audio laboratory, under the guidance of an instructor, perfecting his aural comprehension and speaking ability. In addition the laboratory is open during off-duty hours for voluntary practice. Tapes covering all phases of the courses are available.

MECHANICS LABORATORIES

In addition to standard testing equipment, special features include:

Thermodynamics Laboratory - Three Cooperative Fuels Research gasoline engines are used to investigate the effects of varying compression ratio and fuel octane rating. A Hercules Diesel engine and a comparable Hercules gasoline engine are employed to investigate compression ignition versus spark ignition. A large air conditioner and three 50 hp gas turbines are also available.

Fluid Mechanics Laboratory - A subsonic wind tunnel is used to compute lift and drag and a varitunnel miniaturized supersonic wind tunnel is used to demonstrate the effects of fluid compressibility on aerodynamic shapes. A supersonic flow nozzle is also used to demonstrate the effects of changes in back pressure on shock wave location in a converging-diverging nozzle. A locally constructed water table is used to demonstrate supersonic wave patterns by analogy with open channel flow.

Strength of Materials Laboratory - Specially made fittings for a Universal Testing Machine are used to show the effects of end conditions on the buckling loads of columns. A simple, inexpensive apparatus requiring a minimum of space has been devised to demonstrate combined torsional and flexural loading.

DEPARTMENT OF MILITARY ART AND ENGINEERING LABORATORY

The Materials Testing Laboratory is used for cadet instruction and research in the fields of concrete and soil mechanics. The laboratory is well equipped for all the standard methods of concrete and soil testing and includes a newly acquired 400,000 pound Universal Testing Machine.

ORDNANCE LABORATORIES

Free Flight Laboratory - The Laboratory is used to confirm theoretical calculations in the interior, exterior, and

terminal ballistics coverage in the Ordnance Engineering Course and is being used by cadets in Ordnance research projects.

Rocket Test Cells - Solid and liquid rocket engine test cells are available to support the regular propulsion block of instruction and cadet research projects.

Land Locomotion Laboratory - The laboratory which consists of a soil bed and powered models is used to confirm the recently developed theory of vehicle-soil dynamic relationships. Research in this area is directed towards improvement of cross-country vehicular mobility. The facility is employed for soil-vehicle trafficability studies in both the standard Ordnance Engineering course and in the Automotive Engineering elective course.

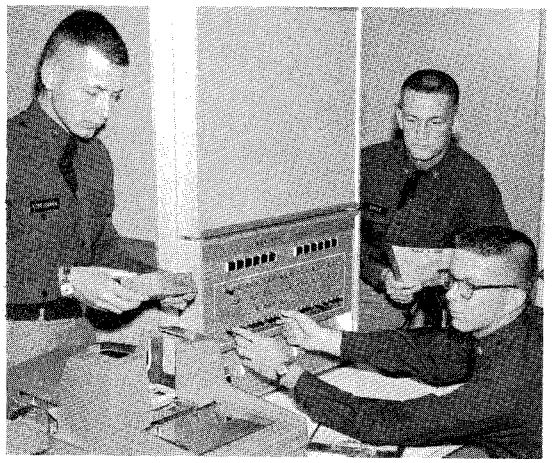
Gas Turbine Laboratory - Two Rover Gas Turbine units complete with instrumentation are used to support coverage of gas turbines in the propulsion block of the standard course.

Engineering Materials Laboratory - An Electron Microscope and an X-Ray Diffraction Unit afford modern methods of study of basic materials structure.

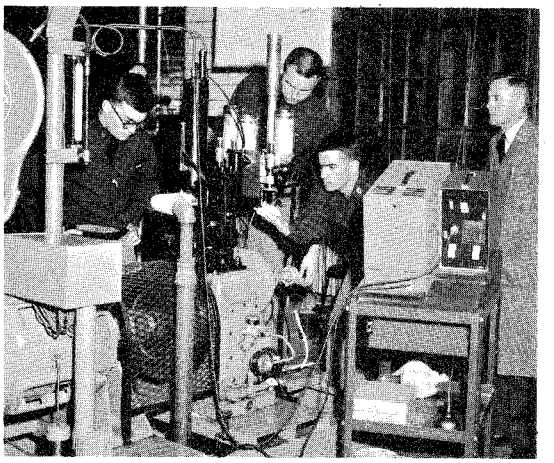
Classroom equipment - a total of twelve small, single cylinder spark and compression ignition (six of each type) engines have been instrumented and used as "classroom" dynamometers for laboratory experiments. These small dynamometers permit increased cadet utilization of automotive equipment with a minimum expenditure of funds.

PHYSICS AND CHEMISTRY LABORATORIES - The Department of Physics and Chemistry has developed and constructed a special projects laboratory for use of cadets, especially those enrolled in the elective courses in Theoretical Physics and Physical Chemistry. All advanced and elective chemistry laboratories are now equipped with automatic balances for rapid precision weighing. The physical chemistry laboratory contains equipment for the quantitative measurement of a wide range of physical properties of matter. Among the more specialized pieces of equipment are spectrophotometers for determining the ultraviolet, visible, and infrared spectra of materials and a gas chromatograph for the separation and analysis of very small samples. Included in the more general types of equipment in the laboratory are: optical instruments, precision thermometry equipment covering a range from -270 to 500°C, and precision electrical measuring equipment.

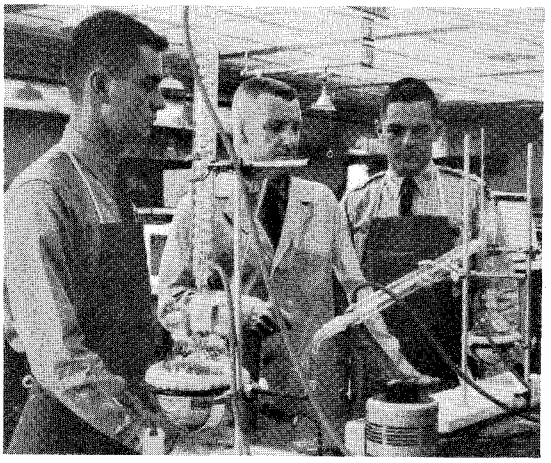
Audio-visual aids are used extensively to facilitate classroom instruction. All classrooms are equipped with overhead projectors. Classrooms in Thayer Hall are equipped with magnetic boards and cork boards in addition to the blackboards that are



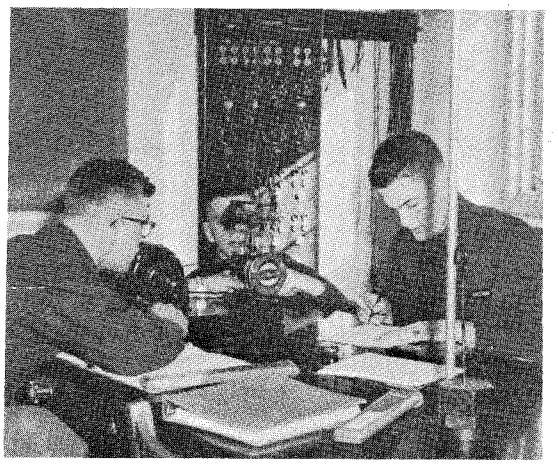
Academic Computer Center



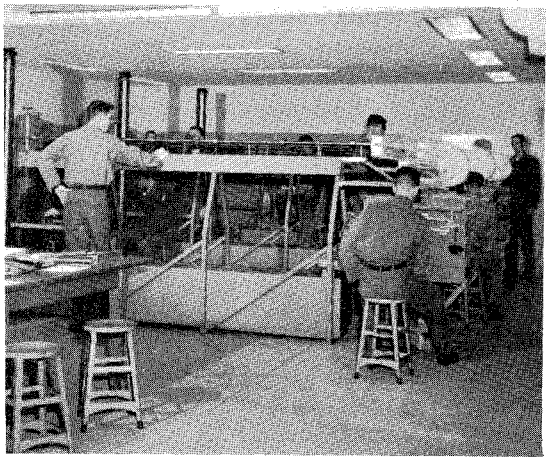
Thermodynamics Lab



Chemistry Lab



Physics Lab



Fluid Mechanics Lab

Sub-Critical Nuclear Reactor

provided in all classrooms. All classrooms of the Department of Earth, Space and Graphic Sciences are equipped with remotely controlled 35mm slide projectors, and Department instruction in geography and astronomy is supported by a collection of more than two thousand carefully catalogued color slides. All lecture halls are equipped with projection booths and screens. The Signal Division maintains a pool of films and film strips with the necessary projection equipment, and public address systems and sound recording equipment are available for use as appropriate. In addition, facilities for the construction of graphical and three-dimensional training aids are available.

Although use of closed circuit television for classroom and laboratory instruction has been limited due to the small amount of equipment available, the highly encouraging results that have been achieved point toward much wider application of this medium when adequate equipment is obtained during the coming year. The Department of Ordnance has made highly effective use of closed circuit television to facilitate monitoring live rocket firings and ballistic experiments. The Department of Electricity and the Department of Physics and Chemistry have presented televised lectures and the Academic Computer Center has presented video recorded classes on computer operations. The Department of Mechanics has presented a series of laboratory exercises by closed circuit television.

The two principal lecture rooms in Thayer Hall are equipped for large screen projection of closed circuit television and the building was conduited at the time of its construction to permit ready installation of television equipment in all classrooms. Similar provisions have been included in the plans for the renovation of Bartlett Hall, a project to be initiated during the summer of 1964.

Research and evaluation aimed at securing the maximum educational advantages from television are a continuing effort. Liaison is maintained with the Army Pictorial Center, industry, and other educational institutions.

In May of 1964 Department of the Army provided $350,000 to the Military Academy for the acquisition of additional television equipment. These funds will be used to secure equipment for a TV Studio and Production Control Facility and receivers for 36 classrooms in Thayer Hall. With $56,000 authorized in the FY 64 MCA Program, Rooms 154B and 154C, Thayer Hall, will be converted to a TV Studio during the first half of FY 65.

The Department of Social Sciences conducted experimental courses in rapid reading for the second consecutive year. A ten-hour reading and study skills subcourse was presented to two Third Class sections. This training increased the reading effectiveness of these groups by 22%. Another project was conducted

using Third Classmen in the bottom 10% of the class. The preliminary results of the study skills training presented indicate that the academic performance of this test group was favorably improved

Although it was not until December 1962 that the Academic Computer Center was established, the concept of computer instruction developed from a series of computer system feasibility and application studies undertaken by the Military Academy commencing in July of 1959. Computer instruction has been included in the curriculum for several years. Even before the acquisition of equipment selected members of the Second Class (approximately 40%) received several hours of computer instruction as part of the basic electricity course. During the summer of 1961, the Department of Electricity obtained from the Signal Corps a small general purpose digital computer (RECOMP). This computer was used to teach a full-semester elective course in digital computers during Academic Year 1961-62. RECOMP was also used to teach instructors from various academic departments the capabilities and limitations of computers.

The establishment of an Academic Computer Center at West Point was a natural outgrowth of our earlier exploratory efforts and our studies on the use of a computer as a basic academic tool.

The Military Academy identified a requirement for and sought approval from Department of the Army for a Computer Center consisting of:

A Central GE-225 computer with magnetic tapes.

Two satellite classrooms, each containing a GE-225 computer.

The necessary support facilities such as a program library, data preparation area, and maintenance area.

The budget submitted by the Military Academy for FY 64 included fund requirements for the development of such a facility. This project was initially only partially funded by Department of the Army; authorization was received to procure, on a rental basis, one of the GE-225 computers for use during the second semester of Academic Year 1963-64. This authorization was granted in order to permit the Military Academy to set up a pilot model program which could be used to establish experience factors to validate the project requirements. On the 23rd of July 1963, the Military Academy forwarded a detailed report to Department of the Army on the operation of the partially equipped Computer Center during the second half of the Academic Year 1963-64.

Fourth Class orientation and basic programming instruction commenced on 21 January 1963. The computer was utilized in 15 courses presented by six academic departments and the Center was operating approximately 10 hours per day within two months of activation. During its first semester of operation, approximately

700 Fourth Classmen and 75 faculty instructors learned to write programs for and solve problems on the computer. The Center also supported instruction of cadets who had not learned to program or operate the computer by reducing extensive numerical data resulting from laboratory experiments, providing solutions to linear programming problems previously resolved only by approximate manual techniques, and permitting classroom and lecture demonstrations of alternative methods for solving differential equations, critical path scheduling techniques, and design of multiple bay structures. A few cadets have used the computer in support of creative work, to include papers which attracted attention of the National Science Foundation. Several instructors have designed and programmed original computer solutions to support regular and advanced courses.

After conducting a detailed evaluation of the Academic Computer Center's operation during Academic Year 1963-64, Department of the Army, on the 9th of April 1964, authorized the Military Academy to acquire two additional GE-225 computers and a Data Communication Processor. The additional computers are scheduled for delivery in July of 1964 and the data net required to tie these satellite computers to the main computer is expected to be available in December of 1964.

The Military Academy now has an established program of computer training that enables every cadet from his first through his last year to receive instruction designed to give him an understanding of the capabilities and limitations of the electronic computer and its application to the management problems of the military services. All cadets receive "hands on" instruction and outstanding work is recognized by permitting selected cadets to operate the computer independently in order to refine their computer skills.

As a service agency, established under the Office of the Dean of the Academic Board, the Academic Computer Center assists the academic departments in developing an integrated and progressive series of computer-oriented problems within their various courses. Fourth Classmen are instructed in basic computer principles and programming during their course in Engineering Fundamentals. This enables them to apply the computer in programming assignments in their course in mathematics. In succeeding years courses in mathematics, physics, chemistry, electricity, engineering, ordnance, psychology, and leadership offer further opportunities to use the computer to perform a number of different tasks, ranging from simple computation to advanced management analysis.

During the period 5-9 August 1963, the Military Academy, in cooperation with the Office of the Chief of Signal, sponsored the first Automatic Data Processing Seminar for general officers. Twenty-five general and flag officers attended this orientation program.

Construction of the Military Academy's new Library, which had been in progress since January of 1962, was completed in sufficient time to open the facility for viewing during June Week.

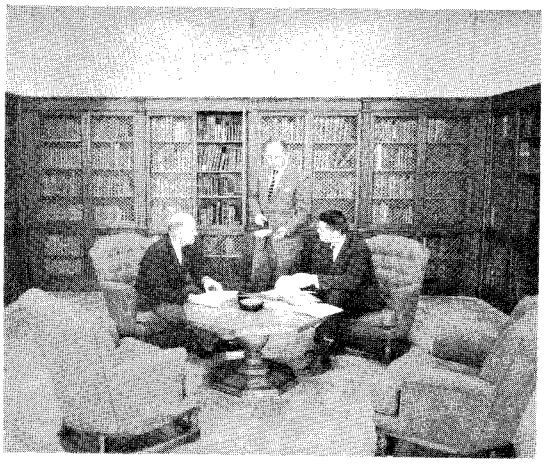
The new Library was designed to provide for improved book storage, for adequate seating and research facilities, and to better support the academic mission of the Military Academy. Currently, the library collection comprises approximately 250,000 bound volumes in addition to manuscripts, documents, periodicals, recordings, and historic memorabilia. The new building has a storage capacity for over 500,000 volumes and provides seating for more than 1000 people. The total floor area of the library, including stack mezzanines, is 115,000 sq. ft. The old library building had a floor area of 29,000 sq. ft.

During the year the acquisition of furniture, furnishings, equipment, and decoration for the Library was undertaken with an emphasis on competitive bidding in all areas of procurement. This procedure was mandatory because of the requirement to furnish, within the $400,000 ceiling allocated for the interior of the library, four mezzanine levels which had been added to the central stack core during the final phase of construction. Assistance given by the General Services Administration enabled the Academy to effect substantial savings and at the same time procure all essential components required for the new Library. Approximately $40,000 from the original furnishings and equipment appropriation were saved as a result of the above purchasing procedure.

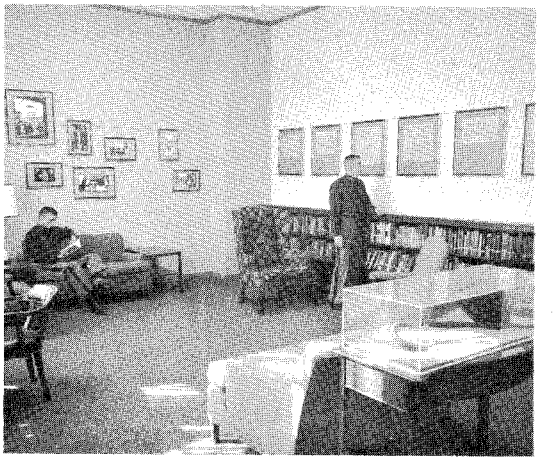
Although the Library was situated in a temporary location in Thayer Hall while the new library building was under construction, the overall use of library material, as evidenced by circulation and the incidence of reference service, is increasing rapidly. Total circulation of library materials to cadets increased by 12% over the previous academic year. This trend is expected to continue in the new library building. Total items circulated to cadets during Academic Year 1963-64 = 56,039. Total library circulation, cadets and others = 69,452. The increased pace in cadet reading and research has been stimulated by the expanded curriculum and the enhanced opportunities for general cultural enrichment afforded by the Library's increased printed and audio-visual resources.

The Library acquired 8,202 hard bound books and 5,721 paper bound books, 28 individual manuscripts, 115 rolls of microfilm, and 200 phonograph records. The Library currently subscribes to 952 periodicals and 32 domestic and foreign newspapers.

The USMA Archives received and answered 2,212 reference inquiries dealing with the history of the Military Academy, its graduates, ex-cadets, and the history of the West Point site. During the year, the Archives assisted the following news agencies



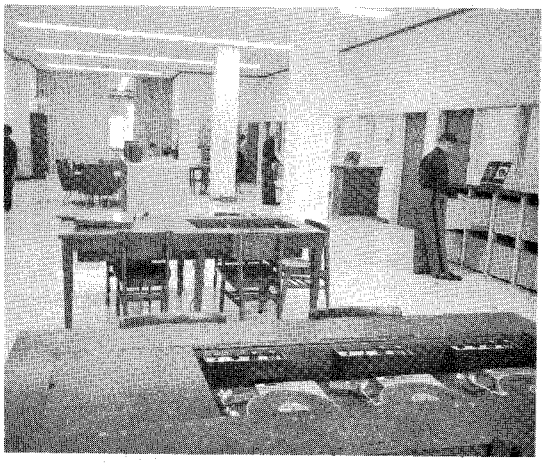
Rare Book Alcove



The Faulkner Room

1912 Seminar Room

West Point Room



Audio-Visual Section

Circulation Desk

and publishing houses in their research efforts: Life Magazine, CBS News, The New York Times, and the New York Daily News.

The following notable gifts were gratefully received by the Library during the period of this report:

Papers of the Lillie family, from Mr. Gene Miller, including a unique certificate of appointment of John Lillie as a cadet in the Corps of Artillerists and Engineers, 24 December 1801.

Letters, documents, and other memorabilia pertaining to the military and civil career of General James Miller, who led the 21st Infantry during the War of 1812, were given to the USMA Library by his great grandson, Mr. Philip M. Brown. The Library also received on indefinite loan a gold medal of commendation, the first ever cast by an Act of Congress, presented to General Miller with the formal thanks of the nation for "his gallantry and good conduct in the several conflicts of Chippewa, Niagara and Fort Erie, Upper Canada."

A French Military Costume book by Charles Aubry, Paris, 1823, with 97 lithographic hand-colored plates from a folio of plates showing the minute detail of the different uniforms worn by the French Army at the time of Louis XVIII.

A 1912 limited edition copy of Agricola's De Re Metallica, bearing the autograph of the translator, President Herbert Hoover, from Colonel J. Hubbard.

A five hundred dollar donation from Mrs. Charles Winpenny to the USMA Library Gift Book Fund in memory of Major John P. and Naomi Devlin.

Mr. Egon A. Weiss, Acting Librarian, was appointed Librarian, USMA, on 11 July 1963. Other personnel appointments during the year included: Mr. William G. Kerr, as Assistant Librarian; Mr. James H. Conway, as Chief, Technical Services; Miss Ann K. Harlow, as Chief, Readers' Services; and Mr. J. Thomas Russell, as Chief, Special Collections.

Visiting lecturers are employed to provide further stimulus to the cadets and to capitalize upon the knowledge and experience of the lecturers themselves. During each academic year, the members of the Corps of Cadets have the privilege of hearing and profiting from the experience and expertise of 70 to 80 lecturers. Leading representatives from engineering, science, literature, public affairs, the military profession, and other fields appear on the list of guest lecturers each year. Such individuals as the Honorable W. Averell Harriman, Deputy Undersecretary of State for Political Affairs; Professor Henry Kissinger, Harvard

University; His Excellency Abdul Hak Kemal Yoruk, Minister of Justice, Republic of Turkey; the Honorable Clarence D. Long, Representative, 2nd District, Maryland; and Professor Robert E. Osgood, the Johns Hopkins University, were among the 79 distinguished guest speakers this year. In almost every case the lectures were an integral part of the current instruction. See Appendix F for a complete listing of the lectures.

The close proximity of West Point to a large number of governmental, cultural, scientific, industrial, and research activities has enabled the Military Academy to extend classroom discussions and laboratory exercises into "the field" in a highly effective manner through a program of educational trips. Each year visits are conducted to the Brookhaven Laboratories on Long Island and the Nevis Cyclotron Laboratory at Columbia University. Cadets also see the United Nations in action and visit the Metropolitan Museum of Art. Study of electronics leads to the Army Research and Development Laboratories at Fort Monmouth and the Bell Telephone Laboratories in New Jersey. Study of gas dynamics may take cadets to the Republic Aviation Corporation; study of fluid mechanics may take them to the Texaco Laboratories in Beacon, New York, and study of advanced chemistry may take them to a large pharmaceutical laboratory such as the Pfizer Research Laboratory in New London. The proximity of the New York City theater district permits students in certain English courses to attend current productions of works being covered in the courses.

As the capstone of the Ordnance Engineering course, members of the First Class visited Aberdeen Proving Ground, Maryland. During this visit, the latest technical information was presented on research, development, test, and evaluation of current and developmental Army materiel. The cadets acquired a more thorough understanding of the magnitude of the weapons systems research and development effort brought about as a result of the increasing complexity of modern warfare technology. This academic year some 70 different educational trips were sponsored and attended by various sized groups representing all classes.

The Eastern Colleges Science Conference is an event which takes place annually on the campuses of colleges situated east of the Mississippi River. Each year the host college provides facilities and organizes the program for several hundred undergraduate science students from these institutions. The major purpose of the Conference is the stimulation of undergraduate interest in the natural sciences by providing a forum for the presentation of undergraduate research papers. Boston College was the host for the Seventeenth Annual Eastern Colleges Science Conference, 2-4 May 1963. Ten First Classmen participated in the 1963 Conference, with three of them presenting the following papers: "Low Temperature Tempering Hyper-Eutectoid Carbon Steel," "Digital Computer Solution of Non-Linear Electronic Circuits," and "Performance of

USMA Liquid Oxygen Rocket Engine." Ten cadets attended the Eighteenth Annual Conference, 29 April-2 May 1964, at the Jersey City State College, Jersey City, New Jersey. The following papers were presented:

Cadet	Class	Field	Title
Bujalski, D.A. Knell, R.E. Spannaus, O.L.	First First First	Chemistry & Applied Mechanics	Fiberglass in Prestressed Concrete
Johnson, R.L.	First	Physics	An Electric Priming System for Small Caliber Weapons
Perkins, D.R.	First	Physics	Space Charge Effects on Non-Uniform Electric Beams
Pietsch, K.L.	First	Physics	Shear and Viscous Friction between Snow and a Running Surface
Prokop, F.J.	Second	Chemistry	A Low Cost, High Impulse Solid Rocket Fuel for Amateur Rocketry

USMA participation has been welcomed and the quality of the cadet papers has received very favorable comment.

Since 1948 the Academy has administered to each member of the First Class the Graduate Record Examination prepared by the Educational Testing Service. This four-hour test is used by colleges to assist in the selection of students to pursue graduate study. Results achieved by USMA classes on these tests when compared against the mean norms for test groups are creditable.

The following tabulation indicates the performance of the Classes of 1959-1963 in relation to:

All senior men taking the test (1956 norms).
Senior men majoring in the area (1956 norms).

TESTS	MEAN NORMS 1956	MEANS USMA CLASSES 1959	1960	1961	1962	1963
NATURAL SCIENCES						
Senior Men	516	574	594	609	575	626
Natural Science Majors	585					
SOCIAL SCIENCES						
Senior Men	505	549	550	540	553	563
Social Science Majors	518					
HUMANITIES						
Senior Men	478	465	495	510	488	506
Humanities Majors	530					

The Class of 1964 did not take the Graduate Record Examination Area Tests, as had previous classes, but took the Graduate Record Examination Aptitude Tests instead. In the Verbal Section of the Aptitude Tests the Class of 1964 scored a mean of 564, which lies within the top quarter (76%) of all senior men taking the test. In the Quantitative Section, the class averaged 671, which lies within the top tenth (93%) of all senior men taking the test.

In 1962 cadets were permitted for the first time to compete for National Science Foundation Fellowships. Of eleven members of the Class of 1962 who competed, (three in Physics, three in Chemistry, and five in Mathematics) one won a fellowship in Physics and the other ten won honorable mention in their respective fields. During Academic Year 1962-63 twenty cadets competed for National Science Foundation Fellowships, each in one of the following areas: Mathematics, Physics, Chemistry, Electrical Engineering, Astronautical Engineering & Physics, Chemical Engineering, Nuclear Engineering, Economics, and Civil Engineering. Of these twenty cadets, five won fellowships - one in Economics, two in Engineering, and two in Physics. Nine others received honorable mention.

In January of 1964, thirty-two cadets took the NSF examinations. Five cadets won fellowships and twenty-three received honorable mention as shown in this tabulation:

Field	Competitors	Winners	Honorable Mention
Engineering	19	4	13
Economics	4	1	2
Physics	4	0	3
Chemistry	1	0	1
Mathematics	4	0	4
	32	5	23

The U. S. Atomic Energy Commission has established special fellowships in nuclear science and engineering to encourage promising students to undertake graduate studies in these fields and to strengthen the nuclear programs at universities in the United States. Selection of fellows is based on academic grades, the breadth of science and engineering courses completed, recommendations, work experience, and career objectives. Applicants are required to take a Graduate Record Examination designed to determine scientific aptitude and achievement. In January of 1964 eight cadets of the First Class competed for these fellowships and all eight were awarded fellowships for graduate study in the nuclear field.

National Defense Education Act Fellowships were established by Congress in 1958 for the purpose of increasing the number of people in the nation who are trained for an academic career at the college or university level and to encourage the expansion of graduate level training programs throughout the United States. This year some 156 graduate institutions were allotted fellowship grants in one or more of over 180 distinct fields of study. Schools are permitted to arrange their own competitive selections. Although cadets do not normally apply for NDEA Fellowships since preference is given to individuals who are planning teaching careers, one member of the Class of 1964 who could not be commissioned because of physical disability applied this year. He was awarded and accepted one of the two NDEA Theoretical and Applied Mechanics Fellowships offered by the University of Illinois.

The diversity of the subject areas in which cadets have won scholarships, especially in the scientific field, reflects very favorably upon the strength of the USMA curriculum. Their success is even more significant considering that they compete against students who have normally majored in these areas while the cadets have not had this type of specialization.

V. THE ACADEMIC FACULTY

Throughout the education and training of a cadet there must flow the main stream of military motivation. He must develop real pride in the historic heritage of the nation and particularly in its military heritage. He must be made the dedicated, strong, honest, dependable, trained leader in whose hands the people may confidently place their sons in defense of the nation. Hence, as a principal factor in achieving this objective, instruction at the Academy, since its very beginning in 1802, has been conducted by highly selected, well-educated, and trained officers in uniform.

