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THE TIMING OF COMBINED ARMS AND SERVICES STAFF SCHOOL
ATTENDANCE IN THE OFFICER CAREER PATH

A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ARTS AND SCIENCE

by

JOHN M. FRIEDSON, MAJ, USA
B.A., University of Bridgeport, Connecticut, 1979

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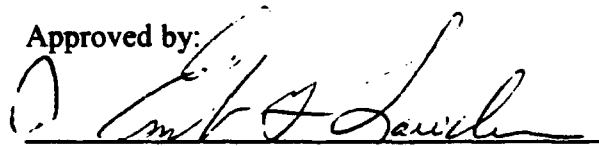


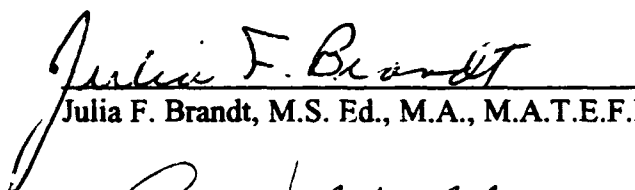
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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

**THE TIMING OF COMBINED ARMS AND SERVICES STAFF SCHOOL (CAS³)
ATTENDANCE IN THE OFFICER CAREER PATH by MAJ John M. Friedson,
USA, 256 pages.**

This thesis examines the timing of U.S. Army active duty officers at the Combined Arms and Services Staff School (CAS³). It reviews the purpose of CAS³ and the current timing of attendance, and compares them with statistical evidence on when officers are first assigned to staff positions, and on when the skills taught by CAS³ are first required.

This thesis finds that for officers on active duty, the primary purpose of CAS³ is to train Captains for staff positions at Battalion, Brigade, and Division. It also finds that most Captains serve on staffs before they attend CAS³. As a result, the majority of first essential need for CAS³-taught skills is being experienced before attendance at the course. Therefore, CAS³ currently does more to develop and refine skills than to teach new ones. Finally, the thesis finds that the current method of scheduling CAS³ is a burden on units in the field and on CAS³ students.

This thesis makes the recommendation to send officers from their Branch School's Officer Advanced Courses to CAS³ on a Temporary-Duty-and-Return basis. It also points to several areas of future research required to make such a change to the timing of CAS³ attendance.

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TABLE OF CONTENTS

APPROVAL PAGE	ii
ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
LIST OF ILLUSTRATIONS	vii
LIST OF ABBREVIATIONS	xii
CHAPTER I. INTRODUCTION TO THE STUDY	1
Background	1
Officer Advanced Course (OAC)	2
Command And General Staff College (CGSC)	2
CAS³ Purpose and Intent.	2
Problem Statement	5
Purpose	5
Research Questions	5
Significance Of The Study	6
Assumptions	6
Limitations	7
Delimitations	7
Scope	7
Operational Definitions	7
Summary	8
CHAPTER II. SURVEY OF THE LITERATURE	10
Literature Review	10
An Early Review On Timing	10
An Unpublished History	11
Recent External Evaluations	12
The CAS³ Linkage Study	14
Post Cold-War CAS³ Study Group (In Progress)	17
General Officer And Major Command Comments On Timing	18
Summary	19
CHAPTER III. METHODOLOGY	22

Research Design	22
Data Collection	23
The Link To Previous Studies	23
Data From This Study	23
Summary	28
CHAPTER IV. ANALYSIS	30
Demographics	30
Significance	31
Summary	101
CHAPTER V. CONCLUSIONS AND RECOMMENDATION	103
Conclusions	103
The Purpose Of CAS ³	103
CAS ³ -Taught Skills Are Increasingly Needed After 2 Years AFCS	105
Officers Should Attend CAS ³ Immediately After Their Advanced Course	107
Recommendations	109
Topics For Further Study.	110
Reduction Of The CAS ³ Officer Backlog	110
Adjusting Course Content To The Needs Of More Junior Officers	110
ANNEX A. SURVEYS	114
ANNEX B. PROGRAMMING	146
ANNEX C. STATISTICS	174
BIBLIOGRAPHY	253
INITIAL DISTRIBUTION LIST	255

LIST OF ILLUSTRATIONS

TABLES

Table 1. CAS ³ Graduates 1982-1986 Experience As Staff Officers As Of 1987	4
Table 2. CAS ³ Students As Staff Officers At Battalion, Brigade, And Division	5
Table 3. Revisions Proposed By The CAS ³ Study Group To Cas ³ Training Objectives	17
Table 4. Cross-Tabs And Significance	32
Table 5. 1990 External Evaluation Survey Population	34
Table 6. 1992 Survey Population (N)	35
Table 7. Communications Skills Survey Comparison	38
Table 8. Written Correspondence And CAS ³ Instructors	41
Table 9. Give Briefings And CAS ³ Instructors	43
Table 10. Coordinate Staff And CAS ³ Instructors	45
Table 11. Quantitative Skills Survey Comparison	46
Table 12. Linear Regression And CAS ³ Instructors	52
Table 13. Management Skills Survey Comparison	55
Table 14. Training Skills Survey Comparison	57
Table 15. Manpower & Budget Skills Survey Comparison	60
Table 16. Logistics Skills Survey Comparison	68
Table 17. Mobilization & Deployment Survey Comparison	72
Table 18. Army Organization Survey Comparison	80
Table 19. Combat Operations Survey Comparison	87
Table 20. Recent CAS ³ Students Prior Experience On Staff	104
Table 21. Cumulative Percent With Essential Needs, Through 0-6 Year Range And Overall	111
Table 22. Cumulative Answers 1992 Survey % Of Total (N)	175

FIGURES

Figure 1. 1992 Survey Population	31
Figure 2. Staff Assignment vs. CAS ³ -Trained Population	36
Figure 3. How To Interpret The Bar Graphs	36
Figure 4. Communications Skills	37
Figure 5. Com09 Produce Briefing, By Branch Group	38
Figure 6. Com09 Produce Briefing, By Rank	39
Figure 7. Com09 Produce Briefing, By Status	39
Figure 8. Com10 Produce Written Correspondence, By Branch Group	40
Figure 9. Com10 Produce Written Correspondence, By Rank	40
Figure 10. Com10 Produce Written Correspondence, By Status	41
Figure 11. Com11 Give Briefings, By Branch Group	41
Figure 12. Com11 Give Briefings, By Rank	42
Figure 13. Com11 Give Briefings, By Status	43
Figure 14. Com12 Coordinate Staff Actions, By Branch	43
Figure 15. Com12 Coordinate Staff Actions, By Rank	44
Figure 16. Com12 Coordinate Staff Actions, By Status	44
Figure 17. Quantitative Skills	45
Figure 18. Qun13 Solve Pert Network, By Branch Group	46
Figure 19. Qun13 Solve Pert Network, By Rank	47
Figure 20. Qun13 Solve Pert Network, By Status	47
Figure 21. Qun14 Construct & Use Decision Matrix, By Branch Group	48
Figure 22. Qun14 Construct & Use Decision Matrix, By Rank	48
Figure 23. Decision Matrix And Years AFCS	49
Figure 24. Qun14 Construct & Use Decision Matrix, By Status	49
Figure 25. Qun15 Calculate Basic Statistics, By Branch Group	50
Figure 26. Qun15 Calculate Basic Statistics, By Rank	50
Figure 27. Qun15 Calculate Basic Statistics, By Status	51
Figure 28. Qun16 Solve Linear Regression Problem, By Branch Group	51
Figure 29. Qun16 Solve Linear Regression Problem, By Status	52
Figure 30. Qun17 Use Personal Computer, By Branch Group	53
Figure 31. Qun17 Use Personal Computer, By Rank	53
Figure 32. Qun17 Use Personal Computer, By Status	54
Figure 33. Management Skills	54

Figure 34. Mgt18 Manage Time Effectively, By Status	55
Figure 35. Mgt19 Manage Meetings Effectively, By Rank	56
Figure 36. Mgt19 Manage Meetings Effectively, By Status	56
Figure 37. Training	57
Figure 38. Tng20 Develop Training Plans, By Branch Group	58
Figure 39. Tng20 Develop Training Plans, By Branch Group	58
Figure 40. Tng21 Solve Training Management Problems, By Branch Group	59
Figure 41. Manpower & Budget	59
Figure 42. Mnb22 Knowledge Of Resourcing Cycle & PBAC, By Rank	61
Figure 43. Mnb22 Knowledge Of Resourcing Cycle & PBAC, By Status	61
Figure 44. Mnb23 Match Work Category & TDA Work Element, By Branch Group	62
Figure 45. Mnb23 Match Work Category & TDA Work Element, By Rank	62
Figure 46. Mnb23 Match Work Category & TDA Work Element, By Status	63
Figure 47. Mnb24 Manpower & Budget Formulation, By Branch Group	64
Figure 48. Mnb24 Manpower & Budget Formulation, By Rank	64
Figure 49. Mnb24 Manpower & Budget Formulation, By Status	65
Figure 50. Mnb25 Analyze Installation Workload Requirements, By Branch Group	65
Figure 51. Mnb25 Analyze Installation Workload Requirements, By Rank	66
Figure 52. Mnb25 Analyze Installation Workload Requirements, By Status	66
Figure 53. Logistics	67
Figure 54. Log26 Prepare Logistics Estimate/Plan, By Branch Group	68
Figure 55. Log26 Prepare Logistics Estimate/Plan, By Branch Rank	69
Figure 56. Log26 Prepare Logistics Estimate/Plan, By Status	69
Figure 57. Log27 Solve Tactical Logistics Support Problems, By Branch Group	70
Figure 58. Log27 Solve Tactical Logistics Support Problems, By Rank	70
Figure 59. Log27 Solve Tactical Logistics Support Problems, By Status	71
Figure 60. Mobilization & Deployment	71
Figure 61. Mob28 Develop Mobilization Action Plan, By Rank	72
Figure 62. Mob28 Develop Mobilization Action Plan, By Status	73
Figure 63. Mob29 Prepare Road Movement Plan, By Branch Group	73
Figure 64. Mob29 Prepare Road Movement Plan, By Rank	74
Figure 65. Mob29 Prepare Road Movement Plan, By Status	74
Figure 66. Mob30 Prepare Road Movement Graph/Table, By Branch Group	75

Figure 67. Mob30 Prepare Road Movement Graph/Table, By Branch Rank	75
Figure 68. Mob30 Prepare Road Movement Graph/Table, By Status	76
Figure 69. Prepare Unit Readiness Plan, By Branch Group	76
Figure 70. Mob 31 Prepare Unit Readiness Plan, By Rank	77
Figure 71. Mob31 Prepare Unit Readiness Plan, By Status	77
Figure 72. Mob32 Prepare Personnel Estimate, By Rank	78
Figure 73. Mob32 Prepare Personnel Estimate, By Status	78
Figure 74. Army Organization	79
Figure 75. Org33 Knowledge Of Airland Battle Doctrine, By Branch Group	80
Figure 76. Org33 Knowledge Of Airland Battle Doctrine, By Rank	81
Figure 77. Org33 Knowledge Of Airland Battle Doctrine, By Status	81
Figure 78. Org34 Knowledge Of The Military Decision Making Process, By Branch Group	82
Figure 79. Org34 Knowledge Of The Military Decision Making Process, By Rank	82
Figure 80. Org34 Knowledge Of The Military Decision Making Process, By Status	83
Figure 81. Org35 Knowledge Of The Soviet Army, By Branch Group	83
Figure 82. Org35 Knowledge Of The Soviet Army, By Rank	84
Figure 83. Org35 Knowledge Of The Soviet Army, By Status	84
Figure 84. Org36 Prepare Civil-Military Estimate, By Branch Group	85
Figure 85. Org36 Prepare Civil-Military Estimate, By Rank	85
Figure 86. Org36 Prepare Civil-Military Estimate, By Status	86
Figure 87. Combat Operations	86
Figure 88. Combat Operations	87
Figure 89. Cbt37 Knowledge Of Seven BOS, By Branch Group	88
Figure 90. Cbt37 Knowledge Of Seven BOS, By Rank	89
Figure 91. Cbt37 Knowledge Of Seven BOS, By Status	89
Figure 92. Cbt38 Prepare Operations Estimate, By Branch Group	90
Figure 93. Cbt38 Prepare Operations Estimate, By Rank	90
Figure 94. Cbt38 Prepare Operations Estimate, By Status	91
Figure 95. Combat Orders: % Of Total Use, By Year Range	91
Figure 96. Cbt39 Develop Defensive COA Statement, By Branch Group	92
Figure 97. Cbt39 Develop Defensive COA Statement, By Rank	92
Figure 98. Cbt39 Develop Defensive Coa Statement, By Status	93
Figure 99. Cbt40 Develop Operations Plan, By Branch Group	93

