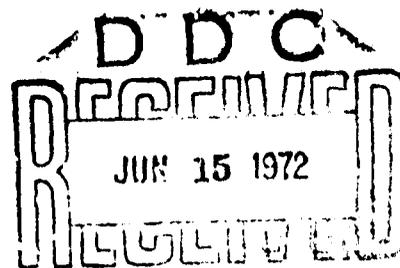
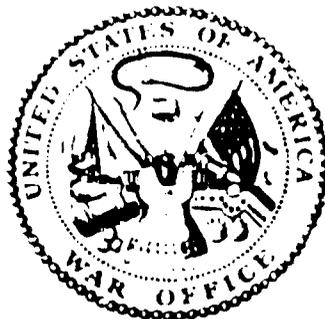


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REPORT OF THE DEPARTMENT OF THE ARMY BOARD TO REVIEW ARMY OFFICER SCHOOLS



F. 7w

VOL. III -

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

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VOLUME III

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

TABLE OF CONTENTS

	<u>Page</u>
ANNEX D: ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING	
Purpose and Scope	397
Background.	397
Discussion.	397
APPENDIX 1: OFFICER PROCUREMENT AND RETENTION	
Purpose and Scope	399
Background	
References	399
Officer Procurement.	399
Service Obligations.	403
Officer Retention.	403
Specialist Training of OTRA Officers	405
Discussion	
Officer Shortages and Procurement Programs	405
Problems in Attracting Quality to the ROTC Program	406
Financial Assistance to Colleges Supporting ROTC	408
Branch Assignment and Selection Procedures	409
Optimum Grade Structure.	411
Increases of Obligated Service Periods	412
Loan Forgiveness Proposal for ROTC Graduates	413
Increasing Retention Rates	413
Conclusions	415
APPENDIX 2: TRAINING OF NEWLY APPOINTED OFFICERS AND WARRANT OFFICERS	
Purpose and Scope	417
Background	
Commissioned Officer Training.	417
Warrant Officer Training	419
Discussion.	419
Dissimilarities in Initial Training Requirements	420
Similarities in Initial Training Requirements.	420
Alternative Plans for Training Newly Commissioned Officers	422
Evaluation of the Basic Course	424

	<u>Page</u>
Ranger Training.	430
Airborne Training.	430
Specialist Training.	431
Warrant Officer Orientation Training	434
Conclusions	435
 APPENDIX 3: CAREER COURSES AT BRANCH SCHOOLS	
Purpose and Scope	439
Background.	439
Discussion	
Need for Career Schooling.	441
Examination of the Career Course	441
Adequacy of the Curricula.	443
Educational Philosophy	449
Conclusions	453
 APPENDIX 4: COMMAND AND STAFF COLLEGE SCHOOLING	
Purpose and Scope	461
Background	
General.	461
Comparison Between Command and Staff Courses	463
Discussion.	465
Preparation for C&GSC.	466
Scope of the C&GSC Mission	468
C&GSC Curricula.	470
Stability Operations	470
Logistics.	471
Selected Subjects.	471
C&GSC Writing Program.	473
Electives Program.	473
C&GSC Graduate Study Program	474
Monitorship of Army Instruction at Other Command and Staff Colleges.	475
Other C&GSC Considerations	476
The Armed Forces Staff College	476
Conclusions	478
 APPENDIX 5: SENIOR SERVICE COLLEGE SCHOOLING	
Purpose and Scope	481
Background.	481
Discussion	
Relationships Between Senior Colleges.	485
Equivalency of Senior Colleges	487
Army War College Mission	488

	<u>Page</u>
Army War College Course Content.	491
Army War College Instructional Methodology and Faculty	492
Army War College Elective Program.	494
Army War College Extension Course Program.	494
Army War College Graduate Study Program.	495
Other Considerations	496
Conclusions	496
 APPENDIX 6: SPECIALIST AND ORIENTATION COURSES	
Purpose and Scope	499
Background	
Definitions.	499
Extent of Specialist/Orientation Training.	499
Discussion	
General.	501
Selection of Courses for Analysis.	505
Specialist Courses in Branch Schools	505
Specialist Courses at Specialist Schools	519
Conclusions	524
 APPENDIX 7: ASSOCIATE, REFRESHER, AND EXTENSION COURSES	
Purpose and Scope	527
Background	
Types of Abbreviated or Nonresident Courses.	527
Evolution of the Associate Course.	528
Discussion	
Current Associate Courses.	529
Validity of the Associate Course Concept	530
Mobilization Courses	531
Current Refresher Courses.	533
Evaluation of Refresher Courses.	534
Current Extension Courses.	534
Evaluation of Extension Courses.	536
Proposed Abbreviated or Nonresident Courses.	536
Impact of Proposals.	539
Conclusions	539
 APPENDIX 8: PREREQUISITES, REQUIREMENTS, AND QUOTAS FOR SERVICE SCHOOL AND COLLEGE ATTENDANCE	
Purpose and Scope	543
Background	
Prerequisites.	543
Selection Procedures	544
Quotas	544
Requirements	545
Assets	546

	<u>Page</u>
Discussion	
Prerequisites	547
Selection Procedures	547
Requirements	548
Quotas - General	549
Quotas - Branch Considerations	550
Proposed Quotas - C&GSC	553
Proposed Quotas - AFSC	555
Proposed Maximums - Senior Service Colleges	557
Impact of Proposed Solution	557
Conclusions	
Prerequisites	558
Selection Procedures	558
Requirements	558
Quotas	559

APPENDIX 9: TRAINING IN COMMAND RESPONSIBILITIES AND FUNCTIONS

Purpose and Scope	561
Background	561
Discussion	
General	564
Relationship of Command to Leadership	565
Relationship of Command to Management	567
Branch Requirements for Leadership, Management, and Command	567
Revisions in Current Regulations	570
Other Problems Related to Command	572
Conclusions	573

APPENDIX 10: MANAGEMENT EDUCATION AND TRAINING

Purpose and Scope	575
Background	
Categories of Management	575
Trends in Management	575
Current Army Management Training	577
Specialist Courses	578
Graduate Civil Schooling	579
Discussion	
General	580
General Management Training	580
Personnel Management Training	582
Financial Management Training	584
Comptroller Training	585
Installation Level Management	587

	<u>Page</u>
Managerial Analytical Techniques Training.	588
Subject Proponency	589
Conclusions	590
APPENDIX 11: OPERATIONS RESEARCH/SYSTEMS ANALYSIS EDUCATION AND TRAINING	
Purpose and Scope	523
Background	
General.	593
Degree Requirements.	593
Systems Analysis Specialist Program.	595
Current Education and Training Programs.	595
Discussion	
General.	597
Levels of OR/SA Training	597
OR/SA Specialist Program Requirements.	598
OR/SA Specialist Level Training.	599
OR/SA Executive Level Training	600
OR/SA Familiarization Level Training	601
OR/SA Program Supervision.	603
Conclusions	603
APPENDIX 12: AUTOMATIC DATA PROCESSING TRAINING	
Purpose and Scope	605
Background	
ADP Trends	605
Current Status of Army ADP Training.	607
Discussion	
Evaluation of Current Officer ADP Training	609
Corollary Problems Affecting ADP Training.	612
Conclusions	614
APPENDIX 13: LOGISTICS EDUCATION AND TRAINING	
Purpose and Scope	617
Background.	617
Discussion.	618
Training in Branch Schools	619
Basic Course	619
Career Course.	621
Command and Staff Colleges	623
Logistics Specialist Training.	625
Army Materiel Command (AMC) Schools.	626
Graduate Degrees	627
Logistics Officer Specialist Program (LOP)	628
Conclusions	630

	<u>Page</u>
APPENDIX 14: COUNTERINSURGENCY TRAINING	
Purpose and Scope	633
Background	
New Army Mission	633
Discussion	
General.	634
Evaluation of Counterinsurgency Training in Career Schooling	635
Evaluation of Specialist Training.	640
Specialist Program	644
Consolidation For Growth	645
Conclusions	645
 APPENDIX 15: TRAINING IN CBR OPERATIONS AND EMPLOYMENT OF NUCLEAR WEAPONS	
Purpose and Scope	647
Background.	647
Discussion	
Branch Schools	648
Command and General Staff College (C&GSC).	650
Armed Forces Staff College (AFSC).	651
Other Staff and Command Colleges	651
Senior Service Colleges.	651
Specialist Courses	652
Orientation Courses.	657
Atomic Energy Specialist Program (AEP)	660
Electives.	661
Civilian Schools	661
Conclusions	662
 APPENDIX 16: FOREIGN LANGUAGE AND AREA TRAINING	
Purpose and Scope	665
Background.	665
USMA Language Training	665
Foreign Area Specialist Training Program	665
Discussion	
Defense Language Institute	667
USMA Language Training	668
FAST Program	669
Conclusions	669
 APPENDIX 17: INTELLIGENCE TRAINING	
Purpose and Scope	671
Background.	671

	<u>Page</u>
Discussion	
General	672
Intelligence Orientation Courses	673
Career (Advanced) Course	674
Mergers of Two Schools	675
Branch School and Army College Intelligence Training	676
Defense Intelligence School	679
Conclusions	681
 APPENDIX 18: ARMY AVIATION TRAINING	
Purpose and Scope	683
Background	683
Discussion	
Initial Entry Flight Training	684
Other Aviation Qualification Courses	685
Aviator Transition and Standardization Training	686
Aviation Safety Training	687
Branch Responsibilities for Schooling	688
Aviation Command and Staff Training	689
Warrant Officer Aviator Program	689
Aviator Skill Identification	691
Conclusions	691
 APPENDIX 19: CIVIL SCHOOLING PROGRAM	
Purpose and Scope	693
Background	693
Discussion	
General Educational Patterns	695
Army Educational Objectives	696
Requirement for Advanced Degree Program	696
Army Educational Requirements Board (AERB)	697
Requirements	698
Assets	700
Utilization	703
Selection System	704
Management of the Advanced Education Program	704
Additional Advanced Training Programs	704
Conclusions	705
 APPENDIX 20: IMPACT OF THE JOINT AND DEFENSE SCHOOL SYSTEMS ON THE ARMY SCHOOL SYSTEM	
Purpose and Scope	707
Background	707

	<u>Page</u>
Discussion	
Definitions	707
Joint and Defense Schools and Courses	709
Nature of Defense Logistics Courses	710
Conclusions	712
APPENDIX 21: ALTERNATIVE ORGANIZATIONAL STRUCTURES FOR THE ARMY SCHOOL SYSTEM	
Purpose and Scope	715
Background	715
Discussion	
Part I - Possible Consolidation of Schools Under CONARC	718
Army-Operated Defense Schools	719
Army Materiel Command Schools	719
Army War College	720
US Military Academy and USMA Preparatory School	720
Army Security Agency School	720
Professional Services Schools	721
Preliminary Finding - Alternative One	723
Part II - Internal CONARC/AMC School Structure	723
Divided Branch Schools	727
Related Career and Specialist Schools	724
Related Specialist Schools	725
Preliminary Finding - Alternative Two	725
Part III - Doctrinal Responsibilities of Army Schools and Colleges	
Army War College and Command and General Staff College	727
C&GSC/Branch School Doctrinal Relationships	728
Branch and Specialist Centers and Schools	733
Preliminary Finding - Alternative Three	736
Part IV - Selection of Alternative	
Comparing Alternatives	736
Conclusions	738
APPENDIX 22: FACULTY SELECTION, TRAINING, QUALIFICATION AND ROLE	
Purpose and Scope	741
Background	741
Discussion	
Part I - Military Staff and Faculty	
General	742
Staff and Faculty Selection	742

	<u>Page</u>
The Instructor	743
Training of Instructors	744
Improvement of Academic Supervision	745
Centralization of Instructor and Supervisor Training	745
Conferences and Liaison Visits	747
Advanced Degrees for Staff and Faculty	747
Stability of Positions	751
Part II - Educational Advisor and Civilian Instructors	
The Educational Advisor	752
Civilian Instructors at Branch Schools	756
Use of Civilians at the Army War College	757
Conclusions	758

APPENDIX 23: STUDENT TESTING AND EVALUATION

Purpose and Scope	761
Background	761
Discussion	761
Examination and Testing	761
Review of Examinations	764
Time Allotted for Examinations	764
Faculty Ratings	765
Peer Ratings	765
Analysis of Means Available	766
Numerical Rating	766
Narrative Description of Officer	767
Academic Report (DA Form 1059)	769
Elimination of Students	770
Conclusions	770

**APPENDIX 24: INNOVATIONS IN EDUCATIONAL PRACTICES AND
TECHNIQUES**

Purpose and Scope	773
Background	773
Discussion	774
Methods	774
Equipment	778
Research and Exchange of Findings	780
Conclusions	780

APPENDIX 25: SCHOOL AND COLLEGE LIBRARIES

Purpose and Scope	783
Background	783

	<u>Page</u>
Discussion	
Physical Arrangements, Size, and Functions of the Library	783
Library Collections	785
Acquisition and Elimination of Titles	787
Library Budgets	789
Library Staffs	789
Career Development	790
Professional Associations	790
Library Committee	791
Student Orientation and Library Availability	791
Automation	792
Centralized Records Facility	792
Conclusions	793
 APPENDIX 26: ELECTIVES IN THE ARMY SCHOOL SYSTEM	
Purpose and Scope	795
Background	795
Discussion	
Basic Course	795
Desirability of Electives	796
Possible Types of Electives	797
Feasibility of Introducing Electives	799
Student Selection	801
Design of Elective Programs	802
Conclusions	803
 APPENDIX 27: THE SCHOOLING OF FOREIGN MILITARY OFFICERS	
Purpose and Scope	805
Background	805
Discussion	
General	806
Orientation Material	806
Language Proficiency	807
Quotas & Attendance	809
Programs of Instruction	809
Foreign Student Relations	812
Special Insignia	815
Conclusions	818
 APPENDIX 28: REVISION OF AR 350-5	
Purpose and Scope	819
Background	819

	<u>Page</u>
Discussion	
General	819
Purpose and Scope	819
Definitions	820
Staff and Command Responsibilities	820
Army School System	821
Education Leading to Commission	823
Other Schools	823
Selection and Recognition of Students	823
General	823
Conclusions	825
Proposed AR 350-5	825

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

1-743

PURPOSE AND SCOPE

1. This annex with its appendices analyzes critically many different facets of officer education and training. It starts from the factual base of the current Army schooling system established in Annex B, and takes cognizance of schooling programs in other public and private sectors described in Annex G. It attempts to take the long view of officer education and training, and to weigh the adequacy of the present system in various areas to meet the challenges which will face the Army during the next decade.

BACKGROUND

2. Annexes B and C with their 16 appendices represent a synthesis of the great mass of factual material gathered by the Board. Each of the appendices concludes with a further summation of the most pertinent features of current schooling systems in the Army, throughout the entire Department of Defense, in industry, and in foreign armies. Their summaries in themselves point up fruitful areas for further study.

3. Additionally, in the directive under which the Board is operating, it was asked to "examine particularly" a number of specific areas.

DISCUSSION

4. The 28 appendices to this annex probe in some depth areas highlighted in previous annexes or singled out in the directive to the Board, and develop specific conclusions in each of those areas. The Board found it difficult to separate problems associated directly with officer education and training from broader issues relating to branch functions and career patterns. Certain of these issues are touched on in the ensuing appendices.

5. The first appendix deals somewhat philosophically with the broad problems associated with officer procurement and retention, since

a stable officer corps is a prerequisite for a successful schooling program. The next four appendices treat the four current levels of Army officer career schooling, to include an evaluation of the objectives or purposes of the courses and the curricula as measured against current and proposed objectives or purposes. Appropriate parallels are drawn between the Army schooling system and the systems of other Military Services. Specialist and orientation courses; use of associate, refresher, and extension courses; and prerequisites, requirements and quotas for career schooling are discussed in turn.

6. Thereafter, 10 appendices deal successively with training in command responsibilities and functions and with a broad range of specialist or functional areas. The administration of the Army's advanced civil schooling program is examined in some detail in a subsequent appendix.

7. The impact of the joint and Defense school systems on the Army school system is analyzed and alternative organizational patterns for the Army school system are developed. Faculty selection, training, qualification, and role; student testing and evaluation; innovations in educational practices and techniques; school libraries; electives; and foreign officer schooling are addressed in turn, while the final appendix discusses the revision of AR 350-5.

8. The conclusions of the 28 appendices in this annex represent a composite judgement on the current Army officer schooling system, when viewed in part and in whole from many different angles. They form the basis for the summary discussion and conclusions in Volume I of the report.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 1

OFFICER PROCUREMENT AND RETENTION

PURPOSE AND SCOPE

1. The purpose of this appendix is to analyze problems related to the procurement and retention of Army officers, with particular reference to the impact of these problems on education and training.

BACKGROUND

References

2. Pertinent facts developed in Annex B, Appendices 2 and 3; Annex C, Appendices 2 and 3; and Annex D, Appendices 2 and 18, are summarized in ensuing paragraphs.

Officer Procurement

3. In FY 65, a total of nearly 15,000 newly commissioned officers entered the Active Army, only 8% of whom were commissioned in the Regular Army (RA). During the period 1962-5, annual input of newly commissioned officers into the Active Army averaged around 15% of total officer strength.

4. Newly commissioned officers enter the Active Army from the US Military Academy (USMA), Officer Candidate Schools (OCS), and the Reserve Officer Training Corps (ROTC) program; by direct appointment; and through the drafting of doctors and dentists.

5. The direct cost to the Army of producing an officer from each of these sources in FY 65 was:

USMA	\$48,917
OCS (Inf)	5,880
OCS (Art.)	7,440
ROTC	4,250

**DMG'S ACCEPTING RA APPOINTMENTS
SCHOOL YEARS 1962-4**

BRANCH	1962			1963			1964		
	SELECTED	ACCEPTED	PERCENT	SELECTED	ACCEPTED	PERCENT	SELECTED	ACCEPTED	PERCENT
AG	51	27	53	37	14	38	64	32	50
AIS	1	1	100	40	22	55	101	62	61
ARMOR	76	63	83	83	60	72	86	62	72
ARTY	272	201	74	332	223	67	330	211	64
CML	37	18	49	39	27	69	40	19	47
ENGR	146	74	51	157	84	53	166	90	54
FIN	45	21	47	38	16	42	37	20	54
INF	346	266	77	370	303	82	384	302	79
MP	39	24	61	43	28	58	47	32	68
MSC	133	80	60	90	61	68	77	49	63
ORD	149	86	58	156	88	56	167	92	55
QM	119	66	55	108	65	60	132	60	45
SIG	104	63	60	141	74	52	111	48	43
TC	105	71	67	135	89	66	146	76	52
TOTALS	1623	1061	65%	1769	1154	65%	1888	1155	61%

FIG. D1-1

6. The USMA has provided only 3.5% of the annual input of newly commissioned officers into the Active Army over the past five years; however, an expansion program is currently under way which will provide for an 80% increase in the Corps of Cadets by 1972. Graduates of the USMA receive a Bachelor of Science (BS) degree and are commissioned in the Regular Army. Although the BS degree is not related to a specific academic major, the course is weighted roughly 60% toward scientific and engineering subjects and 40% toward the humanities and social sciences.

7. Although the OCS program provided only a little over 8% of the input of officers into the Active Army during the period FY 61-65, it was the balancing factor in maintaining that input at required levels. Because of its capability to respond rapidly to changing requirements, it provides the primary source for meeting emergency/mobilization requirements. Approximately a quarter of the OCS graduates in FY 65 were college graduates and an additional quarter had at least two years of college. During the current build-up period these percentages will probably drop.

8. The primary purpose of maintaining the ROTC program, as stated in current regulations, is "to procure commissioned officers to meet the needs of the Active Army, the Reserve Components of the Army, and mobilization requirements." In FY 65, the ROTC program furnished 70% of the input of newly commissioned officers into the Active Army and 43% of the input into the Regular Army. A detailed presentation of numbers provided in each category by the various colleges participating in the ROTC program is shown in Annex B, Appendix 3, Figure B3-1.

9. The number of designated Distinguished Military Graduates (DMG) in 1962-64 who accepted RA appointments is shown in Figure D1-1. Within an overall acceptance rate of 61% for school year 1964, branch acceptance rates varied from highs of 79% for the Infantry and 72% for Armor to lows of 43% for the Signal Corps and 45% for the Quartermaster Corps.

10. The ROTC Vitalization Act of 1964 provides for two- and four-year scholarships for selected ROTC students, and will produce an estimated 1,900 officers annually by 1972. These officers will have a four-year service obligation, and it is visualized that the great majority of them will be offered appointments in the Regular Army on graduation.

11. The academic majors and branch assignments of FY 65 ROTC graduates are indicated in Figure D1-2. All ROTC students of General Military Science units are required to indicate three branch preferences in order of priority; at least one must be Infantry, Armor, Artillery, Corps of Engineers or Signal Corps, provided the student is medically

ROTC ACADEMIC MAJORS AND BRANCH ASSIGNMENTS FY 66

ACADEMIC MAJORS	AC	ARM	ARTY	CHL	ENGR	FIN	INF	AIS	MP	MSC	ORD	QH	SIG	TRANS	MED	TOTAL
Agriculture	1	10	79	3	8		45	3	4	14	22	46	16	16		273
Forestry		11	21	1	33	1	9	16		3	7	3	2	9		116
Food Technology		1	1		1						1	7		1		12
Art	2	5	9		4		11		2	3	12	8	14	10		80
English	27	71	81	1	15	1	81	39	16	21	44	22	58	37		516
Language	3	9	20		4		18	44	5	5		2	8	7		129
Journalism	3	11	12		1		12	12	1	4	7	11	20	8		102
Music	3	2	12				8			2	7	3	11	4		52
Philosophy	6	6	9		1		10	6	4	1	9	3	6	4		65
Speech	3	9	7		2		6	4		3	2	2	14	3		55
Religion			2				2					1	2	3		10
Liberal Arts	7	10	1	2	2		17	8	3		7	4	11	11		97
Biology	1	1	4	4	6		41	3		55	8	8	18	4		258
Entomology		1	1		1					4	2		1	1		12
Bacteriology			1				2			6		1	2			16
Zoology		9	5	6	2		7	3	1	16	8	2	8	2		69
Accounting	10	41	117		13	72	6	6	6	20	38	67	97	45		592
Industrial Management	3	17	42	10	13	2	24	7	3		52	17	19	25		243
Hotel Admin		2	7				3	1			1	16	2			32
Industrial Arts	1	20	10		10		18	2	1	1	25	2	12	1		109
Transportation					2						1	1	1	15		25
Business Admin	71	221	308	3	74	67	267	44	42	51	136	172	255	166		1855
Architecture		2	10		86					1	8	1	4	6		126
Engineering																
Management	2	4	3		12		2				1	1	5			30
Aeronautical			11		5		1				13		1	1		37
Architectural		1	2		14			1			2					20
Ceramics		1	2	1	4						6	1	1	1		17
Chemical		2	18	86	33		2	1		1	22	3	13	2		203
Civil		14	18	1	387	1	12	3		7	42	1	1	22		509
Electrical	1		53	5	67		6	71		2	128	3	152	7		500
Electronics			3		4		1	4			16		12			40
Geological		1			13						2	1		1		18
Industrial	3	5	13	7	44	1	8	4	1		47	2	15	5		155
Mechanical		14	36	1	172		11	2			183		10	8		437
Metallurgical		1	1	2	10						16		1			31
Mining			1		12						2					15
Petroleum			1		10		1	3			1	1				17
Sanitary					2											2
TV & Production			1		1		3				2		15	4		26
Textile		1	2	1	2		3				4	4	5	1		23
Agricultural			3		10						12	2	2	1		30
Nuclear			1		3						5					9
General		1	4		4						3	1	1	1		15
Law	15	6	8		1	2	11	5	18	4	4	5	8	7		94
Hospital Admin					2		1									3
Pharmacy				2	3					14			5			29
Pre-Medical		2	1				2	1		12	1				154	173
Pre-Veterinarian							1				1				11	13
Pre-Dental			1								4				34	39
Medical Science			2				1				1	1				5
Chemistry	1	15	56	138	18		20	4		10	33	7	10	4		316
Geography	1	1	7	1	4		10	11	1	1	4	2	3	8		54
Geology			8	1	27		4	4	1		6	3		1		59
Math	16	19	209	13	67	6	28	37		8	104	10	55	9		86
Meteorology					1						3	1				5
Physics		2	20	1	18		6	6		3	60	3	26	1		166
Mil/Navy Science		1			1		2									4
Natural Sciences		6	15	2	2		5	1	2	6	2	3	2	1		47
Economics	20	73	157	1	28	29	72	30	15	27	80	51	50	87		720
Education	5	48	78	5	10	1	57	8	9	21	25	35	36	14		322
History	45	132	142	2	9		191	90	59	19	69	67	63	106		994
International Rel		5	11		1		8	41	3	1	5	6	6	11		98
Physical Education	14	25	24		4		66	1	18	6	7	2	13	6		185
Political Science	25	63	84		6	3	85	165	27	12	32	36	50	47		635
Psychology	24	39	48	2	4		49	8	9	49	13	10	30	17		302
Sociology	10	19	25		4		35	27	38	14	6	8	17	24		227
Political Science&Adm	6	18	11		4		19	12	1	2	4		5	9		110
Social Science	6	26	20		5		28	22	12	8	17	11	7	4		166
TOTALS	341	1038	1901	344	1326	186	1400	765	327	446	1382	685	1203	788	199	12331

FIG. D1-2

qualified for assignment to these branches. Branch selections are made by The Adjutant General, based on student preference, recommendations of Professors of Military Science (PMS), relationships of academic majors to branch requirements, and assigned branch quotas. The selection process is essentially automated.

12. ROTC graduates may request deferment of their initial period of active duty to pursue graduate studies. Delays of more than 48 months from the date of appointment must be approved by Headquarters, Department of the Army (DA). Scientifically and professionally trained graduates may be called to active duty in the branch in which they were originally appointed, or they may be transferred to another branch. Officers are afforded the opportunity to request the active duty assignment which will best utilize their knowledge and skills.

13. Doctors and dentists are currently drafted into the Army under the provisions of law. Other corps of the Army Medical Service, the Judge Advocate General's Corps, the Chaplains, and the Women's Army Corps obtain the bulk of their officers by voluntary direct appointments from civilian life. The remaining branches commission relatively few officers by this method, although the Adjutant General's Corps and the Army Intelligence and Security Branch, in particular, offer direct appointments to enlisted men and warrant officers with special technical qualifications.

Service Obligations

14. Service obligations of various categories of officers are indicated in Figure D1-3.

15. The obligated tour for other-than-Regular officers in the Navy is three years; in the Air Force it is four years.

Officer Retention

16. The retention rate after three years of service among RA officers commissioned during the period 1957-61 was approximately 94% for USMA graduates and almost 96% for DMG's. Increases in the obligated service period for USMA graduates after that period militate against precise continuing comparisons. Retention rates in these two categories at the end of five years, however, are roughly comparable and average around 81%.

17. Among other-than-Regular Army (OTRA) officers, the retention rate at the end of their initial obligated tour during the past two years has been in the 23-25% area. Within this group, OCS graduates have had a high retention rate, 70-72%, while the ROTC graduate retention rate

SERVICE OBLIGATION OF NEWLY COMMISSIONED ARMY OFFICERS

CATEGORY	ACTIVE ARMY OBLIGATION	ESTABLISHED BY
RA		
USMA	4 years (5 years beginning with class of 1968)	Law
ROTC - DMG	3 years	Sec of Army
Direct Appointment	3 years	Sec of Army
NON-RA		
ROTC - Avn Program	3 years (upon completion of flight training)	Sec of Army
ROTC - 2 and 4 year scholarship	4 years	Law
ROTC - other than above	2 years	Sec of Army
Direct Appoint	Varying*	Sec of Army
Doctor/Dentist Draft	2 years	Law
OCS	2 years	Sec of Army
<p>* Normally 2 years but could be indefinite if the individual possesses a critical skill. Concurrent active duty is not required of all appointments since an obligatory tour may have been previously served in enlisted status. JAG appointments, as matter of policy, presently are for a minimum of 3 years.</p>		

FIG. D1-3

has been much lower, approximately 20%. Among branches, Infantry and Ordnance have the highest retention rates; the Corps of Engineers and Finance Corps have the lowest.

Specialist Training of OTRA Officers

18. Examination of eight specialist courses conducted in branch schools during FY 65 disclosed that 56% of their combined student bodies were lieutenants serving a two-year obligated tour (see Appendix 6). This sample is considered representative of a situation which obtains throughout the CONARC school system in such fundamental areas as supply, maintenance, and communications.

DISCUSSION

Officer Shortages and Procurement Programs

19. The Army today is experiencing an acute shortage of officers in the active establishment due primarily to the Vietnam build-up, and has embarked on a greatly expanded OCS program in an effort to remedy the situation. In doing so, it is accepting a long-term disadvantage in the lower educational level of the average OCS graduate as compared to the ROTC graduate. This is somewhat offset by the fact that the OCS program produces well-trained and well-motivated second lieutenants who generally remain in the service after completion of their obligated tours. The Board has proposed (see Appendix 19) that the Army inaugurate a baccalaureate degree program for carefully selected enlisted men which would permit them to study in disciplines particularly required by the Army before attending OCS. Such a program, however, has only limited application during a major build-up or emergency period.

20. The Army Reserve Components have an existing shortage of approximately 6,200 second lieutenants. A continuing shortage of 5,200 lieutenants is projected for the Army National Guard if the Reserve Components are realigned as proposed. The National Guard is currently seeking to meet its shortage through the operation of State OCS programs. Since the Active Army has taken the total output of the ROTC program since 1962, the Army Reserve has lost the primary source of its second lieutenants. It draws its officers today chiefly from ROTC graduates who have completed their two-year obligated tour.

21. Despite the great value of OCS programs in meeting emergency or mobilization needs, the Board feels that the ROTC program should continue to provide the bulk of newly commissioned officers, both for

the Active Army and the Reserve Components, for the next decade. The Army will therefore retain its interest in increasing the quantity and improving the quality of ROTC graduates.

Problems in Attracting Quality to the ROTC Program

22. The Board has encountered random indications of a decline in academic balance or quality in the Army's ROTC graduates. It divided recent ROTC graduates according to their academic majors into two rough groupings: those with degrees in scientific and engineering disciplines, and others. Investigation showed that ROTC graduates with degrees in these "hard" disciplines comprised 30% of total ROTC graduates in 1962 and only 23% in 1965. Put another way, the 1965 output of ROTC graduates with engineering and scientific degrees declined 34% from the 1962 output, while those in other categories declined only 6%.

23. The Army is finding it increasingly difficult not only to attract young men with a scientific and engineering bent into the ROTC program, but to interest those who do enroll in making the Army a career. As indicated in Figure D1-1, the percentages of DMG's from the college classes of 1962-64 who accepted Regular Army commissions in the technically-oriented branches were, in all cases, below the overall Army average. In most cases the low acceptance rate is related directly to the competition for talent represented by industry and other governmental agencies. A recent nationwide survey conducted by the placement director of a large university shows a 60% increase in 1966 over 1965 in the demand for college graduates with an engineering degree. Average starting salaries being offered to engineering graduates at both the baccalaureate and Master's degree levels, already the highest in any disciplinary area, show a further significant increase in 1966.

24. Recruiting efforts of corporations on the campus are intense. The Board reviewed brochures prepared by industry which are much in evidence in school libraries, student lounges, and other areas. These "slick" publications are well designed and carefully planned, and offer a wide and fascinating vista to young men on the threshold of a career. They stress career patterns, opportunities for advancement, and challenging futures with particular corporations. The Board encountered no similar eye-catching Army publications pointing out the attractiveness of a professional military career. It would appear that the Army has not been sufficiently imaginative in its sales approach and that increased efforts in this field are warranted.

25. The Army depends in large measure on the Professor of Military Science (PMS) on campus to attract students to the ROTC program, to retain them in the program, and to interest them in making the Army a

career. The PMS should be a highly qualified officer with at least a baccalaureate degree, enthusiastic in his support of the ROTC program, and adroit and articulate in manner. On many campuses he will experience difficulty in communicating with students; in some instances the Board found that he is not afforded the opportunity to talk to the freshman class about the ROTC program. Despite discouragement, the PMS must seek to gain the confidence and respect of school authorities and civilian faculty associates. He and his staff must provide military instruction that is equally as effective as the academic instruction offered by other departments.

26. The PMS has a generally untapped source of assistance in officers attending college under the Army's civil schooling program. Officers completing undergraduate schooling under the BOOTSTRAP program or engaged in graduate study could talk to the young college student in his own language and outside the military environment. These highly selected and intelligent officers can testify firsthand as to the continuing educational opportunities offered by the Army. The Board is aware of the rigor of the courses these officers are pursuing, but believes they could, without disruption to their study effort, invite selected undergraduates into their homes and discuss the Army career on an informal "soft-sell" basis. The PMS today has little contact with Army students matriculating on campus. Certain unfortunate experiences of the past, in which the PMS attempted to use these students in summer training programs and the like, have led the Army to discourage too close an association. The PMS should certainly have only administrative responsibilities for Army students matriculating at his university and should not be placed in the chain of command over them. The Board is convinced, however, that it is in the Army's best interest both for the PMS to maintain close liaison with these students and for them to assist him on an informal basis in selling the ROTC program and the Army as a career.

27. The difficulties the Army is encountering in maintaining viable ROTC units in universities with high academic standing, and in interesting a reasonable number of the graduates in a RA career, are illustrated in Figure D1-4 (see also Annex B, Appendix 3). These universities produced almost no Regular Army officers, and most produced relatively few Reserve officers. If production is measured against the Army's investment in funds, facilities, and instructor personnel, many of these ROTC units must be regarded as marginal.

**ROTC GRADUATES (RA AND RES) OF SELECTED INSTITUTIONS
1965**

COLLEGE	ROTC GRADUATES		
	RA	RES	TOTAL
Harvard University	1	16	17
Princeton University	1	24	25
Yale University	1	30	31
Massachusetts Institute of Technology	1	12	13
Cornell University	1	89	90
Johns Hopkins University	-	32	32
Georgia Institute of Technology	-	144	144
Rice University	-	11	11
Stanford University	1	56	57

FIG. D1-4

28. It is too early to assess the effect of the ROTC Vitalization Act of 1964 on the ROTC program in general or on units at various universities in particular. The hope is that the Act may revive greater ROTC interest in institutions such as those listed above. The tie-in of the scholarship and DMG programs remains to be fully developed, although it will certainly be close. Some curtailment of the DMG program in its present form will obviously be necessary as the ROTC scholarship program reaches full fruition.

Financial Assistance to Colleges Supporting ROTC

29. While the ROTC Vitalization Act provides scholarships to individuals as an inducement to enter the ROTC program, no corresponding financial assistance has been provided to institutions which support the program. Expanding college enrollment today is accompanied by a decline in ROTC enrollment. There is doubt that the ROTC scholarship program will, of itself, reverse the trend. Unless school authorities

give the ROTC program greater backing, competing educational demands could result in its eventual liquidation.

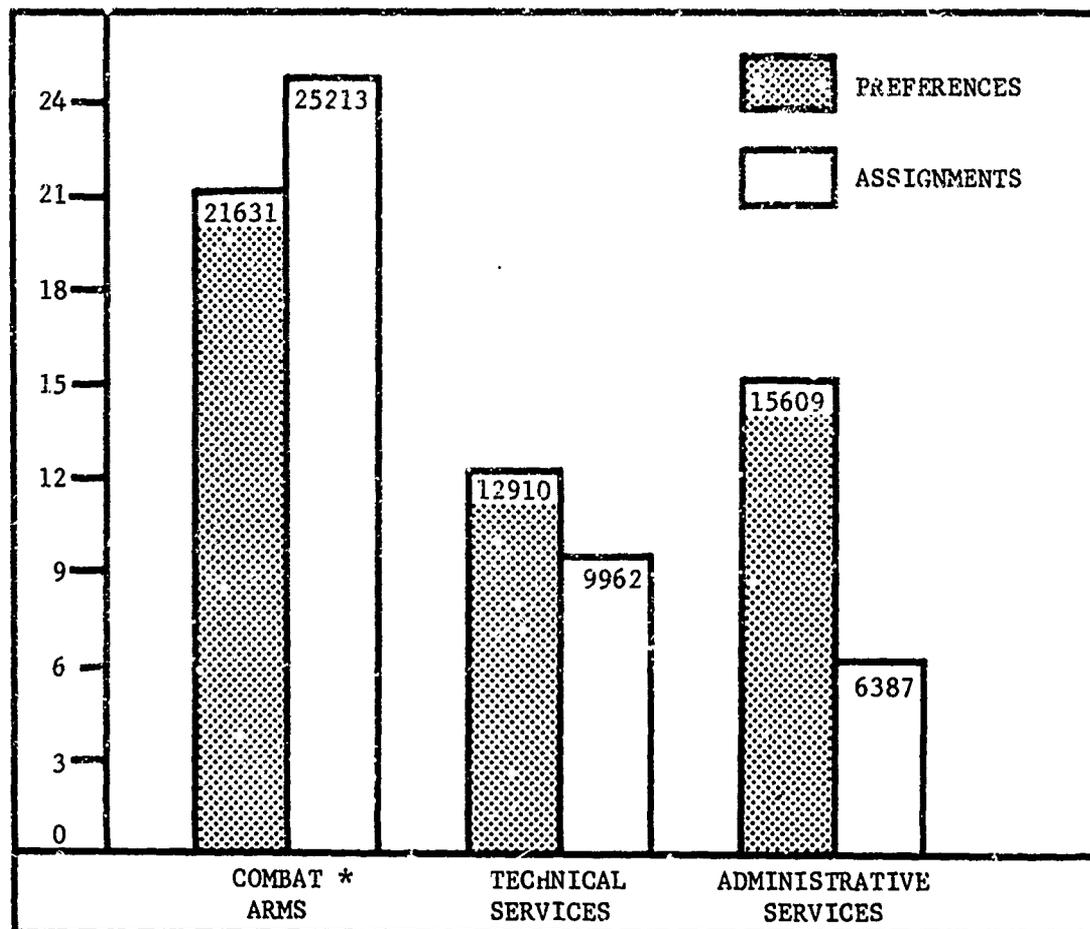
30. There are only five "military colleges" today which require a course in military training for all qualified undergraduate students, organize military students into Corps of Cadets under constantly maintained military discipline, require all members of the Corps to be habitually in uniform when on campus, and in general meet military standards similar to those maintained at Service academies. These colleges provide not only a large annual supply of well-trained ROTC graduates for the Active Army, but a considerably higher-than-average percentage who enter the Regular Army as well. Certain of the military colleges are today fighting for their continued existence. Three are state-supported institutions and must defend their budgets annually at the State House. There are heavy pressures on them to convert into non-military colleges, expand their student bodies, and admit lower grade students. The Army has a clear stake in helping these colleges to maintain their present military orientation.

31. The ROTC program is the least expensive, on a per capita basis, of the three primary officer procurement sources. It costs less to produce a Reserve officer through the ROTC program than through the OCS program, and in addition, the Army gains a college student. The cost to the Army of producing a Regular Army officer through the DMG program is less than a tenth that of producing one through the USMA. The military colleges produce officers at a lower cost than the ROTC program as a whole because of the relatively large size of their cadet corps related to certain fixed costs. The Board feels strongly that the Department of Defense (DOD) should express a direct interest in the federal aid-to-education program, specifically with reference to its application to ROTC colleges. The DOD should be an active proponent of military training in our colleges, just as other public and private agencies urge support of educational efforts in their respective areas of interest. To that end, the Board suggests that the DOD request the Department of Health, Education and Welfare to provide financial assistance to colleges supporting the ROTC program, on a graduated basis according to their annual production of second lieutenants. In order to gain greater college support toward interesting ROTC graduates in a full-time military career, additional remuneration should be provided for Regular Army officers, predicated on the number produced.

Branch Assignment and Selection Procedures

32. There is some dissatisfaction among ROTC graduates in the matter of branch assignment. This is perhaps inevitable when a large group of

**BRANCH PREFERENCES AND ASSIGNMENTS OF ROTC GRADUATES
FY 62 - 65 (IN THOUSANDS)**



* Includes Corps of Engineers and Signal Corps

FIG. D1-5

officers must be assigned to numerous branches according to branch needs. Within branch quotas, individual preferences are given full consideration. The OTRA ROTC graduate prefers assignment to technical and administrative branches in numbers larger than can be accommodated, as indicated in Figure D1-5. On the other hand, students who have done well in a General Military Science ROTC program and been designated Distinguished Military Students show some preference as a group for assignment to the combat arms, and, in certain instances, refuse RA appointments offered in other branches.

33. The Board has not investigated the selection procedures employed by the Department of the Army in sufficient depth to make specific recommendations. It is mindful, however, of the relative paucity of scientific and engineering talent among ROTC graduates. During the next decade, the greatest technological advances and the largest increases in training requirements will probably occur in the broad field of communications-electronics. The Board is concerned over the professional competence of the Signal Corps today as reflected in the undergraduate and graduate degrees of its officers, their relative academic standing in C&GSC classes over the past five years, and their selection rate to senior service colleges during the same period. Although expertise in the communications-electronics area is required by many branches of the Army today, the Signal Corps is the only branch in which competence in this area is a universal requirement. The assignment of only 152 out of 500 ROTC graduates with an electrical engineering major and 12 out of 40 with an electronics engineering major to the Signal Corps in 1964-65, as indicated in Figure D1-2, does not appear to give adequate weight to Signal Corps needs. The Board feels that AR 145-133, which relates academic majors to branches as an element in branch assignment, should be revised to reflect the preeminent need of the Signal Corps for officers with degrees in electrical and electronic engineering. Thereafter, the selection processes should be modified to take cognizance of this need and to assure assignment to the Signal Corps of an increased percentage of the annual ROTC output with majors in these areas.

Optimum Grade Structure

34. In FY 64, the Deputy Chief of Staff for Personnel, Department of the Army, developed a study on the optimum grade structure of the Army. This study started from the base point of the statutory size, grade restrictions, and retirement provisions currently imposed on the Active Army, and considered necessary retention rates at the end of initial obligated periods, optimum times for promotion, appropriate attrition or pass-over rates, and retirement policies to maintain a balanced grade structure from lieutenant to general officer. It then compared this optimum grade structure of the Army with the actual grade structure as it exists

today and as it is forecast over the next ten-year period. The study makes the point that, unless the Army significantly increases its junior officer retention rate, it will continue to be short of captains and majors for the foreseeable future.

Increases of Obligated Service Periods

35. Increasing the officer retention rate in the Active Army presents a major challenge to the Army. The rate has actually shown an overall downward trend since 1961. Increased retention can be achieved by increasing the obligated service period of various categories of officers or by encouraging a larger number of officers (with particular reference to the OTRA officers) to continue on active duty beyond their obligated service period. Obligated tours for USMA graduates will increase from four to five years beginning with the class of 1968, the second such increase since 1961, when the USMA and DMG obligated tours were identical. Since the ROTC Vitalization Act provides a four-year obligation for scholarship recipients, officers will soon be entering the Regular Army with three different obligated service periods. While there are wide differences in the extent to which the government has financed the education of these officers, there are other factors which should be considered in establishing service obligations. In the interests of establishing greater common identity for all RA officers, there would be merit in bringing obligated service periods into full alignment. The close interrelationship of the DMG and the ROTC scholarship programs makes it even more logical to make the obligated service period for those two programs identical. On balance, the Board recommends that the obligated service period for DMG's who accept RA appointments be increased to four years, commencing in 1968. The same provision should apply to Regular Army officers receiving direct commissions.

36. The obligated service for OTRA officers is the same as that for inducted enlisted men. These officers, particularly the ROTC graduates, identify themselves with the inductees in many ways and are apt to consider themselves as "citizen soldiers" performing drafted service in a commissioned status. This concept has neither validity nor pertinency. The ROTC graduate enters the program voluntarily. His two-year obligation is not specified by the Congress under the terms of the Selective Service Act, but is established independently by authority delegated to the Secretary of the Army. The two-year officer is becoming less useful as the pace of technology quickens and increasing emphasis is placed on professional combat ready forces prepared for instant world-wide commitment. Assignment restrictions on two-year officers deny the Army the flexibility it needs to cope with the increasing scope and variety of assignments. Further, the Army is spending large amounts of money in the specialist training of officers who have less than two years to

utilize the skills acquired. The Board considers it not only logical but essential, as it views the challenge of the next decade, to increase the period of obligated service for all other-than-Regular Army ROTC graduates to three years. With no decrease in annual input, this would increase the number of man years available from this large group of officers by 50% and increase the amount of useful service by a much greater percentage. The Board queried Professors of Military Science at various colleges as to the effect such an increase in obligated service would have on the ROTC program in its own right and in competition with programs of other Services. As a group, they did not foresee a major decrease in enrollment.

37. The Board is convinced that an increase in the obligated service period would also increase retention rates after that period. At the end of three years, officers would be approaching the new criteria for promotion to captain. At that time the Army would have a more accurate estimate as to their potential than it has today and be in a better position to grant Regular Army appointments to those it desired to retain. Further, the Army could emulate the technique employed by the Navy in its "educational year group concept" of offering civil schooling to officers who are completing their obligated service. Acceptance of such schooling, of course, results in a renewed obligation -- generally on the basis of two years of service for each year of schooling.

Loan Forgiveness Proposal for ROTC Graduates

38. The National Defense Education Act (NDEA) makes provision for loans to college students to help defray the costs of their education. College students who obtain loans under this act are, in some instances, dissuaded from entering the ROTC program because of the difficulties of repaying these loans on a lieutenant's salary. Others who do enter the ROTC program are discouraged from staying in the Army beyond their obligated service period for the same reason. The Chief of Reserve Components is developing a legislative proposal which would extend the loan forgiveness feature of the NDEA, currently used for college graduates who enter the teaching field, to ROTC graduates who stay on active duty beyond their obligated period. Loan forgiveness, up to a maximum of 50%, would be granted on the basis of 10% for each additional year of service. The Board is in thorough accord with this proposal and urges its energetic support at all echelons of the Department of the Army.

Increasing Retention Rates

39. The Army has given much thought and study in recent years to the overall problem of officer retention, and the Board is mindful that it has little in the way of original thought to contribute in this area.

The program for counseling of young officers by their seniors, provided for in DA Pamphlet 600-4 "Commander's Guide for Career Counseling", is sound, although it is not always carried out in a positive manner. While the problem of attracting young officers into the Army is largely one of salesmanship, retention depends largely on challenge, job satisfaction, and reward.

40. The Board believes that the Army should handle all newly commissioned Regular Army officers in the same fashion to the maximum extent practicable, regardless of the source of their commissions. This like treatment should extend to leaves on entry on active duty, initial schooling, and initial duty assignments. Professional pride and motivation will compensate in large measure for such inadequacies in precommission military training as may exist. It was with this conviction that the Board has proposed in Appendix 2 that the USMA graduates and the DMG's who accept a Regular Army commission be given the same combination of basic course/Ranger training. Current retention rates of these two groups of officers are roughly comparable; the Board considers it possible to raise both.

41. The Army school system can make positive contributions to officer retention. Branch schools today tend to put primary emphasis on the career course and to handle the basic course in a more routine manner. This is perhaps natural in view of the much greater length and educational content of the career course. However, students at this course are generally professionally qualified, well adjusted to military life, and highly motivated, while the students at the basic course often lack these qualities. Instruction in the basic course must be supervised by senior officers with considerable experience and demonstrated leadership. As indicated in Appendix 2, the course should be a practical one, given by instructors whom the student respects rather than by fellow second lieutenants with no practical experience. A student's wife should become acquainted with Army customs and traditions and the requirements of her husband's job, and be "brought aboard" in class social functions and informal visits by faculty wives.

42. The Board believes that its concept of an enlarging intellectual challenge for the student in successive levels of career schooling, as detailed in succeeding appendices, will promote officer retention. Although branch functions undergo inevitable evolutionary change, the Board is convinced that branch affiliation contributes to officer morale and retention. Except in those instances which it has pinpointed, the Board found no conflict between branches and specialist programs. A closely knit grouping of true "centers of learning" (as described in Appendix 21) should provide direction to the Army's educational and doctrinal effort as well as stability and purpose to its overall structure.

These centers of learning should contribute importantly to the maintenance of true military professionalism and pride in service, with a corollary improvement in retention. Improved administration of the graduate schooling program, including enlargement of opportunities for junior officers to attend such schooling, as described in Appendix 19, should also prove beneficial to officer retention.

43. Although not directly a feature of the school system, the Board considers oversupervision to be the greatest bar to career progression in the Army today. It is both frustrating and stultifying for junior officers to be unable to assume full responsibility for carrying out their assigned duties, and to learn from the experience of doing so. Young officers should be allowed to profit from their mistakes, not just be made to suffer for them.

CONCLUSIONS

44. The Army should prepare and furnish to colleges with ROTC programs an attractive and effective brochure, comparable in quality to the best developed by industry, presenting a career in the Army.

45. Professors of Military Science should enlist the assistance of officers participating in Army civil schooling programs at their respective colleges to sell the ROTC program and the Army as a career through informal student-to-student contacts.

46. The Department of Defense should request the Department of Health, Education, and Welfare to provide from federal aid-to-education funds a per capita reimbursement to educational institutions for all ROTC graduates commissioned, and an additional amount for each commissioned in the Regular Army.

47. Army Regulation 145-133, which relates academic majors to branches as an element in branch assignment, should be revised to reflect the preeminent need of the Signal Corps for officers with degrees in electrical and electronic engineering. Selection processes should be modified to take cognizance of this need and assure assignment to the Signal Corps of an increased percentage of the annual ROTC graduates with majors in these areas.

48. The obligated service period for officers who are offered Regular Army commissions should be raised to four years, commencing not later than 1968.

49. The obligated service period for other-than-Regular Army officers, except doctors and dentists, should be raised to three years commencing not later than 1968.

50. The Army should initiate legislation which would extend the loan forgiveness feature of the National Defense Education Act to ROTC graduates who stay on active duty beyond their obligated period.

51. Additional supervisory emphasis should be given to branch school basic courses, at the expense of career (advanced) courses if necessary, in order to develop greater professionalism and motivation among newly commissioned officers.

52. Greater intellectual challenge in officer career schooling and more and earlier opportunities for graduate civil schooling would increase the professionalism and competence of the officer corps and result in improved career satisfaction and retention.

ANNEX D-1

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 2

TRAINING OF NEWLY APPOINTED OFFICERS AND WARRANT OFFICERS

PURPOSE AND SCOPE

1. The purpose of this appendix is to analyze the requirement for initial entry training for newly commissioned officers from all sources; to evaluate the basic, Ranger, airborne, and specialist courses, separately or in combination, as means of satisfying this requirement; and, as a separate but related matter, to examine the desirability of providing orientation training for non-pilot warrant officers.

2. The discussion sets forth the needs of newly commissioned officers for initial entry training which devolve from differences in their military backgrounds, from differences in the functions of branches of the Army, and from the wide variation in post-entry training duty assignments. These needs are analyzed in light of the needs of the Army. From the alternatives available, a solution is proposed which is designed to satisfy the needs of both the newly commissioned officer and the Army. The needs of newly appointed warrant officers, with particular reference to Officer Candidate School (OCS) type officership training, are also evaluated and a conclusion developed.

BACKGROUND

Commissioned Officer Training

3. Factual data developed in Annex B, Appendices 2 and 3, and in Annex C, Appendix 2, pertinent to an analysis of the training of newly commissioned officers, are summarized below:

a. All newly commissioned Army officers, except graduates of the United States Military Academy (USMA) and Officer Candidate

Schools (OCS), attend a basic course of almost nine weeks' duration before their first duty. New USMA graduates going to air defense assignments attend a special three-week course at the Air Defense School.

b. Newly commissioned officers in the Regular Army (RA), not assigned to one of the five combat arms, are detailed for two years into one of the arms and attend the basic course of their detail branch.

c. New USMA graduates are required to attend Ranger training and may volunteer for airborne training. All other RA second lieutenants of the combat arms and of the Military Police Corps are required to take either Ranger or airborne training and may take both. Non-RA officers are not required to attend either course but may attend one or both on a voluntary basis, subject to available quotas.

d. The training objectives of the three principal sources of second lieutenants, USMA, OCS and Reserve Officers Training Corps (ROTC), are different. The USMA emphasizes preparation of the cadet in leadership and general military, as opposed to branch, training. The ROTC program makes available a general military science course in some colleges and branch material courses in others; OCS, alone of the three sources, specifically emphasizes preparation of individuals for branch duty in the grade of second lieutenant. The total number of hours of military training given participants in these three programs ranges from a low of 744 hours for the four-year ROTC student, through 1,100 hours for officer candidates, to a high of 1,749 hours for cadets at the USMA. The USMA graduate receives more than twice the formal military training of an ROTC graduate and over one and a half times that of the OCS graduate.

e. Infantry and Artillery OCS courses, each of 23 weeks' duration, contain more than twice the number of hours of military training as their corresponding basic courses. The male applicant for OCS is a qualified soldier at the time of his selection and has already progressed through a minimum of 16 weeks' military training.

f. Except for limited duty officers and aviators, all newly commissioned officers in the United States Marine Corps, the Service of greatest similarity to and comparability with the Army, attend a 20-week course at the Marine Corps Basic School. The

training objective is to prepare new officers in the duties of a company grade officer, with emphasis on duties and responsibilities of a rifle platoon commander. Approximately 65% of the graduates attend specialist courses, ranging in length from four to nine weeks, prior to initial duty assignment.

Warrant Officer Training

4. Factual data developed in Annex B, Appendix 9, pertinent to a consideration of possible entry training for newly appointed warrant officers, are summarized below:

a. With the exception of the pre-flight indoctrination for pilot candidates at the US Army Primary Helicopter School, Fort Wolters, Texas, OCS-type courses are not available to screen suitability, impart officership skills, and assist in the transition from enlisted to warrant officer status.

b. Enlisted candidates for rotary and fixed wing warrant officer pilot training pursue a four-week pre-flight indoctrination course to determine their stamina, will, motivation, physical qualifications and leadership potential. Instruction includes selected military subjects which aid the candidate in his change to warrant officer status. Successful completion of this OCS-type course is prerequisite to pilot training and eventual appointment as a warrant officer in this field.

DISCUSSION

5. Although over the past five years more than 94% of newly commissioned officers have been college graduates, there is as much variation in precommission military preparation as there is dissimilarity in branch functions and in the duties to which newly commissioned officers will be assigned.

6. Dissimilarities in military background of newly commissioned officers are shown clearly in background statistics presented above. Within the ROTC, by far the largest source of officers, there is a wide range of inequality in degree of preparation for active duty. The ROTC military colleges provide relatively deep and persistent military preparation when compared to colleges operating a general military science or branch material ROTC program. Probably the best prepared of all newly commissioned officers for immediate duty assignment are OCS graduates. After living and training in a disciplined military environment 24 hours a day for 23 weeks, they are clearly ready to assume the duties of a second lieutenant.

7. Dissimilarities in branch functions serve also to add complications to the task of preparing newly commissioned officers for initial duty assignment. The names and classifications of branches of the Army suggest the wide variety of functions to be accomplished and the spectrum of job assignments across which the officer corps must be trained to lead the United States Army. In addition to the great number of Army functions specified by branch name or classification, each branch has within itself a wide range of functions which require specialist training.

8. Dissimilarities in initial entry duty assignments are a third complicating factor in arriving at the optimum content and mix of programs and courses for training newly commissioned officers. Figure D2-1 shows for several branches the number of different duties to which newly commissioned officers may be assigned. With such a wide variety of initial entry duties for newly commissioned officers in any one branch, it is clear that even if all other dissimilarities could be ignored, the scope and range of initial training would need to be wide and highly diversified, indeed, to impart sufficient instruction to qualify officers to perform all those duties. Figures D2-1 and D2-2 (both from a HUMRRO digest study of May 1965) highlight the dissimilarities of duty which newly commissioned officers must be prepared to assume.

Similarities in Initial Training Requirements

9. Notwithstanding the dissimilarities discussed above which serve to complicate the problem of training new officers, there are two notable areas wherein similarities exist. All newly commissioned officers, as individual personalities, can be said to have similar personal needs; and one aim in initial training programs must be to

PRINCIPAL DUTIES BY BRANCH

BRANCH	OFFICERS IN SAMPLE	NUMBER OF DIFFERENT DUTIES*	PERCENTAGE OF OFFICERS ON HIGHEST FREQUENCY DUTY
Adjutant General	85	48	12% Asst Adj
Armor	215	39	70% Plt Ldr
Artillery	399	82	11% Forw Obs
Engineer	189	46	58% Plt Ldr
Infantry	436	70	51% Plt Ldr
Military Police	142	12	69% Plt Ldr
Ordnance	135	61	16% Plt Ldr
Quartermaster	99	53	12% Plt Ldr
Signal	177	69	12% Plt Ldr
Transportation	126	44	42% Plt Ldr

* There is an acknowledged high degree of overlap in many of these duties.

FIG. D2-1

TYPE OF INITIAL ENTRY ASSIGNMENTS BY PERCENTAGE

Tactical Unit Command	47.4%
Non-Tactical Unit Command	12.9
Operations; Training & Training Center	9.2
Supply	5.0
Administrative & Personnel	3.8
Motor and Maintenance	2.8
Communications	2.6

FIG. D2-2

satisfy these needs. On the other hand, the Army, as a personality, also has needs which present a fairly standard set of Army specifications for all officers.

10. Primary needs of the newly commissioned officer are reflected in the requirement that he be prepared to enter his first duty assignment with a feeling of confidence and a sense of presence and dignity. The Army owes him nothing less. Some means is needed to assist the new non-OCS officer in bridging the gap from the mental attitude of a college senior to the mental attitude of a commissioned member of the profession of arms, charged with responsibility for the lives of as many as 40 men and for as much as \$1,000,000 worth of equipment. Few professions could be found wherein such gross responsibility devolves immediately on the newest entrant into the profession. Even within the military profession, the Marine Corps is the only other Service wherein the officer is assigned to a leadership position immediately on joining his unit. Standing before a platoon of seasoned soldiers, with a beribboned platoon sergeant in charge, the young second lieutenant faces in that moment a challenge of large dimension. This moment, like many to come, is one of psychological trauma which the new second lieutenant must meet with equanimity. He must rise to the challenge; he must inspire in those with whom he works a sense of respect for his judgement and leadership. He wants and deserves to be treated like an officer and gentleman; he must have the "know-how" to respond to all types of situations which will daily challenge his abilities. He needs opportunities for early success.

11. The needs of the United States Army are reflected in its requirement to get maximum utilization of personnel over the longest possible period of time. The Army must demand that its lieutenants, the majority of whom serve only 24 months' active duty and then revert to reserve status, serve as much of that 24-month period as possible in productive assignments. Even a longer period of obligated service would be desirable. Emphasis on the requirement for operational readiness of forces-in-being imposes a need that second lieutenants have a keen understanding of supply economy and materiel readiness, and above all else that they be well schooled in and demonstrate sound leadership. The Army needs highly motivated lieutenants, instilled with a sense of duty and obligation for service, capable of effective leadership and performance in their branch and duty assignment.

Alternative Means for Training Newly Commissioned Officers

12. There are essentially three means by which newly commissioned officers can be prepared to assume initial duties. First, precommission

military training could be expanded and reoriented with emphasis being placed on "duties of a second lieutenant;" second, officers could be assigned immediately to duty with no early entry training subsequent to commissioning and allowed to rely upon on-the-job training (OJT) or unit schools; and third, officers could be schooled in basic (and specialist) courses by the Army prior to initial assignments, as they are in most cases today. The first two of these are discussed before evaluating the latter.

13. Reorient Precommission Training. The Board was not charged with an analysis of precommission training and reviewed this area only as it impinged on its assigned tasks. While the Board is not prepared to endorse, unqualifiedly, the programs of military instruction of the three principal sources of new officers, these programs appear generally adequate and properly oriented to meet established objectives. The USMA is making marked progress toward increased flexibility and growth in its academic curriculum. Earlier selection of branches by cadets would allow increased emphasis to be placed on branch-oriented training during the first-class (senior) year, although perhaps with some loss in other areas.

14. The ROTC military program is currently under active study by the Chief of Reserve Components in cooperation with presidents and professors of military science at various colleges and universities. This study is not complete, and the Board withholds judgement on the proposed reorientation of the ROTC program. Suffice it to say, there is increasing demand today for well-educated young men, and a growing opportunity for them to assume highly remunerative jobs at time of graduation. The Army faces an increasingly difficult task in obtaining and retaining from this highly competitive market the type of individual needed to man its officer corps. The Board believes the ROTC program must meet the dual challenge of attracting young men at time of graduation from high school (when long range career decision are being formulated) and of preparing them broadly for a military career.

15. Changing attitudes within the Department of the Army in recent years have caused a general movement away from ROTC branch material programs to a general military science (GMS) course as a means to provide greater flexibility in the assignment of newly commissioned graduates, and hence greater responsiveness to overall Army requirements. The Board encountered some sentiment to reverse this trend. However, the Army has been so persuasive in pointing out the advantages of the GMS course to college presidents, it might find it a bit awkward to reverse its field. The Board would see no objection to a limited return to branch material courses in certain engineering colleges if they took the initiative, and it could be demonstrated

that such a course of action would improve the size and quality of the ROTC unit.

16. In the final analysis, however, the Board believes that any change in the USMA and ROTC programs toward full preparation of a graduate to assume immediately the duties of a second lieutenant is not only unwarranted, but also undesirable and self-defeating.

17. OJT and Unit Schools. The Board believes that OJT in varied command and staff assignments provides a most effective and important source of officer education. At the same time, however, it is recognized that from a pedagogical standpoint it is better to learn sound fundamentals initially in a formal academic atmosphere than to try to learn them by experience on the job or in a unit school. Formal schooling produces more uniformly high standards of performance and excellence. Newly assigned officers must be ready to assume the duties of their assignment when they arrive on station. Consequently, the time-honored unit school, still a vital cog in the overall plan for the training of individuals and still a key factor in preparing tactical units for operational readiness, is not a panacea for the early entry training of large numbers of newly commissioned officers.

18. Basic Course. The continued use of the Army's vast and generally efficient system of branch schools for the conduct of basic officer courses still appears to be the most efficient, economical and effective means by which to provide initial entry training for newly commissioned officers. The findings of the Williams Board in this area that "it is essential that the newly commissioned officer attend a branch orientation course prior to joining a troop unit" is regarded as still valid.

Evaluation of the Basic Course

19. Purpose. As currently stated in AR 350-5, the purpose of the officer basic course is: "To prepare newly commissioned officers for their first duty assignments. Emphasis is on the fundamentals, weapons, equipment and techniques required at company/battery level. Practical work is stressed and there is a minimum of theoretical instruction." The Board agrees with the statement but believes it should be expanded. The Board sees the basic course as a coaching session designed to help the new officer over the shoals of his first six months on active duty; its purpose is not to develop branch expertise in depth nor detailed understanding of branch tactics and techniques. Primary emphasis for all basic courses, irrespective of branch, must be on leadership. In the Infantry, Armor, Artillery, Corps of Engineers, Signal Corps and Military Police, the aim should

be to develop strong leaders at the line-platoon level. But whether in tactical commands or not, all officers will have to exercise leadership, as is discussed in some detail in Annex D, Appendix 9. In the view of the Board, the purpose of the basic courses can better be described as follows: (Underlining shows added or changed wording)

"To prepare newly commissioned officers for their first duty assignments; to instill in them a feeling of dignity and confidence, and a sense of duty and obligation for service. Emphasis is on leadership and on the fundamentals, weapons, equipment and techniques required at company/battery level. Practical work is stressed and there is a minimum of theoretical instruction."

20. Attendance and Length of Course. The Board believes that all newly commissioned officers, except OCS graduates, should attend a basic course prior to reporting to initial duty assignments. The length of basic courses should not be arbitrarily established and need not be identical; even basic courses within a particular school need not be of the same length. The basic course should, insofar as possible, fit the military background and future assignments of officer students. The Board considered different groupings of officers from the several sources in an effort to tailor courses to meet specific needs and still limit the number of different courses required at any one school. Groupings could be arranged by component, i.e., an RA group and a non-RA group, or by similarity of background. Thus, graduates of the USMA could be grouped with ROTC distinguished military graduates (DMG's), or with graduates of military ROTC colleges, only some of whom would be RA. In either case, the remaining group of officers would contain the bulk of ROTC graduates. There are advantages and disadvantages to either arrangement. Grouping solely by similarity of background allows minimum overlap of instruction with precommission training but has the distinct disadvantage of separating the graduates of the USMA from the DMG's. The Board believes that, even at the initial stage of their careers, these Regular Army officers should be accorded like treatment. Thus, the Board prefers grouping by component and accepts the disadvantages. The high motivation and demonstrated competence of the DMG's is recognized in placing them in a group which requires the least amount of initial training.

21. The Board believes that a basic course length of five to six weeks is adequate for USMA graduates and DMG's, augmented by Ranger training as hereinafter described. Since all newly commissioned RA officers are assigned or detailed to a combat arm, these courses need be established only at the Infantry, Armor, Artillery and Missile,

**METHODOLOGY AND LEVEL OF INSTRUCTION BY PERCENTAGE
BASIC COURSE**

BASIC COURSE	METHODOLOGY						LEVEL OF INSTRUCTION			
	LECT	DEMON	WRITING ORAL	SEM CONF	PE	OTHER	CO	BN	HIGHER	OTHER
INF	7	7	0	21	61	4	88	10	2	--
ARM	0	9	0	23	51	17	100	--	--	--
ARTY&MSL	0	9	0	24	59	8	86	9	2	3
AIR DEF	1	12	2	38	42	5	82	4	14	--
ENGR	17	5	0	16	41	21	97	2	1	--
SIG	0	6	0	38	49	7	12	4	42	42
CML	0	5	1	40	52	2	80	20	--	--
ORD	1	4	0	48	42	5	70	1	12	17
QM	27	6	0	25	36	6	31	9	10	50
TRANS	17	6	2	37	--	38	54	1	3	42
AG	19	2	4	23	45	7	4	2	41	53
FIN	26	4	0	30	30	10	77	5	18	--
MP	0	4	1	39	28	28	92	3	5	--
WAC	25	10	12	28	20	5	75	1	24	--
CHAP	40	8	10	24	7	11	5	90	5	--
JAG	--	--	--	46	12	42	--	--	100	--
AMEDS	44	11	0	2	--	43	0	36	15	49
ANC	46	11	4	7	--	32	30	2	10	58
MSC	47	3	1	8	21	20	69	17	14	--

FIG. D2-3

Air Defense, Engineer, and Southeast Signal Schools. Because of the greater pertinence of Ranger training to functions and operations of the Infantry rather than to any other branch, a five-week course is considered sufficient for the Infantry basic course. The other five schools named should conduct modified basic courses six weeks in length.

22. Non-RA officers, because of more limited military training, background orientation, and/or motivation, require longer courses, approximating the length of the current courses (generally, nine weeks), but with differences in orientation as described in succeeding paragraphs. Some branch schools may find it feasible and desirable to shorten the nine-week period in view of these differences.

23. Officers who are branch transferees, RA officers joining their assigned branch after a combat arms detail, or OCS graduates assigned to a branch other than that of the school they attended, should receive only a short (two weeks) orientation course in their new branch. The Board believes it is appropriate to continue special arrangements, whereby officers of the Judge Advocate General's Corps attend a portion of the basic course at the Quartermaster School and officers of the Intelligence and Security Branch attend the Infantry basic course.

24. Methodology. The basic course, to be truly effective as a "coaching session," must emphasize practical work and practical exercises. The teaching of equipment, weaponry, materiel and other hardware by the "hands-on" technique of instruction will serve to cement in the new officers' minds the fundamentals of operating and maintaining Army materiel. Indeed, in cases where practical work is not already being stressed the course is violating the purpose currently ascribed to it in AR 350-5. Use of the lecture and conference technique should be minimal. The chart in Figure D2-3 gives a percentage breakout of the several existing basic courses according to methodology and levels of instruction. The Board believes that the percentages of time currently devoted to oral work and demonstrations reflect inadequate use of these techniques. There are many instances where gross deviations from an acceptable norm occur in some methods of instruction. Far too much use is being made, for example, of the lecture system in the Chaplain's and Medical Service Corps basic courses. The heavy use of lectures combined with seminar/conferences at the Quartermaster, Transportation, Finance, Women's Army Corps and Chaplains Schools limits the amount of time available for practical work. The Judge Advocate General's School is much too low in practical work. Corrective action is needed in these and other areas where practical work is not being utilized.

25. Level of Instruction. As indicated previously, primary emphasis in a basic course for all applicable branches should be on troop leading at the platoon level. Only in isolated cases, wherein there are no duty assignments at company level, should the instruction extend beyond that level. All schools should focus their instruction on preparation of officers for their initial duty assignments. The stated purpose of the basic course should be regarded as both a charge and a limitation on the schools. The Board feels strongly that the schools should seek only to impart that knowledge required by the officer until the processes of on-the-job training take over. As a rough rule of thumb, the Board considers that schools should seek primarily to teach an officer only those things he will need to know in his first six months of service. The basic course is clearly a training, as opposed to an educational, process. Since officers generally are given command of company-sized units prior to returning to school for their career courses, certain schools indicated that they considered it incumbent on them to give newly commissioned officers instruction in company command in the basic course. The Board does not subscribe to this view. After considering various alternatives for training in company command, the Board decided the only practical course of action is for the officer to prepare himself on the job for such command, as is discussed in Appendix 9. It is the clear view of the Board that most of the Army schools are giving nice-to-know instruction in their basic courses when measured strictly against the current or proposed purpose of the course.

26. The Board considers that the schools could do their jobs more efficiently if essentially all newly commissioned officers were assigned to troop duty primarily at the platoon level. It is recognized that in field artillery, and in certain technical, administrative, and professional branches, there is no platoon echelon or an inadequate number of such positions for the assignment of all newly commissioned officers. In these instances, the Board considers that the newly commissioned officers should generally be assigned at the lowest organizational level. It is disappointing that so many newly commissioned officers are siphoned off to other jobs, as is borne out in Figure D2-1 above. A concerted effort to correct this disservice to the officer and the Army would simplify the training problems of the schools. This matter is discussed further in the section on Specialist Training.

27. Curricula. Content of basic course curricula at the several schools is shown in Figure D2-4, which reflects type subjects (common, branch), areas of concentration (tactical, logistical, administrative) and types of warfare (nuclear, conventional, stability operations). Proper content for the first two categories is largely

**PROGRAM OF INSTRUCTION
CURRICULA BREAKOUT BY PERCENTAGE
BASIC COURSE**

BASIC COURSE	SUBJECTS			AREAS CONCENTRATION				TYPE WARFARE			
	COMMON	BR	OTHER	TACT	LOG	ADMN	OTHER	NUC	CONV	STAB OPNS	OTHER
INF	83	17	--	88	7	5	--	14	50	36	--
ARM	36	64	--	46	4	50	--	1	97	2	--
ARTY&MSL	25	71	4	87	8	1	4	1	93	2	4
AIR DEF	51	49	--	82	10	8	--	7	45	5	43
ENGR	15	68	17	55	1	12	32	1	18	5	76
SIG	50	43	7	83	7	10	--	1	16	--	83
CML	32	46	22	71	10	19	--	9	81	10	--
ORD	55	41	4	18	25	53	4	3	92	2	3
QM	28	48	24	7	33	10	50	4	36	--	60
TRANS	38	58	4	18	75	7	--	3	7	4	86
AG	35	58	7	29	2	69	--	2	10	2	86
FIN	27	64	9	26	4	70	--	2	27	7	64
MP	35	35	30	35	7	58	--	5	13	4	78
WAC	83	17	--	15	4	81	--	2	3	2	93
CHAP	52	48	--	20	20	60	--	2	95	3	--
JAG	24	76	--	23	77	0	--	1	20	2	77
AMEDS	51	49	--	5	5	27	63	3	22	5	70
ANC	38	62	--	10	16	24	50	4	16	1	79
MSC	--	--	--	36	4	35	25	6	55	2	37

FIG. D2-4

an individual branch determination, whereas proper content in the latter is dependent upon Army doctrine. In this regard, the basic course should place more emphasis on stability operations, since the changing pattern of warfare reflects increased emphasis on this type of international conflict. (See also Annex D, Appendix 14) Content by areas of concentration should, of course, reflect branch functions. It is not surprising that the five combat arms show relatively heavy concentration in the tactical area, whereas the other branches are, for the most part, heavily oriented toward logistical and administrative areas.

Ranger Training

28. The Ranger course at the Infantry School has the purpose, previously mentioned in Annex B, Appendix 4, to develop leadership and decision-making qualities, skill in small unit operation, and self-confidence in a simulated combat environment involving sustained mental, physical and emotional stress. It offers valuable training, usable by officers under almost any set of circumstances. Because of its emphasis on developing leadership, it is highly desirable for all new officers. Of particular value, too, are the applicatory exercises emphasizing type operations in an environment of counterinsurgency. The Board believes that Ranger training should be mandatory for all RA officers, and regrets that the course does not have sufficient capacity for all non-RA officers as well. After detailed discussions with both the present and original director of the Ranger Department, the Board concludes the course could be shortened from nine to eight weeks without losing any of its present value. Attendance at the Ranger course by all newly commissioned RA officers makes a shortened basic course appropriate for them.

Airborne Training

29. The Board has high regard for the airborne course at the Infantry School, not only for its success in turning out skilled military parachutists, but also because of its high value in developing self-confidence in the individual participant. However, this course provides no training in leadership, and hence is not a suitable alternative to the Ranger Course for the newly commissioned RA officer. After carefully weighing the value of airborne training to the individual, the Board concludes that, with due regard for the needs of the government, it falls into the nice-to-have category, except for officers being assigned to airborne duty. This is particularly true for newly commissioned officers, with the many competing demands for their time. The Army is today overtraining airborne officers against established requirements. Further, these requirements will almost certainly decrease over the next decade. The Board considers that

the airborne course should be regarded as a job-oriented specialist course and attended only by officers being assigned to airborne duty. Such a policy would result in a major reduction from the 3,939 Army officers who graduated from airborne courses in FY 65.

BASIC COURSE GRADUATES ATTENDING SPECIALIST COURSES*

BRANCH	BASIC COURSE GRADS	APPROX % TO SPEC	SPEC COURSE GRADS	NUMBER COURSES USED	AVERAGE LENGTH WEEKS
Infantry	1954	10%	195	2	11
Armor	701	0	0	-	-
Artillery	1662	21	350	9	7
Engineer	1132	25	283	5	3
Signal	1113	25	278	8	11.6
Chemical	172	0	0	-	-
Ordnance	744	100	744	7	8
Quartermaster	487	38	185	10	5
Transportation	511	7	36	6	12
Adjutant General	656	4.5	30	3	3.5
Finance	217	10	22	1	5
Intelligence & Security** (Intel)	475	52	247	4	14.5
(ASA)	126	10	13	3	7
Military Police	232	0	0	-	-
Medical Svc Corps	602	5	30	4	8
TOTAL	10784	22(Avg)	2413	62	9(Avg)

* Based on estimates for FY 65. There is wide variation within branches over a period of time according to personnel priorities.

** Attend Infantry Basic Course; then to Holabird or ASA for orientation and specialist courses. Time shown is for specialist training only.

FIG. D2-5

Specialist Training

30. With few exceptions, the branches find it necessary to retain at the school a certain number of basic course graduates from each class to pursue specialist training required for their first duty assignment. (A large number of basic course graduates are also retained at the schools for assignment to the staff and faculty, the undesirable aspects of which are discussed in Appendix 22.) Figure D2-5, based on one sampling, shows that approximately

22% of newly commissioned officers take specialist training immediately after having completed a basic course (Figure D2-5). Attendance by branch varies according to the number of branch functions, and ranges from 0% for some branches to 100% for Ordnance officers. One hundred percent of non-RA officers of the Intelligence and Security Branch attend so-called branch orientation courses either at the Intelligence School (six weeks) or the Security Agency School (eight weeks) after having completed the Infantry officer basic course at Fort Benning. Some of these officers remain for still additional specialist training as shown in Figure D2-5. This problem is discussed further in Appendix 17.

31. While the needs for this specialist training are dictated by the requirements of the duty performed by second lieutenants, it absorbs valuable time from the 24 months' service performed by officers serving obligated tours of duty and compounds the officer shortage problem. Specialist courses are job oriented and contain little emphasis on leadership principles or on psychological preparation of newly commissioned officers, except for such preparation as follows from job competence. They cannot be substituted in any sense for basic courses.

32. In addition to the high percentage of officers taking specialist training before their first duty assignment, an additional number return to a branch school for specialist training shortly after arriving at first duty stations. The present turbulence in the personnel situation caused by the Vietnam crisis probably precludes any significant improvement in this latter practice at this time. Nevertheless, the Board believes the following two steps could be taken which would greatly improve the utilization of second lieutenants, shorten the time spent in initial training, and result in substantial savings in TDY funds:

a. A higher degree of control over officers' initial duty assignments could be exercised by the career branches of the Office of Personnel Operations and the chiefs of the professional services. Although this could be construed as an unwarranted infringement of field commanders' authority and needed flexibility in assignment of personnel, the Board does not consider it as such. Newly commissioned officers are under orders to particular commands when they attend the basic and associated specialist courses in a TDY status. It

would appear that, in view of the relatively short length of these courses, a reasonably accurate forecast could be made of the contemplated use of these officers prior to their enrollment. Continuing contact should be maintained by the career branches with field commanders to stay abreast of changing requirements as they occur. The Board is convinced that more centralized control of the assignment of newly commissioned officers would spotlight and hence reduce some of the current abuses in the system.

b. The length of time being spent in specialist training could be shortened and the number of officers attending specialist courses could be reduced by structuring basic courses to be more nearly responsive to initial duty assignment patterns. Thus, for branches whose principal functions can be categorized into two or three major groupings, the basic course could be in two parts, a common or general portion followed by a portion devoted to first duty specialty training for each of the several groupings. The Artillery Branch provides an example of the system visualized by the Board. Not only is the branch itself already divided into two principal groupings, field artillery and air defense artillery, but each of these groupings is susceptible to further division according to delivery systems/missions. Field artillery can be divided into tube and missile groupings and air defense into high and low altitude groupings. The Artillery and Missile School might sub-divide its basic course, after an initial common portion, into two sub-programs, one to train officers assigned to tube artillery, and the second to prepare officers destined for missile type units. At the Air Defense School the second portion of the course might be split between high and low altitude air defense protection. (Such a proposal has, in fact, already been submitted by the Air Defense School.) Similarly, in the Ordnance School some officers might spend the second portion of their basic course in armament maintenance, some in automotive maintenance, and still others in ammunition training.

33. The chart in Figure D2-6 shows hypothetical maximum and minimum lengths of time which would be spent in initial entry training by newly commissioned officers of the Army (RA and non-RA) under proposals made herein (exclusive of paragraph 32 above) compared with similar times for newly commissioned officers of the other Military Service with roughly parallel requirements, the US Marine Corps. A study of the chart indicates that Army officers, as a whole, would spend less time in such initial training than their Marine Corps counterparts.

**LENGTH OF INITIAL ENTRY TRAINING
US ARMY - US MARINE CORPS**

	ARMY				USMC	
	RA		NON-RA		MAX	MIN
	MAX	MIN	MAX	MIN		
Basic Course	6	5	9	9	20	20
Ranger Course	8	8	8*	0	0	0
Airborne Training	3**	0	3**	0	3**	0
Average Weeks Specialist Training***	9	0	9	0	7	0
TOTAL	26	13	29	9	30	20

* Voluntary Basis if quota available

** If ordered to A/B duty

*** Army attendance = 22% of strength
USMC attendance = 65% of strength

All figures are
in weeks

FIG. D2-6

Warrant Officer Orientation Training

34. The lack of standard training practices for newly appointed warrant officers has been noted previously. Although pilots comprise only 26% of the active duty warrant officer strength, OCS-type officer-ship training is currently available to and utilized exclusively for this category of warrant officer. Approximately 800 to 900 enlisted personnel, selected for their qualifications and proficiency in other occupational areas, are appointed as warrant officers each year. The majority of these individuals receive no training in conjunction with their appointment; when training is provided, its purpose is to enhance existing technical knowledge and skills.

35. The screening process for prospective non-pilot warrant officers is stringent and generally can be relied upon to determine the adequacy of professional qualifications without additional selection devices. However, it would be desirable to assist newly appointed warrant officers in their adjustment to officer status. The Army is

experiencing a continuing drop in the average age and length of service of its new appointees and an increase in their educational level. These younger personnel, with potentially longer periods of service retention, have less knowledge of the Army but a greater receptivity to instruction. They merit a training investment which will better equip them to face their future Army career. Parallel treatment to that already accorded to warrant officer pilot candidates and proposed by the Board for all newly commissioned officers, should help to instill in the new warrant officer a feeling of pride and a sense of belonging as a member of the officer corps.

36. A modified version of the warrant officer pilot pre-flight indoctrination course appears to meet the requirement. The instruction to be conducted on a branch immaterial basis at Fort Benning or designated training installations, should be approximately three to four weeks in length. It is envisioned that all new warrant officers, concurrent with their appointment, would be ordered to the course enroute to their first duty assignment. Coordination of warrant officer appointments and course starting dates would be required. Detailed administrative procedures would have to be developed, but could be resolved in principle by establishing specific quarterly dates for the appointment and schooling of warrant officers. Use of such a control technique would establish direct inputs of around 200 per orientation class. Some modification would be required for oversea appointees.

CONCLUSIONS

37. Military training at the United States Military Academy and in the Reserve Officer Training Corps programs is not designed to prepare graduates to assume immediately the functions and duties of newly commissioned officers. It would be impracticable and undesirable to change USMA and ROTC objectives to meet this purpose.

38. Basic courses of instruction presented by the several branches of the Army are the best means for providing initial entry training of newly commissioned officers. All newly commissioned officers, except graduates of officer candidate schools, should attend the basic course of their duty branch. (AIS would attend Infantry basic).

39. The basic course should be designed as a leadership course and as a coaching session, focused toward helping the newly commissioned officer over the shoals of his first six months' duty. It should not be geared to developing branch expertise in depth.

40. The purpose of the basic course as set forth in paragraph 17, AR 350-5, should be changed to read as follows:

"To prepare newly commissioned officers for their first duty assignments; to instill in them a feeling of dignity and confidence, and a sense of duty and obligation for service. Emphasis is on leadership and on the fundamentals, weapons, equipment and techniques required at company/battery level. Practical work is stressed and there is a minimum of theoretical instruction."

41. The basic course should emphasize practical work; instruction should be by the "hands-on" technique. The use of lectures and seminar/conferences should be minimized.

42. For Regular Army officers, initial training should consist of two parts, taken in any sequence, one part to be presented at the appropriate branch school (basic course), the other part to consist of the Ranger Course at the Infantry School. Total course length for Regular officers of Infantry should be 13 weeks, five weeks in a modified basic course plus eight weeks in a shortened Ranger course. For all other Regular officers, the course length should be 14 weeks, six weeks in a modified basic course plus the eight weeks Ranger course.

43. For non-Regular Army officers, initial training should include a basic course not more than nine weeks in length. Ranger training should not be required.

44. A specially designed orientation course, two weeks in length, should be held for groups of officers who are branch transferees, RA officers joining their assigned branch after combat arms detail, or OCS graduates assigned to a branch other than that of the school they attended.

45. Airborne training should be attended only by those newly commissioned officers being assigned to airborne duty.

46. Greater control of assignments of newly commissioned officers would improve their utilization and decrease the amount of time spent in initial entry training. A feasibility study should be made of directed personnel assignments, and there should be a corollary structuring of certain basic courses in two parts: the first to provide general branch indoctrination and the second job-oriented training.

47. An OCS-type orientation course of approximately three to four weeks' duration should be established at Fort Benning, Georgia, or other appropriate installation, for non-pilot warrant officers, to impart officership skills and assist in the transition from enlisted to warrant officer status. Appointments of new warrant officers should be made quarterly to permit direct inputs to this training en-route to initial duty assignments.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 3

CAREER COURSES AT BRANCH SCHOOLS

PURPOSE AND SCOPE

1. This appendix analyzes the career courses taught at branch schools and suggests improvements.

2. The discussion reviews the need for formal schooling early in officers' careers to prepare them for the type assignments they can expect in the future; examines the career course from the standpoints of course objective and the previous experience of officer students; reviews, in the light of potential graduate utilization and the requirements of the Army, the curricula with respect to adequacy and appropriateness; and suggests adjustments in the course of instruction and an educational philosophy for the future.

BACKGROUND

3. Certain factual data developed in Annex B, Appendices 2 and 4, are pertinent to this appendix and are summarized below:

a. In carrying out their officer educational and training functions, branch schools conduct career courses for all officers generally between their third and eighth year of service. These courses constitute the second of the four levels of officer career schooling.

b. An average of 45% of the time available in career course curricula is devoted to "common subject" training prescribed by the US Continental Army Command (USCONARC).

c. No elective subjects are currently offered within the curriculum of any career course.

d. The Artillery career course is divided sequentially between the Artillery and Missile School (24 weeks) and the Air Defense School (eight weeks).

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PROFILE OF CAREER COURSE STUDENTS

Question 1 - What percentage of students at the last five (5) career courses had commanded a company prior to attendance?

Question 2 - What percentage of students at the last five (5) career courses had battalion or higher level staff experience?

Question 3 - What is the experience level (years of service) on arrival at the career course of the average student?

SCHOOL	QUESTION 1	QUESTION 2	QUESTION 3
Infantry	70%	76%	6.0 Yrs
Armor	72	71	5.8
Artillery	67	69	5.2
Engineer	69	65	6.5
Signal	48	43	5.1
Chemical	38	71	3.8
Ordnance	51	39**	6.0
Quartermaster	36	73	7.5
Transportation	55	69	6.7
Adjutant General	30	95	6.6
Army Security Agency	25	50	7.8
Finance	16	48	5.5
Intelligence	30	80	8.4***
Military Police	71	37	7.0
Women's Army Corps	74	95	5.0
Chaplain	N/A	100	7.0
Judge Advocate General	N/A	N/A	7.0
Army Medical Service	50*	57*	7.6
Army Nurse Corps	N/A	N/A	7.5

* MSC only

** Last class 56%

*** Backlog being reduced

FIG. D3-1

DISCUSSION

Need for Career Schooling

4. A Reserve officer on active duty serving his initial tour as a commissioned officer may terminate that tour after having satisfied his period of obligated service, normally two years. He is given entry schooling (the basic course) to prepare him for initial duty assignments generally at the platoon level. Officers of the Regular Army and those Reservists who remain on extended active duty for an unspecified period require additional formal military schooling to prepare them for duty at higher levels of tactical and non-tactical command. Approximately half of these officers will attend the Command and General Staff College (C&GSC) about five years after completion of the career course; the other half will receive no further formal military schooling. This latter group will serve in numerous assignments, many of them of a non-tactical nature, in association with officers who have attended C&GSC and, on occasion, a War College. To compound the problem further, these assignments are becoming increasingly challenging and complex due to new concepts and procedures emerging as a result of the nation's expanding technology and the rapid developments in management techniques. In substance, the career course is the last opportunity to educate 2,500 company grade officers per year to cope with the requirements of the future.

Examination of the Career Course

5. As currently stated in AR 350-5, the objective of the career course is: "To prepare officers to perform command and staff duties at company through brigade level and to provide sufficient instruction on division organization and operations to develop branch perspective. Technical and administrative branch career courses will include such instruction above division level as is necessary to orient students in the mission and functions of their branch." In analyzing this objective, each school was asked three questions which, with the replies, appear on Figure D3-1. It is obvious that these replies challenge the validity of the course objective, particularly that portion which states "to prepare officers to perform command... duties at company...level." In the case of the principal combatant arms, approximately 70% of the officers had previously been company commanders, for which the course purported to prepare them. While the same general percentage of officers have had prior experience on battalion staffs, it must be borne in mind that staffs are a composite of many individuals, operating in widely diverse fields. Although service on these staffs provides an officer with some familiarity with staff procedures, he generally has a working knowledge in only a single area.

CAREER COURSE CURRICULA BREAKOUT BY PERCENTAGE

CAREER COURSE	SUBJECTS			AREAS CONCENTRATION				TYPE WARFARE			
	COMMON	BRANCH	OTHER	TACT	LOG	ADMN	OTHER	NUC	CONV	STAB OPNS	OTHER
INF	74	26	-	86	3	11	-	35	30	35	-
ARM	46	47	8	54	12	26	8	11	79	3	7
ARTY	38	62	-	86	12	2	-	20	71	3	6
ENGR	14	58	28	25	15	15	45	8	21	15	56
SIG	36	64	-	80	8	12	-	8	68	7	17
CML	51	47	2	72	4	24	-	26	70	4	-
ORD	46	50	4	17	34	41	8	9	79	5	7
QM	32	35	33	20	31	17	32	2	55	2	41
TRANS	41	36	23	11	72	17	-	6	13	2	79
AG	30	63	7	19	2	79	-	5	10	4	81
ASA	32	69	-	16	10	74	-	8	86	6	-
FIN	24	75	1	16	3	81	-	1	18	5	76
INTEL	45	55	-	75	3	22	-	8	87	5	-
MP	36	34	30	34	2	64	-	10	19	12	59
WAC	98	2	-	36	13	51	-	9	6	3	82
CHAP	49	40	11	30	20	50	-	2	96	8	-
JAG	12	88	-	8	2	90	-	1	8	1	90
AMEDS	31	69	-	16	13	28	43	8	20	6	66
ANC	37	30	33	2	17	75	6	5	1	4	90

FIG. D3-2

The reply to Question 3 substantiates that the officers arrive at the career course between their third and eighth years of service, but that most of them are on the upper end of the scale -- a fact which results in nearly all of them attending the course as captains.

Adequacy of the Curricula

6. Investigation has been made of those curricula aspects specified in the directive to the Board, plus other areas which the Board considered appropriate. (Certain areas are being examined in separate appendices). Since approximately 45% of each career course is devoted to common subjects, the Board considered that the list of those subjects (included in Annex B, Appendix 4, Figure B4-3 warranted analysis. The following quotation from the Williams Board Report of 1 July 1958 is pertinent:

"11. The Board concludes that the demands upon the branch schools for formal instruction in Common Subjects should be modified by the elimination of subjects of marginal value; by reduction of hours of coverage to a minimum; by coverage of appropriate subjects in an individual study program, information program, or troop schools; and by giving maximum freedom of action to commandants in the coverage and integration of instruction in Common Subjects."

7. The above quotation is valid in 1966, except that the time to be devoted to each subject has been left to the judgment of School Commandants. Of the 45 common subjects currently specified, 37 of them must be covered in the career course. In the Board's opinion, at least 12 of the 37 should be taught on-the-job, in unit schools, or by extension course. These subjects (extracted from Figure B4-3) are as follows:

5. Basic Military Administrative Law
13. Signal Security
14. Department of Defense Organization
15. Domestic Emergency and Civil Defense
19. Field Engineer
25. Map and Aerial Photograph Reading
26. Martial Law
29. Military Justice
31. Military Transportation
32. Mine Warfare
37. Physical Security
44. Weapons

CAREER COURSE METHODOLOGY BY PERCENTAGES

SCHOOL	LECTURE	DEMON	WRITING /ORAL	SEMINAR/ CONF	EVALUA-TION	PRACTICAL EXERCISE	OTHER
INF	17	6	2	26	6	43	
ARM	2	8	-	34	5	51	
ARTY	3	6	1	38	6	46	
ENGR	21	3	-	36	5	35	
SIG	2	15	2	44	4	33	
CML	8	3	4	43	4	38	
ORD	3	9	-	44	4	40	
QM	30	7	3	26	3	31	
TRANS	16	3	3	36	4	38	
AG	26	8	4	25	3	34	
ASA	13	9	-	32	3	43	
FIN	19	4	4	38	5	30	
INTEL	11	13	-	38	2	36	
MP	2	11	20	44	5	18	
WAC	18	16	18	28	3	17	
CHAP	23	5	20	33	4	15	
JAG	-	4	8	38	1	-	49*
AMEDS	30	13	4	22	4	27	
ANC	38	5	5	24	2	26	
AVERAGE	15	8	5	34	4	32	2

* Individual Study for Thesis

FIG. D3-3

8. The career course curricula were next analyzed from the standpoints of type subjects (common, branch), areas of concentration (tactical, logistical, administrative) and types of warfare (nuclear, conventional, stability operations). The breakout by schools is shown in Figure D3-2. The "subjects" and "areas of concentration" breakouts are largely school determinations and reflect branch functions as was the case in the basic course. The percentage of time allocated to "type warfare" is dependent on Army doctrine. Except at the Infantry School, and to a lesser extent at the Engineer and Military Police Schools, there is insufficient emphasis on stability operations. The remaining combat arms and the technical services, in particular, should provide a better balance to their curricula, by the inclusion of a larger number of practical exercises in this environment.

9. The Board noted that the curricula vary considerably in methodology, length, orientation, and content. The analysis on methodology utilized the headings appearing in Figure D3-3. The time the schools devoted to field trips and training films was consolidated under "Demonstrations;" guest speaker time was included under "Lecture." The Board considers too much lecture time is included in most school curricula. Considering the divergent material presented, there is surprising uniformity in the areas of demonstration, seminar/conference, evaluation and practical exercise, and the Board believes the use of these methods is adequate. The staff writing and oral presentation areas, which are of vital importance to commanders and staff officers at all levels, warrant an increase in emphasis in nearly all schools.

10. Other areas selected or specified for analysis have been charted in Figures D3-4 through D3-15 at the end of this appendix. Many of these areas are covered in depth in other annexes. Broad comments on each of these areas follow:

a. Length. Course lengths vary from 22 to 37 weeks. The relatively small variations among the principal combatant arms and the professional services are considered acceptable. The wide variations in course lengths among the technical services, from 23 weeks for the Ordnance to 34 weeks for the Transportation Corps appear unwarranted. The same observation can be made of the administrative service courses which vary from 22 to 37 weeks. The Board believes that career course lengths merit a careful USCONARC review.

b. Non-Academic Hours. Generally speaking, each school allocates time in the course for the Commandant, student processing, physical training, and "open time." These hours vary considerably and are directly proportional to each school's educational philosophy.