Enormous advantage is attained by this policy in the motivation and character development of each cadet throughout the educational process of building a foundation in the arts and sciences. It is salutary for the cadet to have as his instructor a

fine-appearing, confident, knowledgeable, and capable young officer who, through firsthand experience, can give examples of the practical military applications of daily subject matter. It is well to surround him with the atmosphere of discipline, coordination, efficiency, command, and management demanded in a military organization. Furthermore, there is a very beneficial effect derived from a policy which insures that a new group of highly selected and especially educated young officers join the faculty each year. Any tendency toward stagnation is offset by such an annual infusion of the Academy faculty with officers fresh from the fields of operation of the military profession.

The academic faculty is thus comprised almost entirely of officers of the Regular Army and especially selected reserve officers called to active duty for extended periods of service. Exceptions to this are the Navy (1), Marine Corps (2), and Air Force (7) officers serving in the various academic departments through mutual agreement of the Services, and the foreign officers (2) and civilian instructors (5) teaching their native languages in the Department of Foreign Languages.

The faculty of the academic departments hold academic rank as professors, associate professors, assistant professors, and instructors, as in civilian institutions.

In order to provide educational experience and continuity, there are 38 tenure or "permanent" positions on the USMA faculty - 23 professors and 15 associate professors. The Dean, the Heads of the Academic Departments, a second professor in most of these departments, the Director of Admissions and Registrar, and the Director of Physical Education are permanent professors. A permanent professor receives his appointment from the President of the United States - an appointment which must be confirmed by the Senate in a manner similar to general officer appointments. In addition to the permanent professors, the Military Academy is authorized 15 officers as permanent associate professors. These officers, on extended tours of duty at the Academy, have completed at least 15 years of service, have served at least one prior tour at the Academy as instructors, and have attained or are in the process of attaining the doctorate degree. To date seven permanent associate professors have been appointed.

Faculty members, other than those permanently assigned, are selected by name for assignment to the Military Academy by Department Heads on the basis of standards established for each department. Educational proficiency in the subject matter which the prospective instructor is to teach, demonstration of exemplary military bearing, neatness, unquestionable character, and consistent records of superior performance of duty are requirements imposed in selecting members of the faculty. The complete record - undergraduate, graduate, and military - of each prospective instructor is carefully examined. In all cases, the desire to join

the faculty is ascertained before an assignment is requested. No officer is assigned if he does not desire the appointment.

Prior to assignment to the Academy, the officer must have completed a minimum of four years of service; however, the average number of years' service upon appointment approaches eight.

With the exception of officers selected for extended tours as permanent associate professors and the 23 permanent professors who serve until statutory retirement at age 64, Army officers assigned to the faculty serve at West Point for a three-year tour of duty, exclusive of time which may have been required for preparation through attendance at a civilian college or university. Department of the Army has approved, on a case by case basis, one-year extensions for those members of the faculty whose retention for an additional year is clearly in the best interests of the Military Academy and the Army.

Although the nature and scope of education required of an individual prior to his appointment to the Academy's faculty varies from department to department, graduate study in the subject area in which the instructor will teach is a prerequisite in most cases, and desirable in every case. In general, the graduate schooling is completed just prior to assignment to the faculty.

Through the Army's civil schooling program, faculty officers receive their graduate training at leading civilian educational institutions. This policy fosters the cross-fertilization of educational ideas which is of particular benefit to the Military Academy and serves further to acquaint the civilian academic world with the Army and with the Military Academy. Normally, faculty members have attended some 150 or more civilian institutions of higher learning. A number have attended Oxford under the Rhodes Scholarship Program. Of the 400 faculty members, 13 have first professional degrees, 282 have masters degrees, 7 have second professional degrees, and 30 have doctorates. (See Appendix G). Of the remaining 67 officers who have only bachelors degrees, 29, or almost half, are instructors in Foreign Languages and each of these officers has been required, in lieu of formal graduate study leading to a graduate degree, to spend a year in a country where the language he is to teach is spoken. Arrangements recently have been made with Middlebury College to enroll prospective language instructors in their two-year courses which will lead to the masters degree. Under this program, one of these two years will also be spent in a foreign country.

Instructor training does not stop once the new instructor arrives. In fact, most departments require newly assigned instructors to pursue carefully planned and locally conducted programs designed to teach classroom procedures, effective use of training aids, alternate methods of presentation, and other techniques of instruction. In some departments the instructor train-

ing programs span the first two years of an instructor's work. Selected officers are authorized to pursue special courses at nearby educational institutions during evening and summer sessions. During the summer of 1963 and Academic Year 1963-64, 99 faculty members pursued graduate courses at 20 different academic institutions; 53 were working toward masters degrees, 5 toward second professional degrees, and 41 toward doctorates.

Officers of the faculty are required to complete those steps in the professional Army officer schooling program commensurate with their ranks before coming to the Academy. Over 300 of the faculty officers have attended an advanced branch school or higher - there are 75 graduates of the Command and General Staff College and nine graduates of the War College*. In some cases, professional military schooling is a departmental prerequisite; for example, graduation from the Command and General Staff College is required for instructors of Military History.

In addition to maintaining a high level of academic proficiency, faculty members are required to maintain professional military competence while stationed at the Academy. A number of academic faculty members participate in the field training of cadets during the Summer Training Program. This provides the individual officer an opportunity to refresh his military skills and adds further to his stature in the eyes of the cadets, who see him both as a competent academic instructor and as a qualified military leader. Officer instructors may also be authorized to attend, on temporary duty, courses such as the special weapons courses or other short courses at service schools. This year 26 officers attended 9 different courses at 7 different military installations. Eleven of these instructors completed the Advanced Atomic Weapons Orientation Course given by DASA at Sandia Base, New Mexico. Permanent professors maintain up-to-date knowledge of developments in the doctrine, techniques, and weapons of war through visits of inspection and reorientation at military installations within CONUS and in overseas areas.

All professors and most other senior faculty members are active members of those national professional and educational societies pertinent to their special fields of endeavor. Study of the professional journals of these societies and participation in their meetings, conferences, panels, and seminars contribute to maintaining important contacts with civilian educators. Instructors are also encouraged to become members of professional societies and to take an active part in their meetings and conferences. The Academy, academic departments, and faculty members currently hold membership in over 125 academic associations. Appendix H presents a resume of some of the activities engaged in by the permanent professors during the academic year covered by this report.

* Figures include officers assigned to the Office of Physical Education and the Office of Military Psychology and Leadership as well as the eleven academic departments.

Faculty members have authored, collaborated in, or edited an impressive number of books and have contributed extensively to scholarly journals and other professional publications. Among the publications by USMA professors:

A Military History and Atlas of Napoleonic Wars
by Brigadier General Vincent J. Esposito, USA, Ret., and Colonel John Robert Elting, Department of Military Art and Engineering

Ordnance Engineering, Volumes I and II
by Colonel John D. Billingsley, Professor and Head of Department of Ordnance

Elements of Automotive Engineering
by Colonel John D. Billingsley, Professor and Head of Department of Ordnance

The Dynamics of International Politics
by Colonel George A. Lincoln, Professor and Head of Department of Social Sciences, in collaboration with Professor Norman J. Padelford

Foreign Aid and the Defense of South East Asia
by Colonel Amos A. Jordan, Jr., Professor and Deputy Head of Department of Social Sciences

The West Point Atlas of American Wars
by Brigadier General Vincent J. Esposito, USA, Ret., Department of Military Art and Engineering

The Variorum Edition of the Poems of W. B. Yeats
by Colonel Russell K. Alspach, Professor and Head of Department of English

Economics of National Security
by Colonel George A. Lincoln, Professor and Head of Department of Social Sciences

Cahier (to accompany Visites Nocturnes)
by Colonel Walter J. Renfroe, Jr., Professor and Head of Department of Foreign Languages

Differential and Integral Calculus (nearing completion)
by Colonel Charles P. Nicholas, Professor and Head of Department of Mathematics

Engineering Graphics for Design and Analysis
by Lt Col R. H. Hammond (principal author) and Lt Col W. B. Rogers, Department of Earth, Space and Graphic Sciences; Prof D. C. Buck, Syracuse University; Prof H. Ackert, Notre Dame University; and Prof G. Walsh, University of the State of New York

For a list of articles written by USMA professors, see Appendix I.

Permanent professors are encouraged to spend periods of six months to one year duration, generally every seven years, on sabbatical leave. The sabbaticals and academic absences "assist each USMA professor in the optimum performance of his primary mission in the education and training of cadets by affording him opportunities to keep up to date and to broaden and to deepen his professional and cultural background."

Those professors who have been on sabbatical leave or extended academic absences sometime during the report period are:

Colonel Russell K. Alspach, Professor and Head of the Department of English, traveled in England and Ireland for research related to the plays of Yeats.

Colonel John R. Jannarone, Professor and Deputy Head of the Department of Physics and Chemistry, pursued postgraduate work at Stevens Institute of Technology.

Colonel Amos A. Jordan, Jr., Professor and Deputy Head of the Department of Social Sciences, is presently on duty in India as Special Advisor to the Ambassador, the Honorable Chester A. Bowles.

Colonel Charles P. Nicholas, Professor and Head of the Department of Mathematics, worked toward the completion of his text, Differential and Integral Calculus.

Colonel Walter J. Renfroe, Jr., Professor and Head of the Department of Foreign Languages, pursued a program of study and research in Europe.

Colonel Charles H. Schilling, Professor and Head of the Department of Military Art and Engineering, attended a six-week course in Modern Engineering at UCLA.

Colonel Edwin V. Sutherland, Professor and Deputy Head of the Department of English, pursued studies in English at the University of Pennsylvania. He was awarded the Ph.D. degree in May of 1964.

Colonel William W. Watkin, Professor and Deputy Head of the Department of Earth, Space and Graphic Sciences, pursued studies in economic and physical geography at Columbia University. He was awarded the Ph.D. degree in May of 1964.

Lieutenant Colonel Edward A. Saunders, Professor and Deputy Head of the Department of Electricity, is nearing completion of graduate studies leading to a doctorate in nuclear engineering at Rensselaer Polytechnic Institute.

During January 1964, the Superintendent appointed a committee under the chairmanship of Colonel Jess P. Unger, Office of the Dean, to plan and conduct a faculty level conference on "Latin American Problems." Some forty conferees--well known scholars, government officials (civilian and military), and business representatives--gathered at West Point on 15 April and participated in discussions for a three-day period. Mr. David Bell, Administrator of the Agency for International Development, gave the keynote address. Among the many distinguished individuals in attendance were General Andrew P. O'Meara, Commander-in-Chief, United States Southern Command; Dr. Milton Katz, Harvard Law School; Mr. Edward Miller, Attorney, New York City; and Mr. David Rockefeller. Round-table papers were presented by Dr. Robert Alexander, Rutgers; Dr. Werner Baer, Yale; Dr. Allan Holmberg, Cornell; and Mr. John Plank, Department of State. Dr. Edwin Lieuwen, Chairman of the Department of History, University of New Mexico, presented a paper entitled, "Military Intervention in Latin America: A Comparative Analysis," to provide a topic for the panel discussion. Colonel George A. Lincoln, Head of the Department of Social Sciences, USMA, acted as chairman of the panel that also included General O'Meara and Dr. John J. Johnson, Department of History, Stanford.

The Conference objectives were to underscore the criticality of political, economic, and social problems in Latin America; to

Dr. Werner Baer presents a paper on Brazil during the Conference on Latin American Problems

outline practical limitations on United States planning for Latin America by responsible governmental agencies; to focus particular attention on those subject areas and particular problems concerning contingency planning and the role of the United States military in Latin America; and to devise ways in which heightened awareness and understanding of the problems in Latin American can be effectively interwoven with the curriculum at USMA. About fifty USMA faculty members attended various sessions of the Conference.

Faculty lectures during the academic year included:

Dr. Alvin C. Eurich, Executive Director, Education Division, The Ford Foundation, and Director of the Fund for the Advancement of Education, "Higher Education in the Twenty-First Century."

Professor Charles A. Desoer, Professor of Electrical Engineering, University of California, Berkeley, "Increasing Influence of Linear Algebra in Undergraduate Engineering Curriculum." (Faculty of Departments of Electricity and Mathematics.)

Dr. Stephen Parrish of Cornell University, a visiting civilian professor, conducted the elective course in Contemporary Literature for the Department of English during the fall semester of Academic Year 1963-64. During the previous year, Professor Tristram P. Coffin, University of Pennsylvania, taught elective courses in Contemporary Literature and Shakespeare, while Colonel Russell K. Alspach, Professor and Head of the Department of English, USMA, taught modern British literature at the University of Pennsylvania.

During Academic Year 1963-64, the following faculty changes took place:

Following the untimely death of Brigadier General Charles J. Barrett, Professor and Head of the Department of Foreign Languages, on 30 June 1963, Colonel Walter J. Renfroe, Jr., who had served as Deputy Head of the Department since 1949, became Department Head.

Brigadier General Vincent J. Esposito, Professor and Head of the Department of Military Art and Engineering since 1947, retired on 31 October 1963. He was succeeded by Colonel Charles H. Schilling, who had been Deputy Head of the Department since 1956.

In June of 1964, the Superintendent recommended to Department of the Army that Lieutenant Colonel Thomas E. Griess be appointed a permanent professor. Col. Griess has served as Acting Professor, Department of Military Art and Engineering, since 1 November 1963.

Two long-time instructors in the Department of Foreign Languages retired on 30 June 1964. Mr. Jose Martinez, civilian instructor in Spanish, completed 28 years of service. Lieutenant Colonel Edward H. Germann, Associate Professor, completed more than 20 years active service, 10 of which were spent in the Department of Foreign Languages.

Impending changes include:

Colonel Edward C. Gillette, Jr., Professor and Head of the Department of Physics and Chemistry, will retire in July 1964. He will be succeeded by Colonel John R. Jannarone, present Deputy Head of the Department.

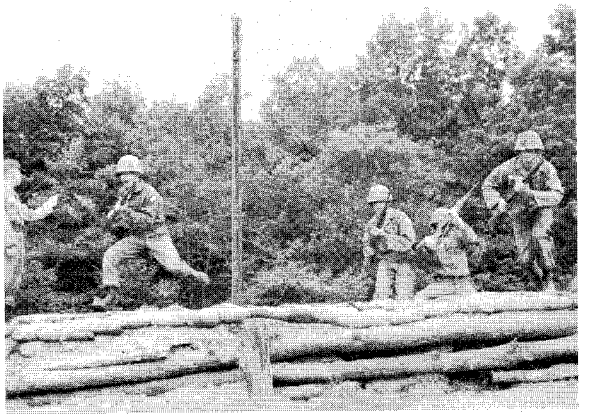
Colonel Russell K. Alspach, Professor and Head of the Department of English, will retire in February 1965. His Deputy, Colonel Edwin V. Sutherland, will become Department Head.

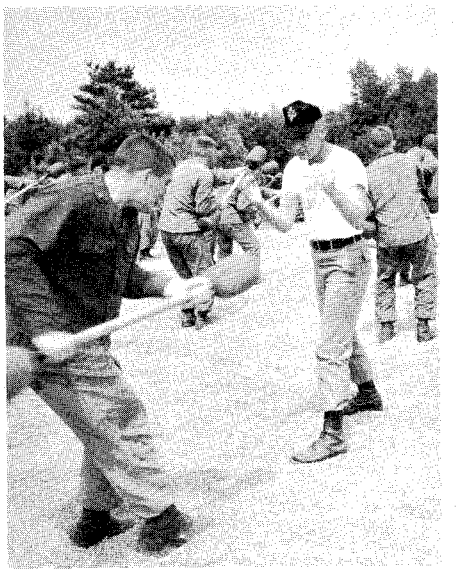
VI. MILITARY TRAINING

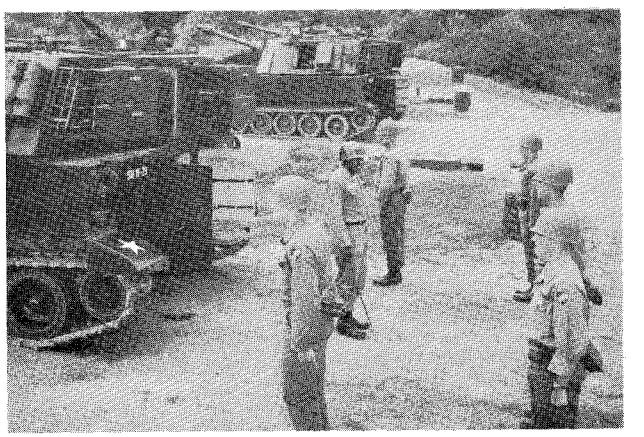
Not through academic instruction alone is a graduate produced who is equipped to meet the requirements of the Army. A vital part of the training program, now presented principally during the summer months, is the program of military instruction conducted by the Commandant. Concentration of this phase of cadet training in the summer months has resulted in the development of the most rigorous and demanding summer training program ever conducted at the Military Academy.

The initial training presented to an entering class upon reporting to West Point is designed to instill discipline and a high sense of duty and honor in each new cadet, indoctrinate each new cadet in the customs and traditions of West Point, and the heritage of the Armed Forces and the United States, train new cadets in basic individual military subjects, and instruct and train each new cadet so that he will be prepared to join the Corps at the start of the academic year. Additionally, New Cadet Barracks provides an opportunity to further the leadership development of First and Second Classmen assigned to the detail. Although modifications to this program have occurred through the years, the basic precepts have remained substantially unaltered.

The cadet spends his second summer at Camp Buckner receiving two months of concentrated advanced individual and small unit training. Specifically, he is taught the weapons, equipment, capabilities, limitations, and methods of tactical employment of the infantry squad, infantry and mechanized infantry platoon, the tank and reconnaissance platoons, the artillery battery, combat engineer and signal corps units as part of the combined arms team. Not only are the cadets taught these basic military skills but they are also toughened physically, mentally, and psychologically. This program is especially designed for the Third Class







under the leadership of the First Class Detail. The cadet receives a basic orientation and demonstration on the role of the Transportation Corps and the Special Forces. The 79-hour RECONDO course (ranger type training) gives the Third Classmen an excellent opportunity for instruction and practical work in day, night, and helicopterborne patrolling, hand-to-hand combat, mountaineering techniques, survival, field expedients and physical confidence tests, during a five-day field bivouac. The training is supported by a contingent of selected Regular Army troop units assigned temporarily at West Point for the summer.

During the final two summers, the cadets continue to gain leadership experience. They learn about branches of the Army and the sister Services when, in June of these summers, they make trips to nearby Service facilities and to the school centers of the combat arms where they learn about the latest materiel, missions, and doctrine.

During the Second Class summer the branch and Service orientation consists of: a two-day visit at the U. S. Army Signal Center, Fort Monmouth, New Jersey, for instruction in combat communications and battlefield surveillance techniques, equipment, and developments and a number of trips to local Air Defense and Naval installations. During the period of Second Class June Encampment, cadets also receive instruction in advanced map reading, methods of instruction, and physical education.

Commencing with the 1964 Summer Training Program, the June training for Second Classmen will be substantially revised to provide more complete orientation on the U. S. Navy and U. S. Air Force. Cadets will spend three days with the U. S. Navy at Newport and Quonset Point, Rhode Island, and New London, Connecticut, on orientations on the Navy's role in surface, air, and subsurface operations. A three-day orientation visit will be conducted at Cape Kennedy and Eglin Air Force Base, Florida, covering roles and capabilities of Tactical Air Command (TAC), Strategic Air Command (SAC), Air Defense (AD), and new developments of the U. S. Air Force. In addition, increased emphasis will be placed on weapons firing for the Second Class, with the cadets themselves assisting on the ranges as part of their practice in Methods of Instruction.

Members of the First Class receive additional branch orientation through visits to the centers of the combat arms. During the summer of 1963, First Classmen visited the Infantry Center (two and one-half day orientation), the Artillery and Guided Missile Center (two-day orientation), the Air Defense Center (two and one-half day orientation), the Armor Center (two and one-half day orientation), and the Engineer Center (two-day orientation).

Cadets gain leadership experience during the final two summers both within the Corps and with Regular Army combat units.

During one of these summers the cadet has a position of leadership in either New Cadet Barracks or at Camp Buckner where he assists in the training of the new cadets or the Third Classmen, and at an early stage he learns of the responsibilities and satisfactions involved in the leadership of others.

During the other summer of his West Point career, each cadet participates in the Army Orientation Training (AOT) Program. He is detailed as platoon leader in one of the combat arms--Infantry, Artillery, Armor, Engineers, or Signal Corps--in an overseas unit. In effect, he is given the advantage of a foretaste of the commissioned officer's life and work while still a cadet, translating his experience as a cadet leader and his academic leadership instruction into actuality. He savors in practice the difficulties and peculiar rewards of leading the American soldier in garrison and in the field. The result of AOT in inculcating that most crucial of personal qualities--professional career motivation--has been outstanding.

The Foreign Military Academy Exchange Program for the summer of 1964 will include an exchange with the Royal Military Academy Sandhurst in addition to exchanges with the German Military Academy (Heeresoffizierschule) and the Mexican Military Academy (Heroico Colegio Militar) which have been conducted for several years. Sandhurst has been added to the exchange program without increasing the total number of participants (12 cadets); four members of the Class of 1966 will visit each of the Academies.

Military instruction during the academic year is designed to give the cadet a thorough appreciation of the fundamentals of Military Science and to instill pride in his heritage. There are two short courses in the History of the U. S. Army and of the U. S. Armed Forces. Instruction in Fundamentals of Military Science includes a progressive series of courses, covering four academic years, which familiarize the cadet with the combat military establishment and with basic tactical principles.

The Military Heritage Course presented to the Third Class during Academic Year 1963-64 reflected added emphasis on the growth and development of the Army and on contributions of West Point graduates to this development throughout the Army's history. A text entitled The Man, The Musket, and The Mission was prepared to support this course.

Thirty-two selected members of the First Class were used this year as instructors for the Fourth Class Military Fundamentals Tactics course. Not only did this enhance the position of the First Class in the eyes of the Fourth Classmen, but it also increased the knowledge of the cadet instructors on the basic subjects taught as well as furthering their instructional ability.

With the elimination of the branch orientation courses at the various service schools for the new graduate, revised branch

training for the First Class was initiated in order to provide additional orientation for the cadet on his initial duties at his first assignment.

Several distinguished guest lecturers presented talks in support of academic year courses in the military curriculum. Lecturers from Department of the Army, the U. S. Navy, the U. S. Air Force, Continental Army Command, the Special Warfare Center, and Fort Benning gave added depth to the program of instruction. Colonel Richard L. Clutterbuck, Royal Engineer Corps, British Army, lectured on British Counterinsurgency Operations in Malaya.

A pilot tactics seminar course for 32 selected Second Classmen was conducted this spring. The purpose was to investigate recent counterinsurgency operations and deduce certain tactical principles which brought success or would have brought success if they had been applied properly; and secondly, to examine the local circumstances that caused the adoption of particular tactics in a given area. The cadets developed their thoughts and ideas in committee meetings and presented their conclusions orally in a session open to all cadets and officers of the post. As a part of the seminar program, Lieutenant Colonel Frequelin, the French Liaison Officer at the Infantry School, Fort Benning, Georgia, discussed Indochina and Algeria. The seminar, with home study, individual presentations, and committee discussions represented a fresh approach in the method of presenting tactics. It proved challenging and highly successful. The same procedures will be used with the First Class next year on an elective basis.

The Office of Military Psychology and Leadership is a part of the Department of Tactics. This office contributes to the department mission by developing an understanding of leadership and command. A program which includes courses in psychology, methods of instruction, military leadership, and management is presented as part of the standard curriculum. Additionally, the Department offers elective courses in Human Relations and Sociology.

During Academic Year 1963-64 the Psychology course was expanded to a full 45-hour semester program integrating the Methods of Instruction course with the course in Military Fundamentals which is presented by the Office of Military Instruction. The expansion of the Psychology course allowed increased emphasis to be placed on concepts of learning, social relationships, and group behaviors. The Psychology curriculum is now fully representative of that taught in civilian universities and creates a better foundation for the First Class Military Leadership course.

The expansion of the Psychology program necessitated a new arrangement for presenting the Methods of Instruction course. To do this without adding to the demands on the cadet's time, the

Military Fundamentals course was used as a vehicle for Third Class cadets to partially meet the practice teaching requirements of the Methods of Instruction course. Third Class cadets were able to fulfill their "practice instruction" requirements while concurrently learning and studying basic platoon and company tactics. Experience with this curriculum combination has been very successful; not only have eight class hours been saved but student motivation and grade averages in Military Fundamentals have been enhanced.

A Sociology course was introduced as a 45-hour elective for selected cadets. In the course American society is viewed from the prospectives of sociology and anthropology. Major institutions and social processes are analyzed and discussed, and a viewpoint is cultivated which will be useful to officers in contact with foreign societies.

The Human Relations elective was revised during the second semester by a deletion of the five-hour block of instruction on experimental statistics. In lieu of this block, a library research project was instituted which permits cadets to gain greater depth in an area of industrial psychology of their own choice.

The standard First Class course in Military Leadership continues to employ such participative pedagogical techniques as group discussions, role plays, seminars, panels, and oral and written student projects. In addition, one hour of the course is taught by the use of programmed instruction. This academic year, in an effort to tie the course together, a new variation of the above techniques was tried out at the end of the course. Over several class periods each section was required to establish a position on a broad issue of leadership development and then to defend this position before another section. It is felt that this innovation was helpful and that it can be further refined in the future.

In the Third Class Basic Psychology course experimentation has been conducted with advanced work for the top section. The advanced work includes classroom experiments and instructor-led discussions on competing theories and controversial issues. Training films and psychological testing materials are also extensively used and demonstrated.

An extensive Psychology Teaching Aid notebook has been developed and printed. This book gives the instructor information on many classroom demonstrations and participative techniques to aid in presenting psychological concepts and data.

The Office of Military Psychology and Leadership sponsored an instructor seminar to consider the application of the programmed instruction technique to specific phases of military training. Drs. Lange and Jacobs of HumRRO discussed the results

they had recently achieved in developing a program to teach "Platoon in the Defense" at Fort Benning. The several offices of the Tactical Department and many of the academic departments were represented.

During the period July 1963-January 1964, the Department of Tactics conducted a thorough review of the military curriculum for the purpose of organizing the academic year courses and the summer training periods to provide better continuity and more logical progression throughout the four-year curriculum. As a result of this study four primary military instruction programs were established and courses were aligned within the framework of these basic programs as illustrated in the two charts below:

ACADEMIC YEAR PROGRAM

	Fourth Class	Third Class	Second Class	First Class
MILITARY SCIENCE	Organizational Concepts & Tactics (Plat) Map Reading	Basic Tactics (Co)	Combined Arms Tactics (Bn)	U. S. Army in Cold War
CAREER TRAINING	Heritage of U. S. Army	Heritage of U. S. Army Mission & Structure of Armed Forces	Introduction to Career Planning	Career Planning Branch Instruction
COMMAND TRAINING	Duty, Honor, Conduct Evaluation	Duty, Honor, Conduct Evaluation Psychology	Ethics, Conduct, Responsibility of Leaders	Leadership Code of Ethics of an Officer
PHYSICAL EDUCATION	Basic Skills	Carryover Sports	Carryover Sports	Carryover Sports

SUMMER TRAINING PROGRAM

	Fourth Class	Third Class	Second Class	First Class
MILITARY SCIENCE	Basic Individual Training	Advanced Individual Training Small Unit Tactics	Army Orientation Training Weapons Training	Army Orientation Training Tactical Demonstrations
CAREER TRAINING	Cadet Orientation	Combat Arms Orientation	Army Orientation Training Cross-Service Orientation	Army Orientation Training Branch Orientation Trip
COMMAND TRAINING	Duty, Honor, Conduct	Squad Leader	Plat Leader, AOT or Squad Leader, New Cadet Barracks	Plat Leader, AOT or Cadet Command, NCB or Camp Buckner
PHYSICAL EDUCATION	Conditioning Mass Athletics	Conditioning Instructor Training	Instructor Training	Instructor Training

As a result of the Commandant's military curriculum study, it was determined that the statement of the mission of the Department of Tactics should be revised to place more emphasis on motivation for the military service and orientation for a career in the Army.