Figure 100. Cbt40 Develop Operations Plan, By Rank	94
Figure 101. Cbt40 Develop Operations Plan, By Status	94
Figure 102. Cbt41 Conduct After Actions Review, By Branch Group	95
Figure 103. Cbt41 Conduct After Actions Review, By Rank	95
Figure 104. Cbt41 Conduct After Actions Review, By Status	96
Figure 105. Cbt42 Prepare Intelligence Estimate, By Branch Group	97
Figure 106. Cbt42 Prepare Intelligence Estimate, By Rank	97
Figure 107. Cbt42 Prepare Intelligence Estimate, By Status	98
Figure 108. Cbt43 Prepare Mission Analysis, By Rank	98
Figure 109. Cbt43 Prepare Mission Analysis, By Status	99
Figure 110. Cbt44 Prepare Combat Orders, By Branch Group	99
Figure 111. Cbt44 Prepare Combat Orders, By Rank	100
Figure 112. Cbt44 Prepare Combat Orders, By Status	100
Figure 113. Cumulative First Staff Experience At The Battalion & Brigade Level vs. School Trained Populations	105
Figure 114. First Position On Battalion Staff 6 Months Or More Cumulative, By Branch Group	106
Figure 115. CAS ³ Scheduling Difficulty	108
Figure 116. Schools And Skills: First Essential Needs & Trained Personnel	109

LIST OF ABBREVIATIONS

AC	Active Component
AFCS	Active Federal Commissioned Service
BDE	Brigade
BN	Battalion
BOS	Battlefield Operating Systems
CAS ³	Combined Arms and Services Staff School
CGSC	Command and General Staff Course
CGSOC	Command and General Staff College
CMD	Command
COA	Course of Action
COREL CHART	Program used to create charts in this study.
CROSS-TAB	The arrangement of data into tabular frequencies which clearly display trends and patterns in the relationship. Used to facilitate statistical analysis such as the Chi Square test.
DAO	Department of Academic Operations
DBASE STATS	Program used for statistical analysis of dBase files.
DIV	Division
LOTUS 123/G	Spreadsheet running in an OS/2 environment.
OAC	Officer Advance Course
OES	Officer Education System
OES	Office of Evaluation and Standardization, Department of Academic Operations, USCGSOC
OPLAN	Operations Plan
OS/2	Operating System 2.1 for microcomputers.
PDOS	Professional Development of Officers Study
RC	Reserve Component
RETO	Review of Education and Training of Officers (study)
SIGO	Signal Officer
SPSS	SPSS Inc., developers of the SPSS (Statistical Processing for the Social Services) language used in dBase Stats
TDA	Table of Distribution and Allowances
TDY	Temporary Duty
USCGSC	United States Command and General Staff College

CHAPTER I

INTRODUCTION TO THE STUDY

The mission of CAS³ is to train officers in the active and reserve components to function as staff officers in battalion-, brigade-, and division-level organizations.... officers will complete CAS³ during a period that extends from completion of the advanced course through the ninth year of commissioned service.¹

Army Regulation 351-1

In an era of downsizing and ever-constraining resources, officers are required to work more efficiently and effectively earlier in their careers. The Army's Officer Education System (OES) cannot afford to train too little, too late or to the wrong audience any more than a unit in the field can. In particular, the smaller officer corps means that there is no room for officers of lesser quality, capability, or knowledge--each is too precious, and there is no surplus talent available.

Background

The mainstays of the officer education system are the Officer Basic and Advanced Courses (OAC/OBC), the Combined Arms Services Staff School (CAS³), and the Command and General Staff College (CGSC). These Training and Doctrine Command (TRADOC) institutions are those most commonly attended by officers of all branches, each with specific training missions with focus on either contextual or procedural learning. The regulatory mission of CAS³ prefaces this study; the missions of OAC and CGSOC are quite different.

Officer Advanced Course (OAC)

Officer Advanced Courses produce a tactically and administratively competent company, troop, or battery commander who can train as well as command a unit. They prepare officers for duty at the battalion level and familiarize them with duties at the brigade level. Officers normally attend OAC as soon as possible after promotion to captain or after completing 4 years of active Federal commissioned service.²

Command And General Staff College (CGSC)

This course educates and trains officers for duty as staff officers and field grade commanders primarily at division and corps level. Officer attendance usually occurs between the 10th and 15th year based on stability.³

If OAC prepares officers for staff work primarily at the battalion level, and CGSC prepares them primarily for division and corps, then, of AR 351-1's list of echelons, the focus of CAS³ might appear to be on preparation for brigade level staff assignment. The USCGSC Staff Course Catalog, although replete with detailed description of the course, lists its mission only as "to train officers of the Active and Reserve Components to function as staff officers with the Army in the field."⁴

CAS³ Purpose and Intent

An early definition of CAS³'s purpose is found in a DAO directed comparison of CAS³ with CGSC in 1982. This study stated that:

The Combined Arms and Services Staff School (CAS³) is designed to train officers of the Active Army and Reserve Components, worldwide, to function as staff officers with the Army in the field....The curriculum provides several opportunities, as a staff officer, to think about and analyze situations; formulate courses of action; and recommend and justify a selected course of action to his/her commander....The missions (purpose) of CAS³ are to:

- Teach what staffs are by defining and tracing the development of staffs and staff roles.
- Teach what staffs do by training students in common and collective staff procedures and skills.
- Teach how staffs perform by requiring students to apply acquired skills and knowledge.

The educational goals of CAS³ are to:

- Provide the staff officer training in the common functions of a staff...
- Improve students' oral and written communicative skills.
- Provide the officer an opportunity to think, analyze, and decide about specific courses of action as a staff officer.
- Permit the student to develop the products of staff actions,...
- Participate as a member of a combined arms staff in simulated garrison and tactical environments.⁵ [Emphasis is original.]

Significantly, the same study notes that the purpose of CGSC is to prepare officers "for duty as field grade commanders and principal staff officers at brigade and higher echelons."⁶ By implication only, as CGSC trains officers for duty at Brigade and above, CAS³ was intended to train officers as principal *battalion* staff, and as secondary staff officers at brigade and above.

1987 External Evaluation Results

Five years later, the Office of Evaluation and Standardization, Department of Academic Operations, CGSC's external evaluation focused on CAS³ educational goals:

- a. To improve the graduate's ability to analyze and solve military problems.
- b. To improve the graduate's ability to interact and coordinate as a member of a staff.
- c. To improve the graduate's communicative skills.
- d. To improve the graduate's understanding of Army organization, operations, and procedures.⁷

The 1987 *External Assessment* had, as an objective, to "Determine if and how CAS³ provides a transition between Branch OAC and CGSOC."⁸ In its conclusion, the *Assessment* noted that although CAS³ had not been designed specifically as a transition course between the two other courses, it had, due to timing, become one. CAS³ provided a level of staff skill training above that of the OAC's, and necessary for officer success.⁹

The evaluation's survey included graduate and supervisor written comments that most officers were attending CAS³ too late in their careers.¹⁰ 1002 randomly selected graduates of classes between 1982 and 1986 returned survey results in Table 1.¹¹

TABLE 1

CAS³ GRADUATES 1982-1986 EXPERIENCE AS STAFF OFFICERS
AS OF 1987

	Before CAS ³	After CAS ³
Battalion/Brigade Staff	61%	23%
Division/Corps Staff	10%	8%
Other Assignments	42%	44%

However, the external evaluation did not state the purpose --the target-- at which these goals were directed.

1990 External Evaluation Results

In 1990, a second evaluation still maintained that CAS³ trains officers "to function as staff officers with the Army in the field," and repeated the same items.

The assignment pattern of the 1987 survey was essentially repeated in 1990. Of a pre-1984 CAS³ graduate group consisting of 98% Captains and 2% Majors, 88% had had 6 months or more of staff time at Battalion or higher level prior to CAS³ attendance.¹² After graduation, as of the time of the survey, only 54% had had 6 or months assigned to those staff positions.¹³ Another sample group, with graduation dates from July 1987 through June 1988, returned similar results, as shown in Table 2 on the next page.

The focus in the external evaluations was on *academic* goals; the purposes, emphasized in 1982, are either intuitively obvious, or have been overcome by the techniques to achieve them.

TABLE 2

CAS³ STUDENTS AS STAFF OFFICERS AT BATTALION,
BRIGADE, AND DIVISION

July 1987 - June 1988 Graduates (1990 <i>External Evaluation</i>)		
	Before CAS ³	After CAS ³
Battalion/Brigade Staff	61%	30%
Division/Corps Staff	9%	7%
Other Assignments	30%	63%

Problem Statement

Officers are generally assigned staff positions, and require CAS³-taught skills prior to their attendance at the course. As a result, the Army is not meeting its primary responsibility of preparing Captains for duty as staff officers at the proper time in their career path.

Purpose

The purpose of this study was to determine the optimum timing for attendance for officers at CAS³. It considered: the original purpose for CAS³ scheduling; an evaluation of the currency of the original reason for attendance timing; common timings of attendance at CAS³; the perceived need for CAS³ taught skills by company and field grade members of the officer corps, and comments from General Officers.

Research Questions

The following contributing questions were developed to answer the research question:

1. What is the purpose of CAS³?
2. When are CAS³-taught skills needed?
3. When are officers attending now?
4. When should active duty officers attend CAS³?

Significance Of The Study

The 1989 Final Report of the USACGSC's Reserve Component Education Task Force listed among its most significant observations that "the foundation of the Army OES is flawed because it is not based on an analysis of officer needs."¹⁴ The CAS³ program dedicates enormous resources to meeting an equally important need for quality staff work. In an era of resource limitations and a shrinking force, the quality of that force becomes ever more critical. Changing the timing of attendance may significantly improve CAS³'s contribution to the Army. There is also potential for significant cost savings in the process, if any skills currently taught are of demonstrably low utility to the majority of officers, and the course can be shortened without compromising its effectiveness.

CAS³ had been conceived in 1978, implemented in 1983, and last defined in 1985. The 1991 *Linkage Study*, which examined the feasibility of sending officer to CAS³ immediately after OAC, concluded its background entry with:

CAS³ has been in existence for about ten years; now is an appropriate time to re-look the timing and level of training. In an environment of scarce resources, we must investigate better ways to effectively train our officer corps.¹⁵

Assumptions

Assumptions required for this study were:

1. That the timing of CAS³ attendance is a element which can be changed.
2. That the populations of officers in surveys used for this study were acceptable judges of staff officer skill requirements.
3. That the criteria of "first essential need" as defined in the study was a valid parameter for evaluating the relative importance of staff skills.
4. That restriction of personnel surveyed in 1992 and 1993 to the staff and student populations of the Command and General Staff Officer College enhanced, rather than detracted from the validity of the survey instrument due to the experience and high caliber of those officers.