Course length is also a factor. It is significant to note that only the Finance and Women's Army Corps Schools (23 and 22 weeks long, respectively) currently have less than 250 hours of non-academic time. Irrespective of course length, 25% of the average course is non-academic time. It is apparent to the Board that each course, as now constituted, contains a considerable number of hours which can be devoted to expanding existing instructional areas or undertaking new instruction. Additional time can be generated within the non-academic block by eliminating the hours allocated for physical training. Each officer arriving at the career course should be mature and responsible. He should be informed that his physical condition is a personal responsibility. He should be required to achieve a given score in the Physical Combat Proficiency Test, which the Board suggests be administered to each student 30 days after the start and 30 days before the end of the course. Results should be made a matter of record.

c. Company Training. AR 350-5 currently specifies training at company level; however, the amount of time varies considerably from a low of zero at several schools to a high of 33% at the Ordnance School. Among the combat arms the amount is 21% at the Infantry School, 14% at the Armor School, and 4% at the Artillery School. Considering student background (Figure D3-1), the Board feels that there is an excessive amount of company level instruction in at least seven of the career courses. In the years ahead the Board believes that instruction at this level should not exceed 5% of the time available.

d. Management. The amount of personnel, financial, and materiel management instruction varies from zero to 450 hours. Annex D, Appendix 9 develops the relative requirements of the various branches for training in command and management. Despite the accepted need for broad variations of emphasis in these two areas across the total branch spectrum, there should be a closer correlation between branches within the same category.

e. Maintenance. This instruction varies between zero and 94 hours and includes both maintenance management and maintenance training. Considering both the student's experience on arrival and his probable future assignments, the Board is of the opinion that maintenance management should be given clear priority over maintenance training at this level.

f. Counterinsurgency. There is a degree of uniformity in the number of hours of pure counterinsurgency instruction among the schools. However, there is great disparity shown in the number of integrated hours. This subject is discussed further in Annex D, Appendix 14.

g. Psychological Operations. Time spent on psychological operations varies between zero and five hours. The importance of this type warfare in Vietnam and its potential employment in other areas during the next ten years clearly indicates a need for additional emphasis. Annex D, Appendix 14, analyzes this subject in depth.

h. Civil Affairs. All schools conduct a certain amount of civil affairs instruction varying from two hours at the Transportation School to 24 hours at the Judge Advocate General School. This is an important area which warrants increased emphasis in most schools. Its relationship with psychological operations should be clearly established. It is also analyzed in Annex D, Appendix 14.

i. CBR. The Chemical and Military Police Schools devote 347 hours and 167 hours respectively to pure and integrated CBR instruction. In other schools the time varies between four and 67 hours. These wide variations in emphasis, which are not relatable to differences in branch functions, underline the requirement for more precise guidance in this area. This subject is analyzed in Annex D, Appendix 15.

j. Nuclear Weapons Employment. Raw statistics compiled by the Board indicate that about 60% of the total Army-wide Prefix 5 requirement is being produced every year at the Infantry, Armor, Artillery, Engineer and Chemical Schools. This instruction, plus the time spent to maintain the specialty, results in a waste of hundreds of officer-days annually. There is also a considerable variation in the amount of general nuclear weapons instruction conducted in all the schools. It is evident that there should be a substantial reduction in Prefix 5 qualification. See Annex D, Appendix 15, for further analysis.

k. Automatic Data Processing (ADP) Instruction varies from zero at the Infantry School to 114 hours at the Finance School. ADP has already influenced almost every functional area in the Army. In the near future it will also impact at almost every organizational level. As a minimum in the career course, the Board feels students need orientation training on the capabilities and limitations of the equipment, characteristics of the information systems and their interaction with the equipment, and representative applications. See Annex D, Appendix 12, for further analysis.

l. International Relations. Instructional time in this subject varies between zero at five schools to 129 hours at the Military Police School. This subject area is of increasing importance to Army officers and warrants additional emphasis in most schools. Instruction in the field of international relations would add variety to the courses, present new challenges to the students, and expand their opportunities for staff writing and oral presentation. The

Board considers this area should be covered largely through elective courses as discussed in paragraph 17.

11. Operations Research/Systems Analysis. When the courses were analyzed for instruction in operations research/systems analysis, it was discovered that 12 schools allot no time to the subject. Those schools which included it in their curricula, together with the number of hours, were Infantry (8), Signal (13), Army Medical Service (4), Chemical (6), Transportation (4), Military Police (9), and Women's Army Corps (3). The use of these decision-making tools has greatly increased in the past few years, and there is ample reason to believe that the rate will accelerate. Career course students should be given at least an introduction to systems analysis/operations research techniques. The Army must develop additional expertise in this area. See Annex D, Appendix 11.

12. COSTAR and TASTA. The planned Army reorganization under COSTAR and TASTA has had a mixed impact on the curricula of the branch schools. The FY 66 curricula have been revised to reflect the COSTAR concept and to present TASTA in broad outline. Within the combat arms and administrative services, the effects are minimal due to the fact that the career course provides only a general orientation on logistics at the field army and theater levels. Within the technical services the effects are profound since branch identifications of units in the materiel area are replaced by functional designations, beginning at company level. The Ordnance and Quartermaster Schools have revised 25% and 10% respectively of their total curricula for FY 1966.

13. Overlaps With Basic Course. The curricula were also reviewed from the standpoint of overlap with the basic course. Analysis of school replies indicates that course overlap varies between zero in most schools to a reported 23% in the areas of gunnery, survey, artillery transport, and demonstration at the Artillery School. The significant overlap in Artillery instruction is due primarily to the previous orientation of the students to either Air Defense or Field Artillery. The first 24 weeks of the 32-week career course are spent at Fort Sill, where all of the instruction on common subjects and Field Artillery takes place. If only Field Artillery-oriented officers attended the course, 76 instructional hours could be eliminated as acknowledged and unneeded duplication. An additional 107 hours are duplication for many officers but considered by the school as necessary refresher training for most of them. In substance, up to 183 hours or about six weeks of the Fort Sill instruction is repetitive for many of the Field Artillery-oriented officers who comprise about 70% of the average class. In the eight weeks of Air Defense instruction at Fort Bliss, it appears that 83 instructional hours constitute unwarranted duplication for the Air Defense-oriented officers who comprise about 15% of the class. Since an additional 42 hours fall in the refresher

category for this group, up to 125 hours (four weeks) are repetitive for many of the Air Defense-oriented officers. For the 15% of the average class who are cross-trained on arrival, there are up to 10 weeks of unneeded instruction. In the Board's opinion, most of this "lost" time can be salvaged by the judicious use of an elective program which is discussed later in this appendix.

14. The Army Intelligence and Security Branch, alone among the branches, is offering two separate and distinct career courses. Officers specializing in the communications intelligence and security field attend the course at the Army Security Agency School, at Fort Devens, Massachusetts. All other officers of the branch attend the career course at the Intelligence School at Fort Holabird, Maryland. In the interests of branch integrity and obvious personnel and fiscal economies, it is considered that the two courses should be brought together. Requirements for specialized instruction should be met by the establishment of specialist courses. See Annex D, Appendix 17 for a detailed analysis of this subject.

Educational Philosophy.

15. As previously indicated, the average officer entering the career course is a captain with about six years' service, who has already been a company commander and a battalion staff officer. During the course he currently receives a significant amount of training which is repetitious to his experience. On the other hand, he is given but little assistance in preparing for the branch immaterial assignments which he is most likely to receive in the coming years. In a letter to the Board dated 20 July 1965, General Paul D. Adams addressed this subject as follows:

"The current curricula...parallel very closely those which obtained prior to World War II. They have not advanced abreast of the times...there is a tendency to resist injection into the curricula subjects or courses (Personnel and Business Management, Politico-Military Matters, History, Economics) that are not purely military but which are needed in order to train officers for the wide variety of tasks and assignments they will be called upon to fill... Another point...is the lack of depth or substance in what is taught in the schools...too much attention to technicalities, and too little to principles ... I believe students...do not have to be spoon-fed, as is the case with so much instruction at this time."

16. The analysis thus far has largely substantiated General Adams' views on course content. Areas of duplication as well as instructional voids have been indicated. It is now appropriate to determine ways to make the course more stimulating.

17. Elective subjects were introduced into the Infantry School career course in FY 66 but only on an extra-curricular basis. Seventy-seven percent of the resident career class is participating in one or more of the ten available courses, with heavy enrollment in language training, effective writing, effective speaking, and reading comprehension. No academic credits are awarded but the fact that a student participates together with the quality of his performance will be entered on the academic report. Thus far the only noticeable effect has been improved test scores in the regular course. The long term possibilities of this system are very attractive. The Infantry School visualizes, in the next phase of its program, incorporation of electives into the regular program of instruction, through a reduction in the core curriculum and allocation of the hours saved to electives chosen by the officer. The final phase of the program contemplates crediting officers for segments of the core curriculum in which they have proven comprehension through a series of validating examinations.

18. A system such as this, begun at the career courses and continued through the C&GSC and the Army War College, points the way for significant numbers of officers to be educated in depth in scores of areas to include operations research, automatic data processing, international relations, and various aspects of management. All Army schools today utilize various statistical profiles, questionnaires, records, and tests to determine the experience level of incoming students. They analyze and compile the data gathered, but do not "tailor" the courses to reflect student experience. Officers highly qualified in a particular area are grouped with the less experienced. The schools accept this condition on the basis that the informed student becomes an "assistant instructor." This philosophy misses the point that the officer will receive little benefit from this portion of the course and will tend to lose interest. In the time frame under consideration, the Board considers that all schools should:

a. Employ automatic data processing in assembling and analyzing experience data on incoming students within ten days of their arrival at the school.

b. Offer, in addition to the core curricula, elective courses appropriate to the mission of the school, some of which will carry through higher levels of Army schooling. All students will take certain electives under this program.

c. Administer validating examinations in specific measureable segments of the course to those students who volunteer for an additional elective program. Emphasize that the decision to enter this program is entirely a personal one.

19. End of Course Specialization. In the career course the officer is being prepared for a series of future assignments -- not just the next one. On the other hand, some schools are providing about two weeks at the end of the course to give the student an opportunity to specialize in areas pertinent to his next assignment. The Board favors this practice in those cases where it can be accommodated, since it provides a controlled transition from an academic situation to job-oriented interest, with attendant increased receptiveness to instruction at the end of the course. This instruction must harmonize with the elective program. Where it does not, the Board is of the opinion that the elective program should have priority.

20. The extension course is an educational technique which warrants full utilization by the branch schools. During its visits the Board noted that all schools utilize from a few days to several weeks at the beginning of the course to establish a "common denominator" of student knowledge. This procedure wastes the time of a significant percentage of the students. As an alternative, the Board considers that the schools, in coordination with the career branches, should mail a specially prepared extension course to each branch officer when he completes approximately 30 months' service. The covering letter should explain that the material is part of the career course, and that thorough study and understanding by the officer is mandatory. If considered desirable, the packet could be expanded to include coverage of some of the common subjects now included in the course but recommended by the Board for elimination (See paragraph 7 above). Discretion will obviously be required in determining the degree to which this technique can be employed without overloading the officer.

21. Inter-branch schooling at the career course level is permitted among all branches but has generally been restricted to the principal combatant arms. Present operating policies provide for the following on an annual basis:

	Infantry School	Armor School	Artillery School
Infantry officers to	x	40	8
Armor officers to	20	x	0*
Artillery officers to	10	4	x

*Four Armor officers initially programmed for the Artillery course.

The program, begun in FY 64, is designed to promote understanding among the principal combatant arms and provide mutual educational and training benefits to the officers involved. The 68% commonality between the Infantry and Armor School curricula plus the similarity of command and staff responsibilities indicate that the average student in these

branches can readily adjust to either school environment. Such is not the case concerning Infantry or Armor officers attending the Artillery School, where the emphasis on subjects such as gunnery, fire direction and survey place unfamiliar demands on the non-Artillery officer. The Board is of the opinion that the exchange between Infantry and Armor officers should continue, but that Infantry and Armor officers should not attend the Artillery career course. Conversely, the Artillery, as the supporting arm, should continue to send a reasonable number of officers to the Infantry and Armor courses.

22. The Board has reviewed the objectives and purposes of the career course as stated by the various branch schools. There are wide variations in the wording of these objectives and purposes, reflecting differences in branch functions and inadequacies in the guidance furnished in AR 350-5. The adoption of the ROAD and COSTAR concepts, together with the reorganization of the Army's CONUS structure in 1962, has left certain of the technical and administrative schools uncertain as to the proper scope and organizational level for their instruction. The objective of officer career courses as stated in AR 350-5 is not particularly applicable to branches with few troops but many administrative, technical, or managerial functions. The differences of content in the various career courses, previously discussed, are to some extent due to the uncertainties engendered by changing organizational patterns and inadequate guidance. While the Board recognizes the varying requirements of the several branches, it is mindful of the necessity for all branch career courses to lead logically to the C&GSC as the next level in the structured school system of the Army.

23. To this end, the career courses must focus their instruction on the Army in the field, as opposed to major Army or joint commands or agencies in CONUS. Certain technical service schools consider that, as a result of the 1962 reorganization, their instructional mission within established functional areas extends from the lowest levels of the Army in the field through the highest levels of the CONUS logistic structure. Thus, the Quartermaster School in referring to itself as the "Supply Training Center of the Army School System" apparently recognizes no upper limit in the level of supply instruction offered. This is at variance with the assignment of instructional responsibility for wholesale logistics to the Army Materiel Command (AMC). The difficulties of dividing supply instruction into retail and wholesale categories are recognized. The depots in the communications zone are certainly similar to those in CONUS. Nevertheless, there are essential differences in orientation between the two. The Board considers that, while some overlap in coverage is inevitable, and, in fact, desirable, instruction in the wholesale or producer logistics area should be left primarily to the AMC schools.

- c. Operations research/systems analysis
- d. Automatic data processing at most schools
- e. Maintenance management, as opposed to maintenance training
- f. Staff writing and oral presentation

28. Career course curricula should be revised to reduce:

- a. Training and qualification of Prefix 5 nuclear weapons employment officers.
- b. Company level training to not more than 5% of the academic hours available.
- c. Training in at least 12 of the 37 common subjects currently specified by USCONARC for inclusion in the course. These should be taught on-the-job, in unit schools, or by extension courses.
- d. Lecture time in most schools.
- e. Time allotted to physical conditioning. This should be made largely a personal responsibility.

29. USCONARC should review the current wide variation in career course lengths.

30. The overlap in course content between the basic and career courses, common to all schools but most pronounced in the Artillery, should be eliminated through deletion of certain blocks for some or all students and use of electives.

31. In addition to core curricula, branch schools should offer elective courses appropriate to the mission of the school to all students, and additional elective courses to selected students who receive credit for specific parts of the course pursuant to successful completion of validating examinations. A portion of the non-academic time in the career courses today, varying from 160 to over 400 hours in the various branch schools, should be utilized to inaugurate the program.

32. In order to establish a common denominator of student knowledge, branch schools, in coordination with career branches, should mail a specially prepared extension course to each branch officer when he completes approximately 30 months' service. Completion of this course should be considered a prerequisite to attendance at the career course.

33. Inter-branch schooling at the career course level should be continued with selected Infantry and Armor officers attending the school of the other branch, and selected Artillery officers attending the Infantry and Armor Schools.

34. Instruction in the branch career courses should be focused on the Army in the field, leaving instruction in the wholesale or producer logistics area primarily to Army Materiel Command schools.

35. Instruction in the functions of the general staff, together with practical exercises in its operation at division level, should be included in the career courses of all schools.

36. The objective of the career course, as stated in AR 350-5, should be amended to read as follows:

"To prepare officers for command and staff duties at battalion through brigade or comparable levels in both divisional and non-divisional units. Emphasis is on the exercise of command at battalion level. Where such command is not applicable, instruction will be directed toward an understanding of command functions, branch responsibilities for command support, and development of managerial and specialist skills. In all cases the course will include instruction in general staff organization and operations to provide branch perspective and orient students in activities pertinent to their branch. Elective subjects will be included in the curriculum to provide individual challenge and stress branch-related skills."

37. The title of the present career course should be changed to the "advanced course."

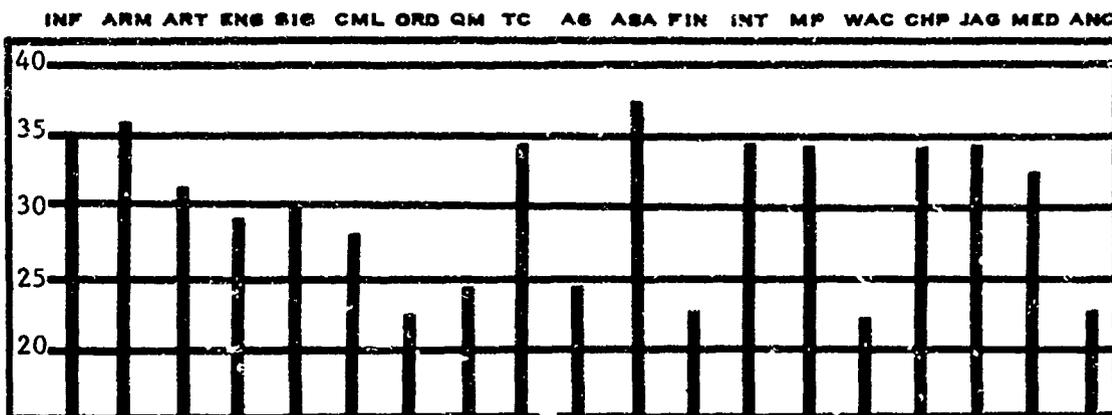


FIG. D3-4 CAREER COURSE LENGTH IN WEEKS

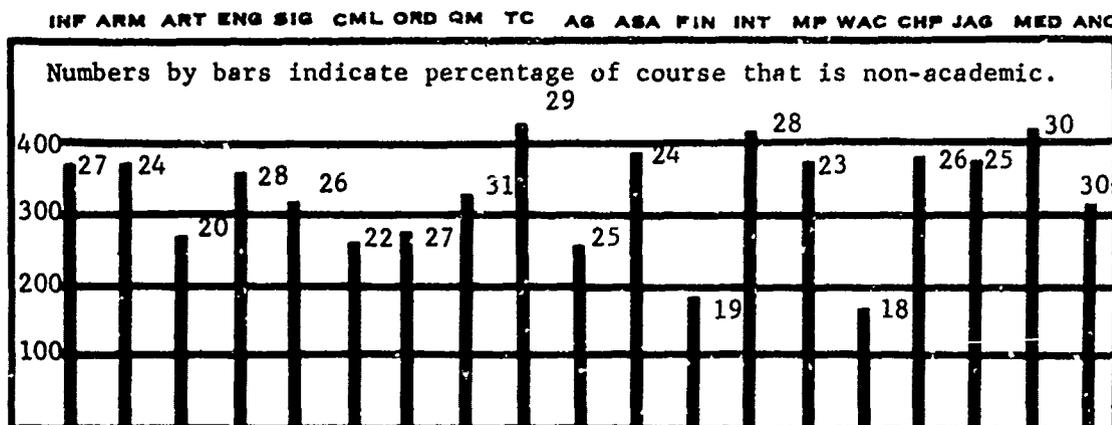


FIG. D3-5 CAREER COURSE NON-ACADEMIC HOURS AND PERCENT OF CRSE

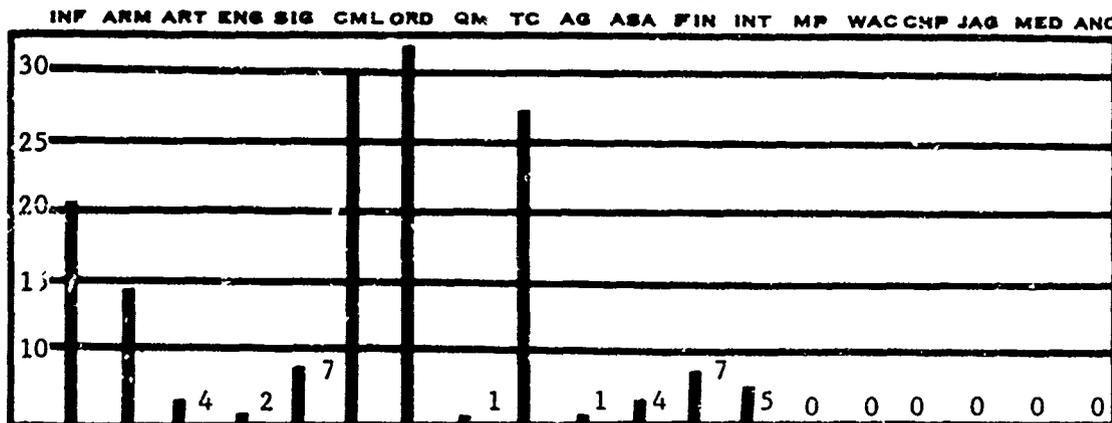


FIG. D3-6 CAREER COURSE PERCENTAGE OF INSTRUCTION AT CO LEVEL

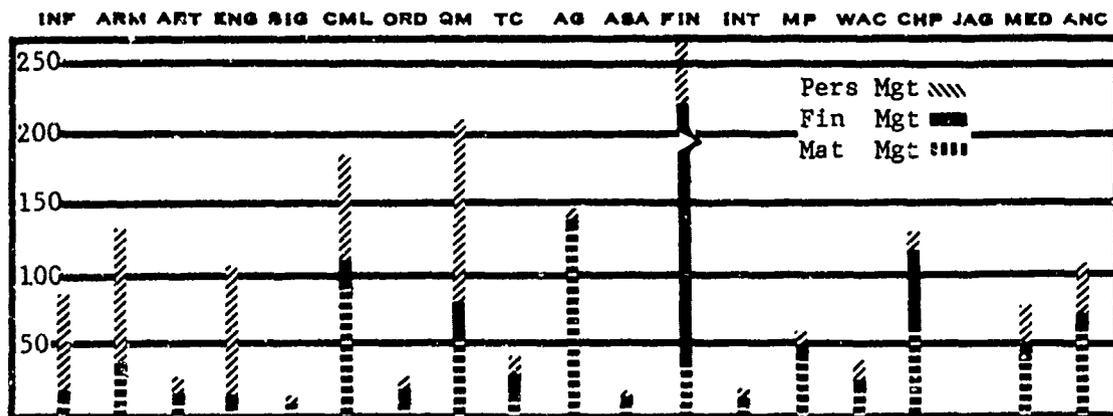


FIG. D3-7 CAREER COURSE MANAGEMENT IN HOURS

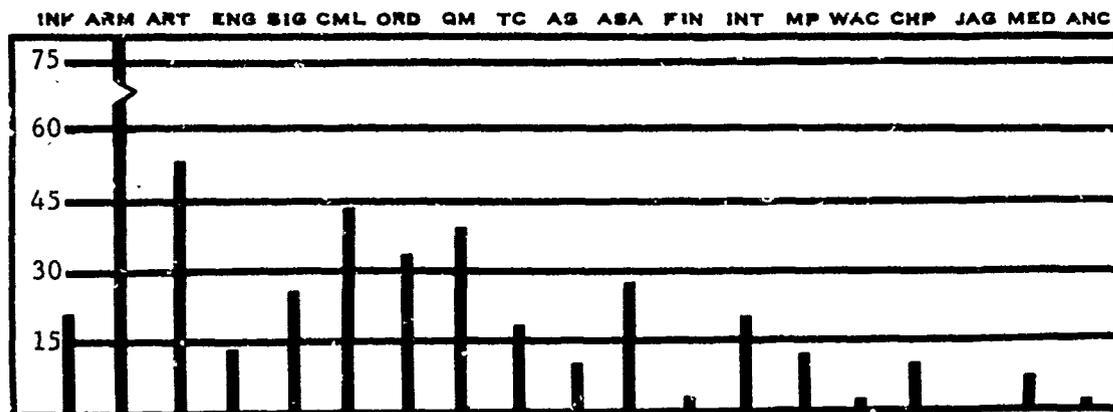


FIG. D3-8 CAREER COURSE MAINTENANCE IN HOURS

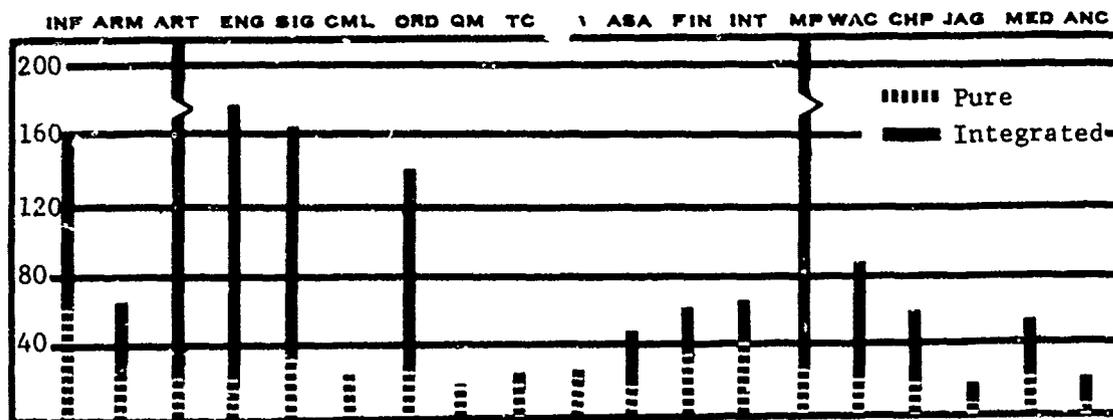


FIG. D3-9 CAREER COURSE COUNTERINSURGENCY IN HOURS

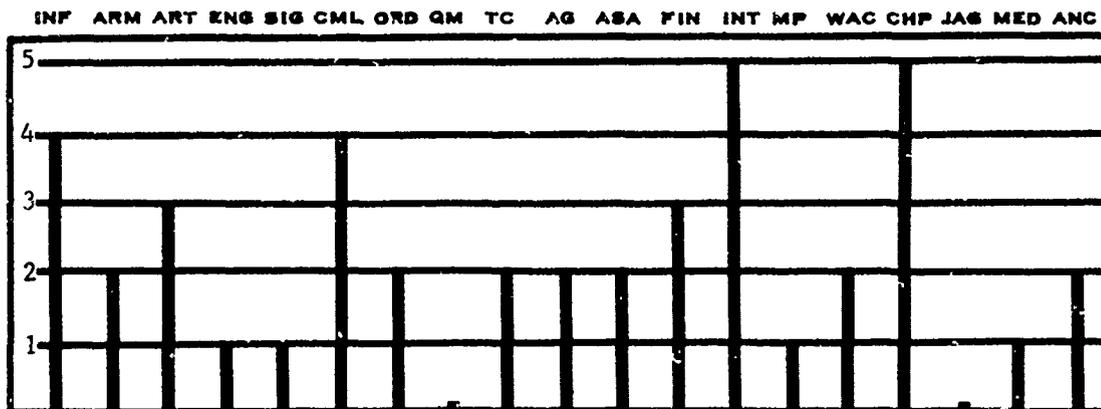


FIG. D3-10 CAREER COURSE PSYCHOLOGICAL OPERATIONS IN HOURS

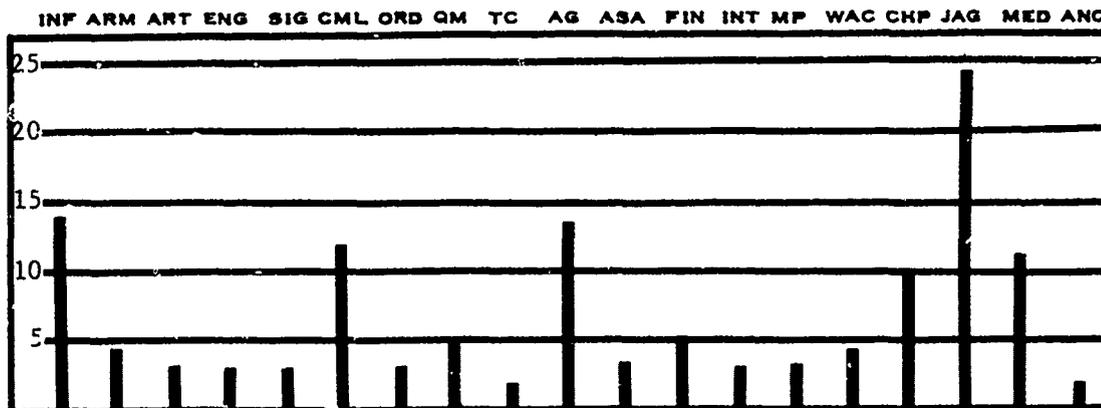


FIG. D3-11 CAREER COURSE CIVIL AFFAIRS IN HOURS

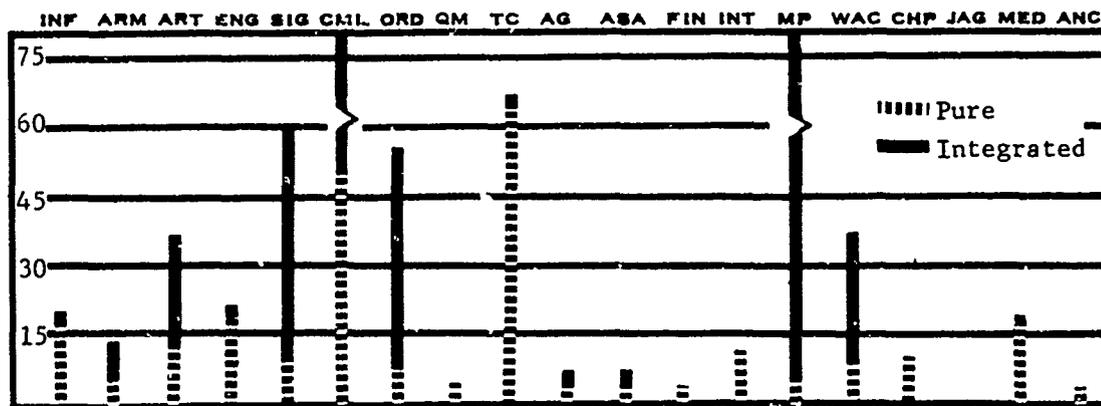


FIG. D3-12 CAREER COURSE CBR OPERATIONS IN HOURS

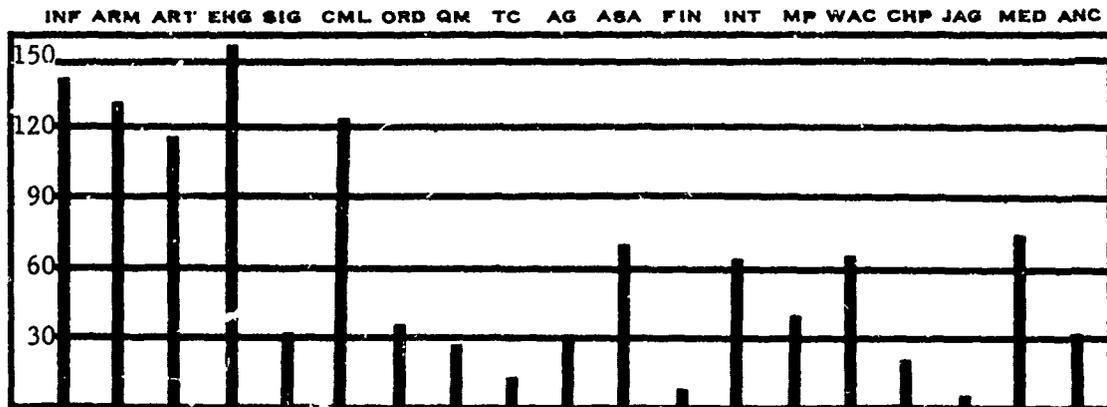


FIG. D3-13 CAREER COURSE NUCLEAR WEAPONS EMPLOYMENT IN HOURS

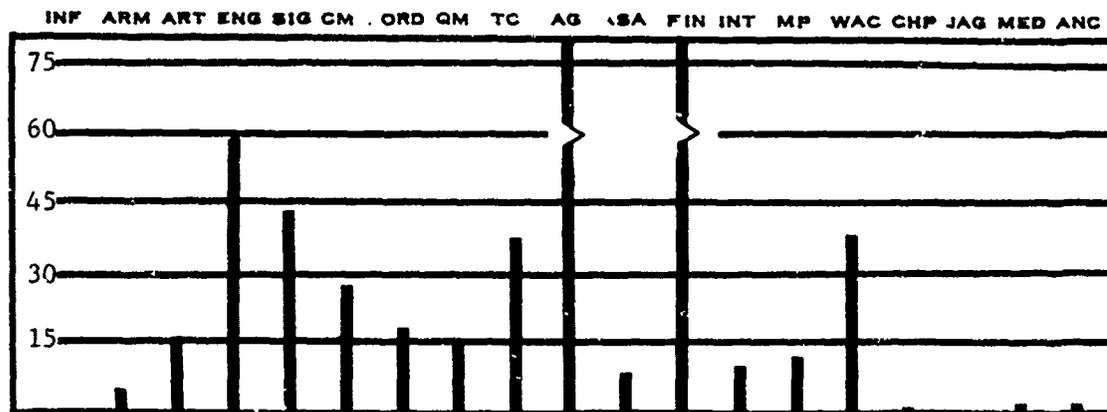


FIG. D3-14 CAREER COURSE AUTOMATIC DATA PROCESSING IN HOURS

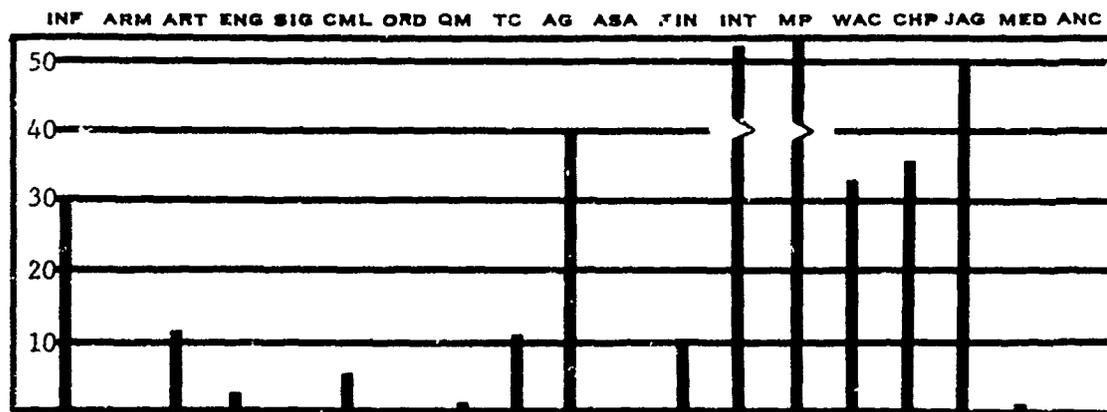


FIG. D3-15 CAREER COURSE INTERNATIONAL RELATIONS IN HOURS

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 4

COMMAND AND STAFF COLLEGE SCHOOLING

PURPOSE AND SCOPE

1. This appendix addresses itself to an analysis of command and staff college schooling of US Army officers. It includes a comparison of certain facets of the Service command and staff colleges and the Armed Forces Staff College; an analysis of officer preparation for command and staff schooling and of the US Army Command and General Staff College mission, curricula, and graduate study program; and consideration of Armed Forces Staff College schooling for US Army officers.

BACKGROUND

General

2. Basic facts regarding the US Army Command and General Staff College (C&GSC), the command and staff colleges of the other three Services, and the Armed Forces Staff College (AFSC) are developed in Annex B, Appendix 4, and Annex C, Appendices 1, 2, and 3. Factual data selected from these appendices serve as a basis for most of the comparative discussion of the five colleges.

3. About 97% of current Active Army officer schooling at command and staff college level is provided by the C&GSC. The remainder is provided by the command and staff courses of the other Services and by token attendance at seven foreign military colleges.

4. Under current Army policies, graduation from the C&GSC is normally a prerequisite for Army officers to attend the AFSC. The other Services, however, equate the AFSC with their own command and staff courses and rarely send command and staff course graduates to attend the AFSC.

5. The C&GSC currently conducts an 18 weeks associate course as well as a regular course, and maintains a 14 weeks mobilization course current for use as directed. As discussed in Appendices 7 and 8, the

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COMPARISON OF SELECTED DATA COMMAND AND STAFF COLLEGES

	C&GSC		AIR CSC	NAVAL CSC	MARINE CORPS CSC	AFSC
	REG	ASSOC				
1. Course Length	10 mo	18 wks	10 mo	10 mo	10 mo	5 mo
2. Class-Size	749	900 (2 cls)	591	203	127	535 (2 cls)
Composition						
Army (Active)	(640)	(648)	(14)	(14)	(6)	(174)
(ACDUTRA)	(2)	(180)	(0)	(0)	(0)	(0)
Air Force	(14)	(0)	(496)	(14)	(2)	(160)
Navy	(3)	(0)	(7)	(160)	(7)	(124)
Marine	(10)	(0)	(8)	(14)	(104)	(36)
Coast Guard	(0)	(0)	(0)	(1)	(0)	(2)
Civilian	(0)	(0)	(6)	(0)	(0)	(17)
Foreign	(80)	(72)	(60)	(0)	(8)	(22)
Basic Organ	50 Man Gps	50 Man Gps	14/15 Man Gps	14/15 Man Gps	10/11 Man Gps	12/15 Man Gps
3. Student Grade	03/05	03/05	03/04	04/05	04/05	04/05
Avg Service	11.7	13.9	11	12	16.4	14.5
4. Faculty Size	193		68	33	13	51
Military	(193)		(67)	(26)	(13)	(51)
Civilian	(0)		(1)	(7)	(0)	(0)
Ratio to Students	1:6.2		1:9	1:6	1:10	1:5.3

FIG. D4-1

Board is of the opinion that associate courses should be replaced by mobilization courses throughout the Army school system. Although this analysis is directed primarily toward the regular course, it examines the mobilization course in the proposed coverage of selected subjects in paragraph 23.

Comparison Between Command and Staff Courses

6. As indicated in Figure D4-1, all of the command and staff colleges conduct regular resident courses of about ten months in length, while the AFSC course is of five months' duration. Classes vary in size from 749 at C&GSC to 127 at the Marine Corps Command and Staff College. Student bodies include officers of comparable grade, age, and experience from all Services. With the exception of the Naval Command and Staff Course, all student bodies include foreign officers. The Navy conducts a separate Naval Command Course for foreign officers. A few civilians from various agencies of the federal government attend the Air Command and Staff College and the AFSC. Together, the command and staff colleges and the AFSC are programmed to produce an annual total of 3,105 graduates, including 1,678 Army officers, 686 Air Force officers, 301 Naval officers, 17 Marine officers, 3 Coast Guard officers, 242 foreign officers, and 23 civilians.

7. The student bodies are organized into 10-to 15-man groups except at the C&GSC, where the class is organized into 50-man sections. Consistent with their small group organization, the other colleges employ seminar and committee methods to a greater extent than does the C&GSC. The faculties are almost completely military. The faculty-to-student ratio varies from about 1:5 at the Air Command and Staff College to 1:10 at the Marine Corps Command and Staff College. The faculty at C&GSC presents more platform instruction than do the faculties of the other colleges. The use of guest lecturers varies widely, ranging from 40 at the C&GSC to 223 at the Air Command and Staff College. Guest lecturers are predominantly military. As noted in Figure D4-2, research and writing programs range in magnitude from a requirement for one treatise at the C&GSC to a requirement for one thesis, two book reports, and eight other papers at the Air Command and Staff College. The speaking programs are roughly equivalent. Graded examinations are given at all colleges except the School of Naval Command and Staff and the AFSC, with those at the C&GSC being the most extensive and rigorous.

8. The Air Command and Staff College and the School of Naval Command and Staff are collocated with respective senior schools, the Air War College and the School of Naval Warfare. In addition, they are tied together organizationally, in that the Commander of the Air University and the President of the Naval War College supervise the

COMPARISON OF SELECTED DATA COMMAND AND STAFF COLLEGES

	C&GSC(Reg)	AIR CSC	NAVAL CSC	MARINE CORPS CSC	AFSC
1. Guest Lecturers Military Civilian	40 (23) (17)	213 (126) (87)	127 (88) (39)	70 (47) (23)	80 (58) (22)
2. Research & Writing	1 Treatise 1500-4000 words	1 Thesis - 5000 words, 2 Book Reports, 8 Other Papers	1 Thesis, 2 Staff Studies, 2 Briefs	1 Research Paper, 1 Solution to Problem, 1 Article	Staff Study or Thesis
3. Speaking	1 Briefing	2 Book Reports	2 OPs	1 Briefing 1 OP on Research Paper	Briefing on above
4. Examina- tions	12 Exams (32 hrs total)	7 Exams	None	5 Graded Require- ments	None
5. Graduate Program	Yes - In- house	Yes - GWU	Yes - GWU	None (Negotiat- ing with American U)	None
No. in Current Class	25	330	57	--	--
6. Extension Course	Yes	Yes	Yes	Yes	None
No. Enrolled	14,901	8,446	483	250	--

FIG. D4-2

operation of both their command and staff and senior colleges. In certain instances, the command and staff colleges share faculty and guest speakers with their senior colleges and have common blocks of instruction. The courses at both the Air Command and Staff College and the School of Naval Command and Staff parallel their senior college courses and are, in effect, junior war college courses.

9. In the Army's sequential educational system, command and staff level schooling is an essential part of a career pattern for those officers destined to attend senior service colleges and to fill top level command and staff positions. In contrast, the other Services do not place the same emphasis on sequential schooling. Consequently, large numbers of their officers who attend senior service colleges, have not had command and staff schooling.

DISCUSSION

10. Command and staff level schooling traditionally has been the keystone of the Army educational system. The widespread and highly integrated structure of Army field type organizations has posed continuing demands for large numbers of officers skilled in the art of tactics and the interrelationships of the combined arms and services. The Army's quantitative requirements for officers with command and staff level schooling exceed the combined requirements of the other Services, and from a qualitative standpoint fundamentally are oriented more directly toward battlefield command and staff positions. To satisfy the Army's requirements, the C&GSC course produces a large annual volume of graduates who have undergone a vigorous and demanding professional military educational experience.

11. Although the Navy and the Air Force pattern their command and staff courses after their senior college courses, and do not emphasize sequential schooling, the Board does not subscribe to this concept for the Army. Instead, the Board is fully in accord with the concept of Army command and staff schooling expressed by the Williams Board:

"As a matter of basic policy, the Board confirms that the USACGSC should remain as the keystone in the education and training of selected officers in the tactical application of the combined arms and services. The proven reputation of 'Leavenworth' as the place where ground commanders learn the art of battlefield command should be perpetuated. The USACGSC course should continue to be a vigorous, exacting course where selected officers learn those elements of

command and staff that enable the complex and diverse elements of the US Army to be directed and controlled to a single purpose."

12. The Board considers that the Leavenworth education should continue to be regarded as the hallmark of military competence, and it is in this light that the subsequent analysis is made. The Board does not intend that the main theme and emphasis of the C&GSC course be re-oriented, but rather that greater flexibility be added to the course to keep it fully responsive to the demands of a rapidly changing military environment.

Preparation for C&GSC

13. The experience level of student officers at the C&GSC has risen substantially over the past 20 years. Prior to World War II, the peacetime Army did not have a single full-strength division in being anywhere, nor were there Army corps or field armies in existence. The Army, therefore, relied almost entirely on the C&GSC to provide officers with professional competence in the handling of larger units.

**PROFILE OF US ARMY STUDENT OFFICERS AT CGSC
AGE - EDUCATION - EXPERIENCE**

	REGULAR COURSE		ASSOCIATE COURSE	
	FY 65	FY 66	FY 65	*FY 66
Average Age	34.8	35	37.5	38
Average Length of Service	11.6	11.7	13.7	13.9
No. With Baccalaureate Degrees	81%	88%	57%	60%
No. With Masters Degrees	28%	27%	17%	20%
No. With PhDs	.05%	.05%	.05%	1%
No. With Experience at Division Level or Higher	62%	60%	54%	53%
No. With Combat Experience	45%	34%	62%	43%

* Associate Course data for FY 66 is for one class only.

FIG. D4-3

That the C&GSC fulfilled the role well has been attested to by Sir Winston Churchill and many others. Since World War II, the Active Army structure has consisted not only of numerous divisions but also has included higher echelons of the Army in the field. In this environment, most officers have served with or around divisions or higher headquarters prior to attending the C&GSC, and have acquired a substantial level of knowledge and understanding of their operations. The Board considers that the C&GSC course should be responsive to and exploit fully the students' experience and capabilities. The table at Figure D4-3 shows a profile of the age, education, and experience of US Army student officers at the C&GSC.

14. With respect to prior military education, all Army officers have completed a career course at one of 19 branch schools prior to attending the C&GSC. The branch schools currently are charged with providing in their career courses "sufficient instruction on division organization and operations to develop branch perspective." Each career course, however, is oriented primarily toward branch requirements, and there is a wide disparity in the coverage of division level instruction. In 1963, US Continental Army Command (CONARC), designated the C&GSC as the proponent of division level instruction conducted in the career courses. The C&GSC provided the branch schools with instructional packets which specified subject coverage and hours. Although career courses were scheduled to include the prescribed division level instruction for classes beginning in FY 65, the minimum hour requirement has since been cancelled. As discussed in Appendix 3, the Board considers that an expansion of division level instruction, to include the functioning of the general staff, should be included in the career courses to prepare officers more uniformly for attendance at C&GSC.

15. The C&GSC extension course offers an additional means of preparing officers for attendance at C&GSC. The C&GSC proposes that, upon completion of the career course, all Active Army officers be required to enroll in the C&GSC extension course and complete it within five years. The Board agrees with the concept of mandatory enrollment in the extension course, but considers that completion within a five-year period would place too great a burden on an officer in light of other career requirements. The Board proposes that only the initial phases of the extension course be completed by all officers within five years or prior to attending the C&GSC resident course; that officers not selected to attend the resident course be required to complete the remaining phases of the extension course by the end of their fifteenth year of service. Details concerning the extension course program are in Appendix 7.

16. The Board considers that inclusion of additional general staff and division level instruction in the career courses and the

mandatory participation of all officers in the C&GSC extension course would provide clear benefits. Officers would be better prepared for the duties that face them in the period between their attendance at the career course and the C&GSC resident course; those who attend C&GSC would be more uniformly prepared; those who do not attend the resident C&GSC course would raise their military educational level; room would be made in the curriculum of the resident C&GSC course for increased emphasis in other areas required under an expanded mission and for an electives program as discussed later in this appendix.

Scope of the C&GSC Mission

17. Traditionally, the C&GSC mission has focused on preparing officers for duty with the Army in the field. In examining the appropriateness of the mission, the Board has considered the changing military environment in which the graduates will serve and the fact that the C&GSC is the final stage of professional military schooling for over two-thirds of its graduates. The current military environment includes a wide range of high level commands and organizations that are outside the structure of the Army in the field and that impose growing demands for C&GSC graduates. Many graduates will spend much of the remainder of their careers serving primarily in non-tactical organizations, i.e.: the Department of the Army, combined and joint staffs, the Continental United States (CONUS) operating base, and a multitude of new commands and agencies such as the US Army Materiel Command (AMC), the US Army Combat Developments Command (CDC), the Defense Supply Agency (DSA), the Defense Communications Agency (DCA), and the Defense Intelligence Agency (DIA). About one-third of the regular course graduates in 1965 went directly to such assignments, and it can be assumed that the remainder eventually will serve in these or similar organizations. Graduates, therefore, must be versatile and knowledgeable in procedures and concepts that go far beyond the operation of the Army in the field. The C&GSC recognizes the need to broaden its mission beyond the Army in the field and already has expanded the scope of the regular course to include other areas of instruction.

18. In light of the broadened experience and educational base of the student officers, as previously discussed, and the wide range of commands and organizations in which graduates must be prepared to serve, the Board considers that the C&GSC mission should be expanded. The Board proposes the following as a revised mission statement for the C&GSC:

To provide resident and non-resident instruction for officers of all components of the Army and selected officers from other Services and other countries in the exercise of combined arms command and the functions of

the general staff, with emphasis on the Army in the field; to advance military art and science through faculty and student research; and to participate in the development of concepts and doctrine for the operations of Army forces from division through army group.

19. Consistent with the revised mission, the Board proposes the following as the objective of the Command and General Staff Officer Course:

To prepare selected officers for duty as commanders and as principal general staff officers with the Army in the field from division through army group, and at field army support command and theater army support command; to provide these officers with an understanding of the functions of the Army General Staff and of major Army, joint, and combined commands, and to develop their intellectual depth and analytical ability.

COURSE COVERAGE BY ORGANIZATIONAL LEVELS - CGSC

LEVEL	REGULAR COURSE %	ASSOCIATE COURSE %
Division	26	30
Corps	6	6
Field Army	3	3
Communications Zone - Logistical Command	7	10
Integrated (Division and higher)	28	39
Joint	5	3
Other Services	4	3
National	14	1
Not Applicable	7	5
	100	100

FIG. D4-4

C&GSC Curricula

20. The breakdown in Figure D4-4 shows the current emphasis on division level instruction at the C&GSC. In the regular course, 26% of the course is pure division level instruction, and an additional 28% includes integrated division level instruction. In the associate course, 30% is pure division level and an additional 39% is integrated. Consistent with the concept of shifting more division level instruction to the career courses and of mandatory participation in the C&GSC extension course, the pure division level instruction in the C&GSC curricula should be decreased.

Stability Operations

21. Considering the present world situation and the probable continued geopolitical unrest during the next ten-year period, US forces probably will be involved on a repetitive basis in stability type operations. As the conduct of stability operations is one of the Army's major mission responsibilities, this category of warfare should receive appropriate emphasis in the C&GSC courses. As shown in Figure D4-5, about 5% of the instruction is devoted to stability type operations. The Board does not consider this coverage adequate. The C&GSC is aware of the need for added emphasis and is in process of making changes. Appendix 14 discusses the various facets of stability type operations in greater detail.

COURSE COVERAGE BY CATEGORIES OF WARFARE - CGSC

SUBJECT	REGULAR COURSE %	ASSOCIATE COURSE %
Nuclear Warfare Related to General War	34	35
Conventional Warfare Related to Limited War	22	25
Stability Operations Related to Cold War	5	5.5
Not Applicable	39	34.5
	100	100

FIG. D4-5

Logistics

22. Another area examined in the current C&GSC curricula is the logistics instruction included in the regular and associate courses. The table at Figure D4-6 shows the percentage of each course devoted to tactical, logistical, administrative, and other instruction. The Board considers the overall emphasis on logistics instruction to be in proper balance under the current mission; however some logistics subjects require added emphasis as discussed in Appendix 13. Under a broadened mission, some degree of additional emphasis would be required to cover other facets of CONUS logistical activities.

BROAD SUBJECT COVERAGE - CGSC

SUBJECT	REGULAR COURSE %	ASSOCIATE COURSE %
Tactical (Operations) (Intelligence)	53 (42) (11)	58.5 (48.5) (10)
Logistical	14	18
Administrative (Personnel) (Civil Affairs)	9 (6) (3)	10 (7) (3)
Other	24	13.5
	100	100

FIG. D4-6

23. The Board examined the idea of separate courses for operations, logistics, and administration. It also considered separation of the course into two segments during its latter phase -- one segment oriented toward the G2-G3 area and the other toward the G1-G4 area. Neither of the ideas is as appropriate as the present system which produces commanders and general staff officers who have a thorough and balanced grounding in the roles, responsibilities and functions of each general staff officer and of the general staff as an integrated entity.

Selected Subjects

24. The Board was charged with examining the adequacy and appropriateness of instruction in specific subject areas throughout the Army school system. The table at Figure D4-7 shows the current coverage in

**BREAKOUT OF HOURS FOR SELECTED SUBJECTS
(BASED ON FY 1966 CURRICULA)**

SELECTED SUBJECTS	REGULAR COURSE NO OF HOURS		ASSOC COURSE NO OF HRS	MOBILIZATION COURSE NO OF HOURS	
	CURRENT	PROPOSED	CURRENT	CURRENT	PROPOSED
		BY C&GSC			BY C&GSC
1. Command Responsibilities and Functions	73	103	41	41	71
2. Resource Utilization					
a. Personnel Management	10		10	0	
b. Financial Management	15	44	00	0	10
c. Material Management	9		9	0	
3. Operations Research	1	9	0	0	0
4. Maintenance Management	4	6	4	4	6
5. Counterinsurgency					
a. Pure Hours	14		3	0	
b. Integrated Hours	79	133	27	11	15
6. Psychological Operations	19	19	15	6	6
7. Civil Affairs	33	33	17	14	14
8. CB (R)					
a. Pure Hours	9	3	9	8	3
b. Integrated Hours(CBR)	38	38	9	9	9
9. Nuclear Weapons Employment	28	18	28	25	9
10. Automatic Data Processing	3	16	1	0	9
11. *International Relations	115	115	11	2	2
12. Joint Amphibious Operations	27	27	6	6	6
13. Intelligence	14	14	11	11	11

* Includes strategic subjects and foreign military organizations.

FIG. D4-7

the regular, associate and mobilization courses. It also depicts a revised coverage for the regular and mobilization courses proposed by the C&GSC based on an initial evaluation of expanded course objectives. The Board concurs generally with the proposed coverage, except that it considers the regular course instruction in operations research should be increased to 24 hours, automatic data processing to 30 hours, and intelligence to 30 hours, for the reasons expressed in Appendices 11, 12, and 17 respectively. Further, as indicated in Appendix 15, the Board does not agree with the reduction in hours proposed by the C&GSC for pure hours of chemical-biological and nuclear weapons employment and believes that these areas should be reevaluated. The C&GSC proposed coverage for the associate course is not reflected in the table nor commented on in view of the Board's position, as discussed in Appendix 7, that associate courses should be discontinued and replaced by mobilization courses. Other curricula revisions may develop when a detailed reevaluation of the curricula is made consistent with the broadened course objectives. For example, greater coverage could be given to the roles of AMC and CDC, to be followed by a problem of interplay among AMC, CDC, and CONARC.

C&GSC Writing Program

25. The C&GSC places less emphasis on formal writing than do the other command and staff colleges. The Board recognizes that, to some extent, this is compensated for by the extensive writing requirements in the C&GSC examinations program, which includes 10 subjective examinations totaling 30 hours of work. Nevertheless, the current writing program in the C&GSC course does not appear to offer the type and variety of requirements that will develop an officer's ability to research, analyze, and write under the pressure of short deadlines. Many officers are capable of preparing an outstanding paper over a period of several months, but are totally incapable of researching and preparing an acceptable staff paper in three days. Experience indicates that an officer will have to prepare hundreds of such "short-fuse" papers in his career. The Board considers that the formal writing program at the C&GSC should be expanded to provide increased and varied requirements, with some of a short deadline nature. As well as incorporating additional writing requirements in the hard-core curricula, the writing program could be expanded by offering elective courses in the Communicative Arts which would be remedial in nature for those who are deficient, or of an advanced nature for students who already are proficient and wish to develop a higher skill level.

Electives Program

26. The C&GSC has a form of elective study in its graduate study program; but it does not offer a wide range of subjects, and relatively

few students participate. A comprehensive electives program would offer an excellent means of adding flexibility to the C&GSC course and of enriching the hard-core curricula. An electives program should provide a choice of several subject areas that would give students an opportunity to specialize in depth or to overcome gaps in their educational background. Although students should be permitted a choice of subject areas, participation in the electives program should be on a mandatory basis. Eventually, some electives on a voluntary, extracurricular, basis could be offered for selected students.

27. Electives at the C&GSC should be of two categories: local electives which relate to and complement the C&GSC course; and progressive electives which are extensions of electives begun at lower level schooling. In either case they should be designed to stimulate intellectual endeavor and to add significantly to the students' professional military education. The Board considers that a local electives program should be introduced in the C&GSC course in the academic year 1967-68. A more thorough discussion of electives and their establishment throughout the Army school system is contained in Appendix 26.

C&GSC Graduate Study Program

28. A graduate study program is offered in the regular course at the C&GSC. The college is not affiliated with a civilian university but has been accredited by the North Central Association of Colleges and Secondary Schools for granting a Master of Military Art and Science degree. Legislative approval is required before degree-granting authority can be vested in the C&GSC. Although in the past the climate in the Department of Defense and the Department of Health, Education and Welfare has not been receptive to seeking the required legislative authority, it now appears that such action would receive favorable support.

29. Meanwhile, a limited number of students in the regular course are participating in the additional academic requirements which the graduate study program entails. The selection process is highly competitive, and the academic work requires approximately 700 hours of additional study. In FY 64 a total of 204 students applied for the program; 33 were admitted; and 21 successfully completed the program. In FY 65, only 96 students applied; 32 were selected; and 22 completed the program. The college awards a certificate in lieu of a diploma, indicating that requirements for the award of a degree as a Master of Military Art and Science have been completed.

30. Students attending the School of Naval Command and Staff and the Air Command and Staff College may participate in George Washington University programs leading to a graduate degree. About 28% of the

current class at the School of Naval Command and Staff are participating in a program leading to a Master of Science in International Affairs; while 60% of the students at the Air Command and Staff College are participating in a program leading to a Master of Science in Business Administration or in Public Administration. The Marine Corps Command and Staff College is not affiliated with a civilian university, but is negotiating with American University to establish a graduate study program.

31. The Board favors continuance of the in-house graduate study program at the C&GSC rather than establishing an affiliated program with a civilian university. The C&GSC graduate study program should continue to be challenging and demanding, focus on the military area, and complement the C&GSC resident course. To the maximum extent possible, the graduate study program should be made a part of the electives program previously discussed, rather than conducted as an extra-curricular activity. Only highly selected students should participate; however, some increase in participation should be permitted, at least proportional to the increased size of the student body in the regular course as discussed in Appendix 8. The Board considers that the Department of the Army should continue to seek legislative authority for the C&GSC to grant the degree of Master of Military Art and Science.

Monitorship of Army Instruction at Other Command and Staff Colleges

32. Under current procedures, CONARC monitors Army instruction at the command and staff colleges of the other Services. Army faculty members at the other command and staff colleges are assigned to CONARC and coordinate Army instructional matters with CONARC and direct with the C&GSC. The Board is of the opinion that monitorship of such instruction should more appropriately be assigned to the CDC. This would place the responsibility on the Army organization which has the most direct interest and expertise in the level of Army doctrine concerned and which has the greatest awareness of new concepts and Service positions. It also would be consistent with the Board's organizational proposal in Appendix 21 to place the Army War College and the C&GSC under the CDC. To facilitate coordination, personnel in the Army advisory groups at the Naval War College and the Air University and the Army representative at the Marine Corps Educational Center should be assigned to the CDC instead of to CONARC. The senior Army representative at each of these institutions should be the liaison representative of the CDC. No change would be required in the status or relationship of the Army faculty members with the institution at which stationed. A similar proposal for CDC to monitor Army instruction in the three Service war colleges is discussed in Appendix 5.

Other C&GSC Considerations

33. Other areas concerning the C&GSC which have only been touched upon in this analysis or which have not been mentioned, are covered in detail in separate appendices of the Annex. Of particular interest are: Associate, Refresher, and Extension Courses - Appendix 7; Prerequisites, Requirements, and Quotas - Appendix 8; Alternative Organizational Structures for the Army School System - Appendix 21, Faculty Selection, Training, Qualification, and Role - Appendix 22; Student Testing and Evaluation - Appendix 23.

The Armed Forces Staff College

34. The AFSC provides the US Military Services with graduate level staff schooling oriented toward preparing officers to serve in all echelons of joint and combined commands. The emphasis in the curriculum is on joint and combined organization, planning, and operations, with about 55% of the 610 academic hours in the course devoted to this area. As previously mentioned. Army officers selected to attend the AFSC normally are graduates of command and staff college schooling while those from other Services are not.

35. In commenting on the varied command and staff schooling backgrounds of AFSC students, the Commandant, AFSC, in his last annual report to the Joint Chiefs of Staff stated:

"The continuing divergence in military educational background of AFSC students presents a serious handicap to the College. Because certain of the students are unschooled in staff procedures and in the structure and capabilities of sister Services, curriculum time must be devoted to these subjects. This coverage represents, in large part, duplication for students who are graduates of a command and staff level course. Were the student body to have a more uniform background this time could be most profitably utilized on more advanced subjects."

36. The AFSC is continuing its efforts to raise the military educational level of non-graduates of command and staff colleges. The college has considered two approaches for students in this category: to give them three weeks of preparatory resident instruction prior to the beginning of the course or to require them to be enrolled in appropriate preparatory extension courses of their own Service. It is doubtful that either proposal will be implemented in the near future. Meanwhile, Army officers attending AFSC receive a considerable amount of instruction that duplicates what they already have learned at the C&GSC. Marine

Corps officers face some duplication, although of a lesser nature, as they previously have received instruction in staff planning at the Marine Corps intermediate school (roughly equivalent to the career course at the Infantry School). The AFSC uses the experience of Marine Corps and Army officers to assist in teaching the staff planning process to the other students. The AFSC considers the review to be beneficial for Army and Marine Corps officers; however, this is questionable for Army officers whose careers already are crowded with extensive schooling. An alternative solution, which would provide a more uniform student background at the AFSC and eliminate the duplication that exists for Army officer students, would be to equate attendance at a command and staff college and the AFSC, and normally permit an Army officer to attend only one. The Board believes that the inclusion of more general staff and division level instruction in the revised advanced course at branch schools, mandatory participation in the C&GSC extension course, and appropriate staff experience should qualify selected Army officers to meet the AFSC requirements. The Board proposal to equate Army officer attendance at command and staff college and the AFSC also is discussed in Appendix 8.

37. A final point of interest in the AFSC area is the pattern of initial assignments for Army officers after graduation from the AFSC. The greatest benefits would accrue both to the officer and to the Army if the initial assignment were to a joint type of duty. The table at Figure D4-8 shows a breakdown of Army officer assignments for the last

ARMY OFFICER ASSIGNMENTS UPON GRADUATION FROM AFSC

CLASS NO.	TOTAL ARMY STUDENTS	ASSIGNMENTS				
		JOINT		DA	ARMY HQ	OTHER*
		STAFF	MAAG/MISSION			
34	82	5	11	14	2	50
35	77	6	6	18	15	32
36	88	6	3	21	10	48
37	86	16	17	15	9	29
TOTALS	333	33	37	68	36	159

* Other includes assignments to corps, division, brigade, battle group, separate battalion, schools.

FIG. D4-8

four classes. Data for the most recent class show that 40% of the Army students received joint assignments. This is the highest percentage of record for such assignments. In all previous classes, only from 10% to 20% of the Army students have received joint assignments. The Board considers that, to the maximum possible extent, the initial assignment for Army officers upon graduation from the AFSC should be to joint type duty.

CONCLUSIONS

38. ^{Concl} Additional division level fundamentals should be shifted from the US Army Command and General Staff College course to the career (advanced) courses at the branch schools to prepare the career course graduates better for subsequent duty and to provide a more uniform base for command and staff schooling.

39. ^{Rec} Upon graduation from the branch school career course, all Active Army officers should be mandatorily enrolled in the US Army Command and General Staff College extension course and should be required to complete the initial phases of the course within five years or prior to attending the resident course; officers who do not attend the resident course should be required to complete all phases of the extension course by the end of their fifteenth year of service.

40. The mission of the US Army Command and General Staff College should be revised to read as follows:

To provide resident and non-resident instruction for officers of all components of the Army and selected officers from other Services and other countries in the exercise of combined arms command and the functions of the general staff, with emphasis on the Army in the field; to advance military art and science through faculty and student research; and to participate in the development of concepts and doctrine for the operations of Army forces from division through army group.

41. ^{Rec} The objective of the US Army Command and General Staff Course should be:

To prepare selected officers for duty as commanders and as principal staff officers with the Army in the field from division through army group, and at field

army support command and theater army support command; to provide these officers with an understanding of the functions of the Army General Staff and of major Army, joint, and combined commands; and to develop their intellectual depth and analytical ability.

42. ^{Level} Consistent with a broadened course objective, the curriculum should be revised to increase emphasis on stability operations, command responsibilities and functions, resource utilization, operations research, maintenance management, counterinsurgency, automatic data processing, and intelligence. Logistics subjects should be maintained in balance; writing requirements should be increased and varied; and pure division level instruction should be decreased.

43. ^{Rec} An electives program should be established as part of the curriculum in the academic year 1967-1968.

44. ^{Pic} The graduate study program should be continued for selected officers, within the framework of the electives program to the maximum extent possible. The Department of the Army should continue to seek legislative authority for the US Army Command and General Staff College to grant the degree of Master of Military Art and Science.

45. ^{Level} The US Army Combat Developments Command should be assigned monitorship of Army instruction at the command and staff colleges. Army officers on the Army advisory groups at the Naval War College and the Air University and the Army representative at the Marine Corps Educational Center should be assigned to the US Army Combat Developments Command instead of to US Continental Army Command; the senior Army officer at each location should be designated as the US Army Combat Developments Command liaison officer.

46. ^{Rec} In Army officer career progression, attendance at command and staff colleges and the Armed Forces Staff College should be equated, and Army officers normally should attend only one.

47. ^{Level} Upon graduation from the Armed Forces Staff College, Army officers should be assigned to joint type duty to the maximum possible extent.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 5

SENIOR SERVICE COLLEGE SCHOOLING

PURPOSE AND SCOPE

1. This appendix addresses itself to an analysis of senior service college schooling of US Army officers, and includes a comparison of certain facets of all senior service colleges and a consideration of their relationships, followed by a more detailed analysis of the Army War College mission, course, faculty role, extension course, and graduate study program.

BACKGROUND

2. Annex B, Appendix 4, and Annex C, Appendices 1, 2, and 3, develop the basic facts which are pertinent to this analysis and which serve as a basis for most of the comparative discussion of the senior colleges.

3. Although the Army school system provides the bulk of the formal military training and education of Army officers up through command and staff college level, the same situation does not prevail at the senior service college level. Of the 280 Active Army officers who attend senior service college annually, 162, or only about 58%, attend the Army War College (AWC); 49, or about 17.5%, attend the Industrial College of the Armed Forces (ICAF); 35, or about 12.5%, attend the National War College (NWC); 32, or about 11%, attend the Naval and Air War Colleges; and three, or about 1%, attend foreign senior colleges.

4. As noted in Figure D5-1, all of the senior colleges conduct resident courses of ten months in length, with classes that vary in size from 280 at the Air War College to 137 at the NWC. The student bodies include officers of comparable grade, age, and experience from all of the Military Services and civilians from agencies of the federal government. The only senior college with foreign officers in the student body is the Air War College, where four officers of the Royal Air Force and one of the Royal Canadian Air Force are admitted annually. Together, the senior colleges are scheduled to produce an annual total

**COMPARISON OF SELECTED DATA
SENIOR SERVICE COLLEGES**

	AWC	AIR WC	NAV WC	NWC	ICAF
1. Course Length	10 mo	10 mo	10 mo	10 mo	10 mo
2. Class-Size	205	280	160	137	180
Army	(165)	(16)	(16)	(34)	(49)
Air Force	(16)	(220)	(16)	(34)	(49)
Navy/Marine	(16)	(17)	(119)	(34)	(49)
Civilian	(8)	(15)	(9)	(35)	(33)
Foreign	(0)	(5)	(0)	(0)	(0)
Basic Organization	12/13-man gps	11-man gps	12-man gps	12-man gps	15-man gps
3. Student Grade Avg Service	05/06 20 yrs	05 19 yrs	05/06 21 yrs	05/06 22 yrs	05/06 21.8 yrs
4. Faculty Size	38	42	35	22	31
Military	(37)	(40)	(30)	(15)	(23)
Civilian	(1)	(2)	(5)	(7)	(8)
Ratio to Stu	1:6	1:6	1:5	1:6½	1:6
5. Guest Lecturers	119	155	113	141	130
Military	(58)	(87)	(56)	(33)	(26)
Civilian	(61)	(68)	(57)	(108)	(104)
6. Faculty Lecturers	25	49	55	8	6
7. Methodology (In % of time)					
Lecture	22.2	22	21	45	18
Small Group	26.2	25	38	10	35
Research/Study	49.6	39.3	30	29	37
War Game	-	-	9	-	-
Trip	2	2	-	10	8
Admin and Other	-	11.7	2	6	2

FIG. D5-1

of 955 graduates, consisting of 335 Air Force officers, 280 Army officers, 235 Navy/Marine officers, 100 civilians, and five foreign officers.

5. The faculties are predominantly military. The NWC and the Naval War College have on their faculties professors on sabbatical leave from civilian universities. All colleges have a ratio of about one faculty member to six students.

6. Lectures and related question periods are used extensively, with guest lecturers playing a major role. Students are exposed to an imposing array of talent consisting of national and world leaders and prominent academicians. Despite a recent trend toward reduction of guest lecturers, those scheduled in the current academic year range from a high of 155 at the Air War College to a low of 113 at the Naval War College. Modest increases are being made in the number of lectures given by faculty members. Faculty lecturers scheduled for the current academic year range from six at the ICAF to 55 at the Naval War College, which makes extensive use of the expertise of its civilian professors.

7. The students are organized into small groups for seminars, committee work, and case studies, with rotating membership throughout the year. The colleges place the student in the heuristic learning situation typical of graduate-level study by providing him a substantial amount of time for research and study. As shown in Figure D5-2, students prepare a research paper, a thesis, or essays, and normally present and defend their papers orally as part of their speaking requirement. Subject areas generally consist of problems which face the Military Establishment or which have some bearing on national security. The research programs provide valuable contributions to the Departmental staffs; however, they are not designed to serve as an extension of the staff effort.

8. Although students are afforded an opportunity to do research in a wide choice of subjects, a true elective program is offered only at the ICAF. There the student chooses one of eight graduate-level courses to pursue in depth. These electives are approximately equivalent in length and intensity of effort to a university one-semester course. Elective courses offered at the ICAF include Automatic Data Processing, Contemporary Economic Theory, Defense-Oriented Cost Analysis, Human Relations in Organization, Law for the Defense Manager, and the Theory and Management of Systems. The ICAF initiated the elective program in the current curriculum and plans to expand it in future years.

**COMPARISON OF SELECTED DATA
SENIOR SERVICE COLLEGES**

	AWC	AIR WC	NAV WC	NWC	ICAF
1. Writing	Thesis, research paper, or two essays	Thesis	Research paper	Research paper or thesis	Research paper or thesis
2. Speaking	Present & defend above	Six briefings	20 min brief of above	Present & defend above	None
3. Resident Seminars (Included in courses)	Nat'l Strategy Seminar	Nat'l Security Forum	Global Strategy Seminar	None	None
4. Grad Study Prog Current Class Total Grad	Yes 88 478	Yes 91 231	Yes 40 Not Avail	Yes 47 232	Yes 94 276
5. Non-Resident Courses Ext Course Enrollment Seminar Crse (Conducted by faculty)	None None	757-Correspondence type 757-Seminar Type None	402 None	None None	Mil 2039 Civ 2373 Nat'l Security Seminar (10 days)
6. Short Resident Course (for Res Comp)	Sr Res Comp Off Course (2 wks)	Air Res Off Orientation Crse (5 days)	Sr Res Off Crse (2 wks)	Defense Strategy Seminar (2 wks)	None

FIG. D5-2

9. All of the Service war colleges conduct comparable seminar programs during one of the final weeks of the course. The National Strategy Seminar at the AWC, the National Security Forum at the Air War College, and the Global Strategy Discussions at the Naval War College bring distinguished civilian and military guests together with the respective student bodies for about a week to consider national strategy problems and programs.

10. A graduate study program is offered on a voluntary basis at all of the colleges through affiliation with the George Washington University. The course of study at the four war colleges is in International Affairs while that at ICAF is in Business Administration. The graduate study programs at the War Colleges are given on an extracurricular basis and hence compete for student time. The graduate study program at the ICAF is not extracurricular, as the recently revised ICAF curriculum has been accorded additional graduate credit by the George Washington University.

11. Extension courses are provided by all of the colleges except the AWC and the NWC, with the most active program at the ICAF. All of the colleges conduct short resident courses or seminars for Reserve Component officers.

DISCUSSION

Relationships Between Senior Colleges

12. The formal coordination between the colleges established by means of the Military Education Coordination Conference (MECC), discussed in Annex C, Appendix 1, has brought the Commandants into a closer relationship and has facilitated the exchange of ideas, views, and information. In addition, the Service war colleges maintain close, informal liaison with each other, primarily through the Service representatives on the faculties. Under present procedures, however, no central agency monitors Army instruction at the three Service war colleges to insure that it is uniformly appropriate and consistent.

13. The Board considered several alternative agencies to which monitorship could be assigned, including the Department of the Army Staff, the Continental Army Command (CONARC), the Combat Developments Command (CDC) and the AWC. As the Army instruction at the three Service war colleges should be fully responsive to new Army concepts and doctrine, the CDC is the most logical agency to review and monitor it. This would place the responsibility on the Army organization which has the most direct interest and expertise in the development and promulgation of the level of Army doctrine concerned and which has the greatest awareness of Service positions regarding new conceptual areas.

MISSION STATEMENTS OF THE SENIOR SERVICE COLLEGES

ARMY WAR COLLEGE

To prepare selected senior officers for command and high level staff duties with emphasis upon Army doctrine and operations and to advance interdepartmental and interservice understanding.

AIR WAR COLLEGE

To provide instruction which will prepare senior officers for high command and staff duty. To develop sound understanding of the elements of national power to insure the most effective development and employment of aerospace power.

NAVAL WAR COLLEGE

To provide Naval officers advanced education in the science of naval warfare and related subjects in order to improve their professional competence for higher responsibilities.

NATIONAL WAR COLLEGE

To conduct a course of study of those agencies of Government and those military, economic, scientific, political, psychological, and social factors of power potential, which are essential parts of national security in order to enhance the preparation of selected personnel of the Armed Forces and State Department for the exercise of joint and combined high-level policy, command and staff functions, and for the planning of national strategy.

INDUSTRIAL COLLEGE OF THE ARMED FORCES

To conduct courses of study in the economic and industrial aspects of national security and in the management of resources under all conditions, giving due consideration to the interrelated military, political, and social factors affecting national security, and in the context of both national and world affairs, in order to enhance the preparation of selected military officers and key civilian personnel for important command, staff, and policy-making positions in the national and international security structure.

FIG. D5-3

Further, it would be consistent with the command arrangements outlined in Appendix 21. To facilitate coordination, Army personnel on the advisory groups at the Air University and the Naval War College should be assigned to the CDC, instead of to CONARC as at present. The senior US Army officer at each location should be the liaison representative of the CDC. No change is visualized in the status or relationship of the Army personnel with the institutions at which they are stationed.

14. The concept of a National Security University, which would place the five senior service colleges within a single university, was considered but was not examined in depth. Such a concept would disrupt the structured organization already existing at the Air University and the Naval War College and conflict with the organizational structure for Army colleges proposed in Appendix 21.

Equivalency of Senior Colleges

15. All of the senior service colleges have a similarity of purpose (see Figure D5-3 for mission statements): to prepare selected individuals for high level command and staff responsibilities in the Military Establishment. Each of these institutions, however, has a unique purpose that places it at the apex of a distinctive field of military education and knowledge. Each covers national security areas in a pattern of emphasis consistent with its mission. The Service war colleges emphasize predominantly military subjects with stress on their respective Service roles. This variation in course emphasis provides focus to the curriculum and promotes Service and inter-Service understanding in depth. Both the AWC and the Air War College are placing increasing emphasis on military subjects, with about 70% to 75% of their current curricula being military-oriented. The Naval War College appears to place even greater emphasis on military subjects and to be more Service-oriented than the AWC and the Air War College. The NWC curriculum emphasizes the high level military-political aspects of national security. The ICAF curriculum centers on the management of logistic resources for national security.

16. In the current educational patterns of all Services, the five senior colleges are considered co-equal and an officer is permitted to attend only one. With the senior colleges all at the same level, it is logical that there be certain fundamental similarities in their curricula. Viewed in an overall context, the similarities that exist do not appear unwarranted, but rather serve a useful purpose of providing all senior college graduates with a common perspective of broad areas which have a continuing profound impact on the Military Establishment.

17. Although all of the senior colleges emphasize their separate areas of interest, the level of professional military education is roughly comparable. The Board considers that attendance at more than one of the senior service colleges would be redundant and that they should continue to be regarded as equivalent within the Army educational system.

18. With the exception of the ICAF, the senior colleges appear to be appropriately named in terms descriptive of their distinctive missions. The Commandant of the ICAF is highly desirous of changing the name of the college and has proposed to the Joint Chiefs of Staff (JCS) that it be named the National Command Management College, as first choice, or the National Resources War College. The Board favors a modification of the second name, the National Security Resources College, and believes that the Army should support such a change.

Army War College Mission

19. The current mission statement of the AWC was examined for adequacy and appropriateness. The Board considered that the mission would be strengthened by greater specificity. The responsibilities of the AWC as the capstone of the military educational system in the art and science of land warfare within an expanded military environment require added emphasis. Levels of instructional and doctrinal responsibility should be specified.

20. Despite its primary Army orientation, the AWC must prepare its graduates to perform in the broad environment of the total Military Establishment. Students must be provided with professional education that will enable them to serve in the wide range of assignments that face them during the remaining 10 to 20 years of their careers as top-level Army officers.

21. The average age, education and experience of Army students at the AWC over the past five years is shown in Figure D5-4. A marked increase has occurred in the civilian educational level, with the number of students having baccalaureate degrees rising from 83% of the class in 1962 to 93% in the current year and those having a master's degree increasing from 32% to 49%. The number with command experience at battalion or higher level has decreased from 84% to 73% but has leveled off in the last four years. An upward trend has occurred in the number who have had staff experience at DA or comparable level, with the proportion going from 81% up to 86%. Overall, an impressive level of education and experience is evident. The AWC course must challenge these selected officers with obvious general officer potential and enhance their already considerable capabilities for command and key staff assignments at the highest levels.

**PROFILE OF US ARMY STUDENT OFFICERS AT AWC
1962-66**

		CLASS YEAR				
		1962	1963	1964	1965	1966
Number of Students		165	162	164	165	165
Average Age		43.2	43.9	43.5	42.8	44.1
Average Length of Service		19.7	19.6	20.2	20	20.3
Number with Baccalaureate Degrees	No.	137	150	136	142	153
	%	83%	93%	83%	86%	93%
Number with Professional Degrees	No.	8	7	4	10	11
	%	5%	4%	2%	6%	7%
Number with Masters Degrees	No.	53	65	46	62	81
	%	32%	40%	28%	38%	49%
Number with PhD's	No.	0	1	0	2	5
	%	0	.6%	0	1%	3%
Number with Command Experience Bn or Higher	No.	139	119	115	109	120
	%	84%	74%	70%	66%	73%
Number with Staff Experience DA or Comparable	No.	134	131	146	147	142
	%	81%	81%	89%	89%	86%

FIG. D5-4

22. The factors that bear upon the AWC mission continue to be viewed in differing perspectives by those who would shape the course in a specialist pattern and those who subscribe to the generalist approach. The specialist concept generally holds that the AWC should be almost completely oriented toward military problems with the emphasis on land warfare, that it should concentrate in depth on techniques and procedures which would prepare the students for duty in the DA/OSD/JCS environment, and that the more general considerations of national strategy and international affairs should be minimized. The generalist concept, on the other hand, holds that the course should have a broad scope that gives the student a general background on the problems of national strategy in the international environment and the Army's role therein, and does not concentrate on preparing him for specific staff duties. The Board considers that certain aspects of both the specialist and generalist concepts have merit and that it is possible to combine both in the same program. The Army's role, doctrine, and operations should comprise the primary theme of the course,

against an appropriate background of national strategy and the joint and international environment. Specialization should be centered in the elective program discussed in paragraphs 32-33.

23. In order to tie doctrine and academic instruction more closely together, the Board proposes (see Appendix 2i) that the collocated CDC Institute of Advanced Studies be made an integral part of the AWC. Under this proposal, the college should be charged with developing concepts and doctrine applicable to theater army. Also, in view of the advances in space technology and the certainty that the Army's involvement in space activities will increase within the next decade, the Board considers it appropriate to assign responsibility to the AWC for assisting in the development of Army concepts in this area. The Board has used the term "terraspatial" in the absence of an appropriate existing term, to identify Army operations in the space environment. A revised mission statement reflecting the educational and doctrinal responsibilities of the AWC, organized as above, is proposed as follows:

To provide resident and nonresident instruction for senior officers of the Army and other Services in the exercise of command and in the execution of key staff responsibilities at major military and departmental headquarters; to advance the art and science of land warfare in the joint and combined environment; to develop concepts and doctrine for theater army operations; and to assist in development of Army concepts for terraspatial operations.

24. Consistent with the revised mission, the Board proposes that the objective of the AWC resident course be:

To enhance the competence of selected officers, with high general officer potential, to assume command responsibilities and to function in key staff assignments in major Army, joint, and combined headquarters and in planning and policy-making positions at the seat of government; to stress Army doctrine and operations against an appropriate background of national strategy and the joint and international environment; and to provide intellectual challenge and an opportunity for individual contribution to the advancement of the art and science of land warfare through student research.

BREAKOUT OF HOURS FOR SELECTED SUBJECTS AWC

SELECTED SUBJECTS	NR HOURS	% OF COURSE
1. Command Responsibilities & Functions	178	11
2. Resource Utilization	128	8
Personnel Management	(33)	(2.1)
Financial Management	(48)	(3)
Materiel Management	(47)	(2.9)
3. Operations Research	12	.7
4. Maintenance	--	--
5. Counterinsurgency	186	11.5
Pure Hours	(74)	(4.6)
Integrated Hours	(112)	(6.9)
6. Psychological Operations	43	2.7
7. Civil Affairs	20	1.2
8. CBR	21	1.3
Pure Hours	(1)	(.4)
Integrated Hours	(15)	(.9)
9. Nuclear Weapons Employment	59	3.7
10. Automatic Data Processing	12	.7
11. International Relations	94	5.8

FIG. D5-5

Army War College Course Content

25. The AWC has constructed its course around a curricular theme which stresses the design of a national strategy and a supporting military program. The curriculum is divided into eight courses as described in Annex B, Appendix 5. The content and continuity of the overall curriculum are maintained by the interrelationship of the various courses and their adherence to the central theme. Although the curriculum is military-oriented, the Board considers that additional emphasis can and should be placed upon the role of the Army. In the interest of encouraging original thought on problems of direct interest to the Army and of improving the body of professional military writings, the Board considers that individual research papers should

be limited to military subjects. Under the organizational arrangements prepared in Appendix 21, it is visualized that the Combat Developments Command would furnish a list of suggested topics.

26. A breakout of hours for selected subjects provided by the AWC is shown in Figure D5-5, with the reservation that it represents only those hours reasonably identifiable and that many of the subjects require additional coverage on an integrated basis throughout the curriculum. The coverage of all subjects is considered to be adequate with the exception of operations research (12 hours) and automatic data processing (30 hours). Both subjects should receive additional emphasis, and the coverage of each should be increased to 24 hours as discussed in Appendices 11 and 12 of this annex.

Army War College Instructional Methodology and Faculty

27. In its curriculum, the AWC assigns broad problems, avoids organizing subject matter in terms of specific academic disciplines or blocks of instruction, emphasizes individual research and study, and encourages academic freedom in a graduate-level atmosphere. To enhance individual research, writing, and oral presentation, the AWC has decreased group committee requirements and has increased individual effort. Three courses in the current curriculum require individual research papers and five courses require committee papers, with two of the five committee papers combining both individual and committee work. In contrast, last year's curriculum contained seven committee requirements and one individual book report. The shift away from group committee work is in areas susceptible to individual effort and places group and individual effort in better balance. Adequate emphasis still is maintained on committee work in the courses that focus on areas such as plans, estimates and programming. The Board considers that the AWC should employ the case study method on an expanded basis in the course curriculum, with particular reference to committee problems in which group decisions derive from its use.

28. The AWC relies on guest speakers for about 32% of its lecture program. The Board agrees that selected guest speakers offer an unrivaled source of expertise and talent; however, their employment in such large numbers poses a real problem in achieving continuity in subject coverage. Although guest speakers can be requested to cover a specific scope, in some instances they deviate. The AWC seeks to provide background and continuity by giving the students appropriate reading assignments related to the presentations. At the Naval War College, guest speakers are used for only about 67% of the lecture program. The remainder of the lecture program consists of integrated lecture series presented by the military faculty and by civilian professors who are employed by the Naval War College while on sabbatical

leave from their universities. The Board is of the opinion that the AWC should employ a limited number of civilian professors on sabbatical leave or through contract arrangements with local universities, and use them, together with the military faculty, to give portions of its elective program discussed below. In view of current emphasis on stability operations, the Board also considers that a faculty member from the United States Information Agency would contribute to the course. (See Appendix 22)

29. The military faculty at the AWC are primarily generalists, and about one-third of them have had no intervening assignment after graduating from the AWC. The Board considers that selected specialists should be on the faculty and that, as a general rule, faculty members should have at least one intervening tour after completing a senior service college. Current arrangements whereby the officer completing the Harvard Fellowship in International Affairs each year is assigned to the AWC faculty should be continued. Specialties which should be represented on the AWC military faculty include research and development, logistics, operations research or systems analysis, and project management. Assignment of specialists would give the military faculty a greater depth of expertise which would be of benefit in all aspects of the course, including the lecture and electives programs.

30. Additional time must be provided for faculty research. The AWC has proposed that a research program be established by retaining four highly selected students for an additional year at the college on a fellowship basis to pursue research and/or writing in areas of direct interest to the US Army. The personnel spaces for this proposal would be obtained by reducing the student enrollment in the AWC course by four spaces. The Board opposes this concept for two reasons. First, the limited time of one year and the continual turnover of fellowship personnel do not appear to give the stability needed to complete meaningful research in depth. Second, the program would reduce the number of students completing the AWC course annually. The Board proposes, instead, that four additional military faculty spaces be given to the AWC to increase its research capability, and that initially the research pursued and the writing accomplished be in areas of direct interest to the AWC course. This would include the development of suitable military case studies for use in the course as previously mentioned.

31. In certain areas of the AWC course it appears that a suitable standard textbook should be provided. Although the current system provides for special reading assignments in a series of

separate publications, prescribed basic texts would give a solid base for study of entire subjects and would serve as a connecting link between presentations by guest speakers and faculty members.

Army War College Elective Program

32. As previously discussed in paragraph 13, a program of electives offers an excellent means of enriching the curricula at senior service college level. A preliminary evaluation by the AWC indicates that about 10% of the curriculum could be devoted to an elective program, with courses being conducted by the faculty as well as by contract civilian professors. This program should offer a choice of elective subjects, with participation on a mandatory basis. In addition, some electives on a voluntary, extracurricular basis might be offered selected students.

33. Electives offered at AWC should be of two categories: local electives which relate to and complement the AWC course; and progressive electives which are extensions of electives begun at lower-level schooling. In either case they should be designed to stimulate intellectual endeavor and to add significantly to the students' professional knowledge. The Board considers that a local elective program should be introduced in the AWC course in the 1967-68 academic year. A more detailed discussion of electives and their establishment throughout the Army school system is contained in Appendix 26.

Army War College Extension Course Program

34. The Board is of the opinion that there is a need for an AWC extension course program. The Board notes that the Naval War College, the Air War College, and the ICAF have active extension course programs which are based on curricula that are of the same general nature as the AWC curriculum. Many dedicated Army officers who are not selected for the resident course could enhance their military professionalism and their value to the Army by participating in an AWC extension course. The strong interest that Active Army officers have in extension study at senior service college level is indicated by their substantial participation in the ICAF correspondence course. Over the past three years 643 Active Army officers have enrolled in the ICAF correspondence course and 405 have graduated. An AWC extension course would give added depth to the Active Army educational base and would fill a definite schooling gap for senior Reserve Component officers.

35. The Board visualizes that the AWC extension course program should consist initially of selected courses from the AWC curriculum, with an eventual goal of a complete extension course paralleling the

resident course. To enroll, a student should be in the grade of lieutenant colonel or colonel, be a graduate of the C&GSC resident or extension course or its equivalent, and have between 15 and 25 years of service. The program should be open to both Active Army and Reserve Component officers. Although successful completion of the AWC extension course should not be equated to completion of the resident course, it should be recognized with a diploma in its own right, and recorded on the Officer Qualification Record (DA Form 66). Further discussion of the extension course program is contained in Appendix 7.

Army War College Graduate Study Program

36. As previously noted, the AWC is affiliated with George Washington University (GWU) for student participation in a graduate study program which is now beginning its sixth year. Under the program, GWU requires a total of 30 academic credit hours for the degree of Master of Science in International Affairs. The student is granted 15 hours of credit for his AWC work, nine hours for completion of the regular curriculum, and six hours for the AWC thesis. The other 15 hours consist of four graduate-level courses in International Affairs, at least two of which must be completed while the student is at Carlisle Barracks. Classes meet off duty, once a week during the academic year. Following AWC graduation in June, participating students remain at Carlisle Barracks for 4½ weeks, attending GWU classes four times a week during normal duty hours.

37. The GWU program is estimated to require an average of 12 to 15 hours of a student's time per week. The weekly class is 2½ hours long, and study requirements average 2½ to 3 hours per classroom hour. In addition, 20 to 30 hours per trimester are required to prepare a term paper and to study for examinations. The total cost of obtaining a Master's Degree in the GWU - AWC program is a little over \$700, of which the Army pays about \$300 under the General Educational Development program. Despite the cost and the workload, the course has been popular with the students. Approximately 478 have completed the program, and 88 of the current class are enrolled in it.

38. The AWC is opposed to continuing its affiliation with the GWU degree program. The college's position is based upon the belief that participation in the GWU program dilutes the effort that the student puts forth in the AWC course, and that the student conflict in meeting both sets of requirements is often resolved in favor of the GWU requirement. The AWC position is influenced by the growing number of students who acquired graduate degrees before coming to the AWC.

39. The Board agrees that the AWC curriculum, with the elective program previously proposed, should be sufficiently challenging to warrant the full-time attention and effort of the students. The curriculum and the professional opportunities it offers should not be eroded by extracurricular efforts to obtain a purely academic degree. Further, the curriculum should not be compromised in any respect through inclusion of material to satisfy academic credits. If GWU or any other university will grant credit for any part of the AWC course, to include a thesis on a purely military subject, the Board sees no objection to the consummation of such arrangements. The Board does not feel, however, that the Army can afford to have students remain at senior colleges after graduation in order to complete an affiliated study program. Completion of any such program should be on the student's own time at a subsequent duty station. In summary, the Board considers that, unless appropriate modification can be made which will eliminate the conflict between the AWC course and the GWU program, the graduate study program at the AWC should be discontinued.

Other Considerations

40. Other considerations concerning the AWC which have been only touched upon in this analysis or which have not been mentioned are covered in detail in separate appendices of this annex. These include: Prerequisites, Requirements, and Quotas - Appendix 8; Alternative Organizational Structures for the Army School System (including doctrinal responsibilities) - Appendix 21; Faculty Selection, Training, Qualification, and Role - Appendix 22; and Student Testing and Evaluation - Appendix 23.

CONCLUSIONS

41. The US Army Combat Developments Command should be assigned monitorship of Army instruction at the three Service war colleges. Army officers on the Army advisory groups at the Naval War College and the Air University should be assigned to the US Army Combat Developments Command, and the senior officer of each group should serve as the US Army Combat Developments Command liaison officer.

42. All of the senior service colleges provide US Army students with a comparable level of professional military education and should continue to be considered as equivalent within the Army educational system.

43. The mission of the Army War College should be revised to read essentially as follows:

To provide resident and nonresident instruction for senior officers of the Army and other Services in the exercise of command and in the execution of key staff responsibilities at major military and departmental headquarters; to advance the art and science of land warfare in the joint and combined environment; to develop concepts and doctrine for theater army operations; and to assist in development of Army concepts for terraspatial operations.

44. The objective of the Army War College resident course should be as follows:

To enhance the competence of selected officers, with high general officer potential, to assume command responsibilities and to function in key staff assignments in major Army, joint, and combined headquarters and in planning and policy-making positions at the seat of government; to stress Army doctrine and operations against an appropriate background of national strategy and the joint and international environment; and to provide intellectual challenge and an opportunity for individual contribution to the advancement of the art and science of land warfare through student research.

45. The curriculum of the Army War College should continue to be military-oriented, with increased emphasis on the Army's role, strategic concepts, and doctrine. The individual research papers should be limited to military subjects of direct interest to the Army.

46. The Army War College should employ the case study method on an expanded basis in the course curriculum, with particular reference to committee problems in which group decisions derive from its use.

47. The Army War College faculty should be augmented with several professors on sabbatical leave from their colleges or by contract arrangements with local civilian institutions. These professors, in conjunction with the military faculty, should be used to give a portion of the Army War College lecture program and assist in conducting an elective program.

48. As a general rule, officers should not be assigned to the Army War College faculty unless they have had an intervening tour of duty after graduating from a senior service college.

49. The military faculty at the Army War College should include officers who are specialists in such areas as research and development, logistics, operations research/systems analysis, and project management.

50. The arrangement whereby the officer completing the Harvard Fellowship in International Affairs each year is assigned to the Army War College faculty should be continued.

51. The Army War College should be given an increase of four military faculty spaces to increase its research curriculum improvement effort, with initial emphasis on preparation of case studies.

52. Textbooks should be used by the Army War College to provide a solid base for the study of appropriate subject areas and to serve as a connecting link between presentations by guest speakers and faculty members.

53. The Army War College should establish an appropriate local elective program as part of the curriculum in the academic year 1967-1968.

54. The Army War College should initiate an extension course program by the academic year 1968-1969 and be provided with the additional resources required.