The Superintendent approved the Commandant's recommended restatement of the Department mission, which is:

> To develop the qualities and attributes of leadership with emphasis on character as exemplified by integrity, morality, discipline, and a strong sense of duty and responsibility.
>
> To provide a broad basic military education.
>
> To develop high standards of physical fitness.
>
> To instill the motivation essential to the profession of arms and to provide orientation for a career in the United States Army.

Based on the recommendations of the Cadet Honor Committee, this year we have adopted a few changes in the administration of the Honor System. In no way have the basic tenets of the Code changed. It has never outgrown its original and simple meaning - that a cadet does not lie, cheat, or steal. The Code requires complete integrity in both word and deed of all members of the Corps and permits no deviation from these standards. The most significant aspect of the Code is its voluntary acceptance by the cadets. It belongs to the Corps and is enforced by the Corps. Toleration of a violation is an offense against the Code equally as great as the overt act of lying, cheating, or stealing. Thus, each cadet individually is a custodian of the Code.

The Honor System is the method by which the Honor Code is applied in the highly organized life of a cadet. In its development, the System incorporated within its structure provisions which eased the task for both cadets and officers of administering the day-to-day activities of the cadets. Some of these provisions dealt with matters internal to the Corps, while others had to do with the relationships between cadets and the various departments of the Military Academy. Historically, some of these provisions extended to the cadets certain privileges in exchange for their bond to abide by specified requirements while availing themselves of the privileges. As examples, a cadet may account for his absence from his room simply by marking a card. He may miss a specified meal formation if he signs out in his Company Departure Book. This marking or signature is accepted as the cadet's word that his absence is authorized and that he

will take no undue advantage of this privilege. Cadets are also often required to indicate by signature that they have complied with official instructions, for instance, on the writing of themes. These devices are part of the Honor System and require the cadet to make decisions based on his sense of honor many times a day during his four years at the Academy. This constant stress on honor trains the cadet to live by the most rigid standards.

The necessity for changes in the System was pointed out by an accumulation of evidence which indicated certain areas of strain in the System. These areas of strain occurred at a number of points where the Honor System and regulations came in contact. Secondly, there were some aspects of the Honor System which were not in consonance with the increased freedom of action given to cadets in recent years. Finally, piecemeal changes or additions to the Honor System had caused ambiguities. The result of these weaknesses was that the Honor System had become overly complex.

In correcting these conditions certain reporting procedures have been transferred from the concept of individual honor to duty. To support this change steps have been taken to strengthen the concept of duty.

In order to provide more cadets with increased opportunities to exercise responsibility while at the same time distributing more equitably the demands on a cadet's time, three rotational chains of command were established this year. The first two were considered temporary chains of command and the third, the permanent chain of command. The first chain of command served from Reorganization Week through the Army-Navy game weekend; the second chain of command served from the Army-Navy weekend through Spring Leave; and the third chain of command served from Spring Leave through graduation. First Classmen continued to fill cadet officer and cadet sergeant positions and Second Classmen continued as cadet corporals. However, Second Class corporals served as squad leaders, which is a change from the recent past. As a result of this change, Second Classmen were placed in more challenging and demanding assignments, thus providing greater opportunity for observation of their performance of duty.

Eight cadet captain positions were designated for permanent assignments - the Brigade Commander, the Regimental Commanders, and the captains on the Brigade Staff. All other positions were filled three times with no cadet being an officer more than once on the first two "make lists". In this manner, 424 cadets out of a class of 566 served as cadet officers at some time during the year.

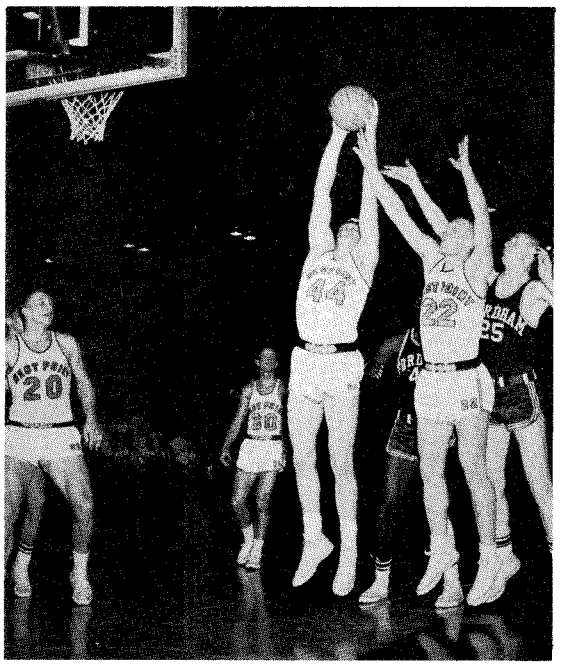
In anticipation of admitting the largest peacetime class in the Academy's history on the 1st of July 1964, planning has been underway during the year to determine whether or not the current organization of the Corps of Cadets requires revision. It was determined that such a large class would make it necessary to increase the size of the New Cadet Battalion to eight companies. Further increases in the size of the Corps will eventually require a reorganization of the entire Corps; however, the changes will be made on an incremental basis as shown on the chart below.

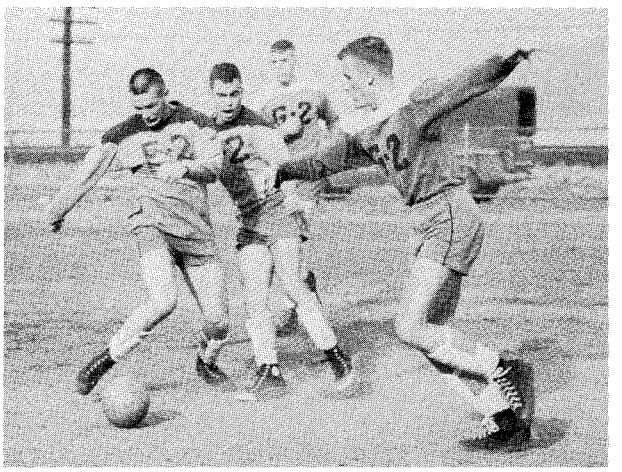
USCC ORGANIZATION DURING PERIOD 1964 - 1972

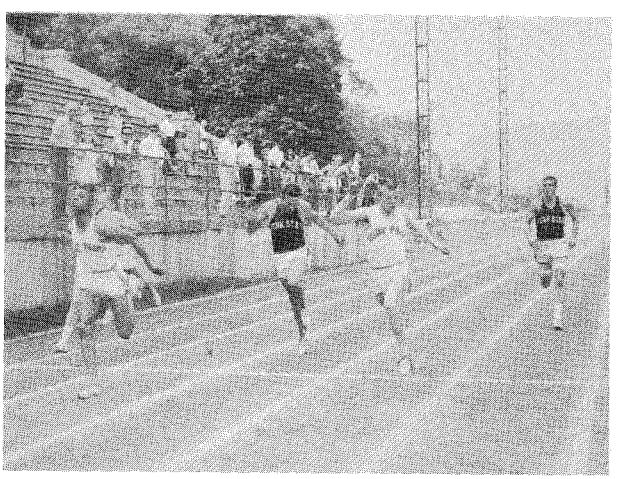
	TOTAL NUMBER OF -		
Year	Regiments	Battalions	Companies
1964	2	6	24
1965	4	8	24
1966	4	8	24
1967	4	8	32
1968	4	8	32
1969	4	12	36
1970	4	12	36
1971	4	12	36
1972	4	12	36

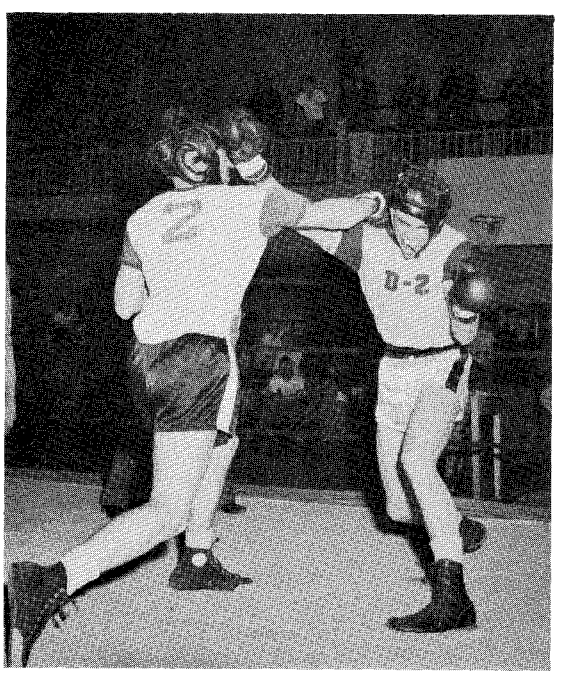
The goal in developing this programmed expansion is to achieve eventually an organization of a brigade of four regiments of nine companies each with each company having a strength of about 115; and during the interim period to maintain company strengths between 95-125. It can be seen from the chart that the first change will take place on 1 September 1965 when the Corps will be reorganized into four regiments of two battalions of three companies each for a total of 24 companies. On 1 September 1967 two companies per regiment (one per battalion) will be added for a total of 32 companies. On 1 September 1969 one company per regiment will be added and the third battalion in each regiment will be activated. Other changes after that will be merely in company strengths. The new organization has the advantages of retaining the old company letters (although K, L, and M Companies will be deactivated) providing a better span of control for both the cadet and tactical officer chain of command, and retaining companies at manageable strengths.

Training on the athletic field produces, as nothing else can, the attributes of fortitude, self-control, resolution, and physical development that are essential in making a career soldier.









The Academy has three physical fitness programs:

The physical education program presented during academic hours.

The intramural athletic program.

The intercollegiate athletic program.

The Commandant of Cadets is responsible for the conduct of the physical education and the intramural athletic programs. The Director of Athletics has responsibility for the intercollegiate athletic program.

That part of the program conducted during academic hours is devoted to developing skills, strength, and stamina. Fourth Classmen attend physical education classes three times a week. Third Classmen attend four eight-hour blocks of instruction. The two upper-classes attend only twenty-two physical education classes during the last two years. They maintain their physical condition on their own initiative and through regular participation in either the intramural or intercollegiate programs. During the academic year, the physical education program was refined to provide greater opportunity for capable cadets to be accelerated. Objectives and standards were defined so that as a cadet demonstrated the desired standards, he was moved on into higher level activities. Validation tests were also conducted to determine those cadets already possessing the skills taught in a particular course. It is now possible for a cadet to achieve the objectives of the instructional program by the time he completes his Third Class Year. Cadets achieving these standards early may select an elective in physical education, or, they may be excused from further instruction.

Twice a year cadets are given a physical proficiency test which they must pass. This year the annual spring test taken by First Classmen was changed from the physical fitness test and obstacle course to the physical combat proficiency test and airborne trainee fitness test.

Another modification to the physical education program put into effect during the report period was that all formal sports instruction was removed from the summer training period for Second and Third Classmen. Tennis, formerly taught to Third Classmen at Camp Buckner, was replaced by a physical training instructors course. The sports instruction conducted during the Second Class June Encampment was replaced with unarmed combat and military physical training.

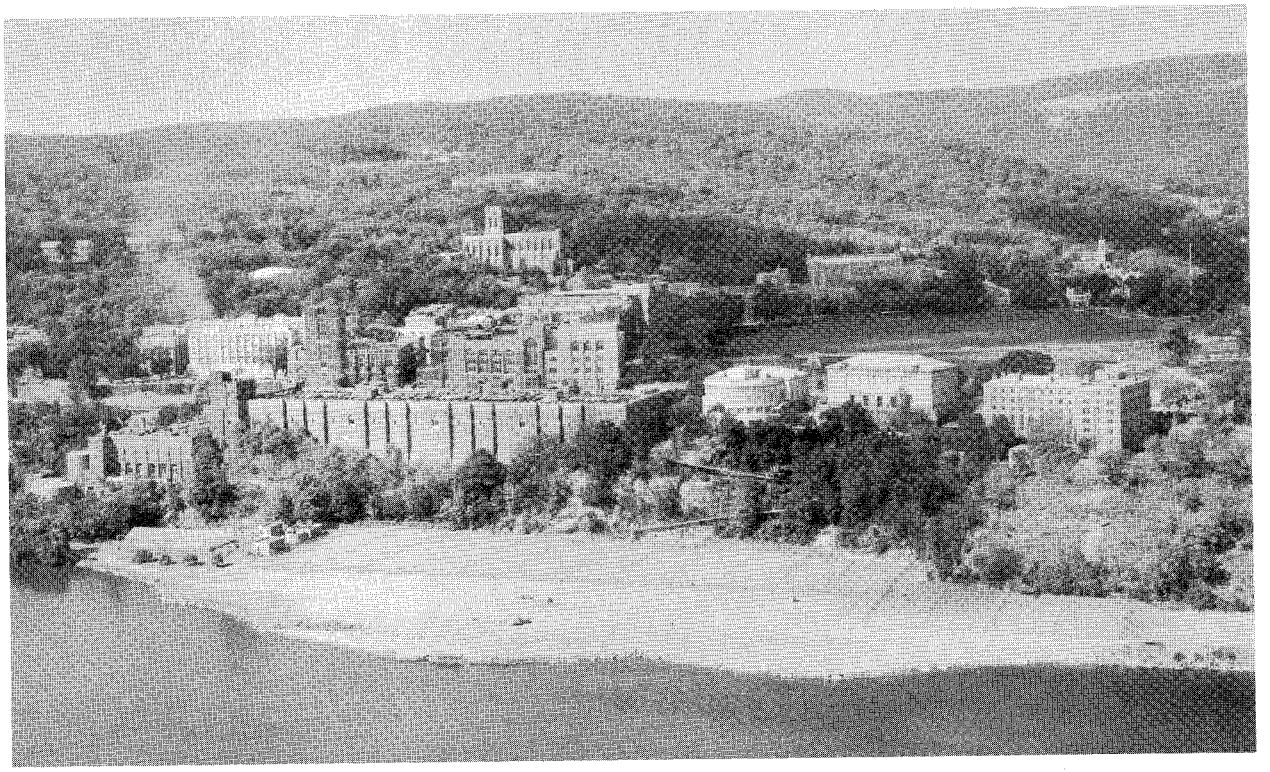
The intramural athletic program is designed to meet multiple needs: teaching skills in individual and team sports;

developing physical ability; providing healthful, vigorous recreation; and inculcating qualities of leadership. Every cadet participates in an intercollegiate, intramural or competitive athletic sport and is graded on his performance. To insure the development of a variety of skills, participation in any intramural sport is limited to two seasons and every cadet must participate during at least two seasons each year. Through this competition cadets encounter situations which contribute toward the development of the attributes of a leader. In the program, upper-class cadets have many opportunities to administer and coach, as well as to play on teams.

Because athletic activities involve many of the deepest and most powerful of human emotions, athletics offer unlimited and unique opportunities for the inculcation of desirable qualities of character: aggressiveness, personal courage, confidence, determination, and the ability to think and act quickly and effectively under pressure. Here, then, lies the true worth of the intramural program at West Point, where every cadet is a participating athlete.

With a comprehensive program of intramural athletics, consisting of 19 different sports, presented during three seasons of the year, cadets today enjoy one of the most effective and scientifically designed intramural programs in the Academy's history. Skiing, a recent addition to both the intramural program and the physical education program, provides military skills, as well as physical development and enjoyment to a large number of cadets each year. This program has been made possible by the development of an exceptionally fine ski slope on the reservation. The installation of a 2260 foot long T-bar ski lift has made Victor Constant Ski Slope one of the finest on-campus ski facilities in the United States. The ski lift, acquired through a generous donation to the West Point Superintendent's Fund, was operational throughout the skiing season.

In Fiscal Year 1963, the Military Academy was authorized funds for the construction of 24 additional tennis courts. The project site was selected on the south fill area located on the Hudson River east of Thayer Hall. Constructed of a composition surface with a non-discoloring green finish, the courts can be used during the entire year, weather permitting. The new tennis courts were officially accepted by the Office of Physical Education on 18 April 1964.



South Fill Tennis Courts

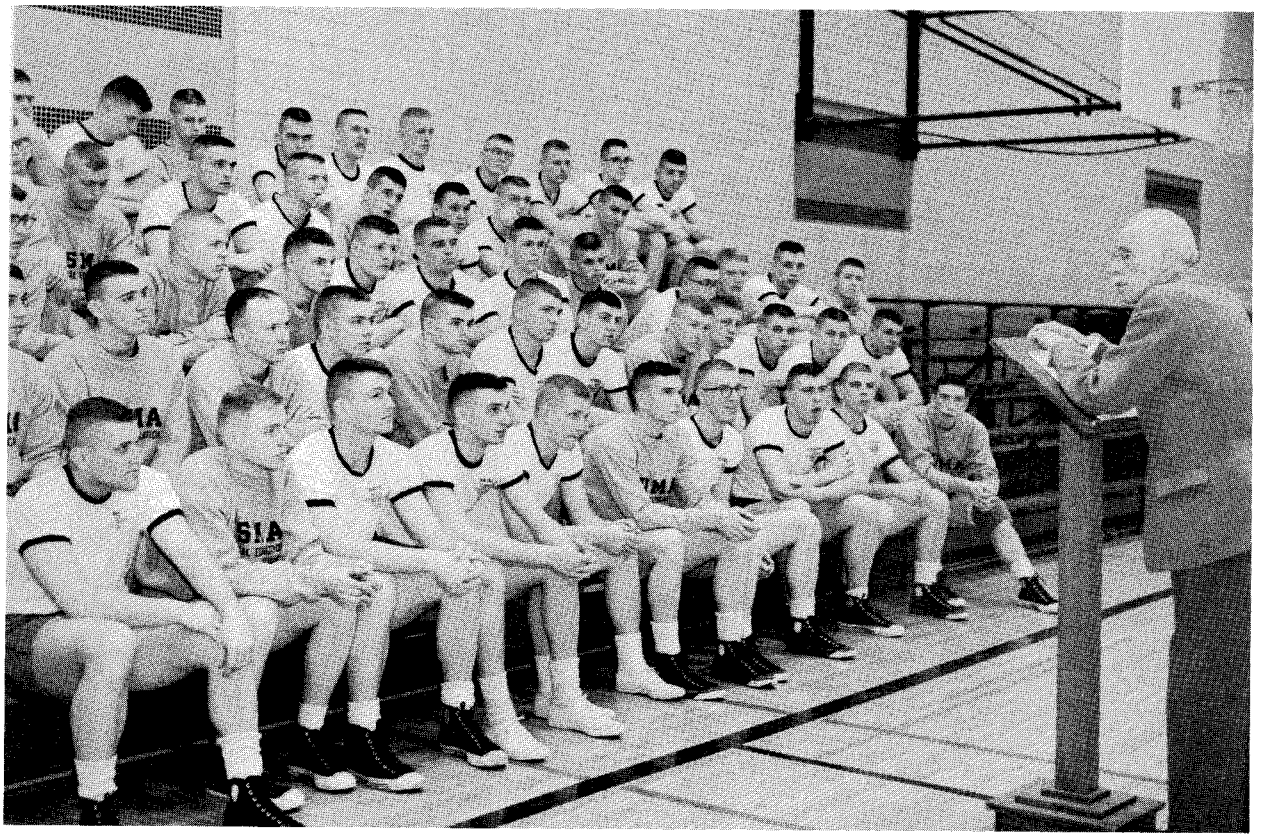
A group of highly qualified physical educators and physicians was invited to examine the Academy's program of physical education. This group, under the chairmanship of Dr. S. C. Staley, Emeritus Dean of the College of Physical Education at the University of Illinois, met at West Point for three days during the early part of February. Dr. G. G. Deaver, Professor of Physical Medicine and Rehabilitation, New York University Medical College and Consultant to the Surgeon General of the United States; and Mr. Glenn Swengros, Director of Programs of the President's Council on Physical Fitness, were the other members of Dr. Staley's Committee.

In reporting his findings, Dr. Staley said: "...it was agreed that, while in comparison with other universities' basic physical education programs...the Academy's program was being carried on at a high level of efficiency and effectiveness, there still were needs and opportunities for improvements." Dr. Staley went on to recommend that:

More emphasis be placed on evaluation and enlargement of the coaching clinics as part of the intramural program.

The theory phase of the physical education program should be expanded to stress the importance of physical activity.

A group of gym facility experts should be obtained to study the modernization and expansion of facilities.



Dr. Paul Dudley White talking to a Fourth Class Physical Education Class

Dr. Paul Dudley White, the eminent cardiologist, was invited to serve with this committee. Unfortunately, other commitments prevented him from doing so, however, arrangements were made for Dr. White to visit privately following the Committee's visit. He spent a day and a half examining the physical education program and observing cadets in training. Great benefit was derived from Dr. White's counsel concerning the importance of a regular exercise program and diet control.

The intercollegiate athletic teams participating in 18 sports reflected the standards of excellence and will to win expected at West Point. With approximately one-half of the Corps of Cadets participating in the intercollegiate program, the 40 Army teams (18 varsity, 4 junior varsity, and 17 plebe) engaged in 382 contests and won 73 per cent. In varsity competition, Army teams distinguished themselves by winning 76 per cent of 219 contests (won 167, lost 50, tied 2).

Included in the more significant team honors for this past year are the following national rankings:

The pistol team won the national title.

The rifle team was second in the national standings.

The soccer team went to the semifinal round of the NCAA tournament after completing a ten-game schedule undefeated and was rated third nationally.

The basketball team finished third in the National Invitational Tournament.

The squash team shared second in the National Intercollegiate Tournament.

Individual performances resulted in the following recognition:

All-America:	Football - 1, Soccer - 2, Lacrosse - 4, Swimming - 8, Rifle - 1, Pistol - 3, Baseball - 1, Track - 1.
All-East:	Football - 2, 150 lb Football - 1, Basketball - 1, Hockey - 2, Baseball - 1.

A member of the Class of 1964, William J. Straub, tied for first place in the 5000 meter race during the National Collegiate Track and Field Championships. In doing so, he shared honors in setting a new NCAA record.

In competition with the Naval Academy in 17 events, Army won 10, lost 6, and tied 1. The winter sports teams distinguished themselves by winning seven of the eight meetings with Navy and tying the eighth. Appendix J summarizes the results of the 1963-64 intercollegiate season.

An effective intercollegiate athletic program is greatly dependent upon the quality of the coaching staff. In this regard West Point is in the highly enviable position of having an outstanding staff of coaches. They are not only highly expert in their professional specialty but they are gentlemen of excellent character who appreciate and admire the Military Academy and what it stands for.

New coaches on the staff during the past year included: Taylor Locke, basketball; Master Sergeant A. J. O'Neill, rifle; Master Sergeant H. Roberts, pistol; and William C. B. Cullen, squash and tennis. All four enjoyed considerable success in their initial year. In addition, William G. Rowe has been hired as an assistant football coach.

There was great interest in the performance of the Army teams throughout the year as was apparent from the crowds that

attended home contests. Nearly 120,000 viewed the five home games included in the 1963 football schedule. A record-breaking crowd of 31,200 saw the Washington State game at Michie Stadium. Other record-breaking crowds were on hand for basketball, lacrosse, and the spring football game.

The year-end reports of the Army Athletic Association indicate that the operation is on a sound and progressive basis. During the year operating costs were reduced substantially and income was increased with a resultant acceptable margin of profit. A significant reduction was made in the AAA debt which had resulted from the expansion of Michie Stadium. During the coming year, NCAA regulations in effect limit Army to one football television appearance. This is a major reduction in revenue. However, it can be expected that emphasis will be placed on promotion of home contests with a view toward maximizing income to meet the constantly rising costs.

VII. EXTRACURRICULAR ACTIVITIES

An important contribution to cadet life and the general education of the cadet is made by an extensive program of extracurricular activities. Appendix K lists these activities. Membership within the 58 activities which are divided into seven major groups: academic, competitive, entertainment, hobby, publications, religious, and representative, was over 3,000 cadets. During the year more than 200 extracurricular trips, involving in excess of 3000 cadets, were scheduled.

The Military Academy offers varied opportunities for cadets who are interested in exploring fields of academic study on a broader or more intensive basis than is provided in the formal academic curriculum. Seminars, special guest lectures, discussion groups, student conferences, and intercollegiate debates are undertaken on cadet initiative and carried out primarily with cadet effort. The largest and most active organization in this field is the Debate Council and Forum whose members engage in intercollegiate debates and discussions in all parts of the United States during the academic year. This organization also sponsors voluntary seminars on public affairs topics in which cadets express interest.

The Debate Council and Forum administers the Student Conference on United States Affairs (SCUSA) which has been sponsored annually by the Academy (with the assistance of private financial aid) since 1949. Outstanding students from United States and Canadian Colleges gather for a four-day conference in early December with senior individuals from college faculties, business, and government. Meeting in small seminars, the participants discuss major aspects of U.S.

National Security Policy and formulate policy recommendations. The purposes of these conferences are (1) to produce an informative examination and discussion of U.S. National Security Policy, (2) to provide an outstanding representation of college students with an appreciation of the complexities of government policy formulations, and (3) to broaden students' contacts with their contemporaries in an academic endeavor.

SCUSA XV

This academic year a total of 222 students from 92 colleges and universities and 34 senior delegates participated in the Student Conference on United States Affairs (SCUSA XV) conducted during the period 4-7 December 1963. Forty-eight cadets participated in the round-tables, twelve of these as recorders. The keynote address was delivered by the Honorable W. Averell Harriman and the banquet address by His Royal Highness Bernhard, Prince of the Netherlands. During its fifteen-year history, 2607 students from 176 schools and 412 senior personnel have participated in SCUSA. Noted speakers at past conferences include the Honorable Nelson A. Rockefeller, the Honorable Dean Rusk, the Honorable John J. McCloy, and the Honorable Dean Acheson.