5. That the populations surveyed by the 1990 *External Evaluation* were sufficiently equivalent to those surveyed in this study's 1992 and 1993 surveys to permit valid indirect comparisons between the data.

Limitations

A lack of original documentation addressing the timing of CAS³ is a limit to the study. Information not formally archived, and inference based on the focus of official evaluations were used instead.

Delimitations

Surveys in 1992 and 1993 were limited to the populations available at Fort Leavenworth, and to the CGSC /CAS³ staff and student populations. The career patterns, needs, and proper timing for CAS³ for active duty officers only was the focus of the study.

Scope

This study examines the patterns of staff assignments, and the requirements for CAS³-taught skills experienced by active duty officers. Its recommendations are primarily based on the statistically examined experiences and preferences of the surveyed audience, 1026 members of the staff and student bodies of CAS³ and CGSOC in 1992. The study did not attempt to assess the financial impact of changing the timing of CAS³ attendance, although data presented in other studies was considered. It also did not attempt to redesign the course to better fit the needs of officers attending at a different point in their career path.

Operational Definitions

The following definitions are for terms used throughout this study:

1. Chi square = two way classification. A means to determine the significance of the difference between the frequency of occurrence in two or more categories with two or more groups. For example, a comparison of branch groups (combat arms, combat

support arms, etc.) to the time of first essential need (0-2 years, 2-4 years, etc.) for a given question.

2. First Essential Need. The first time that a CAS³-taught skill was essential to duty performance, i.e., the officer's job could not be done without ability to perform it.

3. Statistical Significance. The degree to which an obtained value will not occur by chance and can therefore be attributed to another factor. For example, a comparison between branch group and time of first essential need is significant if the difference of opinion between branch groups can be attributed to the branch group of the respondent and not to random chance.

4. Year Range. Spans of active federal commissioned service used to evaluate first essential needs and other data. For this study the ranges used were: 0-2, 2-4, 4-6, 6-8 years, and 8>, used for all later incidents.

Summary

This study followed up on the concerns noted by a CGSC student, George Jones, in 1981, trapped by the DAO study of 1987, and recorded -- but not evaluated -- by the DAO study of 1990. Where the Linkage Study of 1991 examined the "how" of changing CAS³ timing, this study examined the "if," the "why," and the "what": *if* we should change it, *why* it should be changed, and *what* should be changed. In particular, the findings in this study are based on the considered opinions of several cross-sections of the officer corps: CAS³ students, CGSC students, and the faculty members of both schools.

¹ U.S. Army, *AR 351-1, Individual Military Education and Training*, (Washington: Department of the Army, 15 October 1987, w/change 1 dated 27 February 1992), p. 12.

² *AR 351-1*, p. 11.

³ *AR 351-1*, p. 12.

⁴ U.S. Army, *CGSC Circular 351-1, Command and General Staff College Catalog*, (Fort Leavenworth: U.S. Army Command and General Staff College, July 1992), p. 106.

⁵ Miller, Larry L. MAJ and Roach, Paul W. MAJ, *CAS³ and CGSC: A Comparison* (Fort Leavenworth: Director of Academic Operations (DAO), May 1982), pp. 2-1, 2-2.

⁶ Miller, Larry L. MAJ and Roach, Paul W. MAJ, pp. 2-3.

⁷ _____ *External Evaluation of the Combined Arms and Services Staff School (CAS³)* (Fort Leavenworth: Office of Evaluation and Standardization, Department of Academic Operations, U.S. Army Command and General Staff College, February 1987), p. 3.

⁸ *Ibid.*, p. 13.

⁹ *Ibid.*, p. 14.

¹⁰ *Ibid.*, p. 19.

¹¹ *Ibid.*, p. 6.

¹² 40% at Battalion level.

¹³ _____ *External Evaluation of the Combined Arms and Services Staff School (CAS³)* (Fort Leavenworth: Office of Evaluation and Standardization, Department of Academic Operations, U.S. Army Command and General Staff College, May 1990), Section not paged; by count, p. 60.; in pre-1984 CAS³ Graduate Survey results section.

¹⁴ _____ *Final Report RC Officer Education*, (Fort Leavenworth: Task Force for the Review of Reserve Component Officer Education, U.S. Army Command and General Staff College, 29 November 1989), p. 23.

¹⁵ _____ *Final Report of the OAC/CAS³ Linkage Study* (Fort Leavenworth: Combined Arms Command, U.S. Army Command and General Staff College, 22 March 1991), p. 3.

CHAPTER II

SURVEY OF THE LITERATURE

Literature Review

This chapter reviews source documentation covering the purpose of CAS³ vis-à-vis other TRADOC officer schools, evaluations of CAS³ training performance, a draft official history and a study on changing the timing of attendance. Many of these documents indicate that there is a problem with the timing of CAS³ attendance for many officers--the course came after officers had held staff positions.

In addition, work in progress from an internal CAS³ study group is covered due to its timeliness, and the importance of its research to date.

An Early Review On Timing

While there is abundant material on the perceived value of CAS³, and on its relationship to other officer schooling, little investigation has been done on the *timing* of attendance--intended or actual. Official documentation for CAS³'s formative period addressing the timing issue is virtually nonexistent. A single, unpublished paper written by a CGSC student in 1981 reveals that there were some concerns. George B. Jones, then a CGSC student, wrote *CAS³ Review and Recommendations*, and argued that:

Although the current CAS³ program is designed to provide trained staff officers to serve in staff positions during their 6th to 9th years of commissioned service, two considerations may have been overlooked when planning for establishment of the program at Ft. Leavenworth:

1. many officers newly graduated from branch OAC are assigned directly to battalion or brigade staff positions, with a few going to division level staff.

2. many officers newly graduated from CAS³ will go to other than battalion, brigade, or division staff positions.¹⁶

This small, 20 page unreferenced study does not appear to have been disseminated or evaluated. However, its existence indicates that there was some concern over timing by disinterested officers observing the program at its inception.

An Unpublished History

The most succinct documentation on the history of CAS³ is the not yet published "*Constructing a Cube - A History of the Combined Arms and Services Staff School*"¹⁷, hereafter, "*Constructing*", by Dr. Ralph Ekwall, an Education Specialist with the program for over 13 years. In his draft of *Constructing*, Dr. Ekwall traces the development of CAS³ from its genesis as an outgrowth of the Army's Review of Education and Training of Officers (RETO) study in 1977-78, through metamorphous into its current format.

Dr. Ekwall's *Constructing* revealed that CAS³ was an outgrowth of the RETO study recommendation that all officers—not just those selected for CGSOC — receive staff training. The RETO study found that staff assignments were particularly common at the grade of Major, and it proposed staff training as soon as possible after senior captains were selected for promotion. While the Army did not limit CAS³ attendance to captains not selected for CGSC—the original RETO concept—the timing of attendance at CAS³ appears to have remained driven by its original concept as a course to prepare officers for staff duties as Majors.

In 1980, as part of the front-end analysis to develop CAS³, a survey was given to 369 members of the CGSOC course. That survey asked them to prioritize sixty-six tasks proposed for the CAS³ curriculum. After general officer review (and some changes), the results of the analysis provided a basis for CAS³ course design. Dr. Ekwall notes that "even today, 12 years later, many of the current learning objectives show evidence of a relationship to the original task list." Furthermore, he observes that the only

major change in CAS³ curriculum since 1983, was the substitution of a Low Intensity Conflict Exercise for the European Scenario Exercise in 1988.

Recent External Evaluations

Two external evaluations of CAS³ by the CGSC Department of Academic Operations (DAO) in 1987 and 1990 extensively analyzed the perceived value of CAS³. Both graduates of CAS³ and their supervisors were surveyed as part of the evaluation process. The surveys used gathered opinions on how well CAS³ training improved graduate skills, and also included questions addressing the staff assignments CAS³ officers had prior to and after CAS³.

Evaluating officer staff utilization, the 1987 study did note the dichotomy between staff assignment and CAS³ attendance, and recommended it as a subject needing further investigation. The 1990 study collected similar data but did not evaluate it.

In its conclusion, the DAO's *External Assessment* of 1987 noted:

Graduates, Supervisors, and Commanders expressed concern that:

- a. Most officers attend CAS³ too late in their careers, having already had assignments at the battalion and brigade level. Survey and interview results support this statement, and indicate that less than one-third of graduates serve at the battalion or brigade level following completion of CAS³.¹⁸

The assessment included among its recommendations "that CAS³ conduct further study to determine what impact, if any, assignment patterns shown in this survey, may have on what point in a career an officer attends CAS³."¹⁹

The 1990 evaluated CAS³ by the very general measure of "training officers...to function as staff officers in the field" common to other source documents. It is a measure of the difficulty in evaluating against such an unstructured requirement that the objective of the 1990 evaluation was:

to determine to what extent the Active Component (AC) and Reserve Component (RC) CAS³ courses meet the needs of graduates in the field. OES gathered specific data to determine where CAS³ is now and what value and contributions the courses are to graduates and the Army.²⁰

The measure of CAS³ was how well it met officer needs for staff training -- whatever those needs were, the evaluation's position was that it was CAS³'s mission to serve them. The 1990 survey instrument solicited three populations: pre-1984 CAS³ graduates, post-1984 graduates, and the supervisors of those later students. Efforts to solicit responses from pre-1984 CAS³ students were relatively limited, some 150 instruments mailed out, 71 returned, 93% of which were from Majors. Analysis of this data was limited, and presented in the evaluation's "Data Analysis" in summary form.

Evaluation of post-1984 graduates--and their supervisors--was much more intense. 728 survey instruments were sent out, 337 returned, plus 243 from their supervisors. 98% of the population surveyed as post-1984 "graduates," as opposed to "supervisors," in the evaluation were Captains. The "supervisors" surveyed were the supervisors of those CAS³ graduates, and they were surveyed on their perception of changes in the abilities of CAS³ graduates. The implication of the evaluation's targeting of this population was that the mission of CAS³ is primarily to train *Captains* to function as staff officers in the field.

Primary consideration was given by the 1990 *External Evaluation* to post-1984 graduate-and-supervisor responses. The analysis focused on evidence of CAS³'s ability to improve officer performance. The survey used by the *External Evaluation* had asked each officer to evaluate the benefits of CAS³ training on a scale ranging from "I have improved greatly" (graduates) and "Considerably better than the non-graduates" (supervisors) down to "Unable to judge" (graduate) and "Considerably worse than non-graduates." "Great" and "Moderate" improvement ratings from graduates, and "Considerably better" and "Somewhat better" from supervisors, (the top two of five possible rankings from each), were considered evidence of significant training improvement for purposes of this study.

The 1990 ratings alone, however, could not be reliably used to determine when or what CAS³ training should consist of. Officers who had "learned the hard way," by virtue of having had assignments requiring CAS³ level staff skills prior to attendance at the course, might have "improved" very little. If such a pattern was general, good training on essential skills might be producing less than the maximum impact. Furthermore,

by virtue of the staff assignments typically given to Captains, some skills might be required more than others.