55. Unless appropriate modification can be made which will eliminate the conflict between the Army War College course and the George Washington University program without any compromise of the curriculum, the graduate study program at the Army War College should be discontinued.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 6

SPECIALIST AND ORIENTATION COURSES

PURPOSE AND SCOPE

1. The purpose of this appendix is to analyze specialist and orientation courses. It addresses the differences between these and career type courses; examines certain specialist and orientation courses for objectives and student body profile; reviews curricula for adequacy and appropriateness and suggests adjustments.

BACKGROUND

Definitions

2. Army Regulation 350-5 states the purpose of a specialist course as follows: "To qualify officer or enlisted personnel in a particular military specialty. Successful completion normally leads to award of an MOS." The purpose of a functional course as set forth in AR 350-5 is: "To prepare officer or enlisted personnel with a specific skill or specialty, within the scope of an MOS or not covered by an existing MOS." As the distinction between these two types of courses appears without real significance, the Board has included both within the definition of a specialist course in its rewrite of AR 350-5 and treats them as a single classification in this appendix. The orientation courses covered herein are those given to senior officers as opposed to introductory courses of branch schools for newly commissioned officers. Only resident courses are considered in all instances.

Extent of Specialist/Orientation Training

3. Specialist/orientation courses are conducted in the Army's 22 branch schools, (see Annex B, Appendix 4) and in the seven Continental Army Command (CONARC) specialist schools, the three Army Materiel Command (AMC) schools, and the two Army-operated Defense schools (see Annex B, Appendix 5). The total number of such officer courses conducted at branch schools and the FY 65 attendance by Active Army and Reserve Component officers are shown in Figure D6-1. As can be seen from the figures, Army officer

attendance at specialist/orientation courses each year is high. The number of Active Army officers who attended specialist/orientation courses in branch schools amounted to about 43% of the total number of such officers who attended all resident courses at branch schools in FY 65.

**OFFICER SPECIALIST AND ORIENTATION COURSES IN BRANCH SCHOOLS
FISCAL YEAR 1965**

SCHOOLS	NUMBER COURSES	ACTIVE ARMY OFFICERS	RES COMP OFFICERS
Infantry	5	5317*	120
Armor	4	1113**	154
Artillery	7	657	151
Air Defense	7	422	12
Engineer	9	583	123
Signal	11	477	146
Chemical	8	539	70
Ordnance	6	570	204
Quartermaster	16	899	115
Transportation	11	426	133
Adjutant General	6	418	91
Army Security Agency	8	226	119
Civil Affairs	3	247	2
Finance	8	235	26
Intelligence	21	848	44
Military Police	10	220	63
Judge Advocate General	7	123	304
Medical Field Service	11	574	122
Medical Service Vet	3	185	3
TOTAL	161	14,079	2,002

* Approximately 4,000 officers in Airborne Course and 1,100 officers in Ranger Course.

** Over 1,000 in two maintenance courses.

FIG. D6-1

4. When these figures for specialist/orientation courses at branch schools are added to those at specialist schools, the following total Army figures result:

**ARMY OFFICER ATTENDANCE AT SPECIALIST/ORIENTATION COURSES
FISCAL YEAR 1965**

SCHOOLS	NUMBER COURSES	ACTIVE ARMY OFFICERS	RES COMP OFFICERS	TOTAL
Branch (22) Specialist	161	14,079	2,002	16,081
CONARC (7)	36	7,067	930	7,997
AMC (3)	62	1,038	607	1,645
DA (2)	27	955	11	966
TOTAL	286	23,139	3,550	26,689

FIG. D6-2

DISCUSSION

General

5. The need to train officers in specific techniques or specialties to perform the myriad functions of the Army is widely recognized. Many functions are categorized in near-like groupings and assigned to branches in accordance with commonly accepted branch responsibilities; many other functions, not so readily categorized, are common to more than one branch. Career training in branch schools is designed to develop officers' command, managerial and branch-oriented skills. However, this training cannot prepare all officers in all branch functions, particularly in certain technically oriented branches with multiple functions and career patterns. Consequently, branch schools must also conduct specialist courses through which officers may acquire qualifications in particular branch functions. Examples include courses for topographers in the Corps of Engineers, post exchange officers in the Quartermaster Corps, and NIKE HERCULES officers in the Artillery. Branch schools also conduct specialist courses which cut across branch lines in functional areas, such as the Communications Officer Course at the Artillery School, the Organizational Maintenance Officer Course at the Armor

School and the Air Transportability Planning Course at the Transportation School. Thus, some specialist courses conducted in branch schools are designed to develop branch expertise while others develop branch immaterial or Army-wide competence. Specialist courses conducted in specialist schools are designed principally for the latter purpose.

6. Dynamic System. The Army officer schooling system must be promptly and accurately responsive to requirements for new courses, and retain flexibility for adapting to needed change. There is an evolutionary process by which some functions, initially performed by specialists, are eventually absorbed into mainstream career patterns of one or more branches, thereby changing the requirements for specialist courses in that function. Further, orientation courses for senior officers can be eliminated when career courses include progressive schooling in the areas for which the orientation courses were designed. Counterinsurgency operations are an illustration of this point. Until recently, counterinsurgency training in the Army was concentrated in a few specialist and orientation courses; now it is a fundamental part of the career training of every officer. Through the addition of new functions, techniques, or materiel, the Army also experiences changes in requirements for types and number of specialist/orientation courses. The Army has been more adept at adding new courses than in cancelling old ones.

7. Control and Police. The Board believes that natural tendencies toward growth in the number of non-career type courses and toward their perpetuation could be sharply curtailed through tighter control of the school system. At the present time, responsibility for policing courses devolves largely upon school Commandants, charged "to continually examine their own courses, compare them with courses of other schools and when finding a duplication of training submit a plan for elimination and/or consolidation." The Board believes that closer control over the inauguration and elimination of courses would pay greater dividends in meeting the desirable objective of holding specialist/orientation courses to the minimum essential number. New courses should not be established without full consideration of possible trade-offs. Headquarters, Department of the Army, through the Deputy Chief of Staff for Personnel, the Commanding Generals of CONARC and AMC, and the Surgeon General, should exercise rigid control over approval of new non-career courses in schools under their control and over policing of the system to eliminate unneeded, outmoded, or duplicative courses.

8. Nature of Training. The Board believes that a specialist course, by its very nature and purpose, should present strictly job-oriented training, related to particular techniques or procedures

associated with Army materiel or administrative actions. In most cases, a specialist course teaches a "perishable skill" which demands immediate use to fix it firmly for maximum effectiveness and retrievability. In every case, a specialist course should be associated with a particular MOS, a designated job title, or specific organizational and grade levels. Orientation courses, although not job-oriented to the same degree as specialist courses, should be related to command, staff and academic responsibilities at specified levels. The statements of purpose, scope, and prerequisites of the course, as set forth in the Army catalogue and in the program of instruction, should avoid broad generalizations. If, for example, a course is designed for communications officers at battalion through brigade levels, this should be made unmistakably clear in course directives and the appropriate grades specified.

9. Student Selection. The requirement for precise designation of scope, purpose (objective), and student grade in school literature imposes a concomitant requirement that such prerequisites be precisely adhered to. An officer attending a specialist/orientation course should be assigned to or on orders to a position specifically requiring the instruction offered in that course. Attendance should not be permitted on a "nice-to-know" basis; rather, attendance should only be sanctioned on the basis of "need-to-know." Failure to designate officer responsibility and grade level precisely and to select students accordingly will inevitably result in a situation where some students are being "talked down to" while others find the instruction over their heads. The tendency toward assigning officers just completing a career type course to a specialist course at that or another school as an interim time-killing or quota-filling device should be avoided. Clearly, the schools themselves have a responsibility to police the student body and to insure that course prerequisites are followed. Each student should be required to justify his need for the particular specialist/orientation course he is attending, and schools should maintain this data with other statistical records. The impact and certain undesirable aspects of specialist training on students who are newly commissioned officers are discussed in Appendix 2; subsequent paragraphs in this appendix highlight additional undesirable features of having many second lieutenants who are serving obligated two-year tours of duty attend certain specialist courses.

10. Specialist/Orientation Training for Reserve Component Officers. The number of Reserve Component officers attending specialist/orientation courses is approximately 15% that of Active Army officers. The percentages are generally higher in the technical branch schools, and in the case of the Judge Advocate General School, the number of students from Reserve Components is nearly two and one-half times the number from the Active Army. These statistics reflect the heavy dependence of officers of the Reserve Components on the

Army school system for professional development and competence in special areas. Generally speaking, the frequency and short length of these courses make them particularly suitable for Reserve Component officers who must fit their periods of military training into their employment schedules. Since USAR schools do not normally have available to them the extensive equipment, elaborate training aids and highly qualified instructor personnel necessary for the conduct of non-career courses, Reserve Component officers have continuing need to use Active Army courses.

11. Location of Courses. A key element in establishing a new specialist course is the decision on where to locate it. This may be based on one or more of the following factors:

- a. Requirements are satisfied for specialized equipment, facilities, or training areas.
- b. Course is logical extension of primary branch function(s) or career training.
- c. Existing facilities (brick and mortar) dictate use for reasons of economy.
- d. Instruction can be assimilated into load already carried without additional resources.
- e. School has recognized technical expertise or user experience.

There are several examples in the school system, some of which will be examined in succeeding paragraphs, wherein a course location decision was made in favor of a school which had user experience in lieu of one with technical expertise. In such instances, CONARC assigns course proponentcy to the branch school having technical expertise in a manner analogous to the system of proponentcy for common subjects. A course proponent has responsibility for development and review of instructional material in that particular area of study.

12. In its review and study of officer specialist training, the Board found no instances where the training being conducted in Army schools could be any more economically or effectively presented by civilian schools. The factors listed above for decision on course location almost inevitably favor location of such courses in an Army school, even though the particular specialty being taught may have application to civilian practice. The Board found several areas of study, however, wherein collocation of related facilities, now

geographically separated, would be in the Army's long-term interest. These are discussed separately in Appendices 14, 15, 17, and 21.

Selection of Courses for Analysis

13. In this appendix the Board examines 10 non-career courses from among the 161 conducted in branch schools and four from among the remaining 125 conducted in specialist schools. Additional specialist areas or courses are discussed in 10 other appendices of this annex, viz., Ranger and airborne (Appendix 2); management (Appendix 10); operations research/systems analysis (Appendix 11); automatic data processing (Appendix 12); logistics, maintenance and supply (Appendix 13); counterinsurgency (Appendix 14); CBR and tactical nuclear operations (Appendix 15); language and foreign area training (Appendix 16); intelligence (Appendix 17); and Army aviation (Appendix 18).

14. In selecting specific courses for examination, emphasis was placed on those attended by officers of several branches, a factor which eliminated scores of courses from consideration. For example, courses such as the Engineer Equipment Maintenance Officer Course and the Construction Planning and Management Course at the Engineer School were not selected since the student body is comprised of officers from only one branch. Additional factors considered during the selection process, other than composition of the student body, were as follows:

- a. Size of the Active Army student body.
- b. Length of the course.
- c. Number of schools represented in the sample.
- d. Objective of course and scope of instruction.
- e. Utilization of Active Army graduates.

Specialist Courses in Branch Schools

15. A listing of the 10 courses selected together with Active Army attendance appears in Figure D6-3. Course lengths vary from one to 39 weeks and frequency from two to 22 times annually. These courses were taught at seven of the branch schools in FY 65; almost 2,300 Active Army officers attended.

**REPRESENTATIVE SPECIALIST COURSES IN BRANCH SCHOOLS
FISCAL YEAR 1965**

SCHOOL	COURSE TITLE	LENGTH WEEKS	TIMES HELD	ACTIVE ARMY OFFICER ATTENDANCE
Artillery & Missile	Communications Officer	11	3	249
Armor	Organizational Maintenance Officer	10	11	315
	Senior Officer Preventive Maintenance	1	22	709
Air Defense	NORAD Senior Officer Orientation	1	2	40
	Guided Missile Systems Officer	39	2	32
Ordnance	Field Maintenance Officer	8	7	151
Quartermaster	Army Supply Officer	7	10	320*
Transportation	Air Transportability Planning	2	5	204
	Aircraft Maintenance Officer	14	8	160
Adjutant General	Military Personnel Officer	5	4	103
TOTAL				2,283

* January - July 1965

FIG. D6-3

16. The Board examined teaching methodology as shown in Figure D6-4. Based on the type course (training or senior officer orientation) the breakouts appear reasonable, with the exception that there is an excessive amount of lecture time in the Army Supply Officer Course. As this and other specialist courses are training courses, they should devote a large amount of the available time to practical, hands-on applications. Several of the courses listed below are weak in this respect and should be changed to reflect a greater percentage of time devoted to practical work.

METHODOLOGIES EMPLOYED IN REPRESENTATIVE NON-CAREER COURSES IN TERMS OF PERCENTAGES

SCHOOL	COURSE	LECTURE	DEMONSTRATION	WRITING/ORAL	SEMINAR/CONFERENCE	EVALUATION	PRACTICAL EXERCISE
Artillery & Missile	Communications Officer		10		33	8	49
Armor	Organizational Maintenance Officer		8		23	4	65
	Senior Officer Preventive Maintenance	8	5		82		5
Air Defense	NORAD Senior Officer Orientation		32		68		
	Guided Missile Systems Officer	6	9	1	56	8	20
Ordnance	Field Maintenance Officer	1	7		36	4	52
Quartermaster	Army Supply Officer	33	7		27	8	25
Transportation	Air Transportability Planning	4	4		19	2	71
	Aircraft Maintenance Officer	3	11		59	4	23
Adjutant General	Military Personnel Officer	4			56	4	36

FIG. D6-4

17. Communications Officer Course. The objective of the 11-week Communications Officer Course is "to provide commissioned officers with a working knowledge to supervise and coordinate the installation, operation and maintenance of communications systems, and selected electronic equipment of non-Signal Corps units." The course is actually designed to train officers for duty as battalion, regimental, group, and brigade communications officers, positions designed for first lieutenants, captains, and majors. The course was established by CONARC in 1964 and represents a consolidation of separate communications officer courses taught at each of the arms schools. It is taught at the Artillery and Missile School, which does not have an across-the-board communications-electronics function, but does have geographic location, facilities, equipment, and instructor expertise well suited to perform the teaching function. The fact that Artillery has traditionally provided a sizeable number of the students was apparently an additional factor in locating the course at Fort Sill.

18. The course is under proponency of the Signal School, which has recognized technical competence in the field. Because of this proponent responsibility in the communications-electronics field the Board considered carefully whether the course should be relocated to the Signal School. Not only does the lack of adequate facilities and equipment at Fort Monmouth militate against any change, but the user experience available at Fort Sill supports the original decision on course location.

19. The composition of the FY 65 Active Army officer student body is shown in Figure D6-5. It is significant that 168 officers had only a two-year active duty obligation and 205 officers were second lieutenants (168 USAR and 37 RA). It appears from these statistics that career officers of the combat arms avoid this specialist course and consequently are losing the opportunity to carry forward, as future commanders, specialist training in the techniques and procedures of effective tactical communications. The Board believes that second lieutenants should not normally attend this course, particularly as a follow-on to the basic course. While it is clearly not a course for Signal Corps officers, attendance by officers of other technical branches is unquestionably too low. The Army should take steps to limit the attendance of officers with only two-year obligations; otherwise, there will continue to be a loss, through non-retention, of a large percentage of officers trained in tactical communications.

**COMMUNICATIONS OFFICER COURSE
COMPOSITION OF ACTIVE ARMY OFFICER STUDENT BODY FY 65**

CATEGORY		BRANCH		GRADE	
RA	44	Infantry	104	Capt	28
USAR (Indef)	37	Armor	27	1st Lt	16
USAR (Under 2 yrs svc)	<u>168</u>	Artillery	101	2nd Lt	<u>205</u>
	249	Corps of Engineers	5		249
		Signal Corps	2		
		Ordnance Corps	5		
		Transportation Corps	1		
		Army Intelligence & Security	<u>4</u>		
			249		

FIG. D6-5

20. Organizational Maintenance Officer Course. The objective of this 10-week course is "to provide commissioned officers with a working knowledge in the supervision of organizational maintenance of conventional materiel (all materiel except guided missile, signal, aircraft, medical, and ammunition)..." This course, also established in 1964 by CONARC, was a consolidation of three separate courses formerly taught at the Infantry, Armor, and Artillery and Missile Schools. It is under the proponentry of the Ordnance School, which appropriately has primary Army training responsibility in the field of materiel maintenance. The course is taught, however, at the Armor School and was located there for generally the same reasons, set forth above, that the Communications Officer Course was located at the Artillery and Missile School. In the maintenance area there is a clear line of demarcation between field and organizational maintenance not evident in the communications area, which supports the decision to locate this course at the Armor School instead of the Ordnance School. Additionally, the Armor School has had long experience in the maintenance area and the Army Materiel Command's Maintenance Board is collocated at Fort Knox. In view of these considerations, the Board is of the opinion that this course should continue to be taught at the Armor School.

21. The composition of the FY 65 Active Army student body is shown in Figure D6-6; by category and grade it is comparable with that of the communications course. Approximately 75% of the officers had only a two-year active duty obligation and over 80% were second lieutenants. While the breakout by branch appears generally reasonable, the Board believes that attendance by Artillery officers is low and that Ordnance officers should not attend this course. It appears that career officers avoid training in this specialty area just as was observed in the Communications Officer Course. Unless more career officers enter this specialized field, the materiel readiness situation in the Army will continue to suffer from the loss of the bulk of school trained officers after only a short period of active duty.

**ORGANIZATIONAL MAINTENANCE OFFICER COURSE
COMPOSITION OF ACTIVE ARMY OFFICER STUDENT BODY FY 65**

CATEGORY		BRANCH		GRADE	
RA	34	Infantry	120	Capt	10
USAR (Indef)	45	Armor	65	1st Lt	36
USAR (Under 2 yrs svc)	<u>236</u>	Artillery	45	2nd Lt	261
	315	Corps of Engineers	22	WO	<u>8</u>
		Signal Corps	15		
		Chemical Corps	5		315
		Ordnance Corps	2		
		Quartermaster Corps	7		
		Transportation Corps	13		
		Adjutant General Corps	1		
		Military Police Corps	2		
		Medical Service Corps	10		
		Warrant Officer	<u>8</u>		
			315		

FIG. D6-6

22. Senior Officers' Preventive Maintenance Course. The objective of this one-week course at Fort Knox is "to present to commanders and key staff officers from major units, including Reserve Components, the critical importance of effective preventive maintenance in training and combat operations and the elements of an effective preventive

maintenance program; and to provide procedures, techniques, and criteria for establishing, maintaining, and evaluating preventive maintenance."

23. Approximately one-third of the course is devoted to command responsibilities and functions and the balance teaches principles and procedures of maintenance management. The Board considers that the course serves a useful purpose in training tactical commanders, but believes that only those staff officers having maintenance or materiel readiness responsibilities should attend. Ideally, officers should attend the course during the first few weeks in their command or key staff position.

24. The composition of the FY 65 Active Army officer student body is shown below. The Board believes that the statistics reflect appropriate branch interest and grade.

**SENIOR OFFICER PREVENTIVE MAINTENANCE COURSE
COMPOSITION OF ACTIVE ARMY OFFICER STUDENT BODY FY 65**

CATEGORY		BRANCH		GRADE	
RA	545	General Officer	23	GO	23
USAR (Indef)	<u>164</u>	Infantry	187	Col	185
	709	Armor	79	Lt Col	344
Artillery		144	Maj	<u>157</u>	
Corps of Engineers		63			
Signal Corps		22		709	
Chemical Corps		7			
Ordnance Corps		34			
Quartermaster Corps		35			
Transportation Corps		51			
Army Intelligence & Security		6			
Military Police Corps		7			
Medical Service Corps		23			
General Staff		21			
Inspector General		<u>7</u>			
			709		

FIG. D6-7

25. NORAD Senior Officer Orientation Course. The objective of this one-week course is "to orient general officers, flag officers and field grade officers of the North American Air Defense Command (NORAD) on the characteristics and employment of Army Air Defense weapons systems." It is conducted at Fort Bliss, Texas, and is limited to discussions and demonstrations of Continental United States Air Defense weapons systems that are in place or planned for deployment. The course is a needed refresher for Artillery officers and a valuable orientation for selected officers of other branches assigned to NORAD. Although this course overlaps to a considerable degree the three-week field grade refresher course at the Air Defense School, there is merit in tailoring an abbreviated course to the needs of a specific command.

26. The composition of the FY 65 Active Army officer student body is shown below. The course was also attended by 40 officers from the Air Force, Navy and Marine Corps and by 17 Canadian officers during FY 65. The total student load for the year was approximately four times the programmed load. It is appropriate that the bulk of the students were Artillerymen since officers of that branch predominate among the Army officers assigned to NORAD. The objective of this course permits a wide range in student grade, although no general officers attended during FY 65. NORAD has recently confirmed the requirement for continuation of the course.

**NORAD SENIOR OFFICER ORIENTATION COURSE
COMPOSITION OF ACTIVE ARMY OFFICER STUDENT BODY FY 65**

CATEGORY		BRANCH		GRADE	
RA	31	Infantry	2	Col	11
USAR (Indef)	<u>9</u>	Artillery	33	Lt Col	18
	40	Signal Corps	2	Maj	<u>11</u>
		Military Police Corps	2		40
		Medical Service Corps	<u>1</u>		
			40		

FIG. D6-8

27. Guided Missile Systems Officer Course. This 39-week course, the longest specialist course in the Army school system, is taught at the Air Defense School and has the objective "to provide commissioned officers with a working knowledge of essential material pertaining to research and development, testing analysis, and military application of guided missile systems." The mission of the Air Defense School is very general in nature and makes no mention of providing training in guided missile systems. On the other hand, the Ordnance Guided Missile School currently has the mission "to provide all required career and specialist school education for officers in missiles..." Under these circumstances, one might logically ask why the course is not conducted at the Ordnance Guided Missile School. The Board is of the opinion that the question arises largely because of inadequate mission statements at both schools. The Air Defense School appropriately conducts many specialist courses in guided missiles; while the Ordnance Guided Missile School conducts no career courses of any type. Courses at the Ordnance Guided Missile School are oriented principally toward maintenance and logistical operations and procedures associated with missile systems rather than with their operational employment or with research and development activities. (See paragraph 49 below.)

28. The course contains 1,317 academic hours broken down into Mathematics (172), Engineering Electronics (306), Physics (193), Aeronautical Engineering (104) and military subjects and applications (542). While portions of the course could be taught in a civilian school, the fact that 293 hours cover classified instruction dispersed throughout the course satisfies its retention in the military school system. In addition, instructor requirements for the non-military aspects of the course are minimal.

29. The composition of the FY 65 Active Army officer student body is shown in Figure D6-9. The second lieutenant should not have attended the course; otherwise the statistics appear appropriate. Postgraduation assignments of these officers reflect that they are, for the most part, being ordered to agencies, boards, schools and commands where their specialist training is being utilized. Subsequent assignments of officers attending this course should be closely monitored by the Office of Personnel Operations in the same fashion as those attending graduate training under the advanced civil schooling program. A utilization tour following completion of this course should be mandatory. Any additional education provided graduates of this course in civilian educational institutions should be of limited duration and confined to corresponding disciplines.

**GUIDED MISSILE SYSTEMS OFFICER COURSE
COMPOSITION OF ACTIVE ARMY OFFICER STUDENT BODY FY 65**

CATEGORY		BRANCH	GRADE	
RA	16	Artillery	Maj	1
USAR (Indef)	<u>16</u>		Capt	21
	32		1st Lt	9
			2nd Lt	<u>1</u>
				32

FIG. D6-9

30. Field Maintenance Officer Course. The objective of this eight-week course at Aberdeen Proving Ground is "to provide commissioned officers with a general knowledge in materiel maintenance and to prepare them to supervise personnel engaged in the repair of conventional materiel..." The course deals with operations, procedures, and maintenance at the direct and general support level, and covers repair and maintenance of Ordnance, Engineer, Quartermaster and Transportation equipment.

**FIELD MAINTENANCE OFFICER COURSE
COMPOSITION OF ACTIVE ARMY OFFICER STUDENT BODY FY 65**

CATEGORY		BRANCH	GRADE	
RA	12	Infantry	Maj	1
USAR (Indef)	15	Armor	Capt	12
USAR (Under 2 yrs svc)	<u>124*</u>	Artillery	1st Lt	10
	151	Corps of Engineers	2nd Lt	<u>128</u>
		Ordnance Corps		135
		Quartermaster Corps		2
		Transportation Corps		2
		Medical Service Corps		2
		General Staff		<u>1</u>
				151

* Some of these officers may be either RA or USAR (Indefinite).

FIG. D6-10

31. The composition of the FY 65 Active Army officer student body is shown in Figure D6-10. As the function of field maintenance is predominantly an Ordnance responsibility, the Board believes that this course should be attended primarily by Ordnance officers. Combat arms officers should not attend it unless they have supervisory responsibilities for field maintenance.

32. Army Supply Officer Course. The objective of this seven-week course at Fort Lee, Virginia, is "to provide a working knowledge of policies and procedures applicable to all classes of supply and to assignments in CONUS installations, the division, direct support, general support, and overseas depot units...." This program of instruction spans the supply spectrum from unit and organizational level to theater of operations and includes segments of instruction on financial management, automated supply systems, and procurement. Officers of any rank and branch are accepted as students, provided they have completed the basic course of their branch and have an actual or anticipated assignment in supply activities.

33. This course is a combination of two courses taught in 1964, one of which spent seven weeks on supply from unit through installation level and another which devoted six weeks to a discussion of supply from installation to theater level. In the Board's opinion the spectrum of instruction is appropriate for Quartermaster Corps officers, and to a lesser extent for officers in other technical branches. It appears too broadly oriented to be suitable for the training of combat arms officers in such branch material supply officer positions as battalion or brigade S-4.

34. The composition of the Active Army officer student body attending this course in the last half of FY 65 appears in Figure D6-11. The 142 Ordnance officers, most of whom were second lieutenants who had just completed their basic course, included nearly 38% of Ordnance basic course graduates. The wide spread in grade of students indicates still another course which suffers from lack of precise statements of objective and student grade. Branch representation appears appropriate with the possible exception of the students from the Infantry and Artillery.

**ARMY SUPPLY OFFICER COURSE
COMPOSITION OF ACTIVE ARMY OFFICER STUDENT BODY 2ND HALF FY 65**

CATEGORY		BRANCH		GRADE	
RA	62	Infantry	2	Lt Col	2
USAR (Indef)	63	Artillery	1	Major	3
USAR (Under 2 yrs svc)	<u>195</u>	Corps of Engineers	6	Captain	38
	320	Signal Corps	28	1st Lt	53
		Chemical Corps	4	2nd Lt	191
		Ordnance Corps	142	WO	<u>33</u>
		Quartermaster Corps	87		320
		Transportation Corps	16		
		Army Intelligence & Security	1		
		Warrant Officer	<u>33</u>		
			320		

FIG. D6-11

35. Air Transportability Planning Course. This two-week course at Fort Eustis, Virginia, has the objective "to provide selected commissioned officers and warrant officers of all arms and services with a working knowledge of the planning and supervision of and the procedures and techniques for preparing, loading and lashing unit equipment and supplies on transport aircraft for the purpose of performing airlanded unit air moves."

36. The composition of the FY 65 Active Army officer student body is shown in Figure D6-12. In the Board's opinion, attendance should be restricted to company grade officers. Branch attendance figures appear appropriate, except that the Board sees little requirement for attendance of officers from the Chemical Corps, Adjutant General Corps, or Finance Corps.

**AIR TRANSPORTABILITY PLANNING COURSE
COMPOSITION OF ACTIVE ARMY OFFICER STUDENT BODY FY 65**

CATEGORY		BRANCH		GRADE	
RA	57	Infantry	37	Lt Col	2
USAR (Indef)	46	Armor	5	Maj	2
USAR (Under 2 yrs svc)	<u>101</u>	Artillery	34	Capt	33
	204	Corps of Engineers	22	1st Lt	29
		Signal Corps	18	2nd Lt	135
		Chemical Corps	3	WO	<u>3</u>
		Ordnance Corps	10		
		Quartermaster Corps	15		204
		Transportation Corps	30		
		Adjutant General Corps	2		
		Army Intelligence & Security	1		
		Finance Corps	1		
		Military Police Corps	4		
		Medical Service Corps	19		
		Warrant Officer	<u>3</u>		
			204		

FIG. D6-12

37. Aircraft Maintenance Officer Course. The objective of this 14-week course, also at Fort Eustis, is "to provide commissioned officers and warrant officers with a working knowledge in organizational, direct, and general support aircraft maintenance and a general knowledge in maintenance management procedures." It also instructs students in the Army supply system and use of management techniques.

38. The composition of the FY 65 Active Army officer student body is shown in Figure D6-13. Except for the five second lieutenants, the Board considers that the student profile reflects proper branch, category and grade distribution.

**AIRCRAFT MAINTENANCE OFFICER COURSE
COMPOSITION OF ACTIVE ARMY OFFICER STUDENT BODY FY 65**

CATEGORY		BRANCH		GRADE	
RA	37	Infantry	7	Maj	12
USAR (Indef)	117	Armor	3	Capt	48
USAR (Under 2 yrs svc)	<u>6</u>	Artillery	5	1st Lt	16
	160	Transportation Corps	64	2nd Lt	5
		Medical Service Corps	2	WO	<u>79</u>
		Warrant Officer	<u>79</u>		160
			160		

FIG. D6-13

39. Military Personnel Officer Course. The objective of this five-week course at Fort Benjamin Harrison, Indiana, is "to provide commissioned officers and warrant officers with a working knowledge in the principles, functions and procedures of the Army Personnel System." It is a comprehensive course designed for personnel officers as opposed to adjutants.

40. The composition of the FY 65 Active Army officer student body is shown in Figure D6-14. In the Board's opinion this course is more appropriate for officers assigned to the Adjutant General's Corps and to the Medical Service Corps than for officers of other branches.

**MILITARY PERSONNEL OFFICER COURSE
COMPOSITION OF ACTIVE ARMY OFFICER STUDENT BODY FY 65**

CATEGORY		BRANCH		GRADE	
RA	17	Infantry	4	Maj	1
USAR (Indef)	60	Artillery	2	Capt	16
USAR (Under 2 yrs svc)	<u>26</u>	Corps of Engineers	2	1st Lt	32
	103	Chemical Corps	2	2nd Lt	26
		Quartermaster Corps	1	WO	<u>28</u>
		Transportation Corps	1		
		Adjutant General Corps	61		103
		Medical Service Corps	<u>30</u>		
			103		

FIG. D6-14

41. Utilization of Branch Schools Specialist Training. Examination of the student body of eight of the above courses (all except the two senior officer orientation courses) shows that second lieutenants comprise 62% of the student body, and that 56% of the students are serving obligated tours of duty. This sample appears to be fairly representative of the specialist courses conducted in branch schools. Thus, the Army's specialist training effort in branch schools is being given primarily to its most junior officers, and over one-half of its specialist training is lost to the Army after a period of utilization of less than two years. The Board appreciates that technical branches are particularly vulnerable on this latter point since their Regular Army lieutenants are on detail to a combat arm. The training utilization loss to the Active Army is a gain to Reserve Components.

Specialist Courses at Specialist Schools

42. The specialist schools, together with the courses taught, are described in Annex B, Appendix 6. Most of the areas covered by these specialist schools are analyzed in depth in other appendices to Annex D. However, two areas not analyzed elsewhere are combat surveillance and guided missile maintenance. Two courses in each of these areas, as delineated in Figure D6-15, will be examined in succeeding paragraphs.

**SELECTED SPECIALIST COURSES IN SPECIALIST SCHOOLS
FISCAL YEAR 1965**

SCHOOL	COURSE TITLE	LENGTH WEEKS	TIMES HELD	ACTIVE ARMY OFFICERS	RES COMP OFFICERS
Combat Surveillance	Mohawk Pilot Aerial Surveillance	3	9	82	0
	Senior Officer Orientation	1	5	148	2
Ordnance Guided Missile	Guided Missile & Special Weapons Staff Officer	12	4	17	0
	Ordnance Missile Systems Maintenance Officer	19	11	133	0

FIG. D6-15

43. Combat Surveillance. The US Army Combat Surveillance School at Fort Huachuca, Arizona, conducted four officer courses in FY 65 attended by 251 Active Army officers and two Reserve Component officers. One of these courses, Aerial Surveillance Materiel, has been cancelled and will not be held during FY 66. The two most heavily-attended courses are examined below.

44. Mohawk Pilot Aerial Surveillance Course. The purpose of this three-week course is "to qualify Mohawk aviators in the employment of aerial radar, photographic and infrared surveillance devices, and to provide them with a general knowledge of the organization and operation of the Aerial Surveillance and Target Acquisition Platoon." Prerequisites for officers attending this short familiarization course include Mohawk-qualification. Of the more than 100 academic hours in the course, approximately 65% are spent in practical exercises.

45. The composition of the FY 65 Active Army officer student body is shown in Figure D6-16. Student breakout by category or component is not available except for the notation that, for all officer courses at the Combat Surveillance School, Regular Army officers formed 43% of the student body. The Board believes that the figures represent appropriate grade spread and branch interest.

**MOHAWK PILOT AERIAL SURVEILLANCE COURSE
COMPOSITION OF ACTIVE ARMY OFFICER STUDENT BODY FY 65**

BRANCH		GRADE	
Infantry	33	Major	6
Armor	10	Captain	43
Artillery	17	1st Lt	26
Corps of Engineers	5	2nd Lt	5
Signal Corps	7	WO	2
Transportation Corps	8		<u>82</u>
Warrant Officer	2		
	<u>82</u>		

FIG. D6-16

46. The Board examined the relationship of the above course to the 18-week Aerial Surveillance Officer Course at the Intelligence School. It was noted that, while the latter course devotes only approximately 10% of its time to aerial surveillance materiel, and the bulk of its time to metrics, imagery and terrain, the Mohawk Pilot Aerial Surveillance Course is nearly 80% materiel-oriented. These two courses are quite dissimilar and, in the opinion of the Board, are complementary and not duplicative.

47. Senior Officer Orientation Course. The purpose of this one-week course, also conducted at Fort Huachuca, is "to provide senior commanders, key staff officers and key Department of the Army civilians with a general knowledge of the techniques for analyzing modern surveillance equipment, methods of integrating such devices with conventional collection agencies, and the capabilities and limitations of combat surveillance and target acquisition equipment to include the logistical support and maintenance thereof." Officers attending, according to the prerequisites, should be in grade of captain or above, and assigned or anticipating assignment to duty requiring employment of combat surveillance and target acquisition equipment.

48. The composition of the FY 65 Active Army officer student body is shown in Figure D6-17. The Board believes that branch interest is appropriately reflected, but that the grade spread is far too wide. The 13 lieutenants did not meet grade prerequisites. Further, the Board considers that the title and stated purpose of the course should be amended or the minimum grade prerequisite raised to major.

**SENIOR OFFICER ORIENTATION COURSE
COMPOSITION OF ACTIVE ARMY OFFICER STUDENT BODY FY 65**

BRANCH		GRADE	
Infantry	36	Colonel	17
Armor	15	Lt Colonel	25
Artillery	23	Major	46
Corps of Engineers	1	Captain	47
Signal Corps	18	1st Lt	4
Transportation Corps	3	2nd Lt	9
Ordnance Corps	3		<u>148</u>
Chemical Corps	2		
Intelligence & Security	26		
General Staff	<u>21</u>		
	148		

FIG. D6-17

49. Guided Missile Maintenance. The Ordnance Guided Missile School is the primary source of officer training for missile support units and for missile logistics and maintenance. The Board believes that the mission of the school, quoted in paragraph 27, is too broadly stated in reflecting a responsibility to provide all required career and specialist school education for officers in missiles. The Air Defense and Artillery and Missile Schools have clear responsibilities for conducting career and certain specialist training in the field of guided missiles. It is apparent that school missions need clarification and refinement. Two of the three officer courses conducted at the Ordnance Guided Missile School during FY 65 are examined below.

50. Guided Missile and Special Weapons Staff Officer Course. The purpose of this 12-week course is "to provide senior company grade and field grade officers with a general knowledge of doctrine, policies, plans, and procedures for missile systems and special ammunition logistical support; organization, mission and capabilities of Ordnance missile systems and special ammunition support and related using units; and a technical working knowledge of Ordnance, Artillery and Air Defense Missile Systems and special ammunition." This course is to be replaced with an expanded course of 19½ weeks' duration to produce the new COSTAR MOS 4515 (Ammunition and Missile Maintenance Officer). The course title will be changed accordingly and the objective revised as follows:

"To provide senior company grade and field grade officers with a general knowledge of doctrine, plans, policies, and procedures for the US Army's Special and Conventional Ammunition and Missile Programs to include: Total maintenance, supply and logistic support and management; organization, mission and capabilities of Special and Conventional Ammunition and missile direct and general support units and major missile firing units: a general knowledge of special and conventional ammunition and missile materiel including test equipment and missile systems' ancillary control and launching equipment."

51. The composition of the FY 65 Active Army officer student body is shown in Figure D6-18. The Board believes that scheduling, attendance, and quota allocation for this course should be examined. Average attendance during FY 65 was only four officers per class, whereas the school indicates that optimum attendance is 12 officers per class.

**GUIDED MISSILE AND SPECIAL WEAPONS STAFF OFFICER COURSE
COMPOSITION OF ACTIVE ARMY OFFICER STUDENT BODY FY 65**

CATEGORY		BRANCH		GRADE	
RA	8	Ordnance Corps	17	Major	3
USAR	<u>9</u>			Captain	11
	17			1st Lt	<u>3</u>
					17

FIG. D6-18

52. Ordnance Missile Systems Maintenance Officer Course. The purpose of this 19-week course is "to provide commissioned officers with a working knowledge of the operation, maintenance, test and checkout procedures for missile systems and associated equipment. To provide a working knowledge of the duties and responsibilities of company grade officers in units engaged in the support of missile firing units." While this course is currently producing officers qualified in MOS 4801 or 4802 (Ordnance Guided Missile Officer), it, too, is being replaced during FY 66 with a COSTAR course designed to produce officers qualified in the new functional MOS 4516 (Missile Maintenance Officer). The objective of the revised course will be:

"To provide commissioned officers with a general knowledge of the duties and responsibilities of missile maintenance commanders and staff officers who provide support to the missile firing units. To provide a working knowledge of the functions, maintenance and repair parts supply, test and checkout procedures of missile systems and associated equipment."

53. The composition of the FY 65 Active Army student body is shown in Figure D6-19. As is the case in many of the branch school specialist courses, the majority of students in this course are in the grade of second lieutenant and few of them are Regular Army. While the Army obtains a one-year extension of obligated service from students attending this course, overall reutilization of the training is very low.

**ORDNANCE MISSILE SYSTEMS MAINTENANCE OFFICER COURSE
COMPOSITION OF ACTIVE ARMY OFFICER STUDENT BODY FY 65**

CATEGORY		BRANCH		GRADE	
RA	20	Ordnance Corps	132	Captain	10
USAR	<u>113</u>	Artillery	<u>1</u>	1st Lt	13
	133		133	2nd Lt	<u>110</u>
					133

FIG. D6-19

CONCLUSIONS

54. General Comment. While the Board examined within this appendix only 14 specialist/orientation courses out of a total of 286, certain findings stand out clearly enough to suggest their general applicability across-the-board. Several of the following conclusions are enumerated on this basis; others are stated on the basis of specific course analysis.

55. Specialist courses should present strictly job-oriented training related to particular techniques or procedures. Orientation courses should be related to command, staff and academic responsibilities at specified levels. An officer attending a specialist/orientation course should be assigned to or on orders to a position specifically requiring the instruction offered in that course.

56. Control over non-career courses needs tightening up throughout the Army. Headquarters, Department of the Army, through the Deputy Chief of Staff for Personnel; the Commanding General, Army Materiel Command; the Commanding General, Continental Army Command; and The Surgeon General, should exercise rigid control over approval of new courses and over policing of the system to eliminate unneeded, outmoded, or duplicative courses.

57. Directives and other memoranda pertaining to specialist courses should define precisely the purpose, scope and prerequisites with specific reference to appropriate MOS, job title, organizational

and grade level toward which the courses are focused. The authorized grade spread of students is generally too wide and should be narrowed in the interest of more effective instruction.

58. Attendance at specialist/orientation courses should be authorized only in accordance with established prerequisites on a need-to-know basis. Schools should be required to record the stated need of each student for the training and to make periodic reports on the composition of student bodies by grade, branch, component, and duty assignments.

59. Officers of technical branches who are already qualified in their respective areas of specialization should not attend courses in those areas intended for officers of other branches, i.e., Signal Corps officers should not attend the Communications Officer Course and Ordnance Corps officers should not attend the Organizational Maintenance Officers Course.

60. As specialist courses are training courses, a large percentage of the curricula should be devoted to practical exercises; action should be taken to correct current deficiencies in this area.

61. The Office of Personnel Operations, the Commanding General, Continental Army Command, and major Commanders should take action to reduce both the number of second lieutenants and the number of obligated service officers being assigned to specialist courses. Students should be of higher rank and a larger number should be Regular Army and career Reserve officers.

62. The number of career officers attending the Communications Officer Course at the Artillery and Missile School and the Organizational Maintenance Course at the Armor School should be substantially increased.

63. The mission of the Air Defense School should be made more specific, with particular attention to its responsibilities for guided missile training. The mission of the Ordnance Guided Missile School (recently renamed the Missile and Munitions School) should be reworded to limit its responsibilities for guided missile training to support as opposed to operational areas.

64. The Office of Personnel Operations should monitor graduates of the Guided Missile Systems Officer Course at the Air Defense School in the same manner as participants in the advanced civil schooling program; a utilization tour should be mandatory immediately upon graduation. Any additional education provided these graduates in civilian educational institutions should be of limited duration and confined to corresponding disciplines.

65. Quota allocation and scheduling of students for attendance at the Guided Missile and Special Weapons Staff Officer Course at the Ordnance Guided Missile School should be examined in connection with stated Army requirements with a view to limiting the frequency of the course.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 7

ASSOCIATE, REFRESHER AND EXTENSION COURSES

PURPOSE AND SCOPE

1. This appendix analyzes the validity of the current concept of conducting both regular and associate courses and examines the role of mobilization, refresher, and extension courses in officer training. Primary consideration is given to career schooling, although refresher and extension courses in specialist training are discussed.

BACKGROUND

Types of Abbreviated or Nonresident Courses

2. The need for shorter versions of the regular courses offered at the various United States Army schools has been recognized since before World War I, when abbreviated courses were designed for Reserve Component officers who did not have time to take the lengthy regular course. Currently five types of abbreviated or nonresident courses are provided for in the Army school system:

a. Associate courses are described by AR 350-5 at the Command and General Staff College (C&GSC) level as "courses of relatively short duration, paralleling the regular courses and designed primarily to increase the output of officers, and for officers who cannot be made available at the proper time to attend the regular course. This course is also available to a selected number of qualified reserve officers and officers of the Army National Guard not on active duty." At branch level, the regulation does not distinguish between the purposes of the regular and associate courses nor the types of students for whom they are designed.

b. Orientation courses (sometimes referred to as familiarization courses) are not covered in the current regulation, but are conducted for a variety of purposes, including use as a shortened basic course for officers transferring from one branch to another, as branch indoctrination after completion of a basic course, or for generalized instruction in a particular area.

c. Refresher courses as described in AR 350-5 "provide information on recent developments or changes which have occurred since the individual last attended a school or served with troops." The implication is that refresher courses bring the student up to date on material he has previously learned, rather than learning it for the first time as in an orientation course.

d. Extension courses are nonresident courses, a part of which may be conducted on a resident basis. AR 350-5 gives as their purpose: "to provide a means for personnel of all components of the Army to obtain or further their military education, and improve their ability to perform appropriate duties which they may be called upon to perform in peace or war; to award point credits creditable to various retirement programs for Reserve Component personnel; to relate completion of training to requirements for education as a condition for promotion of Reserve Component personnel not on active duty."

e. Mobilization courses are not addressed in AR 350-5. As developed by the US Continental Army Command (CONARC) under Department of the Army (DA) direction, however, the mobilization course is designed to contain "all fundamental instruction" and to serve as the basic instructional block upon which other courses are built by adding additional subject matter or detail.

Evolution of the Associate Course

3. In a major post-World War II study of officer education, a special board headed by Lt General Leonard T. Gerow recommended in 1946 that short courses, designated "associate courses," be established at each of the principal Army schools. Modelled after their regular counterparts, these short courses were to be for officers of the Organized Reserves and the National Guard. The Gerow Board went further, however, and recommended that Regular officers attend, not the associate courses of their own branch, but the associate courses of other branches, for the purpose of gaining a better appreciation of the operations and functions of other elements of the Service. It was stipulated that attendance at an associate course was not to prevent an officer from attending his own regular course.

4. Further modification concerning Regular officer attendance at associate courses came in 1949, when another Army school system review board under Lt General Manton S. Eddy, while reaffirming the need for associate courses designed specifically for National Guard and Reserve officers, also expressed the belief that Regular officers should be encouraged to take the associate course. The Eddy Board directed its attention specifically to Regular officers who had been given "constructive credit" for school attendance because of responsible positions held

during World War II, and thus were virtually barred from attending their branch schools to their academic disadvantage.

5. This limited concept was enlarged by the next Army education and training review board, headed by Lt General Edward T. Williams, which met in 1958. The Williams Board recommended that associate career courses at the branch school level be designed as a combination of resident and nonresident instruction for officers not on extended active duty. At the Command and General Staff College level, the Williams Board saw a combination of associate and regular courses as providing necessary flexibility, with the associate course permitting variations in the ratio of Regular Army and Reserve Component officers to meet particular conditions and requirements and accommodating selected Regular Army officers who were unable to attend a regular course.

6. The Department of the Army, in approving the Williams Board's recommendations in 1960, authorized associate courses at branch level "as an interim measure pending establishment of the comprehensive branch career course, pending the availability of PCS spaces which will permit all career officers to attend the comprehensive branch career course, and to accommodate exceptional circumstances where necessary to satisfy specific branch requirements." With respect to the C&GSC course, the Department of the Army position was that "the Army will attempt in the future to increase the output to the regular course, consistent with the maintenance of essential associate course training."

DISCUSSION

Current Associate Courses

7. As indicated in Annex B, Appendix 4, all but six branch schools conducted resident associate career courses, varying in length from 10 to 20 weeks and in frequency from one to seven times a year during FY 65. The exceptions were the Engineer, Ordnance, Women's Army Corps, Civil Affairs, Judge Advocate General's, and Medical Service Veterinary Schools. Beginning in FY 66, the Finance School also discontinued its associate career course. As indicated in Annex B, Appendix 5, the C&GSC conducts two 18-week associate courses a year. No associate courses are offered at basic course or Army War College levels.

8. During FY 65, attendance at associate courses consisted primarily of Active Army officers, as shown below:

**OFFICER ATTENDANCE
BRANCH CAREER AND CGSC COURSES
FY 1965**

	CAREER				ASSOCIATE CAREER			
	ACTV ARMY	RES COMPS	FOR	OTH SVCS	ACTV ARMY	RES COMPS	FOR	OTH SVCS
TOTAL	2990	55	248	28	1521	661	226	27
PERCENT	90	2	7	1	63	27	9	1
	C&GSC				ASSOCIATE C&GSC			
	ACTV ARMY	RES COMPS	FOR	OTH SVCS	ACTV ARMY	RES COMPS	FOR	OTH SVCS
TOTAL	641	1	80	27	668	157	55	-
PERCENT	86	0	11	3	76	18	6	-

FIG. D7-1

Validity of the Associate Course Concept

9. The Board asked all of the branch schools for their views on the validity of the current concept of conducting both regular and associate career courses. With only two exceptions, the schools replied that they considered the concept was not valid; that all career officers on active duty should attend the regular career course; and that Reserve Component officers not on active duty should attend associate courses, modified in some cases to include a combination of resident and nonresident courses. The branch schools indicated further that, if all Active Army officers attended the career courses, they could accommodate the additional student load. In some instances, additional career courses plus some increase in faculty and facilities would be required.

10. The C&GSC recommended that the regular and associate courses be changed in the manner set forth in a Long Range Plan submitted originally in 1963. This plan proposed one regular course of 1,008 students, one associate course of 336 students (primarily active duty

Reservists), and a special course of 10 weeks for Reserve Component officers not on active duty. In proposing its plan, the C&GSC presumably was mindful of the stated DA objective "to increase the output of the regular course consistent with the maintenance of essential associate career training."

11. The Board considers that the present associate courses are not responsive to the requirements of the Reserve Component officer for whom they were originally designed. As shown in Figure D7-1, during FY 65 only 27% of the officers attending associate courses at branch level, and only 18% of those attending such courses at the C&GSC, were Reserve Component officers not on active duty. The great bulk of these officers today pursue their mandatory military schooling through extension courses or US Army Reserve (USAR) schools, rather than through resident courses at Active Army branch schools or the C&GSC.

12. Associate courses, as currently conducted, are hybrid courses with no clearly defined objectives or purposes. As noted previously, AR 350-5 makes no effort to assign a separate purpose to branch level associate courses from that of the regular courses. The regulation is candid if not discerning when it indicates that the associate course at the C&GSC is "designed primarily to increase the output of officers." The Board considers that "cut-rate education" does not meet requirements for Active Army officers at this important mid-career level. It is at variance with the Board's concept for an enlarged educational experience at the C&GSC, as delineated in Appendix 4.

13. The Board finds it difficult to equate associate courses with regular courses and cannot justify continuation of both types of courses. In fact, if one could develop a rationale which would equate the two courses, the regular courses would become immediately suspect. Active Army officers who attend associate courses are expected to perform the same duties and to assume the same responsibilities as their colleagues who attend the regular courses. It appears logical and equitable from a professional point of view that all Active Army officers should attend the career courses at the branch schools and that those selected for the C&GSC should attend the regular course at that level. Additionally, an opportunity for a limited number of qualified Reserve Component officers to attend career (advanced) courses and the C&GSC should be provided.

Mobilization Courses

14. The Board is of the opinion that the associate courses now conducted at the branch career schools and C&GSC should be focused on the purpose for which they were originally intended -- the preparation of Reserve Component officers not on active duty to assume their duties under partial or total mobilization. The courses, therefore, should be

reduced to their mobilization content and attended during peacetime by active duty for training (ACDUTRA) officers. These mobilization courses should be adaptable for presentation in a combination of resident and nonresident instruction and so structured as to permit completion in two years or less. This proposed concept of utilizing mobilization courses for ACDUTRA officers is compatible with the purpose of the Reserve Components which, as stated in Annex B, Appendix 10, is "... to provide trained units and qualified persons available for active duty in the armed forces, in time of war or national emergency..." Additionally, although admittedly no justification in itself for this proposal, the conduct of mobilization courses in peacetime would serve to maintain their programs of instruction current.

15. The Board recognizes that 226 foreign officers attended associate career courses during FY 65 and that the proposed mobilization courses may not meet their requirements for training. Foreign officers should be given the opportunity to attend the longer career (advanced) course in lieu of the mobilization course, subject to funding limitations related to the Military Assistance Program. They can be accommodated at the branch schools. However, at the C&GSC, since the current allocation of 80 spaces for foreign officers in the regular course cannot be exceeded without a corresponding reduction in Active Army quotas, the Board considers that an increase in spaces for foreign officers in this course is not warranted. Quotas to the mobilization course could be provided as desired. (See also Appendix 27).

**ATTENDANCE AT REFRESHER COURSES, COMPONENT UNSPECIFIED
FY 1965**

SCHOOL	TYPE OF COURSE	ACTV ARMY	RES COMPS	FOR OFFS	OTH SVCS	TOTAL
Infantry	Field Grade	93	165	-	13	271
Armor	Field Grade	54	65	1	2	122
Signal	Grade Unspecified	38	43	-	-	81
Civil Affairs	Grade Unspecified	1	97	-	-	98
PERCENT		32.5%	64.7%	.2%	2.6%	100%

FIG. D7-2

Current Refresher Courses

16. In addition to specialist refresher courses (e.g. Prefix 5), by US CONARC directive branch schools may conduct officer refresher courses at three different levels (grade unspecified, company grade, and field grade) for either the total Army (without specification of component) or the Reserve Components specifically, making a total of six possible types of courses. In practice, however, only four schools conduct unspecified component type courses, attended predominantly by Reserve Component officers as indicated in Figure D7-2.

17. Most of the schools conducting Reserve Component type refresher courses do not direct them towards a specific grade group as indicated in Figure D7-3. Two schools, the Engineer and Medical Field Service, conduct refresher courses at both company and field grade level. Seven branch schools (Air Defense, Chaplain, Intelligence, Ordnance, Southeastern Signal, Veterinary, and Women's Army Corps Schools) conduct no officer refresher courses of any type.

**ATTENDANCE AT RESERVE COMPONENT REFRESHER COURSES
FY 1963**

SCHOOL	TYPE OF COURSE	ACTV ARMY	RES COMPS	FOR OFFS	OFH SVCS	TOTAL
Chemical	Grade Unspecified	-	17	-	-	17
Quartermaster	" "	-	77	-	-	77
Transportation	" "	1	55	-	-	56
AG	" "	-	35	-	-	35
ASA	" "	-	4	-	-	4
Finance	" "	-	12	-	-	12
Mil Police	" "	-	21	-	-	21
JAG	" "	-	16	-	70	86
Arty & Msl	Field Grade	33	98	-	18	149
Engineer	Company Grade	-	24	-	-	24
"	Field Grade	9	75	-	2	86
Med Fld Svc	Company Grade	-	38	-	-	38
" " "	Field Grade	-	69	-	-	69
PERCENT		6.4%	80.2%	-	13.4%	100%

FIG. D7-3

18. The C&GSC conducts two types of refresher courses exclusively for Reserve Component officers: Combat Division Refresher, attended in FY 65 by 686 officers; and Logistical Command Refresher, attended in FY 65 by 56 officers. These two courses are designed to offer training for commanders and staffs of Reserve Component divisions, separate brigades, and support commands. With the adoption of the COSTAR/TASTA organization, the latter course will have to be changed to Support Command Refresher.

Evaluation of Refresher Courses

19. The two C&GSC refresher courses for Reserve Component officers appear to fill a clear need. The requirement for six different types of refresher courses at the branch school level, however, is by no means as clearly apparent. The "grade unspecified" type of refresher course is not directed towards a specific career objective and hence apt to lack focus in course content. Field grade refresher courses serve a useful purpose for both the Active Army and the Reserve Components, since they prepare officers for battalion and brigade duty who have been away from duty with troops or out of their career course for some time and need to be brought up to date on branch subjects. The courses should not be divided into two types by component designation, however, since even the Active Army type is today attended predominantly by Reserve Component officers. The Board found no need for a company grade refresher course. This course falls during the period when Reserve Component company grade officers should be engaged in taking a Career Extension Course (see paragraph 21 below), to qualify themselves for promotion to major. Active Army officers have no requirement to attend company grade refresher courses in any case.

20. The Board is of the opinion that all six types of officer branch refresher courses should be replaced by a single field grade refresher course, to be attended by officers of all components, and that prerequisites for attendance at this field grade refresher course should be uniform for all branch schools.

Current Extension Courses

21. The Army Extension Course Program provides a number of voluntary extension courses in which officers, primarily of the Reserve Components, can complete career schooling by nonresident instruction, which may or may not be complemented by short (two-week) periods of resident instruction. Extension courses of a career nature are:

a. Army Precommission Extension Course, administered by the Infantry School (except for the Women's Army Corps which is administered by the Adjutant General School), is a prerequisite for commissioning of.

Reserve enlisted personnel who have not attended an officer candidate school.

b. Officers Basic Extension Course and Officer Familiarization Extension Course are conducted as nonresident courses only in two phases, to be taken in not more than two years. Successful completion is a requirement for promotion to captain in the Reserve Components.

c. Officer Career Extension Course and Officer Career (Reserve Component) Extension Course are conducted by branch schools. The Reserve Component course includes one or two resident phases and can be completed in five years; the other is all nonresident and can be completed in six years. Completion of the first half of either course, is required for promotion to major in the Reserve Components, and completion of the entire course is required for promotion to lieutenant colonel.

**ENROLLMENT IN ARMY EXTENSION COURSES
FY 1965**

COURSE	ACTV ARMY	RES COMPS	OTH SVCS	FOR OFFS	CJVS	TOTAL
Officer Basic	1371	5619	89	156	7	7242
Officer Career	2008	15195	101	235	11	17550
Officer Career (RC)	-	4498	2	-	-	4500
C&GSC Extension Course (PERCENT)	1147 (13.3%)	3577 (84.5%)	- (.6%)	139 (1.6%)	- (-)	4863 (100%)
C&GSC Preparatory	268	20	-	135	-	423
C&GSC Refresher (PERCENT)	850 (34.3%)	1693 (52.5%)	-	298 (13.2%)	-	2841 (100%)
Special Courses (PERCENT)	7266 (22.3%)	10616 (32.6%)	2508 (7.7%)	447 (1.4%)	11763 (36.0%)	32600 (100%)
TOTAL (PERCENT)	12910 (18.4%)	41218 (58.9%)	2700 (3.9%)	1410 (2.0%)	81 (16.8%)	70019 (100%)

FIG. D7-4

d. C&GSC Extension Course consists of 28 sub-courses grouped into nine phases, which may be completed in an average of 3-3/4 years. If the course is completed solely by nonresident means, a certificant is awarded; if the student attends a final two-week period of instruction at Fort Leavenworth, a diploma is awarded. Successful completion of the course by either method is a prerequisite for promotion to colonel for all branches except the professional services, and receipt of a diploma is mandatory for promotion to general officer.

22. The C&GSC also conducts a special voluntary preparatory extension course for officers of all components who have been selected to attend the resident associate or regular C&GSC course; and a voluntary graduate refresher course for any graduate of a resident or nonresident C&GSC course. Other extension courses of a special nature are offered by the Army branch and specialist schools and the C&GSC as indicated in Annex B, Appendices 4 through 6. The preponderant use of extension courses during FY 65 by other than Active Army personnel is shown in Figure D7-4.

Evaluation of Extension Courses

23. The Board considers extension courses to be a valuable and economical substitute for the more desirable resident courses, and feels that this educational technique warrants fuller utilization by the Army school system, particularly for Active Army personnel. As proposed in Appendices 3 and 4, mandatory extension courses should be incorporated into Active Army career schooling at the career (advanced) course and C&GSC levels. As proposed in Appendix 5, a voluntary extension course should also be established at the Army War College level.

24. The title "Officer Familiarization Extension Course" should be replaced by "Officer Basic Extension Course" in all cases, since the present title is a source of confusion. Similarly, the "Officer Career Extension Course" and "Officer Career Extension (Reserve Component) Course" should have a single title, "Officer Advanced Extension Course." The "National Guard" refresher courses which are identified in the Army school catalogue, DA Pamphlet 350-10, but which are not actually taught, should be deleted.

Proposed Abbreviated or Nonresident Courses

25. Basic Course:

a. The Board considers that the basic courses proposed in Appendix 2 are the irreducible minimum of instruction required to prepare young officers for their first duty assignments. The

mobilization versions of these courses should be identical with the nine-week basic courses conducted for the Active Army.

b. Since some enlisted Reservists on active duty and other Reserve Component personnel cannot take the full resident course, it is felt that a combination resident and nonresident extension course should be developed for their use. The resident portion of the course should be devoted to practical "hands-on" type of instruction, and the nonresident portion suitable for completion through both extension courses and USAR schools. It is understood that USCONARC is currently examining such a proposal. Although some individuals will have to rely entirely on an extension course, USAR school, Reserve Component personnel should be encouraged to attend the resident or combination resident-nonresident course where possible. Either method, however, should be combined to fulfill educational requirements for promotion.

c. No refresher course should be given at this level.

26. Advanced Course:

a. The mobilization advanced course should be designed to prepare officers of the Reserve Components for branch command and staff duties at battalion through brigade or comparable levels in both divisional and non-divisional units. The mobilization course should be a combination of resident and nonresident periods: two resident periods, each of four to six weeks in length, preceded in each case by a preparatory extension course. The course should be structured so that completion of the two resident phases could be accomplished during a single academic year, over two successive years, or as a combination of one resident period and attendance at a USAR school. If the officer is unable to attend any resident period, it should be possible for him to complete the course entirely by nonresident instruction. For foreign officers, the course should consist of a preparatory extension course, a preparatory resident course of two weeks or less, and consecutive attendance at the two resident periods. In time of mobilization, the mobilization course should be given on a resident basis to all components in lieu of the advanced course.

b. In order to establish a common denominator of student knowledge, branch schools should mail a specially prepared extension course to each Active Army officer when he completes approximately 30 months of commissioned service. Completion of this preparatory extension course should be considered a prerequisite for attendance at the advanced course.

c. Branch refresher courses should be given only to field grade officers of all components, and should be a refresher of material

presented in the advanced course.

27. C&GSC Course:

a. The mobilization general staff officer course should be designed to prepare officers of the Reserve Components not on active duty for duty as general staff officers, with primary emphasis on the Army in the field (i.e., division through army group and their combat service support systems) and Army participation in joint and combined operations. Instruction should consist of two resident periods, each five weeks in length, preceded in each case by an extension course covering the equivalent of two weeks of basic preparatory work, for a total of four weeks' nonresident and ten weeks' resident instruction. The two resident programs should be structured so that they could be taken during a single summer, phased over two successive summers, or taken as a combination of one resident period and attendance at a USAR school. It should also be possible to take the entire course by non-resident instruction. Foreign students should take a two-week preparatory extension course, a two-week resident preparatory course, and two consecutive resident periods during the same summer. In time of mobilization, the mobilization course should be given on a completely resident basis in lieu of the longer C&GSC course.

b. As a means of improving the preparedness of Active Army officers to attend the resident C&GSC course, the Board proposes that predetermined phases of the C&GSC extension course be completed by all Active Army officers within five years after completing the branch advanced course and prior to attending the C&GSC resident course. Officers not selected to attend the resident course should be required to complete the remaining phases of the C&GSC extension course by the end of their fifteenth year of service (See Appendix 4).

c. The graduate refresher course and the refresher courses conducted by C&GSC for the Reserve Component divisions, separate brigades, and logistical (support) commands, should be continued. No additional refresher courses at this level are indicated.

28. Army War College Course:

a. The Army War College has traditionally closed during wartime and general mobilization. There is therefore no requirement for a mobilization course at this level.

b. The Army War College should initiate an extension course program by academic year 1968-1969. The extension course should not be considered the equivalent of attendance at the resident course, but should parallel it and be recognized by the award of its own diploma. (See Appendix 5).

c. No refresher course at this level is indicated.

Impact of Proposals

29. Active Army: At present Active Army officers attend associate courses on temporary duty and thus are not chargeable as student spaces, even though they are actually absent from their parent organizations. The Board's proposal to have all Active Army officers attend regular courses would amount to an increase in the number of student spaces (one space equals 50 student weeks). In terms of trainees, transients and patients (TTP), the result would be an increase of 927 spaces for the branch career courses and 508 for the C&GSC course, for a total of 1,435 spaces. However, this represents an increase of only 662 spaces over the 773 uncharged spaces actually being utilized now for Active Army officers attending associate courses in FY 65. The TTP spaces would thus reflect school utilization more accurately than at present.

30. Reserve Components. An informal survey of the agencies concerned with the training of Reserve Component officers indicates that most of these officers now attending associate courses will probably elect to attend mobilization courses rather than the longer resident courses. A number of student positions should be made available at the longer courses for those Reserve Component officers who desire to attend the longer course. The Board recognizes the disadvantage of not having Active Army and Reserve Component personnel attending school together in large numbers, but feels that this disadvantage is offset by the increased flexibility of attendance possibilities for Reserve Component officers and the sharper focus on their own mobilization requirements.

31. Foreign Officers. The Board feels that officers of foreign countries now attending the associate course would prefer in most instances to attend the longer resident course rather than a mobilization course. A number of these officers will probably be prevented from doing so by the lack of Military Assistance Program funds. It is also realized that foreign officers who attend mobilization courses will not come into the same intimate daily contact with Active Army officers as they currently do in the associate courses. Since the courses must be geared primarily to the needs of US officers, the Board accepts these disadvantages. They may be offset in part by certain of the proposals for improvements in foreign officer schooling made by the Board in Appendix 27.

CONCLUSIONS

32. All Active Army officers should attend a regular course at

the branch advanced course level and, if selected, at the C&GSC level.

33. Officers not on active duty should participate in the following career courses which are based on mobilization requirements, given as resident or nonresident instruction, or as a combination of both:

a. Officer Mobilization Basic Course. The mobilization version of the basic course should be identical in content with the nine-week basic course conducted for non-regular Active Army officers. Resident instruction of a practical "hands-on" nature is preferred.

b. Officer Mobilization Advanced Course. The associate career (advanced) courses should be reduced to their mobilization content and designed to prepare officers of the Reserve Components not on active duty for branch command and staff duties at battalion through brigade or comparable levels in both divisional and non-divisional units.

c. Mobilization General Staff Officer Course. The current Associate Command and General Staff Course should also be reduced to its mobilization content and designed to prepare officers of the Reserve Components not on active duty for duty as general staff officers, with primary emphasis on the Army in the field and participation in joint and combined operations.

34. In time of mobilization, the mobilization courses at the basic, advanced, and C&GSC level should be given on a resident basis to all components.

35. Preparatory extension courses should be developed and distributed by branch schools to all Active Army officers upon completion of approximately 30 months of commissioned service. Completion of these courses should be considered a prerequisite for attendance at the advanced course.

36. Predetermined phases of the C&GSC extension course should be completed by all Active Army officers within five years of completion of the branch advanced course and prior to attending the C&GSC resident course. Officers not selected to attend the resident course should be required to complete the remaining phases of the C&GSC extension course by the end of their fifteenth year of service.

37. The Army War College should initiate an extension course program by academic year 1968-1969. The extension course should not be considered the equivalent of attendance at the resident course, but should parallel it and be recognized by the award of its own diploma.

38. Branch refresher courses should be given only to field grade officers of all components, and should be a refresher of material presented in the advanced course.

39. The C&GSC graduate refresher extension course and unit refresher course for the Reserve Component divisions, logistical (support) commands, and separate brigades should be continued.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 8

PREREQUISITES, REQUIREMENTS, AND QUOTAS FOR SERVICE SCHOOL AND COLLEGE ATTENDANCE

PURPOSE AND SCOPE

1. This appendix is an analysis of the prerequisites, selection procedures, requirements, and quotas for attendance at the service schools and colleges. It deals primarily with the top three levels of Army officer career schooling - the branch career (advanced) course, the Command and General Staff College (C&GSC), and the senior service colleges - as well as the Armed Forces Staff College (AFSC).

BACKGROUND

Prerequisites

2. Branch Schools. This appendix omits consideration of branch basic courses since these are dealt with in some detail in Annex D, Appendix 2. Normally, officers attend their branch career (advanced) course between the third and eighth years of their commissioned service, the exact prerequisites depending on the branch. Some branches have identical prerequisites for the regular and associate career courses; others establish different prerequisites for the two. Because of the backlog in certain branches, some officers sent to this course have had as much as 17 years of service.

3. Command and General Staff College. In order to attend the regular course at C&GSC, an officer must be in the rank of captain to lieutenant colonel, be under 41 years old (this may be waived), have credit for the career course (may also be waived), and have between eight and 15 years' commissioned service. For the associate course, an officer must be 44 or younger and have between eight and 19 years of service; otherwise prerequisites are the same.

4. Armed Forces Staff College. For attendance at the AFSC an officer must be a major or lieutenant colonel; be a graduate of either C&GSC or its equivalent (although this may be waived); and have ten to 20 years of commissioned service if Regular Army, or ten to 15½ years if other than Regular Army (the service requirement may be waived also).

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5. Senior Service Colleges. For attendance at a senior service college, an officer must be a major on a selection list for promotion, lieutenant colonel, or colonel; be a graduate of C&GSC or its equivalent (this may be waived); and have between 15 and 23 years of service.

Selection Procedures

6. Attendance at branch career courses is mandatory for essentially all officers. Selection is by career branches of the Office of Personnel Operations (OPO) and the professional services.

7. Attendance at C&GSC is competitive and selection is by career branch nomination, governed by branch quotas.

8. Attendance at AFSC is competitive, and selection is the same as for C&GSC.

9. Attendance at the senior service colleges is highly competitive and selection is by two boards, each consisting of a general officer and seven colonels. Under the system established in 1964 the first, or pre-screening, board chooses a number of officers two and a half times greater than the number of spaces available, selection being made from all eligible officers. Concurrently, the career branches submit to the Deputy Chief of Staff for Personnel (DCSPER) branch rosters of recommended officers by order of merit, and an informal comparison of the two pre-selection lists is made by DCSPER to determine if there are gross discrepancies. The second board then makes a final selection in order of merit, and distributes individual officers among all of the senior service colleges on an equal basis.

Quotas

10. Overall quotas for C&GSC are established by DCSPER, the total number of spaces being dictated by the physical capacity of the college. After deductions for other categories (182 Reserve Components, 152 Allied, 28 other Services) the Active Army quota in recent years has been 1,288 students annually (640 in the regular course, 648 in two associate courses). In addition, 28 officers attend other Service Command and Staff Colleges, and 11 officers attend one of seven foreign staff colleges. Total Army spaces are apportioned 65% to the three combined arms and 35% to the other branches. Based on reports by OPO and the chiefs of the professional services as to numbers of eligibles by branch, these two group quotas are then assigned to branches on a proportional basis. Officers of the Women's Army Corps attend only the associate course.

11. Quotas for AFSC are established in the same manner, except that the total number of spaces is dictated by the allocation received from the Office of the Joint Chiefs of Staff. In recent years the total Army quota for AFSC has been 160 spaces, in two classes of 80 each. Allocation of spaces to the professional services is adjusted according to experience factors. Up to now chaplains have not attended, but starting FY 1967 one chaplain will attend every third year. WAC officers do not attend.

12. There are no branch quotas for senior service college selection, but starting with the class of 1967 the following branch maximums have been established: Adjutant General's Corps - 3, Army Medical Service - 5, Chaplains Corps - 1, Finance Corps - 1, Judge Advocate General's Corps - 3. (This was done largely as a result of the selections for FY 66 which included 11 medical officers, 3 chaplains, 6 finance officers, and 4 JAGC officers.) In recent years the total number of Active Army officers selected has been 279: 161 for the Army War College, 49 for the Industrial College of the Armed Forces, 34 for the National War College, 16 for the Air War College, 16 for the Naval War College, and three for foreign service colleges (British, Canadian, and French).

Requirements

13. In 1958, DCSPER provided to the Williams Board an estimate of the Army-wide requirements for graduates of the C&GSC, the AFSC, and the senior service colleges, which had been calculated as of 1954. These estimates have since been revised by DCSPER as of 30 July 1965:

ESTIMATE OF REQUIREMENTS FOR SERVICE COLLEGE GRADUATES

	1954 ESTIMATE	1965 ESTIMATE
C&GSC	10,242	15,520
AFSC	1,066	2,730
SR SERVICE COLLEGE	1,558	5,050

FIG. D8-1

14. The 1954 estimate of requirements was based primarily on a canvass of the field commands and staff agencies and displayed a pronounced lack of uniformity. The rationale behind the 1965 estimate is as follows:

a. C&GSC - All colonels and lieutenant colonels of the combat arms and technical services to be C&GSC graduates; the professional and administrative services, by reason of mission variance, to be held to 20% of authorized strength in these grades.

b. AFSC - One-fourth of all lieutenant colonels to be AFSC graduates, except for those in the professional and administrative services where only 5% of that rank were to be graduates.

c. Senior Service Colleges - All colonels and an arbitrary number (560) of lieutenant colonels selected for promotion to be senior service college graduates. Exceptions were USMA professors and colonels of the professional and administrative services, of which latter group only 20% were to attend.

Assets

15. As of mid-FY 65, the following military college graduates were on active duty in the Army (figures include all equivalent colleges but do not include 498 general officers):

ASSETS OF MILITARY COLLEGE GRADUATES FY 65

	C&GSC		AFSC		SR SVC COLL	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
COLONEL	4263	83.0%	345	6.7%	1827	35.5%
LT COLONEL	7043	57.7%	524	4.3%	393	3.2%
MAJOR	2884	18.3%	57	.4%	-	-
CAPTAIN	179	.6%	-	-	-	-
TOTAL	14369		926		2220	

FIG. D8-2

DISCUSSION

Prerequisites

16. Attendance at the branch career (advanced) courses serves to provide a common base of branch expertise and a foundation for further career progression. Attendance at these courses should, therefore, remain mandatory. To insure proper spacing of career schooling and troop assignments, the career (advanced) course should be attended only by captains and not by lieutenants or field officers, except in exceptional circumstances such as for officers of the Medical Corps. Personnel requirements differ materially between branches, and the limit of the period of attendance for each of the career courses should continue to be left to the discretion of the career branches.

17. The practice of sending captains to C&GSC tends to crowd attendance at the career course, civil schooling (if any), and C&GSC into the same period of an officer's career, at a time when he could more profitably be engaged in the command of troops or in a basic technical assignment. Further, the curriculum at C&GSC is designed to prepare the student in the duties of commanders and general staff officers of division, corps, and field army, and appears to be more suitable for presentation to majors and lieutenant colonels than to captains.

18. The AFSC is currently outside of normal Army career progression, occupying an indefinite position between C&GSC and the senior service colleges. All other Services equate attendance at AFSC with attendance at their own staff college level, and it appears that the Army should do the same. If this policy is adopted, prerequisites should be the same for both AFSC and C&GSC.

19. Prerequisites for attendance at the senior service colleges appear to be sound. Ideally, there should be no restriction as to eligibility such as prior attendance at C&GSC, but this is impracticable due to the unmanageable number of records which would have to be examined by the selection boards each year. Instead, more liberal use of waivers for the C&GSC prerequisite should be possible, in order to put the names of all deserving officers before the initial selection board.

Selection Procedures

20. The present system of selection by career branches for branch career courses should continue, since these are mandatory courses. The number of personnel files involved in selection for

C&GSC and AFSC indicates that this level of selection should also be by career branch. The process to date appears to have been fair and is administratively workable.

21. The method of selection for senior service college by board is comparable to that of selection for general officer, and seems to be free of branch bias. It is a source of concern, however, that career branches have almost no influence on the selection of their officers, despite the fact that they have managed these officers' careers for the preceding 15 years or more. There should be some provision whereby nomination by a career branch would at least insure that an officer is considered by the final selection board. This could be accomplished by having each career branch submit to DCSPER a roster of branch nominations, the length of the roster being twice the average number of branch officers selected for the five previous years. On completion of the first board's action, DCSPER would restore to the pre-selection list all names on the branch rosters which the first board had not included. This amended list would then be submitted to the final board.

Requirements

22. Any statement of requirements is necessarily an arbitrary one, based on many conflicting factors. Revision of the estimated requirements between 1954 and 1965 indicates a pronounced increase, particularly for graduates of AFSC and the senior service colleges. To meet these increases, the Army input to AFSC and the senior service colleges would have to be doubled for the next ten to fifteen years.

23. Increases of this size appear to be neither practicable nor desirable at the senior service college level. Advanced military schooling at the highest level, like advanced civilian schooling, traditionally is given to those individuals who show the greatest future potential. The goal of such schooling is to foster the excellence of a few, rather than to raise the average of all. Slightly over one-third of all Army colonels are now senior service college graduates, and each year the number of senior service college graduates is about six times greater than the number of colonels promoted to general officer. The current output thus appears to offer sufficient selectivity to insure excellence, while providing sufficient volume from which to draw senior staff officers and potential general officers.

24. The AFSC is presently operating at full capacity, and there is no apparent possibility of a gross increase in the number of graduates produced each year. Further, attendance at AFSC is not now within the progressive career pattern of the Army officer, and is

considered valuable but not essential. To benefit fully from the quotas presently available, the AFSC should be tied into the career schooling program. There are currently 1,765 Army field grade positions in 27 joint and combined headquarters. An 11-year stockage at the present annual quota of 160 would provide 1,760 graduates as a pool from which to fill these positions.

25. Selectivity is an inescapable feature of higher education. Stated requirements for graduates of a given military college in many instances reflect not a requirement for an officer with a particular schooling, but rather the type of officer who would be selected to attend such a school. This is particularly true in considering the requirements for C&GSC graduates. The proposed requirement as stated by DCSPER closely approximates current assets in numbers but not in composition. It does not include any majors, even though officers of this grade form the bulk of C&GSC students. In round numbers the present proportion is 20% of all majors, 60% of all lieutenant colonels, and 85% of all colonels, for a total theoretical requirement of 15,320 C&GSC graduates, not counting general officers. This is almost exactly the stated OPO requirement arrived at by other means. As a theoretical goal, therefore, something in excess of 15,000 C&GSC graduates appear to be a reasonable figure.

Quotas - General

26. The following discussion of quotas applies only to the C&GSC and AFSC, since attendance at the two branch career courses is mandatory and there are no quotas (although there are some maximums) for the senior service colleges.

27. The 65/35 quota breakout at C&GSC for the combined arms/technical and administrative services has been criticized vigorously by some as being unfair and a bar to career opportunity for the technical officer. Much of the criticism apparently hinges on the fact that, since the C&GSC is a prerequisite for senior service college attendance and such attendance is considered important in selections to general officer, the 65/35 quota gives the combined arms officer a disproportionately greater chance to become a general. As a criticism of the present quota system, this contention is not verifiable, since the 65/35 quota was not formally established until FY 64 -- too recently to have had any effect on general officer promotions. Rather, it appears that any historically better promotion opportunity for the combat arms officer is a reflection of the belief that the basic mission of an Army is combat and not its own support. Nonetheless, any completely arbitrary inequity at such a critical point in an officer's career is difficult to justify.

28. In general, the means by which quotas can be established are:

a. Proportionally, according to:

- (1) Branch strength Army-wide.
- (2) Number of branch eligibles each year.

b. Arbitrarily, by classes of arms or services. Arbitrary quotas may be:

- (1) Fixed, i.e. a set number per year.
- (2) Fractional, i.e. only a certain percentage of the branch strength or of branch eligibles is considered in calculating proportional quotas.

29. If a branch quota is not proportional, a measure of equity may be reintroduced by a number of devices, including:

- a. Constructive credit for other education (e.g., a civilian graduate degree), breadth of experience, or demonstrated ability.
- b. Waiver of the requirement for attendance as a prerequisite for further schooling.
- c. Equating attendance at another military school.

Constructive credit is not now granted for C&GSC, but waivers are employed by the professional services. Staff colleges of the other Services and of some foreign countries are equated to the C&GSC; the AFSC is not.

30. Proportional quotas on the basis of branch eligibles each year appear to be more equitable than quotas based on percentage of total officers Army-wide. Although the two figures usually are grossly comparable, the number of eligibles in any one branch may vary considerably from one year to another while total branch strength remains constant or varies in an opposite manner. In addition, the total number of officers in the Army Medical Service (AMEDS) is greatly disproportionate to the number of AMEDS officers eligible for C&GSC.

Quotas - Branch Considerations

31. The Women's Army Corps' requirements are unique in that WAC officers do not now attend the regular C&GSC course, AFSC, nor the War Colleges (although two WAC officers have attended ICAF). For

five of the last seven years, four WAC officers have attended the C&GSC associate course.

32. In the computation of quotas, the professional services must be considered as occupying a different position than do the other branches. They make more liberal use of waivers for C&GSC attendance and by reason of their mission appear to have less need for this level of schooling for the majority of their officers, since professional personnel are utilized largely in positions requiring their particular branch qualification. This is less true of the MSC officers who, although included in the professional medical group (of which they make up 37%), have many functions which make them more comparable to the technical than to the professional services. A complicating factor is that, while MSC officers need C&GSC more than do medical officers per se, fewer MSC officers attend the senior service colleges and none become general officers. The special position of the professional services is reflected in the arbitrary limit currently placed on their attendance at the senior service colleges.

33. The Adjutant General's and Finance Corps also appear to occupy a special, although less clearly defined, position in the requirement for advanced military schooling, since they generally operate in specialized fields with only limited numbers of command and general officer positions. This again is reflected in the current arbitrary limit on their attendance at the senior service colleges.

34. The relative requirements of the other arms and services for attendance at C&GSC are not readily quantifiable. The present 65/35 quota apparently is the continuation of a traditional policy that the three combined arms which provide the bulk of the Army's combat strength should receive proportionately more advanced military schooling, while the services should receive proportionately more advanced civil schooling. Figure D8-3 shows that this relationship between military and civilian higher education does in fact exist. It will be noted that the sum of the two percentages is almost identical for the first three groups.

35. Although a case can be made numerically for across-the-board equity in apportioning branch quotas to C&GSC, the relative needs of the Service do not appear to warrant such an approach. The emphasis of Army officer career schooling has traditionally been on the art of command. The discussion of command responsibility at Appendix 9 clearly establishes that officers of the different branches have different roles in the command and control of troops and staffs. Priority for attendance at C&GSC, therefore,

**ADVANCED MILITARY AND CIVILIAN EDUCATION BY BRANCH TYPE
(AS OF MID FY 65)**

BRANCH TYPE	% WHO ARE C&GSC GRADUATES	% WITH ADVANCED CIVIL DEGREES *
COMBINED ARMS	20.4	5.6
ENGINEER, SIGNAL	13.2	15.6
TECHNICAL SERVICES	13.8	12.5
ADMINISTRATIVE SERVICES	9.6	8.0

* Does not include professional degrees.

FIG. D8-3

should be given to those for whom the instruction given has direct application, rather than to those for whom it is largely a valuable orientation on the functions of others.

36. Appendix 9 sets forth a graduated scale of branch emphasis on command in the following order: Infantry, Armor, Artillery, Engineer, Signal, Military Police, AMEDS, Transportation, Ordnance, Quartermaster, Army Intelligence and Security (AIS), Chemical, Civil Affairs (not an Active Army Branch), Adjutant General, Finance, Judge Advocate General, and Chaplain. For application at mid-career level, where attendance at C&GSC normally falls, several additional factors come into play. The relatively heavy emphasis on command by the Military Police Corps has primary application up to the battalion level and Military Police officers are not frequently used in a general staff capacity. The same situation applies to the Medical Service officer. On the other hand, the Army Intelligence and Security Branch places only limited emphasis on command as such, but has proportionately one of the highest requirements for general staff officers. When an AIS officer is serving in his specialty, he is normally serving in a general staff capacity.

37. The Corps of Engineers clearly occupies a unique position among branches as far as schooling is concerned. Not only do the Engineers have the highest proportion of advanced civil degrees, as a reflection of their technical role, but they also have maintained an excellent record in purely military schooling. A review of branch performance at the C&GSC regular course for FY 61-65 shows that Engineer officers made up only 6% of the Army students, but provided 24% of the top twenty students and only 2% of the bottom twenty. Clearly more Engineers could be sent to the C&GSC without lowering the general quality of the class as a whole.

38. A tabulation by branch of Army positions in joint and combined headquarters clearly indicates that the five combat arms and the Army Intelligence and Security Branch make up the bulk of the field grade officers required. This is not a simple function of the availability of C&GSC graduates as is shown by the fact that requirements for Signal Corps and AIS officers are second only to those for Infantry and Artillery officers.

39. Based on these considerations, the Board determined that, for the purposes of establishing quotas to C&GSC and AFSC, the branches may be grouped as follows according to their potential direct use of the instruction given:

- a. Infantry, Armor, Artillery
- b. Engineers, Signal Corps, Army Intelligence and Security
- c. Technical Services and Military Police Corps
- d. Professional Services (AMEDS, JAGC, Chaplains), Finance, and Adjutant General's Corps
- e. Women's Army Corps

Proposed Quotas - C&GSC

40. The DCSPFR-developed requirement for only 20% of the professional and administrative field grade officers to be C&GSC graduates, as opposed to 100% for other branches, appears to be too restrictive a proportion for application to C&GSC quotas, as it would reduce these branches to one-third or one-fourth of even their present quotas. Rather, it appears more equitable to relate quotas for these branches to the composition and organization of the C&GSC class as a whole, basing branch representation on the numbers desired in each section (i.e. classroom).

41. The present capacity of C&GSC is based on 24 classrooms with a maximum of 56 students each, for a total of 1,344 possible students at any one time. Within each classroom, students are divided into four work groups. In a previous discussion (Appendix 7) it was established that the goal of C&GSC should be to do away with the associate course and offer instead a regular course for Active Army officers and a special course for Reserve Component officers (who also would have eight spaces in the regular course), with foreign officers attending both courses. This would result in full utilization of all 24 classrooms for the regular course, with a consequent total of 96 work groups.

42. The Board proposes to allocate a total of one space in each of the 96 work groups to those categories of US personnel which by reason of Service affiliation, specialized interest, or other factors discussed above are to be held to arbitrary, fixed quotas. Within this total allocation, branch breakdown is proposed as follows:

<u>TOTAL</u>		<u>PER CLASSROOM</u>
24	Other Services	1
36	AMEDS	1 1/2
32	AG, Fin, JAG, Chap	1/3
<u>4</u>	WAC	<u>1/6</u>
96		4

The quota for AMEDS has been separated from that for the other professional services, Finance, and Adjutant General's Corps, due to the fact that each year the number of AMEDS eligibles is usually greater than the sum of the eligibles of the other four branches named. A separate quota for the latter insures that they will always have adequate representation in work groups. Within the 32 spaces allocated to these four branches as a whole, spaces are to be divided proportionately by numbers of eligibles.

43. The practical maximum quota for foreign officers is similarly one per each work group for a total of 96, an increase of 16 over the present quota of 80 in the regular course. Although there are pressures to make this increase, it can be accomplished only at the expense of Active Army students, which does not seem justified. Therefore, no change in the present quota for foreign officers is proposed.

44. For the remaining spaces (1,160 for an all-regular course) the Board proposes the following division, based on branch requirements for the instruction presented:

Infantry, Armor, Artillery	65%	(754)
Engineer, Signal, AIS	20%	(232)
Transportation, Ordnance, Quartermaster, Chemical, Military Police	15%	(174)

(In FY 65 the actual proportion of eligibles in these groups was 61%-21%-18%). The total within each group is to be allocated proportionately by eligibles to each branch making up that group.

45. Since the proposed quota system is based on classroom representation, it may be applied to the present mix of courses and to any intermediate mix during the phase-in to an all-regular course. For ease of administration, however, the quota for the other Services should be reduced from the present 28 to 24 and then not changed further.

Proposed Quotas - AFSC

46. As has been noted previously, the Army is the only Service which does not now give C&GSC equivalent credit for attendance at AFSC. Although the AFSC course of 22 weeks is shorter than the C&GSC regular course, it is longer than the present associate course (18 weeks), for which the Army student now receives full C&GSC credit. For an officer with extensive Army staff experience before attendance at the staff college level, attendance at a joint course of this nature appears a valid substitute for C&GSC. The Board proposes, therefore, that attendance at AFSC be equated to attendance at C&GSC. Priority for attendance at AFSC should be given to those branches which are most directly concerned with joint operations as evidenced by relative strengths on joint tables of distribution: Infantry, Artillery, Armor, Engineers, Signal Corps, and Army Intelligence and Security.

47. The Board proposes the following allocation of AFSC quotas:

- a. No quota to be allocated to the Women's Army Corps.
- b. One chaplain to attend every third year.
- c. Adjutant General's Corps, Finance Corps, and Judge Advocate General's Corps to receive one space each per year.

**ACTIVE ARMY C GSC QUOTA COMPUTATIONS UNDER DIFFERENT SYSTEMS
(FY 65)**

BRANCH	NUMBER OF ELIGIBLES	PROPORTIONAL BY BRANCH STRENGTH	PROPORTIONAL BY ELIGIBLES	20% OF PROF & ADMIN OTHERS PROPORTIONAL	65/35 (ACTUAL FY 65)	PRESENT COURSES NEW QUOTA SYS		PROPOSED (ALL REG COURSES, AFSC EQUATED)		
						C&GSC	AFSC	C&GSC	AFSC	TOTAL
ARMOR	1393	89	108	118	127	120	16	115	16	131
ARTILLERY	3536	229	276	299	324	304	42	293	42	335
INFANTRY	4173	256	326	353	386	358	50	346	50	396
ENGINEER	1350	88	106	114	85	104	16	100	16	116
SIGNAL	1120	84	87	95	73	86	13	83	13	96
AIS	651	63	50	55	37	50	8	49	8	57
CHEMICAL	266	18	21	23	17	18	2	17	2	19
MP	288	22	22	24	18	19	2	19	2	21
ORDNANCE	840	73	66	71	54	56	2	54	2	56
QM	467	50	36	39	29	31	2	30	2	32
TRANS	828	62	64	70	53	56	2	54	2	56
AG	272	41	21		15	19	1	15	1	16
FINANCE	131	15	10	2	8	9	1	7	1	8
CHAPLAIN	116	17	9	2	8	8	*	6	*	6
JAG	60	15	5	1	8	4	1	4	1	5
MEDICAL	775	157	60	13	38	45	2	36	2	38
WAC	257	9	21	4	8	5	-	4	-	4
TOTAL	16523	1288	1288	1288	1288	1292	160	1232	160	1392

* 1 every third year.

FIG. D8-4

d. Each of the following branches to receive two spaces a year (one per class): Chemical Corps, Military Police Corps, Ordnance Corps, Quartermaster Corps, Transportation Corps, and the Army Medical Service.

e. The remaining spaces to be allocated 75% to the combined arms (Infantry, Artillery, and Armor) and 25% to the remaining branches (Corps of Engineers, Signal Corps, Army Intelligence and Security), broken down in these groups proportionately according to numbers of eligibles.

Proposed Maximums - Senior Service Colleges

48. The present branch maximums for selection to the senior service colleges from the professional services, Adjutant General's Corps, and Finance Corps apparently are based on average numbers selected over the period preceding FY 66. With one exception, the present maximums appear adequate. The annual branch maximum equals 1/2 or 1/3 the number of general officers in each branch concerned, except for AMEDS where the ratio sinks to 1/4. For the sake of equity, the present AMEDS maximum of five should be increased to six.

Impact of Proposed Solution

49. Quotas. Actual branch quotas for FY 65 and theoretical quotas, calculated by the different methods discussed, are at Figure D8-4.

50. Prerequisites. For those branches on which an arbitrary limitation has been placed, fairness dictates that the possibility of constructive credit for or waiver of C&GSC attendance as a prerequisite for the senior service colleges not only be preserved, but encouraged. The Office of Personnel Operations and the chiefs of the professional services appear to be the agencies to recommend appropriate waivers to the Deputy Chief of Staff for Personnel.

51. Requirements. Under the recommended system, Active Army production of staff college graduates would be 1,427 a year (1,232 regular course C&GSC, 24 at other Service staff colleges, 13 at foreign staff colleges, and 160 at AFSC). Experience shows that total assets are based on eleven years' accumulation (current stockage/annual output = $14,369/1,288 = 11$ years). This supports the theoretical computation of stockage as based on average length of service for all officers (25 years) less the average years of commissioned service on graduation from C&GSC (14 years); $25-14 = 11$ years. Thus, stockage of staff college graduates under the proposed system would

be 1,427 x 11 = 15,697, to meet an estimated requirement of over 15,000. If the AFSC is not equated, stockage would be 13,937.

CONCLUSIONS

Prerequisites

52. Branch career courses should continue to be mandatory, the time of attendance to be between the fourth and ninth years of service where possible. Except in special cases, such as the Army Medical Corps, only captains should attend the branch career course.

53. Only majors and lieutenant colonels with 9-15 years of service should attend C&GSC. The service requirement should be waived only in unusual circumstances.

54. Attendance at AFSC should be equated to attendance at C&GSC, and prerequisites for the two should be made identical.

55. Waiver of C&GSC attendance as a prerequisite for senior service college should be possible for all branches in special cases, particularly for those branches which receive a fixed quota each year.

Selection Procedures

56. Selection to branch career course, C&GSC, and AFSC should continue to be by career branches.

57. Selection to senior service college should continue to be by board action, but with these modifications:

a. Waiver of the C&GSC requirement should be recommended by career branches to DCSPER in time to insure that all deserving officers are considered by the first (pre-selection) board.

b. Career branches should be empowered to place a limited number of nominations before the second (final) board.

Requirements

58. The Army should seek to maintain a minimum stockage of approximately 15,000 C&GSC graduates.

59. Present AFSC quotas should be maintained as a minimum. Any possible increase in the Army quota would be desirable, as current output provides only one AFSC graduate world-wide for each Army position in a joint or combined headquarters.

60. No fixed stockage figure should be established for senior service college graduates. The current output should be maintained.

Quotas

51. Quotas for C&GSC should continue to be set by DCSPER, but based on the following considerations:

a. A fixed quota to be given the other Military Services, professional services, Adjutant General's Corps, Finance Corps, and Women's Army Corps; to be based on one representative of these Services and branches as a whole in each work group.

b. The remaining spaces to be divided 65% to the three combined arms; 20% to Corps of Engineers, Signal Corps, and Army Intelligence and Security Branch; 15% to the remaining branches.

62. Quotas for AFSC should continue to be set by DCSPER, but based on the following considerations:

a. No quota to be allocated to the Women's Army Corps.

b. One chaplain to attend every third year.

c. Adjutant General's Corps, Finance Corps, and Judge Advocate General's Corps to receive one space each per year.

d. Following branches to receive two spaces each per year (one per class): Chemical Corps, Military Police Corps, Ordnance Corps, Quartermaster Corps, Transportation Corps, and the Army Medical Service.

e. The remaining spaces to be allocated 75% to the three combined arms and 25% to the remaining branches (Corps of Engineers, Signal Corps, Army Intelligence and Security Branch).