SCUSA -- Banquet Address

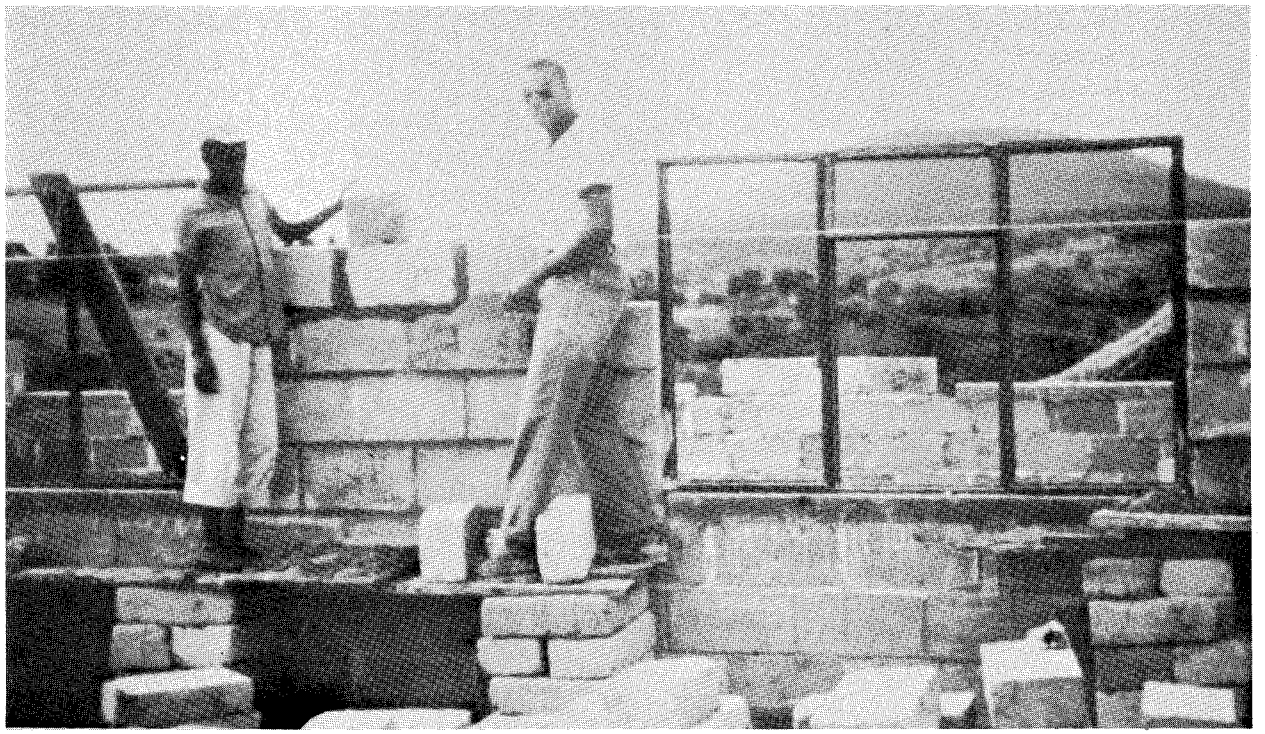
The Debate Council, an activity within the Debate Council and Forum, sponsors an extensive program of forensic activities affording its members the opportunity of acquiring skills in public speaking and in the use of logic and of using and perfecting these skills in tournament debating in competition with colleges and universities throughout the country. The Debate Council program for a typical year includes: seminars on debating techniques and the national debate topic, intrasquad practice debating, varsity and novice intercollegiate competition, high school audience debating, an intramural tournament, and an extemporaneous speech contest. The USMA varsity teams participate in the leading college debate tournaments and through the caliber of its performance in major tournaments each year, West Point has achieved recognition as one of the leading schools in intercollegiate debating.

Annually, since 1947, the Debate Council and Forum has sponsored the National Debate Tournament which marks the culmination of national intercollegiate forensic activities for the academic year. For administrative purposes the United States is divided into eight debating districts, each headed by a chairman and a district committee. During the debating season, approximately 600 colleges and universities compete within their respective districts in order to win one of 36 invitations to the national tournament held at West Point each spring. After two days of seeding and semifinal rounds, two teams are selected to compete for the championship. The winner is awarded the Larmon Trophy, donated by Sigurd S. Larmon, New York City. More than 150 teams, representing colleges and universities from all sections of the United States, have competed in the national tournament since its inception in 1947. United States Military Academy teams won the tournament in 1956 and placed second in 1957.

Seventy-six debators representing 38 colleges and universities debated the National Debate Topic (Resolved: That the Federal Government Should Guarantee an Opportunity for Higher Education to all Qualified High School Graduates) on the occasion of this year's tournament (22-25 April 1964). The University of the Pacific at Stockton, California, won the tournament and Boston College ranked second. Dr. Edward L. Katzenbach, Deputy Assistant Secretary of Defense for Education, spoke on "The Military Mind" at the tournament banquet.

The West Point Forum, a part of the Debate Council and Forum, provides the cadet an opportunity to widen his intellectual interests by providing a series of lectures by distinguished speakers and by conducting seminars to prepare cadets for participation in student conferences and model United Nations assemblies throughout the United States. The Forum sponsors educational trips each year to the United Nations and to Washington, D.C., to allow cadets to observe at firsthand operations of the United Nations and the major branches of our government.

The three cadets selected for Operation Crossroads Africa participation in 1963 were: S. Perryman, D.L. Ramsay, and R.J. Walters. As in the past, each of the three cadets was assigned to a different country. Cadet Perryman joined the Nigeria II (Northern Region) group, while Cadets Walters and Ramsay were in Ethiopia and Tanganyika, respectively. "Crossroads" participants worked side by side to build rural schools and other basic community projects. Following the project phase, the students and their African counterparts were conducted on an education tour of a least one additional African country. All three cadets were enthusiastic over their experiences which they felt were genuinely enriching.



Crossroads participant Cadet David L. Ramsay

Three cadets have been selected to participate in the 1964 Operation Crossroads Africa: Cadets J. B. Anderson, T. C. Barron, and R. A. Hallenbeck.

Cadet parachutists made 1460 parachute jumps during the year, and the Cadet Sky Diving Club won second place in the National Intercollegiate Sky Diving Championship in May.

The Cadet Water Polo Club won the consolation championship in the North American Championship held in Montreal, Canada.

In the area of military skills, the Cadet Rifle Club won the First Army Team Championship and finished in second place at the National Rifle Matches, Camp Perry, Ohio. The Cadet Pistol Team won the National Intercollegiate Pistol Championship for the 5th consecutive year.

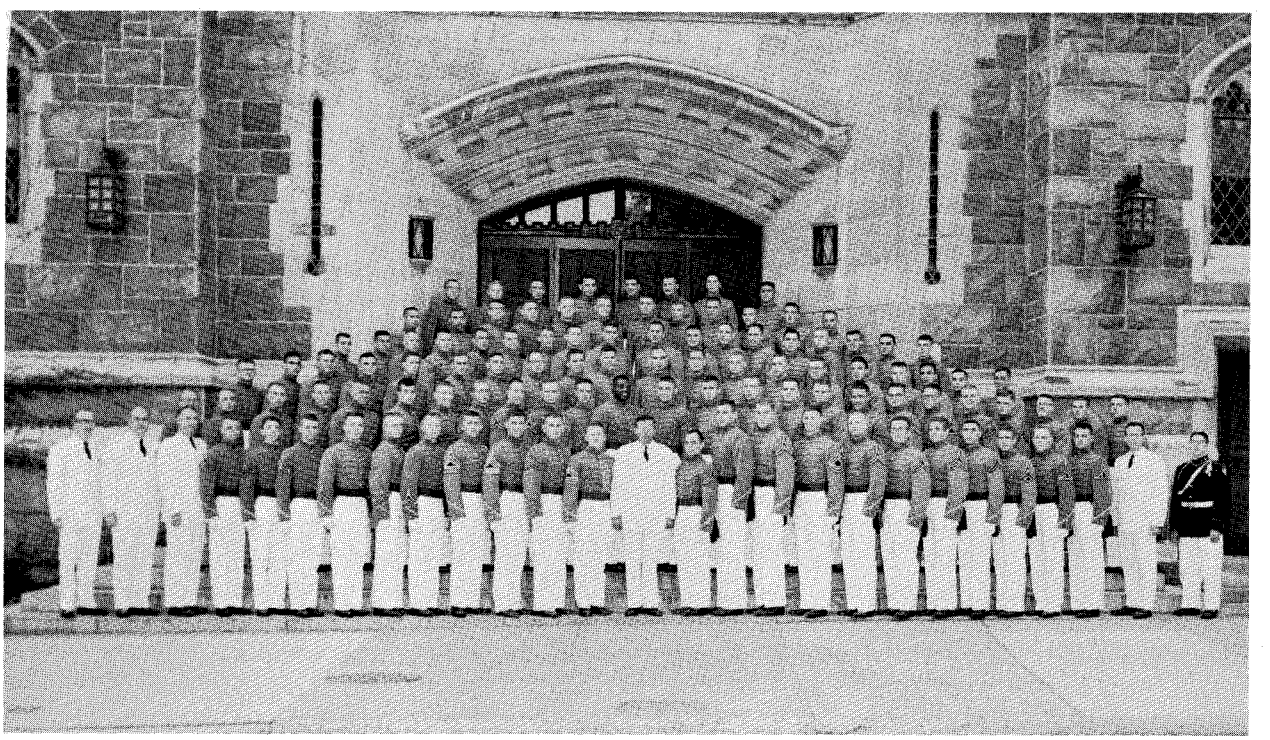
The Cadet Rocket Club participated in two educational trips during the year. Members of the club visited Huntsville Arsenal, Huntsville, Alabama, to observe the U. S. Army Missile Program and Cape Kennedy, Florida, to observe missile firings.

Cadets participated in national tournaments in fencing and judo and in regional tournaments in triathlon, bowling, and water polo.

The Fencing Club completed its second consecutive undefeated season. The continued success of this activity indicates the continually increasing popularity of this sport.

The Cadet Band presented four concerts, supported the 150-pound football team during the annual game with the U. S. Naval Academy, the hockey team at one contest away from West Point, and the basketball team at one away game and in its first appearance in the National Invitational Tournament.

The Cadet Glee Club reached a greater audience in the period of a year than any other activity. Through many public contacts it has developed the image of the United States Military Academy. Among 27 concerts presented during the year were: Illinois Chamber of Commerce, New Jersey Tercentenary, Eleanor Roosevelt Memorial Concert at Lincoln Center in New York City, and nationally televised appearances on the Ed Sullivan Show and the Bell Telephone Hour. The Glee Club participated in a far-west trip for the first time, presenting concerts in Los Angeles, San Francisco, and San Diego, California.



Cadet Glee Club

A souvenir booklet, West Point - A Way of Life, presenting a picture story of cadet life at West Point was published in December 1963 under the editorship of the cadet staff of the class annual, The Howitzer. The highly successful first printing of 10,000 copies was nearly exhausted by the end of the year. A revised edition will be published.

Responsibility for the religious training of Protestant cadets has been under the direction of the Reverend Theodore C. Speers, D.D., who has served for five years as Chaplain, USMA, and Assistant Chaplain James D. Ford. The musical program at the Cadet Chapel continues under the direction of Mr. John A. Davis, Jr., Organist and Choirmaster. The religious program includes, in addition to the Sunday chapel services, the daily morning devotional program at 0630 hours, weekday discussion groups, choirs, denominational Holy Communion, interest groups, and the West Point Sunday School of nearly 700 pupils taught by 140 cadet teachers. Mr. Davis participated as one of the leaders of the musical program at the Retreat for Post Chapel Musicians at Berchtesgaden, Germany, which was held during the period 19-24 January.

Monsignor Joseph P. Moore and Father Robert F. McCormick continue to lead the religious program of the Roman Catholic cadets through worship, discussion groups, and choirs. During this past year, Monsignor Moore was honored for distinguished service as Rector of the Chapel of the Most Holy Trinity having served 25 years at the United States Military Academy.

Rabbi Avraham Soltes serves as the Chaplain to Jewish cadets, beginning his responsibilities during June 1963. The Jewish Chapel Squad carries on an active program of worship and religious instruction. Rabbi Soltes holds a B.B.S. degree from the College of the City of New York and an M.A. degree in psychology and education from Columbia University. He has served as Chaplain to the New Jersey National Guard and presently resides in West Orange, New Jersey.

VIII. THE ADMISSIONS PROGRAM

The administrative and review procedures regulating the admission of candidates continued without significant change during Fiscal Year 1964. The passage of the Academy Expansion Bill authorized approximately fifty per cent of the Members of Congress an additional vacancy to the class entering in July 1964 with the remainder of Congressmen receiving the same authorization for the following class. Thus, effective in Fiscal Year 1965, all Congressmen will be allocated five cadetships at USMA.

In the same bill, the number of nominees that could be named for each Congressional vacancy was increased from four to six.

The effect of these authorizations has been to create a significant increase in the administrative load of the Office of the Director of Admissions and Registrar in preparing and evaluating candidate records for action by the Academic Board. With these present increases in mind, and planned further increases in other nomination categories, studies are presently being conducted toward the goal of simplifying candidate records processing with the use of computer equipment soon to be installed at the Academy.

The Admissions Program has placed its greatest effort during Fiscal Year 1964 in establishing closer contact with civilian educators in the area of secondary-school guidance throughout the country. This effort included:

Personal visits by USMA Admissions Officers and cadets to over 450 secondary schools.

Sponsoring 19 three-day visits for secondary-school educators to West Point. Over 400 individuals were included in these visits.

Direct mailing of admissions information to all secondary schools in the fall and spring.

Distribution of a new sound filmstrip for loan to approximately 500 secondary schools.

Increased contact with many State Boards of Education for coordination and evaluation of past and future educator visits, dissemination of USMA admissions information in state guidance publications, and for assistance in improving Admissions Program activities in the states concerned.

Admissions Officers continued the program established in Fiscal Year 1963 of briefing individual Members of Congress or members of their staff on Military Academy admissions procedures. This program has been praised by the Congressmen concerned with over 40 of them requesting and receiving direct assistance from the Admissions Division in screening applicants for their nominations. Over 150 other Members of Congress requested that they be informed of applicants from their constituency who were in direct contact with the USMA Admissions Office.

A further rise in the use of the Congressional Competitive method of nomination by Congressmen was noted during Fiscal Year 1964. As of March 1964, 150 members elected to use this method

as compared with 133 in Fiscal Year 1963.

The principal objective of the Admissions Program is to locate, inform, and guide prospective candidates in their efforts toward a cadetship. In the fulfillment of this objective, detailed information was furnished to approximately 24,000 young men. This represents an increase of almost 40 per cent over Fiscal Year 1963 and undoubtedly partially reflects the national problem of the increase in secondary-school graduating population without a proportionate increase in spaces available in colleges and universities. Part of the increase is due to the expanded program of contact with secondary schools and their counselors.

A significant program in support of the "location" objective was the participation of cadets in the Boys State and Nation activities sponsored by the American Legion. Thirty-six states have requested cadets as speakers or advisors for the summer of 1964 as compared with 30 states in 1963. Over 5,600 young men sought further information from the Academy on the curriculum and admissions procedures as a result of cadet participation in these activities during the summer of 1963. Since the students selected for Boys State are carefully screened for their general leadership and scholastic abilities, they represent an excellent source of potential future leaders. The fine student response to the cadet visits, and the success of cadets who attended Boys State while in secondary school continue to substantiate the value of this effort.

While somewhat less emphasis has been placed on the assistance efforts of local West Point Societies, Association of the United States Army Chapters, and other interested civic and military groups during the past year, their responses to the goals of the Admissions Program have been highly commendable. The Admissions Office continues to provide those active groups with periodic news bulletins of pertinent facts on admissions and related areas from which they may plan programs to fit the capability of the members. Admissions Officers make it a practice to keep contact by mail and personal visits with all active groups and offer guidance and assistance as requested.

The Class of 1967 entered the Academy on 1 July 1963. Appointees were selected for admission from the following categories:

		Number Admitted
Congressional		628
Competitive		
Regular Components:	28	
Reserve Components:	17	
Presidential:	28	
Honor Military Schools:	18	
Sons of Deceased Veterans:	10	
	101	101
Foreign Cadets		
Philippine:	1	
Others:	2	
	3	3
Additional Appointees:		92
		824
Number nominated and examined:		3104
Number qualified on entrance examination: (academic, physical aptitude & medical)		1478
Number admitted:		824
Number qualified for admission but no vacancy available:		654

The characteristics of the Class of 1967 are illustrated by the following statistics:

Rank in Secondary School Class	No.	Per Cent
Top Quintile	625	76.1
Second Quintile	150	18.3
Third Quintile	40	4.9
Fourth Quintile	6	0.7
Fifth Quintile	0	0.0
Valedictorians	52	6.3
Salutatorians	43	5.2

Average College Board Scores:

Scholastic Aptitude	Verbal	568
	Mathematics	644
Achievement	English Composition	556
	Mathematics	627

Co-Curricular Activities in Secondary School:

	No.	Per Cent
President of student body or senior class	134	16.3
Editor of school publication	82	10.0
Athletic team captain	283	34.5
All-State or All-Conference athletic award winner	191	23.3
Debate team member	104	12.7
Boys State delegate	181	22.0
Club president	325	39.6
Eagle Scout	77	9.4
Athletic team letterman	610	74.3

There were 218 cadets (26.6%) who had a semester or more of college prior to admission to USMA.

The graduating strength of the Class of 1964 was 565. Of this group, 491 were commissioned in the Army, 66 in the Air Force, and 3 in the Marine Corps. Two graduates did not receive commissions and three graduates were from foreign countries.

IX. EXPANSION LEGISLATION

On the 17th of February 1964 Congress passed and forwarded to the President for signature legislation to standardize the authorized strengths and the appointment categories for the three Service Academies. This legislation - now identified as Public Law 88-276 - was signed by the President of the United States on 3 March 1964. In very general terms, this Bill -

Increases the authorized strength from 2529 to 4417.

Provides each Member of Congress with five appointments (previously authorized four).

Increases the number of appointments available in most of the competitive categories and creates a new Congressional qualified alternate competitive category.

Makes the period of obligated service five years (previously the obligation had been four years).

The 1888 additional cadetships have been allocated to the appointment categories as shown in the tabulation below which compares strengths prior to and after enactment of Public Law 88-276.

NUMBER OF APPOINTMENTS AUTHORIZED

Appointment Category	Prior to Enactment of P L 88-276	By P L 88-276	Appointments Added
CONGRESSIONAL			
435 Representatives	1740	2175	435
100 Senators	400	500	100
Vice Presidential	3	5	2
District of Columbia	6	5	(-1)
Canal Zone	2	1	(-1)
Puerto Rico	4	6	2
Guam, Virgin Islands, Samoa	1	1	0
COMPETITIVE			
Sons of Deceased Veterans	40	40	0
Army:			
Regular Components	90	340	250
Reserve Components	90	340	250
Presidential	89	300	211
Honor Military and Naval Schools	40	80	40
Sons of Medal of Honor Winners	Unlimited	Unlimited	0
Congressional Qualified Alternates		600	600
Foreign Cadets	24	24	0
TOTAL:	2529	4417	1888

In drafting the expansion legislation Congress specified that the additional Congressional appointments would be the first to be filled as space for additional cadets becomes available. Accordingly, for the Class of 1968, the senior Senator from each state and Representatives elected from even-numbered and at-large districts received their fifth appointments to West Point. The remaining Congressional members received their fifth appointments to the Air Force Academy. For the Class of 1969 the Academies will offer fifth appointments to Congressional members in the reverse order.

Assuming that funds will be provided on a timely basis for the construction of facilities needed to accommodate 4417 cadets, the planned build-up of the Corps should follow the schedule shown below:

PROGRAMMED STRENGTH OF THE CORPS

Academic Year	Corps Strength
1963-64	2529
1964-65	2729
1965-66	2929
1966-67	3129
1967-68	3329
1968-69	3601
1969-70	3873
1970-71	4145
1971-72	4417
1972-73	4417

X. EXPANSION PLANNING

The Plan that has been developed by the Military Academy, and approved by Department of the Army, for the expansion of facilities to support a strength of 4417 has these basic features:

It makes use of the results of professional master planning accomplished at West Point over the past several years.

It provides for the modernization and enlargement of the existing Cadet Mess Hall, Barracks, and Academic Complex substantially in place, and the construction of a major by-pass road for public traffic entering and leaving the Post.

It preserves in major degree the West Point scene as it has long been known, but provides for the replacement of some buildings which are out dated and inefficient by today's standards.

It adheres to the traditional standards of quality which underlie the academic, military, and physical education programs of the Academy.

It entails construction costs of approximately $110 million (1962 Base). Of this sum, approximately $44 million are required for improvements for current strength and $66 million are solely to meet expansion needs.

The predominant deficiencies in the Academy's physical plant are those associated with age. The complex of cadet barracks dates from 1851 to as recently as 1962 when the new South Cadet Barracks were completed. Bartlett Hall, formerly known as the East Academic Building, houses the Departments of Mechanics, Physics and Chemistry, and Electricity. The oldest section of this building was constructed in 1913 and a newer section added in 1938. The hospital has grown on a piecemeal basis over a span of many years coinciding with the growth of the Corps of Cadets. The Gymnasium was initially constructed in 1910 and additions thereto were made in 1935, 1938, and 1947.

The Academy lacks an auditorium of adequate size to accommodate the present Corps of Cadets. It does not have a modern post theater. In lieu thereof a large room in the Gymnasium in which movable chairs have been placed is used. Cadet reception and indoor recreational facilities are scattered throughout numerous locations and none is large enough to accommodate a major portion of the Corps. The need has long existed for an adequate building to provide for such activities. Certain support facilities, notably those of the Military Academy Band are old and severely limited.

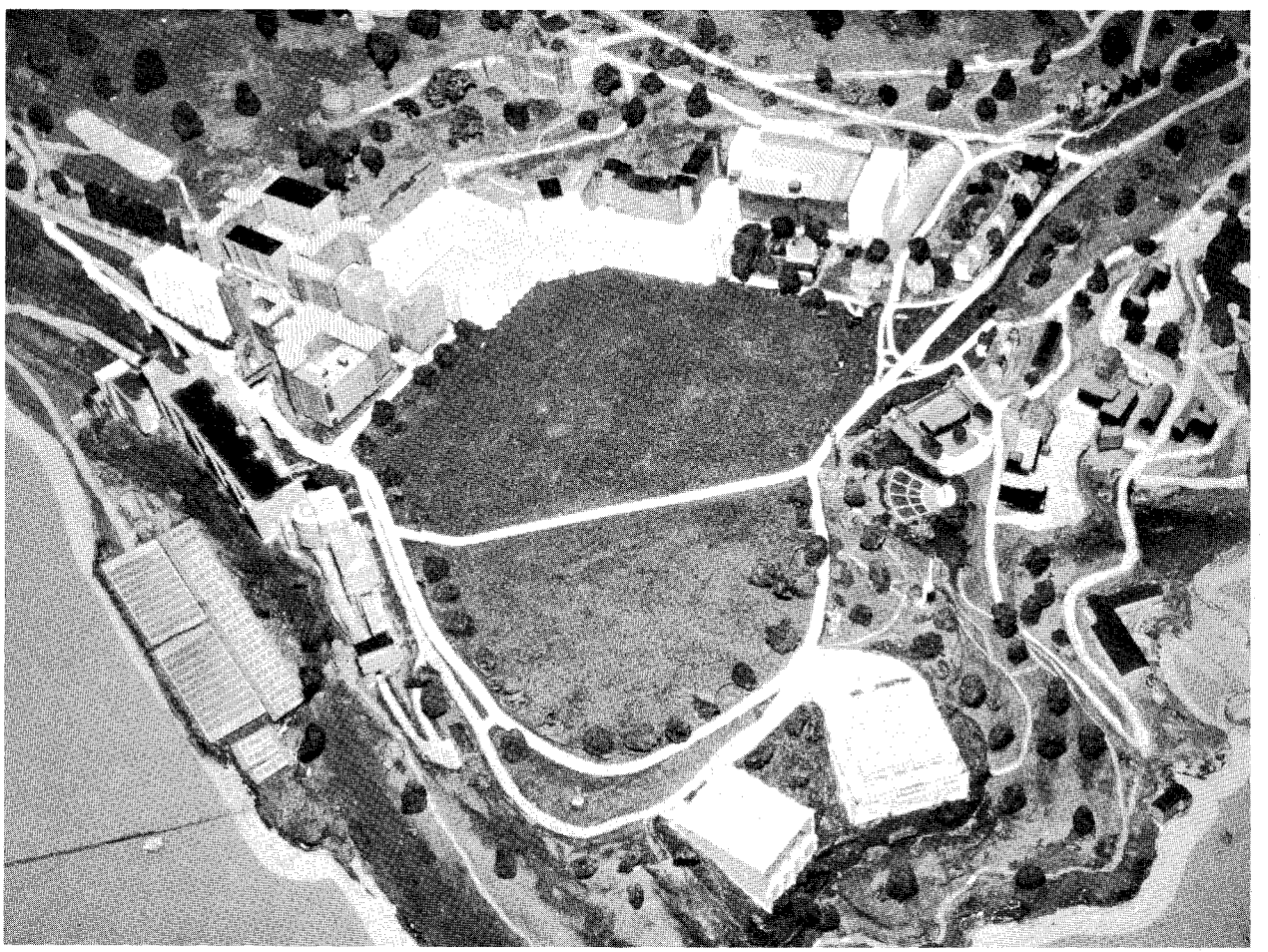
Washington Hall houses the Cadet Mess, the Office of the Treasurer with its attendant cadet store and cadet uniform manufacturing facilities, and the offices and classrooms of the Department of Earth, Space and Graphic Sciences. It dominates the cadet area and the Parade Ground as it is normally viewed by the public. The foremost facility problem faced by the Academy is the need for additional dining space and food preparation areas in the Cadet Mess. A maximum of 3200 cadets can be seated and served at one time in the existing mess hall under conditions of significant overcrowding. Its rated capacity in terms of space standards prescribed by the National Fire Code is 2200 cadets.

The terrain precludes the expansion of this facility to the south. It can be readily expanded to the northeast by infringing, in minor degree, on the area of the Plain where Thayer Monument now stands. This area is utilized mainly during June Week for alumni exercises.

Central Barracks and North Barracks, the two oldest at the Academy, are inefficient, out dated, and require major rehabilitation. They make poor use of the premium real estate upon which they are sited. Narrow in width, they were designed on the vertical division concept which provides, over a height of four floors, a number of vertical independent divisions of rooms without lateral access to adjoining divisions except from the stoops. The Academy's newest barracks were designed on a horizontal concept, are wider, provide more usable space, contain five floors

within the same height as four in the old barracks, are more efficient, better utilize the ground on which they are sited, and reflect standards of quality and efficiency far superior to those in Central and North Barracks.

Costs associated with major rehabilitation of these old barracks would be nearly as great as those encountered in new construction, and possibly greater. From an engineering standpoint, rehabilitation is impracticable because of the narrow shells in which the barracks are housed. The forward expansion of Washington Hall permits the replacement of these barracks and their reconstruction and enlargement in place with a capacity adequate for replacement and expansion needs. The overall plan has been developed around this concept.



The above picture illustrates in perspective the main cadet area as it will appear following the completion of major rehabilitation and new construction required to support the expansion program. A forward extension and enlargement of the Cadet Mess,

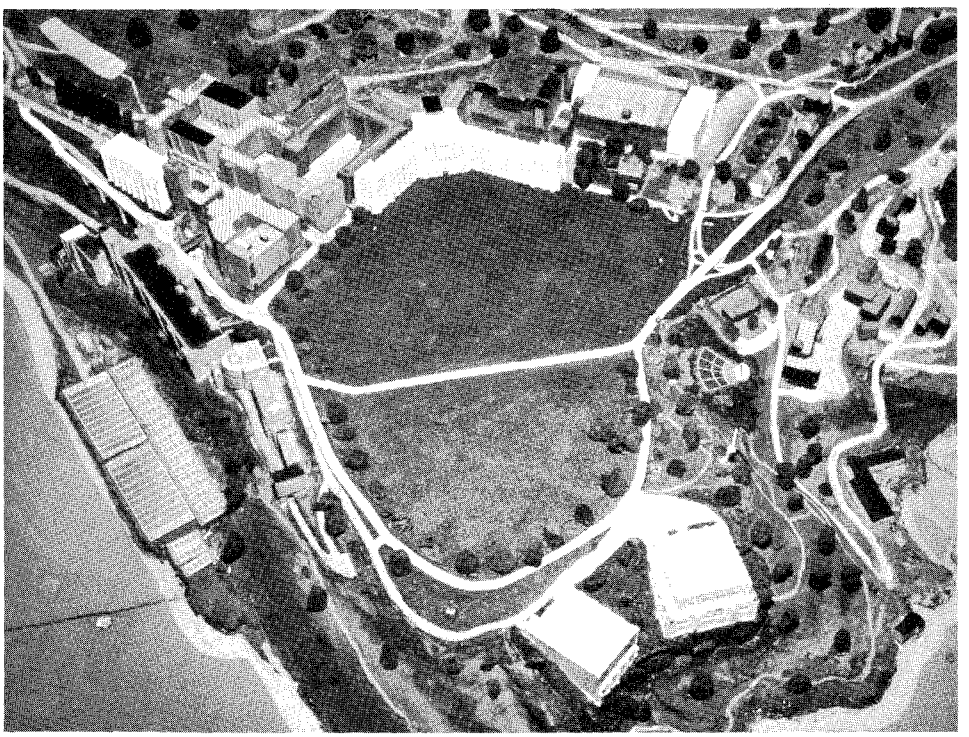
fully integrated with a new and enlarged barracks complex replacing old Central and old North Barracks is planned. A north addition to the Cadet Gymnasium is to be constructed. A new Science Building will be built immediately south of Post Headquarters. A major by-pass road for public traffic will be constructed, thereby permitting that portion of Thayer Road which bisects the Plain today to be eliminated entirely. Traffic congestion within the cadet area will thus be substantially reduced, and the resultant Plain will be enlarged from the standpoint of availability for parades.