The CAS³ Linkage Study

The only previous study to examine an alternate attendance timing was the OAC/CAS³ Linkage Study. In January 1991, the Deputy Commander of TRADOC organized a study group to examine the possibility of linking immediate attendance at CAS³ to completion of OAC, the OAC/CAS³ Linkage Study (hereafter, *Linkage Study*). The group was directed to accomplish four major tasks:

- (I) Analyze Programs of Instruction (POI) for duplication and content.
- (II) Develop a concept for brigade combined arms training for CAS³.
- (III) Check the mechanics and the administration of the OAC/CAS³ linkage for workability.
- (IV) Investigate the instructor requirement and potential for savings.²¹

Following an examination of the purpose of CAS³, the *Linkage Study* was charged to find the best way to "link" resident CAS³ attendance to completion of OAC, with the goals of reducing costs and redundant training. *Whether* CAS³ should be so linked was outside the study group's charge, and alternate timings were not considered. Most importantly, in considering change of CAS³ content in conjunction with the change in timing, the methodology used did not consider the opinion of the Army leadership at large.

The study found some duplication between POI in OAC and CAS³, but concluded that the focus and level of instruction between them was significantly different.²² Attendance at OAC was reported to be at the fourth or fifth years of service, and CAS³ three years later.²³ 604 Captains from the 91-3 and 91-4 classes were surveyed to determine their prior staff experience:

81% had prior staff experience:

39% battalion staff only

11% brigade only

17% both battalion and brigade

14% higher than brigade

and the group noted that:

If the Army defines "too late" as being equivalent to any assignment above battalion, then CAS³ did come too late in the captain's career. If the Army uses the PDOS guidelines of staff training for brigade, division, and installation, then the data does not support "too late."²⁴

Among choices that it examined a 16-week OAC followed by a 7-week CAS³ was chosen by the group as the best balance between cost savings and risk to the program. Phase I and II CAS³ courses were considered for elimination. In Phase I, the following modules were recommended for elimination: Historical Development of Staffs, Personnel Service Support, Staff Leadership and Management, and Budget, a reduction of 35 hours of non-resident instruction.²⁵ In Phase II, 62.4 hours of resident instruction were recommended for deletion under the 7 week model. Modules indicated were PERT and calculator operations (4 hours), the SATS exercise (5 hours), 4 hours of Leadership, 8 hours of Counseling, VARWARS, the Budget exercise (24 hours), Training Discussions (1.5 hours), Leadership Seminars (3 hours), and Battalion Training Management METL (3 hours).²⁶

Phase I recommendations for deletion were based on recommendation of 728 CAS³ graduates surveyed by the group in an external evaluation and 275 officers attending CAS³ in an internal evaluation. This survey focused questions on "how well" the non-resident modules had helped to prepare students for the resident phase.²⁷

Phase II recommendations for deletion were made through analysis of Service School input, previous studies, CAS³ POI, MQS II, and information from CTAC, CGSC on the BDE Combined Arms warfight planned for inclusion in the program. The group then:

analyzed the CAS³ POI for lesson content using applicable Bloom's taxonomic learning levels as a benchmark. Candidates for reduction/elimination were based on lower levels (knowledge and comprehension) of Bloom's taxonomy. A risk assessment disclosed the impact these reductions/eliminations would have is [sic] achieving CAS³ course goals, performance skills required at the BN/Bde staff level; Bde combined arms warfight. Ease of

execution/implementation was a criterion but we did not consider it as impacting on risk. Our evaluation resulted in 8-week POI as preferred...²⁸

Of 15 branch schools responding to the groups proposal for a 16-week OAC, 5 respondents judged the restriction to pose "SLIGHT" risk to their instructional goals, 9 claimed "MODERATE risk", and one, Ordnance, viewed the risk as "SEVERE."²⁹

Its authors had found that repositioning CAS³ in the officer career path was do-able, but the *Linkage Study* listed three caveats to "linking" it to attendance at OAC's:

- (1) Lack of formal military training between CAS³ and the Command and General Staff Officers Course (CGSOC) is projected to be approximately eight years versus the present, approximately five years.
- (2) Officers not selected for CGSOC will receive no additional formal military training.
- (3) Implementing the linkage plan will create a backlog of OAC graduates needing to attend CAS³. Based on input from PERSCOM, this backlog could be 8,400 officers.³⁰

To those cautions should also be added the PDOS perspective of 1985:

CAS³ is...designed to provide training for captains in staff skills required at brigade, division, and installation level and serves as a transition to in-depth staff operations and procedures.³¹

CAS³ had been conceived in 1978, implemented in 1983, and last defined in 1985. The *Linkage Study* concluded its background entry with "CAS³ has been in existence for about ten years; now is an appropriate time to re-look the timing and level of learning. In an environment of scarce resources, we must investigate better ways to effectively train our officer corps."³²

The authors of the *Linkage Study* had, according to their charter, examined how CAS³ might be significantly moved back in the officer career path, examined the risks in doing so, and made recommendations on how such change might be implemented. They were not asked if such a change was in the best interests of the Army.

Post Cold-War CAS³ Study Group (In Progress)

On 8 February 1993, a study group was formed within the CAS³ to design a "Post Cold-War CAS³." Still in session at the time of this writing, it has proposed a modest redefinition of CAS³'s goals. From the cold-war era objective of providing officers "Trained to function as staff officers in the field," the CAS³ study group has proposed a redefinition of "Provide trained battle staff officers to commanders in the field." The "end state" proposed for CAS³ graduates would be changed by the groups proposal per Table 3 below.³³

TABLE 3

REVISIONS PROPOSED BY THE CAS³ STUDY GROUP TO CAS³
TRAINING OBJECTIVES

COLD WAR CAS ³	POST COLD WAR CAS ³
Current end state of CAS ³ graduates:	Revised end state of CAS ³ graduates:
1. Analyze and solve military problems.	1. <i>Battle focused, critically thinking problem solver.</i>
2. Communicate effectively.	2. Communicate effectively.
3. Interact and coordinate as a member of a staff.	3. <i>Provide through staff recommendations under time constraints.</i>
4. Understand Army organization, operations and procedures.	4. Coordinate and interact as a member of a <i>battle</i> staff.
KEY: Items lined out are proposed for removal, in <i>italic</i> for addition.	5. Understand Army organization, operations, and procedures.

Much of the study group's focus is on internal revisions to CAS³ course content not relevant to this study's focus on timing. However, the timing issue was addressed by the group by soliciting comments from the field.

General Officer And Major Command Comments On Timing

The CAS³ Study Group received a number of comments pertaining specifically to the timing of CAS³ attendance. They were almost uniformly in favor have officers attend earlier:

1. "Captains should attend CAS³ no earlier than one year after completion of their advanced course but no later than 4 years after promotion to captain." *Director of Combat Developments, US Army Chemical School.*³⁴

2. "CAS³ loses effectiveness because the training is not timely. All CAS³ goals focus on training the student to be an effective member of a battle staff, yet almost no infantry officers attend CAS³ prior to their first assignment on a battalion staff. Staff assignments usually occur before company command, with CAS³ attendance after command... restructuring the course to improve its timeliness should be our first priority."³⁵ Draft memorandum prepared for: Commandant, *US Army Infantry School.*

3. "Officers should attend CAS³ ASAP after OAC." *Director, Directorate of Training and Evaluation, US Army Field Artillery School.*³⁶

4. "It is very disruptive to take an officer out of a unit to attend CAS³. Sometime after company command is as good as any. The field is not getting much use of officers between OAC and CGSC. I don't think we can afford company commanders to be CAS³ graduates." *Commander, III Corps.*³⁷

5. "It is my impression that I don't get use of the CAS³ guy. CPTs come to the division, command a company, go to CAS³, return to the division and then come down on levy. This results in CPTs being of no use to the division. TDY enroute policy would be best for the division. I recommend that CPTs should attend CAS³ right after OAC prior to arriving in the division." *Commander, 1st Cavalry Division.*³⁸

6. "CAS³ comes at the wrong time. CAS³ needs to be done immediately following OAC. By the time a CPT gets here he goes into command or on the staff. Once out of command he is hard to keep. As force structure in the Army constricts it fails to produce enough CPTs, therefore that means CPT's get pulled away from bns. He should learn CAS³ skills before he goes to a bn. Give CPT skills before he comes to the field. I would like to have all my company commanders CAS³ graduates, many are not. My solution is upon selection for OAC give him Phase I, and he must complete it before he completes OAC, then send him to CAS³." *Commander, 2nd Armored Division.*³⁹

7. "Captains should attend CAS³ immediately following the advance course. This would allow them to report to their next unit expecting 18 months command and 18 months staff time, without interruption." *Senior Officers, FT Carson & 4th Infantry Division.*⁴⁰

Summarizing senior leader preliminary feedback, the CAS³ Study Group concluded that while CAS³ was a critical course in officer development, it was too long, needed an increase in battle focus, and that officers needed to attend CAS³ earlier in their careers.⁴¹

Summary

The concerns George Jones had in 1981 have been echoed with increasing frequency during the last five years. External evaluations, senior officer comments from the field, and an internal CAS³ study group arrived at a single conclusion: CAS³ is not being held at the optimum time for most officers.

¹⁶ George B. Jones, "CAS³ Review and Recommendations", (CGSC paper, US Army Command and General Staff College, 1981?), p. 5.

¹⁷ Ekwall, Ralph, "Constructing a Cube: A History of the Combined Arms and Services Staff School", (unpublished draft, magnetic media, November 1992), chapter 1.

¹⁸ _____ *External Assessment of Combined Arms and Services Staff School (CAS³)*, (Fort Leavenworth: Office of Evaluation and Standardization, Department of Academic Operations, U.S. Army Command and General Staff College, February 1987), p. 3.

¹⁹ *External Assessment of Combined Arms and Services Staff School (CAS³)* [87], p. 4.

²⁰ _____ *External Assessment of the Combined Arms and Services Staff School (CAS³)*, (Fort Leavenworth: Office of Evaluation and Standardization, Department of Academic Operations, U.S. Army Command and General Staff College, May 1990), p. 4.

²¹ _____ *Final Report of the OAC/CAS³ Linkage Study* (Fort Leavenworth: Combined Arms Command, U.S. Army Command and General Staff College, 22 March 1991), p. iv.

²² *Ibid.*, p. 3.

²³ *Ibid.*, p. 4.

²⁴ *Ibid.*, p. 5.

²⁵ *Ibid.*, pp. B2-B3.

²⁶ *Ibid.*, pp. E1-E5.

²⁷ *Ibid.*, p. B2.

²⁸ *Ibid.*, p. E2.

²⁹ *Ibid.*, p. D2.

³⁰ *Ibid.*, p. 1.

³¹ Quoted by the *Final Report of the OAC/CAS³ Linkage Study* (Fort Leavenworth: Combined Arms Command, U.S. Army Command and General Staff College, 22 March 1991), p. 3.

³² *Final Report of the OAC/CAS³ Linkage Study*, p. 3.

³³ _____ *Post Cold War CAS³* (Fort Leavenworth: Combined Arms Services Staff School, draft edition as of 15 April 1993), slides not paginated.

³⁴ Kelly, Charles G., Colonel CM, "Design of Post Cold War CAS³", (Fort McClellan: US Army Chemical School, 10 March 1993), p. 1.

³⁵ White, Jerry A., Major General (Signature Block not Signed), "CAS³ Redesign" (DRAFT), (Fort Benning: US Army Infantry School, not dated.), p 1.

³⁶ Robertson, Phyllis D., "Post Cold War Combined Army & Services Staff School", (Fort Sill: US Army Field Artillery School, 9 March 1993), p.2.