63. No branch quotas as such should be established for the senior service colleges, but certain maximums should be applied as follows: Adjutant General's Corps - 3, Army Medical Service - 6, Chaplains Corps - 1, Finance Corps - 1, Judge Advocate General's Corps - 3.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 9

TRAINING IN COMMAND RESPONSIBILITIES AND FUNCTIONS

PURPOSE AND SCOPE

1. This appendix examines the anatomy of command and analyzes training conducted within the Army school system in the responsibilities and functions of command. It develops the relationship of command with leadership and management, branch requirements for command, emphasis on leadership and command required at various levels of the Army school system, and required changes in current regulations to reflect that emphasis. The appendix also discusses pre-commissioning leadership training, company command training, and the command/specialist problem.

BACKGROUND

2. The Williams Board in its first recommendation affirmed its belief that: "The objective of the Army school system is to prepare selected individuals of all components of the Army to perform those duties which they may be called upon to perform in war. The emphasis is on the art of command." (Underlining supplied)

3. The current version of AR 350-5, "Military Education and Service Schools," states that: "The primary mission of the Army School System is to prepare selected individuals of all components of the Army to perform those duties which they may be called upon to carry out in war or in peace. The emphasis is on the art of leadership." (Underlining supplied)

4. With specific reference to officers, this regulation later asserts that: "Army colleges and schools will conduct career courses to provide progressive military education and appropriate practical training for officers of all Army components at appropriate levels in order to prepare them to perform efficiently, in peace and in war, in all positions concerned with leadership of troops and units; with application of doctrine, tactics, and techniques; with the employment of units; with strategic concept, planning, and execution; and, with national policy and planning."

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STATED EMPHASIS ON LEADERSHIP AND COMMAND IN BRANCH SCHOOLS

SCHOOL	IN SCHOOL MISSION	IN PURPOSE OF CAREER COURSE
Adjutant General	Command not mentioned	Command not mentioned
Armor	Emphasis on leadership	Primary emphasis on command
Intelligence & Security	Command not mentioned	Primary emphasis on command
Artillery	Command not mentioned	Command not mentioned
Air Defense	Command not mentioned	Command not mentioned
Chemical	Command not mentioned	Command not mentioned
Engineer	Emphasis on command	Command not mentioned
Finance	Command not mentioned	Command not mentioned
Infantry	Primary emphasis on command and leadership	Primary emphasis on command
Army Medical Service	Command not mentioned	Command not mentioned
Military Police	Emphasis on leadership related to branch	Command not mentioned
Ordnance	Command not mentioned	Command not mentioned
Quartermaster	Command not mentioned	Command not mentioned
Signal	Emphasis on command related to branch	Command not mentioned
Transportation	Command not mentioned	Command not mentioned

FIG. D9-1

5. AR 350-5 assigns a generalized mission to the branch and specialist schools together, which does not single out either leadership or command. The purpose of the officer basic course is well stated in the regulation with the exception that training in leadership is omitted. In the stated purpose of the officer career course, preparation for command is highlighted. Similarly in the assignment of missions to the two Army colleges, preparation for command is stressed.

6. The emphasis given to leadership and command in the specific mission statements of the various branch schools and the stated purposes of their career courses is depicted in Figure D9-1.

7. The branch schools' interpretations of the amount of instruction related to command presented during their career courses in terms of hours and percentage of total instruction, are shown in Figure D9-2. The wide variation in the school responses probably indicates that the Board question was imprecise and that school semantics vary. Nevertheless, the chart is useful as a gross comparison.

INSTRUCTION RELATED TO COMMAND - OFFICER CAREER COURSES

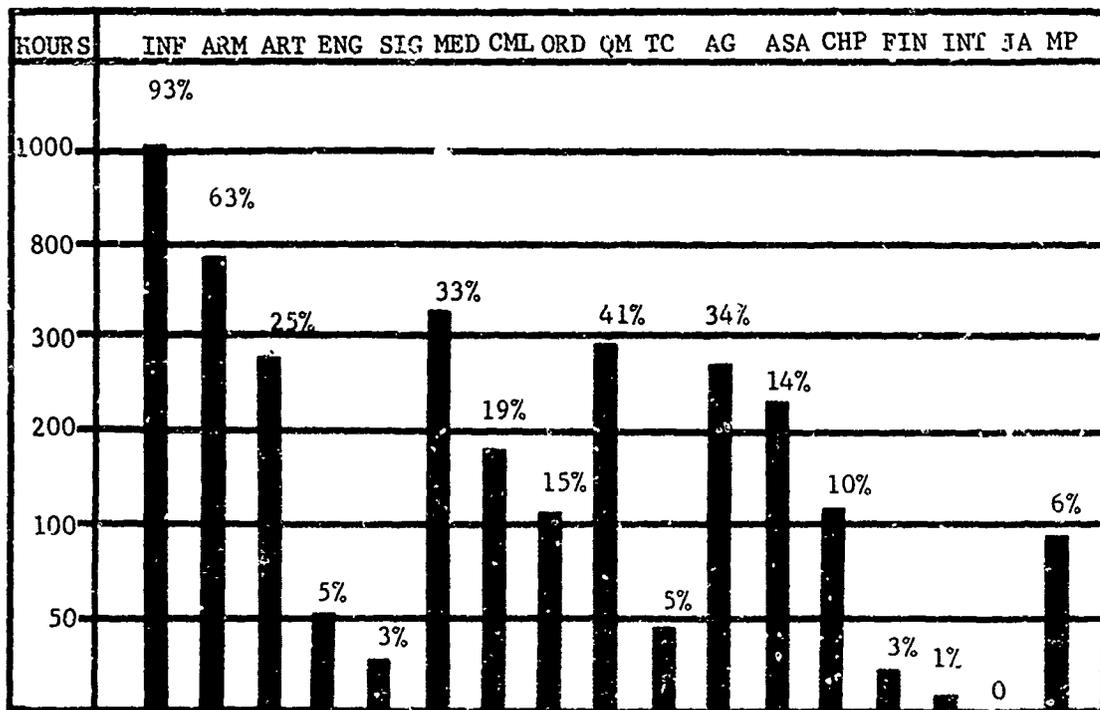


FIG. D9-2

8. AR 145-133, Branch Assignment of ROTC Students, states: "All branches of the service require officers who possess a high degree of leadership. However, certain branches place significant stress on technical qualifications as well." Later the AR states, ". . . while the technical fields in which a student is specializing may indicate his potential usefulness in a specific branch, the requirements of combat leadership are such that practically all academic study is of assistance . . ."

9. A table in AR 145-133 relates academic majors to branches as an aid to making branch assignments. The letters A to D are used to indicate the degree of assignment, A representing very high relationship, B high relationship, C substantial relationship, and D general relationship. The following chart indicates the stated relationship to branches of two disciplines which would appear valuable to the exercise of leadership or command.

RELATIONSHIP BETWEEN CERTAIN ACADEMIC MAJORS AND BRANCHES

MAJORS	RELATED BRANCHES
PSYCHOLOGY	A - AG B - None C - Seven Branches D - Eng, Fin, Ord, Sig
SOCIOLOGY	A - None B - AG and MP C - AIS D - All others

FIG. D9-3

DISCUSSION

General

10. Although the spectrum of military conflict is becoming broader and the art of warfare increasingly complex, the time available to develop individuals to meet the challenges imposed remains constant. Realistic requirements to acquire new technical skills, develop more

complex weapons, communications and electronics, improve analytical skills and managerial practices, analyze and understand the international environment, and acquire language competence must be introduced into the Army educational and training system. Moves to increase periods of formal training reduce opportunities for practical experience and withdraw personnel from operating activities. Further, when additional subjects are introduced into school curricula, the area most easily invaded is that of command training.

11. Reduction in the quality of command is not readily detected. It is seldom subjected to the ultimate test and has no really useful numerical unit of measure, for missions can usually be accomplished at the cost of greater expenditure of life, time, and resources. In fact, without the test of conflict, time taken from command skills and devoted instead to supervisory, administrative, and managerial practices in depth will probably reflect an improvement in force posture, measured in terms of peacetime accounting practices. It is incumbent upon any review of the Army educational system to insure that the pressure for instruction in peacetime activities does not degrade the fundamental task of developing operational command capability in the officer corps.

12. Wide variations exist in the emphasis given training in leadership and command by various Army schools. The apparent failure of many of these schools to accord this training the primacy specified in AR 350-5 prompted the Board to make a more comprehensive analysis of this phase of Army education. Command functions are too all-inclusive to permit meaningful analysis unless the elements of command are identified and related to branch requirements. The Board considers that leadership and management skills are command attributes, and that a discussion of their inter-relationship will provide more precise educational objectives.

Relationship of Command to Leadership

13. The Dictionary of US Army Terms does not define leadership and command in a manner which distinguishes between them. Through time-honored usage, however, command in Army parlance has come to mean the full spectrum of authority and responsibility vested in commanders of companies and higher units; whereas leadership refers more to the face-to-face type of direction and control exercised at lower organizational levels. Thus, one refers to squad and platoon leaders but to company and battalion commanders. Generically, leadership is a broader term than command and is related to personal attributes, motivation, and character. The capability of directing group effort is inherent in leadership. Clearly, leadership skill is fundamental to command competence.

COMMAND CHARACTERISTICS BY BRANCH

BRANCH	NUMBER	BY UNITS							BY CLASSIFICATION				BY COMBAT LEADER'S IDENTIFICATION (C GEN TABS)	CASUALTIES*	
		LEVEL OF UNIT WITH BRANCH TITLE					OTHERS		ARM	ARM SERVICE	SERVICE	SPECIALIST			
		PLAT OR DET	COMPANY	BATTALION	BRIGADE OR GROUP	DIVISION	COMBAT	SERVICE							
AG	Few	X									X				15
ARM	Many	X	X	X	X	X	X	X	X					X	2
ARTY	Many	X	X	X	X		X	X	X					X	3
CHAP	None											X			8
CML**	Few	X	X	X	X						X				4
CA	Few	X	X	X	X						X				NA
ENGR	Many	X	X	X	X		X	X		X			X		6
FIN	Few	X		X							X				14
INF	Many	X	X	X	X	X	X	X	X				X		1
AIS	Few	X	X	X	X					X					NA
ORD	Many	X	X	X	X			X			X				10
MP	Many	X	X	X	X						X		X		11
QM	Many	X	X	X	X			X			X				9
SIG	Many	X	X	X	X			X		X					7
TC	Many	X	X	X	X			X			X				12
JAG	None	X										X			13
AMEDS	Many	X	X	X	X			X			X				5

* Order of branches by percentile casualties in WW II.

** Most Chemical units are being eliminated under COSTAR concept.

FIG. D9-4

Relationship of Command to Management

14. The following definitions are drawn from Webster's dictionary: "Command . . . implies the formal exercise of absolute authority, as by a sovereign, military leader . . ." and "Manager . . . a person who manages affairs or expenditures . . . skillfully and carefully." Exercise of absolute authority must evoke the stress of total responsibility. Management, conversely, is frequently fragmented and described as one of a series of skills, such as materiel management, personnel management, financial management, or business management. Management implies authority with circumscribed responsibility. The skills are resource oriented and particularized. Resources allocation is a function of command and the successful commander must be a skillful manager. Command competence includes but must go beyond management.

Branch Requirements for Leadership, Management, and Command

15. Though command and management vary in scope and degree of responsibility, both involve directing functions and participants. Leadership is fundamental to management as well as to command. Participation of personnel lacking leadership attributes is limited to individual contribution. Industry makes major use of the individual contributor, as brought out in Annex C, Appendix 4. The Army too can profit from the contribution of skilled individuals, through its enlisted and warrant officer specialist programs and career service civilians. However, the purpose of initial commissioning is to identify potential leaders. The Army has neither a requirement nor an opportunity for officers who are not leaders, whether they exercise that leadership as commanders or as managers. The Board agrees fully with the statement in current regulations, quoted in paragraph 8 above, that: "All branches of the service require officers who possess a high degree of leadership." Officer education from its inception must emphasize leadership training, regardless of branch.

16. In contrast to the universal requirement for leadership throughout the officer corps, requirements and hence opportunities for command, vary widely. Command characteristics by branch are indicated in Figure D9-4. The column titled "Casualties" is included as a measurement of command responsibility related to lives. Infantry and Armor are the only branches which include all of the following: numerous units; branch identification of units to division level; frequent assignments of officers to command at higher levels, close association with combat by branch classification, and combat leader's identification ("green tabs"); and criticality of command measured in terms of casualties. Varying only in lack of division identity and less sensitivity to casualties are the Artillery and Engineers. Command requirements are also high in the Signal Corps, Military Police

COMMAND AND MANAGEMENT TRAINING IN BRANCH SCHOOLS

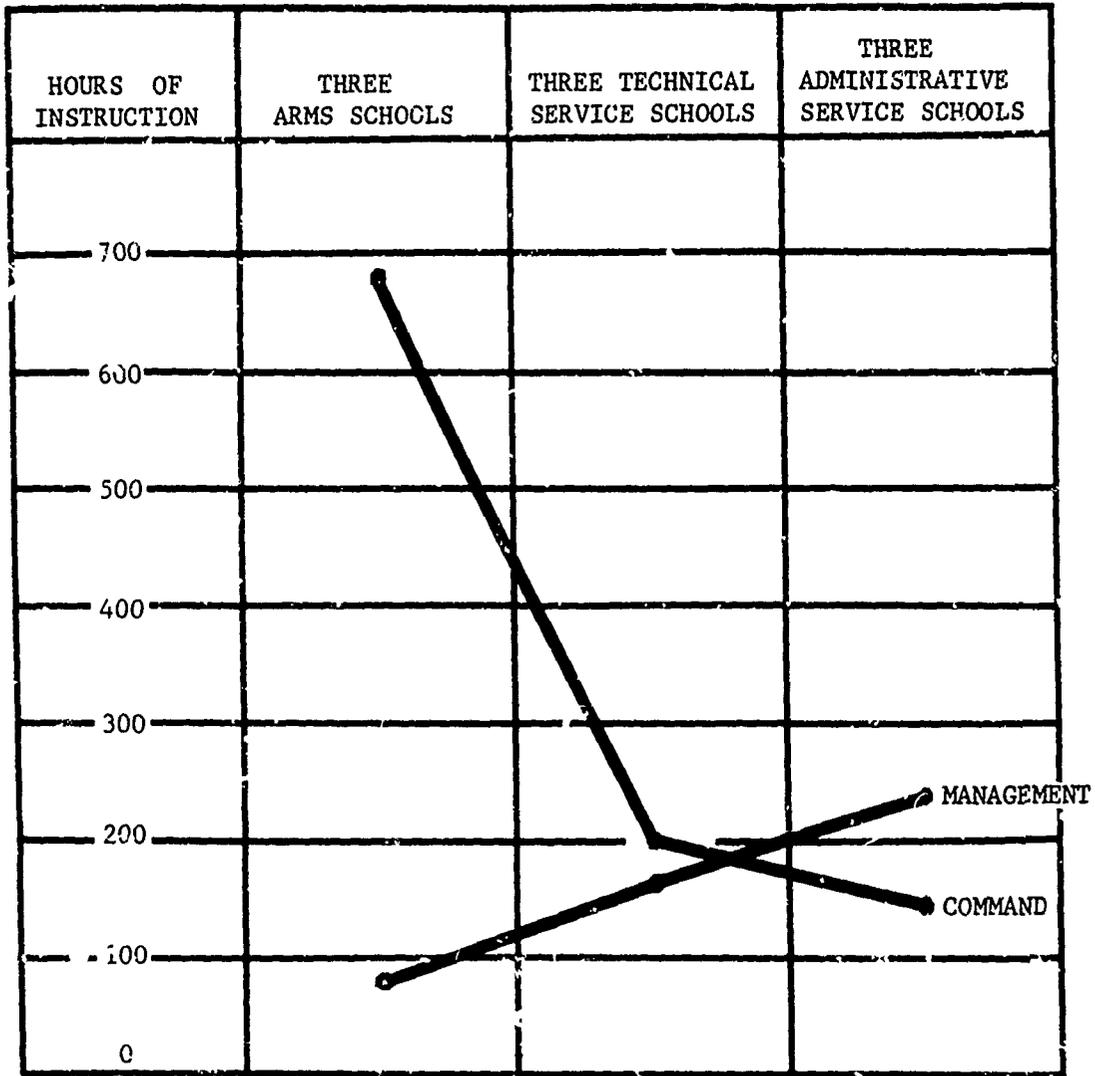


FIG. D9-5

Corps and the Army Medical Service, in terms of numbers and levels of units, and sensitivity to casualties, and somewhat less so in the Transportation, Ordnance, and Quartermaster Corps. Clear identification of the Ordnance and Quartermaster Corps, in particular, with command opportunities is obscured by the many branch immaterial command positions in functionalized units. Army Intelligence and Security command positions are spotty, the Chemical Corps is apparently losing most of its units, and Civil Affairs commands in the main are Reserve units. Adjutant General and Finance officers have little opportunity for command. For Judge Advocate General's Corps officers and Chaplains, the opportunity is negligible.

17. A listing of branches in order of requirements for command, although obviously controversial, provides a focus for school training. The Board considers the following listing reflects roughly the current situation in the US Army: Infantry, Armor, Artillery, Engineers, Signal Corps, Military Police, Army Medical Service, Transportation Corps, Ordnance, Quartermaster, Army Intelligence and Security, Chemical, Civil Affairs, Adjutant General, Finance, Judge Advocate General, Chaplains.

18. Command training should be emphasized in those branches with major command responsibilities. Management training in depth should be provided in those branches with little command opportunity. A balance must be struck between the two, tailored to the individual needs of each branch. This concept is clearly at variance with the generalized statement of branch school mission in AR 350-5. However, the Board analysis is supported by the reality of current branch school instruction. School reports to the Board characterize their instruction roughly as shown in Figure D9-5.

19. The failure of management training to meet the full spectrum of command responsibilities is reflected in operations-oriented branches. On the other hand, the primary applicability of management training to certain branches is clearly indicated by the reversal of emphasis between command and management in resource-oriented branches. In the view of the Board, the trend evolving in the school system properly reflects the character of management. While management has a broad base of application, command must encompass but go beyond it.

20. The Board considers that Army training and education must ingrain in the officer corps a clear understanding that command encompasses total responsibility to and for the units commanded. The discipline, esprit, training, and support of a unit as a fighting force; its character as a community, wherever stationed; the well-being of its individual members; and, above all, effectiveness of mission accomplishment within resources provided at minimum loss, rest

squarely upon the commander. Command responsibility cannot be delegated, fragmented, nor shared. The officer corps must keep clearly in mind the purpose of a military force is to prevail in conflict. The assignment of many officers may be geographically remote from the arena itself, but the end result of their endeavors must be to support combat commanders.

21. Within these broad parameters, all branches have functions and responsibilities related to command. These functions should be isolated and stressed. In other than arms branches, command training would be enhanced and time conserved for technical training by focusing on an understanding of command functions and branch responsibilities to field commanders, rather than on the exercise of command at all levels. The case method of instruction seems especially adapted to branches with limited command opportunities. Pointed case histories could be developed illustrating the impact of technical and administrative staff decisions on the esprit and effectiveness of deployed forces.

Revisions in Current Regulations

22. The Board considers that AR 350-5 should be revised to reflect more precisely the requirements for leadership, command, and management training. The objective of the overall school system, as embodied in that regulation, is properly stated in emphasizing leadership as opposed to command (See paragraphs 2 and 3 above). The bulk of school students are enlisted personnel taking rather specialized technical training, and the broader term is obviously more applicable.

23. The objective of officer career courses, quoted in paragraph 4 above, is excellent guidance for arms-and-unit oriented branches. However, it sounds somewhat unrealistic, or at best unhelpful, when related to branches with few or no troops, remote command expectation, and limited general staff responsibilities; but with many technical, specialized and managerial functions. In the interests of providing desired emphasis, guidance and priority, the objective of the officer career courses should be reworded to:

- a. Enhance command competence.
- b. Insure clear comprehension of command functions and responsibilities to command.
- c. Stimulate the growth of professional standards in the officer corps.
- d. Conduct research and participate in the formulation of military doctrine.

e. Contribute to education in essential management and specialist skills.

f. Provide individual intellectual challenge.

24. Emphasis in the basic courses at all branch schools should clearly be on leadership. AR 350-5 should be revised to spell out this emphasis clearly. Although the word "basic" should be retained in current regulations as a generic term generally applicable to initial officer training, arms branches should be encouraged to develop more descriptive and challenging terminology such as Platoon Leaders' Course.

25. The purpose of the career (advanced) course, as currently embodied in AR 350-5, includes the preparation of officers "to perform command and staff duties at company through brigade level." Technical and administrative branch career courses are given the added leeway to "include such instruction above division level as is necessary to orient students in the missions and functions of their branch." No mention is made of management training.

26. The emphasis on command training is laudable for the arms, but the level of such training requires further examination. Annex D, Appendix 3, recommends the virtual elimination of company level training as being after the fact. If company command training is late, brigade command training is probably early. Most senior commanders expect their battalion commanders to be graduates of the Command and General Staff College (C&GSC) and their brigade commanders to be graduates of a senior service college. There is mixed logic in this, since the C&GSC and the senior service colleges conduct no instruction in battalion and brigade command. They do provide a degree of officer selectivity based on school attendance, unrelated to course content. In the view of the Board, successful completion of a command tour at one level should be given far greater weight than exposure to military college schooling in selections for command at the next level.

27. Since Army officer career schooling is traditionally pointed at two grade levels above that of the average student, command training in branch career courses should concentrate on the battalion level. With company instruction eliminated, brigade (division artillery, support command, or group for applicable branches) command training should continue to be included, although with less emphasis.

28. The Board does not take issue with levels of instruction for technical and administrative services if this instruction is slanted toward providing perspective and understanding. The Board's primary objection to the wording of the regulation with respect to the technical and administrative services is that it addresses only command

and staff training. Earlier discussion disclosed the requirement for emphasis on command training in certain branches and on management in others. The regulation should permit this flexibility, and individual branch school missions should be discriminating in this regard.

29. The emphasis accorded higher command and staff functions in the assigned missions of the two Army colleges is considered proper. At these colleges, the responsibilities of all branches are brought together. Command training appropriate to these levels clearly encompasses appropriate management techniques.

Other Problems Related to Command

30. Precommission Leadership Training. The precommission military training received by officers from different sources is described in Annex B, Appendix 3. The cadet at the US Military Academy receives extensive formal training in leadership (over 700 hours), as well as ample opportunity to practice it. The ROTC student currently receives, on an average, approximately a fourth of the leadership training of his USMA counterpart. The trend away from branch-oriented and toward general military science ROTC courses has caused leadership instruction to be less specific and directed. The growing inclusion of more general academic subjects and the reduction in the military content of ROTC courses mean that leadership training will be confined largely to summer camp. This underlines the requirement for any basic course for ROTC graduates to stress leadership.

31. A required semester course in psychology at the USMA, conducted under the aegis of the Tactical Department, undergirds the formal leadership courses. Elective courses in sociology are offered later in the curriculum to advance a cadet's study and understanding of leadership. The close tie-in of these two disciplines to leadership has not been recognized in the relationship between academic majors and branches as expressed in AR 146-133 (See paragraph 9 above). Current assignment patterns relate psychology primarily to a branch with no troops. Sociology is shown as having a high relationship to two branches, and a substantial relationship to one, all of which are classified as administrative or technical branches and only one of which has any substantial number of troops. The combat arms are rated low in their requirements for both disciplines. While it is recognized that many factors influence initial branch assignments, it is considered that the relationship of psychology and sociology to leadership, and hence to combat arms requirements, should be clearly recognized in the regulation. AR 146-133 should be amended accordingly.

32. Training in Company Command. The basic course must stress leadership at the platoon level as previously indicated. There is no time in this course to train officers for command at company level. Nevertheless, most officers are given command of a company-sized unit before they return to school for the career (advanced) course. The Board gave consideration to moving the career course forward or inserting another level of schooling at the end of the second or third year of an officer's career, but decided both were impractical. Company command training must, therefore, be accomplished at unit level. The Army would benefit by a real effort to minimize administrative harassment and permit greater concentration on small unit training and operations, to include the time-honored formal unit instruction for junior leaders. The Board agrees with the Williams Board, "that an officer is educated and trained by many means such as on-the-job experiences, training in troop schools, precepts acquired from his commanders, individual study, formal schooling at service schools, and advanced education at civilian institutions." Certainly, with respect to command, actual experience under supervision of experienced commanders is the best and most lasting education.

33. Command and Specialization. Individual preference should provide a basic guide for officer command assignments and training. Command without motivation and enthusiasm is sterile. Many combat arms officers today have the ability and motivation to develop competence in command and expertise in a specialty area. These officers should be afforded a continued opportunity to serve in both fields. For technical and administrative service officers, specialty fields are in many cases an enlargement of branch functions. Individuals should be encouraged to pursue these specialties in depth. If combat arms officers, early in their careers, desire to pursue a specialty field at the expense of command assignments, they should transfer to the appropriate service branch. If, however, an officer in the grade of lieutenant colonel or higher prefers to forego command for consecutive specialty assignments, he should be permitted to do so without loss of branch identification.

CONCLUSIONS

34. All branches require leadership training, and this training should receive emphasis in officer basic courses. Regulations should be amended to provide for this.

35. Applicability of training in the exercise of command varies widely by branch. Comparative opportunities for command by branch are generally in the order: Infantry, Armor, Artillery, Engineer, Signal, Military Police, Army Medical Service, Transportation, Ordnance,

Quartermaster, Army Intelligence and Security, Chemical, Civil Affairs, Adjutant General, Finance, Judge Advocate General, Chaplains

- ✓ 36. Emphasis on command training in career courses should reflect the relative command opportunities of the several branches. Decreases in emphasis on command training should be balanced by increases in management training. Regulations should be reworded to provide for this balance.
- ✓ 37. Instruction in the career courses of command-oriented branches should include practical exercises in the discharge of command responsibilities. Training in the career courses of other branches should be directed toward an understanding of command functions and branch responsibilities for command support.
- ✓ 38. Throughout the Army school system, greater use should be made of the case method to drive home lessons in command.
- ✓ 39. The high relationship of academic majors in psychology and sociology to leadership, and hence to primary needs of the combat arms, should be recognized in the current regulation on Branch Assignments of ROTC Students.
- 40. Officers should be encouraged to develop a specialty in addition to branch competence. In the grade of lieutenant colonel and above, those who have developed an expertise in depth should be permitted to forego command for consecutive specialty assignments.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 10

MANAGEMENT EDUCATION AND TRAINING

PURPOSE AND SCOPE

1. This appendix analyzes the adequacy and appropriateness of management training and education provided to Army officers. Coverage includes schooling in the diverse but related subjects of general management, functional management (including special training provided for senior officers), installation level management, comptrollership, and managerial analytical techniques.

BACKGROUND

Categories of Management

2. Management is a term often indiscriminately used and variously defined. In the Army it is considered to be: "The process of establishing and attaining objectives to carry out responsibilities. Management consists of those continuing actions of planning, organizing, directing, coordinating, and controlling use of men, money, materials, and facilities to accomplish missions and tasks." For the purpose of this report, management training is divided into the following broad categories: general management - principles and practices applied across-the-board by anyone who "manages"; functional management - a narrower use of the term, applied to such specialized areas as the resource utilization functions of personnel, financial, or logistics management; and managerial analytical techniques - tools and procedures used by practitioners in performing managerial duties. The more technical and sophisticated of these techniques are used primarily by professional management analysts, systems analysts, and operations research personnel. The training required for each of the foregoing, as well as for installation level management and comptrollership, is different, although not mutually exclusive.

Trends in Management

3. Since World War II, emphasis on improvement of management and use of up-to-date management tools and techniques has been mounting

**HOURS OF FUNCTIONAL MANAGEMENT INSTRUCTION
AT BRANCH SCHOOLS**

SCHOOL	PERSONNEL MANAGEMENT		FINANCIAL MANAGEMENT		MATERIEL MANAGEMENT	
	BASIC COURSE	CAREER COURSE	BASIC COURSE	CAREER COURSE	BASIC COURSE	CAREER COURSE
Adjutant General	54	135	0	6	3	5
Air Defense	5	8	0	0	0	0
Armor	22	44	0	2	38	92
Army Nurse Corps	32	64	1	8	5	30
Army Security Agency	NA	8	NA	2	NA	2
Artillery & Missile	0	2	0	3	26	15
Chaplain	0	60	12	58	15	10
Chemical	66	90	0	18	26	75
Engineer	3	6	0	4	7	94
Finance	0	38	4	337	0	8
Infantry	6	15	0	1	4	72
Intelligence	0	6	0	4	0	6
Judge Advocate	NA	0	NA	0	NA	0
Military Police	33	42	0	6	10	9
Medical Field Service	12	40	1	10	4	23
Ordnance	2	8	3	7	12	11
Quartermaster	20	50	2	28	0	134
Signal	NA	6	NA	1	NA	1
Southeastern Signal	10	NA	0	NA	6	NA
Transportation	6	17	3	15	1	8
Women's Army Corps	15	10	6	13	20	12
RANGE	0-66	0-135	0-12	0-337	0-38	0-134

FIG. D10-1

steadily. In industry the number of managers enrolled in formal management training programs grew from less than 10,000 a year in 1948 to an estimated 750,000 annually in 1965. Comparable trends have been noted in governmental agencies and the Military Services.

4. Management is not new to the Army; it permeates every echelon and is inherent in varying degrees in all jobs. Due to the ever increasing size, complexity, and cost of operations, the Army has been devoting more and more attention to managerial systems, techniques, and controls. This growth of interest has been accelerated by technological changes in automated information handling and retrieval, new analytical techniques, Congressional insistence on more efficient handling of resources, and centralization trends within the Department of Defense. The Army has had to adjust to these new management controls and processes. Demand for Army officers qualified to develop and apply complex management systems at both Army and Defense levels have risen steadily.

Current Army Management Training

5. Branch Schools. Continental Army Command (CONARC) common subject training requirements in personnel and financial management have been established in branch school career and associate career courses. Logistics management is included to some extent under other mandatory subjects such as supply in the basic course; maintenance management at both basic and career course levels; and division supply, service, and transport operations in the career course. Under the CONARC concept of subject proponency (see Appendix 3), the Adjutant General and Finance Schools are assigned monitorship for personnel and financial management respectively. The Army Management School (AMS) was assigned proponency for general management training until May 1965 when the scope of its instruction was reoriented to the installation level. While general management, analytical techniques, installation management, and comptrollership are not today required subjects in branch schools, several schools provide some instruction at their own option. The wide variance in instructional hours reported by branch schools in three broad management areas is depicted in Figure D10-1. Although the Board's questionnaire required arbitrary identification of academic time in the reporting categories, the information is indicative of areas of emphasis and trends in the schools. Materiel management, only one segment of the broader logistics management field, was interpreted by some schools in the broader context. Further discussion of logistics training will be found in Appendix 13.

6. Service Colleges. Hours of instruction for the three functional management areas reported by the Army colleges are:

	<u>Personnel Management</u>	<u>Financial Management</u>	<u>Material Management</u>
C&GSC (Regular Course)	10	15	9
C&GSC (Associate Course)	10	0	9
Army War College	33	48	47

Total time devoted to management instruction at the other senior service colleges varies from 15 hours at the National War College to 780 hours at the Industrial College of the Armed Forces. The data should be considered only as an order of magnitude, since the Board questionnaire was interpreted differently by the various senior service colleges.

Specialist Courses

7. Specialist courses offered at Army branch and specialist schools are described in Annex B, Appendices 4 and 6, and analyzed in Annex D, Appendix 6. Figure D10-2 tabulates the primary Army school management training sources and provides an insight into the magnitude and diversity of the training. This codification, complicated by multi-purpose course scopes and title ambiguities, required arbitrary categorization of courses based on their major thrust. For example, "management" appears in course titles at 11 Army schools in conjunction with such subjects as open mess, specifications, industrial security, disposal, research and development, procurement, construction, traffic, maintenance, medical, depot, installation, post engineer, personnel, finance, and logistics. On the other hand, numerous courses without "management" in their titles are of direct or peripheral interest to managerial personnel.

8. Joint and Defense schools provide an assortment of courses (see Annex C, Appendix 1) in various management disciplines and subjects. Many are multi-purpose and are attended by different categories of management personnel. Ranging from one week to one year in length, they include: the Institute of Defense Analysis program, the Defense Management Systems Course, the Defense Weapons Systems Management Course, the Defense Advanced Traffic Management Course, approximately 40 courses at the School of Systems and Logistics, and three courses at the PERT Orientation and Training Center.

9. Hundreds of courses, covering a wide range of management activities, are offered by other government agencies and civilian institutions. Although used for officer training, they are too numerous to list.

MANAGEMENT COURSES AT ARMY SCHOOLS

CATEGORY	SCHOOL	NR. OF COURSES	COURSE DURATION
GENERAL MANAGEMENT	AMETA	8	2½ days - 2 weeks
	ALMC	2	2 weeks
	Quartermaster	1	3 weeks
FUNCTIONAL MANAGEMENT Personnel Mgt	Adjutant General	3	3 - 5 weeks
Financial Mgt and Comptrollership	Finance	5	3 - 6 weeks
	AMETA	1	1 week
	Quartermaster	1	1 week, 2 days
Installation Mgt	Army Mgt	1	3 weeks
	ALMC	1	1 week
MANAGERIAL ANALYTICAL TECHNIQUES	AMETA	3i	1½ days - 8 weeks
	ALMC	1	2 weeks

FIG. D10-2

Graduate Civil Schooling

10. Approximately 36% of 931 officers currently pursuing graduate studies are enrolled in selected business administration and engineering courses related to the management field. Currently validated requirements for these two disciplinary areas are 593 and 89 respectively. Twenty-nine officers included in the above totals are enrolled in the Army Comptrollership School, established at Syracuse University in 1952. This specially developed program leading to a Master of Business Administration degree is based on studies in public and business administration, with emphasis on the military and industrial management and comptroller aspects of effective use of resources. Twenty colonels, considered potential future senior commanders and staff officers, are selected each year to attend advanced management courses at either Harvard (13 weeks) or Pittsburgh (eight weeks) Universities.

DISCUSSION

General

11. The spiralling increases in management training are illustrated by developments at the Army Management Engineering Training Agency (AMETA). AMETA was established in 1952 with nine courses. During the past five years alone, course offerings expanded from 36 to 53; student load climbed from 2,500 to 6,500 annually, and a load of 9,000 is programmed for FY 1967. Over 40,000 students have participated in courses to date. Despite these trends, a negative reaction toward management and management training has appeared, attributable in part to imposed management systems and the nature of current management courses. Some find it difficult to associate large-scale training requirements in nebulous business-associated management techniques and practices with the Army's primary combat role. Others compare management training with normal course patterns in other fields and challenge the validity of frequent attendance at short, fragmented, unstructured, duplicative courses that are not always job-oriented.

12. Some criticism is justified, while some represents a lack of awareness of the changing role of management. As indicated in Annex D, Appendix 12, the advent of electronic computers and automated information handling techniques has created a revolution in managerial concepts, reversing organizational and operational trends of long standing. In the years ahead, further centralization of control and decision-making authority can be anticipated. Requirements for training in management skills will continue, not only for upper level assignments but in the lower echelons as well. Earlier identification and development of personnel with potential managerial competence will be necessary.

General Management Training

13. The correlation of management with command and leadership is discussed at length in Appendix 9. Training in general management should be closely intertwined with command and leadership, although subject emphasis will vary by branch. While benefits are derived from instruction in general management, competence results from the cumulative effect of usage during systematically planned career assignments. Schooling normally presents an orientation to the subject, imparts a limited amount of knowledge, and initiates a course of training and discipline. The most important function is to help individuals realize the importance of continuing to educate themselves and to apply basic management principles on the job. Despite the limitations of formal training, the Board substantiates the requirement for providing general management instruction in career schools.

14. Current coverage of general management at branch school career courses varies considerably in hours (zero to 73), scope, and quality of instruction. Management instruction is also provided at the Command and General Staff College (C&GSC) and the Army War College (AWC), although the large number of different topics included in their curricula permits only limited coverage of general management per se. This subject lends itself admirably to the progressive electives program proposed in Appendix 26. A management option could be offered, patterned after the American Management Association "Management Course." Although the exact details of these Army-oriented elective units would have to be developed, they could cover "Basic Principles, Skills and Tools of Management" in Unit One in the career (advanced) course, to include organizational analysis, work measurement, and statistics, while Unit Two, under the title "Staff and Command Managerial Processes," at C&GSC, could incorporate the quantitative tools of management such as cost effectiveness, planning and control techniques, and techniques for reviewing and improving performance. Instruction should employ such techniques as case studies, role playing, and group dynamics.

15. AMETA and civilian institution training is characterized by a large number of short fragmented courses presenting single subject instruction for a period of several days to one or two weeks. While still popular in private industry, too often they develop the reputation of being "charm" courses, regardless of the validity of the subject matter. The obvious virtue of this type training is the brief period of time a student is off the job. Disadvantages include difficulties in structuring progressive educational patterns for managers, lack of student evaluation, and impracticability of providing individual remedial work for the slow student or challenge to the outstanding individual. Course costs rise when travel expenses must be amortized in a few days.

a. In recognition of growing Army requirements for developing competence in management, the Board considers that related short courses, particularly those of one week's duration or less, should be consolidated into instruction covering two or three weeks to permit structuring of courses for progressive development and the evaluation of student performance. Examples of related instruction which could be combined are: Principles and Application of Value Engineering with Managing the Value Engineering Program; New Organization Concepts for Top Management with Organization Planning; Probability Controls in Management with Operations Research Appreciation; and Real Time Systems with Data Processing and Profitability Studies and ADP for the Systems Analyst.

b. One of the consolidated offerings should be a comprehensive management course of not to exceed two months' duration to qualify selected officers and civilians for key managerial positions. The

course should be Army problem-oriented and patterned along the lines of a modified version of the American Management Association "Executive Action Course," with emphasis on the practical application of management principles, practices, and techniques. Pertinent instruction from current AMETA courses could form the basis for the course, including the Top Management Seminar, Managerial Communications, New Organization Concepts for Top Management, Organizational Planning, and some managerial analytical techniques such as PERT, Probability Controls, Operations Research Appreciation, Management Statistics, and Work Methods and Standards. The Board considers that this course should be conducted by the AMETA, pending establishment of the proposed Army Resources Management Institute (ARMI) discussed in Appendices 13 and 21. Development of this course would permit the Army to reduce the number and frequency of short specialist courses, reduce dependence on costly external source schooling, direct instruction toward specific Army requirements, and provide an in-house capability for the career development of potential managers.

16. Advanced management courses at Pittsburgh and Harvard Universities, although oriented primarily toward civilian industry, are beneficial. The courses not only enhance the general management competence of senior Army officers but also develop relationships between the military and civilian participants which contribute to a fuller understanding of each other's problems. Continued attendance at these courses is warranted, although at a reduced level after the establishment of the proposed Army in-house course.

Personnel Management Training

17. Despite the fact that the majority of newly commissioned officers have had little or no prior experience in personnel supervision, they are responsible for "managing" personnel starting at their first assignments. Faced with immediate and direct contact with his enlisted personnel, the young officer as mentor to his troops is expected to be generally familiar with Army personnel policies and procedures. Yet most officers properly acquire the bulk of their knowledge of military personnel management through on-the-job experience over a period of years. The dichotomy is obvious. Branch school basic courses must provide the fundamentals of personnel management emphasizing practical instruction appropriate to the type and level of personnel actions officers will encounter upon graduation. As officers progress in career schooling, personnel management instruction related specifically to organizational levels included in course objectives should be provided.

a. In many cases, instruction in career schooling has been too theoretical and frequently gives insufficient attention to enlisted

personnel matters. While not a CONARC common subject requirement for basic courses, all but four branch schools provide some personnel management instruction, although with wide variances in the hours and scope of subject coverage, in both basic and career courses. The AG School should continue to provide comprehensive coverage of personnel management in its basic and career (advanced) courses. Instruction at other branch school basic courses, geared specifically to the needs of platoon leaders in troop-oriented branches, should provide a practical orientation in Army personnel management and cover principal personnel records, with emphasis on enlisted proficiency tests, commander's evaluation report, and officer efficiency reports. Graduates of these courses should be sufficiently conversant with the practical aspects of these subjects to start their initial assignments without trepidation.

b. Career (advanced) courses should offer a minimum of 16 hours' instruction on the commander's or manager's role, as applicable to various branches. Instruction should include the functions of personnel staff officers to enable graduates to render effective service as S-1 at battalion through brigade level, and Assistant G-1 at division level. Emphasis should be accorded to personnel utilization procedures, including techniques for recognizing outstanding and deficient performance of duty. Use of case studies and role playing will enhance this instruction.

c. Coverage of personnel management at Army colleges is generally adequate and appropriate. The C&GSC estimates that approximately 50 hours are devoted to the overall personnel/G-1 field. However, the integration of this instruction with other subjects in staff, command, operations, and map exercises makes it difficult to identify specific hours of personnel management. A personnel management elective at the C&GSC might logically provide expanded coverage of personnel staff officer functions. Because of prior intensive study of this area, AG officers should pursue other electives such as general management (see paragraph 14). The curriculum at the AWC adequately covers personnel management and requirements and the capability of US manpower and reserve forces to support limited or general mobilization under all conditions of warfare. No changes are recommended.

18. The three specialist courses available at the AG school for officer personnel management training have no undesirable overlap in subject matter and are generally adequate.

a. Comments from some students and field commanders indicate a possible requirement to revise the Personnel Management Officer (PMO) Course to broaden instruction on personnel staff functions and to reduce coverage of classification and assignment techniques. Over 60% of the students in this field grade course are non-Adjutant General Corps

officers; approximately 71% are in Table of Distribution units, primarily engaged in personnel type assignments. The program of instruction should be reviewed to insure that it meets the requirements of these students. New developments in automated information handling and retrieval systems eventually will require revision of personnel management courses to incorporate more instruction on these techniques.

b. Two courses are available in the manpower analysis field. The three-week AG School Manpower Control Officer Course covers the full range of Army manpower management, including the principles and procedures employed in the control, distribution and utilization of manpower resources. The four-week AMETA Manpower Validation Course is taught exclusively for the US Air Force and concentrates on the tools for developing standards, including work sampling and measurement, methods study, and other statistical techniques. Both of these Service-oriented courses appear warranted, and consolidation is not considered appropriate. However, increased emphasis and instruction on work measurement techniques should be incorporated into the AG School course.

Financial Management Training

19. Financial management, comprising a portion of the functions associated with the comptrollership field, is utilized in a narrower fiscal/accounting role in other positions. Although prescribed as a USCONARC common subject requirement, the hours and quality of coverage at branch schools vary widely and frequently leave much to be desired. The indifferent "lip-service" treatment often accorded this subject is demonstrated by the short, uninspired lectures used to present the instruction. If covered in course examinations, it is usually on the basis of a few memory recall questions. It is doubtful that officers gain an understanding of budgeting, accounting and related financial management processes through the limited exposure in career courses.

a. The coverage should be revised to sharpen the focus of instruction, particularly in courses offering less than ten hours on this subject. Instruction should embrace cost reduction and effectiveness and the impact of source data automation and automatic data processing (ADP) on data handling, availability, and analysis. Subject coverage should be directed toward creating an empathy for the financial management processes officers will encounter in their duties. Attempts to provide a general survey of all fiscal activities or develop narrow specialized area technicians should be avoided. The Finance School, as the proponent, should offer branch schools full assistance in developing instructional material.

b. The C&GSC's demonstration technique for presenting a quarterly review and analysis is commendable, but the remainder of its financial management instruction appears to be too diffused among other management topics. Increased emphasis should be given to providing an appreciation of the elements of the Five-Year Force Structure and Financial Program and the budget and programming process as related to force planning. Financial management instruction at the AWC is comprehensive; no changes are recommended.

20. The Finance School career course satisfactorily qualifies Finance Corps officers for assignments in the financial management field. Specialist courses at the Finance School, if adequately attended, would meet requirements for training officers of other branches in financial management duties. No appreciable undesirable overlap was noted in Army courses, although orientation seminars and workshops conducted by other government and civilian agencies such as the Civil Service Commission and the American Management Association do have this deficiency.

Comptrollership Training

21. Although comptroller-type duties have always been performed in well managed organizations, the rise of the field as a separate entity is of recent (1948) origin. Comptrollers are still not authorized in Table of Organization units, except upon special augmentation to Support Commands, and comptroller functions in combat areas are not clearly delineated. Originally staffed to a great extent with narrowly-trained, disbursing-oriented accountants, comptrollership has matured and expanded to its present broad role, utilizing personnel skilled in a wide range of managerial techniques. Comptroller duties are to "advise commanders on past, present, and proposed use of resources in order to promote effectiveness, efficiency, and economy in accomplishing assigned missions, and to assist commanders in programming and budgeting matters." As of 30 June 1965, there were 1,163 officers in comptroller and associated duty assignments throughout the Army. Trends toward increased use of ADP for centralized data analysis and decision-making portend future expansion of the comptroller field, although the number of officers ultimately assigned may be reduced as a result of the recent Department of Defense military-civilian substitutability plan which identifies comptroller positions as susceptible to conversion.

22. Relatively little instruction is offered within the framework of sequential officer career schooling to qualify officers for comptrollership assignments. The Finance School career (advanced) course provides 155 hours of comptroller type subjects, including the major subject matter of the separate 230-hour Military Comptrollership Course (discussed below), as well as 284 hours in military accounting, of which

114 hours are devoted to ADP. Comptrollership instruction at other branch schools and the Army colleges varies from none to partial or superficial treatment of comptroller-related subjects as partially discussed in paragraph 19. Since comparatively few officers are assigned to comptroller duties during their careers, no change in comptroller-type instruction at career courses is recommended. However, subject matter being taught should be reviewed to insure that it incorporates the latest information on Army managerial systems and techniques. Recognition should be given to the current and expanding impact of ADP on this field and instruction correlated with the ADP coverage recommended in Appendix 12. Comptroller instruction, covered briefly at the C&GSC, should be given more emphasis by separate treatment as a general staff function. Comptrollership instruction at the AWC satisfactorily examines the DOD programming and budgeting concepts, the DOD program system, and review and analysis. Instruction is appropriate to this level of schooling; no changes are recommended.

23. A six-week Military Comptroller Course is conducted at the Finance School to provide officers and civilians with a working knowledge of the principles and practices of comptrollership and the utilization of techniques and procedures in the performance of comptroller functions within the Army. Prerequisites for attendance are captain/GS-9 or above, with actual or anticipated assignment to duties which require a knowledge of comptrollership.

a. Analysis of recent student attendance indicates that prerequisites are too loosely phrased and interpreted; classes have included, for example, personnel assigned to accounting, audit, budget and contract specialist positions. In each of the last three classes, waivers were granted to lieutenants or civilians below GS-9. Classes were approximately equally divided between military and civilians, with a wide grade spread ranging from lieutenant through colonel and GS-7 through GS-13. Finance Corps officers comprised 39% of the US Army officer students. Closer adherence to prerequisites is desirable to assure a more homogeneous student body, sharing commonality of job interests in the complete spectrum of comptroller activities. Finance Corps officers receive the major elements of this training in their branch career (advanced) course and should not normally attend this specialist course.

b. Some opinion was received by the Board that the course dwells excessively on detailed accounting procedures and is not general staff-oriented. The instruction should be reviewed in detail to determine whether a broader approach is warranted. Attendance at the course should be utilized, in conjunction with subsequent on-the-job training, for initial training of non-Finance Corps officers selected for comptroller assignments without prior equivalent experience.

24. Other short specialized courses at the Finance School, available for training for specific assignments, are fulfilling their objectives.

25. Officers have participated in graduate civil schooling in comptrollership and general management at Syracuse University since 1952. Regular research by Syracuse faculty members to develop and maintain Army-related instruction, combined with close coordination of curriculum between the university and the Office of the Comptroller of the Army, has kept this education closely attuned to Army comptrollership problems and requirements. This program should be continued along the general lines of its development to date.

26. Comptrollership has experienced difficulty in retaining qualified officers. The lack of a progressive career pattern with clearly identified developmental and utilization positions causes frequent loss of officers in this field after schooling and a single comptroller assignment. This wasteful use of school-trained officers should be corrected by the establishment of a comptroller specialization program under the direction of the Deputy Chief of Staff for Personnel in coordination with the Comptroller of the Army.

Installation Level Management

27. The report on Project AIM (Army Installation Management), 1 December 1964, criticized aspects of installation level management training and recommended corrective action. Some progress has been made, although further improvement is needed.

a. Responsibilities for all aspects of resource utilization are reflected in installation level management positions. Despite the increasing importance of this field, relatively little training has been provided in the past at career schools. Faced with overcrowded curricula and concerned primarily with subjects contributing more directly to the Army combat role, schools have slighted instruction in installation management. Since the majority of officers performing key installation duties are not normally senior service college graduates, instruction in this field must start at branch career courses. Recommendations for coverage are treated separately under the various functional management subjects. Installation management local elective options should be offered in the career courses of branches most closely associated with installation operations as well as at the C&GSC. Career schooling instruction, combined with knowledge accumulated during normal career development and progression, should be topped off with specialist courses and on-the-job training for officers selected for key installation-level management assignments.

b. In May 1965, CONARC directed that a three-week Army Installation Management course be established at the Army Management School (AMS) for installation commanders and staff members, with particular reference to Class I installations, to provide practical training in improving management of Army resources, increasing unit readiness, and reducing operational costs. The new course replaced the former three-week more generalized Army Management Course; it is being conducted through FY 66 pending review to determine its future status. The curriculum, generally well received by students, is still being improved. While it is questionable whether all participants to date have been the type for which the course was designed, training requirements are valid and an Army Installation Management Course should be continued. No conflict is seen between the scope and level of this Army installation-oriented instruction and the longer Defense Management Systems Course at the Naval Postgraduate School, which is directed toward DOD-wide planning, programming, budgeting and cost effectiveness techniques for personnel at major command and higher echelons.

c. Justifications to retain the former management course in separate live-in facilities close to Washington, D. C. are no longer valid. Requirements for day-night total immersion relationships among students and geographic proximity to high-ranking guest speakers diminished with the change in focus of the course to installation level. Objectives and subject matter are now related to courses at the Army Logistics Management Center (ALMC). In fact, ALMC conducts a one-week course entitled Installation Logistics Management. Centralization at one facility of courses with a commonality of purpose is logical from every standpoint. Consideration should be given to consolidating the courses at the proposed Army Resources Management Institute at Fort Lee, and to discontinuing the AMS and releasing its facilities at Fort Belvoir for other uses. The unique aspects of the current ALMC one-week installation course could be combined with the curriculum of the AMC course, thereby eliminating one of the two. CONARC should be afforded full opportunity for review of the consolidated course to insure complete responsiveness to its installation management requirements.

Managerial Analytical Techniques Training

28. During the past few years, the management field has been beset by a rash of newly acclaimed analytical techniques, all purporting to solve management's ills. Many have proven to be valuable aids for improving operations; others were overpublicized fads which reached their peak and slowly disappeared. The Department of the Army Letter on Management Practices, October 1963, identified 96 management skills and techniques; others have come and gone since that date. Short courses, developed to promulgate many of the new techniques, tend to

become self-perpetuating and grow in numbers each year. Proliferation of essential courses is not challenged, but the economy of school courses that often involve travel and disruption time exceeding course length is questionable. Prime examples of "quickie" classes are the three-hour Executive Orientation at the PERT Orientation and Training Center in Washington, D. C. and the one-day Contractor Performance Evaluation at AMETA. Twenty-seven other courses ranging from one-and-one-half days to one week are currently offered by AMETA. The vast number of potential training permutations for attendance at these courses and comparable military, governmental, and civilian courses complicates the development of training estimates and sequential training patterns.

29. AMETA courses enjoy an excellent reputation in the Military Services and in industry. Some overlap among courses was noted but probably is inherent under the present concept. Regardless of the outcome of the proposal in paragraph 15 for a comprehensive management course, a continuing requirement will exist for some short courses in analytical techniques. To reduce repetitious travel to these courses, related subjects should be combined wherever possible. Courses should be structured to provide for sequential development of personnel who are assigned to management positions but did not select management elective courses during career schooling or attend the comprehensive management course. Increased use should be made of extension courses and on-site presentations by traveling teams. Application of the teaching innovations discussed in Appendix 24 would also be appropriate, e.g. programmed instruction, closed circuit television, TV tapes, and training films.

Subject Proponency

30. The CONARC concept of assigning to a particular school responsibility for development and review of instructional material primary to its area of academic interest has merit for across-the-board application throughout the Army school system. Proponency in the context employed by CONARC involves annual distribution of instructional packets to applicable schools and their use as may be considered appropriate by individual school Commandants. It does not impinge on command relationships, and, therefore, could be applied to schools of different major commands, under overall supervision of the Department of the Army (DA). Pending establishment of ARMI, the Board considers that the DA should designate AMETA as the proponent institution for general management and managerial analytical technique subjects, and the AMS for installation management.

CONCLUSIONS

31. Emphasis on management practices and techniques has resulted in a proliferation of courses and spiralling increases in student loads to meet demands for qualified personnel. Early identification and development of officers with potential managerial competence is needed to meet continuing requirements.

32. General management instruction, intertwined with command and leadership and varying in subject emphasis by branch, should be provided in officer career schooling. Management electives should be offered at career (advanced) courses of certain branch schools and the Command and General Staff College.

33. A comprehensive Army-oriented management course, not to exceed two months in length, should be conducted to train selected officers and civilians for key managerial positions. The structuring of pertinent material from existing Army Management Engineering Training Agency courses into a consolidated course should permit reduction in the number and frequency of short specialist courses, concentrate instruction on specific Army problems, and reduce reliance on costly non-Army school sources.

34. Branch schools should provide instruction in personnel management, to include enlisted personnel procedures, related specifically to organizational levels included in course objectives. Basic courses should provide a practical orientation in Army personnel management and cover principal personnel records. Career (advanced) courses should offer instruction on the commander's or manager's role, as applicable to various branches, in personnel management operations, and on the functions of personnel staff officers at battalion through division level.

35. The Personnel Management Officer Course at the AG School may warrant reduced coverage of classification and assignment techniques and an increase in instruction on personnel staff functions. The course should be reviewed to insure that it meets the requirements of the majority of students pursuing this specialist instruction.

36. Career schooling financial management instruction requires sharpened focus, particularly in courses offering less than ten hours. Subject coverage should provide officers with an understanding of financial management processes, including cost reduction and cost effectiveness and the impact of source data automation and automatic data processing on financial management.

37. The curriculum of the Military Comptrollership Course at the Finance School should be reviewed in detail to determine whether a broader approach is warranted. The course objective should be stated more explicitly and attendance prerequisites enforced to provide for a more homogeneous student grouping. Finance officers who are graduates of their career (advanced) course should not attend.

38. A Comptroller Specialist Program should be established under the direction of the Deputy Chief of Staff for Personnel in coordination with the Comptroller of the Army to enhance identification, progressive development, and retention of qualified officers in this field.

39. Although instruction in installation level management has improved since publication of Project AIM, further emphasis should be accorded this area in officer career schooling. Elective options should be offered in career (advanced) courses of branches most closely associated with installation operations as well as at the Command and General Staff College.

40. The Army Installation Management Course should be continued, but relocated to Fort Lee and incorporated within the Army Logistics Management Center (which the Board has proposed elsewhere be renamed the Army Resources Management Institute). The Continental Army Command should be afforded full opportunity for review of the consolidated course to insure complete responsiveness to its installation management requirements. Vacated Army Management School facilities should be released for other use.

41. The proliferation and use of short courses for managerial analytical techniques, particularly of less than one week's duration, is generally uneconomical and should be curtailed wherever possible. Related courses should be combined and structured to provide for sequential career development. Increased use should be made of extension courses, on-site presentations, and the latest teaching innovations.

42. The CONARC concept of designating proponent schools for common subjects should be extended throughout the Army school system. Pending establishment of the Army Resources Management Institute, the Department of the Army should designate the Army Management Engineering Training Agency as the proponent for general management and managerial analytical technique subjects, and the Army Management School for installation management.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 11

OPERATIONS RESEARCH/SYSTEMS ANALYSIS EDUCATION AND TRAINING

PURPOSE AND SCOPE

1. The purpose of this appendix is to analyze current operations research/systems analysis (OR/SA) education and training, compare qualitative and quantitative OR/SA personnel requirements with resources and available educational programs, and recommend adjustments in light of current and anticipated requirements.

BACKGROUND

General

2. In the past 20 to 25 years, a pattern of analysis has evolved which provides a disciplined approach to evaluating operational concepts. This pattern has developed into applied technologies frequently called operations research and systems analysis.

3. Both operations research and systems analysis use interdisciplinary techniques and seek to provide a quantitative approach to decision-making. If a variation in philosophy exists between the two, it is the emphasis systems analysis accords to economic rather than operational variations and its more permissive attitude toward empirical factors. The techniques may vary but OR and SA are supplementary in nature.

4. The requirement to develop OR/SA expertise has been emphasized by recent Congressional statements critical of the amount of money required for contract studies. The expressed Congressional desire is for reduction of appropriations for support of such studies, at a time when requirements seem to be increasing rather than diminishing.

Degree Requirements

5. Army positions requiring graduate degrees in OR/SA are identified by field commands and agencies on a case-by-case basis. A consolidated list of these positions is submitted to the Army Educational

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**USMA ELECTIVE COURSES
INVOLVING CONCEPTS AND TECHNIQUES OF OR/SA**

PRINCIPAL COURSES

Linear Algebra & Linear Programming
Numerical Analysis with Digital Computation
Applied Economic Theory *
Defense Economics & Public Finance *
Management Engineering
Operations Research
Computer Science Fundamentals

ASSOCIATED COURSES

Managerial Psychology
National Security Problems
Digital Computers
Information Transmission
Automatic Control Systems
Abstract Algebra
Individual Engineering Project
Individual Ordnance Project

* To be offered in FY 1966-67.

FIG. D11-1

Requirements Board (AERB), whose functions are described in Annex B, Appendix 7. For 1965-66 the AERB validated a total of 116 positions requiring graduate degrees in OR or SA, double the requirement of 1963-64.

Systems Analysis Specialist Program

6. An informal SA Specialist Program was initiated in late 1964 to identify specific positions requiring officers trained in OR/SA and to coordinate assignments of officers to these positions. As of 1 December 1965 the Specialist Program had identified a total of 175 OR/SA positions in the Office of the Secretary of Defense (OSD), the Office of the Joint Chiefs of Staff, the General Staff, and the Combat Developments Command (CDC). The Army Materiel Command (AMC) requirements have not been developed as yet. The position requirements associated with the SA Specialist Program have not as yet been validated by the AERB.

7. As of November 1965, 109 officers were participating informally in the SA Specialist Program, of whom 60 were colonels/lieutenant colonels, 39 majors, and only 10 captains. Nearly all of these 109 officers had received masters degrees or a doctorate in OR/SA or in closely related fields.

Current Education and Training Programs

8. Army officers may participate in four types of OR/SA-oriented education and training programs: instruction included in officer career and specialist courses in Army schools; participation in other Service, Defense and government courses; graduate schooling in civilian colleges and universities; and on-the-job training.

9. Army Schools

a. The US Military Academy (USMA) provides cadets with a solid base for advanced OR/SA education. The standard and advanced studies programs, described in Annex B, Appendix 3, include more than the equivalent of 13 credit hours of OR/SA. In addition, there are a number of available elective courses involving OR/SA concepts and techniques, as shown in Figure D11-1.

b. There is no OR/SA instruction in the officer basic course. Only seven branch schools include : in the career (advanced) course, as shown in Figure D11-2.

CAREER COURSE OR/SA INSTRUCTION IN HOURS

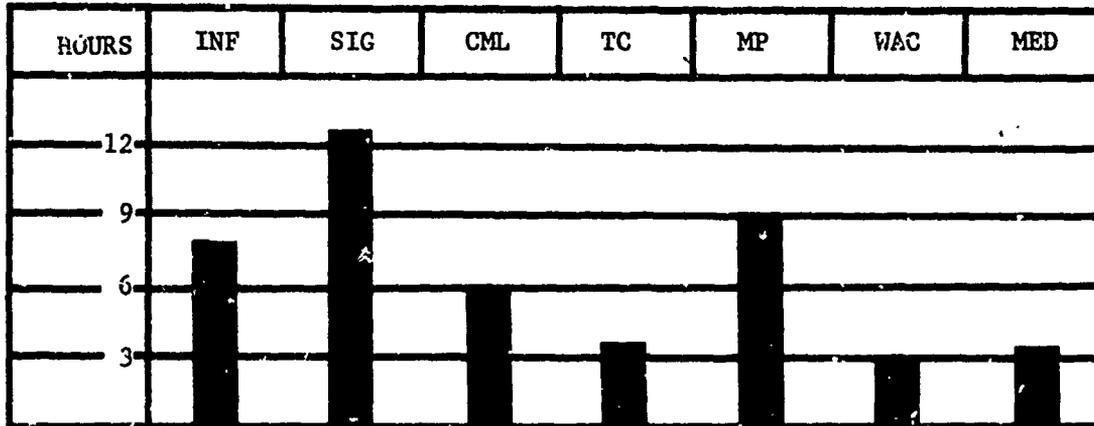


FIG. D11-2

c. The US Army Command and General Staff College (C&GSC) devotes only one hour in its regular course to OR/SA as such. However, 12 hours are devoted to instruction in selected management control techniques and war gaming. Reference to OR/SA techniques can be found in other courses throughout the curriculum.

d. The Army War College devotes approximately 12 subject hours to OR/SA, principally in the four-day Command Management Seminar which includes the theory and principles of decision-making, techniques of OR/SA, and war gaming concepts.

e. The US Army Management Engineering Training Agency (AMETA) conducts six courses designated as OR/SA, ranging in length from one to eight weeks.

f. The US Army Logistics Management Center (ALMC) has no course designated as OR/SA; however, OR/SA logistics management techniques are included in a number of the courses conducted.

10. Other Service, Defense, and Government Courses. There are opportunities for OR/SA study in several other Service, Defense, and government education programs. Graduate degree level courses are available at the Naval Postgraduate School, Air Force Institute of Technology (AFIT), and the Institute of Defense Analysis (IDA). Fourteen Army officers were attending these three courses as of

November 1965. The Civil Service Commission and several other government agencies conduct short orientation OR/SA courses ranging in length from one day to eight weeks.

11. Civilian OR/SA Degree Programs. At least 15 universities in the United States offer graduate education OR/SA courses. In 1965 there were 21 Army officers enrolled in civilian degree programs in seven of these schools. The growth of the SA Specialist Program is exemplified in the fact that this year's enrollment is 50% greater than the total number of Army officers who received graduate degrees in OR/SA during the ten preceding years.

12. Other Civilian Training. Training in OR/SA is also available in a short appreciation course at Stanford Research Institute (SRI) and through assignment with operations research groups under contract to the Army. The SRI course is of several weeks' duration and is designed to prepare officers who are assigned to the Combat Developments Command Experimentation Command (CDCEC) for work in controlled and instrumented field experiments. Duty with contract study groups provides practical training for a limited number of officers.

DISCUSSION

General

13. From a modest beginning, OR/SA has become an integral part of the Army's decision-making process. It is in fact an extension of the estimate of the situation, with analytical tools added to sharpen the ability to discriminate among alternatives and provide a more rigorous evaluation of evidence and assumptions. The nature and complexity of the problem and the time available for analysis will dictate the degree of analytical elegance.

14. In general, OR/SA provides an analytical foundation for making a choice among alternative means of carrying out a mission. Although a degree of specialized training is required to develop OR/SA competence, it is a tool of the generalist who will be called upon to make fundamental decisions involving strategy and tactics, objectives, weapons systems, and force levels. In fact, the operating instructions promulgating the Systems Analysis Specialist Program call for "officers of proven operational ability."

Levels of OR/SA Training

15. Since the majority of Army officers, particularly of the combat arms and technical services, are involved to varying degrees in solving

operational problems, OR/SA has an almost universal application. Although not all officers require or are uniformly prepared to absorb the same degree of technical training, all should be acquainted with the techniques and, ever more important, with their application.

16. The Board has explored the problem of establishing three levels of OR/SA education for Army officers. The highest would be at graduate degree level with the objective of developing a group of "hard core" specialists who have the ability to initiate and conduct independent OR/SA studies. The objective of the next level of training would be to develop the practical working skill with OR/SA techniques required for executive supervision. This would include the ability to participate in OR/SA studies and to evaluate professional work, particularly the appropriateness of the selected model to the problem to which applied. The lowest level, applicable to all officers, would be familiarization with OR/SA techniques and approaches to military problems and sufficient applicatory training to induce an inquiring and analytical attitude towards military operations and force development.

OR/SA Specialist Program Requirements

17. As of December 1965, the validated positions for OR/SA-qualified officers were in the following grades:

VALIDATED OR/SA POSITIONS BY GRADE

COLONELS	24
LT COLS	63
MAJORS	24
CAPTAINS	4
LTS	1

FIG. D11-3

The base is obviously inverted, since OR/SA positions at bench level (major and lower) amount to only 29 positions, while 87 are to be filled by colonels/lieutenant colonels. An officer should not be sent back to college to get a degree in a demanding technical discipline after 15 or more years service. The Army does not derive full benefits from training received this late in an officer's career, and he is handicapped in embarking on rigorous educational effort after such a long absence from the campus. These senior officer positions, therefore, should be filled on a reutilization rather than an initial tour basis.

18. To accomplish this reutilization, the SA Specialist Program should be formalized under the direction of the Deputy Chief of Staff for Personnel in coordination with the Assistant Chief of Staff for Force Development; and a phased input established to meet growing requirements and provide a proper grade structure. Based on current trends, the Board estimates that at least 100 OR/SA supervisory positions in colonel/lieutenant colonel grades will be validated by 1970. To support these 100 senior positions, a base of 300 junior officers is required today.

19. In developing this junior officer base, the optimum formal school training period is between the officer's fourth and eighth years of service. Thus, officers entering OR/SA formal training would serve an average period of ten years before promotion to lieutenant colonel. Based on a five-year cycle of two years of training and a three-year initial utilization tour, a 300 man pool would require an average annual input of 60 officers into the OR/SA degree program. This would provide 180 junior officers at the bench level at any given time.

OR/SA Specialist Level Training

20. The Army could elect any one of several courses of action to meet its OR/SA specialist requirements. It could develop an in-house degree-granting capability paralleling that of the Air Force and Navy. It could continue to employ a rather extensive list of university degree-granting courses. It could establish close working relationships with selected universities to develop degree courses demanding high academic attainment but adjusted to reflect Army requirements. As a supplementary measure in lieu of graduate training, the Army could develop more extensive on-the-job training (OJT) programs with contract research organizations.

21. As discussed in Appendix 19, the Board would prefer not to establish in-house degree-producing institutions as long as civilian universities can meet Army requirements. At the same time, it notes that OR/SA courses offered at the average civilian institution are frequently industrially oriented, providing instruction in marketing and other activities with little or no military application. The Board considers the best solution would be establishment of graduate courses

at a limited number of civilian universities tailored to Army requirements. A West Coast university in reasonably close proximity to the CDCEC would provide an excellent academic and experimental environment for OR/SA graduate training. A university in the vicinity of Fort Bragg and the Army Research Office at Durham, North Carolina, would have similar advantages. The University of Michigan, although remote from major military centers, has demonstrated faculty competence and interest in OR/SA and is considering the inauguration of an additional degree program in this field oriented toward military problems. With the development of an Army-oriented OR/SA program in selected universities, attendance at other civilian institutions could be phased out. Presumably they would remain available to provide the Army with an overflow capability to meet unexpected requirements. In the interest of cross-training, the Army should continue to send a representative group of officers to the Naval Postgraduate School, AFIT, and IDA.

22. On-the-job training should be used, in lieu of degree programs, for both the specialist and executive level training. The Research Analysis Corporation and Stanford Research Institute have indicated a willingness to participate in OJT programs to consist partly of formal training through lectures, tutorial conferences, seminars, panels, and study assignments; and partly of practical training through the assignment of the officers to the RAC or SRI technical staff for work on Army studies.

OR/SA Executive Level Training

23. OR/SA validated requirements represent only a small fraction of all officers actively engaged in this field as a primary duty. Using the largest OR/SA program customer, CDC, as a sample, of 168 officers identified as members of the headquarters Developmental Staff only 23 are validated, approximately one in each seven positions. Although this seven-to-one ratio obviously does not obtain in all instances, it is apparent that a sizeable number of officers require an executive level skill. A progressive OR/SA elective program (see also Appendix 26) in officer career schooling appears to be the most effective way for the Army school system to offer this executive level training.

24. The Board has examined briefly the number of officers who might appropriately be involved in such an elective program. While this examination does not pretend to be exhaustive, it did indicate a general requirement for some 2,000 to 3,000 officers or approximately 20% of branch school career (advanced) course, C&GSC, and Army War College students in the combined arms and technical services branches to take an OR/SA elective. Participation on this scale would result in an available pool of more than 3,000 officers with executive level training in a five-year period.

25. Based on the experience of institutions engaged in OR/SA instruction, at least 60 to 120 hours are required to impart useful OR/SA training beyond the familiarization level. Ninety hours would strike a balance and would approximate the 60-hour Basic Course in Operations Research offered at Ohio State University plus a limited period for practical OR/SA application.

26. Students would be expected to continue in the same elective program progressing from the career (advanced) course through the Army War College. This should be sufficient to provide executive level training appropriate to the student's grade and anticipated responsibilities at each level. A brief of possible subject areas in a progressive OR/SA elective is outlined in Figure D11-4. The Board considers that the degree program in Military Art and Science at the C&GSC (see Appendix 4) could be further strengthened by progressively introducing requirements for employing OR/SA techniques into the course. The associated thesis program provides an opportunity for application of these techniques.

OR/SA Familiarization Level Training

27. Although the USMA provides an excellent OR/SA foundation, since its graduates constitute only a small percentage of the total officer production the net effect is limited. It would be inappropriate for the branch schools to include OR/SA instruction in the "hands-on" officer basic course; however, it would be desirable and practical for all officers to receive a familiarization at the other three levels of career schooling in preparation for command and staff assignments. Career (advanced) course students should be familiar with the nomenclature and characteristics of common OR/SA techniques and their logical areas of application. They should be made aware of the hallmarks of good statistics and develop a critical attitude toward the admissibility of basic assumptions and supporting statistical, empirical, or subjective evidence. Appropriate branch-oriented OR/SA case studies should provide an introduction to applicatory techniques.

28. Minimum familiarization courses of approximately eight hours should be provided in professional and administrative branch career (advanced) courses, and at least 24 hours of instruction should be provided in the core curricula of the career (advanced) courses of the technical services and combat arms. This instruction should be scheduled early in the course curriculum to permit periodic application of OR/SA fundamentals in subsequent course problems. These hour allocations roughly parallel current familiarization and introductory programs conducted in various federal institutions, with an average length of from one to three days.

**PROGRESSIVE ELECTIVE IN OPERATIONS RESEARCH/SYSTEMS ANALYSIS
IN 60 TO 90-HOUR BLOCKS**

<p align="center">ARMY WAR COLLEGE</p>	<p>Review Simulation and Gaming Modeling Techniques Cost Analysis and Effectiveness Application and Case Studies Related to Strategic Deployment and Force Development, Evaluating Doctrine and New Equipment</p>
<p align="center">COMMAND AND GENERAL STAFF COLLEGE</p>	<p>Review Linear and Non-linear Programming, Network Analysis Waiting Line Theory Systematic Gaming Application and Case Studies Related to Combined Arms and Their Support</p>
<p align="center">BRANCH ADVANCED (CAREER) COURSE</p>	<p align="center"><u>TECHNICAL BRANCHES</u></p> <p>Principles of Decision-making Mathematical Models, Data Collection Probability Concepts and Statistical Analysis Simulation Replacement and Inventory Models Case Studies and Application Related to Technical Organization and Operations</p>
	<p align="center"><u>COMBAT ARMS BRANCHES</u></p> <p>Principles of Decision-making Mathematical Models, Data Collection Probability Concepts and Statistical Analysis Simulation Case Studies and Application Related to Tactical Organization and Operations</p>

FIG. D11-4

29. The Board feels that the C&GSC and Army War College core curricula should include a minimum of 24 hours of pure and applicatory OR/SA training. Instruction and OR/SA technique application should be appropriate to the level and mission of each college. The C&GSC should stress programming and systematic gaming related to combined arms and their support and AWC modeling and cost effectiveness related to strategic deployment and force development. Case studies will assist in identifying the application of techniques to military problems.

OR/SA Program Supervision

30. Proponency. Initially, the proposed increases in OR/SA instruction in officer career schooling may require the assistance of the Department of the Army staff, CDC, appropriate educators and contract operations research organizations, but the eventual proponent for OR/SA in the Army school system should be the C&GSC. Its OR/SA instruction in the core curriculum, progressive elective and Military Art and Science degree program, plus its close association with the CDC Combined Arms Group, provides a logical base for the overall monitorship of OR/SA instruction.

31. Faculty competence in OR/SA could present a problem to many of the schools until an in-house capability is developed. Where school talent is not available, local contracting would be a possible solution. Traveling instructor teams would be practical on the Eastern Seaboard. The CDC could provide assistance through its collocated boards and contract OR/SA personnel. The C&GSC, which has the major load, might expand the CDC Booz-Allen contract group, stationed at Fort Leavenworth, to include an OR/SA instructor team.

CONCLUSIONS

32. Three levels of OR/SA officer training and education should be established: specialist, executive level, and familiarization.

33. The Systems Analysis Specialist Program should be established as a formal program under the direction of the Deputy Chief of Staff for Personnel in coordination with the Assistant Chief of Staff for Force Development.

34. Position requirements in SA Specialist Program in the grades of captain and major should be increased to provide program balance and an adequate junior officer base to support validated senior positions filled on a reutilization basis. An annual input of approximately 60 officers in junior grades into graduate schooling in OR/SA would meet estimated requirements.

35. For the OR/SA education of specialists, advanced degree courses tailored to Army requirements should be established at a limited number of civilian universities. To supplement this graduate schooling, on-the-job training programs should be developed with selected contract research agencies.

36. For OR/SA executive level training, the branch career (advanced) courses, C&GSC, and Army War College should adopt a progressive elective program for approximately 20% of students in the combat arms and technical services.

37. For OR/SA familiarization training, branch-oriented instruction should be conducted as part of the career (advanced) course. At least eight hours should be devoted to this subject in courses of the professional and administrative branches and 24 hours in those of the technical services and combat arms. Students at the C&GSC and Army War College should receive approximately 24 hours of OR/SA training in each course.

38. The C&GSC should be the proponent agency for OR/SA instruction in Army schools.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 12

AUTOMATIC DATA PROCESSING TRAINING

PURPOSE AND SCOPE

1. This appendix analyzes the training provided to officers to meet Army requirements in the rapidly expanding field of automatic data processing (ADP).

BACKGROUND

ADP Trends

2. Twenty-five years ago the electronic computer did not exist. Today the Army has 324 computers and expends 17,500 man years annually on their use. More than 260 separate Army ADP systems, designed for personnel, finance, logistics, intelligence, command and control, and weapons systems are now operational or under development. People play a significant role in all these systems; yet the military, as well as civilian industry, has found it difficult to keep abreast of burgeoning needs for ADP-trained people.

3. The sustained growth of ADP will continue unabated into the foreseeable future. New developments in computers, ancillary equipment, and software, together with new systems applications, will affect profoundly the full spectrum of Army operations. Lower-cost, smaller-sized computers and breakthroughs in data link transmission and in-input/output devices will result in increased ADP usage, particularly at lower echelons, and bring many new officers, including those of the combat arms, into ADP assignments. Two years ago only one general officer in the Army devoted full time to ADP; currently, there are four, with another position under consideration; by 1971 this number is expected to be tripled. Requirements for other Army full-time ADP officers are expected to more than double within five years. The Army school system must be ready to meet the challenge of the forthcoming Era of the Information Explosion.

ARMY SCHOOL ADP OFFICER COURSES

COURSE TITLE	SCHOOL	LENGTH IN WEEKS	FY 1966 NR OF CLASSES	FY 1965 GRADUATES	
				OFFS	OTH
ADP Systems Analysis Officer	AG	4	6	90	76
Financial Management Systems-PCM	Finance	2	2	17	55
Financial Management Systems-ADP	Finance	3	2	11	33
Auditing of ADP Systems	Finance	2	7	8	212
ADPS Plans & Operations	Signal	11	2	55	5
ADPS For Staff Officers	Signal	3	9	175	92
Computer Programming	AMETA	3	2	NA	NA
Common Business Oriented Language	AMETA	2	1	NA	NA
Data Collection & Transmission	AMETA	1	3	5	37
ADP Appreciation	AMETA	1	12	34	183
ADP For the Systems Analyst	AMETA	2	8	2	58
AMC Systems Analyst	AMETA	8	3	1	13
AMC Management Information * Systems	AMETA	1½	7	NA	NA
Data Systems Analysis & Design	AMETA	3	2	19	79
Data Processing Profitability & Application Studies	AMETA	2½ days	0	2	34
Real Time Systems	AMETA	2½ days	1	NA	NA
Computer Installation Management Seminar	AMETA	3½ days	6	7	113
TOTAL	17 COURSES	-	73	426	990

* Also provided on-site by contract (30 classes) due to magnitude of current operations.

FIG. D12-1

Current Status of Army ADP Training

4. Role of the Army officer. All Army officers today are associated directly or indirectly with ADP, providing or receiving information processed by ADP equipment. Some reach decisions or take actions based on analyses of ADPS outputs; others develop policies or procedures which alter ADP systems significantly. A smaller group, almost 500, are directly associated with data processing operations on a full-time basis. Their duties fall into three broad categories: data processing installation operations, systems design, and overall ADP management. The type of training required varies from a brief orientation on ADP capabilities and limitations to extensive technical training.

5. Pre-commission Training. All US Military Academy (USMA) cadets take a course in basic programming and computer operations and subsequently utilize ADP techniques for problem solving in other courses. Cadets desiring more advanced instruction may select ADP elective courses. No ADP instruction is provided in Officer Candidate School (OCS) or Reserve Officers Training Corps (ROTC) courses. However, increasing numbers of colleges, high schools and vocational institutions offer computer instruction.

6. Branch School Courses. In June 1965, ADP was added as a common subject for career and associate career courses at USCONARC branch schools, under proponent, of the Adjutant General (AG) School. A comparison of hours of ADP instruction is included in Annex D, Appendix 3. Intensity of coverage, ranging from 0 to 40 hours in basic courses and 0 to 114 in career courses, reflects the current degree of branch interest and usage of ADP.

7. Service Colleges. Some ADP instruction is included in courses at the majority of the service colleges. The US Army Command and General Staff College (C&GSC) identifies 3-1/3 hours in the regular course and 1-1/3 in the associate course; the Army War College (AWC) provides 12 hours. ADP instruction varies among the other senior service colleges from none at the National War College to 100 hours at the Industrial College of the Armed Forces. Subject coverage ranges from a brief ADP orientation lecture to actual computer usage in a computer-assisted simulation exercise and complex socio-political-economic war gaming. In most cases, the objective is limited only to developing student appreciation for ADP.

8. Specialist Courses. The 13 ADP specialist or orientation courses taught by Army schools in FY 1965 (covered in Annex B, Appendices 4 and 6) as well as four courses added in FY 1966 are reflected in Figure D12-1. The two senior officer ADP orientation

courses taught at the DOD Computer Institute (DODCI), (described in Annex C, Appendix 1) will be supplemented by a six-week Command and Control Course in April 1966.

9. Graduate Civil Schooling. The Army Educational Requirements Board validated 56 officer positions for graduate level training in ADP at civilian universities. Thirty-seven positions are for business type ADP use and 19 in ADP engineering. Currently, 48 officers are pursuing graduate studies in the ADP field, for periods of 18 to 24 months at 14 universities.

10. Other ADP Training. ADP instruction is available to Army personnel at numerous other sources, including:

a. Army data processing activities, which schedule "in-house" training programs as required, normally for newly assigned personnel. These sessions, held full-time for several days or weeks or at periodic intervals, generally are conducted in conjunction with on-the-job training. Occasionally on special request, ADP "road-shows" are presented on-site.

b. Other governmental or civilian agencies such as the Civil Service Commission, which currently offers 22 courses and seminars on a recurring basis; the Graduate School of the Department of Agriculture, which teaches 25 courses; the General Services Administration Institute, which offers two data automation courses; the American Management Association, which conducts 38 ADP workshops and seminars on a periodic basis; various universities that conduct courses and seminars for which the Army pays all or part of the tuition costs; and ADP professional societies, which sponsor periodic meetings and symposia of interest to ADP personnel.

c. ADP computer equipment manufacturers that offer a large variety of short courses without charge, ranging from one-half day to 12 weeks. Estimates of Army officer attendance by three large ADP equipment firms for the past year are: Radio Corporation of America - 125; Sperry Rand Corporation - 45; International Business Machines Corporation - unable to provide statistics closer than "in the hundreds." These courses supplement Army schools, particularly for prompt presentation and "hands-on" demonstration of new equipment and software techniques.

DISCUSSION

Evaluation of Current Officer ADP Training

11. General. As with any complex new development, ADP has had its problems. Rapid technological changes, exponential expansion of equipment and applications, personnel and organizational turbulence, conflicting priorities for service, and utilization of sophisticated techniques such as gaming, simulations and linear programming, have all impacted on Army ADP systems. Disregarding spiralling future requirements, ADP training needs now exceed Army in-house capabilities. The current proliferation of specialist courses at multiple sources in an effort to keep pace with developments, though perhaps undesirable, is certainly understandable. The succeeding paragraphs evaluate current Army ADP training and propose steps to develop an optimum long-range program.

12. Pre-commission Training. Cadet ADP training at the USMA is considered excellent. Although ADP is not included in OCS or ROTC courses, none is considered appropriate. The increasing amount of ADP instruction offered in civilian educational institutions should provide the Army with large numbers of ADP-oriented officers in the future.

13. Officer Career Courses. Currently there is no pattern which insures that Army officers receive appropriate ADP indoctrination as an integral part of their career schooling. Wide divergencies in subject coverage and number of hours of ADP instruction in the branch schools are common. The majority of officers currently in the Army have had little or no exposure to meaningful ADP training. To correct this situation, all levels of the Army school system must share the burden of providing basic ADP orientation, as well as the type of ADP training which normally should be associated with their levels of instruction. Eventually, when ADP instruction has permeated the officer corps and the majority of newly commissioned officers have had previous ADP orientation at pre-commission sources, modification of this program will be possible. Until then, ADP instruction should start selectively at branch basic and career course levels and insure sequential development as officers proceed through the Army school system, as follows:

a. Branch Basic Course. Six branch schools currently provide some ADP instruction in their basic courses. As brought out in Annex D, Appendix 2, schooling at this level should be oriented directly toward an officer's first assignment. Because of competing demands for class time and the requirement to maintain a primary focus in the instruction, ADP orientation training should be given to Adjutant General, Finance, Signal, and possibly Women's Army Corps officers in

the basic course. Officers of Artillery, the Corps of Engineers and other branches may have to be added in the future if they become more immediately involved in ADP usage. Depending upon individual branch requirements, between 20 and 40 hours of instruction appears warranted. It should include a practical "hands-on" approach to ADP fundamentals and be oriented toward specific branch use of ADP.

b. Branch Career (Advanced) Courses. Despite USCONARC requirements for ADP common subject coverage at this level, some schools provide little or no ADP instruction in their career (advanced) courses. Upon graduation these officers will increasingly be in positions associated with ADP systems. Although the impact of ADPS on branches varies, career development considerations dictate the advisability of providing a foundation in ADP fundamentals at this level. From 10 to 40 hours of instruction should be provided, depending on branch ADP involvement, with primary emphasis on the effective use and supervision of branch-oriented ADP systems. In those cases where ADP has previously been offered in the basic course, the latest developments should be covered and sequential instruction introduced to provide wider exposure to branch-oriented information and data systems. A progressive ADP elective program, in consonance with the overall concept delineated in Appendix 3 and illustrated in Appendix 26, should be offered in all branch career courses, the C&GSC, and the AWC.

c. Command and General Staff College. Current ADP coverage is not considered adequate. With the imminent expansion of ADP to the field army and its utilization in command and control and other operational roles, C&GSC graduates will increasingly use the output of information and data systems and influence the design of future automated systems. Approximately 30 hours of instruction, covering ADP hardware, software, systems analysis and tactical applications currently appears warranted. Some of this coverage can be integrated with other subject area instruction.

d. Army War College. Current ADP coverage is approximately half that considered desirable at this level of schooling. Instruction should include command, control, managerial and analytical aspects of the major Army ADP systems in operation and under development, overall management of command information and data systems, and evaluation of the state of the art in hardware and software. Some experience in war gaming and simulation techniques might also be appropriate, integrated with other instruction.

14. Army ADP Specialist Courses. ADP specialist courses are conducted at four Army schools and at numerous CONUS installations by travelling teams. Because of this dispersion, larger instructional staffs are maintained than would otherwise be required. With the

present backlog of training requirements and need for different types of ADP training, the plethora of training sources is probably necessary. However, action should be initiated to concentrate common-type ADP specialist training at a single Army facility.

a. Attendance at ADP specialist courses appears to be handled on a random, non-sequential basis. Courses often overlap and subject emphasis in comparably titled courses varies widely. Although these variations may be desirable, similarities in course titles are misleading to prospective students. Course content is not always modified promptly to incorporate the latest developments in ADP. Only one of the 17 courses offered (ADPS Plans and Operations Officer Course given at the Signal School) results in the award of a military occupational specialty (MOS). Insufficient attention is given to advanced planning for future systems applications. Training requirements by specialty categories must be developed and students programmed into appropriate courses in sufficient time to meet expanding Army ADP needs. Courses should be modified in both content and titles to eliminate unnecessary overlap, duplication and ambiguity, and to keep pace with growing complexities in ADP techniques and usage. When the ADP MOS are revised (see paragraph 19 below), courses should be structured to provide for award of appropriate MOS and attendance programmed to follow a logical sequence leading to progressively more responsible positions in the ADP field.

b. Today, none of the courses develop well-rounded ADP officers qualified to assume full responsibility in major ADP assignments. The ADP field has tended toward fragmentation of subject matter into short, limited-scope courses. There are some advantages to narrowing courses to fit smaller homogeneous groups and concentrating instruction to meet immediate specialized needs; however, two-day courses are generally uneconomical. For some, the travel and disruption time exceeds course length. Particularly for field grade officers, there would be real advantage to combining complementary subjects into cohesive broader-scope courses. Instruction could then be related and a uniform approach provided for closely interdependent subject matter. Concentration of formal school resources on providing individuals with horizontal skills and knowledge would permit increased use of on-the-job narrower vertical training for lower level technicians. The 11-week ADPS Plans and Operations Officer Course, previously referred to, comes closest to meeting requirements. However, it needs to be lengthened and made more comprehensive to reach this goal. This revised course, not necessarily taught at its present location, could provide the basic in-house source to produce qualified officers for future ADP assignments. The course could be structured to offer standard training for all; or to provide a common block of instruction in ADP fundamentals and, after appropriate division of the student body, to devote the remaining time to the development of specialized ADP skills.

c. The senior officer orientation courses offered by DODCI are meeting a valid requirement to apprise these officers of the ramifications of ADP and its value at all echelons of the Military Establishment. Until ADP-trained graduates of the Army school system enter the senior ranks, the need for attending these courses will continue.

d. Graduate Civil Schooling. Students selected for ADP graduate schooling in the past have been provided little or no Army guidance. The majority were not apprised of post schooling utilization assignments and hence did not know which subjects merited special attention. As indicated in Annex D, Appendix 18, the Office of Personnel Operations is taking steps to rectify this situation, but a close follow-up is essential. ADP instructor quality and course content vary widely at different universities. No formal evaluation is made on a continuing basis to determine which best meet Army needs. Consideration should be given to concentrating ADP graduate instruction at carefully selected universities whose curricula meet Army requirements.

e. Other ADP Training. Attendance at non-military source ADP training is normally random and unstructured. The quality of courses and instruction varies considerably; frequently titles are misleading and subjects duplicate material covered in previous training. Although convenient and often used in lieu of Army schools, computer manufacturer courses, especially above the technician skill level, tend to lose objectivity. While not feasible immediately, the Army should reduce long range dependence upon the majority of these courses by incorporating pertinent subject material into Army in-house courses. Participation in non-military courses should be controlled and periodically evaluated to insure courses meet Army needs.

Corollary Problems Affecting ADP Training

15. Preparation of Common Instructional Material. Army schools, particularly those teaching ADP specialist courses, have been developing their own ADP programs of instruction and supporting materials or requesting assistance from various sources. This procedure has resulted in uneconomical, inefficient utilization of scarce ADP-trained resources, duplication of effort, and differing subject emphasis in comparably titled courses. Central preparation of all common type ADP training programs and materials under the aegis of a single agency would resolve this problem. Recent assignment of proponentcy for ADP common subject instruction in USCONARC branch school career courses is a step in the right direction. However, further expansion of proponentcy is desirable, both to other course levels and specialist courses, as an additional preliminary step toward concentration of ADP

training at a single facility. In assigning common subject responsibility, specialized aspects of technical operations such as ADP communications equipment repair should be excluded. In other cases where single agency responsibility is not appropriate, close coordination of effort between interested agencies should be encouraged.

16. Use of Computers in Training. Current Army ADP training is often accomplished without appropriate supporting equipment. With computer usage on the ascendancy for computer assisted instruction, managerial decision making, research, effectiveness analyses, simulations, and war gaming, the Army requires an overall integrated policy for the use of electronic computers throughout its school system. USCONARC plans for the establishment of the Continental Army Educational Data System network (CONEDS) will help but further expansion is required, particularly for specialist ADP courses.

17. ADP Doctrine. A dearth of published doctrine exists in the ADP field. Action should be taken to develop and publish Army doctrine to provide guidance to all echelons in this rapidly expanding field.

18. ADP Career Specialization. The Army ADP field has had difficulty in attracting and retaining qualified officers. Some officers apply for ADP training and, after attaining proficiency, leave the service for lucrative positions with private industry. Others with fine potential are reluctant to apply for fear of being frozen in a narrow specialization field which might, in their opinion, seriously damage their military careers. Thus, continuous training requirements are generated to provide initial qualifications and to replace officers leaving ADP. This dilemma could be partially solved by the establishment of an ADP specialist program under the direction of the Deputy Chief of Staff for Personnel in coordination with the Special Assistant for Army Information and Data Systems.

19. ADP MOS Structure and Training Requirements. Only one officer MOS has been established for ADP - MOS 2402 (ADPS Plans and Operations Officer). This single MOS is too broad to identify the various skills and assignments of officers in the ADP field. Because of this deficiency, it is difficult to accurately identify requirements (positions), assets (officers), and qualifications (training). The use of prefix "9" to identify ADP qualifications in combination with other MOS is being considered. Early authorization of this prefix will partially alleviate the problem. Restructuring of the ADP MOS into several different ADP MOS (three to six) is also required. These actions, in conjunction with the proposed specialist program, will enhance establishment of valid training requirements and structured schooling for ADP.

CONCLUSIONS

20. Increasing officer involvement in ADPS makes it essential that all officers receive ADP orientation, with length of instruction and depth of coverage related to individual branch usage and anticipated subsequent assignments. Practical "hands-on" instruction, selectively initiated and structured sequentially to insure progressive development, should be an integral part of officer career schooling.

21. For the present, career schools will receive a preponderance of officers without previous ADP exposure and must adjust ADP instruction accordingly. Instruction should provide for: 20 to 40 hours at designated branch basic courses, emphasizing branch-oriented ADP fundamentals; 10 to 40 hours at branch career (advanced) courses, depending on branch ADP involvement, introducing branch-oriented ADP fundamentals or continuing progressive ADP development as appropriate; approximately 30 hours at the C&GSC, emphasizing ADP operational applications; and approximately 24 hours at AWC, covering Army-wide ADP managerial and control techniques.

22. Responsibility for development of common subject ADP instruction should be vested in a single agency. Proliferation of specialist courses should be curtailed as soon as training requirements permit, and action should be initiated to concentrate all common ADP specialist training at a single facility.

23. ADP specialist courses should be modified to eliminate unnecessary duplication, overlap and ambiguity and structured to qualify students for logical progression in appropriate ADP MOS's. ADP training requirements should be developed and student inputs programmed sufficiently in advance to provide supervision and operating personnel for known future ADP systems applications.

24. Senior officer ADP orientation courses are required until ADP-trained graduates of the Army school system permeate the senior grades.

25. The Army should reduce dependency on non-military sources by incorporating pertinent ADP subjects into Army in-house courses. When used, external courses should be periodically evaluated and attendance limited to those meeting Army requirements.

26. ADP advanced civil schooling should be related more closely to Army requirements and concentrated at a limited number of selected universities. Students should be given closer guidance and apprised earlier concerning utilization assignments.

27. An overall integrated policy for the installation and use of electronic computers throughout the Army school system should be developed. Appropriate ADP supporting equipment should be obtained promptly for "hands-on" use in instruction at ADP specialist courses.

28. An ADP career specialist program should be established under the direction of the Deputy Chief of Staff for Personnel in coordination with the Special Assistant for Army Information and Data Systems to meet the growing requirement for recruitment and retention of ADP qualified officers. ADP MOS should be restructured to facilitate identification of requirements, assets and qualifications for the major ADP areas. Expeditious action should be taken to authorize the use of prefix "9" for identification of ADP qualifications.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 13

LOGISTICS EDUCATION AND TRAINING

PURPOSE AND SCOPE

1. This appendix is an analysis of officer logistics education and training in the Army school system. Emphasis is placed on maintenance and supply education and training at branch schools, and supplementary education and training for logistics specialists.