The expanded dining and kitchen facilities will be able to serve a maximum of 4,500 individuals at one time. This capacity is adequate to permit members of visiting athletic teams and selected other official visitors to the Academy to be fed in the Cadet Mess as is the current practice.

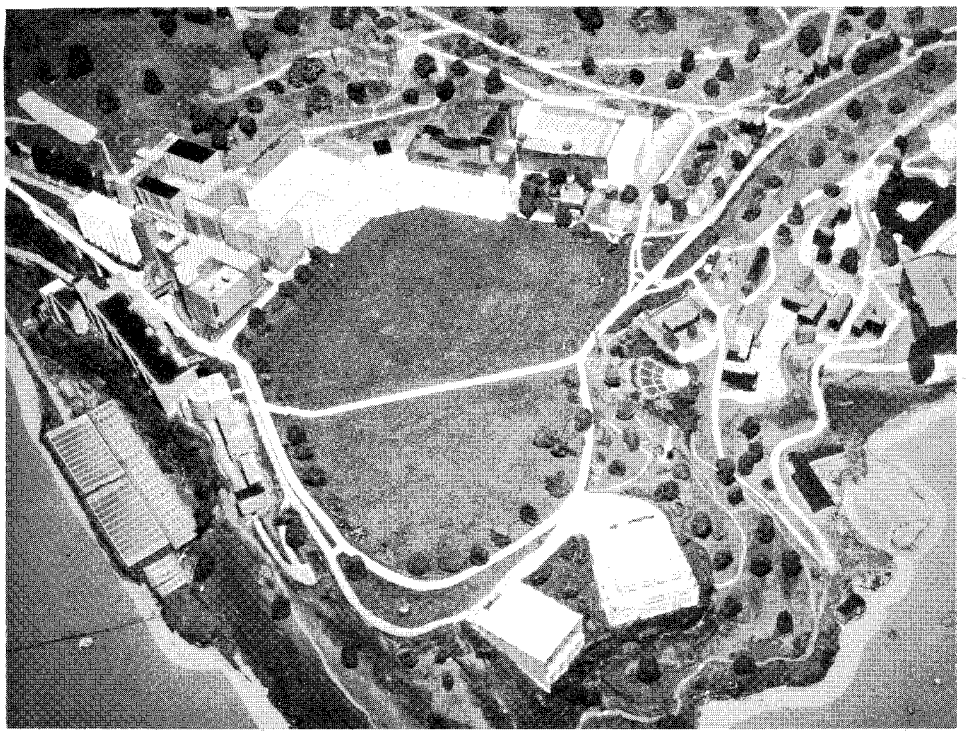
The north, west, and south sections of old Central Barracks were completed, respectively, in 1851, 1882, and 1921, while old North Barracks was completed in 1910. New barracks will be constructed generally on the site and to the Plain side of the old barracks. The reconstructed barracks will provide housing space for approximately 2,550 cadets billeted substantially two to a room. Central and North Barracks currently contain a total of 405 cadet rooms housing approximately 820 cadets.

The additional space created in the upper floors and basement of Washington Hall by new construction and relocations will adequately meet the expansion requirements of the Department of Earth, Space and Graphic Sciences (now located on the fifth floor of Washington Hall) and will permit the relocation of the Department of Foreign Languages from Thayer Hall to Washington Hall. The Department of Tactics will also be relocated from Central and North Areas into Washington Hall. In this way additional space will become available for expansion in Thayer Hall for those academic departments scheduled to continue in that facility. Apart from space to be provided in Washington Hall, the requirements for additional academic plant would be substantially met by constructing a new science building.

It is proposed to phase the barracks construction as shown on these diagrams:



First, the addition to Washington Hall and barracks for approximately 1,224 cadets will be constructed as shown here prior to demolition of existing barracks.



Next, new west and south wings in the Central Barracks area will be erected after removal of existing buildings.

The final increment of barracks will be built in the north area after the dismantling of old North Barracks.

The need for a cadet union complex (including an auditorium), in which the Corps of Cadets can be assembled as a group for major lectures, concerts, and important cultural events, has long been recognized in the past by the Board of Visitors. The picture of the main cadet area on page 68 shows the cadet reception and recreation building and its companion facility, the auditorium, sited below the level of the Plain overlooking the Hudson River to the north. Trophy Point has been preserved.

In the interest of grouping like facilities together and reducing vehicular traffic in the cadet area, this plan provides for siting new construction and for relocation of certain facilities, as necessary, to permit the following:

Concentration of enlisted military troop units, with their attendant support facilities, in the Thayer Gate area where they are for the main part now located.

Reservation of the main cadet area for use by cadets and agencies in their immediate support.

Construction of a major new family housing area at Stony Lonesome with attendant utilities, roads, and parking facilities. This development will permit the construction of additional housing as may be required during future years.

Centralization, in the service area, of facilities of a type normally found in a public shopping center, such as the Post Exchange and Commissary.

Grouping in the Washington Gate area of major industrial facilities such as the consolidated maintenance shops and laundry.

The Academy Hospital lacks many of the design features and facilities associated with modern hospital construction. Clinical facilities are overcrowded. The present operating rooms and attendant facilities are outdated and outmoded.

The close proximity of the hospital to cadet barracks and Thayer Road is undesirable from the standpoint of the noise and congestion to which it is exposed. Major rehabilitation would be costly, difficult, and would adversely affect patient care while construction was in progress. For these reasons the construction of a new hospital along the periphery of and away from the congested area of the Post is planned.

The present hospital building will be used to house the Post dental clinic, a cadet dispensary, and selected activities

of the Treasurer which must be relocated from Washington Hall and should remain in the cadet area. These include the Treasurer's Office, offices for cadet pay and accounts, the cadet store, and cadet uniform manufacturing facilities.

Highway traffic entering and leaving the post is funneled through Thayer, Washington, and Lee Gates. Two additional main gates are planned with the expansion utilizing Goethals Trail and Stony Lonesome Road, which will serve the new housing area and divert much of the heavy traffic from the central area of the Post. The proposed road by-passing the Plain will likewise materially alleviate traffic congestion. The precise manner in which this road will be routed and constructed has not yet been determined pending additional traffic surveys and engineering studies which will be required for the purpose.

The total cost of the proposed facilities program is $110 million. Not included within this total are some seven lower priority projects identified in the Academy's Master Plan as deserving of funding from gifts to the Academy or other non-appropriated funds which may be received in future years.

Construction costs at West Point have long been among the highest in any area of the continental United States because of the prevailing market and extensive rock encountered in site preparation throughout the reservation.

Approximately $15 million can be expended annually for new construction without inflationary costs being incurred, The availability of skilled labor from nearby areas being the limiting factor. Funds for new construction can be obligated at a much higher rate, however, since major buildings require several years for completion.

The Academy's Master Plan for major construction can be completed in approximately eight and one-half years. Cadet strength will increase as facilities become available.

On 10 March 1964, the Architect-Engineering firm of O'Connor & Kilham of New York City was hired by the Corps of Engineers to supervise initial design and the preliminary planning associated with the overall expansion program. O'Connor & Kilham was additionally given the task of designing the Washington Hall-Barracks Complex. Since mid-March, West Point has worked closely with the architects and the offices of the New York District. Besides preliminary design and studies of the Washington Hall addition, preliminary plans, site investigation, and ground borings are also proceeding for the other major expansion projects.

The Military Academy received $2 million for the rehabilitation and modernization of Bartlett Hall in its Fiscal Year 64

MCA authorization. This rehabilitation project as originally conceived by the Academy was estimated to cost $3,500,000. The Secretary of Defense established a ceiling of $2,000,000 for the project, which amount was appropriated by the Congress. In order to permit rehabilitation to be accomplished within the limits of this appropriation, previous plans had to be substantially revised. Provision for the major renovation of classrooms was eliminated, and the scope of air conditioning as originally contemplated was materially reduced. The contractor started work on this project in June of 1964 and the planned completion date is December 1965.

During the rehabilitation of Bartlett Hall, two academic departments will be displaced. The Department of Electricity will occupy offices on an interim basis in the space planned for Archives on the fourth floor of the new Library. The Department of Mechanics will occupy offices in the Moore Wing of the Library. Rehabilitation work required in the Department of Physics and Chemistry, which is also located in Bartlett Hall, will be accomplished during the summers of 1964 and 1965 when classes are not in session. Classroom space for these departments will be gained by rescheduling the morning periods for some classes into three seventy-five minute periods. This scheduling will eliminate the two-hour laboratory periods which were possible under the old schedule in that the laboratories will be unavailable while rehabilitation is in progress. However, the Department of Electricity will conduct some laboratory work in the classroom and the Department of Mechanics will use closed-circuit television to show pre-taped laboratory experiments and will hold some seventy-five minute periods in laboratories not in Bartlett Hall.

XI. WEST POINT SUPERINTENDENT'S FUND

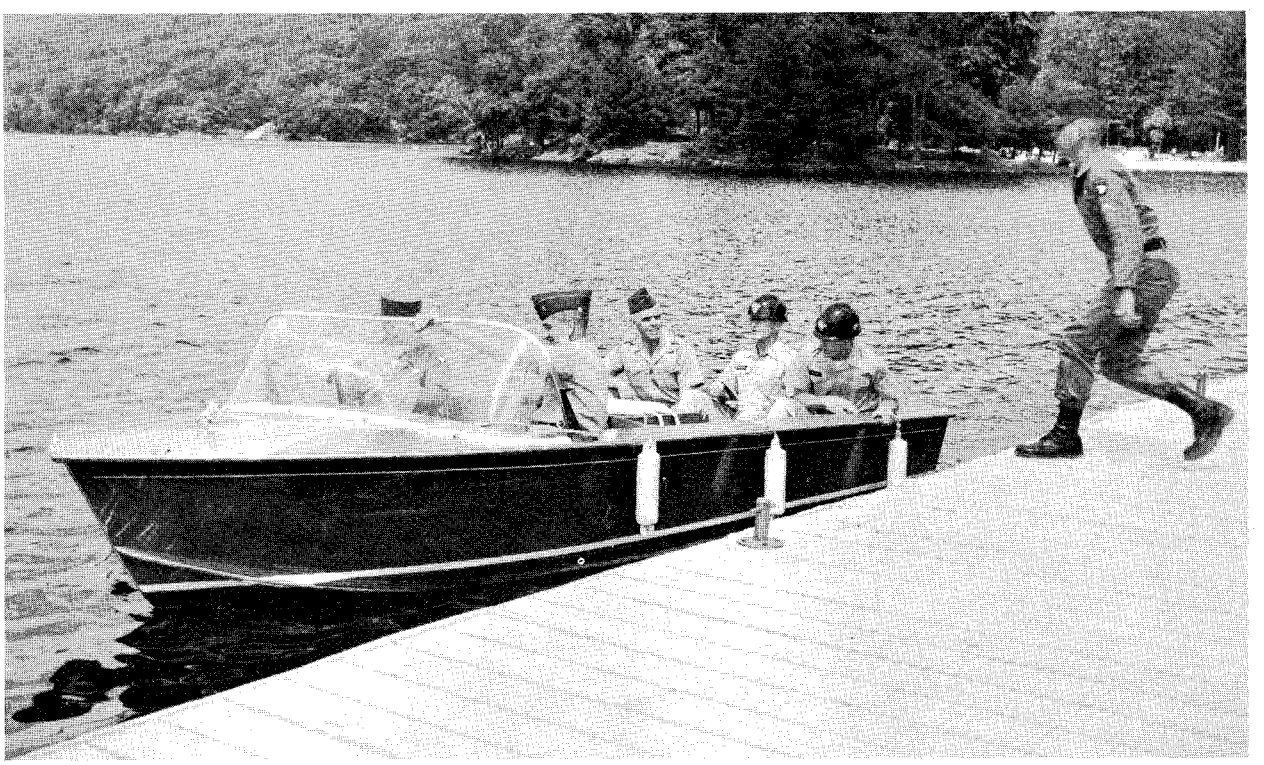
During the year covered by this report, the West Point Superintendent's Fund has continued to grow and to justify its existence, confirming the endorsement of the Fund by the 1964 Board of Visitors.

Realizing that any successful program of fund solicitation for a school must first demonstrate a reasonably successful attempt at solicitation of its own alumni, the Fund Committee, composed of senior alumni, headed by General Lucius D. Clay had conducted an extensive campaign of the alumni of West Point. To date personal letters have been sent to all graduates of the older classes to include the Class of 1946. This operation is continuing.

The Fund Committee has also concluded that serious consideration should be given to the matter of obtaining funds from

industry. In the very near future, the Committee is planning to initiate an industrial fund campaign on an exploratory basis.

The success of the Fund is manifested by the results. During the year, $25,000 were expended upon the renovation, rehabilitation, and refurnishing of Benet Hall within the First Class Compound to create a social and guest hall for guests of the First Class. Two-thousand, eight-hundred dollars were expended for the purchase of a motor boat for water skiing at Camp Buckner; $5,800 for improving the snow-making capability on the ski slope; $2,700 to permit three cadets to participate in Operation Crossroads Africa; $3,000 for maintenance work on the chapel organ. To date the total cumulative funds (including $38,500 worth of securities) donated to the Superintendent's Fund are approximately $413,000. Included in this total are several relatively large gifts such as $200,000 for the construction of the amphitheater and $26,000 for the ski lift. In arriving at these total figures, approximately 150 gifts of $100 or more have been made, with some donors making more than one gift. Currently, the Superintendent's Fund Plaque, listing the major contributors, carries the names of 72 contributors of $1,000 or more.



The long-term permanency of the Fund is strengthened by sums set aside in the wills of alumni and friends. Available information from those who have chosen to inform the Academy is that some $317,250 are included in bequests to the Superintendent's Fund.

XII. POST MANAGEMENT AND FACILITIES

Funds provided by Department of the Army in FY 64 for operation and maintenance of the Military Academy and for support of family housing facilities proved adequate for normal operations and permitted a modest reduction of the deferred maintenance backlog. In addition to the basic funding program of $19,510,000 established by Department of the Army for programmed requirements, $135,000 was provided to insure timely logistical support of the 200 additional cadets arriving in July 1964 as the first increment of the buildup of the Corps of Cadets under the expansion program. Other increases which were received to offset operating deficits in the Army Hospital and Family Housing activities and the funding of certain deferred maintenance projects late in the fiscal year resulted in a final program for FY 64 of $20,198,000 or approximately $1.2 million above that required for FY 63. Apart from the $135,000 received to support the larger entering class in July 1964, the increase reflects $400,000 for furnishings for the new Library completed in March 1964, $350,000 to support mandatory pay increases of wage board and classified civilian employees, and year-end funding of approximately $441,000 for deferred maintenance projects.

Department of the Army directed USMA to effect a manpower reduction of 49 enlisted men and 43 civilian employees during the fiscal year. By mid-year, reduction of the enlisted strength was complete, and civilian employment had been reduced by 22.

Further reductions were suspended when Department of the Army directed the Military Academy to initiate the Academy Expansion Program beginning with the next (July 1964) entering class. A portion of the FY 65 expansion increases received in the last two quarters of FY 64, modified by the 43 space reduction, resulted in an authorized permanent civilian ceiling of 2,021 at fiscal-year end.

The officer authorization was increased by 10 spaces for a new total of 584. The 10 additional spaces were in exchange for 12 enlisted men in the Office of Military Instruction, Department of Tactics. Actual officer strength at the end of the period was 585.

The enlisted authorization was reduced a net of 52 spaces during the year, from 888 to 836. The reduction included 49

spaces which were part of the Department of the Army directed manpower cut and 12 spaces returned to Department of the Army in exchange for 10 officer spaces for the Office of Military Instruction. These reductions were offset by an increase of nine spaces distributed as follows: 3 for the Academic Computer Center, 3 for the Adjutant General, and 3 for the Army Hospital. Actual enlisted strength at the end of the year was 906.

The Expansion Planning and Control Office was established on 3 December 1963 under the directorship of Colonel C. R. Broshous. This newly formed activity will report directly to the Superintendent and is responsible for providing centralized planning, direction, coordination, and control over all matters related to the Academy Expansion Program.

A reorganization was effected to reflect the transfer and interchange of maintenance and supply functions of the former Ordnance and Quartermaster Divisions to the newly established Maintenance Division and Supply and Services Division. Consolidation of maintenance and supply activities under single managers resulted in an organization designed along functional lines rather than the former commodity (technical service) basis and conforms with current Department of the Army organizational doctrine.

As part of the DA Cost Reduction Program, the Academy was assigned cost reduction goals in three areas, i.e., improving real property management ($60,100), administrative vehicle management ($66,000), and improving family housing management ($20,100). Of the combined goal in these three areas of $146,200, actual cost reduction savings for FY 64 amounted to $174,800 or 119.5% of the overall goal. In addition, although not currently reportable under this program, substantial savings have been effected in other areas through use of competitive bidding techniques, reduction in summer troop augmentation, etc.

Considerable progress has been achieved in recent years in reducing the amount of resources used for contractual alterations and minor improvements. During FY 62, 19% or $650,044 of the total funds available for R&U maintenance and repair were used for alterations and minor improvements. This amount was reduced to 9.6% or $322,451 during FY 63, and to 8.2% or $292,127 during FY 64. This reduction has provided more funds for critical deferred maintenance and repair projects.

In FY 64 the following construction projects and additions to major Post facilities were in progress:

New Library - The new Library was completed on 23 March 1964.

West Point Army Mess - The new extension, containing the Pierce Dining Room, was opened on 15 September and dedicated on 28 September 1963.

Maintenance Hangars - The completion of the rehabilitation of the two Maintenance Hangars, Buildings 793 and 795, in November 1963 facilitated the organization of a Maintenance Division, which includes Motor Maintenance, Office Machine Repair, Small Arms Repair, and Canvas Repair. All of these functional units are now housed within the two hangars.

South Fill Tennis Courts - The twenty-four additional tennis courts and an access ramp from the upper level near the West Point Army Mess were completed in April 1964.

Benet Hall - Rehabilitation of Benet Hall, made possible through funds allocated from the Superintendent's Fund, commenced in March 1964. The rehabilitation will provide an adequate lounge and reception center for the First Class.

Hotel Thayer - The rehabilitation of the utilities systems and the addition of air conditioning in the Thayer Hotel was completed in May 1964, providing excellent accommodations for guests and visitors at West Point.

Camp Natural Bridge - The expansion of facilities at Camp Natural Bridge entailing the construction of an addition to the existing mess hall, construction of four new barracks and a new latrine was completed in March 1964. The addition of these facilities allows more summer support troops to be billeted at Camp Natural Bridge much closer to their primary training areas.

The Engineers of the United States Military Academy, United States Naval Academy, and the United States Air Force Academy met 26-28 February 1964 at the Air Force Academy to get acquainted, exchange general information, examine costs and cost trends in engineering, become familiar with each other's current and programmed improvements and expansions, and establish a basis for future exchange of mutually beneficial information, ideas, and suggestions. Their next meeting is tentatively scheduled for September 1964 at West Point.

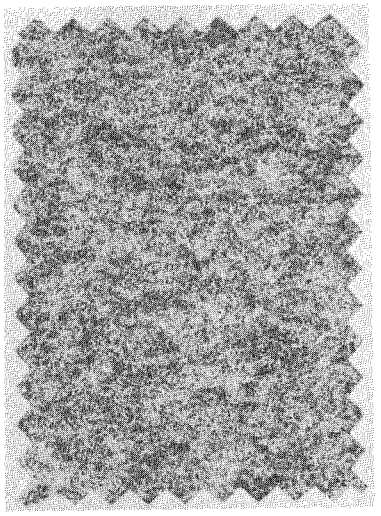
On 1 April 1964, the USMA Fire Department celebrated the observance of its 125th Anniversary, which had been delayed pending completion of the new 200-unit fire reporting switchboard and Fire Alarm Control Center. The switchboard replaced a deteriorated and outmoded 100-unit board for which many parts could be obtained only by special fabrication. All of the Department's fire reporting equipment has now been placed in the Control Center from which the fireman on duty can speedily and effectively

receive all fire alarms as well as other business. The new switchboard and other fire alarm equipment will be adequate to care for the additional requirements imposed by the expansion of the Academy.

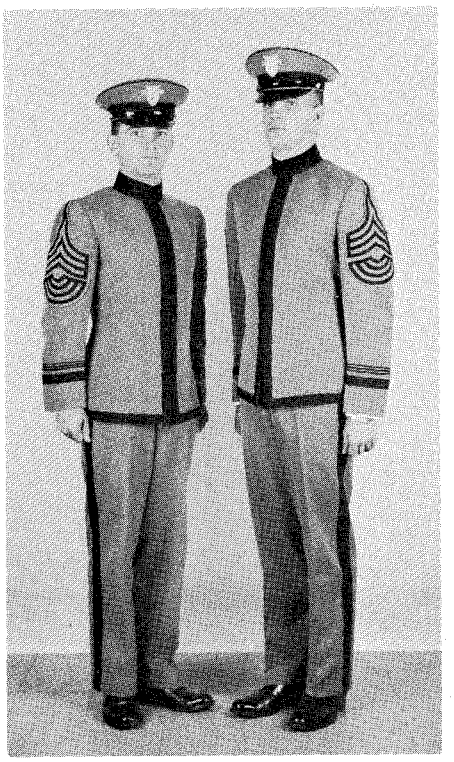
Based upon studies conducted by the Engineer Division, it has been determined that approximately 400,000 board feet of timber can be harvested annually from the Military Academy reservation. The long range continuous forest inventory (CFI) program, reveals a total net volume of 48,944,000 board feet and 53,000 cords. The Military Academy's inventory program has been established in coordination with the U.S. Forest Service and makes use of machine data processing techniques. The harvesting program is designed to insure sustained productivity of desirable timber species, prevent waste of the resource, and provide an improved wildlife environment (the reservation recently received an experimental stocking of snow-shoe rabbits and is scheduled for stocking with wild turkeys in the future).

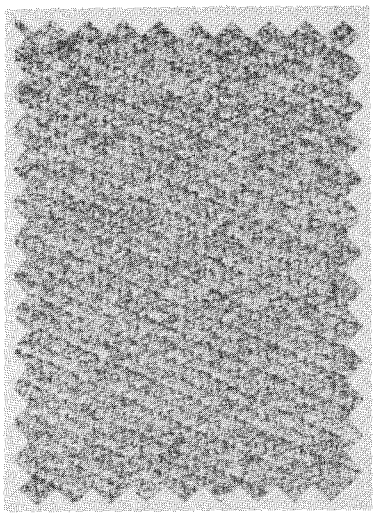
A study was initiated by the Academy in 1960 at the suggestion of the Quartermaster Research and Engineering Command to find a suitable substitution for Kersey, the cloth used for cadet clothing. A replacement cloth appeared desirable in light of the shrinking market for Kersey cloth and the rising costs accompanying the decreasing demand. Based upon recommendations submitted by the Industry Advisory Committee to the Quartermaster General, a number of test fabrics were selected and complete wardrobes were made for sixteen cadets. After a year of closely evaluating the test fabrics, the Uniform Committee in December of 1963 submitted their recommendation to the Superintendent that the 24 oz and 29 oz Kersey cloth be replaced by 19 oz and 24 oz Elastique. Elastique was the only test fabric found superior to Kersey in the critical areas of resistance to wear and crease retention. The appearance and drape of Elastique is equal to Kersey when new and superior to Kersey after extended wear. In adopting Elastique for cadet uniforms the Military Academy has taken a major step toward providing a lighter weight, finer appearing, and more durable uniform for the Corps of Cadets.

Kersey cloth currently costs $5.00 per yard for 24 oz fabric and $6.08 per yard for 29 oz fabric. It is estimated that Elastique will initially cost $1.00 more per yard in the 19 oz and 24 oz weights. Applied against the entire four-year cadet wardrobe, this would result in an increase in cost for the individual cadet of approximately $20.00. It is anticipated that this cost increase would be more than offset by savings realized in reduced maintenance costs and a probable reduction in the number of garments issued.



Standard Kersey
All Wool, 24 oz.





Elastique
All Wool, 19 oz .

Based on observation of test garments worn by selected cadets the transition from Kersey to Elastique can be made with little or no problem from the standpoint of an acceptable appearance of the Corps of Cadets. From a distance of 15 feet it is difficult to distinguish the difference in fabric. Trousers and blouses must be matched by fabric but overcoats of either fabric can be worn.

A change in uniform fabric will result in a transition period when both the old and the new fabrics are being worn in the Corps. It is estimated that the transition period will extend from July 1965 through June 1970.

Analysis of the operation of the U. S. Hotel Thayer for the year reveals an increase in net income of 132% over the previous fiscal year's operation. This increase is attributable principally to an improved occupancy rate, 48%, and the resultant increase in food and beverage sales.

On 4 May 1964, a Transportation Household Goods Symposium was conducted by the Transportation Officer for the purpose of improving the quality of service in handling of outbound and inbound household goods shipments. Representatives of twenty commercial carriers and local agents serving this installation attended. This was the first Household Goods Symposium conducted at this installation. The representatives attending were extremely receptive and indicated that getting together to discuss mutual problems in this manner should be continued on an annual basis.

The general transport administrative motor vehicle fleet was reduced by 10% in FY 64 over FY 63. Operational efficiency has not been impaired by this reduction. In addition, seven military design vehicles were replaced with commercial design vehicles. These actions resulted in a capital investment savings of over $120,000.

The telephone communication cable from West Point to Camp Buckner was replaced by a new aerial cable of increased capability. The replaced cable was economically beyond repair and was unreliable for communications to Camp Buckner.

In May of 1964, the Military Academy's request for authorization to expand and improve the main Post Exchange was approved by the Board of Directors, Army and Air Force Exchange Service. The Exchange will occupy approximately 14,000 square feet (an increase of 7,800 square feet) on the third and fourth floors of the utilities building (667). This project, tentatively scheduled to be completed in late June of 1965 will cost approximately $250,000.

Approximately three-fourths of the obsolete equipment in the USMA Laundry and Dry Cleaning Plant was replaced with modern equipment. The productive capacity of the plant has been increased to the extent that all laundry and dry cleaning piece limitations to the Corps of Cadets have been removed. Through development and implementation of engineered standards in the dry cleaning plant, the average number of pieces produced per employee per year has increased from 24,412 pieces per employee to 26,588 pieces per employee.

Units of production in the Printing Plant were increased by 8.1 million over 1963 to an all time high of 44 million units. The addition of modern equipment, the improvement of work techniques, and continuing superior management reduced printing costs and provided outstanding service to the Academy and to its many visiting conference groups.

Final preparations for installation and operation of a 1401-G Data Processing System were completed, and a number of additional engineering, administrative, and financial program support projects were mechanized during the year.

Procedures adopted by the Finance and Accounting Office, in line with Department of the Army's Military Pay and Allowance Quality Improvement Program, have proven to be highly accurate and efficient means of military pay administration. Quality Assurance Data Reports prepared by the U.S. Army Finance Center after auditing regular monthly military pay vouchers during the months of January, February, March, April, and May 1964 revealed an average error rate of 0% for West Point compared to the Army-wide error rate of 1.5% for the calendar quarter ending 31 March.