³⁷ Matthews, John E. LTC, "Senior Leadership Assessment [Fort Hood Trip Report]", (FT Leavenworth: Combined Arms Command, U.S. Army Command and General Staff College, 5 March 1991), p. 1.

³⁸ *Ibid.*, p. 2.

³⁹ *Ibid.*, p. 3.

⁴⁰ Boyce, Reynold J. "CAS³ Survey Senior Leadership Response", (FT Carson: AFZC-CC, 10 March 1993), p. 1.

⁴¹ _____ *Post Cold War CAS³* (Fort Leavenworth: Combined Arms Services Staff School, draft edition as of 15 April 1993), slides not paginated.

CHAPTER III METHODOLOGY

This chapter delineates the survey design, data collection, and data analysis processes used in the study. It reviews the instrument's ties to previous studies in an effort to provide continuity, and specifies the unique focus developed to facilitate answering of the research question.

Research Design

The research process began with an examination of the CAS³ mission, including regulatory requirements and an unpublished official history to determine what staffs the school was supposed to be training officers for. As revealed in Chapter II of this work, available definitions were neither specific nor consistent.

An alternate methodology was implemented: first, determine what skills CAS³ was teaching; second, examine each skill to see how well such instruction was serving the needs of the field; and finally, match field requirements for those skills against the timing of CAS³ attendance. Essentially, the question "What is the purpose of CAS³?" was answered by determining the object of official evaluations and by the perceptions and requirements of the populations surveyed.

Calculation of the importance of individual skills was done by combining data from two surveys. The first, a product of the 1990 *External Evaluation* was useful as the most contemporary study of how well CAS³ improves individual abilities. The second, the survey instrument of this study, provided information on the number of officers who had held positions where CAS³ skills were of critical importance; the more officers who had experienced such a requirement at least once, the greater the importance of teaching the skill. The 1992 survey also provided information on *when* these skills had been

required, enabling a comparison between the timing of training and the time of first utilization.

Data Collection

The Link To Previous Studies

The two recent Department of Academic Operations (DAO) studies, the *External Assessment of Combined Arms and Services Staff School (CAS³) February 1987*, and the *External Evaluation of the Combined Arms and Services Staff School (CAS³) May 1990*, provided a baseline of CAS³-taught skills. Questions from the survey instruments of the 1990 study were used in building the 1992 survey, although with a focus on timing rather than improvement. Questions on demographic data were also taken from these earlier instruments to enable meaningful comparisons.

Data From This Study

The 1992 survey, and an additional verification sampling taken in 1993, were used to determine when the staff skills taught in CAS³ were first required by officers as an essential part of their duty performance. The premise used was that the overall benefit derived from skills taught before service in which they had been essential was greater than that derived afterwards. Only the first essential need for each skill by each officer was considered, as the training from one such position would help prepare the officer for the next, as would first-time exposure in a school environment.

The 1992 Survey Instrument.

Two verification sample surveys were taken using members of the population for the projected survey. The survey population was chosen to take advantage of accessible, responsive officer groups familiar with the subject matter: CAS³ students, CGSOC students, CAS³ instructors, and CGSC instructors. In addition to being readily available, as CAS³ has been a requirement for all year groups 1979 and later, personnel in these groups could be reasonably expected to be familiar with CAS³ as well as with staff officer requirements.

The major cross-sectional survey instrument was presented in November 1992 to those groups, 2100 surveys being issued with 1026 officers responding. A follow-up survey of CAS³ students was also done in February of 1993 to assist in verification of results from the first survey, and to check the impact of a typographical error in question #61 of the November instrument.⁴²

Survey Development

A request for survey was submitted to the Evaluation and Standardization Division of the Department of Academic Operations, CGSC in October 1992, listing the candidate populations, research questions, and a diagram of the logic flow proposed for the study. (The request letter and diagram are at Annex A.) The primary purpose of the survey was to compare specific CAS³ learning objectives - the same ones used in the DAO's external evaluations - to determine *when* officers found that they first needed CAS³-taught skills.

Survey questions were developed patterned after those in the *External Evaluations* of 1987 and 1990. Rather than asking how well staff skills were improved by CAS³, officers were asked when the skills were first needed as an essential part of duty performance. The survey instructions specifically defined an essential skill as one without which officers could not have done their job.

Five "year-ranges" were used in the survey as choices in answering "when" the first essential need for a skill had been experienced. Year ranges were expressed in years of active Federal commissioned service. The ranges used were: 0 to 2 years (0-2), two to four years (2-4), four to six years (4-6), six to eight years (6-8), and after the eighth year (8>).

The year ranges selected were done on a basis intended to allow a majority of officers to tie them to typical career progression, both by rank and by responsibility. The 0-2 year range is a period when most OPM officers are Second Lieutenants, the 2-4 year range, First Lieutenants. The 4-6 year range marks time as a junior Captain, the Officer Advanced Course, and possibly a secondary staff position. The 6-8 year range represents the period as a senior Captain, likely Company Command, and primary staff positions at

the Battalion level. This was the last level considered directly relevant to staff requirements for Captains, but the 8> level was included to better judge the overall officer experience and related requirements. At the time of implementation for the survey, these descriptions were formed based on a common knowledge of officer career patterns, and were not extracted from other survey data. The reasons for the divisions were purposely not presented in the survey instrument to preclude bias.

After the survey questions on the essential need for staff skills, several questions on utilization, including staff experience, schooling, and command were asked. Questions on staff tours, particularly at the Battalion and Brigade levels, were used to obtain data to compare to attendance at OAC and CAS³.

In addition to demographic data, questions on essential use of skills, and utilization, additional questions gathering opinions on CAS³ scheduling and attendance were added to the end of the survey. The first sub-section consisted of two questions on the timing of CAS³ attendance. The first asked officers to pick a preference based on staff experience. This question was intended to ascertain the value officers felt that previous staff experience brought to the course, vs. the value that the course brought to officers going to staff positions. The second question asked officers to pick a time based on school attendance.

A printing error not caught prior to dissemination of the November 1992 survey, in choices b. and c. of the question #61 asked officers to choose "1/4 of the way between CAS³ and CGSOC" and "1/2 of the way between CAS³ and CGSOC." "CAS³" had been intended to be "OAC." A corrected survey was issued to 150 new CAS³ students in February, 1993 to ascertain what impact the previous miswording had had on the 1992 question #61 results.

The next opinion solicited was on the administrative burden of scheduling officers to attend CAS³. A range of answers from "Extremely Difficult" to "No Difficulty" was offered. The two most strongly worded choices, "Extremely Difficult" and "Difficult" were considered significant, "Slightly Difficult" was not.

The final question in the survey asked officers to choose from four scheduling options:

- a. Send from unit based on time and need.
- b. Send during non-unit time; i.e. in conjunction with another school, during PCS move, etc.
- c. Combination of a. and b. above; have a standardized time during non-unit assignments, but be able to schedule from unit if time and need permit.
- d. No change. Keep the current system.

This question was purposely placed last in the survey, after officers had had the opportunity to consider their staff experience, staff responsibilities, and options for attending CAS³. The choices were constructed to ascertain the overall level of satisfaction with the current scheduling system.

Data Preparation

To process the data from 1026 (N) surveys returned in the February 1992 survey, raw data was downloaded in delimited-ASCII⁴³ from the installation mainframe computer, and imported into a dBase file structure. xBase programs running under dBase were used to convert the data to formats usable in dBase Stats (an SPSS program for statistical analysis of dBase files) and Lotus 123/G (spreadsheet) programs.

dBase Stats was used to produce uncorrected Chi-Square tests, each demographic split cross-tabbed with each non-demographic survey question. The usual observed significance level of .05 was used to identify significant cross-tabs (those less than .05).^{44 45} A complete table of significant cross-tabs is in Chapter IV.

xBase⁴⁶ programs, generally compiled and running under the dBase⁴⁷ development environment, processed raw data through several steps. First, the delimited-ASCII data was imported into a .dbf file with survey-question identification. The next program totaled the number of responses for each question for every possible answer (and for no answer at all) into a separate database. These results were cross-checked against dBase Stats products to verify accuracy.

The totals for each answer to each question were calculated as percentages, each as a percentage of the possible answers in 1026 records. The final database created was of cumulative percentages, adding each skill's percentage for a particular year range to the previous total. These programs for all data management are listed with action diagram notation at Annex B.

The database of cumulative percentages was imported into Lotus 123/G, running in an OS/2 environment, where text enhancements were added as visual aides to the analysis process.⁴⁸ Abbreviated descriptions of the survey questions were added to each skill-line to facilitate the presentation of information in chart format, and charts were created using Corel Draw for Windows, version 3.0.⁴⁹ Complete cumulative percentages of the question and demographic cross-tabs are at Annex D, by survey question number.

Survey Analysis

Sufficient demographic data was obtained to allow cross-tabular analysis by population sub-groups. Although eight demographic splits were possible, three were selected for general analysis. This selection was made based on two qualifications. First, the majority of cross-tabs had to be statistically significant using the Chi-Square method of classification. Secondly, the sub-group had to be useful for determining when Captains required particular skills, or to identify bias.

The three demographic splits selected were: Branch Group, Rank, and duty Status. (Duty Status divided the population into sub-groups of CAS³ Instructor, CAS³ Student, CGSOC Faculty/Staff, CGSOC Student, and Other.) Cross-tabbing by Rank addressed the primary goal of determining when skills were needed. It also enabled some refinement of the timing issue by indicating trends, such as an increasing usage at earlier times by progressively junior officers. Duty Status was used to clarify and cross-check the results of analysis by Rank. Sensitivity by CAS³ instructors and students to some skills was expected simply due to their nearness to the subject, and such bias was found in specific instances. Branch Group was primarily used to address the issue of general requirement, i.e., was the particular degree of need common to the officer corps as a whole, or skewed by the experience of a particular group.

Not all officers required all skills, and the total number of officers requiring each skill was considered an excellent indicator of its importance. Such cumulative compilation of first essential needs did not, however, fully address the question of CAS³ training impact on its target audience, Captains. The results of questions 45 and 46, which addressed first tours on Battalion and Brigade level staffs, suggested that the 4-6 year range was the last in which it was still possible to schedule training that would have significant application for Captains in company-grade staff positions. Therefore, each skill was rank-ordered based on total first essential needs, and on total first essential needs at the 4-6 year range.

Tables including total essential needs in raw numbers, by skill, were prepared and posted against results of the 1990 *External Evaluation* survey as percentages. The data is presented side-by-side in Chapter IV, but in dissimilar format to permit comparison while emphasizing that different populations were used for the two surveys, and that the results are not directly comparable.

Summary

In contrast to the focus of the Linkage Study, research in this study was designed to identify the perceived needs for CAS³ courses of instruction among officers as they progressed from CAS³ to CGSC and beyond. The experience gathered by officers in service on, and with responsibility for staffs was the objective of the survey instrument: when did they serve on staffs, and when were CAS³ skills first needed.

⁴² The second and third choices of question 61 had "CAS³" where they should have read "OAC". As this question directly asks officers opinion as to when CAS³ should be attended, a partial re-survey was required to determine the impact, if any.

⁴³ Industry standard file structure, consisting of plain text, one record to a line, fields separated by commas, with quotes surrounding text fields to distinguish them from ordinal data.

⁴⁴ _____ *dBase Stats*, (Torrance, CA: Tate Publishing, Ashton-Tate Corporation, 1989), p. 155. An observed significance level of .05 is commonly used as the cut-off for determining statistically significant relationships by rejecting the null hypothesis. It is also recommended as the usual level in this manual, which accompanies the dBase Stats program.