BACKGROUND

2. Logistics training was addressed at the Departmental level in 1958 by the Army Officer Education and Training Review (Williams) Board (See Annex B, Appendix 11). The Williams Board concluded that a separate logistics school should not be established; that additional required logistics instruction should be incorporated into the existing school system. The Board noted that: "The need for this emphasis, particularly in the generalist education of Army officers, comes from the self-evident reality that logistics is less glamorous, therefore less interest-inspiring, than military operations." The 1958 report went on to caution that "those who control the scope and emphasis of course curricula should not lose sight of the mission of training and educating student officers to understand, to appreciate, and to manage the logistic support essential to the successful operation of land power."

3. Logistics instruction in maintenance, supply, and other functional areas was further influenced in 1964 by the Board of Inquiry on Materiel Readiness (Baker Board), whose recommendations generally confirmed the validity of logistics instruction in basic and career courses and led to the establishment of several specialist courses and training packages to correct supply and maintenance schooling deficiencies. Currently, in addition to the review conducted by the present Board, the Army logistics education and training system is being studied in detail by the Army Logistics System (Brown) Board, and close liaison has been maintained during the two Boards' common period of study.

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4. At Department of Defense, a Defense Procurement Training Board (DPTB) was established in 1962 to address planning covering the scope and level of all Defense joint procurement training and policies concerning joint training requirements. Steps are now being taken to eliminate this agency and transfer its procurement function to the Defense Logistics Management Training Board (DLMTB), established in 1963. These boards are discussed in Annex C, Appendix 1.

5. Existing Army agreements covering logistics training, research, and doctrinal responsibilities use a number of terms in discussing the two main divisions of logistics. This analysis uses only two: "producer logistics" and "consumer logistics." The Army Materiel Command (AMC) is responsible for producer logistics training, while the Continental Army Command (CONARC) controls consumer logistics training. Close coordination between the two commands seeks to prevent gaps, duplication and overlap.

6. The Army educates and trains its officers in producer and consumer logistics in Defense, joint, and other government agency schools. It also makes use of civilian educational institutions to provide education in depth in disciplines useful to logistics activities. Another use of civilian facilities is training with industry which includes about twenty officers per year. For discussion of branch schools, see Annex B, Appendix 4 and Annex D, Appendix 3; Army colleges, Annex B, Appendix 5, and Annex D, Appendix 5; Joint and defense schools, Annex C, Appendix 1, and Annex D, Appendix 5; other governmental schools, civilian education, and training with industry, Annex B, Appendix 7.

DISCUSSION

7. The 1962 Army reorganization and consequent shift from a technical service to a functional support structure has made necessary a redefinition and clarification Army-wide of the pattern of technical missions, activities and functions. ROAD introduced functionalization of support activities in the division area, COSTAR extends it to non-divisional units throughout the field army, and TASTA will expand it to the theater of operations. Logistics instruction in every school in the Army is affected. The Board noted that career courses began logistics instruction under the ROAD concept in FY 62 and under the COSTAR concept in FY 66, and will begin instruction in the TASTA doctrine probably in FY 68. It will take some years for the impact of this instruction to be felt at all levels of the Army. In the meantime, a heavy responsibility will rest on the field to orient and indoctrinate officers. Logistics organizations will have to rely primarily on on-the-job training or on unit schools.

8. The full impact of functionalization on service schools is not known because career patterns for technical and administrative service officers are in transition. These career patterns should not be made rigidly functional to the extent of prohibiting commodity specialization but rather should recognize Army needs for generalist logisticians, qualified functional specialists and commodity specialists. Career patterns must be correlated with the functional organization of the Army in order to permit orderly planning for the progressive training and education of officers for assignment to the new logistics positions.

Training in Branch Schools

9. Maintenance and supply activities are common subjects for career type courses and thus are mandatory in officer basic and career courses as shown in Figure D13-1.

COMMON SUBJECTS COVERING MAINTENANCE AND SUPPLY TRAINING IN BRANCH SCHOOLS

SUBJECT	BASIC COURSE	CAREER COURSE
Organizational Maintenance and Maintenance Management	X	X
Supply	X	
Division Maintenance Operations		X
Division Supply, Service and Transport Operations		X
Division Support Command Concept		X

FIG. D13-1

The number of hours, and percentages of the total course, devoted to the general areas of maintenance and materiel management (supply) in the basic and career courses are shown in Figure D13-2.

Basic Course

10. The basic course has been described as a coaching session where instruction is by the hands-on technique. With regard to

**MAINTENANCE AND SUPPLY HOURS OF INSTRUCTION
PERCENTAGE OF COURSE**

BRANCH/SCHOOL	BASIC COURSE			CAREER COURSE		
	MAINT	SUPPLY	% CRSE	MAINT	SUPPLY	% CRSE
Infantry	22	4	5.6	21	20	4
Armor	38	3	11.9	94	8	8.5
Artillery & Missile	33	12.5	12.1	54	45	10.5
Air Defense	42	8	14.7	--	--	--
Engineer	24	5	8.3	14	79	7.3
Signal	7	11	5.5	25	26	5.7
Chemical	8	20	7.7	44	99	14.7
Ordnance	24	47	20.7	33	103	18.0
Quartermaster	22	54	24.0	39	134	23.7
Transportation	16	23	12.7	18	74	8.9
Adjutant General	2	3.5	1.7	10	4.5	1.6
Army Security Agency	--	--	--	27	74	8.0
Finance	4	3	2.0	4	9	2.0
Intelligence	--	--	--	20	6	1.9
Military Police	13	9	5.7	13	7	1.3
Women's Army Corps	5	17	3.2	2	19	2.8
Chaplain	4	10	5.0	25	18	3.5
Judge Advocate General	0	0	0	0	2	.4
Army Medical Service	4	4	4.8	8	18	2.5
Army Nurse Corps	2	5	10.2	2	19	2.9
Medical Service Corps	7	31	12.4	--	--	--

Some additional hours might be reflected under command responsibilities and functions. Supply, as used in this appendix, includes materiel management.

FIG. D13-2

maintenance instruction, the Board considers that the second lieutenant should get his hands dirty performing practical work in a motor pool or shop. The basic course should be restricted to the operation of the Army maintenance system and the essentials of administration, inspections, equipment serviceability criteria, preventive maintenance, and other maintenance problems met at platoon/company levels. The Board believes that graduates of basic courses conducted by the combat arms schools should not be immediately assigned to maintenance or supply responsibilities above the company level. A subsequent assignment as battalion maintenance officer would require additional training in an appropriate specialist course. Graduates of technical service basic courses, particularly the Ordnance and Quartermaster, may appropriately be assigned initial duties at higher echelons where maintenance and supply are functionalized under a direct support (DS) or general support (GS) concept. These basic course graduates should attend specialist courses in these areas upon completion of the basic course.

11. The scope of instruction in supply activities in basic courses is appropriately described in current CONARC directives. Emphasis is on responsibilities of the property book officer, on essential publications applicable to supply economy, and on procedures for relief from property responsibility. Operation of the company supply room should form the crux of instruction at this level. It would be expected, and is reflected in Figure D13-2, that the basic course at the QM School includes greater emphasis on supply than the courses in other branch schools because of the nature of QM functions. The Board has examined individual course programs of instruction (POI) and believes that, with two exceptions, emphasis in supply and maintenance training in the basic courses is generally adequate. The Signal School course provides insufficient maintenance and supply training for a technical branch, and the Judge Advocate General (JAG) School should include minimum instructional time for general indoctrination of officers in maintenance and supply activities.

Career Course

12. Whereas maintenance in the basic course is viewed as a hands-on practical exercise, at career course level the management of maintenance and maintenance personnel should be emphasized with attention to management techniques, principles, and command responsibilities. With the exception of the JAG School, emphasis on maintenance in career courses is generally adequate; however, the focus of instruction should be raised from company to battalion level. The Board believes the JAG School should include general instruction in the area of maintenance and supply. Graduates of the Ordnance School career course should be

**CGSC REGULAR COURSE LOGISTICS INSTRUCTION
IN HOURS**

	PURE	INTEGRATED	RELATED STUDY
MATERIEL			
Design & Development	0	3.2	1.8
Acquisition	0	9.3	5.7
Storage	.1	5.4	2.6
Movement	0	18.7	8.0
Distribution	0	27.1	11.6
Maintenance	2.6	13.0	8.2
Evacuation	0	4.9	2.9
Disposal	0	.8	.6
PERSONNEL			
Movement	.1	11.1	5.6
Evacuation	0	9.7	4.3
Hospitalization	0	3.7	2.2
FACILITIES			
Acquisition	0	3.1	1.5
Construction	0	6.1	3.1
Maintenance	.4	2.3	.8
Operations	.7	3.1	1.1
SERVICES			
Acquisition	0	6.8	3.6
Performance & Operations	.1	21.2	9.0
TOTALS	4.0	149.5	72.6

FIG. D13-3

capable of commanding a direct or general support maintenance battalion without additional training.

13. A graduate of a career course of any troop-oriented branch should be able to render effective service as a battalion or brigade S-4. Graduates of the Quartermaster and Transportation School career courses should be capable of commanding composite supply and transportation battalions without additional training. Coverage of general

staff responsibilities is included in the Board's concept of the objective of a career course. It is visualized that a career course graduate would be qualified for direct assignment as assistant G-4 of a division. Schools should review their POI to ensure that supply training meets these general objectives.

Command and Staff Colleges

14. The Command and General Staff College (C&GSC) and the Armed Forces Staff College (AFSC) present logistics instruction in both pure and integrated courses. Both colleges are producing graduates with generalist rather than specialist logistics knowledge. Army officers also attend the command and staff colleges of other Services where the emphasis is on the logistics doctrine of those respective Services. These other service command and staff colleges are attended by only three percent of the Army officers in resident courses at this level and are not analyzed further in this appendix.

15. The C&GSC is the first of the career schools where combat arms, technical, administrative, and professional services officers, as a group, study the teamwork necessary for the successful application of land power. The emphasis in the course is on operational considerations; logistics subjects are usually presented and studied in relation to the other staff functions. Extensive coverage is given to joint operations, particularly airborne and amphibious operations. The emphasis is on consumer logistics but the full range of logistics instruction is apparent from the information shown in Figure D13-3. The greater part of the logistics instruction is integrated with other subjects or activities with only four hours of pure instruction. The 149.5 hours of integrated instruction include 82.4 hours on materiel with particular attention to movement, distribution, and maintenance. Another 28 hours are scheduled in the area of services. The remaining 39.1 hours are divided between personnel movement, evacuation, and hospitalization (24.5 hours) and facilities (14.6 hours). The pure instruction is divided between 2.6 hours of maintenance and 1.4 hours devoted to five other subjects. The total number of hours of logistics instruction constitutes 14% of the entire curriculum. Considering that logistics is one of the principal parts of the Army's activities this percentage is barely adequate. Additional instruction is warranted under the current objective of the course, in the areas of design and development, evacuation, disposal, hospitalization, facility acquisition, maintenance and operations, and services acquisition. Under the broadened objective discussed in Annex D, Appendix 4, additional hours would be required in order to cover adequately resource utilization and CONUS producer logistical activities.

16. The AFSC curriculum includes Army, Navy, and Air Force instruction, but primary emphasis is placed on joint and combined logistics as indicated in these subject areas of its curriculum:

- Service logistic organization and functions
- Joint logistics planning exercises
- Format of logistics documents
- Logistics planning computations
- Feasibility testing of logistics plans
- Logistics planning on unified command and joint task force levels
- Base development logistics
- EUCOM logistics
- Joint logistics estimates
- NATO logistics
- Defense supply agency and other Defense logistics activities
- Logistics planning in a general war situation

Consumer logistics is the principal theme with only minor attention to producer logistics. There are 102 hours of logistics instruction, which approximates 18% of the total course. Although Army officers attending the C&GSC regular course receive almost 50% more logistics instruction than those attending the AFSC, the AFSC course is only 50% as long. The AFSC actually devotes 4% more of its curriculum to logistics than does the C&GSC. The Board concludes that the logistics training received by Army officers attending the AFSC is appropriate under the joint mission of that institution.

17. The Army War College (AWC) presents approximately 161 hours of identifiable logistics instruction to prepare officers for command and high level staff duties with emphasis on Army doctrine. Both Army and joint logistics considerations are presented. These hours constitute about 10% of the curriculum; for comparison, the hours devoted to command responsibilities and functions are 11% and counterinsurgency 11.5%. The curriculum is divided into eight courses with logistics being considered in seven and in one seminar. Particular consideration is given to logistics requirements and their impact upon capabilities, in Course 5, as they affect the preparation of theater commander's estimates and campaign plans and the war-gaming of these plans. In Course 6, in addition to designated coverage for the entire class, two committees prepare written reports on logistics preparedness and capability to support military plans and operations. In Course 7, the students are required to consider and develop logistical concepts within the time frame 1970-80. In the other four courses, logistics considerations are an integral part of material presented to and considered by the students. The seminar provides an opportunity to examine the managerial aspects and tools to maintain an effective logistics

program. The Board concludes that the approximately 10% of the curriculum devoted to logistics instruction is adequate under the current AWC mission.

18. Other Service and National War Colleges' logistics instruction varies from less than 1% to 11% of the total hours in their respective curricula. The Air and Naval War Colleges present their own Service logistics doctrine and that of other Services on points of cross servicing, common servicing, and coordination. The National War College logistics instruction is responsive to a much broader mission. Its course includes study of resources requirements for support of a strategic concept, and consideration of international stresses and strains wherein the economic impact is a factor. The US economy and international economics are presented in broad terms. The Board considers that these colleges are presenting adequate logistics instruction to fulfill the current mission assigned to each.

19. The Industrial College of the Armed Forces (ICAF) devotes 780 hours or 65% of the course time to resource utilization. While this instruction is not carried specifically as logistics, it is all in the logistics field. Approximately nine weeks are devoted to the development, conservation, and utilization of human, natural, and developed resources as elements of national strength. Management techniques are presented with special attention to materiel. Instructional periods are devoted explicitly to personnel management, financial management, supply, procurement, maintenance, systems analysis, and other fields either a part of or allied to logistics. Field studies including visits to US industrial firms and trips abroad to visit foreign industry provide the opportunity for ICAF students to observe the sources of materiel and discuss industrial management with incumbents. The Board considers that the ICAF curriculum is well balanced and appropriate to its mission. Since the ICAF is the capstone of our military educational system in the management of logistic resources for national security, the Board considers that Army officers in the Logistics Officers' Program selected for senior service college attendance should be assigned to ICAF rather than to one of the other colleges.

Logistics Specialist Training

20. The Department of the Army announced at the end of 1965 that the branch system and specialist programs will continue to be used as the structure for career development. The military occupational specialty (MOS) system will be retained for the classification and control of officer positions and assignments; MOS are structured on skill requirements, and specialist courses are utilized to teach the skills in the quantities needed.

21. The concept of specialist courses was discussed in Appendix 6, wherein it was noted that technically-oriented branches, in particular, must conduct specialist courses not only to qualify officers in branch functions, but also to qualify officers for branch immaterial functions. Thus, specialist courses in CONARC's branch and specialist schools in the broad area of consumer logistics qualify officers for functional and commodity specialties, while preparation of officers as general logisticians on the consumer side is initially accomplished in the career type courses. Where functions or skills have lost specific branch identity through organizational changes or across-the-board applications, the Army has established appropriate specialist courses. Seven such courses have been or are in the process of being established for recently approved functionalized MOS. Four of these officer courses are discussed in Appendix 6, i.e., Army Supply, Field Maintenance, Ammunition and Missile Maintenance, and Missile Maintenance. The Board believes that the Army school system has demonstrated, and must continue to demonstrate, its flexibility for prompt responsiveness to change in consumer logistics specialist areas.

Army Materiel Command (AMC) Schools

22. The Army Logistics Management Center (ALMC), the Army Management Engineering Training Agency (AMETA), and the Joint Military Packaging Training Center (JMPTC) are discussed in Annex B, Appendix 6.

23. Problems of overlap and repetition related to management as presented in the two major schools, ALMC and AMETA, are discussed in Appendix 10. The pattern of duplication is repeated in logistics instruction presented at these two schools. Placing these schools under a single Commandant would permit consolidating their programs of instruction. In addition, the consolidation of ALMC and AMETA would reduce the cost of operation, concentrate a wider range of expertise at a single location, improve flexibility in the use of instructors, make available more educational facilities for AMETA courses, and use funds now required to rehabilitate existing AMETA facilities to relocate AMETA. The Board is convinced that the consolidation of AMETA with ALMC at Fort Lee is in the best interests of the Army.

24. The Joint Military Packaging Training Center (JMPTC). The Ordnance Packaging Training Course at Rossford Ordnance Depot, Toledo, Ohio, was redesignated as the Joint Military Packaging Course in 1951. The scope of the course was broadened to meet the packaging requirements of all Services and the course made available to representatives of all Services, qualified industries, and approved foreign nationals. In 1963, when the Rossford Army Depot was inactivated, the JMPTC was

relocated at Aberdeen Proving Ground (APG). Facilities at APG are improvised and the JMPTC is planning for additional academic and laboratory buildings to meet its requirements. The Board has considered the mission, student load, facilities, cost of operation, need for new construction, and compatibility with the ALMC mission and other activities at Fort Lee, and concludes that JMPTC should be moved to Fort Lee and consolidated with ALMC as soon as facilities are made available.

25. In Annex D, Appendix 10, the Board concluded that the Army Management School should also be closed and the installation management course be taught at ALMC, subject only to the availability of facilities there. If the consolidation of the institutions is accomplished, the name, Army Logistics Management Center will become even more of a misnomer than it is today. According to the dictionary of United States Army terms, the word "Center" is normally applied to a training activity; it is not indicative of an educational institution. A word more descriptive of the ALMC mission is "institute," defined in Webster's Dictionary as, "a type of school for higher education in technical subjects, institution for advanced study, research, and instruction in a restricted field." Considering the consolidation of activities and their general resource management nature, it is the opinion of the Board that a more appropriate title for ALMC would be the Army Resources Management Institute (ARMI). Its basic mission should be stated as follows:

The mission of the Army Resources Management Institute is to provide resident and non-resident instruction for selected officers and civilians of the Army and other Services in all functional areas of producer logistics, installation operations, equipment preservation, packaging and transport, and skills and techniques of military management; to conduct research and develop doctrine in these areas; and to provide associated training materials and services as requested.

26. The responsibility for consolidation of AMETA, AMS, and JMPTC at ARMI, Fort Lee, Virginia, should be assigned to AMC at the earliest possible date to allow orderly planning and execution as rapidly as facilities, personnel actions, and finance will permit.

Graduate Degrees

27. The Army has recognized the need for greater accuracy in

establishing the number of graduate degrees it requires, and to this end has organized an Army Educational Requirements Board (AERB) to assist in their evaluation and validation. As yet, the list of position requirements for advanced degrees in the logistics field has not been fully developed. Examples of the graduate degree fields utilized in logistics positions at AMC are: Business Administration-Industrial; Commerce, Marketing, Merchandising, and Retailing; Industrial Management; Management Research; Business-General; Engineer-Industrial Design; Engineer-General; and Education-General Administration; all at the Master's Degree level. An analysis of 63 validated logistics positions identified in the AMC which require graduate degrees indicates 43 are in the grade of general officer or colonel, 14 in the grade of lieutenant colonel, three in the grade of major, and three in the grade of captain. Although it is possible to send lieutenant colonels to graduate school to attain an advanced degree, the Board believes that the utilization of that education would not give the best return on the time and funds expended. Six majors/captains are not an adequate base from which reutilization requirements for 57 senior officers can be met. However, the areas of knowledge required for these branch immaterial positions are required also by the branches for their branch material duties. AERB has validated requirements for graduate degrees in these areas identified with positions for company grade officers. These officers actually form the base for reutilization at higher grades and for selection to the Logistics Officer and other career programs in branch immaterial areas.

28. The Air Force School of Systems and Logistics (SOSAL) offers a twelve-month course leading to a Master of Science degree in logistics management. Army officers have attended this course since its accreditation three years ago and four are currently enrolled. Position requirements for the SOSAL logistics management degree, as distinguished from more generalized management degrees granted by other institutions, have not been established to date. AMC should evaluate the responsiveness of the SOSAL course to Army needs and submit recommendations as to specific position requirements to which it should be related.

Logistics Officer Specialist Program (LOP)

29. The LOP was established to develop and utilize professionally equipped and qualified commissioned officers for assignment to key logistics positions throughout the Department of the Army and other positions of high responsibility requiring officers with logistics training and background. A key logistics position is defined as a selected branch material logistics position for which officers in the grade of colonel are authorized and which involves a high degree of individual responsibility and authority at policy-making or policy-influencing levels (See AR 614-132 and DA Pamphlet 600-3). The ultimate

objective of the LOP is to develop a hard core of professionally qualified, readily identifiable logisticians capable of effectively directing, supervising, and managing the extensive logistics activities of the Army. The Office of Personnel Operations (OPO) is responsible for overall supervision of the LOP within the broad policy guidance of the Deputy Chief of Staff for Personnel (DCSPER).

30. There were 1,319 participants in the LOP (including 437 designated as logisticians), as of 30 November 1965, (See Figure D13-4). Key logistics positions for 409 logisticians have been identified and approved. OPO has determined a requirement for 600 qualified logisticians with 1,000 in the development stage. The Board noted that the prerequisites for entry into the LOP did not require a college degree. The minimum educational level, recommended elsewhere in this annex, for all Regular Army officers is a baccalaureate degree. It follows, then, that the prerequisites for entry should include a baccalaureate degree in a required discipline and should consider a master's degree as highly desirable. Possible key logistics positions are studied by both OPO and the Deputy Chief of Staff for Logistics (DCSLOG) before approval. A firm list of the key logistics positions would assist in the determination of requirements for education and training of LOP participants.

LOGISTICS OFFICER PROGRAM

RANK	ARM	ART	INF	ENG	CML	MSC	ORD	QM	SIG	TC	AG	FIN	MP	WAC	TOTAL
COL	15	56	57	80	20	25	93	153	49	100	1	5	2		656
LT COL	16	28	44	22	21	12	94	78	43	49			1	6	414
MAJ	8	16	19	9	11	3	45	64	13	57			1	1	247
CAPT								1		1					2
TOTAL	39	100	120	111	52	40	232	296	105	207	1	5	4	7	1319

FIG. D13-4

31. The LOP started in 1956 with the mission of improving the system of developing and assigning logistics managers. During the formative years of the program, DCSLOG exercised general staff responsibility for its direction. The program was oversubscribed and

many highly qualified applicants were refused entry. Today, DCSLOG responsibility is limited to participation in the approval of key logistics positions and the program is undersubscribed. The Board has noted the coordination between the Chief of Research and Development (CRD) and DCSPER in relation to the Research and Development Specialist Program (See AR 614-135), and believes that similar coordination between DCSPER and DCSLOG should be provided for by AR 614-132 for the LOP. Such coordination would go far toward revitalizing the LOP and would assist DCSPER in the determination of the requirements for education and training for the program participants.

CONCLUSIONS

32. In keeping with the principle that basic courses are oriented toward platoon/company level and career courses toward battalion/brigade and general staff levels, branch schools should insure that maintenance training in basic courses is focused on practical techniques and hands-on instruction and in career courses on management techniques and command responsibilities.

33. While it is appropriate that newly commissioned officers of the technical services be initially assigned maintenance and supply duties in direct and general support units, their preparation therefor should be accomplished through specialist training following basic course instruction.

34. Graduates of troop-oriented branch career (advanced) courses should be capable of serving as battalion/brigade S-4's and as assistant division G-4. Graduates of the Ordnance career (advanced) course should be capable of commanding direct and general support functionalized maintenance battalions; and graduates of the Quartermaster and Transportation career (advanced) courses should be capable of commanding composite supply and transportation battalions.

35. The hours devoted to logistics instruction in the Command and General Staff College regular course are barely adequate under the current course objectives. The expanded course objective proposed elsewhere by the Board for resource utilization and producer logistics instruction will require additional hours.

36. Personnel in the Logistics Officers' Program selected to attend a senior service college should be assigned to the Industrial College of the Armed Forces, which this Board has proposed to name the National Security Resources College.

37. Specialist training for officers in both consumer and producer logistics is required in addition to Army career schooling. In general, specialist courses in military schools can meet this requirement.

38. The Army Management Engineering Training Agency (AMETA), Army Management School (AMS), and the Joint Military Packaging Training Center (JMPTC) should be disestablished and their respective missions assigned to the Army Logistics Management Center. Control of the activities at AMETA, AMS, and JMPTC should be transferred to ALMC now, with planning and executing the reorganization and transfer of activities made the responsibility of the Army Materiel Command.

39. The Army Logistics Management Center should be renamed the Army Resources Management Institute (ARMI), with a mission (see paragraph 25) including all functions now performed by the Army Management Engineering Training Agency (AMETA), Army Management School (AMS), and the Joint Military Packaging Training Center (JMPTC).

40. An initial utilization base of company grade officers and majors with master's or doctor's degrees in disciplines required for logistics duties should be used at a later date as the prime source of officers to fill positions requiring higher ranks and the graduate degree.

41. Positions requiring the degree of Master of Science in Logistics Management, as presented at the Air Force School of Systems and Logistics, should be determined by the Army Materiel Command and submitted to the Deputy Chief of Staff, Personnel, for validation.

42. The baccalaureate degree in a discipline useful in logistics activities should be made a prerequisite for entry into the Logistics Officers' Program. Graduate degrees should be included as "desirable."

43. Army Regulation 614-132 should be amended to provide for the same relationship between the Deputy Chief of Staff, Logistics (DCSLOG) and the Deputy Chief of Staff, Personnel (DCSPER) with regard to the Logistics Officers' Program as the Chief of Research and Development has with the DCSPER with regard to the Research and Development Specialization Programs under AR 614-135.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 14

COUNTERINSURGENCY TRAINING

PURPOSE AND SCOPE

1. The purpose of this appendix is to analyze current training in Army schools for counterinsurgency operations and the related activities of civil affairs and psychological operations. The discussion reviews the requirements for such training by Army officers to support United States overseas internal defense policy in light of current and anticipated trends in warfare; examines the appropriateness of current programs for providing the needed training; and recommends a modified program more responsive to the Army's long-range requirements.

BACKGROUND

New Army Mission

2. United States aid to Greece and Turkey in 1947 and the subsequent expansion of the Truman Doctrine into a broad program of military and economic assistance brought the United States into world-wide confrontation with international Communism. To counter Communist-inspired "wars of national liberation" during latent, incipient or active stages, the US adopted a policy of assistance to emerging nations aimed at enhancing their internal development, defense, and stability. The extent of the Army's involvement in this area of activity in support of national policy is evident in the Chief of Staff's 1964 statement that "counterinsurgency operations and other types of US military participation overseas in time of nominal peace are a normal third principal mission of the Army going hand-in-hand with nuclear warfare and conventional warfare... The Army should include these stability operations within its concepts and doctrines for...combat on land."

3. Basic United States policy, doctrine and training objectives in counterinsurgency operations are formulated at the highest levels of government. These operations require cooperative efforts of the Department of Defense, the Department of State, the Agency for International Development, and the United States Information Agency.

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4. At present approximately 22% of the Army is actively engaged in world-wide stability or counterinsurgency operations, including over 83,000 soldiers directly supporting politico-military operations connected with US foreign assistance programs.

5. Counterinsurgency operations are listed among the common subjects for officer career schooling and thus are mandatory instructional areas for basic and career (advanced) courses in branch schools. Propensity for instruction in counterinsurgency (CI) operations (OP) is assigned by CGCONARC as follows:

<u>SUBJECT</u>	<u>PROONENT</u>
Brigade and/or Lower Units in CI Op	Infantry School
Fundamentals of CI Op	Special Warfare School
Legal Aspect of CI	Judge Advocate General School
Psychological Op	Special Warfare School
The Insurgency Problem	Special Warfare School
Unconventional Warfare	Special Warfare School
Civil Affairs	Civil Affairs School
Civic Action	Civil Affairs School

Since school Commandants are authorized to determine the number of hours devoted to these subjects, there is a wide variation in the emphasis placed on them.

DISCUSSION

General

6. Basis of Investigation. The concept of stability operations as a third principal mission of the Army formed the basis of the Board's investigation into the adequacy and appropriateness of counterinsurgency training in Army schools. Army training policies, established near the end of FY 65 and being implemented as the Board was conducting its study, will increase the emphasis on counterinsurgency instruction in Army schools in FY 66 and undoubtedly lead to improvements.

7. Training for Counterinsurgency. Success in stability operations is predicated to a great extent upon a concerted training and educational effort in the political, economic, sociological, and psychological, as well as military, interrelationships in a given cultural milieu. At a time when a major investment of Army resources is being directed toward stability operations, training programs that prepare Army officers for

such assignments must be adequate, responsive, and carefully projected to meet operational requirements. Counterinsurgency training programs, moreover, must be addressed not only to the entire officer corps as a part of progressive career schooling in branch schools and Army colleges, but also to selected individuals who will provide expertise in depth in associated specialities.

8. Language Training. The objective of all counterinsurgency operations is people. Primary orientation of effort in counterinsurgency operations must be focused more on winning control and support of local citizenry of the emerging nation than on control of territorial forces. To this end, the importance of language training as an integral part of counterinsurgency training should be emphasized by signing or redesigning courses for officers being assigned to Counterinsurgency Assistance Advisory Groups and missions.

9. Growth in Requirements. There is every probability that the next decade will bring a growth in stability operations and require an expansion in the Army's training in counterinsurgency, psychological operations, and civil affairs. Planners must consider not only expanding the present capacity of the Army's training resources in these areas but also the feasibility of consolidating elements of these resources to produce a more effective training system. In the light of probable operational commitments, the training system will have to strike a careful balance between progressive career schooling and specialist training. As the expanding commitment to counterinsurgency operations raises demands for broader general qualification in this field, an increasing amount of stability training logically should be moved from specialist into career schooling.

Evaluation of Counterinsurgency Training in Career Schooling.

10. Levels of Training. Counterinsurgency training in the Army school system must be geared to the level of the course in which it is taught and the general level of responsibility of course graduates, and must advance progressively from basic courses through the Command and General Staff College.

11. Application of Branch Techniques. Each branch of the Army has specific tactics and techniques for performing normal branch functions in all environments of war. Applicatory exercises are needed to take counterinsurgency training from the theoretical to the practical level, to highlight branch functions and techniques, and to adapt them to the environment of stability operations in which officers will be working. For example, junior officers attending the Ordnance School should be given training in the techniques of establishing an ordnance depot in a country

**EMPHASIS ON CATEGORIES OF WARFARE BY PERCENT
BASIC AND CAREER COURSES AND CGSC**

SCHOOL	NUCLEAR		CONVENTIONAL		STAB OPNS		OTHER	
	BASIC	CAREER	BASIC	CAREER	BASIC	CAREER	BASIC	CAREER
Infantry	14	35	50	30	36	35	--	--
Armor	1	11	97	79	2	3	--	--
Artillery & Missile	1	21	93	70	2	3	4	6
Air Defense	7	--	45	--	5	--	44	--
Engineer	1	8	18	21	5	15	76	56
SE Signal	1	--	16	--	0	--	83	--
Signal	--	8	--	68	--	7	--	--
Army Medical Service	3	8	22	20	5	7	70	--
Army Nurse Corps	4	5	16	1	1	4	79	--
Medical Service Corps	6	--	55	--	2	--	37	--
Chemical	9	26	81	70	10	4	--	--
Ordnance	3	9	92	79	2	5	6	7
Quartermaster	4	2	36	55	0	2	60	41
Transportation	3	6	7	13	4	2	86	79
Adjutant General	2	5	10	10	2	--	86	85
Army Security Agency	--	4	--	0	--	0	--	96
Intelligence	--	8	--	87	--	5	--	--
Chaplain	2	2	95	90	3	8	--	--
Finance	2	1	27	18	7	5	64	76
Military Police	5	10	13	19	4	12	78	59
Judge Advocate General	1	1	20	8	2	1	77	90
Women's Army Corps	2	9	3	6	2	3	9	82
Command & General Staff College	34		22		5		39	

FIG. D14-1

where the majority of workers will be illiterate; where the depot must provide for its local security against insurgents; where depot personnel will be active participants in the national effort to expedite the development of the country concerned; and where the equipment is old and obsolete by our standards.

12. Overall Emphasis in Stability Operations. Figure D14-1 shows a percentage breakout of the curricula in the career courses and the Command and General Staff College according to the three types of warfare, or three Army missions, nuclear, conventional and stability operations. Of the branch schools only the Infantry School gives appropriate emphasis in both basic and career courses to stability operations as a third principal Army mission.

13. Figure D14-2 shows the amount of training in counterinsurgency operations in Army schools today, with civil affairs and psychological operations shown separately. Here again reliance is placed on hours of instruction as a measurement of course value rather than quality of instruction which the Board could not gauge. Although it is difficult to assign relative values to pure and integrated instruction, the total number of instructional hours provides a gross measurement of effort and emphasis in the several schools and courses.

14. Adequacy of Basic Course Instruction. The basic courses at the Infantry, Armor, Artillery and Missile, Ordnance, and Military Police Schools devote sufficient total hours to counterinsurgency, although the courses at the Armor and Artillery and Missile Schools appear inadequate in the number of pure instructional hours. The courses at the Chemical, Transportation, Adjutant General, Chaplain, Finance, and Women's Army Corps Schools are relatively strong in pure hours of instruction. While instruction in civil affairs and psychological operations seems light in all basic courses, the Board believes that at this level these two subjects should be a part of general counterinsurgency instruction. Such instruction should be sufficient for newly commissioned officers to understand clearly their branch's role in stability operations and the techniques to be applied. The addition of the Ranger Course as a mandatory part of initial schooling for all Regular Army lieutenants as proposed in Appendix 2 would result in substantial improvement in their preparation for counterinsurgency operations.

15. Adequacy of Career (Advanced) Course Instruction. It would be expected that the total amount of time devoted to counterinsurgency instruction would be significantly greater in career courses than in basic courses. The fact that this is not true in all cases is surprising in view of the fact that career courses are several times longer than corresponding basic courses and should present branch instruction in

**HOURS OF INSTRUCTION
COUNTERINSURGENCY, CIVIL AFFAIRS, PSYCHOLOGICAL OPERATIONS
BASIC(BC) AND CAREER(CR) COURSES
CGSC AND AWC**

SCHOOL	COUNTERINSURGENCY						CIVIL AFFAIRS		PSYOP	
	PURE		INTGR		TOTAL		BC	CR	BC	CR
	BC	CR	BC	CR	BC	CR				
Infantry	39	61	195	99	234	160	1	14	4	7
Armor	6	26	74	41	80	67	0	4	1	2
Artillery & Missile	5	29	110	392	115	421	0	3	0	3
Air Defense	5	--	13	--	18	--	3	--	4	--
Engineer	7	18	11	165	18	183	2	3	0	1
Signal	5	33	7	131	12	164	0	3	1	1
Army Svc	2	25	32	31	34	56	1	11	1	1
Army Nurse Corps	1	5	2	20	3	25	0	2	0	2
Medical Service Corps	7	--	7	--	9	--	0	--	1	--
Chemical	23	24	4	--	27	24	3	12	7	4
Ordnance	12	27	137	119	149	146	1	3	2	2
Quartermaster	8	20	3	--	11	20	0	5	1	0
Transportation	15	21	10	7	25	28	0	2	2	2
Adjutant General	13	21	2	6	15	27	0	13	1	2
Army Security Agency	--	16	--	29	--	45	--	3	--	2
Intelligence	--	40	--	27	--	67	--	3	--	5
Chaplain	11	28	30	32	41	60	0	10	4	5
Finance	21	37	44	25	65	62	0	5	2	3
Military Police	9	33	188	403	197	436	0	3	0	1
Judge Advocate General	4	8	1	2	5	10	6	27	0	0
Women's Army Corps	11	24	56	60	67	84	4	4	2	2
Command & General Staff College	18		56		74		33		19	
Army War College	74		112		186		20		43	

FIG. D14-2

counterinsurgency in much greater depth. The career courses at the Infantry, Artillery and Missile, Engineer, Signal, and Military Police schools provide more hours of counterinsurgency instruction than the courses in other branch schools, but such instruction (Figure D14-1) is insufficient almost across-the-board. Clearly, steps must be taken to bolster training content in nearly all branch schools in this area of warfare. Psychological operations and civil affairs instruction is also inadequate in nearly every Army school at the career course level. The time allotted to these two areas should be increased since they support stability operations directly.

16. Adequacy of Army College Level Instruction. Figures D14-1 and 2 indicate that the Command and General Staff College places inadequate emphasis on counterinsurgency and stability operations. The C&GSC is moving to correct this situation, and a revised program will reflect a large increase over figures contained herein. This area should be reviewed constantly, since commanders and general staff officers being trained at C&GSC must be as well prepared in this field as in the field of conventional operations. Examination of the purpose and scope of the course of instruction at the Army War College led the Board to the conclusion that emphasis there on stability operations is adequate. In contradistinction to the need to increase emphasis on stability operations at the C&GSC, the Board believes that current emphasis on civil affairs and psychological operations instruction at both the C&GSC and the AWC is adequate.

17. Adequacy of Senior Officer Instruction in Counterinsurgency. Orientation training for senior officers in counterinsurgency operations is provided in a special five-day course conducted at the Special Warfare School. This is largely a lecture course which focuses on US national policy and its implementation. In FY 65 it was attended by ten general officers and over 300 colonels and lieutenant colonels from 19 branches of the Army; nearly 50% of the students were Regular Army officers. The course appears to be fully subscribed and still fulfilling a valid need.

18. Senior officers selected for key positions in MAAGs, missions, or embassies in emerging nations, or in headquarters positions related thereto, receive special instruction at a four-week course of the National Interdepartmental Seminar held at the Foreign Service Institute in Washington, D.C. Other senior officers may attend instruction given by the Military Assistance Institute (MAI) (see paragraph 32) where emphasis is given to problems faced by the US in assisting underdeveloped countries and in the development and coordination of policies and programs related thereto.

19. Current Army plans, programs and capabilities for training senior officers in counterinsurgency, civil affairs and psychological operations are adequate and appropriate. The objective should be to eliminate orientation courses for senior officers as the officers corps becomes progressively more knowledgeable in this area through improved instruction in career type courses.

20. Major Weaknesses in Course Content. Considerable progress has been made since 1961 in incorporating counterinsurgency training throughout the Army school system. However, lack of doctrine and experience in this type of conflict is reflected in the fact that too much stress is placed on the theory of Communist insurgency and insufficient emphasis on practical techniques of combatting it. Schools have difficulty in isolating specifically the types of training required. Deficiencies in counterinsurgency training are generally caused by an attempt to apply conventional procedures to a situation in which such procedures will not necessarily produce satisfactory results. Another major weakness exists in the intelligence area, where instruction is not good and in some cases is non-existent.

21. Until complete sets of field manuals become available, it would be helpful if CONARC obtained for the schools reports of lessons learned, after action reports, debriefing reports, and other published documents which could be used to develop realistic problems and exercises. In addition, many Army officers who have had experience in emerging nations are now in a position to transmit this experience through the vehicle of the school problem. Clearly, the assignment of more of these experienced officers to school faculties would be beneficial. Insofar as intelligence is concerned, instruction should be given in the unique procedures used in a counterinsurgency situation to gather information which can be developed into effective intelligence. It is important to recognize that counterinsurgency intelligence differs from conventional intelligence, particularly in the collection effort which is heavily dependent upon close contact with and support by the local citizenry.

Evaluation of Specialist Training

22. Importance of Specialist Training. The broad spectrum of stability operations involves a commitment of Army capability which may range from only a few officers in one country to thousands in another. In either case, there will be requirements for personnel who have intimate knowledge of national mores, customs and language, and talent and ability in civil affairs/civic actions and psychological operations. Thus, the need for specialists in various activities related to stability operations in underdeveloped countries is comparable to the need for specialists in Army functions in other environments and intensities of war.

23. Examination of Selected Specialist Courses. Specialist courses are conducted in counterinsurgency operations and related areas at the Special Warfare School and in the Civil Affairs School. Three courses from the Special Warfare School and three from the Civil Affairs School, as listed in Figure D14-3, are examined in subsequent paragraphs. Specialist training provided by the Military Assistance Institute (MAI) is also discussed.

SELECTED SPECIALIST COURSES IN COUNTERINSURGENCY OPERATIONS

SCHOOL	COURSE TITLE	LENGTH WEEKS	TIMES HELD	ACTIVE ARMY OFFICER ATTENDANCE
Special Warfare	Counterinsurgency Operations	10	3	171
	Military Assistance Training Advisor (MATA)	6	7	911
	Psychological Operations	10	3	143
Civil Affairs	Civic Action	6	4	129
	Special CA Advisor (Vietnam)	4	1	53
	Civil Affairs Functions	8	4	65

FIG. D14-3

24. Counterinsurgency Operations Course. The ten weeks' Counterinsurgency Operations Course at the Special Warfare School provides officers with a working knowledge of the nature and conduct of counterinsurgency operations and a general knowledge of the various aspects of military and non-military participation in the counterinsurgency program. The course covers both causes and cures. It was undersubscribed during FY 65, when 286 of an annual quota of 354 students attended; 171 students were Active Army officers. Thirteen branches were represented in the student body; the principal grades were second lieutenant through major. The Board notes that officers serving obligated two-year tours of duty constituted about 16% of the student body; none of them, nor any officer, should attend this course who is not on orders to an assignment where the training can be utilized. The Board believes it may soon be possible to eliminate this course as the career type courses expand and improve their coverage of counterinsurgency.

25. Military Assistance Training Advisor (MATA) Courses. The most heavily subscribed courses in the counterinsurgency area are the several levels of MATA courses held at the Special Warfare School. These six-week courses are held from four to seven times per year depending upon the level at which the student is being trained. The instruction includes area study and Vietnamese language training, counterinsurgency operations, psychological operations, civil affairs, intelligence operations, and refresher training in infantry weapons, demolitions and communications, all oriented toward the level required by the student. These courses are heavily attended and provide needed specialist training prior to departure of students for Vietnam. Specially tailored courses of this type will be needed for many years to come. Changes in course content will be required to reflect differing geographical areas toward which the US counterinsurgency effort is oriented. MATA type courses should act as a surge tank to accommodate a large flow of students on short notice as the need arises.

26. Language instruction given in MATA courses is augmented by additional training at the Defense Language Institute, West Coast Branch. (DLIWC) Some officers attend a five-week MATA course without language training, then proceed to DLIWC for 12 weeks' training in Vietnamese. Others receive 120 hours' language training at a MATA course, then proceed to DLIWC for an eight weeks' course in Vietnamese. This division of language training duplicates facilities, fragments MATA training and imposes an additional hardship on students and dependents immediately prior to an extended separation. The training and language facilities could be consolidated and multiple TDY assignments reduced by establishing the East Coast Branch of DLI at Fort Bragg.

27. Psychological Operations Course. This 10-week course at the Special Warfare School directs major emphasis toward psychological operations in support of military operations. Eighty percent of the course is oriented toward stability operations. A practical exercise constitutes nearly 50% of the instruction. Over two-thirds of the students during FY 65 were from the Active Army, principally from the five combat arms. Approximately one-third of the students were in the grade of second lieutenant; the remainder were concentrated largely in the grades of captain, major and first lieutenant, in that order of decreasing magnitude. A majority of the graduates were assigned to psychological operations units and/or advisor and staff positions in the field, primarily in Vietnam. The Board believes that no officer should attend the course unless he is actually on orders to psychological operations duty.

28. Civil Affairs Functions Course. This eight-week course, given four times annually at the Civil Affairs School, provides training for junior and senior personnel being directed into specialist positions in

civil affairs units or in G-5 staff assignments. The course provides the student with a working knowledge in the fundamentals of Civil Affairs (CA) organization, policies and procedures at all levels of command for the full spectrum of warfare. Over 90% of the instruction in this course is directed toward support of stability operations.

29. Civic Action Course. The purpose of this six-week course at the Civil Affairs School is to provide commissioned officers with a working knowledge in planning, developing, programming, administering and expanding, as necessary, military civic actions. It is designed for officers being assigned to a MAAG or mission, to a civic action mobile training team, to civil affairs augmentation to special action forces, to a command or unit engaged in counterinsurgency operations, to schools, or to staff positions which require knowledge of civic action. It is completely oriented toward counterinsurgency operations.

30. Special CA Advisor (VN) Course. A recently added four-week CA Advisor (VN) Course at Fort Gordon is now offered four times annually and provides training in civil-military interaction, civic action programming, advisor-advisee relationships, and area study at the provincial level in Vietnam. This course has the purpose "to provide a basic working knowledge of those civil affairs/civic action theories, functions and operations applicable to the role of civil affairs advisors in Vietnam to selected commissioned officers programmed for assignment to that country; and to supplement students' knowledge of government, society and economy of the Republic of Vietnam in terms of civil affairs/civic action operations. Anticipated student load will be 15-25 per course. This course is too new to evaluate.

31. During FY 65, 248 Active Army and 39 foreign officers attended all these courses at the Civil Affairs School. The Civil Affairs School's capability of conducting civil affairs and civic action courses with a particular geographical orientation represents a valuable asset to the Army's school system. This capability should be retained both to provide the continuing requirements for civil affairs specialists in the Active Army and careerists in the Reserve Components, and to serve as a safety valve or surge tank for emergency training of individuals being assigned in advisory positions in specific geographic areas.

32. Military Assistance Institute (MAI). This contract-operated school is discussed briefly in Annex C, Appendix 1. Personnel who are under orders to a MAAG, mission, or a headquarters administering the military assistance program, attend the four-week course of the MAI in Arlington, Virginia. Training is oriented toward counterinsurgency problems, civil affairs (civic action), advisor techniques and area studies. As noted in the referenced appendix, the Army provides approximately 75%

of the student load. In some cases an officer who attends the MAI is also required to pursue language training at the DLI prior to his movement overseas.

Specialist Program

33. Civil Affairs Specialist Program. Specialist programs are discussed briefly in Annex B, Appendix 2. It is noted that only 32 officers are presently enrolled in the Civil Affairs Specialist Program. The Board has been informally advised that the Army currently identifies a requirement for about 500 civil affairs specialists. As the Active Army has no Civil Affairs branch, there are no branch generalists in this area. Civil Affairs does exist as a branch in the Reserve Components, and predominant Army strength in organized CA units occurs in the Reserve, which has 77 units to the Active Army's three. Civil Affairs emphasis in the Active Army can be said to be predominantly in the context of civic action related to stability operations and in Reserve Components predominantly in the classical World War II context.

34. Psychological Operations Specialists. There is no specialist career program in the psychological operations area, although there have been proposals for one. An increasing requirement is developing for trained psychological operations officers at all levels of the Army. Events in Vietnam, Thailand, Laos, the Dominican Republic and other critical areas have served to demonstrate the need for officers trained in this aspect of counterinsurgency operations.

35. Combination of Specialists. Thus, on the one hand, the Army has the Civil Affairs Specialist Program, with some orientation toward counterinsurgency, which seems to be dying for lack of interest or motivating challenge. On the other hand, the Army has a growing requirement for officers especially qualified in the psychological aspect of counterinsurgency operations in which there is no specialist program. The Board is led to the conclusion that a consolidated program including the aforementioned specialties, broadened to establish a climate of intellectual challenge and career opportunity would be desirable. Such a program appears warranted by the prospects of future commitment of Army resources and the need to attract young officers of promising potential in sufficient numbers to meet anticipated requirements. The Board believes that this should be a modified and enlarged Foreign Area Specialist Program which would include specialists in languages, regions, psychological operations, civil affairs, and related activities. The present Civil Affairs Specialist Program should be absorbed into the new program, which would be renamed Foreign Studies Specialist Program. Key positions should be established for participants in the new program, which would be operated under the direction of the Deputy Chief of Staff for Personnel

in cooperation with the Deputy Chief of Staff for Military Operations and the Assistant Chief of Staff for Intelligence. Necessary procedures should be instituted for identifying these key positions and for controlling program participants and insuring their progressive development and utilization.

Consolidation For Growth

36. Center for Foreign Studies. A further step in the consolidation and exploitation of present talent and preparation for future growth involves relocation of existing widespread and non-mutually supporting facilities. The Board believes it would be highly profitable for the Army to take steps now to improve its posture and capabilities in foreign area studies and related activities, including stability operations. To this end the Board concludes that an educational and training center should be established at which would be located Army schools conducting programs in geographical areas, peoples, cultures, languages and civil-military relationships. This consolidation of facilities and integration of instructional material would provide a center for all specialized training in counterinsurgency operations, would permit a reduction in the number of instructional packets from dispersed proponents, and lead to more effective training.

37. Location of Center. The US Army John F. Kennedy Center for Special Warfare at Fort Bragg is particularly well suited as the location for such a new educational and training center. The Board believes that the Civil Affairs School should be relocated to Fort Bragg within the new center. An element of the Defense Language Institute should be located at Fort Bragg with the new center. The Board would like to see the proposed Intelligence Center (Annex D, Appendix 21) also located at Fort Bragg. A suggested name for the new center would be US Army John F. Kennedy Center for Foreign Studies.

CONCLUSIONS

38. As US involvement in stability operations almost certainly will continue and probably increase during the next decade, the orientation of the Army toward this type mission should increase. Steps should be taken by the Commanding General, US Continental Army Command (CONARC) to accord instruction in counterinsurgency operations in career schooling at the branch schools and the Command and General Staff College the emphasis present and anticipated US Army commitments demand.

39. Career (advanced) course instruction in counterinsurgency should identify and stress practical operational problems and their

solutions as related to the branch against a background of national policy in overseas internal defense operations and the cooperative effort of several agencies of the Federal Government.

40. The Office of Personnel Operations should assign officers returning from emerging nations who were involved in overseas internal defense operations to the staffs and faculties of Army schools.

41. There is a continuing need for training specialists and advisors in activities which form a part of counterinsurgency/stability operations such as civil affairs, civic action, languages, psychological operations and military assistance activities.

42. The Senior Officers' Orientation Course in Counterinsurgency and Special Warfare and the Counterinsurgency Operations Course should be eliminated when career-type courses reflect adequate and progressive counterinsurgency training. Specifically, it should be possible to eliminate the Counterinsurgency Operations Course at the Special Warfare School during FY 67.

43. Courses of the Military Assistance Training Advisor type will be needed for the foreseeable future as a surge tank to accommodate a large flow of students assigned to advisory positions in specific geographical areas toward which the US counterinsurgency effort is oriented.

44. A modified and expanded Foreign Area Specialist Program should be established encompassing the entire field of foreign area studies, to include geography, customs and cultures, languages, psychological operations, civil affairs and related activities. This new program renamed the Foreign Studies Specialist Program should absorb the present Civil Affairs Specialist Program. The program should be operated under the direction of the Deputy Chief of Staff for Personnel in cooperation with the Deputy Chief of Staff for Military Operations and the Assistant Chief of Staff for Intelligence.

45. An educational and training center should be established at the present US Army John F. Kennedy Center for Special Warfare, to form the nucleus of specialized Army training in foreign area studies. The present Civil Affairs School and an element of the Defense Language Institute should be located at Fort Bragg. Space permitting, the Intelligence Center proposed in Annex D, Appendix 21, should also be located at Fort Bragg.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 15

TRAINING IN CBR OPERATIONS AND EMPLOYMENT OF NUCLEAR WEAPONS

PURPOSE AND SCOPE

1. This appendix addresses itself to the training for chemical, biological, and radiological (CBR) operations and the employment of tactical nuclear weapons. The analysis includes career, specialist, orientation, and refresher courses for Army officers at military schools as well as advanced civil schooling.

BACKGROUND

2. Instruction in CBR and tactical nuclear operations is included in the four levels of officer career courses at Army branch schools and colleges. The Chemical School conducts branch material instruction in CBR operations in Chemical officer career courses, and specialist training in various aspects of CBR operations for officers of all branches and services. The Infantry, Armor, Artillery and Missile, Engineer, and Chemical Schools teach branch-oriented specialist courses related to nuclear weapons operations. Senior officer CBR orientation training is given in a CBR Weapons Orientation Course at Dugway, Utah, and nuclear weapons orientation and technical training is provided by the Atomic Weapons Training Group, Field Command, Defense Atomic Support Agency (DASA) and the US Naval School, Indian Head, Maryland. Advanced civil schooling in various scientific and engineering disciplines in the nuclear, chemical, and biological areas is provided to selected officers. A discussion of schools and courses which provide instruction in CBR and nuclear operations is included in Annex B, Appendices 4 through 7 and Annex C, Appendices 1 through 3. These courses are analyzed in Annex D, Appendices 2 through 7. Significant statistics in these annexes, with particular reference to the number of instructional hours in CBR and nuclear operations at various schools, are repeated in the discussion.

3. A Proponent School is defined in Annex Q to US Continental Army Command (CONARC) Training Directive 350-1, dated 8 May 1965, as an Army service school which has responsibility for development and timely review of training/instruction material primary to that school's

area of academic interest. Instructional packets are distributed to all applicable branch schools not later than 1 December of each year, and indicate the minimum hours each service school should teach in its basic and career courses. Although each Commandant has the prerogative to adjust his curriculum to fit his particular needs, programs of instruction must be approved by CONARC. Proponent schools are available also to advise higher level schools when asked. The Chemical School is designated proponent for CBR operations and the Artillery and Missile School proponent for nuclear weapons employment.

DISCUSSION

Branch Schools

4. Basic Courses today all include some form of CBR and nuclear weapons employment instruction. These courses should emphasize individual and small unit actions under field conditions where practicable. Classroom sessions should be kept at a minimum since most of the subject matter lends itself to demonstration and field exercises. A comparison of hours of CBR and nuclear instruction, together with the recommendations of the proponent schools is shown in Figure D15-1.

CBR AND NUCLEAR INSTRUCTION - BASIC COURSE

SUBJECT BRANCH SCHOOLS	CBR				NUCLEAR			
	PURE		INTEGRATED		PURE		INTEGRATED	
	NOW	REC	NOW	REC	NOW	REC	NOW	REC
Combat Arms	2 - 4	6	2 - 52	10	2 - 23	5	0 - 5	C D
Tech & Admin (less those listed below)	2 - 10	6	0 - 16	5	2 - 13	5	0 - 15	O I M S M C
Mil Police	3	11	28	10	7	5	0	A R N E
Med Fld Svc, Chap, JAG, WAC	0 - 9	13	0 - 27	2	0 - 13	5	1 - 17	D T A I N O T N S

FIG. D15-1

The proponent schools have not been included in this chart because their areas of specialization would distort the comparison. Some of the schools included in the chart are teaching less than the minimum hours recommended or are not teaching the subject at all. The Military Police School requires a rather large amount of CBR instruction due to its responsibilities for riot control. The Medical Field Service courses, Chaplain, Adjutant General, and Women's Army Corps Schools train newly commissioned officers who have had no previous military training. An increased amount of training is required for these officers to ensure their survival under conditions of CBR and nuclear warfare. Additionally, the Army Medical Service officers must be given specialized instruction in the handling and treatment of CBR and nuclear warfare casualties. The Board considers that the recommended minimum hours are valid and at least that many should be included in the curricula of all schools. The Board noted with approval the trend to emphasize integrated or applicatory CBR and nuclear training.

5. Career Courses today focus on company, battalion and higher unit actions, and utilize lectures, conferences, seminars and field exercises in the instruction. A comparison of actual hours of CBR and nuclear instruction and the minimum recommended by the proponent schools is shown in Figure D15-2. Wide variations occur between

CBR AND NUCLEAR TRAINING - CAREER COURSE

SUBJECT BRANCH SCHOOLS	CBR				NUCLEAR				
	PURE		INTEGRATED		PURE		INTEGRATED		
	NOW	REC	NOW	REC	NOW	REC	NOW	REC	
Combat Arms	14 - 36	25	2 - 24	10	126-147*	117	8 - 73		C D
Tech Service (less those listed below)	4 - 64	21	0 - 50	5	8 - 77	22	6 - 29		O I M S
JAG, AG, Chap, Fin	4 - 10	21	0 - 5	5	5 - 30	6	1 - 21		M C A R
Military Police	5	25	162	15	42	22	10		N E D T
Med Fld Svc	17	23	3	5	25- 77	22	5 - 6		A I N O T N S

* Includes Prefix-5

FIG. D15-2

schools and between actual and recommended hours for each subject. The Intelligence, Quartermaster, Judge Advocate General, Chaplain, and Finance Schools, with no CBR integrated instruction in their career courses, should take immediate action to correct the deficiency. The Board considers that all career (advanced) courses should include at least the minimum CBR and nuclear instruction recommended by proponent schools in their core curricula. Additional instruction in the form of electives could be offered at this level of schooling, as discussed later in this appendix.

The Command and General Staff College (C&GSC)

6. The C&GSC refers to CBR and nuclear weapons as "Special Weapons," in its program of instruction. The course focuses on Army command and general staff responsibilities in the employment of special weapons. The techniques and procedures for special weapons employment, application of these techniques in practical exercises, logistical aspects, and foreign capability considerations are included in the regular course. The hours currently taught in the CBR and nuclear fields are shown in Figure D15-3. These hours appear to be

CBR AND NUCLEAR INSTRUCTION AT COMMAND AND STAFF COLLEGES

SUBJECTS	GBR		NUCLEAR	
	PURE	INTEGRATED	PURE	INTEGRATED
C&GSC	Reg 9 Assoc 9	Reg 38 Assoc 9	Reg 28 Assoc 28	Reg 98 Assoc 46
AFSC	(NC/B) 17*	(NC/B) 8	(NC/B) 23	(NC/B) 120
Air Command and Staff College	4	0	3	27
School of Naval Command and Staff	10	10	30	70
Marine Corps Staff & Command College	0	4	0	33

* Includes 14 hours of NC/B combined group study of planning and policy.

FIG. D15-3

adequate and consistent with the mission and functions of the college. The CBR and nuclear instruction is comprehensive, logically developed, and well integrated with other subjects throughout the academic year. The Board considers that the change of the C&GSC course objective proposed in Appendix 4 should not act to decrease instruction in CBR and nuclear operations. The current use of non-toxic chemicals in counterinsurgency operations and the complex staff procedures associated with the selective use of nuclear weapons in contingency operations dictate continued instructional emphasis at the C&GSC in these areas.

The Armed Forces Staff College (AFSC)

7. The AFSC uses the nomenclature "Nuclear, Chemical/Biological Operations (N/CB)," in reference to the CBR and nuclear aspects of the course. The course covers major considerations involved in the preparation of N/CB planning guidance at joint and combined levels, to include command and control, coordination, weapons requirements and allocation, constraints and logistics, and the assessment of the impact of enemy N/CB capabilities on United States operations. The instruction in nuclear and biological operations appears to be adequate and consistent with the mission and functions of the college.

Other Staff and Command Colleges

8. The Naval, Marine, and Air Command and Staff Colleges include CBR and nuclear operations training in their curricula. Hours devoted to each subject are shown in Figure D15-3. Since only 3% of the Army officers attending command and staff college schooling attend these three courses, no analysis is made of their CBR and nuclear operations content.

Senior Service Colleges

The five senior service colleges present the CBR and nuclear instruction from as many points of view. Although comparison of college curricula makes accurate determination of hours devoted to specific subjects difficult, Figure D15-4 indicates hours as reported to the Board. These should be considered order of magnitude figures only. The tabulation indicates a major difference in emphasis in CBR and nuclear operations instruction at the AWC and the other senior service schools. Other than the AWC, only the Air War College and NWC give even limited attention to CBR operations, and, except for the Air and Naval War Colleges, little time is devoted to nuclear operations. The requirements of officers of other Services for CBR and nuclear operations instruction at this level, and the reasons behind the allocation of hours to these subjects by other Service and joint colleges, have not been investigated.

CBR AND NUCLEAR INSTRUCTION AT SENIOR SERVICE COLLEGES

COLLEGE	CBR	NUCLEAR	ANNEX	APPENDIX
Army War College (AWC)	21	59	B	5
Naval War College	None Scheduled	Integrated	C	2
Air War College	6	30	C	3
Industrial College (ICAF)	None Scheduled	6	C	1
National War College (NWC)	3	5	C	1

FIG. D15-4

10. At the AWC, CBR and nuclear weapons employment is integrated throughout the curriculum. The current and projected weapons systems and the policies and procedures governing their use are presented as a background to the development of strategic concepts for their employment. Consideration is given to the potential of these weapons in the formulation of strategic concepts and basic undertakings for employment of military forces. In addition, technical possibilities and developments for the 1970-80 period are investigated, as are limitations imposed on scientific advancement as a result of the limited test ban treaty or other disarmament proposals. The Board concludes that the AWC is giving adequate instruction in CBR and nuclear operations.

Specialist Courses

11. The procedure of training selected officers in greater depth in certain areas of knowledge is employed in both CBR and nuclear activities. This specialist training may be in a functional area, or to qualify officers for a prefix to a MOS, or to qualify for a MOS.

12. CBR and nuclear specialist training in functional areas is conducted at several locations as indicated by the following briefs.

a. The CBR Officers' Course at the US Army Chemical School is a four-week course designed to provide the non-chemical Corps officer with a working knowledge of all aspects of CBR to include operations, training and intelligence; logistics; technical considerations; radiological defense; and medical training and support. There are 12 classes scheduled for FY 66 with a total quota of 590 officers. While similar training is being conducted today in some organizations or installations, the Board concludes, after consideration of Army-wide needs, that a valid requirement for the course exists. An imprecise definition of student prerequisites, and a lack of course focus toward specific job assignments causes it to suffer from too wide a grade spread of students and, in certain instances, inadequate justification for their attendance. While branch representation is adequate, the predominant attendance is by USAR second lieutenants who, after receiving the training, have only a limited period of service obligation. A more economical use of this course could be made by sending additional Regular Army and indefinite category Reservists in place of short term officers. Further, consideration should be given to some reduction of course length.

b. The Radiological Safety Officers' Course at the US Army Chemical School, of two weeks' duration, is for officers, warrant officers and selected civilians. Its purpose is to provide training in radiological safety techniques, the storage and handling of radioactive material, and use of the RADIAC Calibrator. This course is programmed for only 83 students in FY 66. Students come from all branches of the Army. The course appears to be balanced in content and adequate in length. No change is recommended.

c. The Nuclear Emergency Team Operations Officers' Course at Sandia Base is run by the DASA. The objective of this four-week course is to train selected officer personnel in the hazards associated with nuclear weapons components, in the safety policies, preparations, and procedures to be applied in minimizing nuclear and explosive hazards, in the immediate implications and possible effects of a nuclear weapons accident or incident, and in the various immediate procedures for minimizing adverse effects, including selected decontamination and cleanup procedures. Eight classes are conducted each year. The Army sent 29 students through the course in FY 65 out of a Defense-wide total of 144 students. This course meets the current requirement for this type of training.

d. The Atomic Demolition Officers' Course at the Engineer School provides commissioned officers with a working knowledge in

**NUCLEAR WEAPONS OFFICER (PREFIX-5) REQUIREMENTS AND ASSETS
BY BRANCH**

BRANCH	TD and TO/E REQUIREMENTS To 31 MAR 67	ARMY ASSETS 30 JUNE 65
Armor	155	1,054
Artillery	1,722	4,398
Infantry	366	2,467
Chemical Corps	264	630
Corps of Engineers	222	737
Ordnance Corps	50	222
Quartermaster Corps	5	55
Signal Corps	4	121
Transportation Corps	4	97
Adjutant General's Corps	-	18
Finance Corps	-	15
Military Police Corps	6	33
Intelligence & Security	14	187
Women's Army Corps	-	8
Chaplain	1	2
Judge Advocate General	-	6
Medical Corps	2	11
Dental Corps	-	1
Veterinary Corps	1	5
Medical Service Corps	3	30
Professors, USMA	-	2
Arms Material	37	-
Branch Immaterial	18	-
Service Material	5	-
TOTAL	2,879	10,099

FIG. D15-5

planning and executing an atomic demolition mission at combat engineer unit level. Attendance at the two-week course is limited to commissioned officers whose actual or anticipated assignment is to a position requiring knowledge of the subject matter. The student must meet the selection and clearance criteria for assignment to nuclear weapons positions. This course was offered 11 times in FY 65 and graduated 173. It meets a special need for training in depth in atomic demolitions. No change is recommended.

e. A variety of nuclear and CBR field training, both in the United States and abroad, has not been included in this study.

13. Prefix-5 (Nuclear Weapons Officer) is used to designate positions which require assignment of personnel specially trained for nuclear planning and operations. This prefix should not be employed as the only indicator of qualification for a position. It is used with the basic four-digit code to identify additional requirements of certain positions and the additional qualifications of personnel who are capable of filling such positions. The Infantry, Armor, Artillery and Missile, Engineer, and Chemical Schools conduct prefix-5 courses. The Table of Distribution (TD) and Table of Organization and Equipment (TO&E) positions designated to be filled by prefix-5-qualified officers and the assets currently available by branch, as of 30 June 1965, are shown in Figure D15-5. A comparison of the columns indicates a ratio of 3.5 to 1 of assets to requirements. No comparison by grade was attempted but the ratio by branch, as indicated below, is significant:

Armor	7:1
Artillery	2.6:1
Infantry	6.7:1
Chemical	2.5:1
Engineers	3.3:1

14. CONARC has programmed prefix-5 training for 1,677 officers during FY 66. Compared with the stated requirement, this figure indicates that 60% of the stated total requirement is being trained in one year. This apparent overtraining in CONARC schools is augmented by training at schools overseas and by the authorization (under AR 611-103) for prefix-5 qualifications by on-the-job training. Not only does the number of officers trained seem excessive, but the number of hours in the courses is also excessive. The proponent school (Artillery and Missile) indicates that a hard core program of 112 hours of instruction and five hours of examination is necessary for qualification. All schools presenting the prefix-5 course exceed this hard core by about 50%. While it is understandable that the Artillery and Missile School may want more hours for nuclear weapons, the Engineer School for atomic demolitions, and the Chemical School for radiological defense instruction, these extra hours belong in career or specialist courses other

than prefix-5. Further, the Board seriously questions the validity of currently stated requirements in the TD's and T/OE's. A spot check of T/OE's reveals that such positions as the liaison officer in a 105mm battalion, the S-3 of a tank battalion, and the S-4 of an armored cavalry regiment are currently designated as prefix-5 positions. The Board considers there is inadequate justification for specialized prefix-5 training for these individuals. Additionally, the assets indicated are only for primary MOS's with a prefix-5. The number of personnel with a prefix-5 to secondary and tertiary MOS's add materially to listed assets - and could, in fact, double or triple them. The need for a complete study of the whole prefix-5 area is recognized by the Assistant Chief of Staff for Force Development (ACSFOR) and one is now being made. Meanwhile, major reductions in training appear possible, with concomitant savings in time and money, without detracting from combat effectiveness. Even if the current requirements figures are accepted as valid, the following actions should be taken as soon as practicable:

- a. Discontinue prefix-5 training at the Armor School in FY 67.
- b. Career (advanced) course student attendance at prefix-5 courses will be limited to 25% at the Infantry School and 50% at the Artillery, Chemical, and Engineer Schools. Armor officers requiring a prefix-5 can obtain it while attending the Infantry career course.
- c. Reduce the prefix-5 course at the Infantry, Artillery and Missile, Chemical, and Engineer Schools to three weeks and limit the curriculum to the hard core subjects indicated by the proponent school.
- d. Send officers of other branches who require prefix-5 qualification to one of the four schools presenting the course.
- e. Adjust quotas of officers of all branches taking prefix-5 training in the future to maintain not more than a 3:1 ratio of assets to requirements.

15. A five-day prefix-5 refresher course, required for all prefix-5-qualified officers every two years unless assigned to a utilization position, is conducted under the proponentcy of the Artillery and Missile School. The course may be taken in a resident or non-resident status. The resident course is conducted at all schools presenting a prefix-5 course. The correspondence course is entirely adequate to meet the refresher requirement since the complexity of the techniques and procedures has lessened during recent years. The Board concludes that all resident prefix-5 refresher courses should be eliminated and that the refresher course should be taken by correspondence

as required (See also Annex D, Appendix 7).

16. There are two MOS-producing courses for nuclear weapons operations and none for CBR operations.

a. The Nuclear Weapons Disposal Officers' Course (MOS 9224) is of six weeks' duration and conducted at the US Naval School, Indian Head, Maryland. Its purpose is to provide individual technical training to commissioned officers to enable them to detect, render safe, salvage, and dispose of unexploded nuclear weapons. The prerequisites of this course include satisfactory completion of the Explosive Ordnance Disposal (EOD) course immediately prior to enrollment. The EOD course consists of two phases: Phase I for two weeks at the US Army Chemical School and Phase II for 11 weeks at the US Naval School at Indian Head. The EOD course is non-MOS producing, but the two courses together, totaling 19 weeks, result in the award of MOS 9224. They were completely reworked, and inaugurated on 1 July 1965. The quota for FY 66 has been programmed at 188 officers of all four Services; there is not enough operating experience with this course to make an evaluation of its adequacy.

b. The Army Nuclear Weapons Officer Course (MOS 1723) is of seven weeks' duration and conducted at Field Command, DASA, Sandia Base, by the Atomic Weapons Training Group. Its purpose is to train commissioned officers and federal civilian employees in the technical supervision and administration of various procedures and operations essential to Army nuclear weapons assembly, operational maintenance, and logistics. The attendance is limited to those persons whose actual or anticipated assignment requires a capability for supervision and/or administration of nuclear weapons assembly and maintenance operations. Joint-service application phases of this course are taught on an integrated basis with the Navy Nuclear Weapons Officer Course. Eight classes are scheduled in FY 66 with a total Army quota of 90 students. A three-week refresher (Army Nuclear Weapons Officers Transition Course) is offered to graduates of the long course after a minimum of three years' postgraduate service. There are six refresher classes a year with a total of 27 Army students for FY 66. No change is recommended for either the long or the refresher course.

Orientation Courses

17. Two courses are presented at Sandia Base which may be considered under the general heading of orientation: Nuclear Weapons Orientation Advanced (WOA) and National Atomic Weapons Capabilities (NAC). Both are Defense courses and Army students make up less than a third of the current quotas. The purpose of the WOA is to acquaint senior officers and selected civilians with the national nuclear

weapons program. The purpose of the NAC is to familiarize senior officers with the nation's nuclear weapons capabilities and with the organizations responsible for and the procedures involved in developing, maintaining, and employing these capabilities. The percentages of the courses devoted to each major subject and other pertinent data are shown in the tabulation at Figure D15-6.

DASA ORIENTATION COURSES

	WOA	NAC
Percentage Breakdown of Curriculum		
Introduction and Principles	14%	13%
Nuclear Weapons and Delivery Capabilities	39	23
Weapons Effects	31	18
Employment of Nuclear Weapons	-	20
National Nuclear Weapons Program	16	16
National Nuclear Weapons Planning and Operations	-	10
Course Length		
Number of Classes each year	5 days	9 days
Army Attendance FY 66	10	9
Total Attendance FY 66	327	63
	1,060	234

FIG. D15-6

A review of the rosters of Army attendees at both courses reveals that most of them have little need to know the information presented. The Army-sponsored attendees do not meet the prerequisite of "senior officers and civilians." Figure D15-7 illustrates this point in that a large number of attendees are either at or below the grade of major/GS-13. These facts, plus the several DASA-conducted special orientation trips for general and flag-rank officers each year, indicate the advisability of reducing the number of Army officers attending the WOA. Although significant reductions in Army quotas for these Defense courses have been made in FY 66, the Board concludes that additional reductions should be made. The FY 66 figures could be reduced in half simply by limiting attendance to the stated prerequisites for selection (senior officers or selected civilians).

**ARMY ATTENDANCE AT ORIENTATION COURSES
ATOMIC WEAPONS TRAINING GROUP**

	WOA				NAC	
	FY 65		FY 66		FY 65	FY 66
	OFF	CIV	OFF	CIV	OFF	CIV
General/GS-16+	4	6	3	-	-	-
Colonel/GS-15	50	19	10	7	7	2
Lt Col/GS-14	74	39	28	5	20	8
Major/GS-13	49	37	23	16	23	9
Captain/GS-12	19	13	4	14	16	3
Lt/GS-11-	2	11	-	1	1	-
TOTALS	198	125	68	43	67	22

FIG. D13-7

18. The CBR Weapons Orientation Course (CBR WOC) at Dugway is designed as a high-level orientation to inform senior commanders and policy makers in the Department of Defense of the strengths, weaknesses, types of weapons systems and defensive system required in this type of warfare. The highlight of the course is a live demonstration of a lethal chemical attack. This course is one of the major efforts in the program to overcome old misconceptions and present CBR operations in their proper perspective. The live demonstration dictated that the course be located at Dugway Proving Ground due to safety requirements, even though the students view the demonstration over closed circuit TV rather than directly. The course is composed of the following parts:

Conference	18 ½ hours or 64 %
Demonstration (Including Field Trip)	4 hours or 14 %
Seminar	5 ½ hours or 18 %
Film	1 ½ hours or 4 %
TOTAL	29 hours - 100 %

19. Attendance at the course has run up to 1,000 a year. Several special classes have been conducted for British and Canadian officers, the Board of Manufacturing Chemists, the National Press

Conference, and others. The officer attendance in FY 65 was 451 and included the following: 201 generals, colonels, and lieutenant colonels, and 250 other officers. Apparently too many courses are being conducted, as less than 50% of the officers have rank consistent with stated course prerequisites. Furthermore, approximately half of the students are civilians. The objective of this course could be accomplished more economically by moving it, less the live fire demonstration, to the Chemical School, Fort McClellan, Alabama. The Chemical School staff and faculty could conduct the course with little if any increase in personnel. The Board considers this move should be made during CY 1967. Immediate savings in man/years and dollars could be made by limiting attendance to lieutenant colonels/GS-14 and above. This would reduce attendance by about 50%. The live fire demonstration at Dugway should be presented to general/flag officers, colonels (Navy captains), and highly selected senior civilians as needed, in much the same fashion as guided missile firing demonstrations are presented from time to time at White Sands Proving Ground. It should be coordinated with tests at Dugway Proving Ground (DPG) and special training of troops.

The Atomic Energy Specialist Program (AEP)

20. The AEP was established to assure the planned availability of an adequate number of personnel with technical and scientific qualifications to meet the continuing requirements in fields critical to the Army's atomic energy effort. (See AR 614-135). The AEP provides the Army officer with a specialized field compatible with his background, experience, and personal desires. This program is designed to improve his scientific and technical proficiency, and to provide optimum utilization opportunities in positions of progressively increasing responsibility. The participant maintains branch proficiency by alternating assignments between his branch and the AEP. Identification and approval of key and controlled atomic energy positions, reflecting critical Army requirements in this field, enhance alignment of talent with job requirements and provide definite career development and utilization assignments for officers with special qualifications. The ultimate objective of this program is to identify and develop a hard core of capable, professionally equipped Army officers who, upon attainment of senior rank, will fill key positions in the field of military application of atomic energy.

21. There were 193 participants in the AEP, as of 30 November 1965, (see Figure D15-8), with a goal of 264. Key positions for 59 participants have been identified and are now being reviewed, in accordance with AR 614-135, by the Deputy Chief of Staff for Personnel (DCSPER) in coordination with the Chief of Research and Development and the ACSFOR. Many more key positions will probably be identified.

A firm list would assist in the determination and validation of requirements for education and training of AEP participants.

ATOMIC ENERGY PROGRAM

RANK	ARM	ARTY	IN.	CE	CML	MSC	ORD	QMC	SIG	TC	AIS	TOTAL
Col	1	11	7	3	7	1	15		3			48
Lt Col	7	18	6	5	8		14		6			64
Major	6	7	1	5	15		9	1	5			49
Capt		2	1	7	11	1	5	1	1	1	1	31
1st Lt				1								1
TOT.	14	38	15	21	41	2	43	2	15	1	1	193

FIG. D15-8

Electives

22. The CBR and nuclear operations subjects lend themselves readily to inclusion in elective programs in the three upper levels of Army career schooling. Most Army schools and colleges have the necessary faculty to present instruction in depth in various aspects of CBR and nuclear operations. The analysis in Annex D, Appendix 26 has suggested categories of electives. The "Scientific and Technical" area could include CBR and nuclear subjects in either the Research and Development or the Atomic Energy Programs. The "Military Arts" area could include both subjects.

Civilian Schools

23. Army officers are provided the opportunity to attend civilian universities for graduate studies for up to two years, in such fields as bacteriology, biology, bio-chemistry, bio-physics, bio-radiology, chemistry, chemical engineering, engineering, medical micro-biology, nuclear engineering, nuclear physics, operations research, physics, radiological safety and defense, and many others that specifically pertain to CBR and nuclear activities. This type of

education helps to meet the needs of the AEP and other career specialist programs, the CBR branch material program of the Chemical Corps, the faculty needs of service colleges, schools, and courses concerned with CBR and nuclear operations, and other activities requiring CBR and nuclear specialists. Such education should be made available to officers to fill positions validated by the Army Educational Requirements Board, adjusted by personnel management factors to assure that requirements are met. (See also Annex D, Appendix 19).

CONCLUSIONS

24. Common subject CBR and nuclear weapons employment education and training in basic and career (advanced) courses at branch schools should include at least the number of hours recommended by the respective proponent agencies (see Figures D15-1 and 2); integrated instruction should be stressed.

25. Instruction currently offered in CBR and nuclear operations at the Command and General Staff College courses is well organized and meets stated course objectives. Although some reorientation of this instruction will be required under the expanded objective and changes in course emphasis proposed elsewhere for the regular course, no reduction in hours devoted to CBR and nuclear operations appears warranted.

26. The Army War College curriculum should give consideration to the potential of CBR and nuclear weapons in the formulation of strategic concepts and basic undertakings for employment of military forces in high, middle, and low intensity conflict. The present CBR and nuclear instruction meets both the current and proposed course objectives.

27. Although prefix-5 position requirements appear overstated, the Army is overtraining even against these requirements. Pending a comprehensive review of Army-wide requirements, for both Table of Organization and Equipment and Table of Distribution positions, and a more precise determination by the Deputy Chief of Staff for Personnel of annual training inputs needed to meet those requirements, the following actions should be taken:

a. Discontinue prefix-5 training at the Armor School in FY 67.

b. Reduce the allocation of Infantry officers to the Infantry School prefix-5 course by 50% during FY 67. Permit Armor officers attending the career course at the Infantry School to take prefix-5 training as required.

c. Reduce the prefix-5 course at the Infantry, Artillery and Missile, Chemical, and Engineer Schools to three weeks and limit the curriculum to the "hard core" subjects indicated by the proponent school.

d. Send officers of other branches who require prefix-5 qualification to one of the four schools presenting the course.

e. Adjust quotas of officers of all branches taking prefix-5 training in the future to maintain not more than a 3:1 ratio of assets to requirements.

28. The length of the prefix-5 course should be limited to the 112 hours of "hard core" training plus the five-hour test as determined by the proponent school; refresher training should be given only by correspondence course.

29. CBR and nuclear specialist courses should be job-oriented and include in course objectives the grade, position, and organizational level of individuals for whom the courses are designed.

30. The Sandia Nuclear Weapons Orientation Advanced Course (WOA) and the National Atomic Weapons Capabilities Course (NAC) should be attended by senior Army officers currently assigned or under orders to positions clearly requiring up-to-date knowledge of nuclear weapons, and specified grade levels of attendees should be meticulously observed.

31. The Dugway CBR Weapons Orientation Course, less the live fire demonstration, should be transferred to the Chemical School in CY 67, with attendance limited to officers and civilians meeting stated prerequisites. The live fire portion should be presented at Dugway Proving Ground on a demonstration basis for selected senior officers and civilians as needed.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 16

FOREIGN LANGUAGE AND AREA TRAINING

PURPOSE AND SCOPE

1. This appendix analyzes foreign language training under the Defense Language Institute (DLI) and the US Military Academy (USMA), and the administration of the Foreign Area Specialist Training Program (FASTP).

BACKGROUND

2. All language training in the Armed Forces except at the Service Academies is under the control of the Defense Language Institute, which is discussed in Annex B, Appendix 6.

USMA Language Training

3. The Department of Foreign Languages at the US Military Academy conducts instruction in French, German, Portuguese, Russian, and Spanish. Two years of one language is mandatory for all cadets; and elective, advanced, and accelerated programs are available which permit selected cadets to receive instruction through the four-year level. If a current proposal to add Mandarin Chinese as a voluntary selection is approved, cadet quotas will be: French, German, and Spanish - 24% each; Russian - 18%; and Portuguese or Chinese - 10%.

4. US officer instructors at USMA are trained at Paris, Madrid, and Mainz in affiliation with Middlebury College; by in-country study in Brazil; and through a variety of sources for Russian. Few officers have return assignments as language instructors, but two officers are permanently assigned as professors.

Foreign Area Specialist Training Program

5. AR 350-23 establishes the administration of the Foreign Area Specialist Training Program (FASTP), which is one of the formal specialist programs discussed in Annex B, Appendix 2. The FASTP is designed to train selected officers in the culture, language, and physical aspects of the areas shown in Figure D16-1.

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FOREIGN AREA SPECIALIST TRAINING PROGRAM

AREA	OFFICERS IN PROGRAM	LANGUAGE REQUIRED	AREA	OFFICERS IN PROGRAM	LANGUAGE REQUIRED
EUROPE			SOUTHEAST ASIA		
Russia	149	Russian	Thailand	9	Thai
Greece	15	Greek	Vietnam	7	Vietnamese
MIDDLE EAST			SOUTH ASIA		
Iran	15	Persian	India	7	Hindi
Turkey	19	Turkish	Pakistan	8	Urdu
Arab World	38	Arabic	AFRICA		
LATIN AMERICA			(SUB-SAHARA)		
Mexico	10	Spanish	West Africa	12	French
Central Amer	9	Spanish	E. Central		
Northern S.			Africa	10	French
America	20	Spanish	Central		
Southern S.			Tropical		
America	21	Spanish	Africa	11	French
Brazil	11	Portuguese	South Africa	3	French
EAST ASIA			TOTAL		
China	49	Mandarin		455	14
Japan	32	Japanese	20 AREAS	OFFICERS LANGUAGES	

FIG. D16-1

6. Training consists of two-and-a-half to four years of schooling for officers who have less than 12 years of service and meet certain other criteria. Training includes one year of language instruction at DLI (six months for French, Spanish, and Portuguese), one year at a university in the US (except for Arabic, which is taught in Lebanon), and one year of on-the-job training in the foreign area (two years for Arabic and Russian, the Russian training being conducted in a controlled environment in Germany). This training is followed immediately by a utilization tour, and thereafter FASTP tours alternate with branch tours.

DISCUSSION

Defense Language Institute

7. Language training under the Defense Language Institute appears to be administered efficiently and along sound professional lines. The system enjoys high prestige in the civilian educational community and meets the long-term needs of the Services well. It is, however, subject to certain problems.

8. Language training for the Military Services is by its very nature a "surge" type of operation, marked by sudden, transitory interest in certain languages which have been rendered significant by unpredictable international events. The training system should be prepared to satisfy these unforeseen requirements while adjusting to non-delivery of students in other already programmed areas.

9. The Williams Board remarked on the annual variation of quotas to language training, which at that time approached 50%, and recommended that better planning by the Army staff should result in a more stable requirement. Improvement has been made, but it should be recognized that fluctuations in language training are unavoidable. Future improvements should be focused not on the predictive process, but on the capacity of the system to respond to inevitable changes.

10. As a rule of thumb, 12 weeks of full-time, intensive language training is the time required to achieve a minimum retainable proficiency (S1). There are, however, many instances in which large numbers of personnel require marginal proficiency. In these cases, the commander desiring language training for his personnel should be prepared to specify the level of sub-proficiency desired. DLI for its part should be prepared to shorten its normal courses to sub-S1 levels, take the course to the students, supplement live instructors by the use of video-tapes and films, and provide special texts on short notice. Such responsiveness requires an expanded, active, full-time research and course development group in DLI.

11. The current language aptitude and proficiency tests appear to be inadequate. The aptitude test now in use is a paper-and-pencil test which does not test aural perception, while the proficiency tests are based on written translation, without oral production. Priority should be given to developing a more valid aptitude test, to permit better identification of slow students and potential failures, as well as those students best suited to learn the more difficult languages.

12. There seems to be no economical way in which language skills can be stockpiled on a large scale. Major programs to have all officers

Learn a second language are expensive and not really productive of a broad language base. Language proficiency is a perishable commodity, and a few years of non-use will result in almost total loss of the lower skill levels. It should also be accepted that all personnel do not learn a foreign language with equal facility. The Board gave careful consideration to proposals from several sources that language training be incorporated into core curricula of the various levels of career schooling, but decided that the time expended would not be justified in results. Language instruction may have value as an elective program at some schools where facilities and professional staff are locally available.

13. There is concern that language training is given on a one-time, job-oriented basis, and that after a single tour the officer's language proficiency is seldom used again. Although AR 611-6 provides a means for maintaining a current inventory of the Army's linguistic assets, there is recurrent training in the same languages. A reduction in language training would be facilitated by improved identification procedures and mandatory reutilization tours for officers receiving long duration courses.

14. The physical plant now occupied by DLI, East Coast Branch, is to be returned to the Department of the Interior in 1967. The 325 students now trained at the East Coast Branch can be absorbed into the West Coast Branch at Monterey with the addition of some facilities, but the Headquarters of DLI will have to be relocated. Relocation to Monterey would probably result in more economical operation, but would place DLI at a disadvantage in preparing and defending its program and budget, in dealing with commercial language schools and the Foreign Service Institute, and in making use of the large linguistic community available in Washington.

USMA Language Training

15. Foreign language training at USMA is sound and progressive. Cadets are achieving an identifiable level of proficiency, rather than a simple academic acquaintance with the language. The inclusion of accelerated, elective, and advanced programs is particularly noteworthy.

16. Assignment as a USMA language instructor normally involves one year of schooling, usually in-country, and three years of teaching. The low level of reutilization after departure from USMA appears to be a poor return on such an investment in time. It is difficult to incorporate such an instructor directly into the FAST Program, as he requires more specialized area knowledge, but it would appear that he could be incorporated into the program with a minimum of extra schooling.

17. For better utilization of personnel, increased numbers of FASTP specialists should be used in the Department of Foreign Languages, and a percentage of positions therein identified as FASTP positions. This is particularly true for Russian linguists. A better system of identifying officers qualified as language instructors by their civilian education or background would result in lowering the requirements to train officers solely as USMA instructors, and would reduce reliance on name requisitioning.

FAST Program

18. The FAST Program is apparently a successful one, but is confined to a limited number of areas of the world. Most conspicuously lacking is any specialization on the Eastern European countries of the Warsaw Pact (except Russia). Further, there are no specialists on the NATO countries (except Greece and Turkey). It would appear in the Army's interest to train or identify at least a few specialists in these areas.

19. At present no means exists for placing officers in the FAST Program unless they go through the formal training process. Despite obvious problems of testing area competence, means should be explored to introduce volunteers with special backgrounds into the program without requiring that they attend lengthy formal schooling.

CONCLUSIONS

20. To provide greater responsiveness to changing situations, the Defense Language Institute requires an expanded full-time research and course development activity.

21. A requirement exists to define levels of linguistic sub-proficiency below S1, which may be applied to troop training and orientation courses.

22. Current language aptitude and proficiency tests require revision.

23. Better identification of linguists is required, including the identification of pre-service language training and experience.

24. Reutilization tours should be increased for officers receiving long term language schooling.

25. A percentage of instructor positions at USMA in the Department of Foreign Languages should be formally identified as FASTP positions.

26. A modest number of FASTP specialists should be maintained for the countries of Eastern Europe and possibly for the NATO countries.

27. Provision should be made in special cases to relax the requirements for formal schooling as part of the FAST Program.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 17

INTELLIGENCE TRAINING

PURPOSE AND SCOPE

1. The purpose of this appendix is to analyze the present system of Army intelligence training not only in schools with overall responsibilities in this field but also in branch schools and colleges. It also addresses itself to intelligence training of an advanced nature conducted by the Defense Intelligence School in support of the Defense Intelligence Agency, joint and high level staffs.

BACKGROUND

2. The organizational structure of the Army school system is depicted in Annex B, Appendix 1. Within this structure, two schools are designed specifically to meet Army intelligence and security requirements: the United States Army Intelligence School at Fort Holabird, Maryland and the United States Army Security Agency School at Fort Devens, Massachusetts. Since 1 July 1962, the Army Intelligence School has been operated under the command supervision of the Commanding General, US Continental Army Command (USCONARC), whereas the ASA School continues to operate directly under the Commanding General, Army Security Agency (ASA). Annex B, Appendix 4, describes the organization and operations of the two schools. During FY 65, the Army Intelligence School graduated 2,089 officers in a total of 24 resident courses while the ASA School graduated 581 officers in a total of 11 resident courses. In addition to these schools of a specialized nature, all Army branch schools and colleges conduct intelligence training in varying degrees and at widely different levels.

3. The Defense Intelligence School was established in 1961; its mission is briefly described in Annex C, Appendix 1. This school conducts five courses for officers of all Services. Since these courses do not fall within the established, sequential career schooling pattern for Army officers, they are currently considered as specialist courses.

4. The Army Intelligence and Security (AIS) Branch was established on 1 July 1962, and is the Army's newest branch. It has a current strength of approximately 4,650 officers and is increasing in numbers on a selective basis to fill its expanded requirements. While the ultimate size of the branch is difficult to determine, it will be substantially larger than its present strength. The branch has requirements for intelligence officers in Army units or activities organized under Tables of Organization and Equipment and Tables of Distribution; intelligence positions in other agencies and commands within the Department of Defense, such as the Defense Intelligence Agency, the National Security Agency, unified and joint commands, and a host of related activities.

5. The Army Security Agency is a major command which operates directly under Headquarters, Department of the Army. It is under the technical supervision of the National Security Agency.

6. Normal officer career patterns are described in Annex B, Appendix 2. The AIS officer follows the same general sequence of career development as do officers of the other branches except that he has limited command opportunities. At the present time approximately 1,200 AIS officers are assigned to ASA as well as a large number of officers from other branches serving generally in non-intelligence positions.

DISCUSSION

General

7. As Army operations have become more involved with the introduction of increasingly complex technical equipment, and as emphasis has shifted among priorities of missions and activities following World War II and Korea, and currently Vietnam, a need has arisen for additional types of intelligence specialists with greater skills in a number of areas of intelligence and security operations. Increasing requirements for specialization resulted in the establishment of the AIS Branch.

8. The AIS Branch encompasses three distinct though related areas in the broad field of intelligence. These are combat and strategic intelligence, counter-intelligence, and ASA activities. At present, the organization, command level, and methods of operation vary greatly among these areas. Each field of activity requires specialized knowledge and training not common to the others, and this is

reflected in separate career patterns that have been established. ASA activities have been largely split off from the rest of the branch. This has been brought about by the special clearances and technical skills required of ASA personnel, which exceed those required in other intelligence activities.

Intelligence Orientation Courses

9. As indicated in Appendix 2, all newly commissioned AIS officers, other than Regular Army, attend the nine-week Infantry Officer Basic Course at Fort Benning, Georgia, upon entry on active duty. They attend an orientation course at the Army Intelligence School of six weeks' duration or a similar course at the ASA School of eight weeks, immediately upon graduation from the Infantry School. These courses provide the officer with introductory intelligence training, but do not award him a military occupational specialty. Regular Army AIS officers attend one of these courses upon completion of their two-year tour of duty with one of the combat arms, as do all branch transferees.

10. After completion of the orientation courses, a substantial percentage of AIS officers remain at Forts Holabird and Devens to attend MOS-producing courses in specialties such as counterintelligence, aerial surveillance, area studies, and prisoner of war interrogation. These specialist courses are designed to supply graduates with the appropriate MOS to satisfy the demands on the AIS career branch to fill Army-wide requirements. A study of the specialist courses conducted in FY 65 indicates that, of the 465 officers taking the orientation course at the Army Intelligence School, 247 or 52% were selected for specialist training, averaging 14.5 weeks in length. Of the 126 officers attending a similar course at the ASA School, 13 or 10% attended three specialist courses which averaged seven weeks in length. Thus, a significant number of newly commissioned AIS officers, other than Regular Army, spend six to seven months in an Army school prior to being assigned to a unit. Considering leave and time consumed in change of station, the Army is not obtaining sufficient effective service from this category of officers, whose total Active Army obligation currently is only two years.

11. A review of the orientation courses conducted at the Army Intelligence School and the ASA School discloses a substantial duplication of subject content. The Board considers that the present orientation course at the Army Intelligence School could be reduced from six to four weeks in length, and still provide an adequate common course for all newly appointed AIS officers. Completion of such a course should qualify the students for an intelligence staff officer MOS and permit assignment of the majority to CONUS intelligence units or staff agencies to serve the remainder of their obligated tours.

12. Those officers who are to be assigned to ASA should, in addition, attend a specialist course at the ASA School. The present orientation course of eight weeks should be discontinued. The proposed course should be of four weeks' duration and be entirely technical in character. This program would avoid needless duplication, bring about a more coordinated educational effort, and identify the officers with the broad scope of intelligence missions and operations. Initial intelligence training would be further improved and centralized with the merger of the Army Intelligence School and the ASA School as proposed later in this appendix.

13. The Board is also of the opinion that, considering the general educational background of the officers today, they could develop sufficient expertise through on-the-job training to be reasonably effective. At such time as officers indicate their intent to remain in the service for a period beyond their initial two-year obligation, consideration should be given to their further specialization to meet critical intelligence requirements.

Career (Advanced) Course

14. As indicated in Appendix 2, AIS is the only branch of the Army with two separate career (advanced) courses. The career course at the Army Intelligence School was formerly of 34 weeks' duration. Beginning in June 1964, however, it was reduced to 16 weeks and programmed for three courses a year. Seventy students attend each course for an annual total of 210 students. The AIS career branch is of the opinion that this reduced course should be conducted for another three years to accommodate the accumulated backlog of officers. The career course now being conducted at the ASA School is 37 weeks in length and is programmed for one course of 40 students each year. An associate career course of 16 weeks has the same annual input. Thus, approximately 300 AIS officers attend a career course each year.