Throughout the month of May 1964, the Military Academy's Annual Savings Bond Program was conducted with the objective of raising the level of participation by Post personnel in payroll savings to 65% - the Department of the Army goal. After a month-long canvass the level of participation by military and civilian employees of the Post was increased from 45.5% to 53.7%. At the conclusion of the drive 66.6% of the assigned military personnel participated in payroll savings (vs. 55.0% at the beginning of the drive). The level of participation by Department of the Army civilians was increased from 43.8% to 55.0%. In recognition of the results achieved during the 1964 canvass, the Military Academy received a citation from the United States Treasury Department.

Army Emergency Relief, Community Chest, and the American Red Cross were supported through fund campaigns conducted at West Point during FY 64 in accordance with AR 600-20. The total amount collected during the campaigns was nearly $21,000. The 1963 total was $19,000. All 1964 monetary goals were exceeded.

The Civilian Personnel Division filled 902 vacancies during the year - 148 through merit promotion, 208 through placement reassignments, and 546 from outside the Academy.

A locality wage survey conducted during March resulted in upward revisions, ranging from 2.78% in the Printing and Lithographic Schedule to 3.68% in the Supervisory Schedule. Of authorized civilian positions, approximately 95% were reviewed for necessity and accuracy of grade.

Civilian Employee training was directed toward the development of increased competence. Eight hundred eighteen employees, including supervisors, received 9700 manhours of off-the-job training. Courses sponsored by non-government schools and colleges were attended by nine employees for a total of 749 hours. Eleven employees completed 302 hours of Army extension courses while two persons took private extension courses at their own expense.

Both civilian and military personnel participated actively in the Incentive Awards Program. Individual recognition was emphasized with Outstanding Performance ratings awarded 29 employees; eighty-eight employees received cash awards for Sustained Superior Performance; and six employees received Quality Step Increases. Two hundred one suggestions were adopted; cash awards amounted to $2190 while estimated savings of adopted suggestions totaled $36,948.

During the Academic Year 1963-64, a Devotional Chapel was established in the U.S. Army Hospital and was furnished entirely

through the donations of individuals and organizations at West Point.

A request submitted by the Military Academy to the Commissioner of Education, Department of Health, Education, and Welfare for authority to establish a sabbatical leave program for members of the professional staff of the Elementary School was approved in April. This program will make it possible for selected teachers to obtain sabbatical leaves for one semester at full pay after they complete seven consecutive years of service with the school. The West Point School Board proposed such a plan as a means of providing professional growth in service as well as fostering quality recruitment.

The Field Director of the American National Red Cross who is stationed at West Point is Mr. Clarence E. Vrooman. Mr. Vrooman, with the assistance of a small professional staff and a large number of volunteer workers, has provided a valuable service to the military community of West Point and nearby Service installations. The Red Cross rendered assistance to 1039 members of the Armed Services during the fiscal year with such matters as: verifications for leave and leave extensions, government benefits, health and welfare reports, personal problems, and financial emergencies. Financial assistance, through grants and loans, has been given in 141 cases. The amount involved was $13,392.15. Uniformed volunteers (Gray Ladies, Staff Aides, Nurse's Aides, and Volunteens) worked a total of 8,295 hours providing services at the Army Hospital, the Post School, the Mobile X-Ray Unit, and during the Blood Donor Program. During FY 63-64, 1,656 pints of blood were donated during two collections, one in the winter and one in the summer.

With funds provided by the First Army Central Welfare Fund, the Service Club and Library operated by the Special Services Division will be relocated to Building 622 at the south end of the Post. The $106,200 obtained from nonappropriated funds for this project will provide an excellent recreation facility for the enlisted personnel of the Post in a location that is convenient to the troop barracks.

Other improvements were made to the facilities operated by the Special Services Division: Numerous improvements were added to the Bowling Lanes (air conditioning, new lane conditioner, new lockers, new balls and shoes, paneling of rear walls and bricking in of unused doorways), new transformers were installed in Smith Rink to assure an adequate supply of electricity and new furniture was installed in the Social Room, and the Engineer Division repaired Crafts Shop equipment and acquired several major items of machinery.

The West Point Museum functions as a public museum housing

the largest single collection of military artifacts in this country. It also serves as a college museum for officers, cadets, and for public research and reference both here and abroad. The Museum Board also deals with the special problems of memorialization.

During the year, the Museum placed a total of 80 special exhibitions in Thayer Hall, the headquarters building of Department of Tactics, and Bartlett Hall. These displays were designed to supplement the curriculum of the Departments of English, Foreign Languages, Social Sciences, Military Art and Engineering, and the Fourth Class Military Heritage course.

In addition to its exhibit program, the Museum has many requests to loan or prepare special displays for specific events occurring off Post. The Museum staged an exhibit based on Academy history which was installed by the Museum staff in City Hall, Chicago, the week of the Army-Air Force football game. Special exhibits were also prepared for display in New York City in observance of Armed Forces Day at the request of Headquarters, First Army. An extensive loan was made via air freight to America House, Berlin, at the request of the U.S. Commander, Berlin. The theme of the exhibit was the History and Tradition

"The History and Tradition of the U.S. Army"
A display at America House, Berlin
Courtesy of the West Point Museum

of the U. S. Army from its inception to the present day. Other loans were made to the Army Chemical Center, Fort Meade, Maryland; New York State Exhibit, New York World's Fair; Portraits Inc., New York City; Headquarters, U. S. Army Information School, Fort Slocum, New York. In all, 1742 museum objects were loaned to officers, cadets and off Post agencies. The West Point Museum was the host museum for the 17th Northeast Museum Conference, which convened at West Point during the period 9-12 October. In attendance were 140 delegates from five states, the District of Columbia, and Canada.

The Museum also continued to supply information and advice to various public media. Use of Museum exhibits was made by ABC and NBC Television for programs dealing with the American Revolution. Life magazine, American Heritage, and other national publications made use of the Museum's holdings for articles on past wars and military leaders. Individuals both here and abroad continue to write for information on U.S. military weapons, flags, accoutrements, and history. The Museum staff provided information and photographs of museum objects totaling 1466 reference letters.

The Museum benefited by a variety of gifts. In all 347 gifts were catalogued including: a U.S. Army "General of the Army" flag presented by General Douglas MacArthur; set of silver spoons belonging to Benjamin Havens, presented by Frank H. Maguire; U. S. Schneelock Revolver, c. 1872, presented by Mrs. Mathilda A. Werner, President of the Kearney Museum & Historical Association; Oil Portrait of General John J. Pershing, presented by Dr. Erno Laszlo; bronze bust of General John J. Pershing, presented by the artist, Bryant Baker; cased set of sterling silver flatware presented by Mrs. Henry W. Cocheu; set of 54 mm French lead soldiers of Napoleon's Armies numbering over two thousand figures, bequest of the Honorable Selden Chapin; collection of U. S. and foreign knives and daggers, presented by Lieutenant Colonel J. H. Cabaniss. In addition, a number of objects were purchased through the kindness of Mr. Christian A. Zabriskie and other donors to the Gift Fund including a collection of early band musical instruments, a series of five figures representing various branches of the Grand Army of Napoleon I, and the fabrication of several reproductions of an American Rifleman's jacket and overalls.

Members of the Museum staff engaged in considerable planning and consultation concerning the acquisition of furniture for the Thayer office and study being reconstructed in the basement of Quarters 100. The Museum also catalogued and transferred as museum property all historic or valuable furniture, silver, and objects of art in Quarters 100 in addition to the paintings and prints already under Museum custody. Other areas requiring the consultation and planning of the Museum staff in furniture and

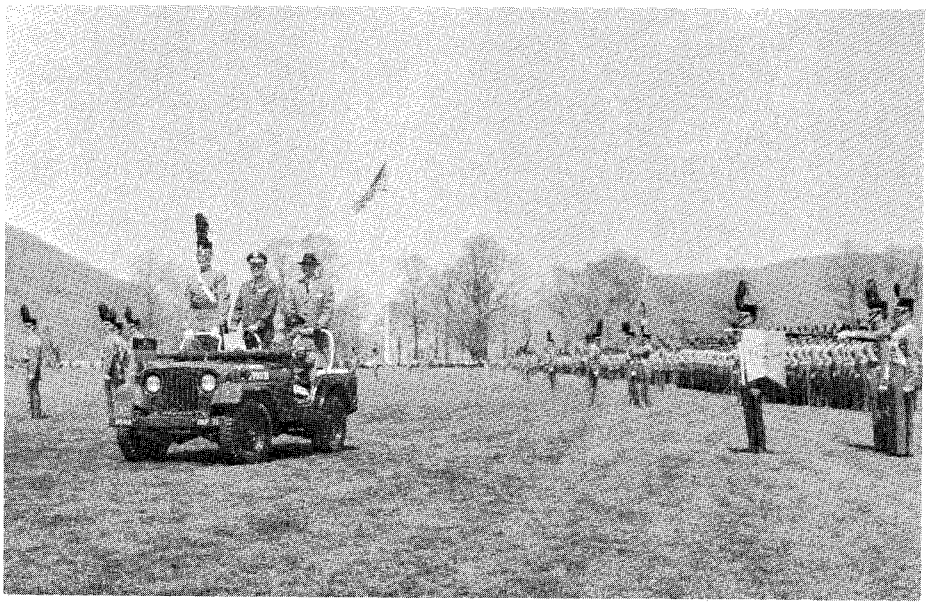
decoration were the new USMA Library, Nininger Hall, and the Thayer Hotel.

Several improvements have been made to existing exhibits and new displays have been added. A new diorama, the "Battle of Adrianople 378 AD" was added to the series of dioramas showing the evolution of military tactics. Two new military figures were added to the Museum's display of full scale figures, those of a U. S. Infantryman in modern battle dress and a WAC officer of the USAAF, World War II. Public Museum attendance for the year totaled 271,090.

On the 10th and 11th of September 1963 a group of sixteen leading Eastern businessmen and industrialists visited West Point for a general orientation and tour of facilities as guests of the Superintendent. The group included the Presidents of United Nuclear Corporation, Thiokol Chemical Corporation, Aluminum Company of America, AVCO Corporation, Ford Instrument Company, and Sperry Rand. Vice Presidents of General Time Corporation, Western Electric, Republic Aviation Corporation, Grumman Aircraft Engineering Corporation, Sperry Gyroscope, General Dynamics, and American Bosch Arma were also present for the orientation.

The biennial Army Science Conference was held at West Point during the period 16-19 June 1964. Three hundred and seventy-five scientific papers were submitted by military and civilian scientists engaged in research and development activities at Army research laboratories and other installations.

During the year approximately 4446 official visitors toured the Military Academy. It is estimated that the number of sightseers visiting West Point each year approaches two and one-half million. A partial list of distinguished visitors appears as Appendix L.



On Saturday, 2 May 1964, the Honorable Robert A. Lovett was presented the 1964 Sylvanus Thayer Award by the Association of Graduates for outstanding service and accomplishments in the national interest which best exemplify devotion to the ideals expressed in the West Point motto -- Duty, Honor, Country. In honoring Mr. Lovett, the Corps of Cadets presented a Brigade Review on the Plain.

APPENDICES

APPENDIX A

HEADQUARTERS
UNITED STATES MILITARY ACADEMY

SUPERINTENDENT
MAJOR GENERAL J. B. LAMPERT

GENERAL STAFF

Chief of Staff	Colonel Thomas C. Chamberlain
Secretary of the General Staff	Major Ernst E. Roberts
Special Assistant for Gifts & Memorials	Colonel Donald E. Wilbourn
DCS Personnel & Administration	Colonel Stephen Silvasy
DCS Logistics	Colonel Thomas H. Scott, Jr.
Comptroller	Colonel John J. Pidgeon

SPECIAL STAFF

Adjutant General	Colonel Earl F. Cole
Air Force Liaison Officer	Captain Robert A. Carlone
Alumni Secretary	Colonel Thomas M. Metz
Army Aviation Officer	Major Charles W. Mooney
Chaplain, Post	Lt Col Gordon Hutchins, Jr.
Chaplain, USMA	Reverend Dr. T. C. Speers
Chemical Officer	Lt Col Billy J. May
Civilian Personnel Officer	Mr. Joseph J. Stapleton
Dental Surgeon	Colonel Clarence E. Sheets, Jr.
Director of Admissions & Registrar	Lt Col Robert S. Day
Director of Athletics	Colonel Raymond P. Murphy
Director of Family Housing	Mr. Elliott W. Amick
Director of Music & Bandmaster	Lt Col William H. Schempf
Engineer	Colonel Riel S. Crandall
Exchange Officer	Lt Col Theodore H. Cook, Jr.
Finance & Accounting Officer	Lt Col John F. Rogan
Information Officer	Lt Col Everett O. Post
Inspector General	Lt Col George H. Welles
Military Personnel Branch, Chief	Lt Col Leonard P. Perna
Museum Director	Mr. Frederick P. Todd
Ordnance Officer	Lt Col Billy J. May
Provost Marshal	Lt Col Julien H. LePage
Purchase & Contract Officer	Lt Col Frank G. Everett, Jr.
Quartermaster	Lt Col Ivan B. Acker
Security Division, Chief	Major William J. Hodges
Signal Officer	Lt Col Arthur J. Sebesta
Special Services Officer	Lt Col Hilbert G. Jones

Special Staff - Continued

Staff Judge Advocate	Colonel Frederick C. Lough
Surgeon	Colonel Charles H. Gingles
Transportation Officer	Lt Col John E. Truog
Treasurer	Colonel Robert C. Borman
Veterinarian	Major Frank A. Ramsey

HEADQUARTERS
UNITED STATES CORPS OF CADETS

COMMANDANT OF CADETS
BRIGADIER GENERAL MICHAEL S. DAVISON

Deputy Commandant	Colonel Kenneth W. Collins
Director of Physical Education	Colonel Frank J. Kobes
Director of Military Psychology & Leadership	Colonel Auburon P. Hauser
Director of Military Instruction	Colonel Roland M. Gleszer
Commanding Officer, 1st Regt	Colonel Robert M. Tarbox
Commanding Officer, 2nd Regt	Colonel Archelaus L. Hamblen, Jr.

OFFICE OF THE DEAN

DEAN
BRIGADIER GENERAL WILLIAM W. BESSELL, JR.

Principal Assistant to the Dean	Colonel Jess P. Unger
Director of Academic Computer Center	Major William F. Luebbert
Librarian	Mr. Egon Weiss

ACADEMIC DEPARTMENTS	PROFESSORS
Earth, Space & Graphic Sciences	Colonel Charles R. Broshous Colonel William W. Watkin, Jr.
Electricity	Colonel Elliott C. Cutler, Jr. Lt Col Edward A. Saunders
English	Colonel Russell K. Alspach Colonel Edwin V. Sutherland
Foreign Languages	Colonel Walter J. Renfroe, Jr.

Academic Departments - Professors - Continued

Law	Colonel Frederick C. Lough
Mathematics	Colonel Charles P. Nicholas Colonel John S. B. Dick
Mechanics	Colonel Elvin R. Heiberg Colonel Harvey R. Fraser
Military Art & Engineering	Colonel Charles H. Schilling Lt Col Thomas E. Griess
Military Hygiene	Colonel Charles H. Gingles
Ordnance	Colonel John D. Billingsley
Physics & Chemistry	Colonel Edward C. Gillette, Jr. Colonel John R. Jannarone
Social Sciences	Colonel George A. Lincoln Colonel Amos A. Jordan, Jr.

APPENDIX B

Conclusions and Recommendations
set forth in
The Report of the Department of the Army General Staff
following the 1964 visit, 25-27 March, to the
United States Military Academy

CONCLUSIONS:

The Superintendent and the staff and faculty of the United States Military Academy are carrying out their responsibilities in an outstanding manner. Major General James B. Lampert has made a smooth transition of command and is commended for his exceptional performance of duty during his first nine months in the job. Particular praise also is singled out for: Colonel T. H. Scott, the DCSLOG, for his improvement of the facilities at West Point by maximized use of the O&M funds available to him; Colonel John J. Pidgeon, the Comptroller, as the Post Management expert; and Colonel Frank J. Kobes, Director of Physical Education, for the outstanding physical fitness program.

The expansion planning by the Academy staff is outstanding. The Expansion Planning and Control Office is a very effective method to coordinate the efforts of all agencies on the Post and is supported by the Team.

The Superintendent should be authorized by DA to obtain from the installation commanders of installations that are closing, available material and equipment for use in the modernization program.

The new mess hall and barracks space to be provided by the first increment of the expansion program must be completed on or close to the scheduled date of December 1967 in order to allow the orderly increase in the size of the Corps of Cadets.

The term-end re-examination procedure has proved generally successful in reducing attrition for academic failutes. The Superintendent should continue to study this procedure with consideration being given to scheduling this re-examination earlier and excusing from all classes those cadets who are preparing to take it.

The Superintendent should continue the study of all causes leading to transfers upon graduation in order to determine what measures can be taken to better orient cadets toward careers in the Army.

The academic achievements of the cadets remain at a very high level. The DA Team concurred in general with the request

for early graduate schooling for the top 5% of the graduating class but deferred final judgment until the action has been staffed in DA.

DA should support the immediate acquisition of closed circuit television for the academic departments.

DA should continue to support a military faculty at the Academy with emphasis on obtaining the best qualified instructors regardless of their source of commission.

The rotation of the cadet chain of command has worked well in providing more cadets a chance to serve in positions of responsibility.

The Aptitude for the Service System is performing a valuable and necessary function.

The rationale supporting a change in the material used in manufacture of the cadet uniforms appears valid.

The Army Athletic Association is financially sound, but will be faced with expansion requirements that cannot be financed from AAA funds unless new sources of income are developed.

The present policy on attendance at Cadet Chapel Services should be continued.

A complete study of cadet pay and expenditures should be made by the Superintendent to determine the need for an increase. Careful study should be made of the present expenditures for textbooks, cadet activities, and cadet athletic fees to determine means of reducing charges against cadet pay.

The present post hospital is entirely inadequate and DA should strongly support the inclusion of a new post hospital in the FY 66 MCA Program.

The Main Post Exchange is overcrowded and will be expanded. A need exists for a branch exchange in the North Area of the post.

DA should support the expansion of the dining room and the improvement of other public rooms in the Thayer Hotel.

Admission procedures implemented this year for rolling admissions have produced satisfactory results and will be particularly helpful with the increased candidate populations that the expansion program will bring.

RECOMMENDATIONS:

The Superintendent be authorized to obtain from installations scheduled for closing any fixtures and equipment which can be used in the modernization and expansion program at the Military Academy.

DA continue to support the expansion funds in the FY 65 MCA Program to provide additional dining hall and barracks space at the earliest practicable time.

The Superintendent be requested to continue his analysis of the operation of the term-end re-examination procedures to determine the best timing for the re-examination and whether cadets should be excused from all classes while studying for the re-examinations.

DA support the acquisition of closed circuit television for the academic departments.

DA continue to support the Superintendent's policy on attendance at chapel by all cadets.

The Superintendent be requested to study the expenditures and pay of a cadet and make appropriate recommendations to DA for reductions in expenditures and the amount of pay increases.

DA support the inclusion of a new post hospital in the FY 66 MCA Program.

DA support the expansion of the Thayer Hotel and addition of a branch post exchange.

The Superintendent be requested to continue to study all causes of interservice transfers to determine what measures can be taken to increase the desire of cadets to serve in the United States Army.

The date for the Annual General Staff Visit be scheduled approximately six weeks before the visit of the Board of Visitors next year.

APPENDIX C

Conclusions and Recommendations
set forth in
The Report of the Board of Visitors to the
United States Military Academy
following the 1964 visit, 9-11 April

CONCLUSIONS:

The Board of Visitors, having had opportunity personally to observe a number of aspects of West Point and its activities, to talk with members of its Staff and Faculty as well as members of the Corps, and to examine its academic curriculum, military training, and command and logistical functions, concludes that the Military Academy is carrying out its mission in a superior manner.

The Board is of the opinion that the personnel of the West Point garrison, and the Staff and Faculty of the Military Academy, are well trained, professionally competent, and sincerely devoted to the ideals and purposes to which the Academy is dedicated.

The Board members appreciate the opportunities afforded them to observe members of the Corps at work, and to converse with them in their quarters. The Members were pleased to note among the cadets a dignity of bearing, a maturity of outlook, a vigor of thought, and a forthrightness of speech bespeaking a soundly conceived, well-administered selection and admission process, and a highly effective program of physical, intellectual, and moral training.

The Board, having noted that Major General James B. Lampert had been Superintendent of the United States Military Academy less than a year, was deeply gratified to observe his sound grasp of the many and varied responsibilities of his command.

The Board is pleased to commend General Lampert highly for the energy and the intelligent firmness with which he has assumed and exercises leadership.

RECOMMENDATIONS:

That serious consideration be given by the Superintendent, USMA, the Department of Defense, and the Bureau of the Budget to reducing to five years the presently-planned eight and one-half year period for completing the Master Plan for Expansion of the Military Academy's facilities to meet the increased strength of the Corps of Cadets, recently authorized by the Congress; and that funds be programmed accordingly.

That funds for the construction of a modern and adequate hospital, as envisioned in the Master Plan, be made available in Fiscal Year 1966.

That funds for the installation of closed-circuit television facilities in presently existing academic buildings be provided promptly, in order that the system be operative during Academic Year 1964-1965. That full provision for the incorporation of such facilities in all new academic buildings envisioned in the Master Expansion Plan be assured.

That legislation designed to provide a step pay increase for Professors of the United States Military Academy at the completion of 31 or 32 years of commissioned service, while yet retaining provision for the presently authorized increase at 36 years, be favorably considered.

That the monthly rate of pay of the cadet, presently fixed by statute as one-half that of the second lieutenant, instead be considered as an independent item for legislative action, and its magnitude separately determined.

That the Secretary of the Army be empowered by law to grant constructive credit, for pay and retirement purposes, of up to and including 21 years of commissioned service, to any distinguished educator from civil life, to whom, in the view of the Department of the Army, it is desirable to offer a permanent professorship at the United States Military Academy.

APPENDIX D

FOURTH CLASS ACADEMIC YEAR

Subject	Contact Hours	Credit Hours
Mathematics	265	15
Engineering Fundamentals	180	6
Environment	90	6
English	83	5
Foreign Languages	90	5
Total Academic	708	37
Military Instruction	110	2.5
Physical Education	128	3
Total	946	42.5
Summer Military Training	543	
New Cadet Barracks		

STANDARD ACADEMIC PROGRAM

Mathematics

Analytic geometry, calculus, and linear algebra. Analysis of first and second degree equations in two and three variables using vector methods, foundations of the number system, functions of a single real variable, limits and continuity, controlled approximation, the derivative and its applications, introduction to differential equations, matrices and determinants, transformations of the plane, systems of linear equations, eigenvalues and eigenvectors, fundamental concepts of integral calculus.

Engineering Fundamentals

Earth measurements: Measuring horizontal and vertical distances. Analysis of sources of error and methods of adjusting errors. Graphics: Introduction to computers (digital), graphical techniques, applied geometry and pictorial representation, orthographic projections, size and shape description, descriptive and vector geometry, nomography and graphical mathematics.

Environment

Astronomy–Astronautics: Evolution, history, characteristics and motions of the solar system. History of space flight. Physical geography: Studies in geology, geomorphology, meteorology, and climatology. Map studies emphasized throughout. World geography: Study of the location of man and the way he adjusts to his habitat.

English

Grammar, punctuation, and diction; the summary and paraphrase; the paragraph; analysis, logic, exposition, research; diversified reading selections, including narrative poetry, drama, the short story, and the essay; preparation and presentation of various types of speeches.

Foreign Languages

Basic course in the language. Primary objectives: Speaking and understanding, with particular emphasis on oral work. Frequent use of the language laboratory and varied classroom exercises such as repetition drills, dialogues, short talks, and reading aloud.

ADVANCED STUDIES PROGRAM

Mathematics

Validates plane analytic geometry. Accelerates coverage of solid analytic geometry and differential calculus. Adds linear algebra and linear programming. Vector spaces and n-dimensional vectors, matrices and determinants, linear transformations, linear systems, quadratic forms, eigenvalues and eigenvectors, the general linear programming problem, the simplex computational procedure, computational procedure for solving the transportation problem, and variations of the transportation problem.

Completes integral calculus except multiple integrals.

Engineering Fundamentals

Prerequisite: College engineering drawing. First third of this course is the same as earth measurements given in the standard course. This is followed by: Introduction to computers (digital), advanced engineering graphics, advanced descriptive geometry, vector geometry, graphical arithmetic, algebra, empirical equations, nomography, and graphical calculus.

English

A study of the part played by American Literature in the development of our national character. Among the writers studied are Bradford, Edwards, Franklin, Jefferson, Emerson, Thoreau, Hawthorne, Poe, Whitman, Howells, James, Clemens, Crane, Sandburg, Frost, Benet, Hemingway, Steinbeck, and Faulkner.

Foreign Languages

Prerequisite: Successful completion of oral and written screening tests at the beginning of the Fourth Class year. Grammar review with audio-lingual emphasis, involving extensive use of pattern drills in language laboratory. Question and answer exercises, dialogues, short talks. Reading and discussion of modern works. Periodic themes. All classroom work in the foreign language.

STANDARD MILITARY PROGRAM

New Cadet Barracks

To instill discipline and a high sense of duty and honor in each new cadet. To indoctrinate each new cadet in the customs and traditions of the United States Military Academy and West Point and in the heritage of the Armed Forces of the United States. To instruct and train each new cadet so that he will be qualified to become a member of the Corps of Cadets at the conclusion of New Cadet Barracks. To train new cadets in basic individual military subjects.

Military Fundamentals

To familiarize the cadet with the mission and structure of the Armed Forces, basic operational concepts, and tactical principles. Scope includes: summary of general world situation, organization of Department of Defense and the Armed Services, Combat Arms capabilities and limitations, principles of organization, axioms of war, principles of offensive and defensive action, introduction to counterinsurgency operations, and basic techniques of map reading.

Military Heritage

To develop in the cadet appreciation of the history and traditions of the Armed Forces of the United States, with primary emphasis on the Army, and thereby instill in him a spirit of emulation and pride in the military profession; secondarily, to broaden his cultural background in the military art.

Physical Education

Instruction designed to develop basic elements underlying physical skills and personal requisites for military leadership. These aims are accomplished through participation in intramural or intercollegiate athletics and instruction in boxing, swimming, apparatus, and wrestling.

THIRD CLASS ACADEMIC YEAR

Subject	Contact Hours	Credit Hours
Mathematics	141	8
Chemistry	141	8
Physics	141	8
English	45	2.5
Foreign Languages	141	8
Social Sciences	90	5
Psychology	45	2.5
Total Academic	744	42
Military Instruction	42	1.5
Physical Education	85	1.5
Total	871	45
Summer Military Training	393	
Camp Buckner Training Program		

STANDARD ACADEMIC PROGRAM

Mathematics

Integral calculus: integration techniques, applications of integration, infinite series, and multiple integrals. Differential equations: standard types of first and second order, approximate numerical and series solutions. Statistics: fundamentals of probability theory, mathematical models, and basic statistical inference.

Chemistry

A study of the nuclear, atomic, and molecular structure of matter; bonding and energy changes with emphasis on fundamental concepts, principles, and theories. Laboratory exercises are designed to illustrate basic chemical discoveries.

Physics

College Physics for students of science and engineering, covering contemporary as well as classical concepts. Vector algebra and calculus are used throughout the course. A concurrent laboratory program stresses the scientific method.

English

Reading of and expository writing on selections from western world literature, with emphasis on man's relationship with God, nature, and his fellow man.