⁴⁵ The dBase Stats Chi-Square run produced, when reduced to 6-point print, 100 pages of data. This run is not included as part of the published study, but a copy is on file with the Department of Academic Operations Office of Evaluation and Standardization, CGSOC, Fort Leavenworth, KS 66027.

⁴⁶ xBase is an industry recognized family of programming languages used commercially by such product as dBase, Foxbase, Clipper, dBfast, and others.

⁴⁷ dBfast is a product of Computer Associates International Inc. It is an xBase language compiler. Programs written for use in this study were written in generic xBase and will run under other xBase language products. The programs can be found in the appendixes enclosed to the study.

⁴⁸ These charts run over 60 pages of text, and are not included with the published version of this study. A copy is on file with the Department of Academic Operations Office of Evaluation and Standardization, CGSOC, Fort Leavenworth, KS 66027.

⁴⁹ Corel Draw is a product of Corel Corporation, Ottawa, Ontario, Canada K1Z 8R7

CHAPTER IV

ANALYSIS

The 1990 *External Assessment's* survey examined graduate and supervisor perception of the benefits derived from CAS³, grading each skill area from "no improvement" to "improved greatly." The survey used in this 1992 study reviewed the same areas, with a focus of "when was the time of first essential need," i.e., when was each skill first so critical to performance that the officer's job could not be done without it.

The analysis below examines the demographics of the population group used by the 1992 survey, and compares them to the Army at large to assist in weighing conclusions drawn from the data. It then presents a review of significance, a statistical check to used validate the choice of three primary cross-tabs used throughout the analysis. Due to outliers, and to wide differences in the density of population subgroups, selection of specific cross-tabs for graphic representation was not always limited to significant cross-tabs, but cases not meeting the test of statistical significance are annotated where used.

Demographics

Because the population surveyed in 1992 was limited to - and indeed, targeted at - members of the CGSOC and CAS³ student classes, and the supporting staff and faculty in Bell Hall, the relative sizes of the population sub-groups, by rank, were not identical to that of the Army at large. A comparison of the 1992 survey population with the Army's is at Figure 1 on the page following.

Survey vs. Army at large, as Percentages

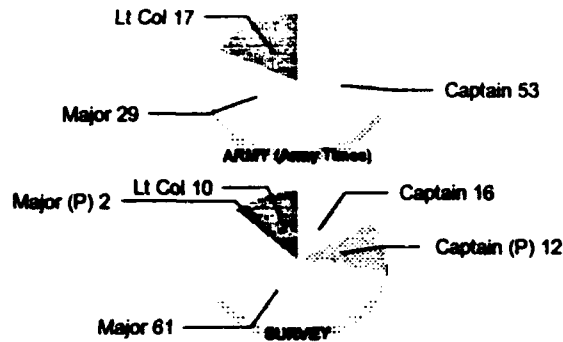


Fig. 1. 1992 Survey Population

Rather than adjusting the survey's sub-populations to make them equivalent to the at-large proportions, each skill was segregated and compared by cross-tabulations of Rank, Branch Group, and of duty Status. These population splits were used continually throughout because they usually passed the test of significance, and for their utility in making comparisons relevant to the study.

Significance

Some cross-tabs of skills against demographic splits demonstrated statistical significance, and some did not. The following table is a guide to demographic split significance. "X"ed cross-tabs are significant.

TABLE 4

CROSS-TABS AND SIGNIFICANCE

Typeface of the three commonly used cross-tabs is in bold in the column headings at right.		Branch Group	Rank	Component	Years AFCS	Current Status	TDY Corps & Below	TDY Installation & above
Produce Briefings	9	X	X		X	X		X
Written Correspondence	10	X	X		X	X		X
Give Briefings	11	X	X		X	X		
Coordinate Staff Actions	12	X	X	X	X	X		
Solve PERT	13	X						X
Decision Matrix	14	X	X		X	X		X
Basic Statistics	15	X			X			X
Linear Regression	16	X			X	X		X
Use Personal Computer	17	X	X		X	X		X
Manage Time	18					X		
Manage Meetings	19		X	X		X		
Training Plans	20	X				X		
Solve Training Mgt	21	X		X				
Resource Cycle PBAC	22	X	X		X	X		X
Work w/TDA elements	23	X	X		X	X		
Manpower & Budget	24	X	X		X	X		
Installation Workload	25	X	X		X	X		
Prepare Log Estimate	26	X	X		X	X		
Tactical Log Support	27	X	X	X	X	X		
Mobilization Plan	28		X		X	X		
Road Movement Plan	29	X	X		X	X		
Road Movement Graph	30	X	X		X	X		
Readiness Plan	31	X	X		X	X		X
Personnel Estimates	32		X		X	X		
Airland Battle Doctrine	33	X	X	X	X	X		

Typeface of the three commonly used cross-tabs is in bold in the column headings at right.		Branch Group	Rank	Component	Years AFCS	Current Status	TDY Corps & Below	TDY Installation & above
Military Decision Making	34	X	X		X	X	X	X
Soviet Army	35	X	X		X	X	X	X
Civil-Military Estimate	36	X	X		X	X	X	
Seven BOS	37	X	X	X	X	X	X	X
Operations Estimate	38	X	X		X	X	X	
Defensive COA	39	X	X		X	X	X	
OPLAN	40	X	X		X	X	X	
After Action Review	41	X	X		X	X	X	X
Intelligence Estimate	42	X	X		X	X		X
Mission Analysis	43	X	X		X	X	X	
Combat Orders	44	X	X		X	X	X	
First Tour BN Staff	45	X	X			X	X	
First Tour BDE Staff	46	X	X	X	X	X	X	X
First Tour DIV Staff	47	X	X	X	X	X	X	
First Tour Installation Staff	48	X	X		X	X		X
First Tour MACOM Staff	49	X	X		X	X	X	X
First Tour HQDA Staff	50		X		X	X	X	X
First Tour Joint Staff	51			X	X	X	X	X
First Company Command	52	X	X	X	X	X	X	
First Field Grade Staff	53	X	X		X	X	X	X
Start OAC	54		X	X			X	
Start Resident CAS³	55	X	X		X	X		
Start Correspondence CAS³	56	X	X		X	X		X
Start Residence CGSOC	57	X	X	X	X	X	X	
Start Reserve CAS³	58				X	X		

Typeface of the three commonly used cross-tabs is in bold in the column headings at right.		Branch Group	Rank	Component	Years AFCS	Current Status	TDY Corps & Below	TDY Installation & above
Had Battalion CMD Tour	59		X		X	X		X
CAS³ on Experience	60							
CAS³ on Time	61			X	X	X		
CAS³ Scheduling Burden	62		X	X		X		
CAS³ Scheduling	63			X				

Populations in the 1990 *External Evaluation* survey and this study's 1992 survey were significantly different, although comparison of their results are still useful. The populations of the 1990 survey are listed below at Table 5.

TABLE 5

1990 EXTERNAL EVALUATION SURVEY POPULATION

GRADUATES N=337	SUPERVISORS N=243	
Captains 98%	Flag Officers 1%	Major 35%
Majors 2%	Colonel 6%	Captain 5%
	Lt Col 47%	Civilian 5%

Of 1026 respondents to the 1992 Survey, populations ("N") of the three commonly used cross-tabs are in the Table 6, on the page following.

TABLE 6

1992 SURVEY POPULATION (N)

POPULATIONS	1992 Qty N=1026	1992 %
Combat Arms	596	58
Combat Support	157	15
Combat Service	215	20
Non-OPM	52	5
Captain	162	15
Captain (P)	119	11
Major	620	60
Major (P)	21	2
Lieutenant Colonel	100	9
CAS ³ Student	158	15
CGSOC Student	690	67
CAS ³ Staff/Faculty	16	1
CGSOC Staff/Faculty	150	14
Other	6	<1

If the mission of CAS³ is to prepare officers for staff duty in the field, a correlation between the time that they attend such schooling, and the time that they perform staff duties could be reasonably expected. At least at the Battalion level, answers to survey questions 45 and 46 in the 1992 survey indicated that, by about the fourth year of AFCS, over 50% of officers had had or were in staff positions, while less than 10% had attended CAS³. These figures indicated the possibility of a "Training Gap" between an officer's need for staff skills, and training at the course (apparently) charged with preparing him. Figure 2 on the page following illustrates this possibility.

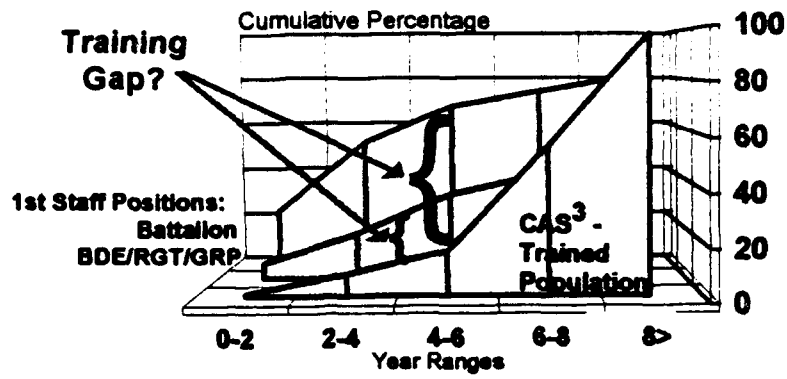


Fig. 2. Staff Assignment vs. CAS³-Trained Population

To confirm or deny this "gap," results of the 1990 and 1992 surveys were matched by skill group and individual skill. Perceptions of utility (derived from CAS³ education by graduates and supervisors in 1990) were correlated with the cumulative instances of first essential need in 1992. Three cross-tabs, Branch Group, Rank, and Status, are used from the 1992 survey, with other cross-tabs added where required to illustrate specific issues.

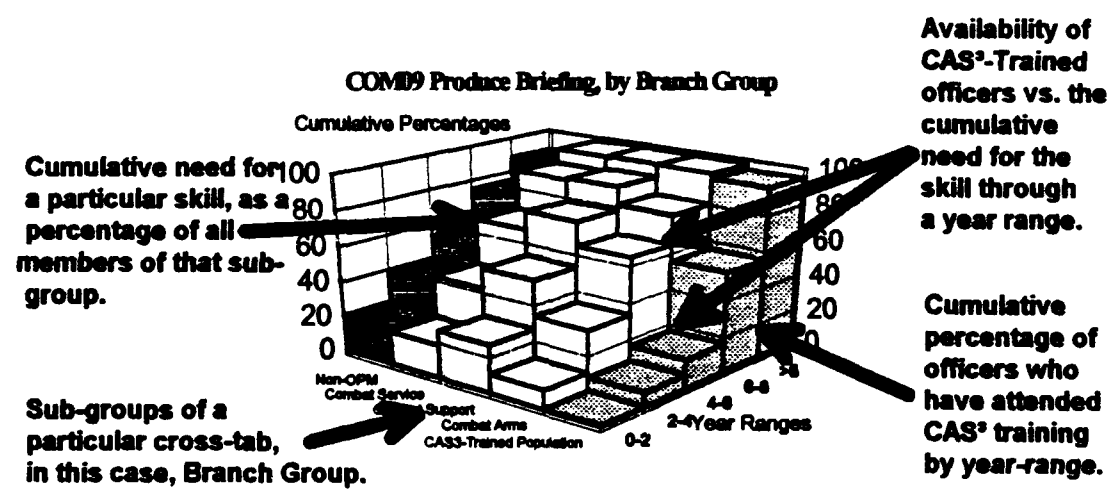


Fig. 3. How To Interpret the Bar Graphs⁵⁰

Communications Skills

Communications Skills, the first area examined, was second only to Management Skills in earliest need and greatest use. While "Communicate Verbally (Give Briefings)" led with almost 70% at the 2-4 year mark, even the lowest, "Coordinate Staff Actions" was at 45% during that period.