15. An analysis of the common subjects in the career courses at the two schools indicates readily recognizable duplication of up to 40%. Common subjects total 30% of the academic hours at the ASA School and 35% of the academic hours at the Army Intelligence School.

16. The Board considers a consolidated career (advanced) course is both feasible and desirable. Such a course would provide the Army with a more professionally skilled and militarily balanced officer. The integrated course should provide the necessary depth in subject matter, background material, and educational experiences needed for the officer's subsequent performance in high level staff duties and for his general professional orientation and development. The single AIS career (advanced) course, like those at other branch schools, should

be branch- rather than assignment-oriented, and should prepare the graduate adequately for attendance at the Command and General Staff College (C&GSC). For that reason, the Board considers that the consolidated course should be operated under the CG, USCONARC. Specialist courses should be conducted at the ASA School as required to supplement the career (advanced) course and provide the officers due for assignment to ASA with essential technical training. This condition should obtain until the schools are merged at a common center in accordance with the program outlined in Appendix 21. The continued division of intelligence training would be of a temporary nature until the proposed relocation could be accomplished.

17. The ASA School career and associate career courses, with their relatively small input of only 40 students, are not efficient operations when compared with similar courses at other branch schools. The Board considers that a career (advanced) course of 24 weeks' duration, programmed for two courses each year, should be conducted for all AIS officers. An input for each class of 150 students, for a total of 300 students each year, would satisfy previously referenced branch requirements. Such a course could be accommodated at the Army Intelligence School by minor alteration of an existing building.

Merger of the Two Schools

18. A merger of the Army Intelligence School and the ASA School would permit further coordination of training and economies in the staff and faculty, travel time, and facilities common to both schools. The combining of these two schools under USCONARC would pose security problems; however, in the opinion of the Board, these could be resolved. Missions, plans, and programs of instruction of the ASA division of the school could be processed through selected personnel at USCONARC, with appropriate security clearance, without compromising the information. The handling of intelligence information, even among highly cleared personnel, has been on a need-to-know basis as a matter of policy for years. All personnel should be cleared at a level to provide complete interchangeability. The Board found it difficult to determine why the security clearances which are now considered to be essential to ASA personnel should not be equally important to AIS personnel assigned to other sensitive areas of intelligence activities.

19. The physical facilities at both Fort Devens and Fort Holabird are inadequate to accommodate the complete consolidation of the two schools, to include both officer and enlisted courses, at either location. The Board, therefore, proposes that the merger of these two schools which serve a common branch be accomplished in three phases as follows:

a. Phase I - Security clearances be resolved and one level of clearance be established for all AIS personnel to simplify the development of common courses.

b. Phase II - The ASA School should be placed under the operational control of the Army Intelligence School and a common orientation course and a combined career (advanced) course be established at the Army Intelligence School as previously discussed; these to be supplemented by specialist courses to be conducted at the ASA School.

c. Phase III - The two schools be merged at a single location as described further in Appendix 21, and operated under one command structure with various subdivisions as required to provide for the appropriate familiarization, career (advanced) and specialist courses. Although attainment of this goal may not be realized for some time, the Board considers this should not delay early accomplishment of Phases I and II.

Branch School and Army College Intelligence Training

20. Branch Schools. The training of intelligence officers at battalion through brigade or comparable levels is currently a responsibility of the branch schools and, at higher levels, the C&GSC and the Army War College. The branch schools all include intelligence training in their programs of instruction; Figure D17-1 indicates the hours allotted. The Army Intelligence School and the Army Security Agency School are omitted since intelligence training is a branch material subject. The number of practical map exercises is indicated inasmuch as they have a potential for applicatory intelligence training. It is to be noted that the time allotted for intelligence training throughout the school system varies from two to 39 hours.

21. Infantry, armor, artillery, and combat engineer units are directly concerned with a changing tactical situation and require timely and accurate combat intelligence for effective performance of their missions. Branches which support the combat arms should be intelligence-oriented and conscious of the importance of intelligence activities. Those branches with few if any battalions or larger units obviously have a lesser requirement for intelligence training. The Board considers the following grouping of branch schools which conduct career (advanced) courses reflects the varying degrees of intelligence responsibilities of the several arms and services:

INTELLIGENCE TRAINING IN CAREER COURSES AND CGSC

SCHOOL OR COLLEGE	HOURS IN INTEL TRAINING	MAP EXERCISES	
		HOURS	NO OF PROBLEMS
C&GSC	14	255	58
INFANTRY	39	203	45
ARMOR	14	170	35
ARTILLERY & MISSILE	16	191	21
ENGINEER	6	62	12
SIGNAL	4	36	2
CHEMICAL	9	81	8
ORDNANCE	2	12	2
QUARTERMASTER	4	55	14
TRANSPORTATION	4	26	7
ADJUTANT GENERAL	3	28	3
FINANCE	2	6	2
CIVIL AFFAIRS	4	N/A	N/A
MILITARY POLICE	4	135	15
WAC	27	N/A	N/A
CHAPLAIN	10	16	2
JAG	6	6	2
MED FIELD SERVICE	7	55	8

FIG. D17-1

Group A

Infantry
Armor
Artillery and Missile
Air Defense
Engineer

Group B

Transportation
Ordnance
Signal
Chemical
Military Police
Quartermaster
Medical Field Service

Group C

Judge Advocate General
Adjutant General
Finance
Civil Affairs
Chaplain
Women's Army Corps

22. It is difficult to arrive at a precise figure of the number of hours which should be allotted to intelligence subjects. Studied opinion, however, indicates that a minimum of 30 identifiable (as opposed to integrated) hours should be included in the programs of instruction of the career (advanced) courses of the schools in Group A above. A minimum of 20 and 10 hours respectively are considered appropriate for the career courses of the schools in Groups B and C. In addition to these hours, the intelligence phase in tactical problems and map exercises should be given sufficient emphasis to ensure that it is not subordinated to the operations and support aspects of the exercise. Intelligence instruction should be focused on the duties of the intelligence staff officer at battalion and brigade levels and the assistant intelligence officer at division level.

23. The hours allotted to the teaching of intelligence above the minimums cannot be specified in view of the variants in intelligence missions identified with the various arms and services. For example, technical intelligence training is required in such branches as the Engineers, Signal, Chemical, Ordnance, and Army Medical Service. This technical intelligence training is a problem pertinent to the individual branch, and the amount of additional time allotted to the subject should be left to the discretion of the Commandant concerned. Technical intelligence courses could logically be included in the elective programs of certain technical service schools. (See Appendix 26 for delineation of elective program concept.)

24. The Board considers that the Army Intelligence School should continue as the proponent school for combat intelligence training.

25. Command and General Staff College (C&GSC). The Board has recognized the need for a broadening of the C&GSC mission beyond the Army in the field, in order to accommodate the needs of its graduates in the current and projected military environment. (See Appendix 4) This broadening of the mission, in itself, should result in a broadening of the intelligence coverage in the course, to include the national intelligence community, the Defense Intelligence Agency, and the collection, planning, and management of intelligence at higher levels.

In addition, the Board considers that the C&GSC should give greater emphasis to the training of officers to serve in intelligence assignments at division through army group level. Intelligence officers of the various arms and services who serve as S-2's of battalions and brigades generally have a limited intelligence background and must rely on on-the-job training to develop the competence required. They depend heavily on technical guidance and assistance from trained intelligence officers at division and higher levels. Unless those officers are themselves qualified in their jobs, this on-the-job training has little direction. The C&GSC has allotted 14 hours of instruction to pure intelligence and pursues the subject further in tactical problems and map exercises. The Board is of the opinion that the hours devoted to pure intelligence should be increased to a minimum of 30 hours to provide for greater breadth and depth of coverage. It also suggests that the development of this instruction be coordinated with the Defense Intelligence School and the Army Intelligence School.

26. Army War College (AWC). At the senior college level, primary emphasis is on strategic rather than combat intelligence. National and joint intelligence requirements are introduced by appropriate guest lecturers. Various area studies are, in essence, intelligence appreciations. Opportunities for military application are provided in individual and group solutions of operational problems. Board recommendations for increased emphasis on military and Army course content (See Appendix 5) should enhance these opportunities. Adequate stress on stability operations should bring intelligence into sharp focus. Case studies can provide graphic examples of the interplay of national collection agencies. The impact of the expanding roles of national and Defense intelligence agencies on combat operations merits further exploration at senior service college level.

Defense Intelligence School

27. The Defense Intelligence School (DIS) was established on 1 January 1963 as a joint service educational institution under the Defense Intelligence Agency. This school integrated the former Army Strategic Intelligence School (SIS) into the postgraduate department of the Naval Intelligence School located at Anacostia, Maryland. As a result of this merger, the Navy relinquished its only training facility capable of preparing selected Navy officers for future positions of responsibility in the field of intelligence.

28. The DIS conducts five officer courses. The Strategic Intelligence Course, of four weeks' duration, provides specialized instruction for all Services, and is required for certain officers assigned to the Office of the Assistant Chief of Staff for Intelligence

(OACSI). The school also conducts a 15-week course for the training of military attaches, the majority of whom are combat arms officers, and an attache staff course of 11 weeks' duration, designed for warrant officers, enlisted personnel, and civilians designated for administrative, finance, and security duties in the attache office. These three courses had been taught for several years at the SIS prior to the establishing of the DIS, and the Army should continue to support them in consonance with its requirements.

29. The Advanced Intelligence Course. The DIS began this course in September 1965 for students of lieutenant colonel rank or above and comparable civilian grades. The Army was given a quota of six in a total class of 35. The stated purpose of this 14-week course is: "to enhance the preparation of selected senior military officers and key Department of Defense civilian personnel for important command, staff and policy-making positions in the national, unified staff and military departmental intelligence structure." After analyzing the course, the Board concludes that the course is neither a substitute for nor the equivalent of any existing course within the AIS career program. Army officers of the rank of lieutenant colonel who might be considered for the important command, staff, or policy-making positions for which the course is designed would certainly have progressed through command and staff level schooling and perhaps through a senior service college. In addition, they would be AIS officers or officers with past assignments in the intelligence field. The Advanced Intelligence Course is clearly redundant with instruction provided in Army officer career schooling and is an unnecessary additional layer in such schooling.

30. Defense Intelligence Course. The stated purpose of this 38-week DIS course is "to provide junior officers with a broad education in the fundamentals of intelligence which will serve as a foundation for their progressive development and future assignment to intelligence billets." The quota for the Army has been 20 students a year in the rank of first lieutenant through major. Currently, a study is being staffed by the school to conduct the course in phases. The first phase, approximately four months in length, would consist of instruction in intelligence, primarily from a joint viewpoint, and would prepare the student for intelligence duties at the national, unified command, and departmental levels. The second phase, approximately five months in length, would include studies in depth of selected areas covered in the first phase, with emphasis on foreign intelligence, counterinsurgency, advanced intelligence studies, and associated research projects. It is visualized the Services would determine attendance at Phase II after consideration of the future assignment of the officer.

31. This course is aimed at officers in approximately the same grade spread who attend the career (advanced) courses at Army branch schools. An analysis of the course compared with the Army Intelligence School career course indicates a duplication in the two courses of approximately 340 hours of instruction, representing approximately 30% of the total hours. However, the Defense Intelligence Course is not a substitute for the career course as now conducted at the Army Intelligence School, and does not satisfy the prerequisite for officers to attend the C&GSC. Further, the course is limited in its effectiveness due to the lack of experience and background on the part of officer students. Since the inception of this course, the AIS Branch has provided the entire Army input, consisting of 15 first lieutenants, 42 captains, and eight majors for a total of 65 officers. Of the 49 graduates to date, only 11 officers in the grades of captain and major have been assigned at the departmental or higher level to utilize the training received. For the remaining 38, no requirements appropriate to their grades were available at departmental or higher level.

32. The Defense Intelligence Course, like the Advanced Intelligence Course at the DIS, does not mesh with Army officer career schooling. The value of these two courses as a training medium for officers of the Navy and Air Force is not questioned, inasmuch as neither of these Services has an intelligence branch or career field with a well-established and time-tested program of intelligence training. However, for the Army officer, they fall clearly within the nice-to-know rather than the need-to-know category. The assignment of Army officers to these two courses should be discontinued effective with the completion of the classes now in session in June 1966.

CONCLUSIONS

33. The present dual schooling system for the training of Army Intelligence and Security officers is not conducive to the full development of the officer. Training in two separate schools does not permit the homogeneous development of intelligence and security skills.

34. The present system of training newly appointed Army Intelligence and Security officers other than Regular Army leaves inadequate time for effective service within their two-year obligation tour. The orientation courses now being conducted at the Army Intelligence School and the ASA School should be combined into a single course at the Army Intelligence School and reduced to four weeks in length. A limited number of officers selected for assignment to ASA should, upon completion of the orientation course, attend a four-week specialist course at the ASA School.

35. The career (advanced) course schooling for AIS officers at the Army Intelligence School and the ASA School should be consolidated into a single course in the interests of producing a more professionally skilled intelligence officer, and the ASA School should be placed under the operational control of the Army Intelligence School at the time of course consolidation. A career (advanced) course, initially of 24 weeks' duration, conducted twice a year with 150 students each, would meet the demands of the AIS Branch and could be accommodated at the Army Intelligence School by minor alteration to an existing building.

36. The problem of security clearances, considered as a possible impediment to the development of common courses, should be resolved to provide for complete interchangeability of officers between the various intelligence areas.

37. The ASA School should be continued as a specialist rather than a career school for an interim period under the operational control of the Army Intelligence School. Within the next decade, the ASA School should be merged with the Army Intelligence School into one school to be located in an Educational Center in accordance with the overall concept described in Appendix 21 of this annex.

38. The training of intelligence officers in the combat arms and services should be the responsibility of the arm or service concerned, and increased emphasis should be given to pure intelligence training in the career (advanced) courses at the branch schools. Minimum training provided should vary from 10 to 30 hours depending on the degree of intelligence responsibility of the branch concerned, and the Army Intelligence School should continue to be the proponent for combat intelligence training.

39. Additional intelligence training should be included in the program of instruction at the C&GSC up to a minimum of 30 hours.

40. The assignment of Army officers to the Advanced Intelligence Course and Defense Intelligence Course, now being conducted at the Defense Intelligence School, should be discontinued after the completion of the present course.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 18

ARMY AVIATION TRAINING

PURPOSE AND SCOPE

1. This appendix analyzes the Army's flight training program. It includes a discussion of the training concept and reviews training needs to meet the Army's requirements for aviators. It considers the adequacy of the current program and concept as well as planned changes, requirements, and responsibilities.

BACKGROUND

2. Basic facts concerning the US Army Aviation School (AVNS), the US Army Primary Helicopter School (PHS), and Army aviation training courses are developed in Annex B, Appendix 6. Pertinent facts concerning warrant officer schooling are developed in Annex B, Appendix 9.

3. The Army's emphasis on increased air mobility has resulted in substantial changes in aviation training requirements. Inventory modernization is reducing types of aircraft in the tactical fleet and increasing the ratio of rotary wing (RW) to fixed wing (FW) aircraft. The consequent change in initial entry aviator student training output ratios is shown below:

RATIO OF ROTARY WING TO FIXED WING AVIATOR PRODUCTION

FY	RW/FW RATIO
64	1:1 (Actual)
65	7:6 (Actual)
66	6:1 (Programmed)
67	11:1 (Programmed)

FIG. D18-1

4. Off-the-shelf commercial aircraft are being used in all possible phases of flight training in place of more sophisticated military aircraft, with their higher initial and operating costs. Aircraft types being phased out of the system have been eliminated from school qualification training to reduce training costs and provide more expeditious qualification of aviators on new type aircraft. Other factors influencing aviator training are: the rapid expansion of Army requirements for aviators, the necessity for improving tactical instrument flying capabilities, the increased emphasis on aviation techniques in counterinsurgency operations, the need for improvement in world-wide standardization of aviator qualification, and the increased use of warrant officers to fill cockpit positions. These factors led to the development of the aviator training concept and curriculum, approved by the Department of the Army for implementation in FY 66.

DISCUSSION

Initial Entry Flight Training

5. The training concept for FY 66-67 includes civilian contract training during the primary and basic instrument stages of initial entry courses for both fixed and rotary wing instruction. Advanced training, including tactics, is conducted by both military and civil service instructors. Programs of instruction (POI's) are oriented toward operations in the Republic of Vietnam (RVN) and are reviewed and updated by recent RVN veterans to reflect their experience.

INITIAL ENTRY FLIGHT TRAINING - ACTIVE ARMY

	FY 66	FY 67
ROTARY WING	1,076	3,200
Officer	(369)	(1,045)
Warrant Officer	(707)	(2,155)
FIXED WING	342	295
Officer	(245)	(145)
Warrant Officer	(97)	(150)
TOTALS	1,418	3,495

FIG. D18-2

6. The greatest expansion in the aviation flight qualification program is in initial entry flight training. Figure D18-2 shows the projected output of active Army aviators for FY 66 and FY 67 and reflects the sharp increase in initial entry training. Rotary wing training nearly triples, while fixed wing training decreases. The overall training requirement after FY 67 is expected to continue to increase.

7. The fixed wing program (35 weeks) is conducted solely at the AVNS. The size of the rotary wing program, however, and the requirement for facilities and air space, will not permit it to be conducted at any single location available to the Army. Accordingly, in the current program the primary/advanced phase (16 weeks) is conducted at PHS; and the instrument phase (8 weeks) and the UH-1 transition-tactics phase (8 weeks) are conducted at the AVNS. Under the FY 65 program, the PHS conducted only 12 weeks of the flight training program while the AVNS conducted 21 weeks. The change to a 16-week flight training curriculum at each location equalized the training load, permitting a steady level of 6½ flying hours per week per student and more efficient use of aircraft and facilities.

8. Although physical requirements dictate that rotary wing initial entry training be at two locations, the present arrangement for the program to be conducted jointly by two separate schools constitutes an undesirable division of responsibility. The Commandant of the AVNS, as US Continental Army Command (CONARC) Executive Agent for Aviation Training Requirements, has overall responsibility for coordination with the PHS on all aspects of the flight and academic curricula; but he has no command or operational control over the PHS. Considering the magnitude of the rotary wing program and the interrelationship between the two schools in its execution, it would be desirable to place the PHS under the command of the Commanding General of the US Army Aviation Center, who also is Commandant, AVNS. However, the realities of the current situation militate against such a solution. The two schools are in different Army areas and hence draw their resources and support from different sources. It would be impossible to link them together in a full command relationship (to include administration and logistics) without major alteration of the current CONARC organizational pattern. In view of this, the Board proposes that the Commanding General of the US Army Aviation Center be given operational control over the PHS to eliminate the present division of responsibility for rotary wing flight training and improve coordination of the entire instructional program.

Other Aviation Qualification Courses

9. The aviator qualification training program (other than initial entry qualification) consists of five courses conducted at the AVNS:

a. Officer/Warrant Officer Fixed Wing (8 weeks) qualifies rotary wing aviators in fixed wing flight techniques. The annual student quota is 48.

b. Officer/Warrant Officer Rotary Wing (8 weeks) qualifies fixed wing aviators in rotary wing flight techniques. The annual student quota is 360.

c. M-22 Gunnery (3½ weeks) qualifies rotary wing aviators in the technique of tactical employment of the M-22 (SS-11) aerial gunnery subsystem. The annual student quota is 168.

d. Officer/Warrant Officer Fixed Wing Instrument (9½ weeks) qualifies the aviator in standard instrument procedures. The annual student quota is 66.

e. Officer/Warrant Officer Rotary Wing Instrument (11 weeks) qualifies the aviator in standard instrument procedures. The annual student quota is 325.

10. These courses cross-train aviators to fly both rotary wing and fixed wing aircraft and provide specialized qualification in gunnery and instrument flying. Over the next five years, the annual student load is programmed at about the current level. This training gives the Army a greater depth of essential skills in aviator resources and more flexibility in aviator utilization. The Board concludes that these courses should be continued as required.

Aviator Transition and Standardization Training

11. Transition training courses in new type and model aircraft are initially conducted by the AVNS for aviators and for instructor pilots (IP's). When the experience level and capability have been established at unit level, unit commanders are authorized to qualify aviators in the specific aircraft.

12. Instructor pilots assigned to aviation units, conduct transition training at unit level and conduct flight checks to verify pilot proficiency. Under current policy, authority to establish minimum qualifications for IP's and to publish IP designation orders has been delegated to commanders of major commands, the Chief of the National Guard Bureau, and the Commandants of the AVNS and the PHS. Experience shows that different procedures are followed within the various commands and that different standards are established. A world-wide standardization program is required which produces IP's with uniformly high qualifications. The Board believes that IP's should be school-trained and that only the

Commandant of the AVNS be authorized to publish IP designation orders. The IP program then would be similar to the Army's instrument examiner program, which requires all instrument examiners to be school-trained with a resultant high degree of standardization among instrument-rated aviators.

13. Almost two years will be required to produce enough school-trained IP's to meet the Army requirement. To expedite the program, teams from the AVNS should proceed to each major command and conduct the training required to ensure that IP's, currently designated on locally published orders, meet the standard criteria and then are designated on AVNS orders. Upon completion of the training visits, all IP orders other than those published at the AVNS should be revoked. To insure standardization, instructor pilots should attend a two-week IP refresher training course at the AVNS every three or four years. The effectiveness of the standardization program also depends on distribution, by the responsible commands and agencies, of updated aviation technical and procedural publications direct to all Table of Organization and Equipment and Table of Distribution aviation units.

Aviation Safety Training

14. Four safety courses are programmed to meet supervisory, technical and professional aviation safety training requirements. The Army Aviation Safety Course (10 weeks), with an annual input of 100 officers, is conducted at the University of Southern California (USC) and provides professional training for aviators and safety directors in technical aspects of aviation accident prevention and investigation. The USC also conducts the Commanders and Staff Officers Aviation Safety Orientation Course (1 week), with an annual input of 50 officers, to acquaint commanders and staff officers with the general principles of aircraft accident prevention and accident investigation. The Aviation Crash Inquiry Investigation Course (2 weeks), with an annual input of 40 officers, is conducted by the Flight Safety Foundation at Phoenix, Arizona, to train aviation personnel in the science of crash injury and crash survival investigation. The Aircraft Accident Prevention and Investigation Clinic (1 week), with an annual input of 200 officers, conducted by the US Army Board for Aviation Accident Research at Fort Rucker, provides training in Army aviation accident prevention and investigation for personnel, of all components, not previously trained in a formal aviation safety or crash injury course.

15. The Board believes that aviation safety training should receive sufficient emphasis to maintain a level of trained aviation safety personnel commensurate with the expanding Army aviation program. To maintain this balance the input to the 10-week Army Aviation Safety Course should be increased by 25 students per year and the input to the one-week Commanders and Staff Officers Aviation Safety Orientation Course by 50 students per year. This increase in training should be programmed for FY 68.

Branch Responsibilities for Schooling

16. The Army's expanding airmobile concept is increasingly influencing Army organization, doctrine, and operations. Branch-related functions and responsibilities for airmobile operations are being defined and clarified. The integration of the tactics of airmobile forces with the employment of aircraft requires complete understanding between aviator and non-aviator personnel. This understanding can be achieved by schooling, unit training, and branch experience. The Board believes that, to the maximum practical extent, commissioned officer aviators assigned to aviation units primarily associated with a specific branch should be members of that branch; and that branch functions, as indicated below, should be covered appropriately in the branch career (advanced) course:

a. Infantry. The employment of light and medium helicopters in tactical movement and deployment of the infantry soldier on the battlefield.

b. Artillery. Artillery observation, aerial rocket units, and movement of artillery weapons systems by Army aircraft.

c. Armor. The employment of air cavalry and aerial reconnaissance.

d. Signal Corps. Aerial surveillance, and avionics.

e. Medical Service Corps. Aero-medical evacuation.

f. Transportation Corps. Cargo transport by fixed wing aircraft and medium helicopters, aircraft maintenance, and aircraft supply.

g. Corps of Engineers. Although Corps of Engineers aviators participate in engineer reconnaissance and mapping missions, it appears that this aviator requirement could be met by branch immaterial aviators. Normal career patterns for Engineer officers present a full and demanding schedule of Army career schooling, civilian graduate schooling, branch T/OE and TD assignment, and civil works. The additional demands placed on an Engineer officer who becomes an Army aviator make it difficult for him to do full justice either to his branch career or his aviation career. The Board believes that Engineer officers should not become members of the Army Aviation Officer Career Program and that the Corps of Engineers should be deleted from the list of branches participating in the program. Engineer officers currently in the program should be permitted to remain in it without branch transfer.

Aviation Command and Staff Training

17. The AVNS conducts a three-week Aviation Command and Staff Officer Course (ACSOC) designed to provide the commissioned officer Army aviator with a working knowledge in the duties and responsibilities of Army aviation command and staff positions. This is a non-flight course, and is currently programmed at 25 students per class, four classes per year, FY 66 through FY 71. Under current criteria, officers attending the course must have credit for a branch career course and an actual or anticipated assignment to Army aviation command or staff positions.

18. The curriculum includes a few subject areas which are covered in the Command and General Staff Officer Course at the US Army Command and General Staff College, and some subjects which should receive added emphasis in branch career courses, as discussed in paragraph 16. Most of the curriculum, however, consists of aviation-peculiar subjects that are not offered elsewhere in the Army school system. It covers, in condensed form, the essential areas of the Army aviation program.

19. The Board believes that the ACSOC instruction fills a requirement. It considers, however, that the instruction would be more useful if it were given in the career (advanced) courses, conducted by branches in the Army aviation program. Some subjects should be integrated in the core curriculum while the aviation-peculiar subjects should be offered as a common elective course. This would permit a greater number of officer aviators to receive specialized instruction that would raise their professional competence and at the same time would reduce temporary duty costs in time and in money. The AVNS should be the proponent for this instruction. When the elective has been established by the branch schools and the student output meets Army requirements, the ACSOC should be eliminated from the AVNS syllabus.

Warrant Officer Aviator Program

20. The Army currently has approximately 2,600 warrant officer aviators against a total requirement in excess of 5,000. The Army expects to meet this requirement by FY 68 and recently announced a goal of three warrant officers to one officer at cockpit level. As discussed in paragraph 16, aviator and non-aviator personnel who are mutually engaged in airmobile operations should understand both ground tactics and employment of aircraft. Warrant officer aviators today receive only basic instruction in tactical operations in initial flight training. The Board believes that a progressive educational/career pattern should be developed for warrant officer aviators along the lines discussed below to enhance their professional competence and value to the Army.

a. Initial Utilization. During the first five years, the warrant officer aviator should be utilized in T/OE units. This on-the-job experience will develop his working knowledge of the basic aviation unit in coordination with his primary skill as an aviator.

b. Intermediate Professional Development. During his sixth through tenth year, he should attend a warrant officer aviator orientation course that would provide him with a broader working knowledge of the tactical operations of the combat arms as well as acquaint him with appropriate aviation unit staff functions. To provide maximum flexibility in aviation warrant officer assignments, the course should be branch oriented and conducted at one of the three combat arms branch schools, preferably the Infantry School. It should be about six weeks in length and, as a general guide, include orientation in the subject areas listed below:

(1) Tactics and Combined Arms. Infantry, Artillery, and Armor organization, equipment, and combat operations.

(2) Communications. Systems within the division; tactical radio to include proper procedures; use of signal operating instructions; communications security.

(3) Ground Mobility. Road movements and convoy control.

(4) Engineer Operations. Fundamentals of airstrip construction in the combat zone to include engineer reconnaissance.

(5) Staff Subjects. Air traffic regulation; combat intelligence; division logistics procedures; operation orders.

(6) General Subjects. Chemical, biological, radiological operations and nuclear weapon effects; US Air Force close air support systems; medical evacuation; aerial photo and map reading review and unit mess operation and supply procedures.

c. Advanced Development. After completing the aviator course, most warrant officers should serve in unit assignments for the remainder of their service. The best qualified should be assigned to flight detachments at higher level commands such as the Davison Army Airfield Priority Flight Detachment. To fill Army requirements, some should be given transition, qualification, IP or instrument examiner training. Those who are no longer on flying status should be used in aviation-related areas such as supply and maintenance and retrained as required.

d. Opportunity for Commission. The warrant officer aviator who possesses and demonstrates outstanding leadership qualities should be afforded an opportunity to obtain a direct reserve commission and to serve on active duty as a commissioned officer. To be eligible for commission, warrant officer aviators should have:

- (1) Completed two years of college.
 - (2) Demonstrated leadership qualities and abilities desired in commissioned officers.
 - (3) Served at least three years as an aviator.
 - (4) Completed not more than twelve years of federal service.
- (5) Passed an examination, both written and oral, covering general military subjects.

e. Grade Structure. Current grades, length of service, and general military knowledge and background should be considered in determining the commissioned grade in which a successful applicant would be granted his reserve appointment.

Aviator Skill Identification

21. When personnel records do not identify adequately current qualifications and special aviation skills, overtraining in some skills and undertraining in others may occur. New instructions were issued to the field in June 1965 (Change 2 to AR 611-103), which require the reporting of all instructor and gunnery qualifications. This flow of information should eliminate the previous void in identification of skills. There is a time lag, however, of two to four months between the acquisition of a new qualification and its inclusion in the aviator's records at Department of the Army. In view of the cost of aviator qualification training, particularly in the more complex aircraft and weapons systems, and the need to make early use of acquired skills, reporting and processing should be expedited.

CONCLUSIONS

22. The US Army Primary Helicopter School, Fort Wolters, should be placed under the operational control of the Commanding General, US Army Aviation Center.

23. Instructor pilots should be school-trained and designated on orders published exclusively by the US Army Aviation School.

24. To maintain standardization in aviation procedures throughout the Army, updated aviation technical and procedural publications should be distributed by responsible commands and agencies direct to all aviation units.

25. Attendance at the ten-week Army Aviation Safety Course and the one-week Commanders and Staff Officers Aviation Safety Orientation course should be expanded during FY 68.

26. Commissioned officer aviators assigned to aviation units primarily associated with a specific branch should generally be members of that branch. Branch related functions in Army aviation should be covered appropriately in the branch career (advanced) course.

27. The Corps of Engineers should be deleted from the list of branches whose officers may participate in the Army Aviation Officer Career Program. Engineer officers presently in the Army Aviation Officer Career Program should be permitted to remain in the program without branch transfer.

28. The Army Aviation Command and Staff course instruction should be transferred to the career (advanced) course curricula of branches participating in the aviation program; part of the course should be integrated into the core curriculum and part offered as an elective. When the transfer has been accomplished and student output meets the Army's requirement, the course should be eliminated from the US Army Aviation School syllabus.

29. A progressive educational/career pattern for warrant officer aviators should be established. Between their sixth and tenth years of rated service, warrant officer aviators should attend a branch-immaterial orientation course at a combat arms school. This course should be about six weeks in length and cover tactical operations of the combat arms and appropriate aviation unit staff functions.

30. Reports to the Department of the Army from the field, under AR 611-103, of the qualification as instructor pilots and gunnery specialists should be expedited.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 19

CIVIL SCHOOLING PROGRAM

PURPOSE AND SCOPE

1. This appendix analyzes the civil schooling program for officers, to include determination of requirements, supervision of the program, and utilization and reutilization of graduates.

BACKGROUND

2. Annex B, Appendix 7, describes in detail the operation of the Army civil schooling program. Annex C, Appendices 2 and 3, set forth the civil schooling programs of the other Services. The following points brought out in these three appendices are pertinent to the discussion in this appendix.

a. Today 86% of all Regular Army officers and 75% of all officers in the Active Army have at least a baccalaureate degree. The figure for Regular Army officers is close to the goal of 90% recommended by the Eddy Board in 1948.

b. Discounting professional degrees, 15% of all Regular Army officers and 9% of all Active Army officers hold advanced degrees.

c. Whereas the overall civilian educational level of Army officers is currently above that of all other Services, this situation is in the process of change. With minor exceptions, neither the Air Force nor the Navy are commissioning individuals without a college degree. Both Services provide an opportunity for selected enlisted men to obtain a baccalaureate degree, generally in a scientific or engineering discipline, as a prerequisite to attending an officer candidate or officer training school. Further, both the Navy and the Air Force have a larger current enrollment of officers in their advanced degree programs than the Army, taking full advantage of the in-house capabilities which both have for awarding such degrees.

d. The National Defense Act of 1920, as amended, encourages graduate level officer education but stipulates it must meet specific, recognized Service requirements. Since 1963, an Army Education Requirements Board (AERB) annually has validated Army-wide position requirements for officers with advanced degrees. The other Services have similar boards. The Army states its requirements in terms of validated positions, whereas the other Services state their requirements in terms of the individuals needed to fill their validated positions and to provide additional resources or assignment flexibility. Currently stated requirements of all Services for advanced degrees are as follows:

Army	3,420
Navy	11,149
Marine Corps	521
Air Force	11,350

e. Over 80% of validated Army position requirements are in field grades, whereas over 70% of the Army officers currently pursuing graduate studies are in company grades.

f. All Services satisfy special requirements for civilian schooling not covered in the above figures through training with industry (TWI) or short courses at civilian institutions or other government agencies. The Navy and Air Force use TWI more extensively than does the Army.

g. Officers may enroll also in undergraduate or graduate level college courses in their off-duty time or in a permissive TDY status under the General Educational Development (GED) program, to improve their general educational level. The degrees gained under this program are generally in the social science disciplines and are not specifically related to Army requirements.

h. With the recent transfer of general staff responsibility for the individual training and education of Army officers from the Assistant Chief of Staff for Force Development (ACSFOR) to the Deputy Chief of Staff for Personnel (DCSPER), overall supervision of both the advanced civil schooling program and the GED program is now vested in DCSPER. The Office of Personnel Operations (OPO) and The Surgeon General are the primary operators of the advanced civil schooling program, whereas The Adjutant General is the primary monitor of the more decentralized world-wide GED program.

3. Known Army assets of officers with advanced civilian degrees, gained through any of the programs described above, are indicated in the following chart:

OFFICERS HOLDING ADVANCED DEGREES

	COL	LT COL	MAJ	CAPT	LT	TOTAL
Agriculture-Forestry	7	15	10	16	65	113
Arts-Classics	61	153	134	106	92	546
Biological Sciences	3	15	16	10	17	61
Business	322	514	424	205	280	1,745
Engineering & Architecture	355	582	563	506	393	2,399
Physical Sciences	58	127	151	151	259	746
Social Sciences	363	458	349	195	303	1,668
TOTAL	1,169	1,864	1,647	1,189	1,409	7,273

FIG. D19-1

DISCUSSION

General Educational Patterns

4. Educational patterns in the United States are undergoing dynamic changes. The civilian educational system produced 73% more college graduates in 1964 than in 1954. The spiralling increase in college graduates is, however, only half the story. The baccalaureate degree is no longer widely regarded as the hallmark of the educated man. Today one out of every four college students remains in school for graduate work after receiving his baccalaureate degree. The Board, in its visits to two colleges with extremely high scholastic standings, found that 75-90% of their graduates continued their studies without interruption toward advanced degrees. The authorities at one of these institutions, in fact, indicated no great interest in enrolling students who did not intend to pursue their studies to the doctorate level at the time of admission. Except for the Master of Business Administration, the master's degree was regarded as a consolation prize for those students who failed to demonstrate the intellectual capacity for the more meaningful doctorate.

5. While these views may appear somewhat extreme to the layman, they represent firmly held convictions of academicians in the vanguard of education today. They are views which almost certainly will have wide acceptance by the end of the next decade.

Army Educational Objectives

6. The Army has achieved a marked improvement in its educational levels in the past ten years, keeping pace with the country at large. It appears to be time, however, for the Army to take stock of itself and reset its educational objectives for the next ten years. The goal set by the Eddy Board almost two decades ago for 90% of the Regular Army officers to have baccalaureate degrees no longer appears adequate to meet the challenge of the times. The Board considers that the Army should state unequivocally that its current objective is for all of its Regular Army officers to be college graduates. Consistent with this announced objective, a baccalaureate degree should be a criterion for acceptance of any officer into the Regular Army, except for those who have demonstrated exceptional gallantry on the field of battle.

7. It is certainly unrealistic at this time, and probably will be throughout the next decade, for the Army to think in terms of commissioning no one in the Active Army without a college degree. The vagaries of the international situation will almost certainly continue to impose fluctuating requirements on the Army -- exceeding those on the other Services. As pointed out in Annex B, Appendix 3, the Army uses its Officer Candidate Schools (OCS) as a balancing factor in maintaining the required officer input into the Active Army. Because of their inherent capability to respond rapidly to changing requirements, Officer Candidate Schools are particularly valuable in meeting mobilization/emergency needs. The applicant for OCS need be only a high school graduate, although almost a quarter of the graduates in FY 65 were college graduates and another quarter had completed two years of college. The Army will be faced with the continuing necessity to improve the educational level of the entire Active Army through the degree completion program (BOOTSTRAP) and off-duty tuition assistance. Efforts in this regard will assist in offsetting the impact of situations such as the current Vietnam conflict, which force increased reliance on OCS and hence lower the overall educational level of officers in the Active Army.

Requirement for Advanced Degree Program

8. Despite the increasing number of college students who go on to graduate study, the newly commissioned career officer will continue to have only a baccalaureate degree. The current academic program at the

US Military Academy (USMA) permits cadets to take four electives in depth in their last two years if desired, thereby establishing a strong base for graduate study. However, all newly commissioned officers from the USMA enter the Army with only a bachelor of science degree.

9. In recent years, an increasing number of ROTC graduates have requested deferment of their service obligations in order to pursue graduate study. At present, over 6,000 ROTC graduates are in such a deferred status. In FY 65, of the 9,218 other-than-Regular Army (OTRA) ROTC graduates who entered the Active Army, 2,933 came on duty with advanced or professional degrees. These officers have gained their degrees at their own expense, and obviously expect to realize on their investment. Entry pay scales in industry, government, and the academic community are geared specifically to degrees. The Army can offer these officers no special monetary inducements and hence is "priced out of the market" in securing their services on a career basis. Almost no ROTC graduates with advanced degrees stay in the Army beyond their two-year obligated period.

10. Since the Army, unlike other professions and businesses, cannot afford to hire experts with advanced degrees to meet its needs, it must develop them from the baccalaureate degree base. The Army today spends over one million dollars annually in the advanced civilian education of its officers. This figure will almost certainly increase over the next decade as the demands placed on the Army continue to multiply.

Army Educational Requirements Board (AERB)

11. The success of the Army's overall advanced schooling program is dependent to a large extent upon the soundness with which the AERB validates position requirements. This is a task of considerable magnitude, as the board must consider Army-wide requirements in a variety of commands and functional areas. One of the fundamental problems which has faced the board has been the need for a wide span of knowledge and expertise in the board membership. The composition of the board has not fully met this requirement. Considering the lasting impact of its findings, the board appears of sufficient importance to warrant a general officer as president. He should be from the Office of the Deputy Chief of Staff for Personnel (DCSPER), and logically be the same individual who justifies and defends before the Congress the Army's budget requirements for individual training. Other voting members should be representatives of the Assistant Chief of Staff for Force Development, the Deputy Chief of Staff for Logistics, the Chief of Research and Development, the Assistant Chief of Staff for Intelligence, the Office of Personnel Operations, and the Office of The Adjutant General. Non-voting members from other staff agencies such as the Offices of The Surgeon General,

the Chief of Engineers, and the Chief of Communications-Electronics should participate as required when their areas of interest are under discussion. Non-voting members should also be invited from the Continental Army Command, Army Materiel Command, and Combat Developments Command, to provide a more precise delineation of stated field requirements. No agency should have more than one "table" representative, although voting and non-voting members should be permitted "over-the-shoulder" advisors.

12. The AERB in FY 65 developed a new system for determining the annual training input to support validated requirements. This system provides for the total validated requirements to be divided into two categories: initial utilization positions and reutilization positions. The initial utilization positions have been so designated because they require relatively junior grades, a limited experience base, and direct application of the special skill rather than management application. The annual training requirement of personnel to fill the initial utilization positions is based upon a projected turnover of incumbents. With the exception of those disciplines in which the undergraduate base is deficient, the system should produce graduates in the quantity and skills for which there is an immediate initial utilization position requirement. Reutilization position requirements are filled with personnel who have had an initial utilization tour, but have progressed to higher grades and greater experience levels.

13. Although the AERB developed the system for annual training input, the system is administered by the officer career branches. To strengthen this system, two areas require increased emphasis. First, the AERB should assure that the initial utilization positions designated by the field are established on a uniform basis. Second, to provide for the most efficient reutilization of officers with graduate degrees, the career branches should be assigned the responsibility for filling reutilization positions commensurate with numbers and types of assigned initial utilization positions.

Requirements

14. The AERB cannot perform its function of validating requirements accurately unless it has more precise tools with which to work. There is a significant lack of uniformity in present Army Tables of Distribution (TD) and job descriptions, as far as educational requirements are concerned. The need for measurement factors or standards for use by commanders in the field is apparent in the variances noted among the requirements forwarded by the Armies in the Continental United States (CONUS). For example, one CONUS Army submitted a requirement for only one officer with an advanced degree in the physical sciences while another submitted a requirement for 20 such officers. In the social

sciences field, one CONUS Army submitted a requirement for three advanced degrees, while another submitted requirements for 56 in the same area. The advanced civilian educational requirements submitted by the Army schools (See Appendix 22) disclosed wide variations and inconsistencies. Recorded advanced degree requirements for Army positions in joint and Defense schools, joint and combined staffs and headquarters, and the Office of the Secretary of Defense, are not indicative of true requirements. In certain cases only officers with advanced degrees have been accepted in these agencies, yet the positions have never been validated.

15. Little if any recognition is accorded advanced degree requirements for officer positions in Tables of Organization and Equipment (T/OE). The Army should institute a review of T/OE's to record position requirements in units such as engineer construction battalions and ordnance guided missile and special weapons maintenance units. A guide which contains factors, criteria, and standards for determining positions that require advanced degrees should be developed and published by Department of the Army. Such a guide would assist commanders and staff agencies in determining advanced civilian degree requirements for both TD and T/OE organizations and provide a uniform basis for AERB validating actions.

16. Position requirements for officers with advanced degrees have not been structured so that initial utilization requirements support reutilization requirements in all instances. Too little attention has been given to the requirements for officers with advanced degrees at the bench and lower supervisory levels. Requirements, particularly in the physical sciences areas, must be structured so that officers serve their initial utilization tour in relatively junior grades and their reutilization tours at higher supervisory levels in positions which are currently validated. During Board interviews at civilian educational institutions, educators repeatedly stated that officers taking advanced schooling in scientific and engineering disciplines should return to the campus fairly soon after undergraduate work (three to five years). Although recognized as a sound practice, it conflicts with the career pattern for branches that require certain specified tours. Therefore, the Board feels that extending the period to eight years is necessary to give career planners needed flexibility and to give the candidates who apply for advanced education the opportunity to complete other career requirements. If these are accepted, officers who complete advanced schooling in these disciplines will serve their initial utilization tours as captains or junior majors. This is desirable in that it allows these officers to have the practical experience of applying their theoretical knowledge early in their careers.

17. In its 1965 findings, the AERB recognized that it was difficult to be specific about long range requirements, and that the present system is predicated on calculating future requirements based upon today's validated positions. The problem is compounded by the student training lead time of one to two years, during which time requirements change. These factors, together with assignment policies and other career requirements, make it exceedingly difficult to predict firm long range requirements. Developing these requirements requires guided study and a thorough re-appraisal by both the field commands and the AERB. Use of the proposed DA guide should assist the field and the AERB in determining, reviewing, and refining requirements, both short range and long range. This would purify the system and establish a sound basis for subsequent annual reviews by the using agencies and the AERB.

Assets

18. The Army's assets to support its growing requirement for officers with graduate level training can be considered in two distinct categories. The first of these consists of those officers with undergraduate degrees who are potential selectees for graduate training. The usefulness of these assets depends upon such factors as grade requirements, military experience and schooling, manner of performance, branch requirements, availability, and prior civilian schooling. Although the Army has a sufficiently broad base of officers with undergraduate degrees, there is a lack of depth in the hard sciences to provide adequate input to these areas of graduate schooling. For example, the Signal Corps has a significant shortage of appropriate engineering baccalaureate degrees, with a resultant inadequate educational base upon which to build an advanced degree program. There are 6,145 officers in the Signal Corps, of whom only 1,122 (or 18%) have engineering degrees, and only 307 (or 5%) have these degrees in electrical or electronics engineering. This situation is compounded by the low Signal Corps lieutenant retention rate. Under the present officer assignment system, the Signal Corps is receiving an increasing number of officers with undergraduate degrees not oriented to its requirements or usable as a base for advanced degree schooling in its area of interest.

19. The second category of assets consists of those officers who already have graduate degrees. The usefulness of these assets depends upon their applicability to validated position requirements. Again, the same factors of grade, experience, performance, and availability are considerations. Further, many officers have graduate degrees in such areas as fine arts, archaeology, and paleontology which are of no direct use to the Army. These inapplicable assets, as well as excess assets in applicable degrees, must be discounted in comparing assets with requirements. Despite the impressive tabulation of officers with advanced

degrees indicated in Figure D19-1, serious imbalances exist between requirements and assets. For example, the Army in FY 65 had 2,399 officers with advanced degrees in the engineering fields. Although there were only 1,511 total identified requirements for officers with this training, grade imbalances and an uneven spread of specialization in the engineering disciplines resulted in sizeable shortages. A comparison of shortages and the current school input to reduce them is shown in the following table:

ENGINEERING ADVANCED DEGREE SHORTAGES AND SCHOOL INPUT

DISCIPLINE	SHORTAGES	CURRENT ANNUAL SCHOOL INPUT
Electronics Engineering	145	23
Guided Missiles	28	21
Topography	24	0
Communications	28	15
Nuclear Effects	17	20
Operations Research	78	35
Construction	27	8
ADPS	42	8
TOTAL	389	130

FIG. D19-2

20. As a means of strengthening the Army's asset position of officers with baccalaureate degrees in selected areas, a program for undergraduate schooling of enlisted men, followed by OCS, appears to offer considerable promise. Both the Navy and the Air Force have found such programs to be a continuing source of high caliber officer personnel, with qualifications specifically developed to fit Service requirements. The Board considers that a program should be developed for highly selected enlisted personnel who have outstanding military records and sufficient college credits to be able to complete the undergraduate degree requirements in a discipline particularly required by the Army in 24 months or less. Upon completion of their college work participants should attend a modified OCS Program and should be able to complete the program prior to their 28th birthday. Although it is hoped that all

officers who complete the program would remain in the Army as Regular Army officers or Reservists in an indefinite category status, a minimum service obligation of two years for each year of schooling should be imposed. The Board believes that a program of this type would attract dedicated Army personnel of the caliber and academic proficiency desired for current Army needs and for possible future advanced civil schooling. The present time probably is not propitious for inauguration of such a program. However, it appears worthy of testing on a limited basis between now and 1970 and should be adopted if the trial program is successful.

21. The Board considers that, at least for the next decade, the Army should continue to rely on the civilian educational community to meet its requirements for undergraduate and graduate schooling in skills which are not strictly military in nature. There are advantages in matriculating at civilian institutions, as any student studying in such a milieu is exposed to a wide variety of stimulating attitudes and viewpoints. Further, the Board encountered opposition at policy levels in the academic community to Federal degree-granting institutions. This opposition was not, however, reflected in views expressed by educators in civilian institutions visited by the Board. Rather, their primary concern was with their capability to meet rapidly expanding academic demands, particularly in the technical and scientific disciplines. The Army, which has growing requirements in the same areas, may be faced with the prospect of not being able to satisfy its needs through civilian schooling. Increasing difficulty is being encountered, even today, in placing officers in certain universities for graduate education. Both the Air Force and the Navy have in-house capabilities for undergraduate and graduate level officer schooling. These capabilities probably could be expanded to meet such additional requirements as civilian institutions were unable to fulfill, but it is unlikely that they could accommodate the Army's requirements as well. The Board gave serious consideration as to whether the Army, in all prudence, should develop a time-phased plan, including required legislation, for establishment of an in-house-degree granting capability in the scientific and technical area; but decided against this course of action for the period covered by this report.

22. The Board considers, however, that the Command and General Staff College (C&GSC) advanced study program as set forth in Appendix 4 should be fully supported, and that the Army should seek legislative authority for the C&GSC to grant the degree of Master of Military Art and Science, for which it has already received accreditation. The Board distinguishes between such a degree and a degree in civilian skills. The Army is not competitive with civilian institutions in offering a degree in Military Art and Science. Educators today have an increasing

understanding of broad military policy and grand strategy. However, civilian institutions do not have the academic base nor the practical applicatory experience in the military field to justify accreditation for issuance of an advanced degree in Military Art and Science.

Utilization

23. Associated with requirements and asset determination are utilization and reutilization of trained resources. As previously stated, 430 officers with two years of obligated service entered the Army with advanced civilian degrees in FY 65. The Army is faced with the choice of training them in leadership and branch-associated skills with troop units, or assigning them to laboratories or other research/academic positions which draw on their expertise. In general, the Army appears to be following the latter course, utilizing their special skills, especially at the doctorate level, to help meet requirements. This practice is not ideal but is acceptable in the case of two-year officers highly trained in disciplines difficult to acquire and essential to Army requirements. Although the Army obtains only a single utilization tour from the two-year officers, the goal for career officers is to obtain a utilization tour and, for selected officers, one or more reutilization tours. The present system, however, does not program reutilization tours in many cases for which such tours would be appropriate. For example, the USMA has 360 validated positions which represent about 9.5% of the Army's total validated requirements. At present, the officers who receive advanced civilian degree training to teach at the USMA are not programmed for future reutilization tours elsewhere in the Army. Advanced degrees in mathematics could have future use in the research and development or combat developments areas; foreign language instructors could be utilized in attaché, MAAG, or FAST assignments.

24. In some instances timely utilization or reutilization is interrupted because of high priority assignments such as selection to a career course at a branch school, the CGSC, or a senior service college, or to a command position; or assignment to an overdue short tour overseas where there are no utilization positions. However, a high percentage of the career officers who obtain advanced degrees serve in a specifically designated utilization tour after receiving their degrees. A survey of 2,194 officers who obtained advanced degrees from 1960-1964 indicates that 83.9% had utilization tours (63.9% had such tours immediately, 10% were delayed but are now on utilization tours, and 10% had a partial utilization tour), and 16.1% did not have utilization tours during that period. Of the 2,194 officers surveyed, only 84, or about 4%, had left the program due to death, retirement, discharge, or transfer. The Army personnel system should continue to make every effort to provide timely initial utilization tours for 100% of the officers obtaining advanced

degrees and to program reutilization tours for selected individuals at appropriate points in their careers.

Selection System

25. The present system of acquiring candidates for advanced civilian degree education is based on volunteers who meet the qualifications set forth in the regulations and directives. No specific requirement currently exists for active duty officers to furnish an academic transcript for their Department of the Army files. If this information were available, a better selection system could be established for advanced degree candidates. The records of all officers, to include both their undergraduate work and performance as an officer, could be screened by career branches and letters sent to the best qualified, notifying them of their eligibility for advanced civilian schooling and inviting them to apply. The records could be automated, and random access provided for all information required for the selection of an officer. The proposed system would assure the most effective application of manpower resources and would overcome many of the weaknesses which now exist in the system. For example, most of the officers who enter graduate training for eventual assignment as USMA instructors are USMA graduates, primarily because their undergraduate records are known and available for review. Under the proposed system, informed selections could be made from Army-wide resources, with a resultant desirable introduction into the USMA faculty of officers with a variety of academic backgrounds.

Management of the Advanced Education Program

26. The advanced civilian degree candidates in the past have received very little guidance from Department of the Army. In many cases the student entered his advanced degree program without knowing the real purpose of his training, future assignment, or utilization. A new system has been developed and is being used to provide needed information, but it must be refined further. As soon as the officer is selected, he should contact his future command to develop areas of study and research which will assist him in his utilization assignment. He should be granted a brief TDY period prior to his schooling, if needed information cannot be provided by correspondence or telephone. The utilizing command should also feed back to OPO on an annual basis information on new technical advances, new Army systems, and other pertinent items which affect schooling requirements, as well as information updating educational disciplines.

Additional Advanced Training Programs

27. A significant area of the Army's advanced training program for officers is the short course training conducted primarily at civilian

universities. This program gives the Army added flexibility in training officers on an as-required basis in a wide range of specialized areas for which training is not provided within the military school system. The preponderance of short courses are unprogrammed, due primarily to turnover of personnel and the unforeseen training needs of newly assigned personnel. A greater effort should be made to program in advance as many of the short courses as possible.

28. Another area of the advanced training program that warrants examination is the program for training with industry (TWI). This program provides the Army with a means of training officers in specialized management and engineering methods employed by major US industries, which have a military application. Officer trainees are usually integrated into the organizational structure as working members with specific responsibilities, and are rotated through several segments of the industry. Thus, in a one-year tour of duty, an officer gains a more comprehensive experience base than a regular employee does in a similar period, or than the officer otherwise could in a regular assignment. Both the Navy and the Air Force have active TWI programs with 35 and 129 officers respectively in the program during FY 64. The Army's use of the program has declined over the past decade, with only 14 officers participating as of September 1965. The TWI program is worthwhile and it should be used when there is a demand to provide the Army with needed expertise in new equipment, systems, and techniques developed by industry.

CONCLUSIONS

29. The Army should state unequivocally that its objective is for 100% of its Regular officers to have a baccalaureate degree. Except in unusual circumstances, justified on a case-by-case basis, no officer should be accepted into the Regular Army without such a degree.

30. The composition of the Army Educational Requirements Board should be amended to consist of a general officer from the Office of the Deputy Chief of Staff for Personnel as President, voting members from the Army staff elements with primary interest in graduate education of officers, and non-voting representatives of Department of the Army special staff agencies and the US Continental Army Command, US Army Materiel Command, and US Combat Developments Command.

31. To strengthen the advanced degree requirements program, the Army Educational Requirements Board should assure that the initial utilization positions requested are designated on a uniform basis; the career branches should be assigned responsibility for filling reutilization positions commensurate with numbers and types of assigned initial utilization positions.

32. A guide should be published by Department of the Army to assist commanders and staff agencies in developing advanced civilian degree requirements for their organizations and to assist the Army Educational Requirements Board in its review and validation.

33. A structure should be developed with the number, by grade, branch, and MOS, of junior officers that should be programmed into the advanced degree program in the specified disciplines, to meet current requirements and to support projected positions identified as reutilization assignments. Branches should allow officers with up to eight years of service to apply for advanced schooling in engineering and technical disciplines.

34. A program should be developed for carefully selected enlisted personnel to complete undergraduate schooling in disciplines particularly required by the Army, followed by Officer Candidate Schools, in order to increase the input of officer resources in needed academic areas.

35. All active duty officers should be required to furnish an academic transcript for their DA 201 files for use in determining and selecting the best qualified candidates for advanced schooling.

36. Officers selected for advanced schooling should be given specific guidance, by the organizations to which they will be assigned for an initial utilization tour, concerning courses to include in their programs of study and recommended subject areas for their research papers. If this guidance cannot be provided by correspondence or telephone, the officer should be permitted a TDY period for a visit to his future organization.

37. Unprogrammed short course training may be used to satisfy unforeseen requirements; however, all DA agencies and commands should be required to program in advance the majority of their short course training requirements.

38. Training with industry should be used when there is a demand to provide the Army with needed expertise in new equipment, systems, and the applicable techniques developed by industry.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 20

IMPACT OF THE JOINT AND DEFENSE SCHOOL SYSTEMS ON THE ARMY SCHOOL SYSTEM

PURPOSE AND SCOPE

1. This appendix analyzes the effects of the educational and training policies of the Office of the Secretary of Defense (OSD) and of the Joint Chiefs of Staff (JCS) on the Army officer school system.

BACKGROUND

2. Annex C, Appendix 1, describes in detail the joint and Defense schools and courses, the responsibilities of OSD and JCS, and their relationship to the Army school system.

3. Although the Assistant Secretary of Defense (Manpower) is designated as the principal staff assistant to the Secretary of Defense in the functional area of Armed Forces education, other Assistant Secretaries of Defense have a significant interest in various functional areas of Armed Forces education and training.

DISCUSSION

Definitions

4. There is no common agreement as to what constitutes a "joint", "Defense", or "inter-Service" school or course. A JCS policy memorandum provides the following definitions:

a. Joint school or course - a school or course utilized by two or more Services that has a joint faculty, and a Director (Commandant) who rotates among the Services and is responsible, under the direction of the Joint Chiefs of Staff, for the development and administration of the curriculum.

b. Inter-Service school or course - a school or course utilized by two or more Services/agencies that is administered by a

coordinating Service/agency and which presents a curriculum developed in coordination with the participating (using) Services.

c. Service school or course - a school or course which presents a curriculum developed and approved by a Service to meet a military education and training requirement of that Service.

5. A DOD Directive on the Defense Logistics Management Training Program, on the other hand, defines a "joint" course as one which meets the training needs of all DOD components, as opposed to a "single Department" course which covers subject matter which is peculiar to the needs of a single DOD component. This directive does not address the "inter-Service" course, nor does it define a "Defense" course or school.

6. The definition of course types might appear to be purely an exercise in semantics, if it were not for the type of control exercised by some agencies of OSD over what they consider to be "joint" (i.e. non-single Department) schools. Of greatest concern in this area are the actions of the Defense Logistics Management Training Board (DLMTB), which has become increasingly involved in the actual operation of schools rather than the provision of overall policy. As a result of this board's actions, the Army has lost approval authority over the programs of instruction of most of the logistics management courses conducted by the schools of the Army Materiel Command, has been restricted in the subjects which these schools may present, and has been required to follow OSD quota allocation procedures for them. Current actions of the DLMTB may extend OSD control to procedures for course enrollment, faculty evaluation, and student grading.

7. In exercising direction over various logistics schools and courses, it is not always clear when the Chairman of the DLMTB is acting in his capacity of chairman and when in his capacity of representative of the Assistant Secretary of Defense (Installations and Logistics). In either capacity, however, the resulting direct contact between an OSD staff agency and service school Commandants on such matters as quotas, course content, and internal policies vitiates command responsibilities for resource allocation, career development, and balanced allocation of training time.

8. In the past a lack of common definitions for the different types of multi-Service schools has led to confusion among the operating agencies of the Army school system. As a case in point, USCONARC initially recommended approval of a proposal to make the US Army Transportation School "joint", unaware that the OSD interpretation of this term entailed OSD direction and control. As it was USCONARC's intention to conduct "inter-Service" courses under its own control, this recommendation was subsequently withdrawn.

9. There are many instances in which courses are conducted by a single Service for its own purposes but made available to one or more of the other Services in order to prevent unnecessary duplication. An example is airborne training conducted for all Services by the Army at Fort Benning, Georgia. In other cases one Service may alter its own program of instruction to meet another Service's requirements and still operate the course as a single-Service course. An example of this inter-Service coordination is AN/TRC-90 radio training of Army personnel conducted by the Air Force at Keesler AFB, Mississippi. As covered in detail in the descriptions of Army branch schools, colleges, and specialist schools in Annex C, Appendices 4, 5, and 6 respectively, Army schools and colleges, without exception, provide instruction to officers of the other Services and generally of other countries as well, in the great bulk of their courses. Obviously, the fact that representatives of two or more Services attend the same course does not in itself dictate that that course should be placed under the control and direction of OSD.

10. For the purposes of this discussion, the JCS definitions cited above will be used, except to add to the definition of an inter-Service course (see paragraph 4b) the phrase, "and approved by the coordinating Service." An additional definition is proposed as follows: "Defense school or course - a school or course utilized by two or more Services that is administered by a coordinating Service/agency and which presents a curriculum developed under the policy guidance and approval authority of an agency/element of the Office of the Secretary of Defense."

Joint and Defense Schools and Courses

11. The JCS apparently consider that the only truly joint schools today are the National War College, the Industrial College of the Armed Forces, and the Armed Forces Staff College. A literal interpretation of JCS Memorandum 143 would also add the Defense Intelligence School, which is operated by an agency of the JCS and perhaps more properly should be called the Joint Intelligence School. Although the Army provides housekeeping support for two of these schools, it has no responsibilities for their control or direction.

12. The two schools operated by the Army for the Department of Defense are the Defense Language Institute (formerly the Army Language School) and the Defense Information School (formerly the Army Information School). In themselves these two schools offer no significant administrative problems to the Army, except for the fact that they are retained directly under the Department of the Army rather than being placed under one of the major commands, thus involving the Department of the Army in actual administration of quotas and review of programs

of instruction. This is a reversal of a recommendation of the Williams Board that the Department of the Army should not be an operator of schools. However, the Headquarters, Defense Language Institute, performs most of its own administrative tasks, while the number of students at the Defense Information School is small. The assignment of Army responsibility for these two schools is discussed in Appendix 21.

13. With the exception of the Defense Advanced Traffic Management Course, which is taught by the US Army Transportation School and hence is under USCONARC, the other Defense courses conducted by the Army are taught at three schools operated by the Army Materiel Command: The Army Logistics Management Center (ALMC), the Army Management Engineering Training Agency (AMETA), and the Joint Military Packaging Training Center (JMPTC). This last school is misnamed, as it is actually a Defense rather than a joint activity.

Nature of Defense Logistics Courses

14. A profile of the courses conducted by these three schools is at Figure D20-1 below. It is apparent that the majority of these courses are Defense courses of limited duration (a minimum of one day and a maximum of eight weeks), attended predominantly by civilians.

ARMY OPERATED DEFENSE LOGISTICS COURSES FY 65

SCHOOL/ COURSE	TOTAL NO. OF COURSES	% OF DEFENSE COURSES	AVERAGE LENGTH OF DEFENSE COURSES	% OF CIVILIAN STUDENTS
ALMC	16	56%	4 weeks	65%
AMETA	49	98%	1-3/4 weeks	82%
JMPTC	11	100%	1-1/2 weeks	70%
DEF TRFC MGMT	1	100%	4 weeks	69%

FIG. D20-1

15. The profile appears to reflect the general developmental pattern of Defense logistics management courses conducted by the Army in recent years. A new course is added to meet a specific requirement in which some individual or Service has an interest. Since the requirement is normally of limited scope, the time required to teach it is small -- a fact which is attractive to the civilian employee, who does not like to attend a long course away from home. Once the course is established, the inertia of the system tends to perpetuate the course and its quotas. The result is an increasing number of short courses of limited scope, attended by more students who are primarily civilians, and accompanied by an increase in staff and faculty. The JMPTC is an exception to the trend towards an increase in students. The decline in resident student load at this activity has been taken up largely by an increase in on-site instruction.

16. Fragmentation of management training into short courses of this nature is not unique to the Army's management schools, as the discussion in Appendix 10 shows. However, the tendency appears to be aggravated by the fact that the OSD agencies with the authority to create or expand management courses are not restricted by the necessity of providing resources for their support. Where authority to impose requirements is not accompanied by the ability to provide additional resources, the inevitable result is sacrifice of the operating Service's own requirements.

17. A disturbing new factor in the management training field is the tendency to view a technique, which is common to many fields, as a functional area of management expertise and thus subject to centralized control. An example of this view was the unsuccessful effort in November 1965 to consolidate a significant portion of the automatic data processing (ADP) training capability of the Army and the Air Force under the aegis of the DMTB.

18. Of greater concern, however, are the continuing DLMTB attempts to extend its influence and control into Service-unique schooling. For example, there are at present indications of interest in establishing Defense courses at the Army Transportation School and the Quartermaster School, combining the officer basic courses at the Finance and Adjutant General's Schools, eliminating management level ADP training at the Signal School, and establishing a Defense course in family housing management at the Engineer School. It is apparent that instruction on many of the subjects taught by the separate Services overlaps to some degree, particularly in those portions of courses which deal with basic principles or common subjects. This restricted commonality of subject matter, however, should not be considered as a device with which to enter the career schooling structures of the Services.

19. Career schooling in the Army has been shown in Annex B to be a highly structured, interlocking system of sequential schools. Unlike the specialist courses, which are job-oriented, the career courses are educational in nature, designed to prepare the officer for the general demands of the next phase of his career rather than for a specific position. The uni-Service orientation of these courses is particularly evident in the two levels of career schooling conducted at the branch schools, where the curricula are designed to make students not only competent Army officers, but competent Army officers of a specific branch. Even within the Army itself, these courses do not lend themselves to inter-branch use. There is less reason to suppose that they lend themselves to inter-Service use.

20. This is borne out by the initial staffing of the proposal to make the Army Transportation School a "joint" school. The Air Force indicated at that time that it considered 71% of the Transportation Officer basic course and 56% of the career course to be Army-only instruction and non-productive for Air Force needs. It seems clear that any effort to amalgamate the two Services' requirements into a single curriculum in such a case could be accomplished only at the expense of the career schooling of the Army officers.

21. There is, of course, no reason why specialist courses should not be made Defense or inter-Service courses where unwarranted duplication between Services is apparent. At the same time, however, the manner in which this is accomplished should be controlled. The procedure for coordination between OSD agencies on educational and training matters is at present imprecise. Without central coordination of the requirements imposed upon the schools of the separate Services, each OSD office is free to enter the Services' school systems at any point and in any manner which it desires. The Assistant Secretary of Defense (Manpower) would appear to be the logical coordinating agency.

CONCLUSIONS

22. Common definitions are required for the types of courses and schools in which more than one Service participates. The definitions should center about the agency which approves the curriculum: the Office of the Secretary of Defense, the Joint Chiefs of Staff, or an individual Service.

23. The greatest impact of Defense educational and training policies is in the area of logistics management training, where the Defense Logistics Management Training Board pursues an aggressive policy of extending its influence and control. This control not infrequently takes the form of actual direction of school operations

rather than provision of policy guidance, thus vitiating Service command responsibilities.

24. Army career courses should not be considered for conversion to Defense courses, since they are integral parts of a sequential educational structure designed to meet Service-unique requirements.

25. Actions taken by the Office of the Secretary of Defense with respect to educational and training matters affecting the Services should be coordinated by a single agency.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 21

ALTERNATIVE ORGANIZATIONAL STRUCTURES FOR THE ARMY SCHOOL SYSTEM

PURPOSE AND SCOPE

1. The purpose of this appendix is to analyze the organizational structure of the Army school system with a view to determining its adequacy for the future. The analysis covers the issue of possible consolidation of the total school system under the Commanding General, the Continental Army Command (CG, CONARC); the internal structure of the CONARC and Army Materiel Command (AMC) school systems, to include proposed consolidation, collocation and reorganization designed to enhance the operational efficiency of the systems; and the relationship of education and training to doctrinal development, to include a possible school role for the Combat Developments Command (CDC).

BACKGROUND

2. The current command structure of the Army school system is set forth in Annex B, Appendix 1. Of 22 branch schools, 18 are under the CG, CONARC; two are under The Surgeon General (TSG); and one each is under the Judge Advocate General (TJAG) and the CG, Army Security Agency (ASA). The CG, CONARC also commands the Command and General Staff College (C&GSC) and seven specialist schools including the Army Management School (AMS). Three specialist schools operate under the CG, Army Materiel Command (AMC). Five schools, comprising the United States Military Academy (USMA), a preparatory school associated with it, the Army War College (AWC), and two Army-operated Defense schools, are under direct supervision of the Deputy Chief of Staff for Personnel (DCSPER), the Department of the Army (DA). The present organizational structure of the Army school system is shown in Figure D21-1.

3. The Artillery, Signal Corps, and Army Intelligence and Security Branch, each have two installations designated as branch schools. Artillery officers, divided into field artillery and air defense groupings, attend separate basic and associate career courses at the Artillery and Missile School and the Air Defense School, but are cross-trained in a single career course, divided sequentially between the two schools. Signal Corps officers attend their basic

ARMY SCHOOL SYSTEM

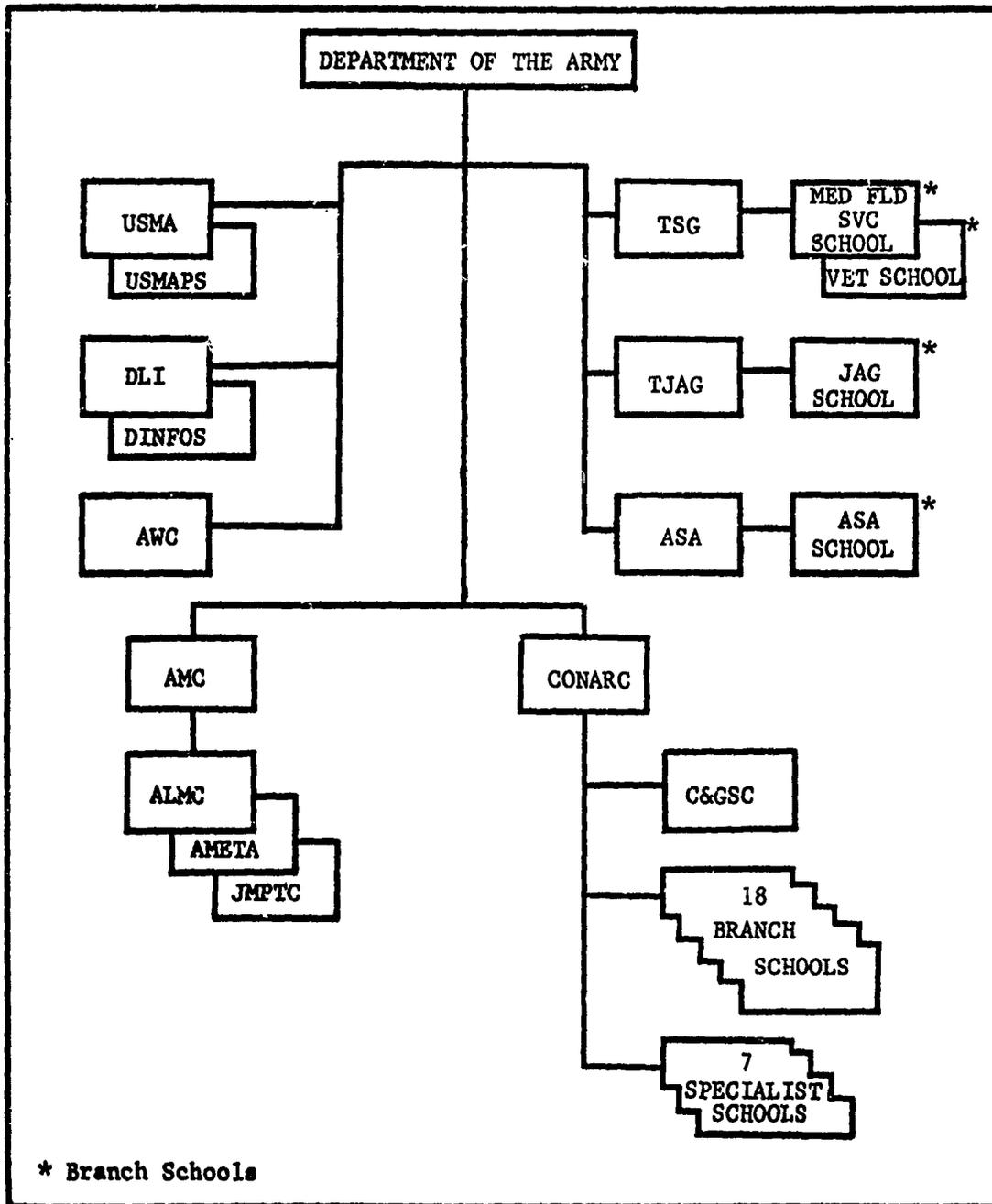
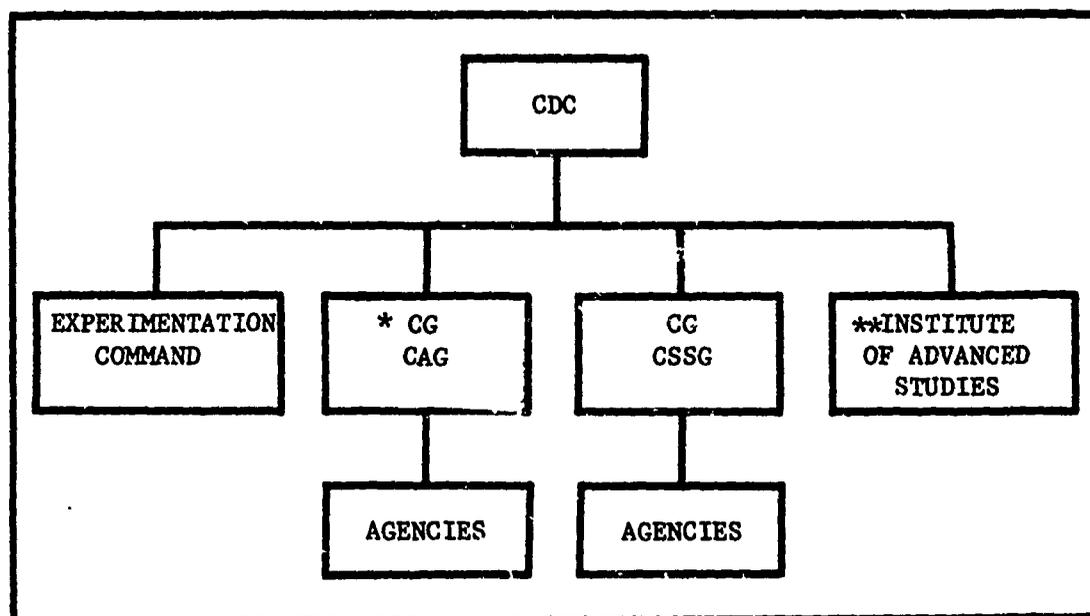


FIG. D21-1.

course at the Southeastern Signal School and their career course at the Signal School. Army Intelligence and Security (AIS) officers attend the Infantry basic course and are divided into two groupings to attend separate orientation and career courses at the Intelligence School and the Army Security Agency School.

4. As defined in the Army Dictionary, AR 320-5, operational control is authority vested in a commander to direct assigned forces and to deploy units, retaining or assigning tactical control of them so that he can accomplish specific missions or tasks, usually limited by function, time or location. It does not include administrative or logistic control. This term is not currently used in relationship to the Army school system.

ORGANIZATION OF CDC



*Also Commandant C&GSC

**Also Commandant AWC

FIG. D21-2

5. The Combat Developments Command, a small but geographically dispersed command of 1,400 officers, is charged with developing Army doctrine, organization and materiel requirements. Its headquarters is located at Fort Belvoir, Virginia. Control is exercised through two mid-management echelons, the Combined Arms Group (CAG), at Fort Leavenworth, and the Combat Service Support Group (CSSG), at Fort Lee. Subordinate echelons, referred to as CDC Agencies and ranging from 2 to 54 officers, are collocated at schools or functional centers to

which their missions are appropriate. They report to the CG, CAG (who is also the Commandant of C&GSC), or to the CG, CSSG, according to their orientation toward combat or combat support. Each Army college also has a collocated doctrinal echelon, the Combined Arms Agency (CARMSA) at C&GSC reporting to CAG; and the Institute of Advanced Studies at Carlisle Barracks, commanded by the Commandant, AWC, reporting to CC, CDC. In addition, CDC has an Experimentation Command and a contractual group from Stanford Research Institute at Fort Ord, California, which conduct controlled and instrumented field experiments. See Figure D21-2.

6. The Navy has no command charged with overall direction of training or education. The Chief of Naval Personnel plans, programs, and budgets for the individual training and education of all officers except Naval aviators and medical personnel. Training of these groups is the responsibility of the Deputy Chief of Naval Operations (Air) and the Chief of the Bureau of Medicine and Surgery, respectively. The two top levels of Navy career schooling, the Naval Command and Staff Course and the Naval Warfare Course, equivalent to the Army's C&GSC and AWC, are collocated and conducted under direction of the President of the Naval War College. Functional training is the responsibility of fleet and type commanders. The Marine Corps school system is under the command of the Commandant of the Marine Corps Schools at Quantico, Virginia (See Annex C, Appendix 2).

7. The Air Force command structure divides professional education, military and civilian, and military training; professional education is consolidated under the Air University and training under the Air Training Command (See Annex C, Appendix 3).

8. Subsequent discussion is divided into four parts: Part I addresses the problem of consolidation of all schools under CONARC; Part II examines the resulting internal school structure within CONARC and AMC; Part III analyzes doctrinal responsibilities of Army schools and colleges; and Part IV compares alternative organizational structures and discusses certain command arrangements which facilitate implementation.

DISCUSSION

PART I

POSSIBLE CONSOLIDATION OF SCHOOLS UNDER CONARC

9. The Board was specifically charged with studying the feasibility and desirability of consolidating all Army schools under CONARC. The following analysis is made with a view to determining whether the groupings of schools now operating under DA general and special staff

agencies, AMC, and ASA should be consolidated under CONARC.

Army-Operated Defense Schools

10. The problems associated with supervision and control of the DA-operated Defense schools and courses are addressed in Appendix 20. Certain advantages would accrue from placing the DA-operated Defense schools, the Defense Language Institute (DLI) and Defense Information School (DINFOS), under CONARC. The coordination of area and language training would be facilitated (Appendix 14), and a step would be taken toward removing the Army General Staff from direct school operations, as advocated by the Williams Board. On the other hand, both schools operate under policy control of the Office of the Secretary of Defense (OSD), both have joint staffs and faculties and significant student loads from other Services, and both work almost daily with those Services in matters of school and student administration. Placing control of these schools at an echelon below the DA would decrease their responsiveness to other Service and OSD requirements. The CONARC school system should be concentrated on Army schools and courses to avoid disruption of its fundamental training mission by operational direction external to the Army. The Board believes that the two Army-operated Defense schools should remain under DA control.

Army Materiel Command Schools

11. There would be an advantage in concentrating training responsibilities below Departmental level in a single command as the Air Force does. Problems of coordination between two major commands (CONARC and AMC) would be avoided, and there would be less likelihood of gaps, overlaps, or duplication in instruction. On the other hand, AMC is the repository of expertise in producer-logistics; and the three schools which it operates, the Army Logistic Management Center (ALMC), the Army Management Engineering Training Agency (AMETA), and the Joint Military Packaging Training Center (JMPTC) serve its needs directly. Today they conduct more Defense than Army courses; some of their courses, in fact, have no Army students. The courses taught in AMC schools have little relationship to operations of the Army in the field, which is CONARC's domain. Over 75% of their FY 65 student attendance was civilian. It would be uneconomical, in terms of manpower, for CONARC to acquire the necessary expertise to control AMC schools. Centralization within AMC of responsibility for producer-logistics, development of related doctrine, and conduct of required training, represents integrated responsibility which should not be divided. The Board considers that the three schools currently operated by AMC should remain under its command. Further, in the interest of concentrating all Army-operated Defense logistic management courses under a single command, the Defense Advanced Traffic Management Course now being conducted at

CONARC's Transportation School should be transferred to AMC. In addition, the relocation of the CONARC Army Management School to Fort Lee and its incorporation within the ALMC under AMC control should be accomplished, as proposed in Appendix 10.

The Army War College (AWC)

12. During the first ten years of its post-World War II existence, the Army War College was under the command supervision of CONARC; in 1960 it was placed directly under Headquarters, Department of the Army (DA). The transfer of the AWC was accomplished so that DA could exert greater influence on the college's curriculum and advanced study program. The CG, CONARC, expressed concern at the time over the implications regarding his responsibilities for the development of doctrine. Return of the AWC to CONARC control would get the Army General Staff out of the business of operating a career Army school and tie the Army War College more closely to the remainder of the Army school system, with particular reference to the C&GSC. However, the Army War College mission and curriculum have little to do with the Army in the field. Further, the CG, CONARC, in 1962 was divested of his doctrinal responsibilities which caused his concern at the time of transfer of the College. The Board sees no persuasive reason for the return of the AWC to CONARC control.

The US Military Academy (USMA) and USMA Preparatory School (USMAPS)

13. Since CONARC directs the operation of the other two officer procurement sources, the Reserve Officer Training Corps (ROTC) program and the Officer Candidate School (OCS), there would appear to be some logic in also placing the USMA and USMAPS under that headquarters. While the military training given at the USMA is parallel to that conducted at other precommission sources, the USMA is basically an educational institution whose curriculum covers a broad field of civilian disciplines of little direct interest to CONARC. The academic, as opposed to military orientation, of the USMAPS is even more pronounced. The USMA and USMAPS are tied together by a common aim but are not closely related to the CONARC school training complex. Further, both have broad Congressional interest which militates against their direction by a headquarters outside the Washington area. The Navy and Air Force supervise the operation of their respective Service academies at Departmental level. The Board considers that the Army should continue to do likewise.

The Army Security Agency (ASA) School

14. The ASA School orientation and career (advanced) courses should be combined with those of the Intelligence School at Fort Holabird, and the schools eventually should be consolidated as proposed in

Appendix 17. The ASA School should be transferred to CONARC control to facilitate combining these two courses, and to provide command direction over the interim operation and ultimate consolidation of the two schools.

Professional Services' Schools

15. While the Judge Advocate General's (JAG) and Army Medical Service (AMEDS) Schools are operated under their respective professional service chiefs, the Chaplain's School is operated under direction of the CG, CONARC. There would be obvious logic in placing the schools of all three branches under CONARC. Unity of command would be enhanced, and closer military supervision and closer ties to the remainder of the Army schools would result. Under such an organizational arrangement the CG, CONARC, would supervise the operation of all branch schools and be in a better position to achieve uniformity in instructional methods and desired coverage of common subjects. The Chaplain's School has functioned well under CONARC direction and the Chief of Chaplains is well satisfied with the arrangement. The JAG School is similar to it in size, character, and atmosphere. It operates contiguous to and closely associated with a civilian law school, in isolation from a military environment. Currently, the Quartermaster School conducts the military, common subject, and field training portion of its officer basic course.

16. The case of the AMEDS schools is substantially different. The AMEDS consists of six branches or corps of the Army which are fully integrated and mutually supporting. The Medical Field Service School operates within the framework of an Army Medical Center, which also includes a general hospital, a research facility, and other medical activities, all located in the military environment of Fort Sam Houston. The Medical Field Service School currently teaches a total of 20 resident courses for male and female officers of the six AMEDS branches; these courses are a part of the professional career development of these officers, which is accomplished under the supervision of the Surgeon General. The Medical Service Veterinary School, located in Chicago, is carried by the Board as a branch school because of the close relationship of its two courses with career progression in the Veterinary Corps. It is tied in closely to the Medical Field Service School as a part of the AMEDS school system. The Board was convinced during its examination of the AMEDS school system and courses that they are today being operated effectively and efficiently under TSG. The CONARC span of control, already overextended, would be stretched even more if both the JAG and AMEDS Schools were added to it. The massive size and complexity of the AMEDS system commend its retention under existing command arrangements. The Board believes that the JAG School would benefit by closer military supervision and should be

ALTERNATIVE ONE

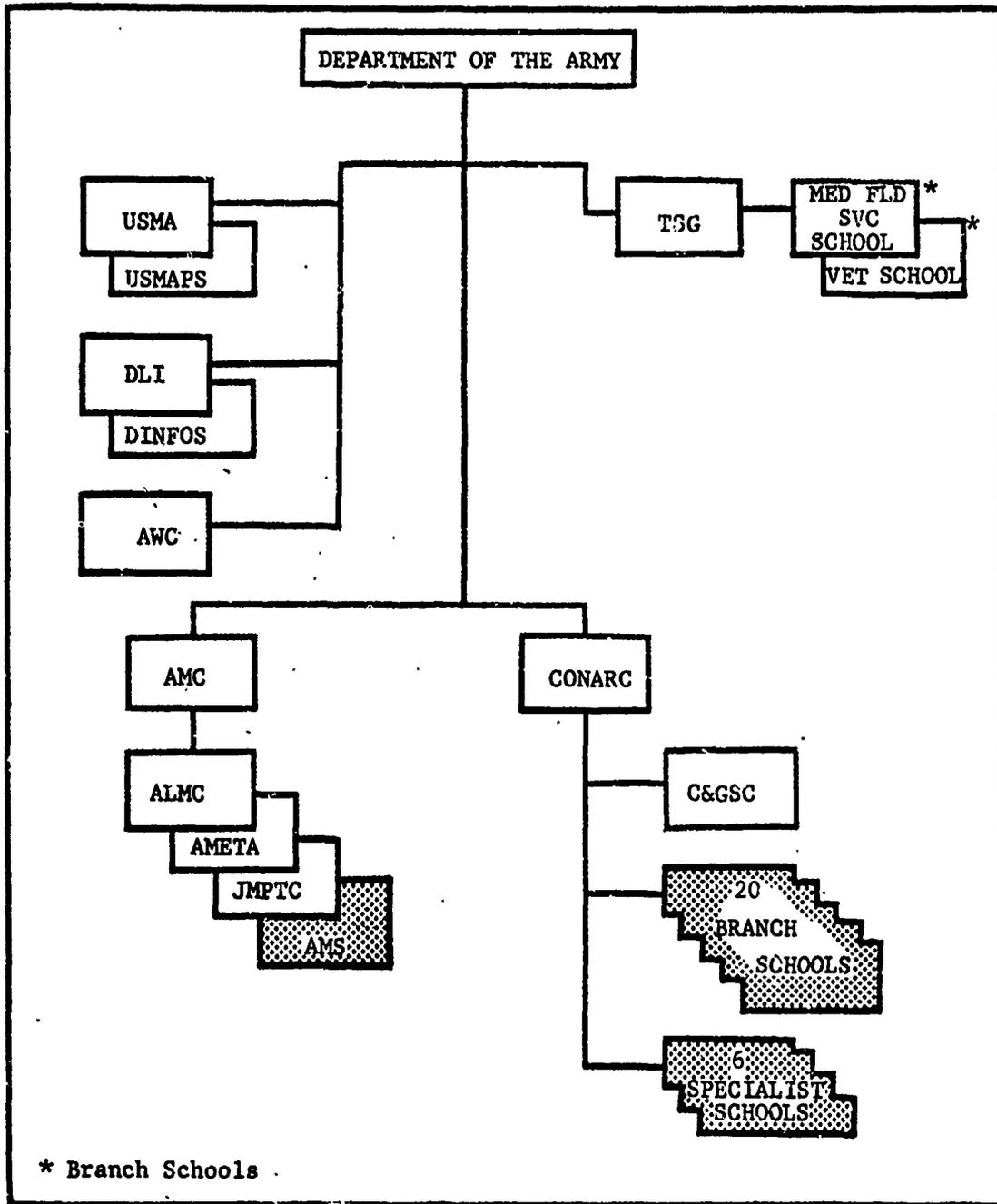


FIG. D21- 3

brought under CONARC but that the AMEDS Schools should remain under TSG.

Preliminary Finding - Alternative One

17. As a result of this initial analysis, the Board concludes that it is neither feasible nor desirable to consolidate all Army schools under CONARC; that only the JAG and ASA Schools should be transferred to that command; and that the Army Management School should be placed under AMC preparatory to movement to Fort Lee and consolidation with ALMC. This organizational arrangement, referred to as Alternative 1, is shown in Figure D21-3.

PART II

INTERNAL CONARC/AMC SCHOOL STRUCTURE

18. The Board next concerned itself with the question of whether the command structure of the school system within both CONARC and AMC could be simplified. The Board explored the dual schooling of the three branches alluded to in paragraph 3, the relationship between some branch and specialist schools, and the tie-in between certain specialist schools.

Divided Branch Schools

19. The Board considers that ideally each branch should have a single branch school or home in the interests of branch unity, uniform career schooling, and administrative efficiency. Coincident with the transfer of the ASA School to CONARC as previously proposed, it should be placed under the operational control of the Commandant of the Intelligence School. This would consolidate the direction of all career and specialist training for the AIS Branch, facilitate coordination of curricula, and provide the impetus for the merger of courses and ultimate consolidation of the schools. The Board believes that the consolidated school should be located at Fort Gordon or Fort Bragg. The Board recognizes that there are disadvantages to placing one school under another, on an interim or permanent basis. However, it is considered that the advantages of reducing CONARC's overextended span of control outweigh the disadvantages of lengthening the chain of control. The Board accepts the infeasibility of full command of one school over another, due to the current CONARC support structure. Certain security problems are involved in placing an ASA School under CONARC but they can be resolved; placing the ASA School under the Intelligence School will not increase these problems, and may, in fact, decrease them.

20. Consolidation of the two Signal schools also appears feasible. The current demands for space at Fort Monmouth lends some urgency to such consolidation. In the view of the Board, Fort Gordon is an appropriate location for the combined schools; it provides a suitable electronic environment for the operation of a Signal School and room for future expansion as required. The Board proposes that the Southeastern Signal School be placed under the operational control of the Signal School at this time to reduce the CONARC span of control, improve coordination of Signal officer career and specialist schooling, and provide for the orderly progressive transfer of courses and personnel to Fort Gordon as facilities permit.

21. The current division in Artillery schooling reflects an involved problem in the Army's basic branch structure, namely, whether the Artillery is logically one branch. The two Artillery schools are very large installations, and the Board found no support at any level for combining them or subordinating one to another. The Board sought, through its proposals for an elective program in the school system, to eliminate duplication in Artillery career course instruction, but considers this as only a partial solution to a larger problem that lies beyond this Board's terms of reference. Missile and air defense considerations have produced serious cleavage in the Artillery Branch today, and this could widen in the decade ahead if the Army is charged with responsibility for a large anti-missile program.

Related Career and Specialist Schools

22. In some instances, missions of specialist schools relate them closely to areas of responsibility of branch schools. One specialist school, the CBR Weapons Orientation Course, should be discontinued in its present location and absorbed within the Chemical School in CY 67, as proposed in Appendix 15. The Chemical School should be given operational command over the CBR Orientation Course at an early date to facilitate the transfer.

23. The Missile and Munitions School (until 1 January 1966 the Ordnance Guided Missile School) is closely related to the Ordnance School. The great majority of its courses are designed to train Ordnance specialists. Certain instructor personnel from the Missile and Munitions School on a TDY basis teach blocks of instruction in Ordnance School courses. Because of the Army's heavy investment in facilities at both Redstone Arsenal and Aberdeen Proving Ground, consolidation of the two schools at either location is considered impractical. The Board considers, however, that operational control over the Missile and Munitions School should be vested in the Command of the Ordnance School to provide for greater uniformity in promulgation of branch doctrine and less likelihood of duplication between career and specialist courses.

24. The Board considers that the Combat Surveillance School is closely related to the Intelligence and ASA Schools since surveillance is a means of gathering intelligence. Other than the Army Management School, the Combat Surveillance School is the smallest in student load of the Army's specialist schools. Its current location was dictated by space and radio frequency allocations, so that there is little flexibility for relocation. Placing the Combat Surveillance School under the operational control of the Intelligence School would facilitate coordination and integration of Army intelligence training and complementary technical training. Although the Intelligence School might encounter initial administrative problems resulting from its widened scope of responsibility, long term benefits would accrue from unity of direction in career and specialist training in intelligence and functionally related activities.

25. The Civil Affairs School is closely related to counterinsurgency and psychological operations. The Board proposes in Appendix 14 that the Civil Affairs School be moved from Fort Gordon to Fort Bragg and collocated with the Special Warfare School under the John F. Kennedy Center for Special Warfare. Although the Civil Affairs School conducts the equivalent of basic and career courses for Reserve Component personnel, and hence is currently carried as a branch school, the Board feels that it should be designated a specialist school prior to relocation. In addition, the Board considers that it should be placed under the operational control of the CG, John F. Kennedy Center for Special Warfare, in its present location to assist in coordinating details of movement.

Related Specialist Schools

26. The Board has observed that some specialist schools have overlapping or complementary missions and has suggested certain corrective actions. In Appendix 18, the Board proposes that the Commandant of the Aviation School be given operational control over the Primary Helicopter School to eliminate the present division of responsibility for rotary wing flight training and improve coordination of the entire aviation instructional program. In Appendix 13, the Board proposes that all AMC schools be absorbed into ALMC at Fort Lee under the new name, the Army Resources Management Institute (ARMI). These schools include the AMETA and JMPTC as well as the Army Management School, transferred from JNARC control as discussed previously.