Foreign Languages

Continuation of first year courses, with increased stress on correct application of grammar. Periodic written themes. All work conducted in the foreign language. Series of lectures on cultural topics.

Psychology

Teaches the cadet the basic principles and concepts of general psychology, emphasizing their importance to him as a student and as a future military leader.

Social Sciences

Two undergraduate survey courses in the **History of Modern Europe**: 1500 to 1900; and the **History of the United States and Twentieth Century Europe**, stressing the development of an Atlantic Community.

ADVANCED STUDIES PROGRAM

Mathematics

Advanced calculus: functions of several variables, vector differential and integral calculus, line and surface integrals, divergence, and Stokes' Theorems. Differential equations: adds linear equations of higher order, Legendre's equation, Fourier Analysis, Wave Equation, and Laplace Transforms. Statistics: adds moments, moment generating functions, and derivations of the student-T and Chi-Square distributions.

Chemistry

Advanced Physics: An accelerated version of the standard physics course permitting more comprehensive coverage of certain subject areas. Includes a laboratory program.

Advanced inorganic chemistry: A study of special areas in inorganic chemistry. Experiments illustrate the reactions and mechanisms of ionic and covalent compounds.

Organic chemistry: A study of the principles of organic chemistry emphasizing reaction mechanisms, molecular structure, and chemical bonds. Laboratory projects illustrate behavior and identification of functional groups, and the preparation of organic compounds.

Foreign Languages

Prerequisite: First year advanced courses in the corresponding language. Greater use of audio-lingual techniques, talks, debates, and interpreter exercises. Reading of a wider field of literature by French, German, Spanish or South American writers. Greater emphasis upon the culture and history of the countries concerned.

Social Sciences

The history of Russia: Survey of Russian development from traditional to modern Soviet society. Middle East studies: A survey course of Middle East history, Islamic custom, and current problems. The history of U. S. foreign relations: Study of U. S. diplomacy from the Revolution to the present. Latin American studies: Historical survey with an analysis of current socio-political problems.

STANDARD MILITARY PROGRAM

Camp Buckner

An intensive training program for Third Classmen conducted at Camp Buckner to teach the tactical employment of the infantry rifle squad, the rifle and armored rifle platoon, tank and reconnaissance platoon, field artillery battery, combat engineer and signal corps units as part of the combined arms team; to provide familiarization firing of weapons; to continue development of individual soldier skills; to develop understanding of unit teamwork and small unit leadership; to provide basic orientation on supporting services; maintain high state of physical condition, appearance and esprit; to prepare cadets for upper class duties.

Military Fundamentals

To develop further the cadet's appreciation of the missions and structure of the Armed Forces, basic operational concepts, and tactical principles. Scope includes: review of roles and missions of Armed Forces, introduction to logistical principles and organization, tactical principles of offense and defense emphasizing the combined arms aspects and using the reinforced rifle and tank companies as models.

Military Heritage

To develop in the cadet appreciation of the history and traditions of the Armed Forces of the United States, and thereby instill in him a spirit of emulation and pride in the military profession; secondarily, to broaden his cultural background in the military art. Emphasis is placed on political, economic, and social influences on the development of the United States Armed Forces.

Physical Education

Instruction designed to foster carryover skills of individual and team sports to include handball, squash, tennis, basketball, volleyball. Instruction in physical training, leadership, participation in intramural or intercollegiate athletics.

SECOND CLASS ACADEMIC YEAR

Subject	Contact Hours	Credit Hours
Electricity	283	16
Mechanics of Fluids	141	8
Mechanics of Solids	141	8
Law	90	5
Social Sciences	90	5
Total Academic	745	42
Military Instruction	57	2.5
Physical Education	61	1.5
Total	863	46
Summer Military Training	344	
June Encampment	(100)	
Army Orientation Training or New Cadet Barracks Detail	(244)	

STANDARD ACADEMIC PROGRAM

Electricity

DC and AC circuits: Basic circuit laws, complex impedance analysis, polyphase circuits, magnetism, and transformers.

Atomic and nuclear physics: Bohr Theory, spectra, solid state physics, nuclear reactions, radiations, and reactors.

Electronics and communications: Vacuum tube and transistor circuits, AM and FM modulation, radio, and radar.

DC and AC machinery: Generators, motors.

Mechanics of Fluids

Thermodynamics: Application of the first and second laws to the transfer and conversion of thermal and mechanical energy; thermodynamic processes and cycles. Includes 18 hours of laboratory work.

Fluid mechanics: Application of the laws of mechanics to liquids, vapors, gases. Includes 14 hours of laboratory work.

Mechanics of Solids

Engineering mechanics I: Statics and strength of materials. Static loads and resulting elastic and plastic action. Includes 2 hours of laboratory work.

Engineering mechanics II: Completion of strength to include 10 hours of laboratory work. Dynamics; application of laws of mechanics to moving bodies and analysis of resulting velocities, accelerations, and vibrations.

Law

Introduction to the rule of law, study of principles of the law of contracts, torts, property, agency and of persons, legal study of the Constitution, theory of crime and punishment, substantive criminal law, basic rules of evidence, military offenses, and trial procedure.

Social Sciences

Economic principles and problems: A survey course in basic economic principles and problems of public policy.

United States Government: A course in U. S. politics, emphasizing the organs and functions of the National Government, and including a subcourse in economics of national security.

ADVANCED STUDIES PROGRAM

Electricity

Circuit Theory: Basic theorems, complex variable, transform analysis, computers.

Field Theory: Maxwell's Equations, radio waves, antennas, microwaves, radar.

Atomic and Nuclear Physics: Standard course.

Electronics: Electronic circuit theory, modulation, noise, communications.

Energy Conversion: Coenergy, generalized machine analysis, introduction to servomechanisms.

Advanced Thermodynamics

Accelerated thermodynamics: A course for cadets who have demonstrated their desire and ability to proceed at a more rapid pace through the subject material of the standard thermodynamics course.

Classical thermodynamics: An erudite study of the first and second laws of thermodynamics and their consequences with emphasis on rigorous mathematical analysis of systems and media. Includes 10 hours of laboratory work.

Mechanics of Solids

Advanced engineering mechanics: A course for specially qualified cadets. Vector methods applied to statics, plus a more advanced coverage of strength of materials including 6 hours of laboratory work.

Vector mechanics: Completion of advanced strength of materials to include 8 hours of laboratory work. Vector approach to dynamics including advanced work in three-dimensional motion, gyroscopes, vibrations, and an introduction to advanced energy methods.

Social Sciences

Comparative economic systems: A study of the philosophical and theoretical bases of Capitalism, Socialism, and Communism and of problems in the actual operation of these economic systems.

Political philosophy: An introduction to the classic writings of western political thought, emphasizing the development of the concept of Constitutional Government and the values that underlie that concept.

STANDARD MILITARY PROGRAM

June Encampment

Training of Second Classmen conducted at West Point and nearby installations during June to familiarize the cadet with the roles and missions, organization, and developments of the Armed Forces. Instruction in map reading, methods of instruction, and physical education is conducted. Visits to Ft. Monmouth, N. J.; Air Defense sites; Navy Submarine School, New London, Conn.; and Stewart AFB, Newburgh, N. Y.

New Cadet Barracks Detail

Designed to further the leadership development and potential of each Second Classman assigned to this duty by placing him in a command position as a squad leader or administrative position and by requiring him to lead, instruct, counsel and administer groups of cadets and aid in the daily functioning of a cadet unit.

Army Orientation Training

Provides the Second Class cadet with a first-hand knowledge of the Army by having him assume and perform the duties and responsibilities of a small-unit leader at platoon level of a combat ready unit of the active Army for thirty days.

Military Fundamentals

To teach the cadet the organization of, and the support available to, the combined arms team using the reinforced battalion as a model. Scope includes: basic principles of the combat employment of the combined arms team using typical situations in the attack and defense, introduction to logistical problems of the combined arms team, the tactical implications of nuclear weapons on combat plans and operations.

Physical Education

Emphasis is placed on the further development of carryover skills through advanced instruction in golf, scuba, tennis, handball, squash, volleyball, basketball, and personal conditioning. Leadership training in intramural program as assistant coaches. Instruction in unarmed combat.

FIRST CLASS ACADEMIC YEAR

Subject	Contact Hours	Credit Hours
Civil Engineering	141	8
Ordnance Engineering	141	8
English	45	2.5
History of the Military Art	141	8
Social Sciences	141	8
Electives	90	5
Total Academic	699	39.5
Military Leadership	45	2.5
Military Instruction	52	1.5
Physical Education	67	1
Total	863	44.5
Summer Military Training	324	
Combat Arms Orientation Tour	(80)	
New Cadet Barracks Detail or Camp Buckner Detail or Army Orientation Training	(244)	

STANDARD ACADEMIC PROGRAM

Civil Engineering

Primarily structural analysis and design plus concrete as a material. One term of truss analysis, influence lines, loadings, space frames, cables, and indeterminate structures by approximate methods, moment area and moment distribution. One term of steel and timber design in addition to a comprehensive analysis-design problem.

Ordnance Engineering

Coverage is given to sources of energy such as chemical, electrical, and nuclear types; ballistics including electronic computers, weapon system components, trajectories, flight stabilization, servomechanisms, guidance, fuzes, and terminal effects; propulsion including the rocket, gas turbine, spark and compression ignition engines, power transmission, engineering materials, land locomotion; weapon system design study including the development of parameters for and the analysis and design of a proposed weapon system. Integrated laboratory exercises are included.

English

Readings in the expository essay and the novel. Advanced expository writing and classroom conferences designed to develop further the student's ability in writing and speaking.

History of the Military Art

Evolution of the art of war, current and future trends. Study of the campaigns of Napoleon and preceding Great Captains, major 19th and 20th century wars, Korea and subsequent irregular operations. Stressed are: Changing military concepts, impact of technology; interrelationship of land, sea, and airpower; eminent leaders.

Social Sciences

Contemporary foreign governments: A comparative study of selected major contemporary political systems of Europe with the emphasis on the structures and functions of the elements that constitute each system.

History of Modern Asia: A comparative study of major Asian societies and the synthesis resulting from western impact.

International relations: The study of world politics with emphasis on dynamic forces changing the relationships among nations in the post-World War II era.

Electives

Two one term elective courses complete the standard academic program.

ADVANCED STUDIES PROGRAM

Civil Engineering Honors Course

By weekly meetings with an advisor, very capable cadets accelerate their study of the standard course material. Emphasis is on individual study and research. The time gained is used to cover advanced topics of cadet choice or to accomplish an individual analytical and/or laboratory project in a related field.

Introduction to Nuclear Engineering

Offered to selected cadets in lieu of the standard course in civil engineering. A study of the principles of nuclear engineering, as related to analysis and design of nuclear reactors and nuclear power plants. Scope includes reactor design, reactor shielding, methods of reactor control, principles of coolant flow and heat transfer, structural design of reactor vessels, design of core components, and an analysis and design problem involving a nuclear power plant.

FOUR YEAR SUMMARY

Contact Hours:

Academic	2896
Military	1910
Physical Education	341
Total	5147

Credit Hours:

Academic	160.5
Military	10.5
Physical Education	7
Total	178.0

Average weekly classroom hours – 22

STANDARD MILITARY PROGRAM

Combat Arms Orientation Tour

To provide training in the tactics, techniques, and developments of the infantry, armor, artillery and engineers through a two week orientation trip to Fort Knox, Ky.; Fort Bliss, Tex.; Fort Sill, Okla.; Fort Benning, Ga.; and Fort Belvoir, Va.

New Cadet Barracks–Camp Buckner Detail

Command and instruction experience to expand leadership training through assignment to command and instructor positions as members of the detail receiving and training new cadets or conducting training at Camp Buckner for the Third Class.

Army Orientation Training

Provides the First Class cadet with a first-hand knowledge of the Army by having him perform the duties of a platoon leader of a combat ready unit of the Active Army for a period of thirty days.

Military Fundamentals

To provide a vehicle for focusing the cadet's total military intake on the major pertinent features of the existing military situation; includes major counterinsurgency component; deployments and contingent tasks of armed forces; U. S. and Soviet military developments and trends.

Staff Study

To give the cadet practice in analysis of military problem, emphasizing development of logical, supported conclusions.

Military Leadership

Provides the cadet a broad understanding of leadership as a phenomenon of human behavior. Covers leadership theory, the functions of management, management of men.

Physical Education

Emphasis is placed on leadership development. Cadets administer and coach intramural teams, officiate at intramural contests, and serve as Assistant Gym Instructors. Instruction in carryover sports and skills.

APPENDIX E

ELECTIVE COURSES - AY 1963-1964

Math-Science-Engineering

Advanced Calculus I and II

Introduction to Theoretical Physics I and II

Numerical Analysis w/Electronic Digital Computation

Differential Equations (Intermediate)

Physical Chemistry I and II

Electronic Circuits

Graphical Computations

Nuclear Physics

Nuclear Reactor Theory

Quantum Mechanics*

Digital Computers

Solid State Electronics*

Gas Dynamics

Space Mechanics

Soil Mechanics

Advanced Structural Analysis

Individual Engineering Project

Design of Concrete Structures

Automotive Engineering

Management Engineering

Social Sciences-Humanities

American Literature of the 19th Century*

English Literature from the Beginning to 1660

National Security Problems

Comparative Economic Systems

Latin American Studies

Problems of the Developing Nations

History of Russia

History of U.S. Foreign Relations

Middle Eastern Studies

Political Philosophy

English Literature from 1660 to Present

Sociology

Evolution of Modern Warfare

Twentieth Century Warfare

The Novel

Contemporary Literature

Shakespeare

International Law

French I, II, and Seminars I, II*

German I, II, and Seminars I, II*

* To be offered, Academic Year 1964-1965

Elective Courses - Continued

Math-Science-Engineering

Individual Ordnance Project

Engineering Materials

Social Sciences-Humanities

Human Relations: Managerial Psychology

Portuguese I and II

Russian I and II

Spanish I, II, and Seminars I, II*

The History of the Military Art: Revolutionary Warfare*

* To be offered, Academic Year 1964-1065

APPENDIX F

LECTURE PROGRAM, AY 1963-1964

Lectures sponsored by the various activities at the Military Academy are coordinated by the Dean of the Academic Board. In almost every case the lecture is an integral part of the course of instruction of the attending class or classes (shown in parentheses).

A list of the visiting lecturers for the academic year 1963-1964 is shown below:

Department of Earth, Space, and Graphic Sciences:

Dr. John H. Heller, Director of New England Institute for Medicine and Research, Ridgefield, Conn., "Man's Exploration of Space" (Fourth)

Department of Electricity:

Dr. Walter R. Beam, Head, Department of Electrical Engineering, Rensselaer Polytechnic Institute, "Micro-Electronics: The Thin Film Approach" (Second)

Dr. Alvin M. Weinberg, Director, Oak Ridge National Laboratory, Oak Ridge, Tennessee, "Nuclear Energy - Today and Tomorrow" (Second)

Col Robert C. Barthle, U. S. Army Satellite Communications Agency, Ft. Monmouth, N. J., "Space Communications" (Second)

Department of English:

Mr. Cornelius Ryan, Author, Ridgefield, Conn., "Literature and the Soldier" (Third and Fourth)

Maj. Gen. Charles E. Saltzman (USAR), Partner, Goldman, Sachs and Co., New York City, "The Role of the Military in Shaping U. S. Affairs" (Fourth)

Department of Foreign Languages:

Commander Karl H. Peter, Instructor of German, USNA, Annapolis, Md., "Das Attentat auf Hitler am 20 Juli 1944" (Third - German)

Dr. Guido Brunner, Second Secretary, German Observer Group to the United Nations, "Deutsche Schriftsteller der Gegenwart" (Third - German)

Mr. Pierre Brodin, Director, Lycee Francais de New York, "Le systeme d'education francais" (Third - French)

Lecture Program - Continued

Dept of Foreign Languages:

Dr. Daniel P. Girard, Professor of French, Teachers College, Columbia University, New York City, "La France a vol d'oiseau" (Third - French)

Mr. Nicholas Fersen, Instructor of Russian, Williams College, Williamstown, Mass., "The Vlassov Movement" (Third - Russian)

Department of Law:

Maj. Gen. Charles L. Decker, The Judge Advocate General, USA., "Military Law and Leadership" (Second)

His Excellency Abdul Hak Kemal Yoruk, Minister of Justice, Republic of Turkey, "International Aspects of United States Army Commitments" (Second)

Prof. Oliver J. Lissitzyn, Professor of Law, Columbia School of Law, New York, N. Y., "The Law of the Sea: Territorial Waters" (First)

Prof. William T. Mallison, Jr., Professor of Law, George Washington School of Law, Washington, D. C., "The Law of War: Sanctions and Enforcement" (First)

Col. John F. T. Murray, Commandant, The Judge Advocate General's School, U. S. Army, Charlottesville, Va., "The Legal Aspects of Counterinsurgency" (Second and Selected First Classmen)

Department of Mechanics:

Mr. Neil MacCoull, Retired (formerly Consulting Engineer, Texaco Research Center, Beacon, N. Y.), "The Practical Thermodynamics of the Automobile" (Second)

Dr. Edward F. Byars, Professor and Chairman, Department of Theoretical and Applied Mechanics, West Virginia University, Morgantown, "Mechanics of Materials in Everyday Life" (Second)

Dr. J. J. Cornish, III, Head, Aerophysics Department, Mississippi State University, "Low Speed Aerodynamics" (Second)

Prof. J. P. den Hartog, Professor of Mechanical Engineering, Massachusetts Institute of Technology, "Mechanical Vibrations" (Second)

Lecture Program - Continued

Department of Mechanics - Cont.

Major Frank Borman, NASA, Manned Space Craft Center, Houston, Tex., "American Manned Lunar Landing Program" (Second)

Department of Ordnance:

Dr. William F. Loranger, Technical Director, Picker X-Ray Corp., White Plains, N. Y., "Electron Microscopy" (Selected First and Second Classmen)

Dr. Joseph Sperrazza, Chief, Terminal Ballistics Research Laboratory, Aberdeen Proving Ground, Md., "Wound Ballistics" (Selected First Classmen)

Dr. William R. Lucas, Chief, Engineering Materials Branch, Propulsion and Space Vehicles Division, Marshall Space Flight Center, Huntsville, Ala., "Engineering Materials for Space Use" (First)

Dr. Alexander Hammer, Springfield Armory, Springfield, Mass., "Weapons Systems Engineering" (First)

Mr. Harold Stratton, Engineer, Rocketdyne Division, North American Aviation, Canoga Park, Calif., "Liquid Rocket Engines" (Selected First Classmen)

Mr. Samuel Forter, Assistant to the Director, Instrumentation Laboratory, Massachusetts Institute of Technology, Cambridge, Mass., "Inertial Guidance Systems" (Selected First Classmen)

Department of Social Sciences:

Professor Philip Mosely, Columbia University, "Political and Strategic Implications of European Integration in the 1960's" (First)

Professor Stephen Lukashevich, University of Delaware, "The Transformation of Russian Society in the Reign of Nicholas I" (Selected First and Second Classmen)

Maj. Gen. A. J. Goodpaster, Special Assistant to the Chairman of the Joint Chiefs of Staff, "Military Force as an Instrument of Policy" (Selected First and Second Classmen)

Professor Samuel Gonard, Graduate Institute of International Studies, Geneva, Switzerland, "Strategy Reflections" (First)

Dr. Vernon Aspaturian, Department of Political Science, University of Delaware, "The Soviet Union Today and Tomorrow" (First)

Lecture Program - Continued

Department of Social Sciences - Cont.

Professor Loren R. Graham, Indiana University, "Soviet Science in the Nuclear Age" (Selected First and Second Classmen)

Honorable Clarence D. Long, Representative, 2d District, Md., "Labor Supply, Full Employment, and Inflation" (Second)

Professor Charles Frankel, Department of Philosophy, Columbia University, "Democratization in Japan" (First)

Professor Robert E. Osgood, School of Advanced International Studies, The Johns Hopkins University, "Limited War" (Selected First and Second Classmen)

The Honorable Averell Harriman, Deputy Undersecretary of State for Political Affairs, "National Security Policy of the U. S.: The Problems of the Developing Nations" (First and Second)

Honorable Robert V. Roosa, Undersecretary of the Treasury for Monetary Affairs, "Fiscal and Monetary Policy for Economic Stability" (Second)

Mr. William C. Sullivan, Federal Bureau of Investigation, "Communism in the U. S." (Second)

Professor Warner Schilling, Columbia University, "The Search for a Stable Deterrent" (Selected First Classmen)

Professor Henry Kissinger, Harvard University, "Changing Nature of National Security" (First)

Professor Richard E. Neustadt, Columbia University, "The Presidency" (Second)

Lt. Col. William Y. Smith, USAF, Office of the Chairman, JCS, "Political Military Coordination" (Selected First Classmen)

Professor Arthur P. Whitaker, History Department, University of Pennsylvania, "Revolutionary Nationalism in Latin America" (Selected First Classmen)

Professor Louis Hartz, Harvard University, "The Enlightenment" (Selected Second Classmen)

Professor Lincoln Bloomfield, Center of International Studies, MIT, "The United Nations" (First)

Lecture Program - Continued

Department of Social Sciences - Cont.

Mr. Jacob Stockfisch, Deputy Secretary, U. S. Treasury, "Systems Analysis and Defense Decisions" (Second)

Maj. Gen. Sam Griffith, USMC, "Chinese Communist Military Policy" (First)

Dr. Hans Kohn, Professor Emeritus, CCNY, "Nationalism in the 20th Century" (Third)

Dr. Alain C. Enthoven, Deputy Asst Secy of Defense (Systems Analysis), "Making Decisions in the Department of Defense" (Selected First Classmen)

Professor W. Emerson, Yale University, "Military Force as an Instrument of Policy" (First)

Professor Karl Kaysen, Harvard University, "New Aspects of the Role of the Professional Military Officer" (Selected First and Second Classmen)

Professor Samuel P. Huntington, Harvard University, "The Military Role in Defense Decision Making" (Selected First and Second Classmen)

Mr. John J. Powers, Jr., Chairman, Pfizer International, Inc., "The Role of American Business in Underdeveloped Countries" (Second)

Honorable S. K. Roy, Consul General of the Republic of India, "India's Problems and Prospects" (First)

Professor Clinton Rossiter, Cornell University, "American Conservatism" (Selected Second Classmen)

Mr. Hanson Baldwin, Military Editor, The New York Times, "The Military and Defense Situations" (Selected First and Second Classmen)

Department of Tactics:

Maj. Gen. Alva R. Fitch, Asst Chief of Staff for Intelligence, "Mission and Capabilities of the Intelligence and Security Branch" (First)

Colonel Charles I. Bennett, USAF, Deputy Director for War Plans, "U. S. Striking Forces - U. S. Air Force" (Third)

Lecture Program - Continued

Department of Tactics (Cont)

Captain G. Macri, USN, Strike Forces Division, Chief Naval Operations, "The U. S. Navy's Role in the U. S. Striking Forces" (Third)

Lt. Col. Jay D. Carpenter, Troop Operations Division, DCSOPS, Washington, D. C., "Strategic Mobility of U. S. Forces" (Third) and "World Wide Deployment of U. S. Army Combat Units" (First)

Col. Thomas H. Muller, Chief, Technical and Industrial Liaison Office, DA, "Materiel Development Program - Weapons Systems and Logistics" (First)

Major W. H. Patterson, Office of the Director of Foreign Intelligence, ACSI, DA, "Soviet Military Trends" (First)

Major T. B. DeRamus and Major F. McGregor, Special Forces, Special Weapons Center, Ft. Bragg, N. C., "Special Forces and Counterinsurgency Orientation" (Third)

Col. D. H. Richards, MAP Division, DCSLOG, DA, "Military Assistance Program" (First)

Lt. Col. C. H. Dubsky, Office of DCS Unit Training, CONARC, "U. S. Army Contingency Tasks" (First)

Major General Arthur S. Collins, Chief, OPD, "Officer Assignment and Career Plan" (First)

Lt. Col. E. M. Dannemiller, Deputy Director, Counterinsurgency Department, U. S. Army, Special Warfare Center, Ft. Bragg, N. C., "Counterinsurgency Operation in Kenya" (First)

Colonel G. S. Blanchard, Director of Special Warfare, DCSOPS, "U. S. Army Cold War Operations" (First)

Colonel R. L. Clutterbuck, British Liaison Officer, C&GSC, Ft. Leavenworth, Kan., "British Anti-guerrilla Operations in Malaya" (First and Second)

Captain Nicholas S. H. Krawciw, Ft. Knox, Ky., "The Challenge of the Profession of Arms" (Fourth)

Colonel R. E. Dupuy, U. S. Army (Retired), "Contributions of West Pointers to the U. S. Army Development" (Third)

Lecture Program - Continued

Office of Military Psychology and Leadership:

Maj. Gen. E. B. Sebree, U. S. Army (Retired), U. S. Army Leadership Human Research Unit, U. S. Continental Army Command, Presidio of Monterey, Calif., "Leadership Styles" (First)

Dr. Lee H. Bristol, Jr., President Westminster Choir College, Princeton, N. J., "Creativity" (First)

Lt. Col. William Tatsch, Faculty, U. S. Army Management School, Ft. Belvoir, Va., "Military Management" (First)

Lt. Gen. Frank S. Besson, Commanding General, U. S. Army Materiel Command, Washington, D. C., "Management in the Military" (First)

Mr. John J. McCarthy, Personnel Consultant, General Electric Company, New York City, "Personnel Management" (First)

Dr. Chris Argyris, Professor of Industrial Administration, Yale University, "Man in Organization" (First)

Lt. Gen. William C. Westmoreland, Commanding General, XVIII Airborne Corps, Ft. Bragg, N. C., "The Leadership Challenge" (First)

APPENDIX G

DEGREES HELD BY FACULTY MEMBERS
(highest)

	Baccalaureate	1st Professional	Master	2d Professional	Doctorate
Office of the Dean	1		5		1 (2)*
Departments of:					
ES&GS	3		29 (4)*x	1 (Teaching of Geography)	1 (2)*
Electricity			26	1 EE	2 (3)*
English	5		23 (5)*		4 (7)*
Foreign Languages	29	1 LLB	11 (24)*		3 (2)*
Law		11 LLB		1 LLM	
Mathematics	14		35 (8)*		(6)*
Mechanics			25	1 CE	2 (1)*
Military Art & Engineering	5		22 (1)*	(1)*CE	3 (2)*
Ordnance	1		15 (1)*	1 ME (3)* Indust Mgmt (1)* Instrmnt Engr	
Physics & Chemistry	1		26 (1)*		3 (2)*
Social Sciences		1 LLB	36 (3)*x		8 (10)*
Computer Center	1		1 (1)*	2 EE	(1)*
Offices of:					
Military Psychology & Leadership	2		14 (4)*x		1
Physical Education	5	—	14 (1)*	—	2 (3)*
TOTAL	67	13	282 (53)	7 (5)	30 (41)

*Numbers in parentheses indicate degrees for which faculty members are presently working; x indicates that number also includes faculty members working on a second Masters Degree.