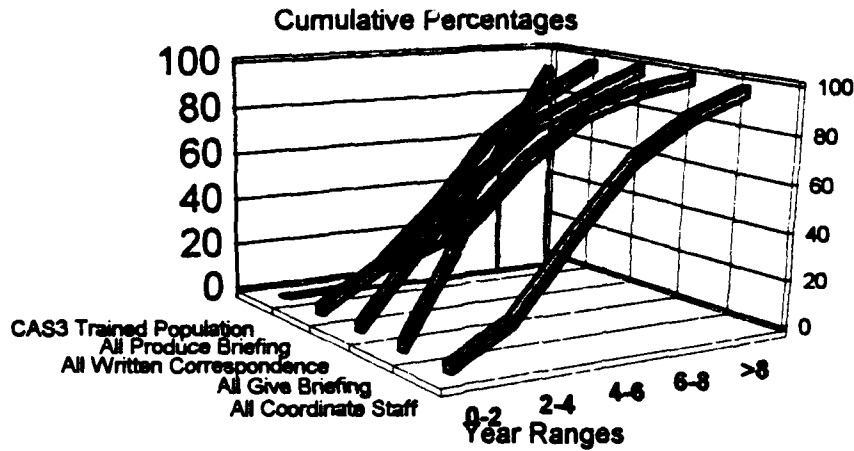


Fig. 4. Communications Skills

Table 7 on the page following compares 1990 External Evaluation survey results on improvement with the 1992 survey on need. Although high levels of need and improvement were common to all "Communications" skills, significant differences were apparent when population subgroups were examined in detail.

TABLE 7

COMMUNICATIONS SKILLS SURVEY COMPARISON

1990 Graduate N=337 1990 Supervisor N=243 1992 All N=1026	1992 TOTAL NEEDS	1992 RANK IN 36	1990 Evaluation - Great Improvement Self/Supervisor (%)	1990 Evaluation Moderate Improvement Self/Supervisor (%)
Produce Briefing	996	6	38/33	41/53
Written Correspondence	1,014	2	15/22	49/54
Give Briefing	1,013	3	11/19	38/48
Coordinate Staff	999	5	18/32	37/48

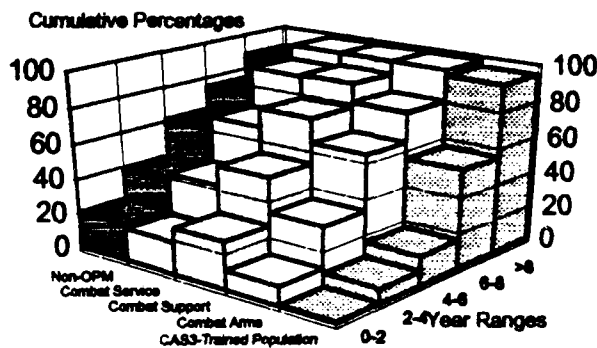


Fig. 5. COM09 Produce Briefing, by Branch Group

Cross-tabbing by Branch Group placed Combat Support officers considerably in the lead of "Produce Briefings." 54% of Combat Support officers had "Produce Briefings" as an essential skill during the 2-4 year mark, a number rising to over 78% at the 4-6 year level.

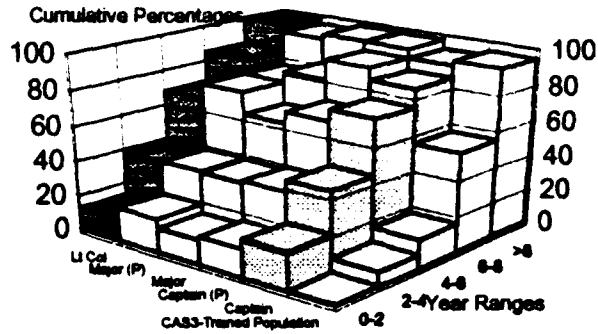


Fig. 6. COM09 Produce Briefing, by Rank

Examination of this same skill, by rank, revealed that the trend is upwards: Captains started out higher than any other group with over 21% at the 0-2 year point, and maintained their lead in the 2-4 year level. 45% of Captains had produced briefings as an essential skill at that point, compared with only about 38% with all other groups.

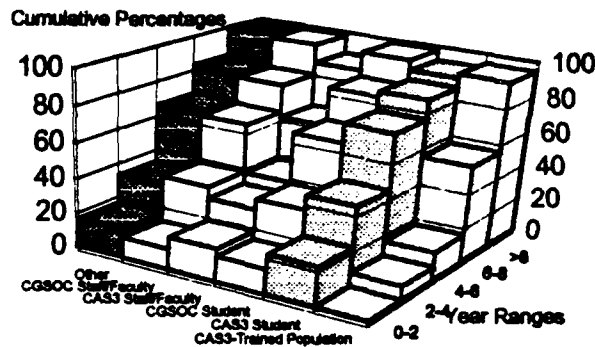


Fig. 7. COM09 Produce Briefing, by Status

Results by Status duplicated this finding as expected, as the two populations -- Captains and CAS³ students -- are almost completely congruent.

The cumulative percentage of 67% at the 4-6 year range made this skill 12 of 36 skills at that point, and compares to an availability of CAS3-trained officers of only 16.5% for the same period.

The next skill, "Produce Written Correspondence," showed much higher levels of need much earlier than "Produce Briefings." Overall, 31%, 56%, and 78% claimed this item at the 0-2, 2-4, and 4-6 year marks respectively. "Produce Written Correspondence" was the second most widely used skill in the survey population as a whole, only 12 officers not regarding it as essential at some point in their careers to-date. At the 4-6 year range, it was 6th of 36 skills.

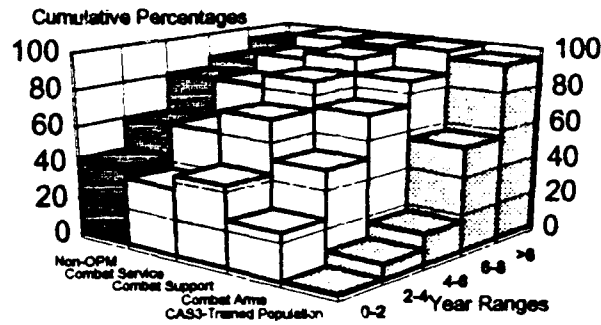


Fig. 8. COM10 Produce Written Correspondence, by Branch Group

Differentiation by Branch Group continued to follow the pattern established by other communications skills, but differences due to rank were somewhat less pronounced. Combat Support again lead all other groups by significant margins for the first four years.

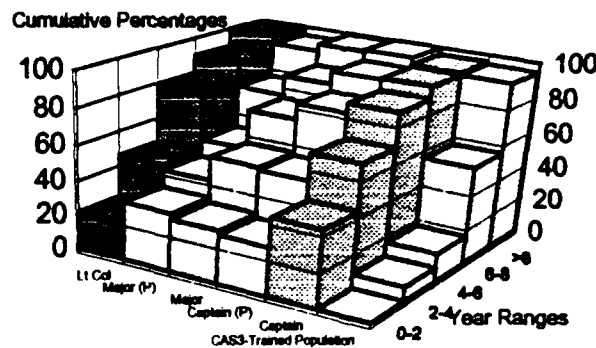


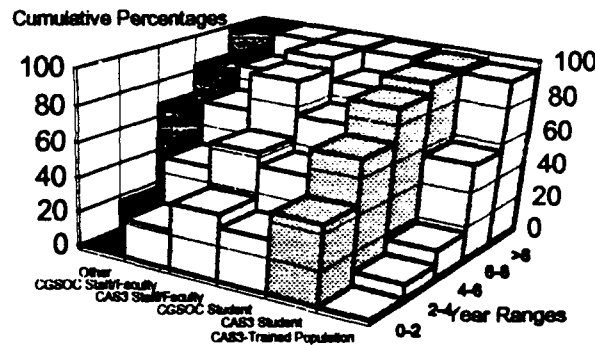
Fig. 9. COM10 Produce Written Correspondence, by Rank

The trend towards higher, earlier usage continued as Captains claimed a 48% first need in years 0-2, and 69% cumulative need by years 2-4. These figures were about 30-40% above those noted by higher ranking officers.

TABLE 8
WRITTEN CORRESPONDENCE AND CAS³ INSTRUCTORS

Written Correspondence	0-2	2-4	4-6
Captain/CAS ³	44/45	69/70	88/89
CAS ³ Instructor	38	63	94
Lieutenant Colonel	22	46	80

Fig. 10. COM10 Produce Written Correspondence, by Status



Interestingly, CAS³ instructors rated their experience with "Written Correspondence" more highly than Lieutenant Colonels as a group (Table 8 above), a factor not statistically explained by the 75% Lieutenant Colonel, 25% Major population of the instructor group.

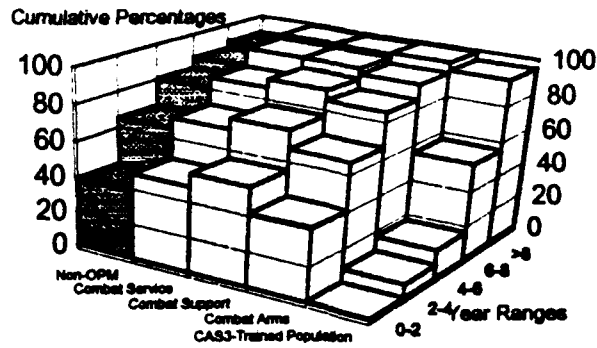


Fig. 11. COM11 Give Briefings, by Branch Group

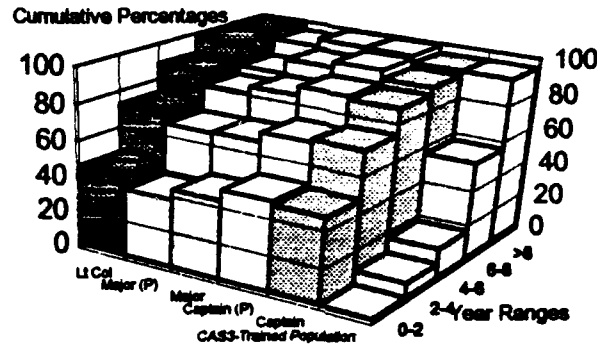


Fig. 12. COM11 Give Briefings, by Rank

Like "Written Correspondence," "Give Briefings" was rated higher, earlier by both the instructor and student populations of CAS³ than by other sub-groups. Table 9 below shows that the trend did even out by the 4-6 year choice range.

TABLE 9

GIVE BRIEFINGS AND CAS³ INSTRUCTORS

Give Briefings	0-2	2-4	4-6
Captain/CAS ³	48/47	74/73	88/87
CAS ³ Instructor	56	88	88
Lieutenant Colonel	46	73	89

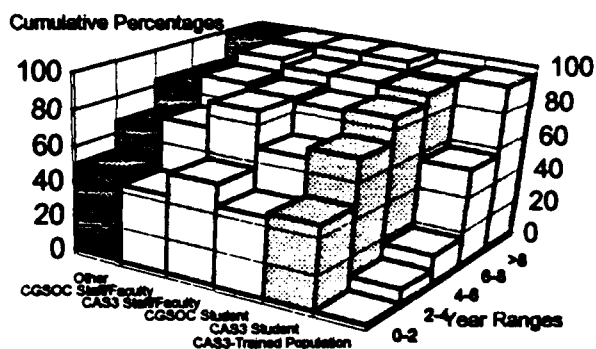


Fig. 13. COM11 Give Briefings, by Status

"Give Briefings," 4th of 36 skills at the 4-6 year range, was the third most commonly used skill overall, only 13 survey participants not claiming it had been an essential skill at some point.