Preliminary Finding - Alternative Two

27. As a result of this analysis the Board concludes that certain

ALTERNATIVE TWO

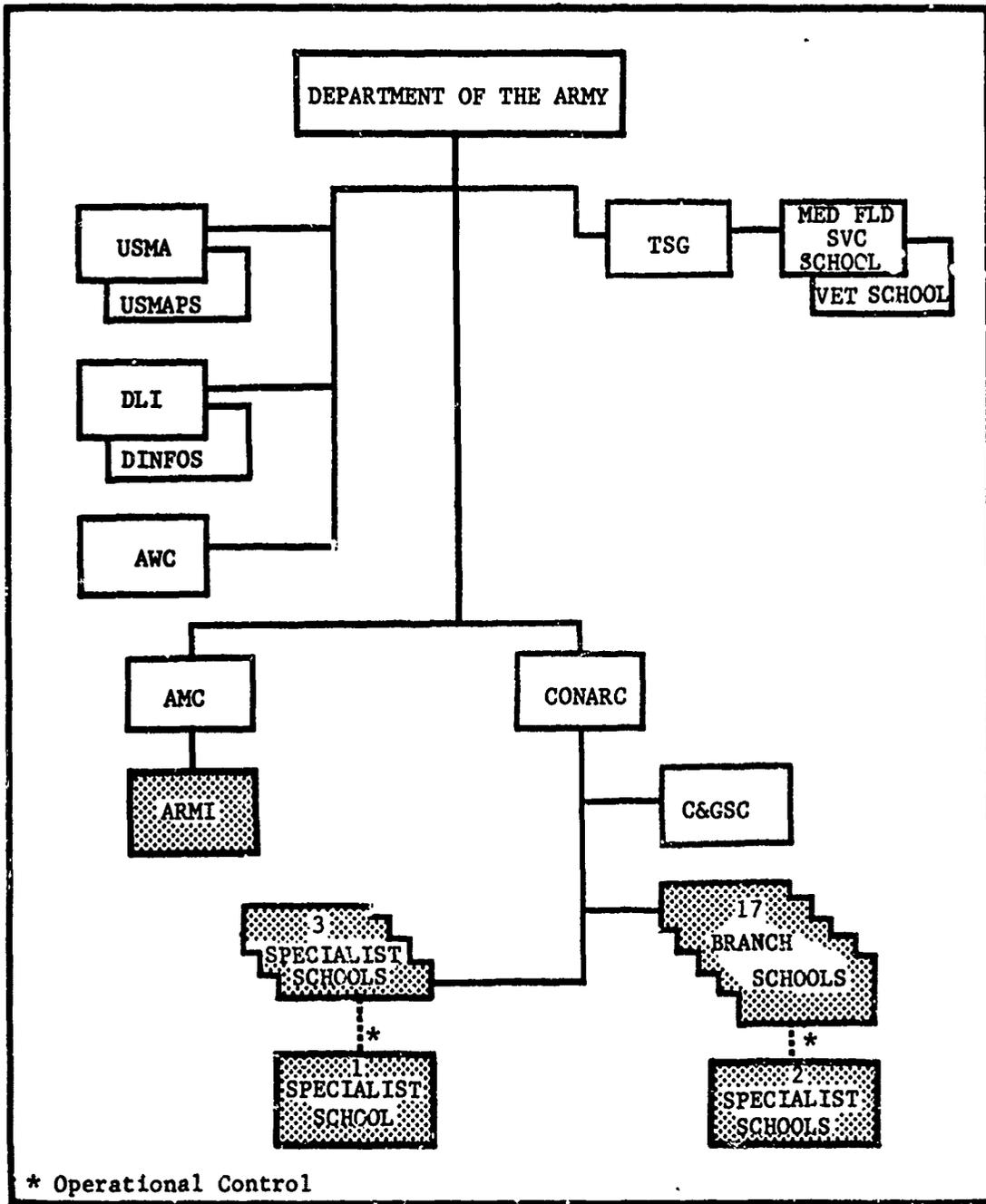


FIG. D21-4

additional changes in command arrangements, consolidations, and collocations should be effected to provide for more efficient operation of the CONARC and AMC school systems. The net effect of these additional proposals would ultimately be the elimination of two branch schools, the redesignation of one as a specialist school, the elimination of four current specialist schools, and the placement of three others under the operational control of another school. The span of control of both CONARC and AMC would be reduced significantly. This organizational arrangement, referred to as Alternative 2, is shown in Figure D21-4.

PART III

DOCTRINAL RESPONSIBILITIES OF ARMY SCHOOLS AND COLLEGES

Army War College (AWC) and Command and General Staff College (C&GSC)

28. Up to this time, the discussion has centered on the inter-relationship of the DA, CONARC, and AMC, in the operation of the Army school system and on certain internal adjustments in those portions of the system under CONARC and AMC. The Board was also directed to examine the doctrinal responsibilities of Army schools and colleges. Although the Commandants of the two Army colleges are responsible to different headquarters (DA and CONARC) for discharge of their educational responsibilities, both are responsible to the CDC for the discharge of doctrinal responsibilities. They are the only two Army School Commandants who are currently assigned these "two-hat" responsibilities. The doctrinal command chain to CDC provides the primary thread of unity between the AWC and C&GSC. The Board is convinced that the link between education and doctrinal development must be close and continuous. The promulgation of established doctrine is the substance of military education, and student and faculty feedback from concentrated analysis of that doctrine provides fresh input for improved doctrinal development. The term education rather than training is used advisedly in relation to doctrine. It is the intellectual stimulant of education, not the passive learning process of school training, which generates a critical, questioning, analytical approach to doctrine. Military education is introduced at the career (advanced) course level, and the Army colleges are postgraduate military educational institutions.

29. Because of the close ties between education and doctrine, the Board explored the feasibility and desirability of placing the two Army colleges under CDC. The following paragraphs examine such a command arrangement, first at the AWC and then at the C&GSC level.

30. If the AWC were transferred from DA to CDC control, the Army General Staff again would be divested of an undesirable responsibility for operation of a career school. The DCSPER would no longer have direct responsibility for supervising a curriculum centered about the Army's broadest tactical and strategic concepts at combined, joint, and theater levels. This type of supervisory responsibility differs markedly from his primary responsibilities for manpower procurement, allocation and training. Further, the dual chain of command of the Commandant, AWC, to Headquarters, DA, and the CG, CDC, would be replaced by a single command line. The military (as contrasted with politico-military) orientation of the AWC would probably be increased since CDC's responsibilities lie almost entirely in the military sphere. Student and faculty research on topics of direct usefulness to the Army would provide a valuable back-up to the doctrinal efforts of the Institute of Advanced Studies. A disadvantage is that CDC would become involved in college administration.

31. If the C&GSC were placed under CDC, dual responsibility of the Commandant to CONARC and CDC would be eliminated and CONARC's span of command would be further reduced. The student elective and expanded graduate programs at the C&GSC, proposed in Appendices 4 and 26, should result in increased student study and research in the doctrinal field, to reinforce the work of regularly constituted Combat Developments agencies. The doctrinal orientation of CDC, in contrast to the training orientation of CONARC, will emphasize the educational character of the C&GSC. Identical command arrangements for the C&GSC and the AWC in all spheres of their endeavors should serve to bring these schools closer together. On the other hand, the C&GSC would be severed from direct association with the lower part of the Army school system. The direction of officer students through the first three levels of officer career schooling would be the responsibility of two as opposed to one command. The Commandant of the C&GSC would exchange his dual chain of command for doctrine and education for a new one which separates mission and support. The CDC would become further involved in school administration, to include mission funding and manpower allocation.

32. On balance, the Foaid considers that both colleges should be placed under CDC command. This judgment is made with the foreknowledge that additional steps are possible to link C&GSC to the branch schools below major command level.

C&GSC/Branch School Doctrinal Relationships

33. The C&GSC today is the hub of the Army school system. Its importance is highlighted by its educational function of unifying the diverse branch experience of its students and its combat development

responsibility of promulgating a viable and homogeneous combined arms and support doctrine for the Army in the field. It is unique in providing a common military experience to the great majority of senior officers. Figure D21-5 illustrates C&GSC's position in the career educational pattern of the officer corps.

THE UNIQUE POSITION OF THE COMMAND AND GENERAL STAFF COLLEGE

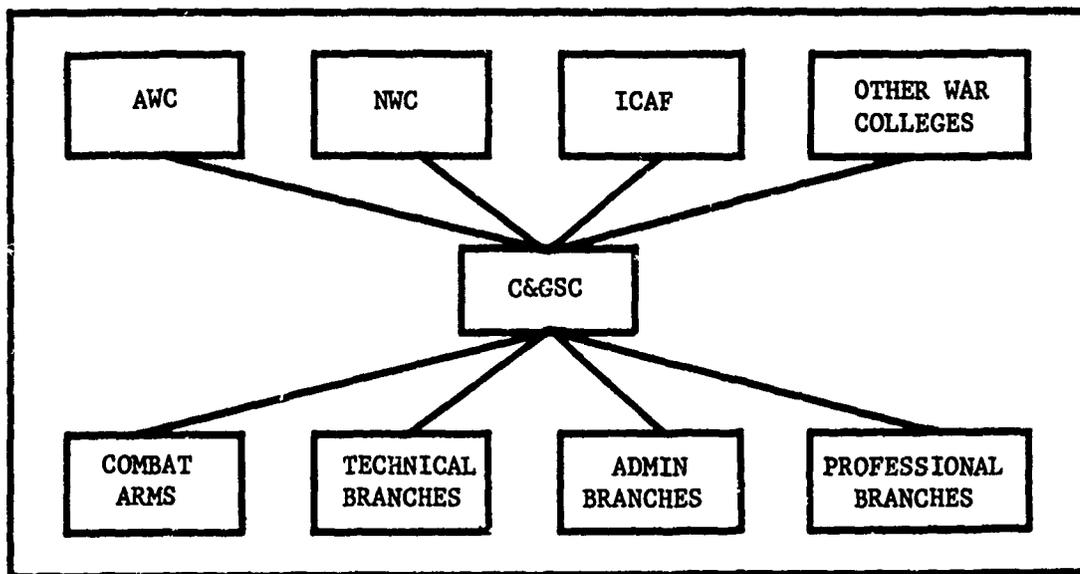


FIG. D21-5

34. The Commandant, C&GSC, in his role as Commanding General, Combined Arms Group (CAG) of CDC, has pressing responsibilities in the field of doctrinal development as illustrated in Figure D21-6. In addition to commanding ten agencies of CDC, through the Combined Arms Agency (CAG), the Commandant is responsible for developing field manuals and tables of organization and equipment for division and higher units. The Commandant, as Commanding General, Fort Leavenworth, has administrative responsibilities for operation of the garrison itself and for operation of the US Army Disciplinary Barracks.

35. The Board believes that the heavy responsibilities of the Commandant of the C&GSC should be recognized and a more appropriate command and control structure devised for the discharge of these responsibilities. In the view of the Board, the Commandant should be

DOCTRINAL RESPONSIBILITIES OF THE C GSC

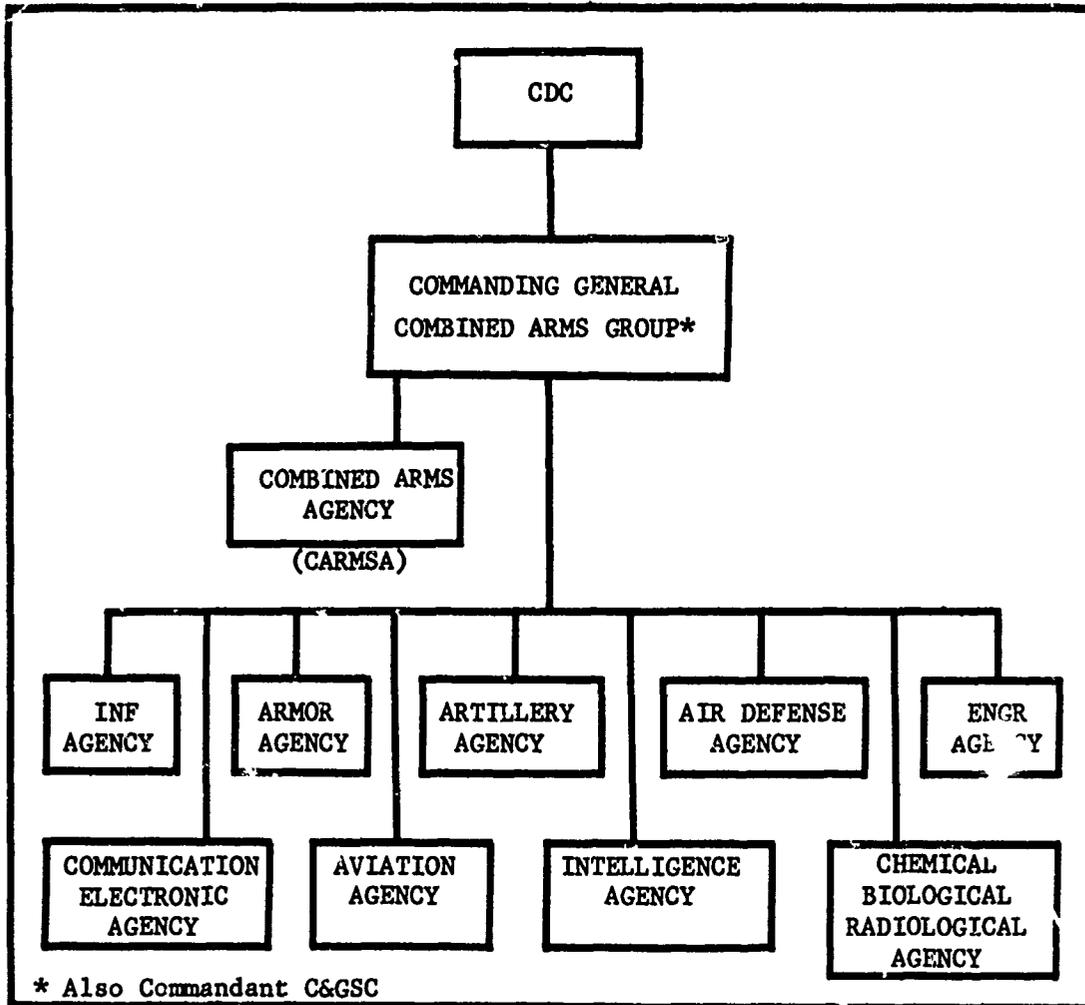


FIG. D21-6

redesignated the Commanding General, Army Command and Staff Center (AC&SC), and relieved of his immediate responsibilities for operation of the school. The Center Commander should be one of the Army's most senior and experienced officers, preferably in the grade of lieutenant general. He should have under his command the C&GSC, headed by a general officer Commandant, and the CAG, headed by a general officer commander. The Center Commandant should have the overall task of

supervising, coordinating, and approving combat arms and combat support branch doctrine, organization, and materiel requirements; developing combined arms doctrine and organization from division through army group; and educating officers with the greatest command and staff potential in the combined concepts developed by CAG and its associated CDC Combined Service Support Group (CSSG) at Fort Lee. The CAG and the Combined Arms Agency (CARMSA) should be combined, with some personnel made available to the AC&SC. As compared with the current structure, the AC&SC would then be configured as shown in Figure D21-7.

CENTER CONCEPT FOR FORT LEAVENWORTH

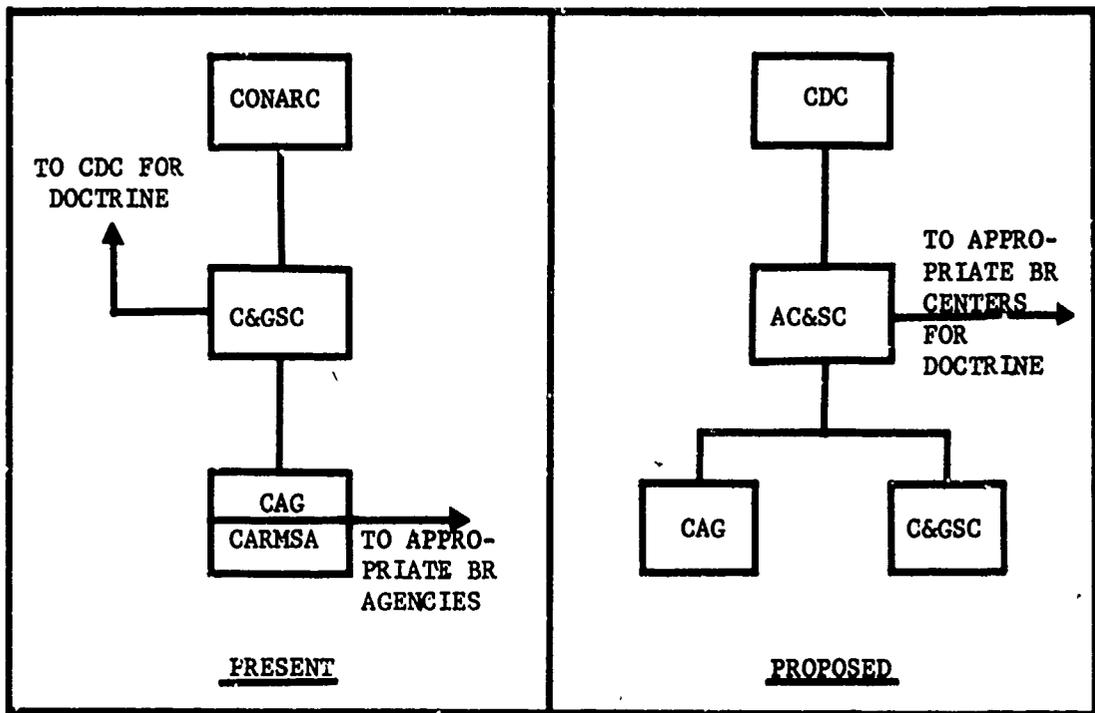


FIG. D21-7

36. The AWC is not burdened with the variety of tasks confronting the C&GSC. The student body is small and post functions are not overly complex. The Institute of Advanced Studies of CDC conducts important doctrinal studies but not in the quantity characteristic of the CAG

COMPLEXITY OF MILITARY INSTALLATIONS WITH BRANCH SCHOOLS

MILITARY INSTALLATION	NUMBER SCHOOLS CAREER/ SPECIALIST	OFFICER STUDENTS		CDC AGENCY		TROOP STRENGTH		EM TRAINING LOAD		AMC FACILITY	
		LARGE (+) SMALL (-)		YES (+) NO (-)		LARGE (+) SMALL (-)		LARGE (+) SMALL (-)		YES (+) NO (-)	
Aberdeen	2	+		+		-		+		+	
Belvoir	2	+		+		-		+		+	
Benning	2	+		+		+		+		+	
Bliss	1	+		+		-		-		+	
Devens	1	-		-		-		-		-	
Eustis	1	+		+		-		+		+	
Gordon	3	+		++		+		+		-	
Benjamin Harrison	3	+		++		-		+		-	
Hamilton	1	-		-		-		-		-	
Holabird	1	+		+		-		-		+	
Houston	1	+		+		-		+		-	
Knox	2	+		+		+		-		++	
Lee	2	+		+		+		+		+	
McClellan	2	-		+		-		-		-	
Monmouth	1	-		+		-		+		+	
Sill	1	+		+		+		-		+	

FIG. D21-8

and its subordinate agencies. Upon the shift of command, the Institute should become an integral part of the AWC. The US Army Garrison at Carlisle Barracks and the AWC can continue to function as an entity. The Board believes that the internal structure of the AWC requires no modification.

Branch and Specialist Centers and Schools

37. Unlike the C&GSC and the AWC, most of the branch CONARC and specialist schools have a heavy enlisted training load. Many of the schools operate within the framework of a Center complex, with numerous troops, large recruit training activities, AMC materiel testing agencies, large maintenance facilities, and a multitude of other diversified functions. Military problems associated with such a complex are further extended by massive dependent populations, grade schools, high schools, youth activities, public relations, and other areas demanding command time and decisions. Examination of Figure D21-8 makes clear the complexity of certain military installations on which branch schools are located. The CDC agencies located on these posts are tenants and not under command of the Center Commandant or School Commandant.

GENERAL ORGANIZATIONAL PATTERN OF A CENTER

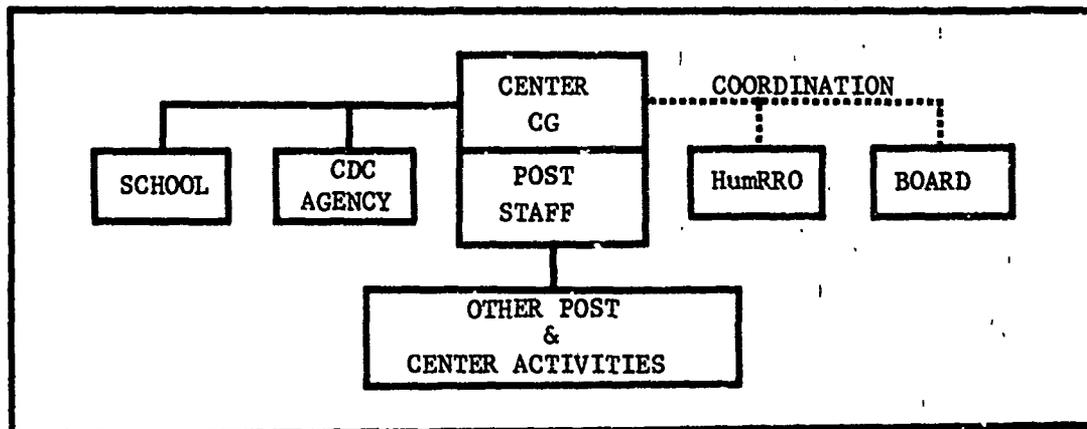


FIG. D21- 9

38. Notwithstanding the administrative complexities currently associated with the Center Commander's (Commandant's) job, there would be real advantages in placing the branch CDC agency under his command. Responsibility for doctrine development and promulgation would be joined under a single commander, resulting in improvement in both areas. Liaison and coordination would be replaced by command at the local level. On the other hand, this doctrinal tie would result in dual command channels for the School Commandant: to CONARC for training, and to CDC - through the new AC&SC or the CSSG as appropriate - for doctrine.

39. The Board believes that the problem of administrative complexity can be eased at large branch and specialist school installations. It has become a well established practice that the Assistant Commandant at many schools actually directs school operations on a daily basis; he is thoroughly aware of academic problems and administrative details. The Board holds the view that the term "Assistant Commandant" as presently used is not appropriate in these cases, and believes that the present Assistant Commandant should be designated as the Commandant, reporting to the Center Commander. In general, this should be accomplished with no increase in rank.

40. Relieved of immediate responsibility for supervision of school, the Center Commander could more effectively exercise supervision of Center activities and provide coordination and balance; command the CDC branch agency collocated with the school; and tie together, by command direction, branch doctrine and organization with education and training. The Center Commander would, in fact, as well as in name, preside over a branch center and home. The center concept is depicted in Figure D21-9.

41. The Board considers that the Army should extend the branch center concept to certain other areas. Centers combining related educational and training functions should be established where present schools or courses are not so extensive as to require separate posts. The criteria for grouping should be similarity of school functions and compatibility of educational courses and disciplines, as the grouping of disparate activities provides only for consolidated post support. Close relationship of functions brings interested individuals, both students and faculty, into intimate association and encourages crossing institutional boundaries. It develops a center of learning for related academic studies with concomitant intellectual stimulation. Related educational content permits consolidation of educational facilities and other activities such as libraries, research material, electronic computers, closed-circuit TV, and laboratories, to a common benefit. Identical blocks of instruction, faculty exchange, joint lectures, and inter-institutional seminars might all be practical.

CONARC SCHOOL STRUCTURE

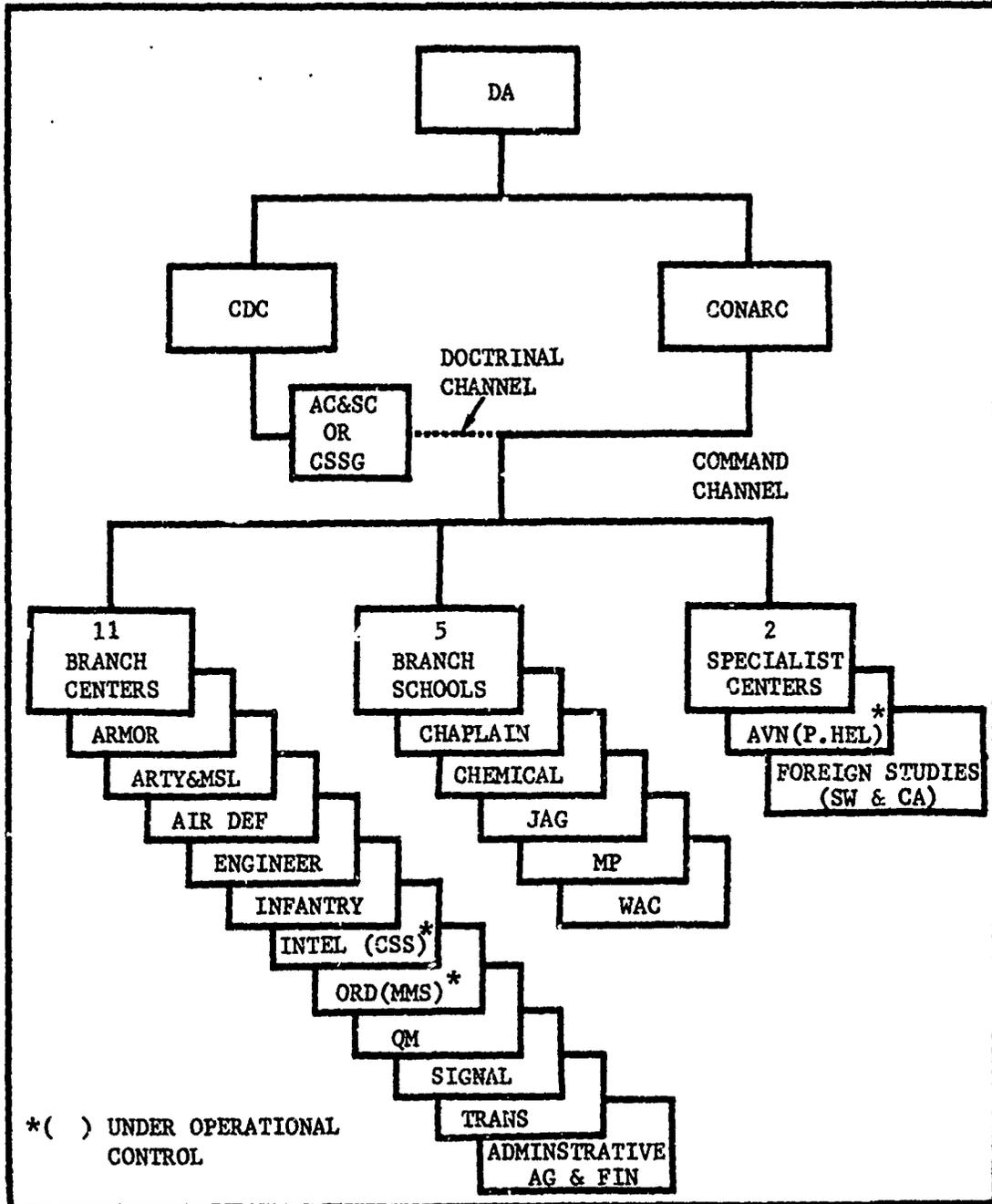


FIG. D21-10

42. The command aspect of a center is important. The collocation of related activities permits assigning an officer trained in a broad functional field as a commander. Such a commander can effectively supervise the various schools, courses, and activities. Few commanders, however, could provide intellectual leadership over a grouping of unrelated disciplines. Dispersion of related school facilities arises generally as a result of real estate availability and expediency. A well-planned school relocation and construction program could be developed to avoid problems of this nature.

43. The Board believes that the Center concept should be extended to the John F. Kennedy Foreign Studies Center proposed in Appendix 14; it should command the Special Warfare School and the Civil Affairs School. Consideration should be given to locating the Eastern Branch of DLI, and perhaps the Military Assistance Institute, at Fort Bragg as well. In addition, an Aviation Center at Fort Rucker and an Army Administrative Center at Fort Benjamin Harrison should be established. The latter Center Commander should command both the Adjutant General and Finance Schools.

44. The Board proposes that branch centers as well as specialist centers be established under the foregoing concepts and be authorized both a Center Commander and a School Commandant. In those cases where schools do not require a Center complex in addition to the school, the School Commandant should also command the collocated CDC agency. All CDC agencies should be collocated with associated schools. Figure D21-10 summarizes specific proposals for branch schools and branch and specialist centers.

Preliminary Finding - Alternative Three

45. As a result of this analysis, the Board concludes that C&GSC and AWC should be placed under CDC command; that the center concept as shown in Figure D21-7 and described in paragraph 34 should be adopted at Fort Leavenworth; and that the center concept, as shown in Figure D21-9 and described in paragraphs 37-44, should be adopted at selected branch and specialist school locations as further shown in Figure D21-10. These changes, including provisions for doctrinal linkages, are shown in Figure D21-11 as Alternative Three.

PART IV

SELECTION OF ALTERNATIVE

Comparing Alternatives

46. In addition to the present system, the alternatives developed are:

ALTERNATIVE THREE

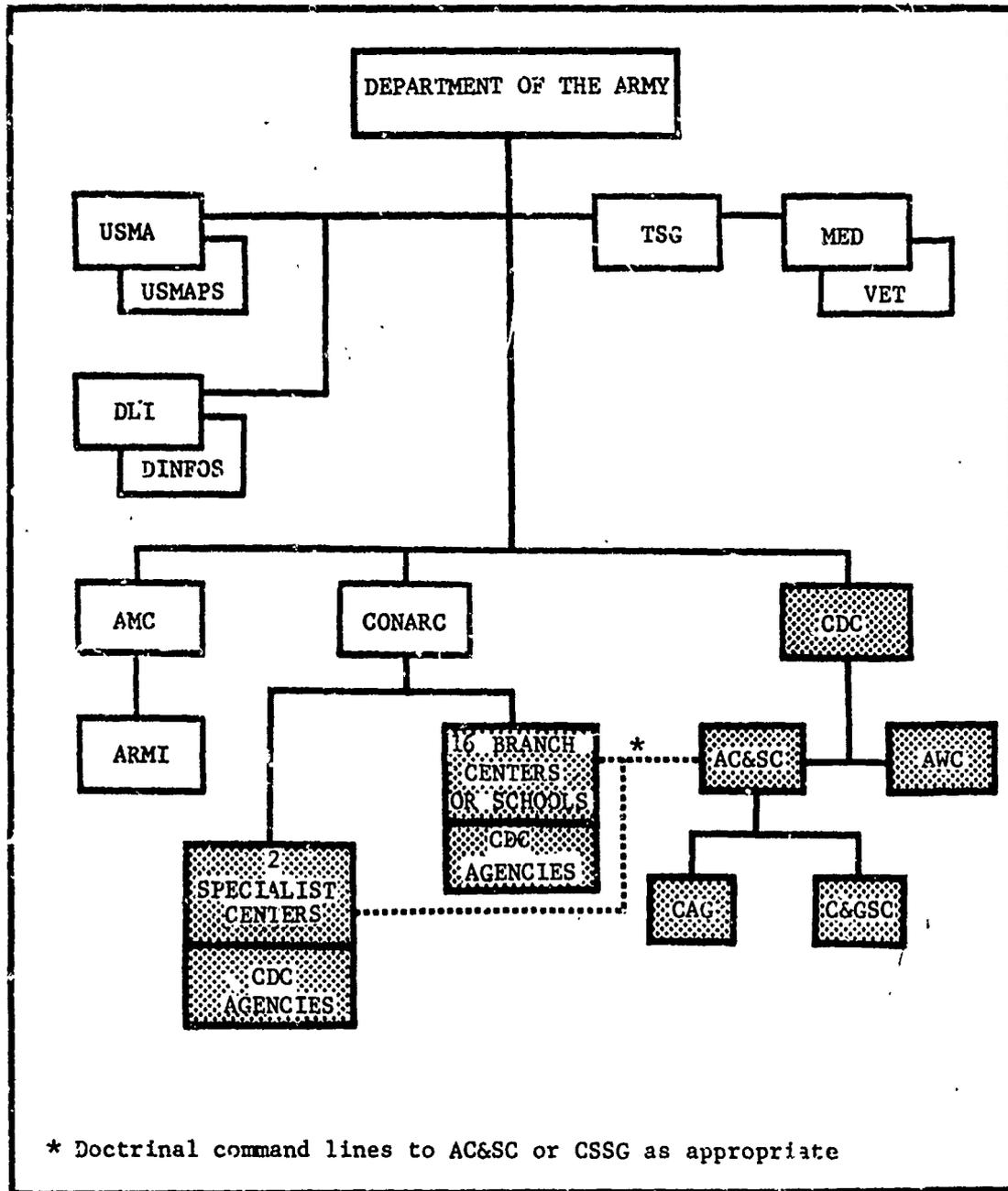


FIG. D21-11

One - The present system with ASA and JAG Schools added to CONARC and AMS transferred to AMC;

Two - Alternative One with certain consolidation of schools and courses within CONARC and AMC, as summarized in paragraph 27.

Three - Alternative Two with the Army colleges under CDC; and a center concept at Fort Leavenworth and at selected branch and specialist school locations as described in paragraphs 37-44.

47. The Board compared alternatives against a list of desired characteristics. A lower number indicates the favored solution; totaling the individual evaluations provides a general order of merit.

Desired Characteristics	ALTERNATIVES			
	Present	One	Two	Three
Least Disruptive	1	2	3	4
Best span of control	3	4	2	1
Enhances school training	4	3	2	1
Enhances education	2	2	2	1
Enhances doctrine development	3	3	2	1
TOTAL	13	14	11	8

48. Alternatives Two and Three provide significant improvement over the present system; Alternative Three is preferred.

CONCLUSIONS

49. The Judge Advocate General School should be placed under command of the Commanding General, Continental Army Command.

50. The Army Security Agency School should be placed under command of the Commanding General, Continental Army Command, and under the direct operational control of the Commandant of the US Army Intelligence School. The orientation and career (advanced) courses of the two schools should be combined at Fort Holabird, and the schools themselves eventually merged at Fort Gordon or Fort Bragg.

51. The Army Management School should be incorporated within the Army Resource Management Institute at Fort Lee under control of the Commanding General, Army Materiel Command.

52. The Continental Army Command school system should be oriented toward the Army in the field and should not include Defense schools or courses.

53. The Signal School and the Southeastern Signal School should be consolidated at Fort Gordon. Meanwhile, the Commanding General of the Signal Center should be given operational control over the Southeastern Signal School.

54. The Commandant of the Chemical School should be given operational control over the CBR Weapons Orientation Course at an early date to facilitate absorption of the course during CY 67.

55. The Commanding General of the Ordnance Center should be given operational control over the Missile and Munitions School, the Commandant of the US Army Intelligence School over the Combat Surveillance School, and the Commanding General of the Army Aviation Center over the Primary Helicopter School.

56. The Army War College and the Command and General Staff College should be placed under command of the Commanding General, Combat Developments Command.

57. All agencies of the Combat Developments Command should be collocated with related schools.

58. Centers (under the concept described in paragraphs 35 and 37-44), with associated Combat Developments agencies under command should be established as indicated below. Installation master planning should be undertaken accordingly. No change in the rank or number of general officers is involved except at the Army Command and Staff Center, where the Center Commander should be a lieutenant general.

Army Command and Staff Center
Command and General Staff College

Armor Center
Armor School

Artillery and Missile Center
Artillery and Missile School

Air Defense Center
Air Defense School

Engineer Center
Engineer School

Infantry Center
Infantry School

Intelligence Center
Intelligence School) (to be merged)
Army Security Agency School)
Combat Surveillance School (operational control)

Ordnance Center
Ordnance School
Missile and Munitions School (operational control)

Quartermaster Center
Quartermaster School

Signal Center
Signal School) (to be consolidated)
Southeastern Signal School)

Transportation Center
Transportation School

Aviation Center
Aviation School
Primary Helicopter School (operational control)

Foreign Studies Center
Special Warfare School
Civil Affairs School

Administrative Center
Adjutant General School
Finance School

59. The Commandants of the schools listed below should be given command of related Combat Development Agencies:

Chaplain School

Chemical School

Judge Advocate General School

Military Police School

60. The organizational structure for the Army school system, depicted as Alternative Three in Figure D21-11, should be adopted.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 22

FACULTY SELECTION, TRAINING, QUALIFICATION AND ROLE

PURPOSE AND SCOPE

1. This appendix is an analysis of the staff and faculty of the schools and colleges of the Army school system. It addresses the selection, training, qualifications, tenure, and role of the staff and faculty. It reviews instructor training, supervision of instruction, and coordination with civilian educational institutions. It considers the duties of the Educational Advisor and the present status of civilian instructors throughout the school system, to include the possible increase of personnel in these areas to relieve military personnel. The discussion is divided into two parts:

Part I Military Staff and Faculty

Part II Educational Advisor and Civilian Instructors

BACKGROUND

2. The success of any educational institution depends on staff policy, faculty competence, the position the institution occupies in the academic world, and the quality of its graduates as measured by their successes or failures in professional, business or academic fields. In the Army, the quality of the school product can be gauged with reasonable accuracy, since the graduate remains in a military environment where his efficiency is measured throughout his service.

3. The Army school system is a relatively complex organization. The detailed planning and long lead time essential for effective instruction, and the inherent difficulty of the educational process, deny the Army school system the flexibility which is normal to most Army functions and organizations. A continuing high level of support is vital to the successful accomplishment of the school mission. The several agencies charged with policy direction and support of Army schools should seek to provide stability for a system designed to meet long term service needs.

DISCUSSION

PART I

MILITARY STAFF AND FACULTY

General

4. The Army uses a system of priorities in the allocation of its resources. In 1964, Army schools and colleges were moved up in the priority listing to a position just behind engaged and ready Army forces. This favored position put the schools ahead of the bulk of units and activities in the Continental United States and certain deployed forces. The schools were accorded this priority in recognition of the fact that they are a fundamental source of the Army's strength. The increased priority brought a gradual improvement in the size and quality of staffs and faculties. Recently, however, the personnel situation in the schools has suffered somewhat due to pressing demands for quality Army personnel in Vietnam.

Staff and Faculty Selection

5. Primary responsibility for selection of personnel for the staffs and faculties of Army schools rests with the Office of Personnel Operations (OPO) and the Chiefs of Army professional branches that manage their personnel separately. Schools must establish and maintain a close working relationship with the career branches to obtain the best possible selection of officers for their staffs and faculties. They should be authorized to review personnel records of key officers who are being considered for assignment. They should search constantly, through frequent informal contacts with the field, to find officers who may be available and suitable for assignment. Administrative ability, professional competence, and a desire to become a part of the Army educational system are important qualifications. Schools should accumulate a reservoir of names and, through contact with the career branches, obtain a percentage of these officers.

6. Each graduating class is a possible source of instructors for a school. Faculty members have had close contact with this group of officers and can evaluate their competence as possible instructors and their desire to teach. The Board considers it desirable for a few graduates of each class to remain as instructors, especially in the career course at the branch schools and the Command and General

Staff College. These officers should be selected for their maturity, judgment, motivation, and broad practical experience or expertise in a particular area; as instructors they must command the respect of students who will be essentially their contemporaries.

7. The Board is opposed, however, to the retention of graduates of branch basic courses as faculty members, since they have had no practical experience in the Army. Except in rare instances when newly commissioned officers have unusual technical competence of pertinence to the school mission, based on civilian schooling or experience, they have little to offer succeeding classes. It is a matter of some concern to the Board that in April 1965, prior to the major Vietnam build-up, 683 second lieutenants were on the staffs and faculties of 26 Army schools and colleges. Since the Tables of Distribution (TD) for the schools include an authorization for only three officers in this grade, essentially all are substitutions for officers of higher grade. The Board is mindful of the serious Army-wide shortage of captains and majors, and the consequent necessity for assignment of second lieutenants as replacements. Yet the practice is self-defeating when applied to the school system. In the interests of the officer as well as the Army, these second lieutenants should be learning their profession instead of trying to teach it.

8. The Board gave careful consideration to the desirability of retaining selected students on the faculty of the Army War College (AWC). Faculty members should be outstanding officers, carefully chosen from the Army at large and with knowledge in depth in an area of interest to the college. If a student has a particular expertise, developed prior to his AWC tour, he should be considered for the faculty along with other officers. The Board agrees that faculty members should be graduates of a senior service college, but feels that they should have at least one intervening tour before returning to the faculty of any of those colleges.

The Instructor

9. While the command and administrative echelons of school staffs must be composed of able and experienced officers, the instructor is the heart of the school. Quality in instruction starts with the preparation of programs of instruction and supporting lesson plans and instructor manuscripts, and carries on through platform presentation and the question period. There is no substitute for an instructor who is competent in all phases of his work. His influence will be felt far beyond the confines of the classroom as the students move on to apply what they have learned.

10. Figure D22-1 breaks out the instructors in the Army colleges and branch schools, as reported by them, from their overall staffs and faculties. It provides some interesting comparisons. Instructors at the AWC are generally colonels and at the C&GSC primarily lieutenant colonels. In the branch schools as a whole, the median instructor grade is captain, although there are wide variations among the separate schools. Within the combat arms category, the Air Defense School utilizes only five of its assigned 67 field officers as instructors, whereas the Armor School utilizes 49 of the 87 assigned in that capacity. Among the technical service schools, the Transportation School utilizes 23 of its 77 assigned field officers as instructors, whereas the Chemical School utilizes 27 of 46 assigned for that purpose. The two Artillery Schools and the Engineers utilize the heaviest proportion of second lieutenants as instructors. It is recognized that school missions and courses taught vary widely, so that comparisons are not completely meaningful. Nevertheless, a review of the assignment of staff and faculty by grade to the various schools, and their utilization in instructor, supervisory, and support capacities, would appear appropriate.

Training of Instructors

11. Training courses for newly assigned instructors are conducted throughout the Army school system and vary in length from two to three-and-a-half weeks. These courses include instruction in effective speaking, principles of learning, curriculum construction, instructional methods and techniques, classroom management, and principles of testing and evaluation. Practical work should be heavily emphasized throughout the course and each student should be required to present a number of practical exercises. Presentations should be critiqued upon completion by selected students, thus developing capabilities in both presentation and critique techniques.

12. If television equipment is available, at least one practice teaching exercise should be conducted for the student before the TV camera and his presentation recorded on TV tape. This will enable him to see for himself the areas of strength and weakness that have already been identified during instructor and student critiques.

13. In addition to this training, a period of several weeks of "on-the-job training" in the assigned department is appropriate. During this period, the instructor prepares new units of instruction, reviews, rewrites or updates existing units within his area of competence. After approval of a unit of instruction and review by appropriate boards or individuals, the instructor is rehearsed and presents the unit. This procedure is a time consuming one and the preparation of the newly assigned instructor can easily take from three to four months. He does not

become really proficient in handling a unit of instruction until it has been repeated several times.

14. As a stimulant to improve instructional techniques, the Signal School has developed a unique program. After an instructor completes the instructor training course, he moves through the designations of associate instructor, full instructor, and master instructor. These levels are clearly defined and progressive in nature, with proper recognition as the instructor passes through the three phases. When the officer is finally designated as a master instructor, the Commandant recognizes his achievement in suitable form for permanent record. A program of this nature has merit and deserves study by other Army schools.

Improvement . Academic Supervision

15. In addition to an instructor training program, a prescribed training course for supervisors should be established at each school. This course should be designed to provide the participants with a working knowledge of effective supervisory techniques applicable to instruction at the school. Enrollment should be limited to department heads, division chiefs, and others whose assignment involves supervision of instructor personnel. This course should be conducted on a quarterly or semi-annual basis at the discretion of the Commandant. Considering the background of personnel enrolled, a course of approximately 20 hours would seem appropriate.

16. Because of the rapid turnover of personnel and the frequent revision of subject matter, Commandants should establish active supervisory programs within their schools, on a higher plane than routine inspections. Supervision should cover all aspects of the school operation from the instructor training program to monitoring of instruction, boarding of units of instruction, and presence at rehearsals. It should be meaningful to both the supervisor and the instructor, and provide a creative environment in which all members of the staff and faculty develop greater knowledge and understanding.

Centralization of Instructor and Supervisor Training

17. The Board gave consideration to the centralization of instructor training at a single facility, as the Air Force does in its school system, and concluded that it would be impractical and expensive in terms of time and money. However, certain of the smaller Army schools might benefit by sending selected personnel to instructor or supervisor training courses at the larger schools.

**SCHOOL ASSIGNED PERSONNEL
NUMBER OF INSTRUCTORS AND ADVANCED DEGREES**

SCHOOL OR COLLEGE	MILITARY & CIVILIAN PERSONNEL																	INSTRUCTORS' ADVANCED DEGREES							
	GENERAL OFFICERS		COLONEL		LT COLONEL		MAJOR		CAPT. IN		1ST LT		2ND LT		WARRANT OFFICER		ENLISTED		TOTAL MILITARY		TOTAL CIVILIAN		BACC DEGREE	MASTERS DEGREE	PHD
	ASSG	INST	ASSG	INST	ASSG	INST	ASSG	INST	ASSG	INST	ASSG	INST	ASSG	INST	ASSG	INST	ASSG	INST	ASSG	INST	ASSG	INST			
AWC	2	29	27	10	9	4	0	4	0	2	0	0	0	1	0	36	0	88	36	100	1	37	24	0	
C&GSC	2	28	9	96	75	59	4	0	5	0	0	0	0	0	0	92	0	314	164	282	0	99	31	0	
INF	2	23	0	73	25	64	26	235	145	136	51	113	3	11	2	2886	552	3543	1254	256	0	172	9	0	
ARM	1	9	0	28	15	50	34	49	37	14	9	19	11	0	0	918	347	1088	453	208	111	62	3	0	
ARTY&MSL	1	19	0	35	6	67	32	178	102	90	51	156	97	69	47	1096	407	1711	742	430	83	214	15	1	
AD	1	11	0	24	0	32	5	124	50	60	13	98	49	121	47	1845	700	2316	864	324	117	113	11	1	
ENG	1	7	0	11	5	24	12	42	28	35	22	55	41	10	7	1428	606	1613	721	368	88	16	14	6	
SIG	1	4	0	21	3	43	17	42	21	36	5	27	3	19	8	999	360	1192	417	728	182	67	7	0	
SE SIG	0	1	0	1	0	5	4	16	16	6	6	8	8	1	1	56	27	94	62	11	11	24	1	0	
CML	0	2	0	18	9	26	18	33	23	17	13	12	9	1	0	136	77	245	149	102	3	55	17	1	
ORD	1	3	0	17	1	35	12	46	17	19	3	20	8	16	7	1116	564	1273	612	336	55	35	0	0	
QM	1	10	0	22	2	26	15	49	28	19	12	34	12	8	5	772	264	940	338	331	34	35	4	2	
TRANS	1	8	0	20	7	49	16	35	18	20	2	21	2	59	47	847	412	1060	506	303	40	42	3	0	
AG	0	4	1	9	4	12	9	19	12	13	7	13	3	4	3	134	47	208	86	69	14	34	10	3	
FIN	0	3	0	6	1	9	8	22	15	17	13	15	5	3	2	99	71	174	115	34	2	28	13	0	
ASA	0	2	0	16	7	41	23	27	18	21	8	17	6	13	11	989	530	1126	603	63	7	30	4	1	
CA	0	2	0	10	5	9	5	8	6	0	0	2	0	0	0	35	0	66	16	17	2	13	3	1	
AVN	0	6	0	27	0	92	8	232	145	128	109	14	0	92	86	906	342	1497	690	392	131	120	0	1	
INTEL	1	5	0	23	10	38	24	43	36	18	15	13	5	11	11	191	70	343	171	96	14	75	5	3	
MP	0	5	1	10	3	26	12	20	14	4	1	2	0	13	12	7	7	87	51	60	0	26	6	0	
WAC	0	0	0	2	0	15	11	4	1	1	1	2	0	0	0	24	0	48	13	1	0	9	2	0	
CHAP	0	2	0	6	3	10	7	2	1	0	0	1	0	1	0	27	0	49	11	14	0	12	3	0	
JAG	0	2	0	13	8	7	4	12	6	9	0	0	0	0	0	3	0	51	18	28	0	13	4	16	
MED	1	14	11	58	51	57	42	53	41	23	13	27	10	6	2	604	144	843	314	123	11	70	54	47	
LOG MGMT	0	15	2	23	15	14	13	6	5	2	0	9	3	0	0	17	0	86	38	189	20	48	26	0	
SP WFR	1	4	0	27	13	45	29	20	12	4	0	9	1	1	1	221	53	332	109	95	4	36	11	0	

FIG. D22-1

Conferences and Liaison Visits

18. Despite its overall excellence, the Army school system is a somewhat inbred institution. Except in several instances, Army schools and colleges have tended to isolate themselves from the mainstream of academic thought as exemplified in our colleges and universities. Periodically, Army schools should conduct faculty workshops of a few days' duration. Distinguished men from the educational fields in our colleges and universities should be guest speakers and discussion leaders. Key school personnel should also attend annual conferences of various organizations of the academic world such as the Association of Higher Education and the Association of American Colleges and summer workshops conducted at various institutions.

19. Further, it is considered that Directors of Instruction and Educational Advisors from all Army schools and colleges should be convened on an annual basis to review and study various aspects of education throughout the Army school system. The Board has perused the proceedings of such a conference conducted under the auspices of the Human Resources Research Office (HUMRRO) in 1958. This conference appears to have been a stimulating experience for all attendees. The Board urges that its proceedings be reviewed and that conferences of this type be continued.

20. During visits to various schools in connection with the work of the Board, it was apparent that insufficient liaison existed between the Army schools. Such liaison is important to provide for coordination of effort and increased awareness of techniques of instruction at different schools; as well as to promote a general exchange of ideas between officers with similar responsibilities in the guiding of the schools, the shaping of curriculum development, student testing and evaluation, and a multiplicity of subjects of mutual interest. Travel fund restrictions have acted to limit severely such liaison. The Board believes that liaison should be maintained not only between Army schools but with Air Force, Navy and Marine Corps educational complexes as well.

21. The Board has reviewed in detail a memorandum of the Chief of Staff, dated 8 September 1965, giving his views on attendance at conferences and symposia. It is considered that the Board's views do not violate the spirit of this memorandum, providing that the faculty members who attend the conferences and participate in the liaison visits referred to above are chosen selectively and have an adequate tour of duty remaining to be of material assistance to the school.

Advanced Degrees for Staff and Faculty

22. Figure D22-1, previously referred to, indicates the number of staff and faculty members with advanced degrees in the various schools

GRADUATE EDUCATIONAL REQUIREMENTS FOR ARMY SERVICE SCHOOLS

SCHOOL OR COLLEGE	AGRICULTURE & FORESTRY 001 - 099	ARTS & CLASSICS 100 - 199*	BIOLOGICAL SCIENCES 200 - 299	BUSINESS ADMIN 300 - 399	ENGINEERING 400 - 499	MEDICAL SCIENCES 600 - 699	PHYSICAL SCIENCES 700 - 799	SOCIAL SCIENCES 800 - 899	TOTAL OF VALIDATED POSITION	% OF POSITION TO TOTAL OFF FACULTY
AWC		1		3	1		1	11	17	32.0
C&GSC		2		2			5	13	22	9.7
INF		3		6	5			3	17	2.8
ARM		2			4				6	2.6
ARTY&MSL				1	11		11	1	24	4.4
AD					6		2		8	2.2
ENGR				1	22		1	1	25	11.4
SIG									0	0
SE SIG		1			2			2	5	3.6
CML				1			13	6	20	14.2
ORD				20	7			4	31	18.7
QM				6	1			5	12	6.7
TRANS		5		19	7		2	6	39	23.2
AG				5				1	6	8.8
FIN				14				1	16	24.6
ASA										
CA	1	1		5	2			18	27	65.8
AVN		1						1	2	0.3
INTEL								3	3	1.8
MP		2		1				20	23	30.6
WAC				2			1	4	7	25.0
ORD GM		1		6	7			6	20	9.3
CHAP									0	0
JAG				1				2	3	7.0
MED	1		13	16	7	36	10	24	107	46.0
LOG MGMT				20	1			1	22	29.0
SP WFR.								4	4	3.3
ARMY MGMT				7			1	1	9	75.0
MED (VET)	2			1			1	5	9	69.0
TOTAL	4	19	13	137	83	36	49	143	484	-

* Figures under ARTS & CLASSICS include: 2-English, 14-Journalism Writing Editing and 3-Production of Motion Pictures.

FIG. D22-2

and colleges throughout the Army school system. The figures represent assigned military and civilian personnel with advanced degrees, rather than established school requirements for such degrees. In many cases, the degrees have been gained by individuals on their own time rather than through the processes of the Army's advanced degree program, and are not specifically germane to the individuals' current assignments. However, if Army schools inaugurate comprehensive elective programs, as is being recommended elsewhere in this report, many of these degrees will be valuable in teaching broadened curricula.

23. Commencing in 1964 with the establishment of an Army Educational Requirements Board (AERB), the Army sought to formalize its position requirements for advanced degrees. Army schools were asked to submit their requirements on a position by position basis with justifications. The AERB has just completed its third annual review of worthwhile position requirements submitted by the field. Validated positions by academic disciplines on the staffs and faculties of Army schools are indicated in Figure D22-2.

24. A study of the tabulation discloses wide variations and a lack of consistency in currently established requirements of various schools for officers with advanced degree training. The Signal School, which teaches the career course, has no stated requirements, while the Southeast Signal School, which teaches the basic course, has indicated a requirement of five officers. Requirements in other schools vary from a low of 0.3% in the Aviation School to a high of 75% in the Army Management School. In certain instances, there appears to be a reluctance on the part of schools to request officers with advanced degrees, perhaps because of a fear that these officers may be overly oriented toward an academic environment and lack the practical military experience required by the school. The career branches, through their selection processes, should be able to allay such fears if, in fact, they have any validity. In the interest of raising the technical and professional competence of the staffs and faculties of the schools, it would appear that greater use could be made of officers with advanced degrees. Specific disciplines in fields pertinent to the curricula at various schools should be readily identifiable. In addition, graduate level training on the staff and faculty in such areas as education and psychology would add strength to the academic program. The Board considers that additional school positions should be validated in both initial utilization and reutilization tours. (See Appendix 19 for further discussion of overall advanced civil schooling requirements)

TENURE OF KEY PERSONNEL IN MONTHS

SCHOOL OR COLLEGE	COMMANDANT	ASSISTANT COMMANDANT	DEPUTY ASSISTANT COMMANDANT	SECRETARY	DIRECTOR OF INSTRUCTION	HEADS OF INSTRUCTIONAL DEPARTMENTS	NON-RESIDENT INSTRUCTION DEPARTMENT	DOCTRINE & LITERATURE
AWC	21	25	0	26	21	N/A	N/A	N/A
C&GSC	26	25	21	21	22	17	21	19
INF	10	9	15	7	12	10	9	4
ARM	22	16	N/A	18	20	17	15	20
ARTY&MSL	25	22	13	14	17	15	9	20
AD	26	19	15	20	12	18	19	10
ENGR	16	18	16	27	18	25	7	16
SIG	23	19	N/A	19	19	12	14	9
SE SIG	36	18	N/A	18	23	16	N/A	N/A
CML	12	16	N/A	28	18	17	27	36
ORD	20	19	11	12	9	13	14	7
QM	37	9	10	7	12	18	10	18
TRANS	40	16	5	13	15	12	15	10
AG	26	14	N/A	20	19	22	15	15
FIN	28	12	N/A	8	15	21	9	18
ASA	24	15	N/A	21	17	15	12	18
CA	24	23	N/A	7	14	N/A	N/A	N/A
AVN	25	21	N/A	13	15	15	33	11
INTEL	38	25	N/A	12	6	17	6	17
MP	13	23	N/A	16	15	25	24	13
WAC	22	19	N/A	15	12	12	N/A	19
CHAP	19	N/A	25	19	N/A	15	14	23
JAG	40	10	N/A	22	N/A	20	14	17
MED FLD SVC	29	19	N/A	25	16	26	30	33
LOG MGMT	24	9	9	10	N/A	15	14	13
SP WFR	49	12	11	9	3	12	17	24

FIG. D22-3

Stability of Positions

25. Reasonable stability of staff and faculty positions is of importance to maintain proper continuity in administration policy, programming techniques, and presentation of subject matter. Frequent changes of personnel cause the instructional program to deteriorate for want of continuing guidance and control. The Williams Board emphasized the requirement for faculty stabilization in some detail. Despite this, a study recently completed by the Infantry School disclosed that of a total staff and faculty of 715, only 100 officers had been assigned for over two years and only 18 for over three years. In the Artillery and Missile School, the last four Assistant Commandants averaged 21.6 months and the last four Directors of Instruction 16.7 months in their respective assignments. Figure D22-3 indicates the tenure of key positions identified by the various schools. (In analyzing the submission to the Board certain adjustments in space identification had to be generalized due to the organization of the various schools. The heads of the various instructional departments were identified and an average figure of tenure determined).

26. The organization of our major schools and colleges provides for a Commandant who is a major general and a Deputy or Assistant Commandant, a brigadier general. The Commandant should be assigned for a period of not less than three years to assure the desired continuity, and to provide the opportunity for this officer to implement programs which he has developed. Assistant Commandants must be assigned for a period comparable in length to that of the Commandant. The period of assignment should be staggered by at least one year to provide essential overlap. These officers are vulnerable to early termination of their tours of duty due to transfer to other command or staff assignments or promotion out of their positions. The Board accepts the imponderables of shifting Service requirements and general officer promotions, but urges that stability be a major consideration in the original assignment of a Commandant or Assistant Commandant to a school. A further discussion of the command echelon at Army schools, with particular reference to the Commandant/Assistant Commandant relationship, is included in Appendix 21. Further, the Board urges that, in practice as well as in theory, the tours of field officers on staffs and faculties be stabilized at a minimum of three years and company grade officers at a minimum of two years -- with provision for a possible year's extension in each instance.

PART II

EDUCATIONAL ADVISOR AND CIVILIAN INSTRUCTORS

The Educational Advisor

27. The position of the Educational Advisor is one of prime importance in the school structure. Because of constantly changing staffs and faculties, it falls to the lot of the Educational Advisor to provide essential continuity and the creative spark to develop long range educational programs. In some schools the Board found him a well-qualified individual who had the respect and confidence of the entire faculty. In other schools, he was more "window dressing" than trusted advisor. In a few schools, the position was vacant. The Board recognizes the difficulty of obtaining a suitable individual, with an appropriate background in the field of education, a congenial personality, a high degree of motivation, and a willingness to harmonize his thinking with decisions of the school authorities. The Educational Advisor should participate with the Commandant and Assistant Commandant in the formulation of school policy and in the administration and supervision of the school's activities. It would seem logical that he serve in the Office of the Assistant Commandant or the Director of Instruction. He should be provided with a small staff to assist him in the discharge of his responsibilities. He may be given general direction or specific assignments by the Commandant or Assistant Commandant. He should, however, have sufficient freedom of action to develop other projects on a self-generating basis as he recognizes and identifies problem areas.

28. Responsibilities. It is difficult to define the duties of the Educational Advisor precisely due to the wide variation in the character of Army schools. At the discretion of the Commandant, his responsibilities and duties could include any or all of the following:

- a. As a part of the command group, assist in the development of the program of instruction. While he will not have expertise in the purely military portion of the curriculum, in many areas his knowledge can make a major contribution to the effectiveness of the program.
- b. Evaluate instructional techniques in the school and recommend changes or direct research in this area, as appropriate.
- c. Supervise and conduct instructor training and refresher courses and plan and coordinate a program of in-service training and career development for both military and civilian instructors, supervisors, or other civilian educational specialists assigned to the school.

d. Provide guidance to the Evaluation Division with particular reference to examination techniques, validity of examination questions and analysis of examination effectiveness, including breadth.

e. Participate in an advisory capacity with the Faculty Board in all matters relative to the determination of student class standing, ratings, classification, proficiency or deficiency, as well as other matters within his sphere of professional interest.

f. Monitor classes to the degree required to be familiar with their content and the method of presentation. While he may not be competent to pass on matters of military doctrine and content, he should be able to make valid judgements as to the time which should be allotted to various phases of a unit of instruction.

g. Serve as a member of the Library Board and be in a position to review suitable titles for the library and make recommendations for the operation and administration of that facility.

h. Participate with the Commandant and Assistant Commandant in conferences at higher headquarters so as to know through direct contact the intent and implications of the subjects discussed.

i. Serve as a member or advisor to boards established for such purposes as curriculum planning, student evaluation, examination review, and analysis of extension courses.

j. Serve in a liaison capacity with the Educational Advisors of other military schools, with civilian colleges, and with educational programs in industry. In view of his responsibilities in the field of education, he must maintain close contact with the educational community.

k. Prepare, administer, and evaluate end-of-course and post-graduate student questionnaires.

l. Prepare studies as required in a broad range of problems which are oriented toward educational procedures and techniques.

29. Tenure. The length of assignment of Educational Advisors has caused some concern to the Board. A number of Advisors have served in the same Army school or college for 15 to 20 years. While the Board realizes that length of service in one installation has undoubted advantages in continuity of experience and program planning, it also has its disadvantages. The attainment of a certain degree of professional competence through long association with a single institution may engender complacency in an individual which is not conducive to bringing his full abilities into play.

EDUCATIONAL ADVISOR IN SCHOOL SYSTEM

SCHOOL OR COLLEGE	ADVISOR & GRADE	DEGREES
AWC	None	
C&GSC	15	PhD in Educational Psychology
INF	14	PhD in Industrial Education
ARM	13	Masters in Education
ARTY&MSL	12	Masters in Educational Psychology; PhD in progress
AD	13	Masters in Education
ENGR	15	PhD in Education. Post PhD Fellowship, Education
SIG	15	Masters in School Supervision. PhD in Education in progress
SE SIG	14	Masters in Education
CML	14	Masters in Education, PhD in progress
ORD	15	PhD in Education
QM	14	Masters in Education
TRANS	15	PhD in Education
AG	12	Masters in Psychology
FIN	13	Masters in History & Education. PhD in History & Education in progress
ASA	15	PhD in School Administration
CA	None	
AVN	14	PhD in Education
INTEL	None	
MP	14	PhD in Education
WAC	None	
CHAP	None	
JAG	None	
MED	None	Space filled by qualified MC Officer - PhD in Education
LOG MGMT	13	Masters in Education
SP WFR	14	PhD in Education, Admir. & Jurisprudence

FIG. D22-4

30. In the academic world, professors and heads of departments go from one college or university to another at somewhat infrequent intervals. These changes are sometimes due to changes of administration, more attractive financial considerations, a new and greater challenge to the individual, or personal and family reasons. Such changes in academic environment or positions have, in the opinion of the Board, a stimulating effect upon the individual and should be a part of the Advisor's career program and professional development. The Board is of the opinion that the Educational Advisors should be rotated throughout the Army school system to spread their expertise in the field of education through the system and to broaden their viewpoints. The Board feels that a period of six to eight years with one educational institution would be a desirable target. This would permit the Educational Advisor to serve through the normal tours of approximately three successive Commandants and Assistant Commandants.

31. Career Development. Greater impetus should be given to the career development of Educational Advisors and senior civilian instructors. In this area, the Board is of the opinion that Advisors should be granted sabbatical leaves for study and research in the field of education or related areas in consonance with their positions of responsibility in the school system. It is not contemplated that this period of time should be spent in any of the schools or educational centers outlined in Department of the Army Civilian Personnel Regulations 950-16, "Army Civilian Career Program for Education and Training." Rather it is visualized that it be spent in residence at a recognized college or university offering appropriate courses and research facilities from which the Advisor would obtain maximum benefit.

32. Grade. Careful study of the regulation quoted above indicates that the great mass of civilians in the Education and Training career field are in the GS-10 and 11 category and that only 15 individuals are in the highest grade authorized - GS-15. Figure D22-4 indicates the grades and educational qualifications of the Educational Advisor at all Army schools and colleges.

33. The Board is of the opinion that the top grade level authorized for the Educational Advisor at Army schools and colleges should be GS-15. The Board is further of the opinion that at the CONARC and Department of Army (DA) levels, the Educational Advisor positions should be established at the GS-16 level, which would put them more in line with relative positions in the academic community. At the DA level, only one space is allotted to the Educational Advisor, which limits him largely to staff activities with inadequate time to visit schools within the Army system, attend educational conferences, and participate in workshops pertinent

to his field of interest. The same condition exists at CONARC. The Board considers that an additional space should be provided each of these headquarters, in a lower grade, to permit the senior Army Educational Advisors to participate more actively in the practical phases of Army school and college operations.

Civilian Instructors at Branch Schools

34. The use of civilian instructors in the Army school system has been a part of the Army educational pattern for a considerable period of time. Maximum use of civilians was made when the Armor School was established at Fort Knox, Kentucky, late in 1940. This was because the majority of the courses taught in the early days of the school were in the equipment area. With the cooperation of corporations supplying the equipment, the School conducted a vigorous procurement program which proved eminently successful. As a result of this effort, the Armor School today has 111 civilian instructors, the bulk of whom are in the Automotive, Communications, and General Subjects Departments of the school. The Signal School also makes broad use of civilians. It currently has a total of 182 civilian instructors, which approximates 35% of its teaching staff.

35. The use of civilian instructors varies throughout the Army school system. The specific numbers as of 30 April are shown in Figure D22-1.

36. Within a broad area of subject coverage, Army schools are successfully utilizing civilian personnel as instructors, which indicates that the procedure is sound. Civilian instructors provide a stability in appropriate subject areas which cannot be obtained through other means. Where civilian instructors are utilized, officer instructors should work alongside them to provide a flow of new ideas and information from the field.

37. It is recognized that, due to the complexities of the military art, there are areas in which the use of the civilian instructor would not be appropriate or feasible. During the survey of the Army school system, it was observed that civilian instructors were producing excellent results in the following areas: nomenclature, operation and maintenance of vehicles, weapons, and communications equipment; staff writing, speech techniques, and remedial reading; area studies, international affairs, US foreign policy, and Communism; logistics and management in its various forms. While it is obvious that this list does not have application throughout the Army school system, it is equally apparent that all schools have areas in which civilian instructors can be used. In certain cases, it may be appropriate to contract with civilian

universities to obtain the full or part time services of professors in desired disciplines. The Infantry School is currently following this practice in its extracurricular lecture program. The Board believes that a civilian instructor in the field of English composition and writing should be on the staff of all schools and colleges to provide expert knowledge in the organization, structure, editing, and correction of student staff studies, book reviews, theses, and research papers.

38. In view of the recent directives issued by the Secretary of Defense, it is evident to the Board that Commandants should investigate this area in depth and determine the areas where civilian instructors can be used. The freeing of military personnel from certain instructor positions will provide for the more effective utilization of military personnel. In certain geographical areas the procuring of civilian personnel may pose a problem. In this connection, it may be in the Army's interest to make on-post housing available on the same basis as for military members of the staff and faculty in similar positions. A higher wage scale in these areas would be important as a further stimulant for employment. Retired non-Regular officers, at the termination of 20 years of service, provide a source of experienced personnel who are not subject to the restrictions of the Dual Compensation Act. The current restriction requiring a period of six months from the date of separation of the officer, prior to his employment at a military installation, should be waived.

Use of Civilians at the Army War College

39. The Board is of the opinion that a greater number of civilians could be used to advantage on the faculty of the Army War College. Certain of these individuals might be obtained from the Department of State, International Cooperation Agency, United States Information Agency, and like organizations. Outstanding professors might be obtained from various colleges and universities on a one or two year sabbatical. Such a program has been successful at the Naval War College and the National War College. A salary commensurate with the position would probably have to be established at a GS-15 rating or higher. A careful survey of the academic field might uncover professors approaching retirement who would find such an assignment attractive on a continuing basis.

40. In addition to the above, courses could be presented by professors from such nearby institutions as John Hopkins University, the University of Pennsylvania, and the University of Pittsburgh on a contract basis. These universities have highly trained and competent staffs, and arrangements might be made for a series of lectures by a single individual in a definite area, thus providing the essential continuity of thought.

CONCLUSIONS

41. School authorities should maintain a close working relationship with career branches in the Office of Personnel Operations and the offices of the chiefs of the professional services to insure the selection of qualified personnel for the staffs and faculties of the schools.

42. Because of their lack of any practical Army experience, graduates of branch basic classes should not be retained at the school as instructors.

43. Unless a student at the Army War College has a specific expertise developed during his prior Army service and particularly needed at the College, he should not be considered for retention on the faculty.

44. A review of staff and faculty authorizations by grade in the various Army schools, to include their categorization into instructor, supervisory, and support positions, should be made.

45. A training program for supervisors as well as instructors should be established in all schools below the War College level in the Army school system.

46. Selected members of the staffs and faculties should attend conferences of educational organizations to keep abreast of the latest developments in the academic field. Further, an annual conference should be held for Directors of Instruction and Educational Advisors in the Army school system under the direction of HUMRRO or another appropriate agency.

47. Closer liaison should be established between the various schools of the Army system, as well as with schools of the other Services.

48. Expanded use of officers with advanced degrees should be made within the Army school system in the interests of raising the technical and professional competence of the staffs and faculties. Aggressive action should be taken to have additional position requirements for such degrees validated both for initial utilization and reutilization tours.

49. Greater tenure of the staffs and faculties throughout the Army school system is essential for the sound and progressive development of the schools composing the Army system.

50. All schools and colleges should obtain a well-qualified Educational Advisor, and the Commandant should clearly define the duties and responsibilities of the position.

51. A rotation plan for Educational Advisors should be put into effect at an early date, coupled with opportunities for sabbatical leave to engage in graduate studies. The top grade level authorized for Educational Advisors at most Army schools and colleges should be GS-15; the senior Army Educational Advisors at the Continental Army Command and Department of the Army level should be authorized GS-16 grades.

52. Educational Advisors should attend various educational conferences.

53. All Commandants should determine the number of civilians who can be used profitably as instructors and begin their procurement at an early date, to relieve military personnel for other duties. Use should be made of professors from adjacent universities to assist in presenting academic instruction, with particular reference to electives.

54. The current restriction on employing non-Regular officers, requiring a six months period between separation and employment of the Department of the Army, should be waived insofar as Army schools and colleges are concerned.

55. Prominent civilian educators on sabbaticals from their universities or highly qualified civilians from other governmental agencies should be added to the staff and faculty of the Army War College. Consideration should be given to contracting with adjacent colleges for the presentation of a series of lectures in appropriate courses.

ANNEX D

ANALYSIS OF CURRENT SYSTEM OF ARMY OFFICER SCHOOLING

APPENDIX 23

STUDENT TESTING AND EVALUATION

PURPOSE AND SCOPE

1. The purpose of this appendix is to analyze the methods presently used to examine and evaluate students, and the final academic report required on student performance in courses of instruction in Army schools and colleges.

BACKGROUND

2. Student testing and evaluation have plagued the Army school system for generations. They are subjects of constant study and review throughout the academic community. Army schools use normal examination procedures as covered in FM 21-6, "Techniques of Military Instruction." The number, type and frequency of examinations is left to the discretion of the Commandant. Army Regulation 623-106, "Personnel Efficiency Ratings - Academic Reports," and DA Form 1059, "Academic Report," are used in rating and evaluation. Students are evaluated by faculty advisors, instructors, and peers, and by other methods at the discretion of the Commandant. The Human Resources Research Office (HUMRRO) of George Washington University has prepared a technical report on "Controlling the Quality of Training," which is pertinent to the ensuing discussion.

DISCUSSION

3. Three methods of student evaluation are recognized and used throughout the Army school system: examinations or tests; personal rating by the faculty through various methods of observation; and student rating through the "peer system." These methods are discussed in ensuing paragraphs.

Examination and Testing

4. The chief purpose of testing is to permit examining personnel to reach judgments concerning the students being tested. If these

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judgments are to be valid, they must be based on dependable tests. If the measuring instrument is unreliable, a judgment based on it is necessarily of doubtful value.

5. FM 21-6 devotes two chapters to the method of developing test questions, construction of examinations, problem solving, methods of interpreting test results, and arrival at a final test score. This coverage is thorough and discussion of techniques in this appendix will be only of a general nature.

a. Objective Type Tests. A major effort is being made today in our civilian colleges, universities, and industry, to develop sound and valid testing techniques. Test publishing is estimated to be a \$25,000,000 a year business and is growing steadily. A good part of this activity is involved in the production of multiple choice or objective type tests. Dr. Banesh Hoffman, one-time test consultant to the Westinghouse Annual Science Talent Search, discusses this type of testing in blunt terms:

"Multiple choice tests corrupt education. They discriminate against the most able students. They penalize depth, subtlety, creativity, intellectual honesty and superior knowledge."

In spite of this view, which is widely held, this method of testing is used today in the field of education, in military schools as well as in civilian institutions. Because of its limitations, it must be used with care. With this type of test it is easy to reward the wrong student and penalize some of the better ones, who, based on experience in depth, analyze the wording of a question, and have sufficient imagination to conclude that there is not always one right answer when a question is faultily constructed. Question construction, therefore, becomes a vital element in this type of testing. In the analysis of objective type questions, such as true or false, multiple choice, and matching items, each question should be reviewed to determine that it is reasonably devoid of clues as to the correct answer, and to determine that the construction of each item is such that it will measure the student's absorption of instruction and his ability to form sound judgments. All these forms of testing may be used in a single examination. Correcting examination papers can be a time-consuming task. The objective type examination lends itself to the use of electronic equipment, which not only corrects the examination but provides the evaluator with the necessary information to determine the validity of the individual questions. Its use throughout the school system is recognized as a reasonably effective method of testing without imposing a heavy burden on the faculty.

b. Subjective Type Tests. The subjective or essay type examination is an effective means of measuring a student's ability to organize and express his thoughts. The question cannot be answered unless the student has a complete opinion of the subject. Many instructors feel that when a student is not sure of an answer he will seek to strike the correct solution through a long dissertation. This can be prevented by allowing only the required space for the answer on the test paper; Essay type examinations also disclose a student's ability to express himself in writing, organize his thoughts in proper sequence, spell correctly, and punctuate accurately. In view of the personnel limitations of staff and faculty, essay type examinations are not practical for an entire course. They should, however, be used at critical phases throughout the academic year and be appropriately weighted in determining a student's grade. As an alternative to simplify the processing of examinations, several subjective or essay type questions could be combined with a larger number of objective type questions.

c. Performance Type Tests. Performance tests are used extensively in the branch career courses and at the Command and General Staff College. This type of test measures how well the student can perform a given piece of work such as solving technical problems and map exercises. It combines the characteristics of a written test with actual performance, since the student is required to present oral solutions as well as a written analysis in a given situation. (See Annex D, Appendix 4).

d. Individual Research Papers. All officer career courses, except the basic course, require various types of individual research papers, to include staff studies, book reports, articles for professional publications, essays, theses, and the like. These papers are graded or reviewed by individual faculty members except at the Command and General Staff College, where each paper is graded independently by two members of the faculty. At the Army War College they are reviewed only for conformance with high professional standards. It is difficult to correlate methods used by various faculty members in correcting research papers. One may approach the problem with a different concept than another; the first few papers may be more critically analyzed than the remainder, since an accumulation of opinions expressed by various students has a subconscious impact on the mental processes of the grader. To provide against such errors in the analysis of papers, particularly in the branch school career (advanced) courses, those falling below accepted standards could be reviewed further by a faculty committee prior to a determination of the final rating. A civilian instructor, especially qualified in English composition as referred to in Appendix 22, should be a member of the committee.

Review of Examinations

6. In most Army schools, generally at the Director of Instruction level, there is a Review and Evaluation Division or similarly titled staff section. Examinations should be reviewed by this section to insure uniformity in question construction and general examination composition. Review of problem-solving examinations such as map exercises should generally be conducted by a board of officers, including at least one member of the Review and Evaluation Division. Care must be taken not to include more situations in the examination than can be appropriately handled in the allotted time. Frequently, instructors find that examination time is insufficient to introduce and discuss all situations. Those not covered are often handed out en masse to the students with the solutions. Such a procedure is frustrating to the student and indicates an inadequate review of the unit of instruction. The review of tests and examinations requires a high order of professional and educational competence. In addition to the supervision exercised by the Review and Evaluation Division or similar section, the Educational Advisor can be of major assistance in advising the staff and faculty in all phases of examination techniques.

Time Allotted for Examinations

7. This appendix does not propose to review the time allotted for examinations throughout the Army schools. It is noted, however, that in the basic course of the major combat arms schools it varies from 25 to 31 hours. In the career courses the time varies from 57 to 59 hours. A study of examinations in the specialist courses throughout the school system indicates that the time allotted for examinations is adequate and consistent, predicated on the length of the various courses. At the Command and General Staff College, 32 hours of total curriculum time are allotted to examinations of a formal type. This figure does not include the time devoted to situation-type presentations during the problem-solving phase of various tactical exercises.

8. Since training time for newly commissioned officers is limited, the Board is of the opinion that the time presently allotted to formal examinations in basic courses of nine weeks is excessive when compared with the career course of 35 weeks. The time gained could be more effectively used in instruction. Where required, objective and "hands-on" types of examinations should be employed. The latter type is particularly suited to examination in weapons, maintenance, and communications subjects. Test results thus obtained would be useful in determining both the quality of the instruction and the retention factors of the individual student. Testing in the career course is obviously required and officers at this level should be

accurately measured as to their academic performance; hours allotted are not considered excessive. The same general observation obtains for the C&GSC course. No formal examinations are conducted at the Army War College. Students are rated through research papers, theses, committee and seminar participation, and frequent observation. The Board is of the opinion that these methods are adequate for a sound evaluation at this educational level.

Faculty Ratings

a. Instructor Evaluation. Classes at branch schools and the C&GSC vary widely in size. Career course classes vary from a low of 25 officers to a high of approximately 190 and average about 70 students. If students other than Active US Army are included, the classes increase to a high of almost 225 and average around 90. The C&GSC class currently has 750 students and will have 1,344 if the proposals of this Board are accepted. It is manifestly difficult for instructors to evaluate students accurately except where classes or teaching groups are small. In class presentations, the instructor directs his efforts toward techniques, subject matter, class control, and interest-creating factors essential for sound instruction. His burdens are greatly increased by superimposing upon him the necessity for determining the academic rating of the students. In large schools the instructor is acquainted with only a small percentage of the class. Through personal contact and the comments of other instructors, fortified by his experiences with those who participate to the greatest degree in discussions, he reaches judgments concerning the outstanding students. In many cases, however, he is unable to develop sufficient data to evaluate all students fairly. His attempts to do so represent a problem in objective management.

b. Faculty Advisor Evaluation. If the faculty advisor technique is to be effective, the advisor must interview the individual student several times during the course of instruction, establish a social as well as a professional relationship, and prepare periodic reports on his other-than-academic qualities. Outstanding and poor students are readily identified. Accurate evaluations of the more numerous students in the middle area are difficult. The varying characteristics of the advisors themselves and the correlation of their reports are factors in determining a student's final standing in relation to students in other groups. It would be difficult to adopt an effective faculty advisor system throughout Army schools and colleges without an increase in personnel.

Peer Ratings

9. The value of peer ratings is predicated on the size of the group, length and type of course, and characteristics evaluated. In

large groups, peer ratings of the entire group are of doubtful value. Again, the best and worst can be isolated but the system is not sensitive to the large average block. Peer ratings should be restricted to groups of 20 or less students in courses of several months' duration. In larger groups, ratings should be restricted to a few easily observed characteristics, such as "ability to present orally," and the fact that the students are being rated should be announced at the beginning of the instruction.

Analysis of Means Available

10. From the foregoing analysis of testing methods and personal evaluation it is clear that, while the objective type test, if carefully drafted, provides a reasonably effective measuring device, the essay and performance type examinations give the most valid results. Due to practical limitations, these latter type examinations cannot be used throughout an entire course of instruction. Faculty advisor and peer ratings provide personal evaluations of the students which are reasonably sound but tend to lack discrimination except for the top and bottom of the class.

Numerical Rating

11. Students may be listed in a numerical order of academic standing or be placed in percentiles of the class. Both of these systems depend upon examination results which may be supplemented by faculty advisor or peer evaluations.

a. Reporting Order of Rank. Considerable attention was given by the Board to the subject of whether or not students should be reported in a numerical order of rank as a part of their final evaluation. This system has produced certain unfavorable results in the past. Students attempt to anticipate school solutions or learn only what the instructor emphasizes or what is in the text material, rather than to develop the capability of solving problems and arriving at decisions based upon principles and facts. It is the opinion of the Board that reporting by numerical rank is of doubtful value and militates against the best interests of the officer. For example, graduates of the United States Military Academy (USMA) who select the Corps of Engineers traditionally come from the upper 15% to 20% of their class. These same officers later attend basic and career courses at the Engineer School. If they were rated numerically, a large number of them would fall in the lower portion of the class. Such a rating system obviously imposes unrealistic competition.

b. Reporting by Thirds. The placing of students in the upper, middle or lower third of a class is but an outgrowth of the numerical rating system adopted when the Army realized that such a rating was an injustice to the officer. To soften the numerical system, the class was divided into thirds by the simple subdivision of the numerical ratings. In a class of 600 students, this method places officers who are numbers 1 and 200 in the upper third, and numbers 401 and 600 in the lower third. The Board is of the opinion that the arbitrary subdivision of students may be a greater injustice to the officer than the order of rank system, and is an undesirable solution to the problem.

c. The Commandant's List. In civilian colleges and universities, and at the USMA, high ranking students are identified by being placed on a Dean's List. This list is based upon grades determined through examinations, term papers, and methods of evaluation which vary considerably in different institutions. It is an honor to be on the Dean's List; however, it has no bearing upon a student's success or failure in the business or professional community to which he becomes affiliated after graduation. In lieu of a numerical rating or percentile division, the Board suggests that the Army establish in its school system a Commandant's List. The List should contain the names of the students selected, based on such tests or evaluations as the Commandant may consider pertinent. Because of wide variation in the size of classes and length of courses in the Army school system, the individual Commandants should be charged with establishing suitable percentage factors or cut-off scores for inclusion of officers on the List. A range of 10% to 25% of the class appears appropriate. If a 20% factor were applied to the average career (advanced) class in the combat arms schools, 30 to 45 students would be named on the Commandant's List, an area considered suitable by the Board. Where the course length makes it practical, the Commandant's List should be posted initially around the middle of the course; in all cases the final List should be announced and recorded at the end of the course. The highest rated student on the Commandant's List should be recognized as the "Distinguished Graduate" and the following four students as "Honor Graduates." This method would identify the outstanding students of the class and permit the remainder to be announced as graduates without reference to class standing.

Narrative Description of Officer

12. Army Regulation 623-106, "Personnel Efficiency Ratings, Academic Reports," provides for a comprehensive description of an officer student. Such a description is valuable only when it is based upon factual information, sufficient contact with the officer,

ACADEMIC REPORT (AR 623-106)				DATE	
PART I - (FOR ARMY OFFICER STUDENTS ATTENDING SERVICE SCHOOLS)					
TO: (For other than active Army officers see paragraph 4, AR 623-106) The Adjutant General ATTN: AGPB-F Department of the Army Washington, D. C. 20315			FROM:		
1. LAST NAME - FIRST NAME - MIDDLE INITIAL		2. GRADE	3. SERVICE NO.	4. BRANCH BASIC DETAIL	
5. NAME OR TITLE OF COURSE		7. DURATION OF COURSE FROM TO		8. PERIOD OF REPORT FROM TO	
9. DID OFFICER SUCCESSFULLY COMPLETE THE COURSE? (If "No", give reason - illness, academic deficiency, disciplinary, etc. Include supplementary details under item 15 if necessary.) <input type="checkbox"/> YES <input type="checkbox"/> NO					
10. INDICATE NUMBER OF STUDENTS GRADUATED (Place an "X" in appropriate third) <input type="checkbox"/> UPPER THIRD <input type="checkbox"/> MIDDLE THIRD <input type="checkbox"/> LOWER THIRD					
11. SPECIAL ABILITIES					
12. DO YOU RECOMMEND OFFICER AS A POTENTIAL INSTRUCTOR FOR THE SCHOOL? (If "Yes", specify academic Department.) <input type="checkbox"/> YES <input type="checkbox"/> NO					
13. a. ABILITY TO EXPRESS SELF ORALLY <input type="checkbox"/> ABOVE AVERAGE <input type="checkbox"/> AVERAGE <input type="checkbox"/> BELOW AVERAGE					
13. b. COMMENT ON THE QUALITY OF STUDENT'S PARTICIPATION DURING INSTRUCTIONAL DISCUSSION					
14. ABILITY TO EXPRESS SELF IN WRITING <input type="checkbox"/> ABOVE AVERAGE <input type="checkbox"/> AVERAGE <input type="checkbox"/> BELOW AVERAGE					
15. COMMENTS					
DATE		TYPED NAME AND TITLE		SIGNATURE	

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FIG. D23-1

and frequent observation of him during his professional duties and social activities while in residence at the school or college. When a faculty member is responsible for preparing a substantial number of such descriptive statements, they tend to become trite, meaningless and distressingly similar. Even with a fairly comprehensive faculty advisor system such as that at the Command and General Staff College, an appraisal of an officer is not included in the descriptive section of the report because of "insufficient opportunity for individual observation." The same situation obtains in the career courses of most of the larger schools. In smaller branch schools, a reasonably valid analysis appears possible. This is certainly true at the Army War College, where course and research advisors are assigned on the basis of one to each 6-8 students. Such an advisor system provides an effective method of analyzing student progress and sufficient personal contact to draw sound conclusions as to his performance and suitability for higher command and staff assignments.

Academic Report (DA Form 1059)

13. With specific reference to the Academic Report (See DA Form 1059 at Figure D23-1), the Board considers that:

a. Item 10, which currently provides for ranking of students by thirds, should be revised as follows:

10. Indicate Number of Students Graduated and Number on Commandant's List. (Place an "X" in appropriate block)

Number of Graduates	Number on Commandant's List	Commandant's List	Distinguished Grad.	Honor Graduate
_____	_____	_____ <input type="checkbox"/>	_____ <input type="checkbox"/>	_____ <input type="checkbox"/>

b. The following items of the amended report should be completed for the schools and courses indicated:

(1) Branch Schools

(a) Basic Course - Items 1 thru 10. Under Item 15, enter hours devoted to counterinsurgency or other required entry of similar nature.

(b) Career Course - Items 1 thru 15. If applicable, enter the fact that the officer was on the Commandant's List and where appropriate check the Distinguished Graduate or Honor Graduate block. Enter in Item 15 such comments on the officer's performance and potential as the School Commandant may consider practical and equitable to the officer and the Army.

(c) Specialist Courses - Same as for career course when course is for period of 60 calendar days or more. Reports are not required for courses less than 60 days in length.

(2) Command & General Staff College
Same as for career course

(3) Army War College
Complete, to include a full description of the officer in Item 15.

c. AR 623-106 should be changed to reflect the recommendations contained herein.

Elimination of Students

14. While all officers attend the career (advanced) course, only about 50% are selected to attend the C&GSC, and a far smaller percentage attends the Army War College. Thus the career (advanced) course represents the time and place for a careful screening of Army officers to determine their true potential. It is here that officers of doubtful value to the service should be identified, and it is here that elimination action should be taken by school Commandants. Only officers in the upper registry of competence, professional qualification, and motivation should be selected to attend the two Army colleges. While the Commandants of the colleges have responsibilities parallel to those of Commandants of the branch schools, the need to eliminate students at the college level should occur rarely.

CONCLUSIONS

15. Objective and hands-on performance type tests should be used in branch school basic courses to determine the quality of instruction and the retention factors of individual students.

16. All types of examinations, to include objective, essay, and performance types, should be employed in branch career (advanced) and Command and General Staff College courses. Additionally, students should be graded on individual research papers and oral presentations.

17. Written examinations are not appropriate in the Army War College resident course. Students should be evaluated on the basis of individual research papers, committee and seminar participation, oral presentation, and frequent faculty observation.

18. Test and examination methods employed at various Army schools require continuing analysis and refinement to insure their suitability, validity, and proper proportional use. Examinations should be subjected to rigorous review by an evaluation group or agency with a high order of professional and educational competence.

19. Instructor evaluations, faculty advisor ratings, and peer system placement are tools in the evaluating process which must be used with care and complete objectivity if employed to supplement examination results.

20. Placement of students in order of rank or in percentage blocks is not a valid or equitable method of evaluating students in officer career or specialist courses within the Army school system.

21. In lieu of placing students in order of rank or in thirds, a Commandant's List, similar to the Dean's List in civilian colleges, containing the names of the top students of the class, should be used throughout the Army school system. Distinguished and honor graduates within this list should be named.

22. Item 10 of the Academic Report (DA Form 1059) should be revised to delete the requirement for rating students in thirds and to include the designation of students on the Commandant's List as well as Distinguished and Honor Graduates as indicated specifically in paragraph 15 above. The descriptive statement in Item 15 should be completed for all students at the Army War College resident course. Such comments on the performance and potential of students in other courses as the School Commandant considers practical and equitable to the officer concerned may be entered in Item 15.

23. AR 623-106 should be changed to reflect the recommendations contained herein.

24. Commandants should be constantly alert to the need to eliminate students considered to be of doubtful value to the Army.

ANNEX D

ANALYSIS OF CURRENT SYSTEM OF ARMY OFFICER SCHOOL .NC

APPENDIX 24

INNOVATIONS IN EDUCATIONAL PRACTICES AND TECHNIQUES

PURPOSE AND SCOPE

1. This appendix concerns itself with innovations in educational practices and techniques as well as new uses of known training aids. Methods of instruction and equipment for education, with appropriate examples, are discussed. Sources of innovation and methods of dissemination of information regarding their use are presented as a means to improve the effectiveness of the Army school system.

BACKGROUND

2. The Army's educational practices and techniques are considered by the Board to be generally outstanding. Personnel in industry and in educational institutions visited by the Board uniformly remarked that they had drawn heavily on military methods in their educational systems.

3. During the course of this study, Board members visited a number of organizations doing research in education, including the American Management Association (AMA), American Telephone and Telegraph Company, Chrysler Motors Corporation, Columbia Teachers College, General Electric Company, General Motors Corporation, International Business Machines Corporation (IBM), Rand Corporation (RAND), and Systems Development Corporation (SDC). All schools and colleges visited by the Board were checked for innovation and plans for the future.

4. Although the Deputy Chief of Staff for Personnel is assigned responsibility for individual training, training research is conducted under the general staff supervision of the Chief of Research and Development. The Army's major training research effort is performed by the Human Resources Research Office (HUMRRO), a contract organization administratively under the George Washington University. The US Army Human Engineering Laboratories and the US Army Personnel Research Office contribute to solving training problems.

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DISCUSSION

5. When applied to education and training, the definition of innovation is extremely broad. The Board took it to mean deliberate, novel, specific change in an educational system's methods, techniques, and devices, designed to enhance its capability to accomplish its goals. This study considers innovations that are, or are close to, being introduced into the system, and searches into the educational environment of the future.

6. The Board was not able to find a master plan for the gradual reorientation or relocation of schools to develop "centers of learning," as discussed in Annex D, Appendix 21. A long range plan is required which will control construction and lead to the desired grouping of like schools. Professional advice on details of building design that allow installation and use of modern training aids should be sought and made a prerequisite to final approval of the plan.

Methods

7. Methods used by faculty members are perhaps the most economical means of innovation and, in most Army schools, are under constant scrutiny. In civilian schools, teaching methods are left entirely to the instructor. Unless individual teachers publish their methods, the academic world would never learn of new techniques which they develop. Military instructors, on the other hand, are evaluated frequently, counseled on improvement, (see FM 21-6, Techniques of Military Instruction), and their accomplishments published. An even better source of new methods is Army sponsored educational research. The role of the educational advisor at Army schools is discussed in Annex D, Appendix 22. While it is true that the Army has pioneered in methods of instruction, improvement of the functions of teaching, learning, retraining, and applying knowledge and skills is a never-finished task.

8. Research in the field of educational techniques and methods is conducted by many organizations throughout government and the civilian economy. The Department of Health, Education, and Welfare (HEW), for example, has approximately seven tons of reports on the subject. Obviously, time available to this Board did not permit an exploration and exploitation of this amount of information, although visits by the Board revealed a vast fund of knowledge in publications of HUMRRO, RAND, SDC, and other organizations under contract to the government. Some of these should be made available to Army schools. A few of the newer methods of instruction now employed in the educational world are discussed in ensuing paragraphs.

9. Ability grouping is used in many civilian schools, and at the US Military Academy. Students attending a course are divided into classes groups according to ability so that each group is relatively homogeneous, and can be instructed at maximum rate. The main advantage of ability grouping is the easing of the burden on the teacher and the pressure on the student. A disadvantage is the loss of stimulation gained from the quicker students. Ability grouping is best employed in high-volume, fast-moving instructional programs from which at least a small proportion of graduates are trained or educated to the limit of their capability; it is appropriate in large Army schools.

10. Case studies have been used as a method for presenting management instruction for many years. There has been a gradual evolution in the technique of their use as indicated by the examples described below. All Army schools should study the case method and its variations to determine its value in the accomplishment of their missions. It has been employed successfully at the Army Logistics Management Center, the Army Management School, the Civil Affairs School, and others. At least two variations on the case study technique are worthy of note: role playing and incident process.

a. Role playing is intended to bring about an awareness of interpersonal relationships and related factors. Students perform assigned roles as participants in the case and thereby develop a greater awareness of human relations and increased skill in handling such relationships.

b. Incident process is closely related to the case method in that the group's attention is focused on the written description of a situation and its inherent problems. Unlike the role method, no detailed summary of the problems and events is given. Instead, the problems and events relevant to the given situation are in the hands of the discussion leader and are given out only as they are asked for by questions from the group. In this manner, participants are forced to reconstruct the various incidents surrounding a given problem situation. Incident process has the advantage, over the standard case method, of injecting more realism into the group discussion.

11. Decision-making courses are being used extensively by industry at the present time. Two of the most widely used are those developed by Kepner-Tregoe and Associates, Inc., and the American Management Association. Commanders, managers, and educators alike have recognized that it is much easier to train an individual to perform duties such as operational and strategic planning, financial and materiel management, and personnel administration than it is to supply him with an understanding of the reasoning processes involved. Reasoning processes

are still not widely understood, and the advent of computers and data processing appears to have compounded the confusion. On the one hand, responsible individuals are urged to employ computers to assist in the solution of their problems, and, on the other hand, they are reminded frequently that such mechanisms and procedures cannot make their decisions for them. To make a sound decision an individual needs sound judgment. This is a compound of experience, values, and innate abilities which may dictate courses of action that are not necessarily products of mathematical reasoning. Setting up objectives and policies often requires inventiveness, but the commander or manager must have the capacity to reason systematically and recognize significant factors. This has been recognized by the Army in courses on decision-making that have existed since the inception of the school system. For example, the estimate of the situations and the staff study are actually decision-making processes. Systems analysis, operations research, and other techniques (see Annex D, Appendix 11) are steps in the evolution of decision-making. Each Army school must contribute to this evolution as part of its program of command and management instruction (see Annex D, Appendices 9 and 10), and the Army must develop new techniques and apply them broadly to the decision-making processes. Army schools and colleges can then employ a uniform approach. The Army Logistics Management Center (ALMC) and the Army Management Engineer Training Agency (AMETA) present advanced decision-making techniques in their courses.

12. Electives in Army service schools were considered such an important innovation that an entire appendix has been assigned to the subject (Annex D, Appendix 26).

13. Flexible scheduling is being employed in a number of civilian schools and colleges. There is only a gradual realization that lectures, conferences, seminars, and other gatherings for education or training should not be held to class schedules of fixed length. No Service school visited by the Board has employed flexible scheduling on a formal basis, although a few have experimented with the method.