APPENDIX H

RESUME OF FACULTY ACTIVITIES

Office of the Dean

Brigadier General William W. Bessell, Jr.,
Dean of the Academic Board

Met with the President, Dean of the Graduate School and other members of the faculty of Rensselaer Polytechnic Institute on a cooperative program for early attainment of masters degrees by selected USMA graduates. (Jun 63)

Attended 46th Annual Meeting of American Council on Education, Washington, D. C. (2-4 Oct 63)

Represented USMA at 75th Anniversary Convocation of the Georgia Institute of Technology. (7-8 Oct 63)

Attended Annual Meeting of the Association of the U. S. Army, Washington, D. C. (21-23 Oct 63)

Attended Annual Meeting of the College Entrance Examination Board, Chicago, Illinois. (30 Oct 63)

Visited the University of Illinois for consultation with the Dean of Engineering College and other faculty members on a cooperative program leading to early masters degrees for selected USMA graduates. (19-21 Nov 63)

Visited Rose Polytechnic Institute, Terre Haute, Indiana, to confer with members of faculty on engineering programs. (22-23 Nov 63)

Attended Annual Meeting of American Ordnance Association, New York City. (4 Dec 63)

Attended Annual Meetings of the Middle States Association of Colleges and Secondary Schools and the Eastern Association of College Deans and Advisers of Students, Atlantic City, N. J. (5-7 Dec 63)

Accompanied General Frederick J. Clarke, Director of Military Construction, Office of Chief of Engineers, on his inspection of the Southwestern Engineer Division. (8-13 Dec 63)

Attended 50th Annual Meeting of the Association of American Colleges, Washington, D. C. (13-16 Jan 64)

Attended 19th Annual Conference on Higher Education, Chicago, Illinois. (19-22 Apr 64)

Office of the Dean (cont.)

Colonel J. P. Unger,
Associate Dean

Participated in Seminar on Nation Building and Economic Development - Boston University. (15 Jul-22 Aug 63)

Attended Convocation at Franklin and Marshall College, Lancaster, Pa. (26 Sep 63)

Attended 46th Annual Meeting of the American Council on Education, Washington, D. C. (2-4 Oct 63)

Attended Conference on the Recommendations of Dr. James B. Conant at the School of Education, New York University, New York City. (10 Dec 63)

Presented talks on "Latin America and the Military" to Latin American Seminar, Bryn Mawr; Assembly and Spanish Club, Eastern Baptist College. (5 Mar 64)

Acted as Chairman of Latin American Conference, USMA. (15-17 Apr 64)

Participated as National Director, National Junior Science and Humanities Symposium, Washington, D. C. (22-24 Apr 64)

Department of Earth, Space, and Graphic Sciences

Colonel C. R. Broshous,
Professor and Head of Department

Visited Military Installations, Universities and Colleges Throughout the Midwest. (26 Jun-26 Jul 63)

Director of the Expansion Planning and Control Group. (Continuing)

Chairman of a committee to monitor the design, construction and dedication of a new amphitheatre on Trophy Point. (Continuing)

Colonel W. W. Watkin, Jr.,
Professor

Appointed a member of the Technical Advisory Panel, Temporary State Commission on Water Resources Planning for the State of New York in Albany. (Continuing)

Dept of ES&GS (Cont.)

Attended Annual Meeting of the Regional Plan Association, New York City. (15 Oct 63)

Attended Annual Meeting of the Delaware River Basin Commission, Pocono Manor, Pa. (23-25 Oct 63)

Was awarded the Ph.D. in May 1964 from Columbia University. Participated as a member of Symposium on Conservation Problems of the New York City Region at Staten Island, Institute of Arts and Sciences. (21 Mar 64)

Attended Special meeting of the temporary New York State Commission of Water Resources at Albany, New York. (10-11 May 64)

Department of Electricity

Colonel E. C. Cutler, Jr.,
Professor and Head of Department

Attended the following scientific and educational conferences:

American Society for Engineering Education. (17-21 Jun 63)

Cornell Conference on Relativity. (5-24 Sep 63)

Cornell University Conference on Linear Algebra. (7-14 Sep 63)

Institute of Electrical and Electronic Engineers, International Convention. (25-28 Mar 64)

American Society for Engineering Education. (22-26 Jun 64)

Accompanied a group of 10 officers and 120 cadets on a visit to the Nevis Cyclotron Laboratories of Columbia University at Tarrytown, N. Y. (20 Nov 63)

Accompanied a group of 13 officers and 55 cadets on a visit to the Brookhaven National Laboratories, Upton, L. I., N. Y. (18 Dec 63)

Accompanied groups of about 25 officers to the following commercial Research and Development facilities:

Union Carbide Nuclear Corporation, Sterling Forest, N. Y. (12 Nov 63)

Dept of Electricity (Cont)

Consolidated Edison Co., Nuclear Power Generating Station, Indian Point, N. Y. (5 Dec 63)

IBM Watson Laboratories, Poughkeepsie, N. Y. (3 Mar 64)

Bell Telephone Laboratories, Military Systems Division, Whippany, N. J. (12 May 64)

Investigated new torque measuring devices developed at Rensselaer Polytechnic Institute to determine their application in courses of instruction at USMA. (28 Feb 64)

Lieutenant Colonel E. A. Saunders,
Professor

Research at RPI, Troy, New York, in fulfillment of requirements for degree of Ph.D. Summary - Considerable basic experimental research is in progress at present to measure the effects of radiation (primarily electron and proton) on solid state devices. Early results from this work are in serious disagreement with currently accepted theories of the damage mechanisms involved. Dissertation undertakes a program of theoretical research to attempt to better explain and predict the observed effects with particular emphasis on proton effects on germanium.

Department of English

Colonel R. K. Alspach,
Professor and Head of Department

Preparation of The Variorum Edition of the Plays of W. B. Yeats. (Continuing)

Presented lecture, "Origins and Development of the English Language," at Orange County Community College, Middletown, New York. (16 Nov 63)

Presented lecture, "The Poetry of W. B. Yeats," at University of Pennsylvania. (14 Apr 64)

Colonel E. V. Sutherland,
Professor

Completed studies and his dissertation, "The Diaries of John Gregory Bourke," and was awarded the Ph.D. by the University of Pennsylvania. (May 1964)

Department of Foreign Languages

Colonel W. J. Renfroe, Jr.,
Professor and Head of Department

Returned from sabbatical leave of study and research activities in Europe. (5 Aug 63)

Official representative of the United States Military Academy at Inauguration of the new President of Middlebury College, Middlebury, Vermont. (7 Nov 63)

Attended with one other member of the department the annual meeting of the Modern Language Association in Chicago, Illinois. (27-29 Dec 63)

Gave Founders Day talks at Redstone Arsenal, Huntsville, Alabama; Fort Hood, Texas; New Orleans, Louisiana; and Atlanta, Georgia. (13-18 Mar 64)

Attended with nine other members of the department the annual meeting of the 1964 Northeast Conference on the Teaching of Foreign Languages in Washington, D. C. (16-18 Apr 64)

Visited Department of Foreign Languages, United States Naval Academy, Annapolis, Maryland. (14-16 Apr 64)

Participated as a member of the following committees and boards:

Museum and Memorialization Board (Chairman)
Scholarship Committee
Executive Committee, Association of Graduates
R. H. Johnson Fund (Trustee)

Department of Law

Colonel F. C. Lough,
Professor and Head of Department - Staff Judge Advocate

Participated as committee member to review Cadet Honor Code. (Jun 63)

Attended annual meeting of American Bar Association. (12-16 Aug 63)

Briefed the President-elect of the American Bar Association. (16 Dec 63)

Attended conference on Educational Benefit Laws conducted by the Department of Health, Education and Welfare. (10 Jan 64)

Resume of Faculty Activities - Continued

Department of Mathematics

Colonel C. P. Nicholas,
Professor and Head of Department

Sabbatical leave to continue work on his calculus texts. Significant progress achieved. (20 Jul 63-1 Apr 64)

Presented a lecture titled, "An Adventure in Mathematics" at Ladycliff College to a group of students and teachers from the local area. (9Dec63)

Colonel J. S. B. Dick,
Professor

Acted as a member of the grading team for the Advanced Placement Tests conducted by the Educational Testing Service. (8 Jun-14 Jun 63)

Attended the meeting of the New Jersey Section of the Mathematical Association of America. (2 Nov 63)

Attended 18th Annual Eastern Colleges Science Conference. (29 Apr-2 May 64)

Department of Mechanics

Colonel E. R. Heiberg,
Professor and Head of Department

Attended Annual Meeting of American Society of Engineering Education, Philadelphia, Pa. (12-21 Jun 63)

Attended conference of American Institute of Aeronautical Engineers, New York City. (21 Oct 63)

Visited Delft Technological University and Middleburg, Netherlands, to re-establish contact with institution where officer spent a sabbatical year studying hydraulic engineering under Dutch professors and engineers, and inspected progress of Delta Plan for flood protection of Dutch lowlands. (1-11 Feb 64)

Colonel H. R. Fraser,
Professor

Attended Annual Meeting of American Society of Engineering Education, Philadelphia, Pa. (12-21 Jun 63)

Dept of Mechanics (Cont)

Visited University of Illinois to coordinate Masters Degree program for incoming instructors. (23 Jun-7 Jul & 29 Oct-3 Nov 63)

Visited University of Southern California, California Institute of Technology, and University of Arizona to coordinate instructor training programs. (Mar 1964)

Delivered Founders Day speeches in San Diego, Phoenix, and Tuscon. (Mar 1964)

Department of Military Art and Engineering

Colonel C. H. Schilling,
Professor and Head of Department

Attended a 6-week summer course in Modern Engineering at UCLA. (17 Jun-27 Aug 63)

Lieutenant Colonel T.E. Griess,
Professor

Visited Dartmouth College to discuss personal plans for study for doctorate, as well as MA level education (in History) for HMA instructors. (4-6 Sep 63)

Visited Columbia, Princeton, and Duke University for same purpose as above; also OPO, DA for same purpose. (12-18 Oct 63)

Accompanied Dean on trip to US Army, OCE Southwestern Division; in company of OCE inspection team, visiting construction projects. Other trips now definitely planned.

Attended the annual meeting of the Secretary of the Army's Historical Advisory Committee. (4-5 Apr 64)

Visited Duke University to make final plans for attendance at Graduate School. (27 Apr-1 May 64)

Appointed as Military History Consultant for Middle States Council for Social Studies and attended society meeting at New York World's Fair. (15-17 May 64)

Department of Ordnance

Colonel J. D. Billingsley,
Professor and Head of Department

Attended Convention and Exhibit of the American Society of Engineering Education, University of Pennsylvania, Philadelphia, Pa. (17 Jun 63)

Visited Office, Personnel Operations, DA, and attended retirement ceremony of senior USAF officers. (3 Aug 63)

Attended CUPM Conference on Linear Algebra in Engineering Curricula, Cornell University, Ithaca, N. Y. (8 Sep 63)

Attended Tactical Mobility Symposium, Fort Benning, Ga. (17 Nov 63)

Visited Picatinny Arsenal, Dover, N. J. (22 Nov 63)

Attended Annual Preparedness Meeting, American Ordnance Association, New York City. (4 Dec 63)

Visited Office, Personnel Operations, DA. (15 Dec 63)

Department of Physics and Chemistry

Colonel E. C. Gillette,
Professor and Head of Department

Visited HQ, USAREUR, Heidelberg, Germany, and SHAPE, Paris, for a general orientation. Visited Oxford University, Oxford, England, to observe the educational methods at that institution. Contact was made with the USMA Rhodes Scholars in residence. (Jun-Jul 63)

Colonel J. R. Jannarone,
Professor

Attended annual meeting of American Association of Physics Teachers, University of Maine, Orono, Maine. (24-30 Jun 63)

Member of Athletic Board; Advisory Board of Directors, Marine Midland National Bank; Selection Committee for Professor of Physics and Chemistry (ad hoc); Bartlett Hall Rehabilitation Committee (ad hoc); Alumni-Faculty Seminar Committee (ad hoc); West Point Army Mess Expansion Committee (ad hoc); Association of Graduates 1964 Nominating Committee; Board of Trustees, Association of Graduates.

Dept of Physics & Chemistry (Cont)

Attended CBR Orientation, Dugway Proving Ground, Utah. (Mar 64)

Department of Social Sciences

Colonel G. A. Lincoln,
Professor and Head of Department

Made final presentation at Army War College Strategy Seminar. (11-14 Jun 63)

Consultant to USAF Project Forecast, Los Angeles, California. (24-26 Jun 63)

Consulted with Dr. Brodie and other members of RAND Corporation, Santa Monica, California. (27 Jun 63)

Consultant to an Executive Agency, Washington, D. C. (1-3 Jul & 26-27 Sep 63)

Visited USAF-ADC, Colorado Springs, Colo; Consultant, Supt and Dean, USAFA; Consulted with Head, Social Sciences Dept., University of Denver. (1-9 Aug 63)

Attended Conference "Security of the NATO Community," The Institute for Strategic Studies, Cambridge, England. (20-23 Sep 63)

Attended Conference, American Assembly, Arden House, Harriman, New York. (26 Oct 63)

Attended various meetings of Council on Foreign Relations, to include acting as Seminar & Discussion Leader of Business Executives Group. (Various dates and 19 Nov 63)

Attended meeting, Harvard Board of Overseers. (1 Dec 63)

Member of Senior Review Panel, USACDA, Washington, D. C. (12 Dec 63)

Member of Economics and Strategy Panels, Colorado College Symposium on World War II. (15-19 Jan 64)

Attended Consultants Meeting, Woodrow Wilson School, Princeton, New Jersey. (1 Feb 64)

Dept of Social Sciences (Cont)

Spoke at Alumni Founders Day Meetings in San Antonio and Houston, Texas, and New Orleans, La. (16-17 Mar 64)

Participated in Conference on Latin American Affairs, USMA. (15-17 Apr 64)

Research: Power and Policy (CFR). (Continuing)

Research: Science and Foreign Policy (MIT-Dept of State Project). (Continuing)

Colonel A. A. Jordan,
Professor

On duty in India on sabbatical status as the Special Advisor to Ambassador to India, The Honorable Chester A. Bowles.

APPENDIX I

ARTICLES BY USMA PROFESSORS

Alspach, Russell K., Colonel	"The Harvard Report and the Teaching of English" *Schoolmen's Week Proceedings*	1947
	"Yeats's 'The Grey Rock'" *Journal of American Folklore*	Jan-Mar 1950
	"Yeats's 'Maid Quiet'" *Modern Language Notes*	Apr 1950
	"The English Curriculum at West Point" *College English*	Dec 1950
	"Additions to Allan Wade's Bibliography of W. B. Yeats" *The Irish Book*, Dolmen Press, Dublin, Ireland	1963
	"Some Textual Problems in Yeats" *Studies in Bibliography*	1957
Bessell, Wm. W. Jr., Brigadier General, Dean of the Academic Board	"The Modified USMA Curriculum" *Assembly*	1960
	"First Year of Evolution" *Assembly*	1961
Billingsley, J. D., Colonel w/ Capt T. E. Williams	"Mobile Classroom Dynamometer" *Journal of Engineering Education*	Feb 1964
Cutler, Elliott C., Colonel	"Electrical Science at West Point" *Assembly*	1960
	"A Note on the Miyata Driving Point Synthesis" *Institute of Electrical and Electronic Engineers Transactions on Circuit Theory*	1963
Fraser, H. R. Colonel	"The Turbulent Boundary Layer in a Conical Diffuser" *Journal of the Hydraulics Division, Proceedings ASCE*	June 1958
	"Separation Prediction for Conical Diffusers" *Journal of Basic Engineering Transactions, ASME*	Mar 1960
	"A Renaissance for the Hydraulic Analogy in the Pedagogical Field" - *Published by* Training Center for Experimental Aerodynamics, Rhode-St. Genese, Belgium	June 1961
Griess, Thomas E., Lieutenant Colonel	"Engineer ROTC" *The 'Cal' Engineer*	1950
	"Vincent J. Esposito, '25: Soldier and Scholar" *Assembly*	1964

Articles by USMA Professors - Continued

Jordan, A. A. Jr., Colonel	Essay on "Military Assistance in Southeast Asia" *Southeast Asia*, Henderson, MIT Press	1964
Kobes, Frank J. Jr., Colonel	"Physical Education Program at West Point" Editorial, *Physical Education Newsletter*	1957
	"Fitness for Leadership" *Assembly*	1959
w/Bender, Jay A. Kaplan, Harold M. Pierson, Joe K.	"Strengthening Muscles & Preventing Injury with a Controlled Program of Isometric Exercises" *Journal of the American Association of Health, Physical Education & Recreation*	Jan 1964
Lincoln, G. A., Colonel w/Maj J. B. Durst Lt Col W. Y. Smith	Essay on "War and Mobilization" *American Economic History*, Harris	1961
Nicholas, Charles P., Colonel	"Taylor's Theorem in a First Course" *American Mathematical Monthly*	1951
	"Six Hundred and Eighteen Major Generals" *Assembly*	1952
	"More of Taylor's Theorem in a First Course" *American Mathematical Monthly*	1953
	"Another Look at the Probability Integral" *American Mathematical Monthly*	1957
	"The Cadet and the Orbit" *Assembly*	1959
	"Preparing the Weapon of Decision" *Assembly*	1959
Saunders, Edward A., Lieutenant Colonel	"A Coefficient of Coupling Meter" *Proceedings of the National Electronic Conference*	1952

Other writings by professors include a number of articles for the *Encyclopedia Americana, The American Peoples Encyclopedia, Collier's Encyclopedia, Grollier's Encyclopedia*, and the *World Book Encyclopedia.*

APPENDIX J

ARMY VARSITY SPORTS SUMMARY
1963-64 Season

(FALL)

SPORT	W	L	T	PER CT	ARMY/NAVY	1963-64 CAPTAIN	1964-65 CAPTAIN
Cross Country	4	4	0	.500	Navy	Straub, W. J.	Malpass, J. R.
	Cadet Straub - Heptagonal Champion, Academy record holder						
150-lb Football	2	3	0	.400	Navy	DiNeno, W. T.	Shaw, C. F.
	Cadet Bennett named to Eastern Intercollegiate all-league team						
Football	7	3	0	.700	Navy	Nowak, R. A.	Game Captains
	Cadet Nowak named to All-America and All-East teams, selected for East team in Hula Bowl game in Honolulu						
	Cadet Waldrop named to All-East team						
	Cadet Heydt set Academy field goal record with five						
Soccer	12	1	0	.923	Navy	Wheeler, W. R.	Deems, J. M.
	Team gained semi-final of NCAA Tournament						
	Cadets Gonzalez and Wheeler named to All-America team						
	Cadets Gonzalez, Wheeler, and Kriebel named to All-New York State team						
(WINTER)							
Basketball	19	7	0	.731	Army	Chilcoat, R. A.	Kosciusko, J. P.
	Team finished third in National Invitational Tournament						
	Team set record for most victories in one season						
	Cadet Silliman named to NIT, 2d Region NCAA and All-East teams, also a second team Academic All-America choice						
Gymnastics	6	2	0	.750	Army	Gray, M. J.	Ono, T.
Hockey	19	8	0	.704	- - -	Johnson, G. R.	Thompson, M.
	Team first in East at end of season, lost in tournament playoffs						
	Team set records for most games won in a season (19); most consecutive games won (13); most goals in a season (148); and most points in a season (382)						
	Cadet Thompson set record for most goals in a season (29); second highest score in the East						
	Cadet Johnson set record for most assists in a season (40)						
	Cadet Mieras tied goalie record for most shutouts in a season (5); had best average "goals against" in the East						
Pistol	8	1	0	.889	Army	Grimes, E. D.	Kahara, C. G.
	NRA national and sectional champions						
	Cadets Grimes, Dickens, and Connell named to All-America team						
Rifle	7	1	0	.875	Army	Wikan, M. E.	Bradburn, W. J.
	Second in nation, NRA sectional and Coast Guard Invitational Champions						
	Cadets Bradburn and Fuller equalled Academy record (295)						
	Cadet Bradburn named to All-America team						
Squash	12	2	0	.857	Army	Oehrlein, R. V.	Genoni, T. C.
	Team shared second in national tournament						
	Team set records for most wins (12); most consecutive wins (12); most shutouts (10); and most consecutive shutouts (9)						
	Cadet Genoni won consolation championship in nationals						
	Cadets Oehrlein and Darrah ranked 8th and 9th nationally						
Swimming	13	1	0	.929	Army	Landgraf, W. H.	Bucha, P. W.
	Team finished second in Eastern Intercollegiate meet						
	Thirteen Academy and four pool records were set by team members: Cadet Clay, 50-yard, 100-yard and 200-yard freestyle - Academy record; Cadet Shive, 500-yard and 1650-yard freestyle - Academy record; Cadet Bliss, 50-yard freestyle - Academy record; Cadet W. Landgraf, 500-yard freestyle - pool record; Cadet K. O'Hara, 100-yard backstroke - pool record and 200-yard backstroke - Academy Record; Cadet Magruder, 100-yard breaststroke - Academy record; Cadet Pratt, 100-yard butterfly -						

Army Varsity Sports Summary - Continued

(WINTER - Cont)

SPORT	W	L	T	PER CT	ARMY/NAVY	1963-64 CAPTAIN	1964-65 CAPTAIN
Swimming (Cont)							
	Academy record, and 200-yard butterfly - Academy and pool records; Cadet Bucha, 200-yard individual medley - Academy record; Cadet Hunt, 400-yard individual medley - Academy record; Cadets T. O'Hara, J. Landgraf, Kline and Trainor, 200-yard medley relay team - Academy and pool records; Cadets Herdegen, Magruder, Pratt and Merges, 400-yard medley relay team - Academy record and All-America selection; Cadets Bliss, W. Landgraf, Clay and Bucha, 400-yard freestyle relay team - All-America selection.						
Track (Indoor)	6	2	0	.720	Army	Straub, W. J.	Jenkins, H. A.
	Cadet Straub - Heptagonal one-mile champion						
	Cadet Plymale - Heptagonal pole vault champion						
	Cadet Jenkins - 600-yard run - Academy record						
	Cadet Allen - 60-yard high hurdles - Academy record						
Wrestling	2	4	2	.333	Tie	Winborn, E. G.	Arvin, C. R.
(SPRING)							
Baseball	13	6	0	.684	Army	Michela, R. J.	Pyrz, A.
	Cadet DeBolt was named to All-East team						
	Cadet Haydash was named to the All-District Team and 2nd team All-America						
Golf	11	1	0	.917	Navy	Pembrook, S. B.	Joyner, H. N.
	Team set record for most wins in a season (11)						
Lacrosse	8	1	0	.889	Navy	Buckner, R. C.	Sheckells, T.
	Team ranked number 2 nationally						
	Cadets Buckley, Buckner, Sheckells, and Webb All-America selection						
Tennis	13	2	0	.867	Army	Leyerzaph, J. W.	Oehrlein, W.
Track (Outdoor)	5	1	0	.833	Army	Straub, W. J.	Jenkins, H. A.
	Cadet Straub - Heptagonal mile and two-mile champion, Penn Relays two-mile champion, Academy and Shea Stadium record in two-mile, and NCAA record holder for 5000 meter race						
	Cadets Ramsey, Phillips, Farrell, and Jenkins - mile relay team - Academy record						

APPENDIX K

CADET EXTRACURRICULAR ACTIVITY ORGANIZATIONS

Extracurricular Activities - There are a total of fifty-eight (58) extracurricular activities to which cadets may profitably devote their spare time. These activities are organized and directed almost entirely by cadets; however, each activity has a volunteer officer in charge who acts in an advisory capacity. Activities are organized by like type into seven groups as follows:

Academic Group (10)
- Astronomy Club
- Audio Club
- Debate Council and Forum
- French Language Club
- German Language Club
- Mathematics Forum
- Portuguese Language Club
- Rocket Club
- Russian Language Club
- Spanish Language Club

Competitive Group (12)
- Fencing Club
- Handball Club
- Judo Club
- Pistol Club
- Rifle Club
- Rugby Club
- Sailing Club
- Ski Team (Part of Ski Club)
- Skin Diving Club
- Sky Diving Club
- Triathlon Club
- Water Polo Club

Entertainment Group (4)
- Cadet Band
- Dialectic Society
- Glee Club (and Fourth Class Glee Club)
- KDET-Radio

Hobby Group (11)
- Art Club
- Bowling Club
- Bridge Club
- Camera Club
- Chess Club
- Model Builders Club
- Mountaineering Club
- Outdoor Sportsmen Club
- Scoutmasters Council
- Skeet and Trap Club
- Ski Club

Publications Group (3)
- Bugle Notes
- Howitzer
- Pointer

Religious Group (7)
- Cadet Chapel Acolytes and Choir and Chimers
- Cadet Sunday School Teachers
- Catholic Chapel Acolytes
- Catholic Chapel Choir
- Cardinal Newman Forum
- Jewish Chapel Choir
- Protestant Discussion Fellowship

Representative Group (11)
- 1st Class Committee
- 2nd Class Committee
- 3rd Class Committee
- Hop and Activity Committee
- Information Detail
- Public Relations Council
- Rabble Rousers
- Ring & Crest Committee (1st Cl)
- Ring & Crest Committee (2nd Cl)
- Ring & Crest Committee (3rd Cl)
- Ring & Crest Committee (4th Cl)

APPENDIX L

DISTINGUISHED VISITORS

Brigadier Ahmed Ez Sherif Ez Habib
Chief, "A" Branch, Headquarters,
Sudanese Armed Forces ..... 2 July 1963

Lieutenant Colonel Arthur Alun Gwynne-Jones
Defense & Military Correspondent, London
Times ..... 15 July 1963

Brigadier Zachary Maimalari
Commanding Officer, 2nd Brigade,
Royal Nigerian Army..... 19 August 1963

Brigadier General Luiz Neves
Director, Military Institute of Engineering,
Brazil ..... 28 August 1963

General Liu, An-Ch'I
Commander-in-Chief, Army,
Republic of China ..... 3 September 1963

His Excellency Abdulhak Kemal YORUIC
The Minister of Justice,
Republic of Turkey..... 3-4 September 1963

Major General Piya SUWANPIM
Commandant, Armed Forces Academies
Preparatory School, Thailand..... 9-10 September 1963

Prince Michael of Hohenzollern ..... 10 September 1963

Under Secretary of the Army Stephen Ailes.... 20 September 1963

Major General C. Rodney Smith
USA Retired, Director,
Radio Free Europe ..... 21 September 1963

Honorable John J. Flynt
4th District, Georgia..... 5 October 1963

His Excellency G. Sevilla Samoza
Ambassador of Nicaragua ..... 19 October 1963

Major General Chungyun Pak
Superintendent, Korean Military Academy .. 29 October 1963

Major General Karl-Wilhelm Thilo
Deputy Inspector of the Army, Germany..... 6 November 1963

Distinguished Visitors - Continued

His Royal Highness, Prince Bernhard
of the Netherlands ..... 6 December 1963

Brigadier General Henning E. H. Wilcke
Deputy Commander, Territorial Defense Forces,
Germany ..... 9 December 1963

Honorable B. K. Inouye
Senator, Hawaii ..... 25 January 1964

Mr. Eduardo Arce Civera
Editor of Encyclopedia, Journalist,
Barcelona, Spain ..... 30 January 1964

Major General Arthur S. Collins, Jr.
Director of Officer Personnel, OPO
Department of the Army ..... 9-11 February 1964

Lieutenant General Ben Harrell
Assistant Chief of Staff for Force 27 February -
Development ..... 1 March 1964

Honorable Paul Ignatius
Under Secretary of the Army ..... 15 April 1964

Major General John Francis Worsley
Commandant, Staff College, Camberley
Great Britain ..... 24 April 1964

Major General Leonard W. Thornton
Chief of General Staff, New Zealand Army ... 28 April 1964

Lieutenant General Alexander Josmer Van Den Wall Bake
Governor of the Royal Military Academy, Breda,
Royal Netherlands Army ..... 29-30 April 1964

Lieutenant General A. F. V. M. Thomas
Inspector General, Belgian Army ..... 7 May 1964

Honorable John J. Reed
Deputy Assistant Secretary of Defense ..... 26 May 1964

Honorable Howard W. Cannon
Senator, Nevada ..... 25 May 1964

His Excellency Dr. Leopoldo Suarez
Minister of National Defense, Argentina ..... 8 June 1964

General KAO K'uei-Yuan (Gow)
Director, General Political Warfare Department,
Ministry of National Defense, China ..... 18 June 1964