14. Gaming techniques have been employed by the Army for many years (for example, the two-sided map maneuver, command post exercise, and logistical exercise). The use of games as a teaching aid is newer, and is closely associated with the use of case histories, role playing and incident processing. Much of the work in this field has been done with management gaming, and has been devoted mainly to the construction of mathematical models around which simulation exercises are structured. With hundreds of management games now in existence, the techniques and results may be examined more closely to see what kind of learning may be induced in the gaming group. Several service schools are employing gaming techniques successfully, including ALMC and AMETA, and many

others are investigating the feasibility of doing so.

15. Programmed instruction has been defined as a method of teaching that enables a student to learn at his own pace with a minimum of formal instruction. More specifically it involves the presentation of a sequence of material to be learned, organized in such a way that the student may respond appropriately. The programmed instruction may be presented by book or machine, or be computer-assisted. The Army school system has worked with this method since its inception. Not all schools have used it, and those that do employ many forms of the method. For example, the Medical Field Service School uses the workbook method of programmed instruction to teach basic mathematics. Other Army schools now using this method include the Adjutant General, Artillery, Army Security Agency, Chemical, Engineer, Ordnance Guided Missile, Primary Helicopter, and Quartermaster Schools. Approximately 275 programmed instruction packages have been developed and are in use in Army schools. The "teaching machine" has been used by several schools, but only the US Military Academy has programmed instruction incorporating the use of an electronic computer. Though programmed instruction is not really a new method, it is mentioned here because of the continuing development of the technique and the possibility that there will be increased need for its use in military schools. Educational advisors of service schools visited by the Board reported that, in some subjects, students using programmed instruction learn as effectively as (and more efficiently than) conventionally taught students. There is some doubt that existing programs really individualize the instruction, but programmed instruction does break the traditional lockstep of classroom procedure, and in so doing, it takes individualized instruction an enormous stride forward. It is claimed in recent papers that programmers can do much more to approximate the tutorial situation and that programmed instruction can provide teachers with the opportunity to work with students individually. Many teachers hope to take advantage of programmed instruction in the decade ahead.

16. Sensitivity training, also known as "T-Group" or "Laboratory" training, has been developed during the last ten years by a number of social scientists affiliated with the National Training Laboratory for Group Development in Washington, D. C., a division of the National Education Association. A series of annual programs are conducted throughout the country. The core of this educational method for improving social interaction (or communicating) is the "T" (for training) Group, which consists of ten to fifteen individuals and a trainer who meet for a number of successive periods. A rather common pattern involves a two-week period during which the T-Group meets daily for two hours. The T-Group supplies its own content for learning in the form of the behavior of its members during its meetings. This

behavior includes social interactions of all kinds which are utilized by the individuals to increase their understanding of the impact of their own behavior on others, and of the phenomena of group activity and their significance. Though the method is still in its infancy, a number of Army schools have tested it and found it valuable. The Army Management School and the ALMC found it valuable in developing leadership, management skill, and decision-making techniques, in managing group pressures, and in achieving one's own goals. Industry is participating in this type of training and several corporations are enthusiastic as to the results.

17. Team teaching, long utilized in Army training centers and the troop training environment, has also found its way into the classroom. A small group of teachers jointly plans and carries out the learning experiences for a larger-than-usual group of students. As an extension of the teacher-aide practice, this was considered a new technique in civilian schools as recently as 1955-1956, although military schools have employed it much longer, and almost all Army schools are employing it at the present time.

Equipment

18. Educational and training innovations involving hardware are almost unlimited. Thousands of teaching aids were displayed at the AMA meeting on the Impact of Educational Technology in New York in 1965 and the 1965 Audio-Visual, Pictorial, and Educational TV Exposition in Washington, D. C. The cost of these aids ranges from a few cents for magnetic paint to millions of dollars for computers. A few examples are discussed in ensuing paragraphs.

19. Educational television (TV) is already installed in many Army schools as the result of a program started in 1949. CONARC announced in August 1965 that additional contract awards totaling almost 1.7 million dollars for this type of equipment had been signed. These contracts called for the installation of equipment at 17 schools and training centers early in 1966. Although the use of TV will not reduce the number of faculty members needed, benefits are expected in the form of standardized instruction in common subjects, exploitation of the best instructors, and more efficient training of officers in some subject areas. The Army is expected to expand further the use of educational TV as a training aid during the next decade, possibly lending to an Army school TV network. Expansion of educational TV by the civilian educational world will lead to method and equipment improvements. The Board noted a scarcity of Army school faculty members trained in the use of TV and considers that an increase in their number and quality is desirable.

20. Computers are widely used in the administrative support of Army schools and a few schools have computer-assisted exercises. The Continental Army Educational Data System (CONEDS) is to be tested in FY 66 in a unit complex consisting of a large computer configuration at the Infantry School and satellite computers at the Aviation, Civil Affairs, Chemical, Military Police, Ordnance Guided Missile, Southeastern Signal, Special Warfare and Women's Army Corps Schools. This system has been proved feasible by CONARC and availability of funds is the only real obstacle to widespread application of the system. Active support of the system, including installation, would prepare Army schools for the implementation of computer-assisted educational methods such as are now being field-tested at IBM, RAND, SDC, and other research and development organizations. The Board believes that the Army should give additional attention and financial support to this base for the "classroom of the future."

21. Specialized training areas, though used principally for the training of enlisted men, make instruction in the field more meaningful for officers. Three examples are the Infantry School construction project Combat in Cities, now scheduled for completion in FY 69; the radiological training area completed at the Chemical School in FY 65; and Casualty Lane, at the Medical Field Service School, portraying nuclear weapons employment effects on personnel. Many Army schools have specialized training areas but the nature of the requirements changes with the evolution of the art of warfare. Continual research and development of these training aids is necessary.

22. Audio-Visual equipment at Army schools is under continuous review. New equipment is procured as needed and improved equipment is given high priority. However, as in all innovation, there is often resistance to change. A prime example is the 8mm sound film cartridge loaded for self-instruction, library reference study, and special purpose use. It has not been employed at any Army service school, although a study has been made at CONARC, its desirability has been established and it has been under study by echelons higher than CONARC for over two years. The equipment, pertinent subject films, and educational techniques have been on the market for several years. Dr. Louis Forsdale, Professor at Teachers College, Columbia University, and the principal investigator in the Project in Educational Communication at Horace Mann-Lincoln Institute of School Experimentation, is an outstanding authority on 8mm film and has offered his advice and services to the Army through this Board. The Board, after consultation with Columbia Teachers College and CONARC, believes that the Army should give priority to CONARC's proposal and finance early installation of the necessary 8mm projection equipment.

Research and Exchange of Findings

23. A number of conferences have been devoted to advancing educational innovation: the White House Conferences on Education; the conferences sponsored by the National Commission on Teacher Education and Professional Standards, and the Educational Policies Commission of the National Education Association. Other new groups organized to further educational innovation are the special curriculum study groups financed by the National Science Foundation, such as the Physical Science Study Committee (which itself led to a supporting organization, Educational Services, Inc.); the Educational Facilities Instruction; the Learning Resources Institute; the Center for Programmed Instruction; and the National Education Reporting Service. In addition, new projects are being created steadily within universities, like the Center for Research on Human Learning at Stanford, and the Yale-Hamden Hall Responsive Environment Study. These organizations, and many more, are available for consultation with faculty representatives of Army schools. The Board conferred with representatives of the Department of Health, Education, and Welfare and the National Education Association, and concludes that these government and non-government organizations should be visited regularly and frequently.

24. Time and funds will not permit visits by representatives of all Army schools to all of the organizations indicated above. The Board is cognizant of the many scheduled meetings of service school personnel, but concludes that a biennial seminar is desirable, to alternate with the currently programmed Instructors' Conference held by the branch schools. The proposed new seminar should bring together representatives of all Army service schools and colleges; selected representatives of civilian schools and colleges; representatives of government schools, research and development institutions; and audio-visual business representatives to discuss teaching innovations and new equipment. These biennial seminars would probably have to be held at the larger Army posts, and the board suggests the first meeting at the Infantry School in FY 67.

CONCLUSIONS

25. While the Army has long been a leader in educational and instructional innovation, continued support of a strong research and development program in this field is required to maintain this leadership.

26. Directors of Instruction and instructors at Army schools (both military and civilian) should study methods and equipment discussed

in paragraphs 11-22 as well as other methods, testing procedures, personnel management and counseling procedures by which education can be accomplished more efficiently.

27. The Army schools should maintain continuing liaison with the Department of Health, Education and Welfare as a source of information on innovation in the field of education.

28. Headquarters, Department of the Army, should authorize the adoption of 8mm sound color film cartridges for use in Army service schools.

29. A biennial seminar should be established, alternating with branch instructor conferences, for the interchange of information between Army school personnel, civilian educators, and representatives of industry, research organizations, and audio-visual equipment manufacturers, with the first meeting at the Army Infantry School during FY 1967. Educational problems, solutions, and innovations should be emphasized in the agenda.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 25

SCHOOL AND COLLEGE LIBRARIES

PURPOSE AND SCOPE

1. The purpose of this appendix is to analyze and emphasize the requirement for a well organized library in all Army schools and colleges, to support the scope of instruction and the mission of the institution.

BACKGROUND

2. Within the Department of the Army there are approximately 1,750 libraries. In general, these libraries fall into three functional groups: those supporting the education and training mission of the Army; those providing technical information and materials to Army specialized and research activities; and those providing general informational, recreational, and educational materials to Army personnel both in the United States and overseas.

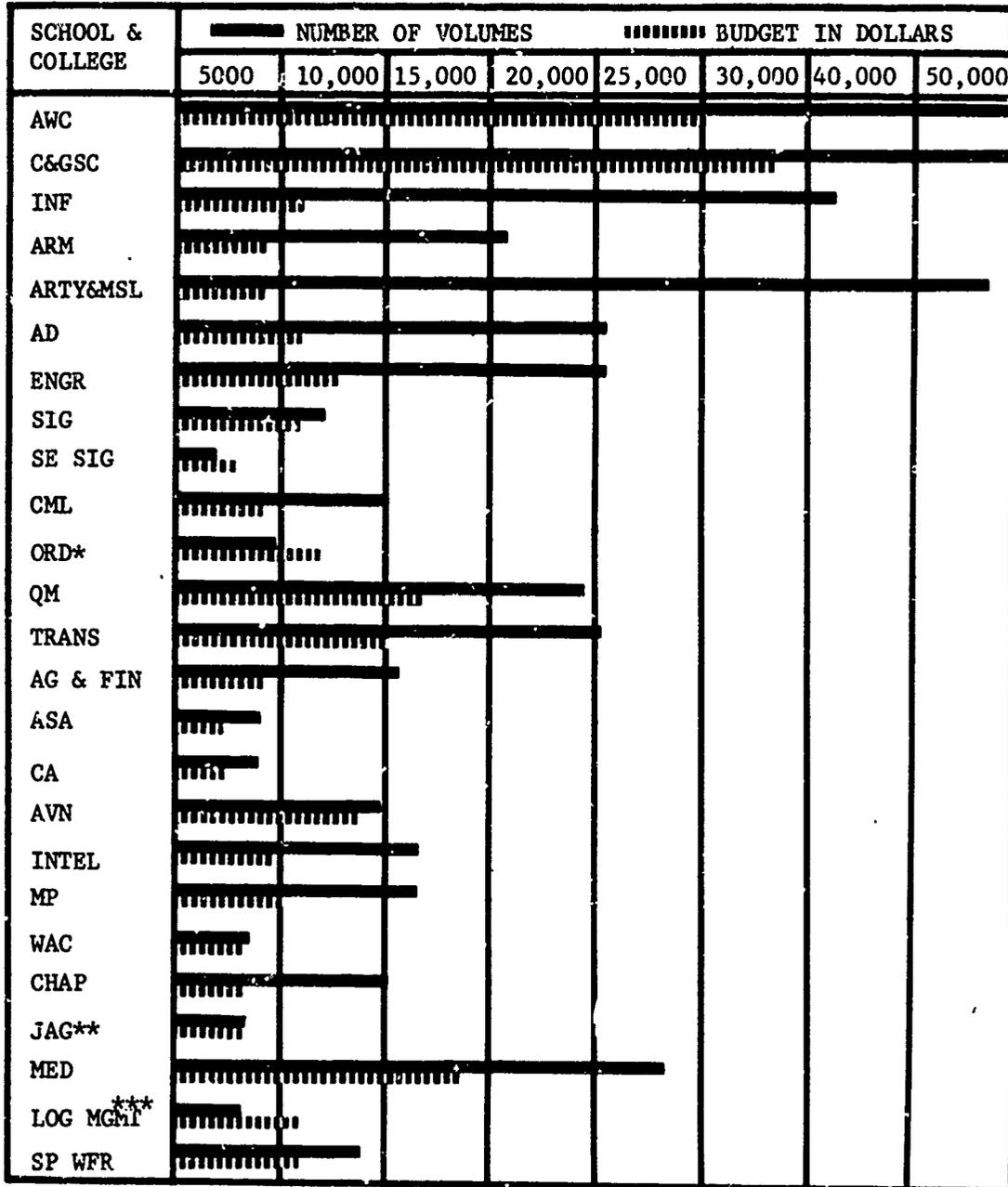
3. There is no single Department of the Army agency responsible for policy guidance and staff direction of Army libraries. Special service, law, and dependent school libraries and The Army Library in the Pentagon operate under policy guidance of The Adjutant General and are under the control of local commanders. Academic libraries at Army schools operate under the independent control of commandants of the schools. Medical libraries at hospitals and medical centers are under the general supervision of The Surgeon General. Technical or special purpose libraries at major command headquarters, laboratories, and specialized activities, are under the control of local commanders.

DISCUSSION

Physical Arrangements, Size, and Functions of the Library

4. A school library should have a physical plant readily accessible to the students and faculty and of sufficient size and proper arrangement to receive, process and store all

SCHOOL AND COLLEGE LIBRARIES



* Uses APG Research Library *** Uses QM School library
 ** Also has access to 1,350,000 volumes University of Virginia

FIG. 3-1

types of publications; adequate provision for control and security of classified documents; appropriate space for the library administrative staff located at a central point; sufficient stacking space to provide for the logical growth of the library; storage space for audio-visual materials and facilities for their projection; and reading, reference, and study rooms for the students. In its visits to service schools, the Board found many splendid libraries. The new library at the US Military Academy, the Mahan Library at the Naval War College, and the Air University Library, which serves a complex of three schools or colleges located about its perimeter, were particularly impressive. However, libraries in some Army schools were housed in unsatisfactory temporary buildings; others were badly located or poorly planned functionally, even when a part of modern buildings of recent construction.

5. The size of the student body at a school should not be used as a standard for determining the size of its library. The mission and area of interest of the school are the proper determinants. The library's collection of books, periodicals, pamphlets and other materials must be so constituted and organized as to give effective strength and support to the educational program and mission of the school.

6. The Library Operational Guide, Army Library Program (DA Pamphlet 28-30) should be of considerable assistance in the technical operation of school libraries, though not specifically designed for research type facilities. In designing his collection, the librarian should realize that the Army school library combines the features of a college library and a research center.

Library Collections

7. Bound volumes. As a basic minimum standard, the number of bound volumes in a school library should range from 8,000 to 10,000 titles to include a general reference collection. The aim of this collection should be to present in depth and breadth all basic and currently pertinent books on military science and world affairs. In addition, it should stress those particular areas which are central to the curriculum of the school. Figure D25-1 shows the number of volumes currently in the various Army school and college libraries, and their budgets for the past year.

8. Periodicals. Some 165 periodicals are included in the military category in Ulrich's Periodicals Directory, 1963 edition; and in the technical and political classifications, the number mounts into the thousands. Periodicals are not merely the sources in which new facts first appear, but frequently they are the only sources for timely scientific and technical information. In this connection, a number of

foreign military publications printed in English offer a fertile source of information on foreign war potentials, political trends abroad, scientific and technical developments in foreign countries, and statistical data pertaining to military intelligence, which cannot be obtained from domestic publications. The increasing importance of foreign language periodicals is borne out by the fact that US military periodicals frequently print translations of texts and abstracts of articles which still can never be as timely as the originals. Many periodicals should be bound for permanent record since a library without a permanent collection, fitted to the purposes of the school, is seriously handicapped.

9. Documents. Documents form an important part of the school library. They fall into two general classifications, government and military. Government documents cover a wide area of interest, and those suitable to the particular library are readily available from various government sources. The military classification includes such documents as broad Army plans, programs, and policy papers, doctrinal and organizational studies, technical reports of new materiel developments, and intelligence studies. Although much of this material is classified and subject to limitations and restriction as to use, it should be a part of the library and not separately controlled, as in many schools.

10. Student theses at the Command' and General Staff College and Army War College are a prolific source of original thought in varied fields of the military art and politico-military affairs. These theses and other individual studies represent from 300 to 600 hours of research and writing on the part of individual students, but receive limited distribution as finished products. Many of these studies would be of interest to staffs, faculties, and students throughout the Army school system. They are generally reproduced through mimeograph or offset printing, and the running of additional copies would not be an expensive item. College commandants should be provided sufficient funds so that a selected list of documents could be printed and distributed to libraries throughout the Army school system.

11. Audio-Visual Aids. The library collection should include reference listing of tapes of all types, including videos, language records, training films, maps, and a variety of audio-visual aids used on a broad basis throughout the school. In the event that certain of these aids are of such a highly specialized nature that their use is limited to one department of the school, the item should be indexed and catalogued for purposes of record and control, and then issued to the appropriate activity on a semi-permanent basis. Microfilm reading machines should be a standard item in all school libraries. Many libraries have these readers and files of microfilm material, especially

newspapers and magazine articles. Reproductions of special lectures by the faculty and guest speakers at certain schools would have wide interest throughout the Army school system. The Air University, for example, has television records of hundreds of these lectures, which can be "played back" on closed circuit television for the benefit of students who did not attend the lecture. Other schools have wire, tape or disc recordings of similar lectures, which could be made available.

Acquisition and Elimination of Titles

12. Titles of books and publications should be compiled from suggestions by the staff and faculty, students, the library committee (discussed later) and the library staff. The staff should consult conventional library aids, current technical and professional journals, book reviews and bibliographies as well as original and more obscure sources of material pertinent to the area of interest of the school. The procurement of appropriate books, publications, documents and other material is a constant challenge to the library staff. In many instances, the lack of an adequate budget is the limiting factor rather than the ability of the staff to develop desirable material for acquisition.

13. The librarian should be constantly alert to the problem of keeping the collection up to date. This process is divided in two parts: first, the constant acquisition of new material in all categories pertinent to the mission of the school; and, second, the critical and discriminating elimination or "weeding out" of titles which have become obsolete and documents, both classified and unclassified, that are no longer pertinent to the mission of the school.

14. Contemporary Reading List. The Department of the Army issues a circular each year containing a recommended reading list for Army personnel. This list contains approximately 40 titles of well selected subjects. The librarians have a definite interest in this list, and they should have one or more copies of each title in the library. To give added emphasis to the value of a sound reading program, the books should be stacked in a display case, at a critical point in the library circulation pattern, and appropriately identified as to source. As now published, this reading guide is only a list of books. To be more effective, it should be enlarged to contain a brief analysis of the important contribution each book may be expected to make toward an officer's education.

SCHOOL AND LIBRARY PERSONNEL

SCHOOL & COLLEGE	LIBRARIAN						ASST LIBR'N		CLERK		ENLISTED	OTHER	TOTAL	DEGREES IN LIBRARY SCIENCE
	GS-13	GS-12	GS-11	GS-10	GS-9	GS-7	GS-6	GS-5	GS-4	GS-3				
AWC		1	2	4	7	3		4	5	14			40	8 Masters
C&GSC	1		2		4	4		3	12	2	2		30	6 Masters
INF			1		2	1			1		5		10	3 Masters
ARM					1	1					2		4	2 Masters
ARTY&MSL		1			2	3		1	2				9	1 Masters
AD		1			2	1		3		2	5		14	2 Masters
ENGR			1		2	1		2	1				7	2 Masters
SIG		1			1	1		2	1				6	1 Masters
SE SIG					1			1			3		5	None
CML					1	1		1					3	None
ORD					1			2	1		1		5	None
QM			1		1	1		2			5		10	2 Masters
TRANS			1	1	1	3		2	1	1			10	2 Masters
AG & FIN					1				1		1		3	1 Masters
ASA					1	1					3		5	1 Masters
CA					1						3		4	1 Masters
AVN			1		1			2	1	1			6	1 BS 1 Masters
INTEL							1		2		5	1	9	1 Masters
MP					1				3				4	None
WAC						2							2	BA in Ed
CHAP						1							1	1 Masters
JAG								1					1	None
MED			1		3					1	2		7	None
LOG MGMT					1				1				2	None
SP WFR					1	1			3		1		6	2 Masters

FIG. D25-2

Library Budgets

15. The library budget for the purchasing of publications is a matter of considerable concern. The amount available to the various schools is shown in Figure D25-1. The Board considers that a minimum of \$7,500 per year is required to provide additions to the titles contained in the library and the maintenance of an active subscription list for the type publications required. The American Library Association has recently issued an analysis of costs of publications and has determined that the average cost of a hardback bound volume is \$6.93. Considering the cost of newspapers, magazines, periodicals and library supplies, a budget in the general area of \$7,500 would permit the purchase of approximately 250 titles per quarter. If the process of weeding out is accomplished concurrently, a school library should eliminate some 150 to 200 titles per year. The library of the Armor School has eliminated nearly 2,000 out of 18,000 volumes during the past three years. Although this is excessive, the elimination process had not been followed consistently during the past several years. With further reference to this library, it has averaged 500 new titles per year, which is considered insufficient for the library of a school of this size.

Library Staffs

16. The maintenance of an adequate staff is one of the chief problems encountered by librarians of Army schools. Most libraries are understaffed and personnel are generally not increased in proportion to expanding demands for library services. The fault lies in the failure to establish the professional positions at sufficiently high grades to attract and retain well qualified professional librarians; the reluctance of qualified personnel to accept positions in an Army school library, especially in remote areas; the limited opportunities for advancement due to the small size of library staffs and the lack of a clear-cut rotation or career development plan; and a somewhat fixed pay status under Civil Service regulations. Figure D25-2 lists the personnel in the various school and college libraries and indicates those who have degrees in Library Science. The wide range in the number of personnel perhaps reflects the relative importance accorded the library by various schools.

17. The selection of the librarian and the quality of the library staff should be a matter of considerable concern to the school. School libraries should be considered as a research facility and the library staff developed with this concept in mind. If possible, the librarian should have had broad experience in both the library and research fields and possess a degree in Library Science. It would appear that the minimum staff for a school library should be a librarian in grade

GS-11, two assistant librarians, also with degrees in Library Science, and a secretary. This staff should be further strengthened by the assignment of a minimum of two enlisted spaces, preferably from the Women's Army Corps, as clerical personnel. These women can be trained in the purely routine administrative matters pertaining to the issuance and receipt of publications and to assist in the processing of incoming materials. The detailed administration of a library involves from two to three hours each day for the librarian and assistant librarian to compile lists of books for purchase inventory, classify incoming titles, and other routine work to maintain the library at a suitable standard.

18. The librarian should have faculty status and participate in planning conferences so as to be informed on the mission of the school, the program of instruction, both current and projected, and related matters. The librarian should be kept abreast of advance curriculum planning, since it takes several months to provide material to support new fields of instruction and research.

Career Development

19. The tenure of librarians has been considered by the Board, in view of the fact that a number of librarians have served in the same school for ten or more years. The Board is of the opinion that a program of rotation throughout the school system would be highly desirable. Such a program should prove stimulating to the individual concerned and a further incentive for professional development.

20. In the area of career development, the Board feels that librarians should be afforded the opportunity for sabbatical leave at the expense of the Army for graduate level schooling. This would be especially desirable for librarians and assistant librarians who do not have degrees in Library Science but have partial academic credit toward such degrees. Such a program would improve the professional competence of the personnel participating, which would in turn redound to the best interests of the school concerned. Such sabbatical leave could be programmed between the change of assignments, at the discretion of the Commandant.

Professional Associations

21. The American Library Association is the nationwide organization whose mission is the betterment of libraries and the profession as a whole. The Armed Forces Section of the Association keeps abreast of developments of interest to military librarians and undertakes special research projects in this area. Of equal interest to the librarians in the Army school system is the Special Libraries

Association, also a national organization, whose membership is limited to librarians of special libraries, generally in the field of research. Army librarians are eligible for membership and should become identified with both of these associations.

22. A major activity of the Special Libraries Association is the Military Librarians' Workshop. This Workshop is open to librarians throughout the Army and holds working sessions of three days each year. The conferences are practical in nature, and the panels are well organized and headed by experienced librarians. They merit more support than they have received in the recent past from Army schools. The American Library Association also holds an annual convention where well-structured programs are held which contribute to the overall field of library science and administration. The seminars and discussions on technical subjects would be of definite benefit to Army school librarians, and they should be afforded opportunities to attend these conventions on a TDY status.

Library Committee

23. To assist in the development of the library, the commandant should appoint a library committee. This committee should include the Educational Advisor and representatives from each teaching department of the school. Generally speaking, the Board considers it should be headed by the Director of Instruction rather than the School Secretary. The committee should assist in the administration of the library and the using departments in the procurement of source material; review lists of publications for purchase as prepared by the library staff upon the recommendations of faculty members and students; determine the suitability of magazines and periodicals to the mission and scope of instruction of the institution; and provide such other assistance as may be required. The committee should not, however, turn into a censorship group on suitability of publications. Library policy must be responsive to the particular needs of the school and the library committee can do much to keep it so. Ultimate reliance, however, must be placed on the librarian to assess user needs and develop required services, based on sound principles of library science and his personal knowledge and experience in library administration.

Student Orientation and Library Availability

24. Many students in the Army schools are not thoroughly familiar with the organization of a library and how to use its reference facilities. A briefing by the librarian of each incoming class on the organization and structure of the library and the variety of services provided should be included in the orientation program given to entering students. This could even be carried a step further by

scheduling a brief research paper, designed so each student would be required to use the library in the early part of the course.

25. In many instances libraries are open only during school hours, thus limiting the availability to students of this reservoir of information. School libraries should be open in the evenings and on Saturdays. The library staff should be of sufficient size to provide at least one professional librarian on duty during these periods.

Automation

26. A recent estimate of the world storehouse of printed matter is some 200 million different books. The number is doubling every 15 to 20 years. The sheer bulk of printed matter being produced presents formidable problems for libraries in processing materials, and making them available to potential users. In view of the problems involved in the fields of research, librarians are now engaged in a study of data processing and electronic control of operations, which may lead to improvement of availability of materials. During the annual Conference of the American Library Association in St. Louis, a UNIVAC 1004 computer was exhibited. This computer provided instantaneous access to print-outs in 75 subject areas originating in the library exhibit at the New York World's Fair. Such a system could be established using a communication network, where one computer could service a network of libraries over a major geographic area. While not especially important to the school library system at this time, such research may, within the time frame of this report, find an application throughout the school system. In this connection, the Department of the Army is now studying the installment of computer equipment in the Third Army Area to centralize the purchasing, recording, distribution, and processing of publications for all libraries in the Army area.

Centralized Records Facility

27. It is a major problem to locate material such as tapes, language records, video tapes including guest lectures and faculty presentations, theses, research papers, committee studies and other material of evident interest, prepared by, and available in, the various schools and colleges throughout the Army. This material is of value to other schools within the Army system, both for support of the curriculum and as source material for student research; but, due to the lack of any centralized cataloguing facility, its use is restricted to a single institution.

28. The Board is of the opinion that a Central Records Facility should be established, which includes a listing of the above items

and a brief description of each. All Army schools and colleges should forward descriptive material on a quarterly basis to the Central Records Facility, which should catalogue this material and maintain appropriate files. The facility could make available to all schools, on an annual basis, a published index of such material. Further, schools could on a day-by-day basis contact the facility for the availability and location of subject matter and obtain the material from the source. The files of such a facility could be expanded to obtain material from schools and colleges of all Services, thereby providing for the maximum dissemination and interchange of material throughout the entire military school system.

29. The Army Study Documentation and Information Retrieval System (ASDIRS), recently established, provides an important service in cataloguing studies of major import produced by agencies in the Army or under Army contract. The system is operated by The Army Library, which issues a Bibliographic Catalogue of its material on both a quarterly and an annual basis. This program is aimed at the dissemination of information resulting from important Army studies, and the elimination of unnecessary duplication in Army effort. The Board considers it important to provide generally the same service to the Army schools, at a somewhat lower level. It is considered that the proposed facility should also be operated by The Army Library.

CONCLUSIONS

30. The location of the school library, the space available to it, the content of its collection, and the competence of its staff should be matters of continuing concern to school authorities.

31. A school library should include not only books, periodicals, and documents but tapes of all types, films, language records, maps and other audio-visual aids, in a broad field of pertinent interest to the school. A school library should contain a minimum of 8,000 to 10,000 titles in its original collection.

32. In the acquisition of material, librarians should give greater emphasis to the Contemporary Reading List published by the Department of the Army, as well as make a vigorous attempt to obtain pertinent research publications from other schools. Funds should be made available to permit student theses at Army colleges to be reproduced and made available as required throughout the Army school system.

33. Librarians should eliminate books and documents of no further value to the school, on a carefully planned program on an annual basis.

34. The minimum budget for a school library should be established at approximately \$7,500 each year. The exact budget level in each instance should be based upon the size of the library, the mission of the school, and the role the library must play in supporting not only instruction but such research activities as may result from the curriculum.

35. Library staffs throughout the Army school system reflect wide variations in size and grades. In general, they should be augmented to provide a greater degree of professional services in support of the schools. Grades should be reviewed and more nearly equalized throughout the school system.

36. The librarian should have faculty status so as to be in a position to anticipate library requirements. A library committee should assist him in the administration of the library and provide for working coordination between the library and the teaching departments of the school.

37. A career development program for librarians should be vigorously supported and librarians rotated throughout the school system. All librarians should have degrees in Library Science and should be afforded the opportunity to pursue graduate studies in this area on sabbatical leave.

38. Librarians should be identified with professional library associations and attend conferences and workshops on a periodic basis in a TDY status.

39. School libraries should be open to students during other than duty hours and students fully oriented on the library and the variety of its services.

40. The Army should keep abreast of developments in the field of automation and the application of advanced techniques toward more effective operation of school libraries.

41. A central registry should be established containing the list of tapes, including video, films and similar material available in schools and colleges throughout the Army, so they would be readily accessible to all librarians to support instruction and research objectives.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 26

ELECTIVES IN THE ARMY SCHOOL SYSTEM

PURPOSE AND SCOPE

1. This appendix examines the desirability and feasibility of establishing elective subjects as supplements to the core curricula in the various levels of career schooling for officers.

BACKGROUND

2. Elective subjects were introduced into the Infantry career course on an extracurricular basis in 1965. Students were permitted to volunteer for any of ten elective subjects, and 77% of the students presently are enrolled (See Appendix 3). Specialized elective courses have been available since 1962 at the Engineer School, where students of the career (advanced) course elect one of four two-week subcourses which are designed to prepare them for their next assignment.

3. A limited number of outstanding students at C&GSC are permitted to pursue an extracurricular course of studies in sufficient depth to meet established requirements for a master's degree in Military Art and Science. A degree is not awarded at this time, due to a restriction placed on C&GSC by higher authority (See Appendix 4).

4. The Army War College permits students to pursue degree-producing studies in conjunction with George Washington University. This extracurricular work, however, is considered by the Board to be a digression from, rather than a supplement to, the regular course of instruction (See Appendix 5).

DISCUSSION

Basic Course

5. The officer basic course is so closely job-oriented and compact that no portion of the course could logically be made elective. Therefore, the basic course is omitted from further discussion.

Desirability of Electives

6. Officer students at Army schools vary widely in their intellectual capacities, motivation, and experience. This disparity is particularly noticeable at the branch school career (advanced) course level, which is attended by essentially all officers, although it is also discernible at other, more selective levels of schooling. Dr. James E. Howell, in a report on the "Educational Philosophy of the Resident School at ICAF," expressed the situation in this manner:

"It may be that the greatest weakness in the whole resident course is its lack of challenge and opportunity to the best quarter of the class, those top forty or so men who have both untapped capacity and bright futures. I urge a small-scale but imaginative attempt to construct a set of options to enrich the resident course for these more able men. Several years of experimentation may be necessary, but the potential gains are immense.

"On the other side, a small-scale program of remedial supplements might also be valuable, beginning perhaps with the speaking class. Mathematics might be a second course. Whether these courses should be solely at the student's option, I cannot say definitely. Presumably so. There is no doubt, however, that the benefits of a rigidly lock-step attitude whereby all students have exactly the same educational experiences are not justified by the cost of lost alternatives."

7. It appears essential that there be some means of enriching the course for the top of the class while providing remedial work for some others. For the great majority of the students, however, this still leaves a "lock-step" type of curriculum in which all students take exactly the same subjects. Instead of selecting the lowest common denominator for the class as a whole, it appears that each school should offer a core curriculum supplemented by electives, appropriate to course mission, from which the student could choose according to his needs and interests.

8. Some critics have stated that, in comparison with civilian educational institutions, Army career schools are stereotyped, offer insufficient intellectual challenge to the majority of the students, and do not expose students to the rigorous intellectual discipline of examining a subject in depth. Although the two educational systems have different goals, it is clear that Army schools could profit from being more adjustable to individual experience, capacity, and interest. For the student, adoption of an elective program would offer an opportunity to learn more about those subjects in which he has a special talent or

interest and a release from the requirement to re-study those subjects in which he can demonstrate that he is already qualified.

9. An elective program has advantages for the school as well as the student, since it provides greatly increased flexibility in scheduling and a means of introducing new subjects which, by reason of operational or technological advances and developments, should be stressed in officer schooling. Further, it offers the possibility of giving different groups of students a specialist's knowledge in different fields of military expertise without requiring that they attend additional specialist courses. This would be valuable in reducing the proliferation of specialist courses brought about by the growing complexity of Army materiel and techniques. An example of this approach is a proposal that the Ordnance career (advanced) course present a core curriculum and then allow the student to major either in guided missile or motor vehicle maintenance. Electives also appear to have particular application to the Artillery and Missile School in reducing overlap in instruction occasioned by the requirement for cross-training in field artillery and air defense.

Possible Types of Electives

10. Electives may be offered as an integral part of the curriculum, or as a supplement thereto in the form of extracurricular subjects. Where they are a part of the curriculum, they are administered as at any educational institution: the student is required to take certain mandatory subjects (the core curriculum) and must choose a specified number of other subjects from a list of electives, according to his interests and needs. Credit for some basic subjects may be given on the basis of a qualifying examination, freeing the student to take an elective in its place.

11. Extracurricular work should normally be offered only on a voluntary basis to the most promising and industrious students who desire to pursue additional work for their own enrichment. An enrichment subject may also be part of the regular curriculum, but should represent a greater intellectual challenge than that presented by the other electives. Remedial subjects involving basic areas of knowledge such as map reading, in which students have failed a qualifying examination, should not be made extracurricular but should be taken in lieu of one or more electives in the normal curriculum.

12. The Board considered the establishment of electives within the Army school system under the following three categories:

a. Local Electives. Individual schools would establish local electives at their own discretion and under their independent control.

AUTOMATIC DATA PROCESSING AS A PROGRESSIVE ELECTIVE

<p>ARMY WAR COLLEGE</p>	<p><u>ADP SYSTEMS ANALYSIS II</u></p> <p>Application of systems analysis techniques to command and control (C²) problems; interface among C² systems (including non-Army elements of National Military Command and Control System) and with non-C² systems.</p>
<p>COMMAND AND GENERAL STAFF COLLEGE</p>	<p><u>ADP SYSTEMS ANALYSIS I</u></p> <p>Introduction to the systems analysis approach to the study and design of operational and management processes; capabilities, application and use of systems for handling Army administrative (business-type) processes.</p> <p>Analysis of an on-going business process; development of conceptual logic and flow diagrams covering this process; and design of input and output media.</p>
<p>BRANCH ADVANCED COURSE</p>	<p><u>COMPUTER PROGRAMMING</u></p> <p>Theory and operating principles of computers; input/output programming; symbolic programming; utility programming; sub-routines; numbering systems, codes; instructions; flow charting.</p> <p>Program applications in both assembly language and COROL (Common Business Oriented Language).</p>

Note: Each course is approximately 100 hours long.

FIG. D26-1

Local electives would be designed to exploit or supplement student experience, provide provocative educational material, or meet a limited specialty requirement (usually pertaining to a single branch). An example is a course in Atomic Demolitions, conducted at the Engineer School.

b. Common Electives. Some electives would be common to all or a number of branch schools, as designated by USCONARC, and would be an extension of the present common subjects concept. Common electives as presented by various career (advanced) courses would be similar but not necessarily identical, since branch considerations could color the subject content. Common electives would be designed to introduce instruction into the officer school system rapidly and on a broad basis to meet new requirements or to give emphasis to certain areas. An example is a course in Installation Management which might be offered at the Engineer, Ordnance, Quartermaster, and Transportation Schools.

c. Progressive Electives. Some electives would be established at more than one level of career schooling, offering related subject matter which would be progressively more demanding at each successive level. A student enrolling in a progressive elective at the advanced course would take the same elective at the Command and General Staff College (C&GSC) three to five years later, but in greater depth; and on attending the Army War College would take the same elective at a level which would exploit and enlarge upon his previous study. Progressive electives would be directed by higher headquarters to meet demands which cut across branch lines and are applicable to a wide variety of grades. They would include subjects which are inappropriate to introduce into the normal curriculum due to their specialized nature or lack of applicability to the bulk of the student body. The subject matter should be capable of being progressively developed at each higher educational level, and yet usable at the level of service the student would experience before attending another school. To establish a broad student base, progressive electives should begin as common electives at the advanced course level. An example of the progressive elective in a specialized field is Automatic Data Processing (ADP), as shown in Figure D26-1.

Feasibility of Introducing Electives

13. Local electives, related to the curriculum of an individual school, would be relatively uncomplicated and involve only the problem of providing the requisite time. This could be achieved within present curricula by giving validating examinations for certain blocks of instruction. If passed successfully, the student would not be required to repeat that block, but would take an elective instead. Other blocks

COMMUNICATIVE ARTS AS A PROGRESSIVE ELECTIVE

<p align="center">ARMY WAR COLLEGE</p>	<p>Creative writing workshop Oral debate Prepare article for <u>Military Review</u> on controversial military subject Present orally</p>
<p align="center">COMMAND AND GENERAL STAFF COLLEGE</p>	<p>Logic: inductive and deductive reasoning Teaching and learning process Oral presentation and use of aids (to include TV) Writing style and clarity (50 hours of instruction) Prepare and present a block of instruction on a military subject</p>
<p align="center">BRANCH CAREER COURSE</p>	<p>Reading comprehension test Speed reading laboratory as required Writing laboratory -- review of grammar and structure Effective speaking -- organization and structure (40 hours of instruction) Prepare and present a staff study on a subject appropriate to the branch</p>

FIG. D26-2

of instruction could be made completely elective, the student being required to "major" in one block or the other, as in the previous Ordnance School example. Local extracurricular electives on a voluntary basis could be instituted at any time. The subjects offered should be tailored to meet the capabilities of the faculty, and thus may vary from year to year. Local electives logically could be introduced in Army career courses starting with the 1967-68 academic year.

14. Common electives would be somewhat more complex, although the mechanism for their establishment already exists. Headquarters, USCONARC, would designate which subjects were to be offered as common electives in the advanced courses of which branch schools, in the same manner as it now designates common subjects. The capability of individual faculties to present such instruction might have to be reinforced by travelling instructional teams, authority to contract for local civilian instructors, or by affiliation with a local university. It appears that some common electives could also be introduced starting with the 1967-68 academic year.

15. Progressive electives would be the most difficult to structure and to support, and should, therefore, be initiated by a pilot program in a single subject. The Board considers that Communicative Arts could serve as an appropriate pilot model, since every Army school should possess a faculty capable of presenting such a course. In addition, potential student interest is apparent from the fact that the electives in communication skills have proven to be the most popular at the Infantry School. Communicative Arts could be established in the advanced courses as a common elective for the academic year 1967-68; and as a progressive elective at C&GSC for 1970-71 and at the Army War College for 1972-73. An outline of the manner in which this course might be structured is at Figure D26-2.

Student Selection

16. As mentioned previously, student participation in extra-curricular electives should be voluntary. Selection of electives incorporated in the normal academic periods should be mandatory, except where the student's available time is pre-empted by remedial subjects.

17. The number of students in any elective should be dictated by requirements, which makes it necessary to establish quotas. Within these quotas, precedence should be given to students with prior background in the subject, since the purpose is to create a degree of specialization by building on prior knowledge. Selection of electives should be made in consultation with a faculty advisor.

1. Students entering progressive elective programs should do so with the expectation of continuing related electives in subsequent career schooling. Exceptions to this general rule should be permitted on recommendation of faculty advisors. All electives should be aimed at stimulating a student to pursue his studies after course completion.

Design of Elective Programs

19. In designing an elective program, varied objectives or combinations thereof are possible. Electives may be offered to:

- a. Round out the student's military education by filling gaps in his earlier school or assignment experience.
- b. Exploit earlier experience or education to develop expertise in depth.
- c. Provoke the intellectual curiosity of the student by introducing him to stimulating subjects not related to his normal career routine.
- d. Produce specialists in depth to meet branch or Army-wide requirements.
- e. Encourage specialization in certain areas without requiring attendance at additional schools or courses.
- f. Permit branching career instruction where two or more areas are too complex and diverse to be given in the necessary depth to the class as a whole.

20. The types of subjects which lend themselves to designation as common or progressive electives include but are not limited to areas such as the following:

- a. International Affairs: languages, foreign area study, stability operations, civil affairs, psychological operations.
- b. Management: logistics management, personnel management, installation management, financial management, comptrollership, procurement.
- c. Scientific and Technical: research and development, ADP systems design and analysis, ADP programming, technical forecasts, operations research/systems analysis, atomic energy.

d. Military Arts: psychology of leadership, military historical studies, combat intelligence, employment of nuclear weapons, force development.

e. Communicative Arts: writing, speaking, public information, training aids and graphics.

CONCLUSIONS

21. To meet certain requirements and to provide intellectual challenge, diversity, and an opportunity for study in depth, electives should be introduced into the top three levels of career schooling: the career (advanced) course at branch schools, the Command and General Staff College, and the Army War College.

22. Some electives should be offered on a voluntary, extracurricular basis for selected students while others should be offered on a mandatory basis as an integral part of the curricula for all students.

23. Local electives should be established at the top three levels of career schools for academic year 1967-68, as designated by the individual schools.

24. Common electives should be established in the career (advanced) courses for academic year 1967-68, as designated by USCONARC.

25. A pilot model of a progressive elective in Communicative Arts should be established in the career (advanced) courses for academic year 1967-68; at the Command and General Staff College for 1970-71; and at the Army War College for 1972-73.

26. To create time for electives initially, students should receive constructive credit for designated blocks of instruction, based on qualifying examinations. Electives should be given primarily as an integral part of the curriculum, although selected students should be permitted to pursue additional electives on an extracurricular basis.

ANNEX D

ANALYSIS OF CURRENT SYSTEM OF ARMY OFFICER SCHOOLING

API NDIX 27

THE SCHOOLING OF FOREIGN MILITARY OFFICERS

PURPOSE AND SCOPE

1. The purpose of this appendix is to analyze the training of foreign military personnel in the Army school system. It includes the effectiveness of such training and the impact upon the schools and US military personnel.

BACKGROUND

2. Since the inception of the Military Assistance phase of the Foreign Aid Program, 169,160 military personnel from a substantial number of foreign countries have been trained in the Continental US (CONUS) military school system of the Services. There were 8,540 trained during FY 65 and 12,900 are programmed to be trained during FY 66. These are total figures for all Services and include officers and enlisted men. The program costs for FY 65 were approximately \$33,000,000 Service-wide. The Army appropriation for the same year was \$13,000,000. The funds are allotted from the Military Assistance budget of the Foreign Aid Program.

3. The training program has the dual purpose of assisting other countries in the modernization of their defense establishments and of exposing foreign military personnel to American institutions in all of their complex ramifications.

4. The mission and responsibility of the Army in training foreign nationals are outlined in AR 551-50, "Foreign Nationals," and further defined in AR 350-5, "Education and Training, Military Education and Service Schools." The mission includes the training of military students of nations participating in the Military Assistance Program (MAP), or other friendly nations, when such training is determined to be in the best interests of the United States.

5. The training courses requested are based on estimates by Chiefs of Military Assistance Advisory Groups (MAAG) and Missions, or

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military attaches, of the needs of foreign forces. With the concurrence of the government concerned, course spaces are then requested and programmed through Military Assistance channels. It is the responsibility of US personnel in the host country to keep the foreign government informed as to the types of courses available, appropriate special follow-on courses, and on-the-job training considerations.

DISCUSSION

General

6. The impact of foreign officer training was discussed at all Army schools visited by the Board. Foreign officers are integrated into established courses and do not present any special problems except in the area of English language comprehension as discussed later in this appendix. They may, however, displace US Army officers in schools where quotas are limited by facilities, such as the Command and General Staff College. Despite this disadvantage, US officers gain much from day-to-day associations with foreign nationals, and instruction is often enriched by their contribution. The benefits accruing to both the foreign officer and the United States justify continuing the training.

7. Schools training foreign students generally have well-organized Foreign Liaison Divisions to handle reception, orientation, processing, non-academic reports and records, operation of the civilian and military sponsoring program, and administration of the Department of the Army information program, and to provide other assistance required by the foreign student.

Orientation Material

8. Proper preparation of foreign students prior to departure from their home countries for training in the United States is important. AR 606-5 requires Army schools to provide foreign trainees selected for school assignments such orientation material as school brochures, maps of local areas, living costs, required clothing, housing facilities, special texts of "terminology peculiar to the course concerned," and other pertinent data. Schools generally supply this material to the MAAG, Mission, or attache for distribution to prospective students. The Board learned that the material frequently arrives overseas after the student has left for the United States, due to failure of the school to receive copies of orders in time to dispatch the material, lack of appropriate address, or other administrative lapse.

9. The Board obtained packets of the material furnished foreign students from six different schools. A study of the contents disclosed a wide variation in quantity and quality. The packet prepared by the Signal School is the only one which includes a text on "terminology peculiar to the course concerned." The Board is of the opinion that a single publication on subjects such as "Typical American Expressions" should be prepared at the Department of the Army level to provide more effective and uniform treatment. Such a publication would preclude the requirement from some 30 different training installations preparing similar material which, in some instances, is inadequate in coverage. The text on "terminology peculiar to a course" is important and should be prepared by all schools which foreign officers attend, using the text prepared by the Signal School as a guide.

10. To avoid a situation in which the student leaves his home country prior to receiving the orientation material, the packets should be provided to the MAAG, Mission, or attache on an automatic supply basis, predicated on previously determined student quotas. The MAAG, Mission or attache should maintain contact with the school so that packets are on hand. Under this system, as soon as the student has been selected, he could be provided with the packet. Properly prepared material in an attractive format has a decidedly favorable impact upon the foreign student, the importance of which cannot be overemphasized.

Language Proficiency

11. English language training is a key fact in the selection of foreign students for training in the United States, and such training is the responsibility of the country concerned. Language laboratories, provided in all countries and funded through the Military Assistance Program (MAP), are normally staffed and operated by the host country. Comprehension tests are administered by the MAAG or Mission, or by the attache in countries where there is no MAP. These tests must be effectively administered to insure that only students with a proper degree of language comprehension enter training in the United States. Those who lack comprehension become problems requiring additional time and attention on the part of the staff and faculty of a school.

12. To improve their language facility and comprehension, some foreign students are sent to the English Language School at Lackland Air Force Base, a branch of the Defense Language Institute (DLI). Of 2,119 officers assigned to Army schools during FY 65, 146 went to the language school; 188 are programmed for FY 66. This is a costly procedure, made necessary by the failure of language training in the

countries concerned. Practically every school visited by the Board indicated that the primary difficulty with foreign students was a lack of language proficiency. Although these students might achieve a passing score on the English Comprehension Level Test, they are unable, in many cases, to keep pace with the US student. Schools are thus required to give pre-course training in the English language; provide written study guides and additional "out-of-class" instruction to keep the student up with the class; develop separate evaluation and testing procedures; and generally provide increased personal services over those normally furnished US personnel. Lack of English comprehension not only affects the student in a purely academic atmosphere, but also precludes his absorption within the social life of the military community. In many instances, it has resulted in the foreign officer becoming isolated, which is both discouraging and frustrating and negates a fundamental purpose of the program, which is to expose him to our institutions and traditions and to the characteristics of family life in the United States.

13. When the Defense Language Institute was established, it was assigned responsibility for administering the comprehension tests for foreign students. To provide timely data the Institute recently conducted a study during which a group visited 16 representative schools of the Army, Navy, Air Force and Marine Corps in the United States, and questionnaires were sent to 40 other US Service schools. English Language Comprehension (ELC) examinations were given to 380 foreign trainees from non-English speaking countries who were in residence at US Service schools, revealing that a substantial number of trainees had ELC scores below the minimum level required to comprehend adequately the technical or professional courses in which they were enrolled. Since it costs nearly 43 million dollars to bring approximately 15,000 foreign trainees to the US for technical or professional training each year, it follows that the program is not providing the effective return expected.

14. It becomes obvious, therefore, that the selection of foreign officers for training in the US is a matter of prime importance, and organizations responsible for administering tests should exercise a greater degree of accuracy and judgment as to the English language capability of the officer being considered. The various Comprehension Level Tests should be supplemented by requiring the officer being examined to read several paragraphs from appropriate field manuals and explain them in detail. This would reveal his comprehension of the language.

Quotas & Attendance

15. The attendance of foreign officers at our principal schools for FY 65 is tabulated in Figure D27-1. Over 1,000 officers attended various career courses, with the largest group, 80 officers, in the regular course at the Command and General Staff College. Additionally, over 1,100 foreign officers participated in specialist courses of varying types.

16. A total of over 1,400 foreign officers were enrolled in non-resident courses. These courses are important not only because they develop a student's military competence, but because they serve to maintain a continuous link with the branch school and contribute to the officer's comprehension of the language. The Board is of the opinion that all schools having non-resident courses should emphasize the value of this continuity of training to foreign students and encourage more active participation as a means of furthering their professional competence.

Programs of Instruction

17. Instruction in US Service schools and colleges is designed primarily to benefit US Army personnel. The instruction is conducted at a fast tempo and is geared to students having the same language and generally similar civilian and military educational background. The foreign officer, lacking a command of the language, and from a widely different civilian and military educational background, must be integrated into this program in a strange environment, with traditions, customs and habits far removed from his own.

18. In certain cases, course modifications must be made for foreign officers. In the career course of one branch school, for example, the program of instruction contains 209 hours of classified material that is not available to them. An analysis of the principal block of classified hours indicates 150 hours devoted to nuclear weapons employment. An alternate "sanitized" course on the same subject was scheduled for Allied officers, but included only 48 hours of instruction. The remaining 161 hours could have been used for special training for the foreign student.

19. There is also a considerable amount of time available in most courses, under the classification of "non-academic" subjects, for physical conditioning, open time, and Commandant's time. This practice is discussed in Annex D, Appendix 3. It is apparent to the Board that this time is often excessive, especially for foreign officers, and should be devoted to expanding existing instructional

FOREIGN OFFICERS IN ATTENDANCE AT ARMY SCHOOLS - FY 1965

SCHOOL OR COLLEGE	COURSE					
	BASIC	CAREER	ASSOCIATE CAREER	SPECIALIST	TOTAL RESIDENT	NON-RESIDENT
C&GSC	0	80	55	0	135	617
Infantry	23	24	77	86	210	128
Armor	15	21	28	82	146	39
Artillery & Missile	26	0	36	154	216	85
Air Defense	3	22	15	88	128	84
Engineer	30	57	0	72	159	1
Signal	0	25	16	71	112	0
SE Signal *	2	0	0	0	2	0
Women's Army Corps	0	3	0	0	3	0
Chemical	8	0	7	20	35	14
Ordnance	14	32	0	45	91	0
Quartermaster	4	12	18	72	106	99
Adjutant General	6	12	7	20	45	7
Transportation	4	15	2	20	41	74
Civil Affairs	0	0	0	39	39	5
Finance	7	12	3	56	78	39
Intelligence	0	0	0	46	46	2
Military Police	7	8	17	10	42	5
Chaplain	1	0	0	0	1	0
Medical Field Service	5	8	0	33	46	11
Veterinary	0	0	0	2	2	0
ALMC	0	25	15	43	83	12
Special Warfare	0	79	0	62	141	202
Army Management	0	1	0	0	1	0
Aviation	0	56	0	27	83	0
Combat Surveillance	0	0	0	4	4	0
OGMS	0	6	0	1	7	0
Primary Helicopter	0	45	22	0	67	0
AMETA	0	0	0	95	95	0
CBR Orientation	0	0	27	0	27	0
TOTALS	155	543	345	1148	2191	1424

* Conducts Basic Course only.

FIG. D27-1

areas or undertaking new subjects. Another area for exploration is the time devoted to subjects such as military justice, history, and writing. These subjects are, in many instances, of doubtful value to the foreign officer because of lack of English language comprehension or differing traditions and national customs. The foreign officer is generally highly motivated, literally "thirsts for knowledge," and applies himself in an effective manner. He recognizes the value of instruction and is willing to spend more time in acquiring essential knowledge and less time in non-academic subjects. The day-by-day scheduling of training for foreign students should be as painstakingly prescribed as for the US student. If it is not, the negative reaction on the foreign student may lead to acute frustration.

20. AR 551-5, subject, "Training of Foreign Nationals by the U. S. Army" establishes a special program for foreign military trainees. It provides for an informational program covering the significant facets of American life. The time allotted to this subject varies from 10 to 20 hours depending on the length of a course. The directive also suggests trips and visits of foreign students to local and state government offices and to meet heads of city, county and state governments. It further recommends trips to business establishments, banks, labor unions, schools, colleges, and various activities and institutions which are unique to our way of life. While this informational element of foreign officer orientation requires a certain amount of time, it can be conducted so as to be effective with a minimum loss of training.

21. The problem of providing foreign officers with additional training could be solved by careful study of the scheduling of classified units of instruction by the school. It may be possible to group these hours in large blocks, thus making the foreign students available for scheduled training in other important areas. Such a grouping could provide certain classified units during the first few weeks of training, thus making the foreign officer available for further orientation prior to undertaking the course.

22. In Appendix 26, the Board has proposed an elective system for officer career (advanced) courses in various schools. These electives should provide the opportunity for foreign students to select subjects which would be helpful in accomplishing their training objectives. They should be encouraged to take fundamental military subjects oriented toward their specific needs.

23. The time made available to foreign students could be used as follows:

- a. For further English language training.
- b. For additional training in communications, weapons, maintenance, and map reading. These are areas of weakness in the training of many foreign officers.
- c. For assigning officers to training centers, Strategic Army Force units, or school troops collocated at the same post for troop duty assignments comparable to their grades and experience. These military units are available in six of the major school centers where foreign students are being trained.

24. Additional observer and on-the-job training after a foreign officer has graduated from a prescribed course of instruction is extremely valuable. It takes the officer from the classroom to the field, provides the environment where he can apply learning to actual conditions and observe US officers performing routine duties such as maintenance, inspections, supervision of training, and other military functions. The Board considers that the maximum number of officers should be assigned to this type of training upon completion of their prescribed courses of instruction.

25. In Appendix 7, the Board has proposed a major reorganization of associate courses which would have an impact on their suitability for foreign students. These associate courses would be redesignated mobilization courses and, except during emergency periods, used to meet the needs of Reserve Component officers in an inactive duty status. Instruction would be provided in two increments of four to six weeks each and which could be taken without interval or a year apart and tied in with an intervening extension course program. These courses would have limited value to most foreign officers and would not provide the essential personal contact with active officers of our service. This change in associate course structure, if approved, could lead to increased attendance of foreign officers in the regular courses. A study of Figure D27-1 discloses that 345 foreign officers took associate career courses during FY 65. Except at the C&GSC, this load could be absorbed by the longer career courses. The Board is of the opinion that the allocation of 80 spaces for foreign officers in the regular course at the C&GSC should remain.

Foreign Student Relations

26. It is DOD policy not only to train military personnel to become more effective in their own right, but to develop and cement Free World friendship. This can be furthered by establishing and maintaining effective relationships between foreign students and the

US civilian and military communities. The points discussed below may not seem important to US personnel, but they are especially significant to the foreign officer, who has a strong national spirit, a deep sense of personal pride in the history and tradition of his own civilization, and a determination that his country shall contribute to Free World objectives. He is frequently sensitive to reactions of US military and civilian personnel in both his official and unofficial relationships. The areas in which these relationships can be improved are shown below.

27. Identification Booklet. During FY 65 approximately 9,000 foreign military personnel, more than half of them non-whites, were trained in various military installations in the United States. The Army should supply foreign students with a means of identification that will establish their status as members of the Armed Forces of their own country and as guests of the United States. An Identification Booklet similar in size, type and content to that used at the Armor School, and shown in Figure D27-2, should be developed to identify the foreign officer as to service, grade, status, and country of origin, and provide him with a source of ready information concerning a variety of activities. While the booklet is intended for use throughout the school system and might be prepared and published at DA level, incorporating some common material, the importance of data relating to a school's local environment indicates that it could best be prepared at the local level. Where schools are collocated at a single post, such as at Fort Lee and Fort Gordon, the booklet could be provided by the Center. The Board recommends that such a booklet be adopted for Army schools where foreign personnel are trained, funded where possible through local civic organizations or through the Commandants' Welfare Funds.

28. Record of Activities. The procedure of assigning a sponsoring officer and a faculty advisor to each foreign student is well-established in Army schools, and is being effectively implemented. Sponsoring officers should invite foreign officers to their homes for social visits and family meals, to religious services with family groups, and to participate in other activities of daily American life. They should make frequent visits during classroom breaks to inquire into progress and adjustment and offer advice or assistance, and should follow up through occasional correspondence, after the student returns to his country.

29. A record of foreign student and sponsor activities, filed by American hosts, would assist the Foreign Liaison Section in determining what extracurricular activities an officer had participated in and reveal whether sponsoring officers and other personnel were providing the necessary contacts and special activities. It would also

IDENTIFICATION BOOKLET



PRESENTED BY
LOUISVILLE
CHAMBER OF COMMERCE

**HEADQUARTERS THE U. S. ARMY
ARMOR SCHOOL**
OFFICE OF THE COMMANDANT
Ft. Knox, Kentucky

Welcome to the U. S. Army Armor School.

While your academic schedule will be a busy one, there will be free time when you will want to visit the nearby environs of the Fort, including the City of Louisville and other Kentucky communities. It is to this end that the Louisville Chamber of Commerce has so graciously prepared the following material to assist you.

We urge you to participate in as many civilian community endeavors as you can, in order to further enhance your knowledge of American cultural and social life. In becoming better acquainted with our civilian communities you will find this identification of great assistance; particularly in obtaining hotel accommodations, at State parks, restaurants, and other public places where you might feel strange. We trust that your frequent use of this means of introduction will result in the traditional extending of the hand of friendship on many occasions in the future.

Commandant
The U. S. Army Armor School

ISSUED TO

A CITIZEN OF

Student in The U. S. Army Armor School, Fort Knox, Kentucky

FORT KNOX ADDRESS

Phone

Photo

Allied Officer's Signature

ADDRESS

FIG. D27-2

disclose whether certain officers, because of their popularity or knowledge of English, were receiving a greater degree of attention than those less qualified. Many schools maintain only the normal required academic records, however, there is no Army-wide attempt to provide this additional information, which is important to carrying out the spirit of the program. Figure D27-3 is a proposed form for such a record which has been tested in a branch school and proven satisfactory. Upon conclusion of an officer's training, the card should be forwarded directly to the MAAG/Mission Chief or attache concerned, as an essential part of the follow-up on an officer after return to his country. All Army schools should be aware of the potential value of such a record.

FOREIGN STUDENT RECORD OF ACTIVITIES

RECORD OF ACTIVITIES		Name	Grade
		Country	Service
Date of Arrival:	Date of Departure:	Sponsor:	Class:
Date	Activity	Host	

FIG. D27-3

Special Insignia

30. Medals and other outward signs of recognition for military or civilian achievements are a traditional part of our civilization. Such awards are highly valued in foreign countries. The fact that an officer has been selected for training in the United States is an indication that his country has confidence in his professional qualifications and his political reliability. Graduation from one of our

AUTHORIZATION CERTIFICATE

US Army Armor School



Know ye by these presents that

is authorized to wear the

**US ARMY ARMOR SCHOOL FOREIGN
OFFICERS EMBLEM**

subject to the uniform regulations of his own government

In testimony whereof, and by authority vested in us, We do confer this attestation

Given at Fort Knox, Kentucky, this _____ day of _____

Lieutenant Colonel, Armor
Chief, Foreign Liaison

ATTEST:

Lieutenant Colonel, Armor
Secretary

FIG. D27-4

Army schools or colleges is a matter of prestige, and a graduate should carry with him an outward sign of achievement as well as a diploma. Pocket insignia, such as those worn by US officers to indicate various types of staff assignments, would appear a suitable form of recognition. The emblem recently adopted by the Command and General Staff College and the one used at the Armor School for the past several years, shown below, are considered appropriate.

FOREIGN OFFICER DEVICES

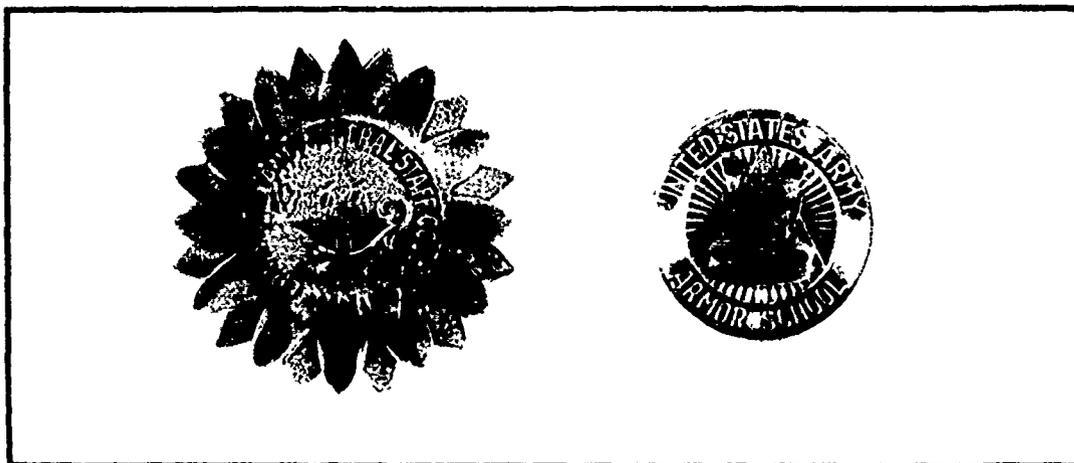


FIG. D27-5

A survey should be made to determine the types of devices and Certificates of Authorization now awarded foreign students throughout the Army school system. Based upon the data thus assembled, the Board proposes that:

- a. An emblem similar to that described above be devised for all foreign students graduating from US Army schools.
- b. A common outer design be used for all schools, modified by an inner design to denote school identification.
- c. Two emblems, with a Certificate of Authorization, should be provided to each student. Costs are appropriate charges against "Course Costs of Training Foreign Nationals" as provided for in AR 551-50. A sample certificate is shown at Figure D27-4.

CONCLUSIONS

31. Improved liaison should be established between the schools and the MAAG's, Missions and attaches to insure that sufficient orientation material is on hand at all times for in-country distribution to foreign students as soon as selected. The orientation material should be reviewed by Department of the Army and, where appropriate, selected publications should be produced at that level.

32. Every effort should be made to improve the language capabilities of foreign students so as to increase their ability to absorb instruction.

33. Schools should adopt a vigorous approach in encouraging foreign students to participate in the non-resident instruction program.

34. Programs of instruction should be carefully reviewed to insure that effective use is made of non-academic hours and hours devoted to classified and other subjects inappropriate to foreign students. They should be encouraged to participate in the elective program and to take subjects oriented toward the specific military needs of their respective countries.

35. The Mobilization Courses proposed elsewhere by the Board have not been designed with the foreign student in mind and hence may be of limited value to him. If the proposed Mobilization Courses are adopted in place of Associate Courses, increased quotas for Regular Courses should be offered to foreign students. As an exception, no increase in the current quota of 80 foreign officers at the Command and General Staff College Regular Course should be allocated.

36. Foreign officers should be provided Identification Booklets to assist them during their tour of duty in the United States.

37. A record of other than military activities should be maintained for each officer and forwarded to the MAAG, Mission or attache in his native country upon the graduation of the officer.

38. A special medal or device of uniform design with appropriate certificate should be developed for foreign officers and presented to each student upon graduation from a course at a US Army school.

ANNEX D

ANALYSIS OF CURRENT ARMY SYSTEM OF OFFICER SCHOOLING

APPENDIX 28

REVISION OF AR 350-5

PURPOSE AND SCOPE

1. This appendix analyzes the present Army Regulation 350-5, "Military Education and Service Schools," and provides the basis for a recommended revision.

BACKGROUND

2. The introduction to Annex B points out that AR 350-5 is the vehicle for expressing the educational and organizational philosophy of the Army school system, and that any major change in that philosophy should be reflected in it.

3. Annex D, Appendices 2 through 6, analyze in detail the different types and levels of Army schools and courses, while Appendix 21 analyzes alternative organizational patterns for the Army school system as a whole.

DISCUSSION

General

4. The ensuing discussion refers directly to the proposed revision of AR 350-5, which appears at the end of Section VI in Volume I.

Purpose and Scope

5. This paragraph is relatively unchanged from the current revision, except for the addition of Defense schools. The term "schools" is interpreted as including colleges.

Definitions

6. This paragraph has been expanded considerably, to define the different types of schooling, courses, and schools. The administrative definitions of "academic year," "school faculty," "school staff," and "school or demonstration troops" have been deleted as being more properly contained in the administrative directives published by operating headquarters.

7. The present confusion of terminology concerning "career course" has been resolved by defining this term as any one of the four sequential officer courses, and terming the second level of these courses the "advanced" course, as recommended in Appendix 3.

8. The term "functional course" has been deleted as a source of confusion. All non-career courses, whether MOS-awarding or not, are termed "specialist courses."

9. The term "mobilization course," in lieu of the current associate course, reflects both a new name and a new philosophy (See Appendix 7).

10. The term "orientation course" provides a common name for what are now variously referred to as orientation, familiarization, and indoctrination courses.

11. Formalized definitions of the types of Army schools have been provided to eliminate confusion of terminology particularly of branch and specialist schools which are currently treated in the same paragraph without differentiation. Definitions of the Service, inter-Service, joint, and Defense schools or courses are taken from current joint definitions, as amended by the recommendations of Appendix 20. As a result of the definition of Service schools, the title of the regulation has been changed to delete "Service."

Staff and Command Responsibilities

12. Responsibilities for Army schools are presently scattered in AR 10-5, AR 10-7, AR 350-5, AR 350-219, and other documents. Schools are currently assigned to "proponents," except that the Commanding General, United States Continental Army Command, is considered both a proponent and a commander. All schools except USCONARC schools are presently designated as Department of the Army schools, although assigned to five different proponents. There is also some overlap in currently assigned functions between the CG, USCONARC and The Surgeon General.

13. The proposed revision assigns staff and command responsibilities separately, and restricts the use of the word "proponent" to schools which are responsible for common subjects. The Chief, Office of Reserve Components, is given overall staff responsibility for education and training of all individuals and units not on active duty; and the Deputy Chief of Staff for Personnel (DCSPER) is given responsibility for education and training of all individuals on active duty. In addition, DCSPER's responsibilities for supervision of the US Military Academy and its Preparatory School, the Defense Language Institute and the Defense Information School are delineated. The Surgeon General, as a Department of the Army special staff officer, is given staff responsibilities for medical training as well as command direction over medical schools.

14. Major commands and The Surgeon General are assigned command of the Army schools not under DCSPER, in accordance with the recommendations of Appendix 21. It will be noted that this assignment of responsibility reflects the following:

- a. Placing the new Army Command and Staff Center (AC&SC) and the Army War College (AWC) under US Army Combat Developments Command (CDC).
- b. Consolidating the Joint Military Packaging Training Center, US Army Logistics Management Center, US Army Management School, and US Army Management Engineering Training Agency into a single Army Resources Management Institute under USAMC (See Appendix 13).
- c. Eliminating the US Army CBR Weapons Orientation course as a separate entity (See Appendix 15).
- d. Placing the US Army Security Agency School under USCONARC.
- e. Placing the Judge Advocate General's School, US Army, under USCONARC and redesignating it the US Army Judge Advocate General School.
- f. Making The Surgeon General completely responsible for the US Army Medical Field Service School and the US Army Medical Service Veterinary School.

Army School System

15. The importance and purpose of the Army school system have been restated from the present importance and "mission" statements. The chief differences are in the deletion of the statement that the

emphasis is on the art of leadership as this holds true only for branch schools; and the addition of the statement that there are other means of training. This last statement was recommended by the Williams Board, but not adopted.

16. The current regulation does not provide parallel statements of missions, objectives, or purposes. The proposed regulation provides for an overall purpose of a school system or sub-system, which is translated into a mission for a specific school; in accomplishing their missions schools perform functions (which include the conduct of specified courses); while objectives are assigned to specific courses. In the case of the Command and General Staff College (C&GSC) and the AWC, specific missions and course objectives have been assigned in the regulation itself. For branch and specialist schools, the proposed regulation assigns only overall purposes and requires that the appropriate headquarters make specific statements of school missions and course objectives.

17. The functions which all schools perform have been combined in a single paragraph rather than repeated under each type of school. Schools, or centers, will command local elements under CDC rather than maintain liaison with them as at present (See Appendix 21).

18. The AWC mission has been restated in accordance with the recommendations of Appendix 5, to include development of concepts and doctrine at theater army level. A name has been given to the hitherto unnamed resident course, and the additional responsibility of conducting nonresident instruction has been assigned.

19. The C&GSC's mission has been restated in accordance with the recommendations of Appendix 4, with doctrinal participation increased to army group level and expansion of subject matter in the resident course to include Department of the Army and major Army commands, as well as the Army in the field. The associate course has been replaced by a mobilization course, for Reserve Component and some foreign officers.

20. Branch schools are assigned a purpose, and given specific functions to accomplish that purpose. These may include conducting a basic course (the purpose of which is as recommended in Appendix 2), an advanced course (See Appendix 3), a mobilization advanced course (See Appendix 7), and other courses as before. All Active Army officers will attend a single advanced course as proposed by the Williams Board and Appendix 7.

21. Specialist schools are given a generalized purpose of conducting non-career-type courses which are not more appropriately conducted at a branch school.

22. Nonresident instruction and US Army Reserve Schools are treated in substantially the same manner as in the current version of the regulation, except that references to a USCONARC training directive have been deleted.

Education Leading to Commission

23. This section remains basically unchanged from the current regulation, although it has been rephrased.

Other Schools

24. This section is basically unchanged from the current regulation, except for deleting the detailed statement on administrative procedures to be followed in programming students.

Selection and Recognition of Students

25. This section contains the service criteria for officer career courses previously indicated graphically in the regulation, as amended by the recommendations of Appendix 8; as well as information on categories of personnel authorized to attend Army schools and the recognition to be accorded graduates, as contained in the present regulation. Use of an annotated DA Form (Record of Training) for non-graduates has been discontinued as serving no useful purpose.

General

26. Separate reference to officer and enlisted education and training has been eliminated, as a reflection of the fact that the two categories of personnel normally receive their schooling from the same facilities and use the same facilities.

CONCLUSIONS

27. The current AR 350-5 should be revised to reflect the recommendations set forth in the preceding appendices.

28. The proposed revision which follows should be adopted.

Army Regulation

No. 350-5

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C.EDUCATION AND TRAINING
MILITARY EDUCATION AND SCHOOLS

Section		Paragraph	Page
I.	GENERAL		
	Scope	1	
	Definitions	2	
	Staff responsibilities	3	
	Command responsibilities	4	
II.	ARMY SCHOOL SYSTEM		
	Importance	5	
	Purpose	6	
	Functions	7	
	US Army War College	8	
	US Army Command and General Staff College	9	
	US Army Resources Management Institute	10	
	Branch schools	11	
	Specialist schools	12	
	US Army Reserve schools	13	
	Nonresident instruction	14	
III.	EDUCATION LEADING TO COMMISSION		
	US Military Academy	15	
	Officer Candidate Schools	16	
	National Guard officer candidate training	17	
	Reserve Officers' Training Corps	18	
IV.	OTHER SCHOOLS		
	Schools of other military Services	19	
	Joint colleges	20	
	Schools of foreign nations	21	
	Civilian institutions	22	
V.	SELECTION AND RECOGNITION OF STUDENTS		
	General	23	
	Officer career schooling	24	
	Prerequisites for career schooling	25	
	Diplomas and certificates	26	
	School notations	27	

Appendix I. USCONARC SCHOOLS

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825

SECTION I. GENERAL

1. Scope. This regulation describes the US Army school system and establishes general provisions governing the military education and individual training of all components of the Army in Defense, joint, and Army schools; schools of other Services and of other nations; and civilian institutions.

2. Definitions.

a. Military education. Individual instruction given to military personnel without regard to the student's assignment or specialty.

b. Individual training. Individual instruction and supervised practice given for the purpose of providing the student with a particular skill or specialty.

c. Schooling. Individual training or education received at an educational institution, military or civilian.

d. Course. A complete series of instructional periods identified by a common title or number.

e. Career course. One of four sequential courses which prepare an Army officer for the general demands of progressive career phases: officer basic course, officer advanced course, command and general staff officer course, and the Army War College resident course.

f. Specialist course. A course given for the purpose of preparing the student for immediate utilization in a particular skill or specialty. Successful completion of a specialist course normally results in the award of an MOS.

g. Mobilization course. A course which contains the minimum fundamental instruction required to insure the student's effective performance in wartime in a particular skill, specialty, or area of professional responsibility. Mobilization courses are utilized by the Reserve Components in peacetime and by all components during mobilization.

h. Refresher course. A course given for the purpose of bringing the student up to date on recent developments or changes in an area of knowledge in which the student has had previous experience or schooling.

i. Orientation course. A course given for the purpose of familiarizing the student with a particular area of knowledge, technique, or materiel.

j. Army school. An educational institution authorized by Headquarters, Department of the Army. With the exception of the US Military Academy, Army schools are classified as Army colleges, branch schools, or specialist schools.

(1) Army college. Either of the two Army schools which present the two highest levels of career courses: the US Army War College and the US Army Command and General Staff College.

(2) Branch school. An Army school which conducts an officer basic and/or advanced course. By reason of its close identification with a branch, the Medical Service Veterinary School is also considered a branch school.

(3) Specialist school. An Army school which does not conduct any officer career course. The Medical Service Veterinary School is an exception by reason of its close identification with a branch. Joint and Defense schools operated by the Army are specialist schools.

k. Proponent. A school which has been assigned responsibility for developing and reviewing instructional material which is primary to its area of academic interest but which is also presented at one or more other schools.

l. Service school or course. A school or course which presents a curriculum developed and approved by a Service to meet a military education and training requirement of that Service.

m. Inter-Service school or course. A school or course utilized by two or more Services/agencies that is administered by a coordinating Service/agency and which presents a curriculum developed in coordination with the participating (using) Services and approved by the coordinating Service.

n. Joint school or course. A school or course utilized by two or more Services that has a joint faculty, and a Director (Commandant) who rotates among the Services and is responsible, under the direction of the Joint Chiefs of Staff, for the development and administration of the curriculum.

o. Defense school or course. A school or course utilized by two or more Services that is administered by a coordinating Service/

agency and which presents a curriculum developed under the policy guidance and approval authority of an agency/element of the Office of the Secretary of Defense.

3. Staff responsibilities.

a. Headquarters, Department of the Army. The Headquarters, Department of the Army, formulates the overall policy governing the military education and training of the Army.

b. Chief, Office of Reserve Components. The Chief, Office of Reserve Components, has general staff responsibility for supervision of military education and training concepts, policies, and programs for individuals and units of the Reserve Components not on active duty, to include the Reserve Officers' Training Corps.

c. Deputy Chief of Staff for Personnel. The Deputy Chief of Staff for Personnel:

(1) Has general staff responsibility for supervision of military education and individual training concepts, policies, and programs for individuals on active duty.

(2) Is responsible for the direction, control, approval of curricula, and operations of the US Military Academy and the US Military Academy Preparatory School.

(3) Is responsible for the operation of the Defense Language Institute and the Defense Information School.

(4) Supervises the Office of Personnel Operations and The Surgeon General in the allocation of quotas for officer career courses and enlisted MOS-producing courses; and The Adjutant General in the allocation of quotas for officer candidate courses.

(5) Formulates the policy governing the general educational development of Army personnel on active duty, and supervises The Adjutant General in monitoring the General Educational Development Program. See AR 621-5.

d. The Surgeon General. The Surgeon General, under the general staff supervision of the Deputy Chief of Staff for Personnel:

(1) Allocates quotas for officer career courses and enlisted MOS-producing courses conducted by the schools under his command.

(2) Is responsible for medical professional training for the Army.

(3) Exercises overall supervision of education and training of commissioned officers of the Army Medical Service.

4. Command Responsibilities.

a. General. Command of schools entails direct supervision and control of all aspects of school operation within overall Department of the Army policies, to include:

(1) Furnishing personnel, funds, facilities, and other resources for required support.

(2) Providing and maintaining a faculty that is adequate in quantity and quality.

(3) Programming training requirements; allocating quotas other than for officer career courses, officer candidate courses, and enlisted MOS-producing courses; scheduling classes; and publishing a consolidated schedule of classes.

(4) Providing doctrinal guidance.

(5) Reviewing and approving programs of instruction.

b. US Continental Army Command (USCONARC). The Commanding General, USCONARC:

(1) Commands the Army schools listed in Appendix I.

(2) Through the continental armies, commands the US Army Reserve Schools.

(3) Designates appropriate schools under his command as proponents for common subjects and common elective programs.

c. US Army Combat Developments Command (USACDC). The Commanding General, USACDC:

(1) Commands the US Army War College and the US Army Command and Staff Center.

(2) Monitors Army instruction presented at the staff and war colleges of the other Services, to insure conformity with Army doctrine.

d. US Army Materiel Command (USAMC). The Commanding General USAMC commands the US Army Resources Management Institute.

e. The Surgeon General. The Surgeon General commands the US Army Medical Field Service School and the US Army Medical Service Veterinary School.

SECTION II. ARMY SCHOOL SYSTEM

5. Importance. The Army school system is second in importance only to the troop units which are the fighting strength of the US Army. It is the principal means of individual education and training for all Army personnel. It is, however, not the only means; military personnel also learn from troop duty, on-the-job training, individual study, information programs, and precepts acquired from their commanders. A balance between methods will be maintained to insure that school courses are not assigned objectives which can better be accomplished by other means.

6. Purpose. The purpose of the Army school system is to prepare selected individuals of all components of the Army to perform those duties which they may be called upon to carry out in war or in peace, to conduct research, to participate in the formulation of military doctrine, and to promote the highest standards of professional military competence.

7. Functions. All schools, or school centers where so designated, will perform the following functions:

a. Procure, train, and provide administrative and logistical support of a staff and faculty and all other units or personnel assigned or attached to the school for duty.

b. Provide administrative and logistical support of all students of the school.

c. Procure, maintain, and operate adequate housing, academic buildings, equipment, training areas, aids, devices, and other facilities, including a printing plant, library, and museum when authorized.

d. Develop instruction in assigned areas of responsibility, to include the conduct of research and the development of procedures, duties, and techniques for the application of approved doctrine, as directed.

e. Prepare, conduct, and administer resident and nonresident courses of instruction, as directed. This will include, when appropriate, the development, reproduction or manufacture, and dissemination of instructional material, training aids, small development requirements for training aids and literature, films, locally fabricated devices, Army graphic training aids, Army training programs, Army subject schedules, Army training tests, MOS evaluation test items and qualification scores, field manuals, technical manuals, and equipment publications.

f. Provide training and support to ROTC and NDCC programs, National Guard units, USAR units, and other training activities as directed.

g. Maintain liaison with local elements of the US Army Materiel Command.

h. Command local elements of the US Army Combat Developments Command, where appropriate.

i. Participate as directed in the development and review of doctrine, organization, and equipment for which responsibility has been assigned. This includes participation in the development of training plans and programs in support of new items of materiel, new organizations, or new tactical and technical concepts.

j. Review, evaluate, and coordinate doctrine, tactics, and techniques prepared by other Army agencies or other military Services, as directed.

k. If designated as a proponent for an instructional area, develop, distribute, review, and up-date pertinent instructional packets for other schools as directed.

l. Provide effective public and military information programs. This includes, when authorized by the Department of the Army, the production and publication of a periodical for the appropriate dissemination of information on new doctrine, tactics, techniques, and materiel.

m. Prepare and maintain long range, emergency, and mobilization plans.

n. Perform such other functions as may be directed.

8. US Army War College .

a. Mission. The mission of the US Army War College is to provide resident and nonresident instruction for senior officers of the Army and other Services in the exercise of command and in the execution of key staff responsibilities at major military and departmental headquarters; to advance the art and science of land warfare in the joint and combined environment; to develop concepts and doctrine for theater Army operations; and to assist in development of Army concepts for terraspatial operations.

b. Functions. In accomplishing this mission, the US Army War College will:

(1) Conduct an Army War College resident course, the objective of which is to enhance the competence of selected officers, with high general officer potential, to assume command responsibilities and to function in key staff assignments in major Army, joint, and combined headquarters and in planning and policy-making positions at the seat of government; to stress Army doctrine and operations against an appropriate background of national strategy and the joint and international environment; and to provide intellectual challenge and an opportunity for individual contribution to the advancement of the art and science of land warfare through student research.

(2) Conduct an orientation course for selected senior officers of the Reserve Components.

(3) Conduct nonresident courses as directed.

9. US Army Command and General Staff College.

a. Mission. The mission of the US Army Command and General Staff College is to provide resident and nonresident instruction for officers of all components of the Army and selected officers from other Services and other countries in the exercise of combined arms command and the functions of the general staff, with emphasis on the Army in the field; to advance military art and science through faculty and student research; and to participate in the development of concepts and doctrine for the operation of Army forces from division through army group.

b. Functions. In accomplishing this mission, the US Army Command and General Staff College will:

(1) Conduct the following resident courses:

(a) Command and general staff officer course, to prepare selected officers for duty as commanders and as principal staff officers with the Army in the field from division through army

group, and at field army support command and theater army support command; to provide these officers with an understanding of the functions of the Army General Staff and of major Army, joint, and combined commands; and to develop their intellectual depth and analytical ability.

(b) Mobilization general staff officer course, to prepare officers of the Reserve Components not on active duty and selected foreign officers for duty as general staff officers, with primary emphasis on the Army in the field (i.e. division through army group, and their combat service support systems) and Army participation in joint and combined operations.

(c) Officer refresher - combat division, to provide refresher training as a unit to commanders and staffs of the Reserve Component armored, mechanized, and infantry divisions, separate brigades, and such other major units as may be designated.

(d) Officer refresher - support command, to provide refresher training as a unit to commanders and staffs of Army Reserve support commands and such other major units as may be designated, to include the principles and techniques of combat service support provided by a communications zone for one or more field armies.

(e) Foreign officer preparatory courses, as required to prepare foreign students for the resident general staff officer courses, and to orient them on the customs and people of the United States.

(2) Conduct nonresident courses as directed.

(3) Act as proponent for progressive elective programs as directed by Department of the Army.

10. US Army Resources Management Institute .

a. Mission. The mission of the US Army Resources Management Institute is to provide resident and nonresident instruction for military and civilian personnel in the functional areas of producer logistics, installation operations, skills and techniques of military management, and equipment preservation, packaging, and transport; to conduct research and develop doctrine in these areas; and to provide associated training materials and services as directed.

b. Functions. In accomplishing this mission, the US Army Resources Management Institute will:

(1) Conduct resident and non-resident courses of instruction for military and civilian personnel in the following areas, as directed:

(a) Producer logistics, to include research and development management, procurement, specification and quality control aspects of production, international logistics, and resource, materiel, and installation management.

(b) Management engineering, practices, and techniques.

(c) Preserving, packaging, packing, and transporting of military supplies and equipment.

(2) Monitor Army instruction presented at the Air Force Institute of Technology, to insure conformity with Army doctrine.

11. Branch schools.

a. Mission. The purposes of Army branch schools are to prepare all officers of the branch and other selected officer and enlisted personnel to perform those duties which they may be called upon to carry out in war and peace, with emphasis on the art of leadership; to develop and stimulate the standards of performance for instruction and training in all administrative, technical, managerial, staff, or command functions of the branch; to conduct research; and to participate in the formulation of doctrine and the development of procedures, tactics, and techniques for the application of approved doctrine in the operation and training of branch units or other units as directed. These purposes will be incorporated into specific mission statements for each branch school by USCONARC, or where applicable by The Surgeon General.

b. Functions. In accomplishing their assigned missions, branch schools will:

(1) Conduct resident, branch-oriented career courses for officers as directed, including one or more of the following:

(a) Officer basic course, to prepare newly commissioned officers for their first duty assignments; to instill in them a feeling of dignity and confidence, and a sense of duty and obligation for service. Emphasis will be on leadership and on the fundamentals, weapons, equipment, and techniques required at company/battery level. Practical work will be stressed and there will be a minimum of theoretical instruction. A specific statement of the course objectives at each school will be made by USCONARC or The Surgeon General.

(b) Officer mobilization basic course, to prepare officers of the Reserve Components not on active duty for duty assignments at the company/battery level.

(c) Officer advanced course, to prepare officers for command and staff duties at battalion through brigade or comparable levels in both divisional and non-divisional units, with emphasis on the exercise of command at battalion level. Where such command is not applicable, instruction will be directed toward an understanding of command functions, branch responsibilities for command support, and development of managerial and specialist skills. In all cases the course will include instruction in general staff functions and sufficient instruction in division and higher level organization and operations to provide branch perspective and to orient students in activities pertinent to their branch. Elective subjects will be included in the curriculum to provide individual challenge and stress military skills. A specific statement of the course objectives at each school will be made by USCONARC or The Surgeon General.

(d) Officer mobilization advanced course, to prepare officers of the Reserve Components not on active duty for branch command and staff duties at battalion through brigade or comparable levels in both divisional and non-divisional units.

(2) Conduct resident specialist, refresher, and orientation courses for officer and enlisted personnel as directed.

(3) Conduct officer candidate courses as directed.

(4) Be prepared to conduct mobilization versions of resident courses as directed.

(5) Conduct nonresident courses as directed.

12. Specialist schools. The purpose of specialist schools is to present specialist, refresher, and orientation courses for officers and enlisted personnel of all components of the Army and of other Services and nations, where such instruction is not more appropriately conducted at a branch school. This purpose will be restated as a mission for each specialist school by the appropriate commander, and objectives will be specified for each specialist course presented. Courses will be reviewed continuously to insure that they are in fact preparing the students for a particular skill or specialty, that the students require the instruction for their current or next assignment, and that the material presented cannot more properly be incorporated into existing courses at a branch school.

13. US Army Reserve Schools. The US Army Reserve Schools are established and administered by the CG, USCONARC to prepare officers and enlisted personnel of the Reserve Components to perform duties which they may be called upon to perform in time of an emergency. See AR 140-305.

14. Nonresident instruction. Nonresident programs of instruction are conducted by Army schools to provide a means for personnel of all components of the Army to obtain or further their military education, in order to perform effectively those duties which they may be called upon to carry out in peace or war; to provide the basis for the award of point credits under various retirement programs for Reserve Component personnel; and to provide training and education which must be completed as a condition for promotion of Reserve Component personnel not on active duty. See AR 350-60 and DA Pamphlet 350-60.

SECTION III. EDUCATION LEADING TO COMMISSION

15. US Military Academy.

a. Mission. The mission of the US 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 career as an officer of the Regular Army.

b. Supervision and control. The US Military Academy is under the immediate supervision and control of the Department of the Army, exercised through the Superintendent, in whom is vested the immediate government and military command of the US Military Academy.

c. Curriculum. Courses will include academic education and military training covering a period of four years and will be of scope and content as determined by the Department of the Army upon the recommendation of the Superintendent. In general, courses of instruction and training will be designed to develop the character and the personal attributes essential to an officer, to provide a broad collegiate education in the arts and sciences leading to the bachelor of science degree, and to provide a broad basic military education.

16. Officer Candidate Schools. Officer candidate schools are conducted by designated branch schools under the command of CG, USCONARC to prepare selected individuals for appointment as commissioned officers in the US Army Reserve and for duty as second lieutenants in the US Army. See AR 350-50, AR 140-50, and AR 601-226.

17. National Guard officer candidate training. Operation of officer candidate programs for the National Guard is governed by the provisions of National Guard Regulation 46.

18. Reserve Officers' Training Corps.

a. The Reserve Officers' Training Corps (ROTC) Program is conducted in four-year degree granting institutions and military junior colleges, and offers the opportunity for college students to obtain a commission upon graduation.

b. See AR 145-5 and AR 145-350.

SECTION IV. OTHER SCHOOLS

19. Schools of other military Services. To promote interservice understanding or to acquire a skill or specialty not taught in Army schools, selected officers and enlisted personnel will attend schools and courses under the control of the other US military Services.

20. Joint colleges. Selected officers will attend the joint colleges to prepare them for the exercise of joint, high-level policy, command and staff functions, and the performance of strategic planning duties. See AR 350-101.

21. Schools of foreign nations. Selected officers will pursue courses of instruction at schools of foreign nations on an invitational basis to broaden their experience by a close relationship with the language, techniques, and staff procedures of other armies.

22. Civilian institutions. Selected officers and enlisted personnel may receive training in civilian educational, commercial, or industrial institutions when such training is not available in Army schools or schools of the other military Services. See AR 350-200.

SECTION V. SELECTION AND RECOGNITION OF STUDENTS

23. General.

a. The following categories of personnel are eligible to attend Army schools:

(1) Active Army personnel.

(2) Active duty military personnel of other US military Services.

(3) Personnel of the Reserve Components of all US military Services.

(4) Military students from nations participating in the Military Assistance Program or from other friendly nations, when such training is determined to be in the best interests of the United States.

(5) Civilian personnel employed by the US military Services and by other US Government agencies.

(6) Civilian personnel of industrial or research organizations under contract to the US Government when such training is not otherwise available and is considered by contracting agencies to be essential for fulfillment of the contract.

b. Detailed policies governing the selection and assignment of personnel to schools or courses are contained in AR 350-2, AR 611-215, DA Pamphlet 20-21, DA Pamphlet 600-3, and other regulations of the 350, 601, and 611 series.

24. Officer career schooling.

a. Officer basic course. As soon as possible after entry on active duty newly commissioned officers, except graduates of officer candidate schools, will attend the basic course of their duty branch. For Regular Army officers the course length will be six weeks (five for Infantry officers) plus eight weeks of Ranger training. For non-Regular Army officers the length of the basic course will not exceed nine weeks, and Ranger training will not be required.

b. Officer advanced course. Between the fourth and ninth years of service where possible, all officers will attend the advanced course of their branch for a period not to exceed one academic year. Except in special cases, such as the Army Medical Corps, only captains will attend the advanced course.

c. Command and general staff officer course. Between the ninth and fifteenth years of service, selected lieutenant colonels and majors will attend the command and general staff course or its equivalent for a period not to exceed one academic year.

d. Army War College resident course. Between the fifteenth and twenty-third years of service, selected colonels and lieutenant

colonels will attend the Army War College resident course or its equivalent for a period not to exceed one academic year.

25. Prerequisites for career schooling.

a. Officer career schools are normally sequential, i.e. successful completion of one level of schooling is a prerequisite for attendance at the next higher level. This requirement may be waived in special cases.

b. Prerequisites for completion of resident and/or non-resident career courses by officers of the Reserve Components will approximate those for officers of the Active Army, but may be adjusted by the Chief, Office of Reserve Components, in coordination with the Deputy Chief of Staff for Personnel.

26. Diplomas and certificates. Diplomas will be issued to all students upon successful completion of resident and nonresident school courses of three or more weeks' duration. Certificates of completion will be issued for successful completion of courses of less than three weeks. Diplomas and certificates will be issued to foreign students in accordance with AR 551-50. Equivalent knowledge diplomas may be issued at the discretion of the commandant to instructors or staff members of Army schools and to other military personnel when equivalent knowledge has been demonstrated by tests or other appropriate means.

27. School notations.

a. Officer. Notations will be entered in appropriate personnel records and in the Army Register for officers who have successfully graduated from joint colleges, colleges of other Services or nations, Army colleges, advanced courses, the US Military Academy, and civilian colleges or universities when a degree is given.

b. Enlisted. Notations will be entered on DA Form 20 and certificates of discharge for enlisted personnel to indicate satisfactory completion of those courses of instruction for which diplomas or certificates of completion were issued. Notations will record proficiencies attained in military occupational specialities and will be made for attendance during current or previous enlistment.

APPENDIX I

USCONARC SCHOOLS

Branch schools

US Army Adjutant General School
US Army Air Defense School
US Army Armor School
US Army Artillery and Missile School
US Army Chaplain School
US Army Chemical School
US Army Engineer School
US Army Finance School
US Army Infantry School
US Army Intelligence School
US Army Judge Advocate General School
US Army Military Police School
US Army Ordnance School
US Army Quartermaster School
US Army Security Agency School
US Army Signal School
US Army Southeastern Signal School
US Army Transportation School
US Women's Army Corps School

Specialist schools

US Army Aviation School
US Army Civil Affairs School
US Army Combat Surveillance School
US Army Missile and Munitions School
US Army Primary Helicopter School
US Army Special Warfare School