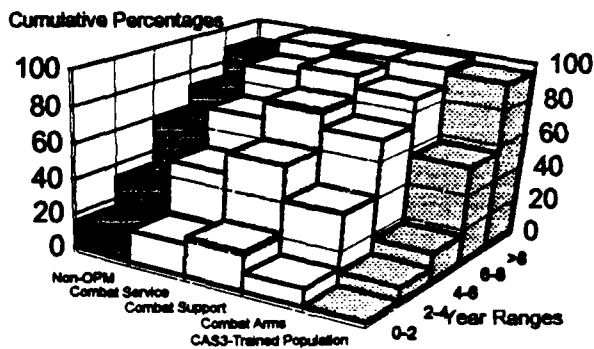


Fig. 14. COM12 Coordinate Staff Actions, by Branch

Overall, "Coordinate Staff Actions" was not claimed as an essential skill by 27 survey participants, primarily in non-OPM branches. It was fifth of the thirty-five skill areas surveyed, although slightly lower at 8th at the 4-6 year range.

It continued the same pattern of relative need between branch groups as previous communications skills, although at considerably reduced levels during the early years. The Combat Support sub-group was highest at 22%. at the 0-2 year range.

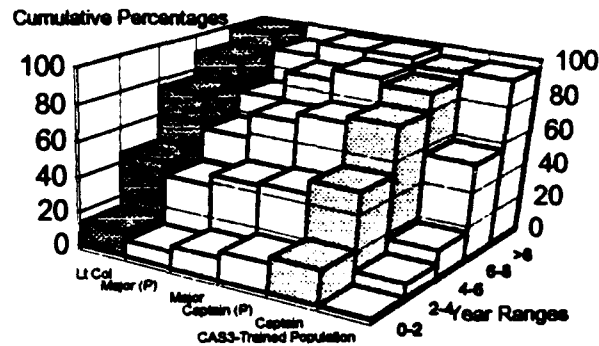


Fig. 15. COM12 Coordinate Staff Actions, by Rank

By rank, the group with the lowest need was promotable Majors, but there was no evidence of a growing trend from Major through Captain.

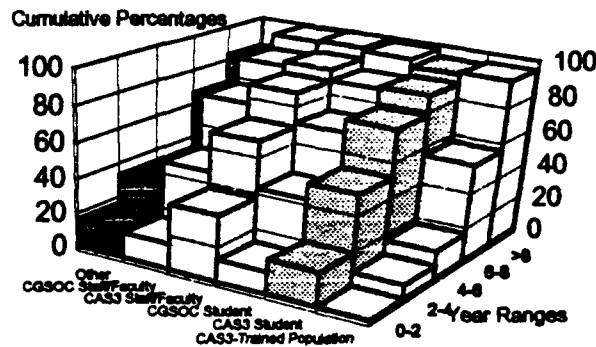


Fig. 16. COM12 Coordinate Staff Actions, by Status

The Status cross-tab revealed significant sensitivity by CAS³ populations.

TABLE 10

COORDINATE STAFF AND CAS³ INSTRUCTORS

Coordinate Staff	0-2	2-4	4-6
Captain/CAS ³	20/20	52/52	79/78
CAS ³ Instructor	38	69	88
Lieutenant Colonel	14	45	76

Consistently, CAS³ Instructors favored "Coordinate Staff Actions" as they had other communications skills, weighing it more heavily than Lieutenant Colonels in general.

Quantitative Skills

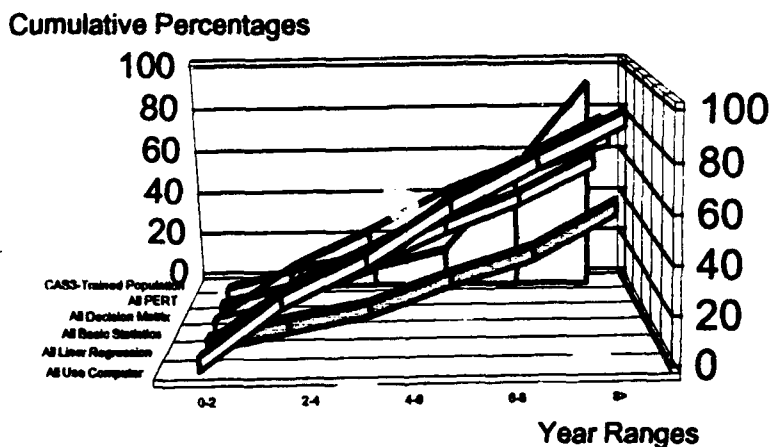


Fig. 17. Quantitative Skills

Quantitative Skills had an average of 764 essential needs per skill, and as a group was sixth of nine groups. The table below compares 1990 External Evaluation results on "Improvement" with the 1992 survey on "Need."

TABLE 11

QUANTITATIVE SKILLS SURVEY COMPARISON

1990 Graduate N=337 1990 Supervisor N=243 1992 All N=1026	1992 TOTAL NEEDS	1992 RANK IN 36	1990 Evaluation Great Improvement Self/Supervisor (%)	1990 Evaluation Moderate Improvement Self/Supervisor (%)
Pert	622	32	13/16	12/45
Decision Matrix	834	16	26/28	21/46
Basic Statistics	818	18	8/16	11/41
Liner Regression	568	34	8/12	13/37
Personal Computer	980	8	17/20	24/23

With the exception of "Basic Statistics," skills in this group ranked highly on the 1992 survey also revealed strong levels of improvement in the 1990 evaluation.

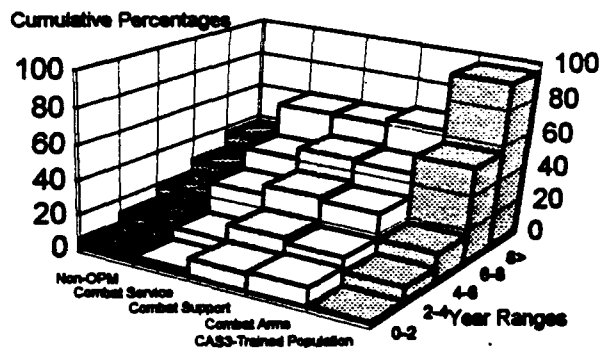


Fig. 18. QUN13 Solve PERT Network, by Branch Group

Cross-tabling the 1992 rankings by Branch Group, non-OPM branch ratings of "Solve PERT Network" were particularly low; all other groups had indifferent, but similar ratings.

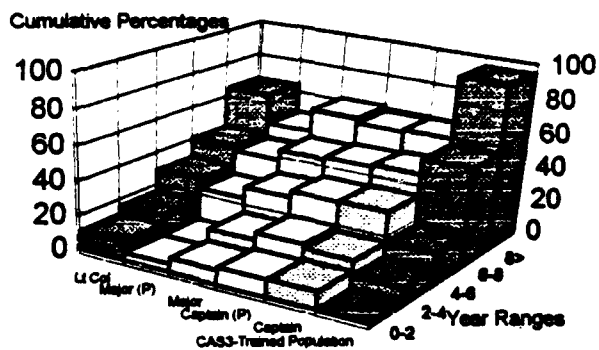


Fig. 19. QUN13 Solve PERT Network, by Rank

Although the rank cross-tab was not generally significant, Lieutenant Colonels showed a sharp peak in the greater than 8 years service category, and in sharp contrast to promotable Majors.

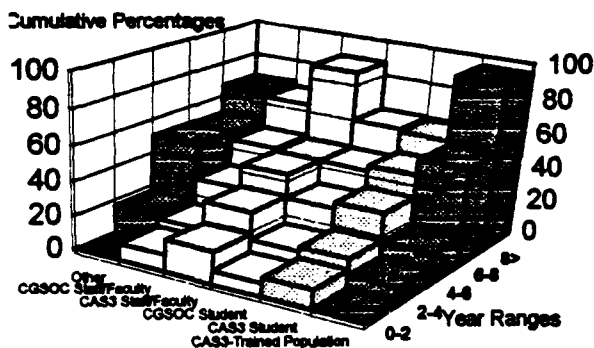


Fig. 20. QUN13 Solve PERT Network, by Status

The Status cross-tab, also not generally passing the test of significance, did shed some light on the higher need perceived by Lieutenant Colonels -- CAS³ instructors were understandingly highest group in their need for this particular skill. This skill was 32nd of 36 skills in total needs at the 4-6 year range, and overall as well.

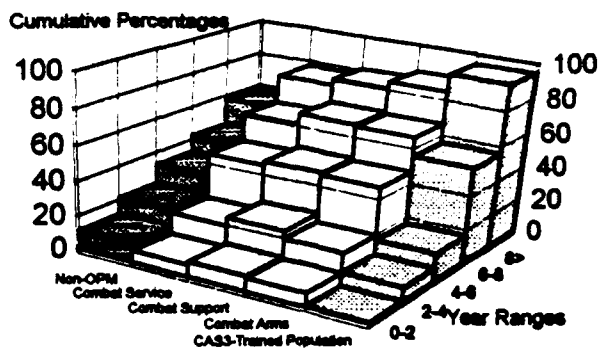


Fig. 21. QUN14 Construct & Use Decision Matrix, by Branch Group

Sixteenth in popularity with 834 incidents of essential need, "Construct and Use a Decision Matrix" enjoyed fairly even support throughout all branch groups, ranks, and status classifications excepting a slightly weaker showing in non-OPM branches.

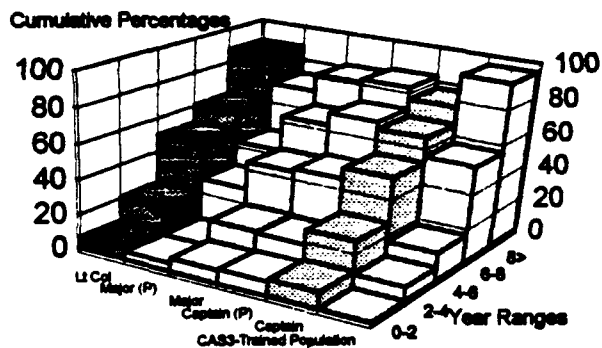


Fig. 22. QUN14 Construct & Use Decision Matrix, by Rank

However, when the additional cross-tab of "Years Active Federal Commissioned Service" was examined, a trend toward earlier and greater usage through the sixth year was noticeable in what was essentially a sub-group of the CAS³ class, the 4-6 years AFCS group.

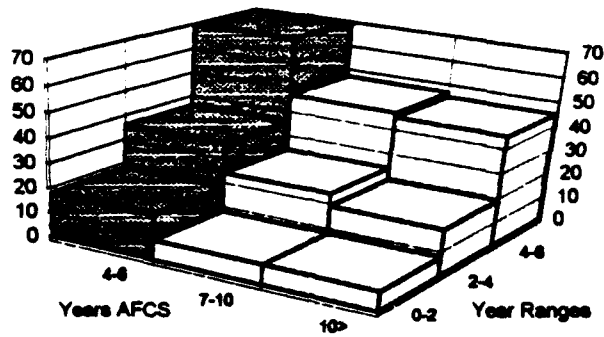


Fig. 23. Decision Matrix and Years AFCS

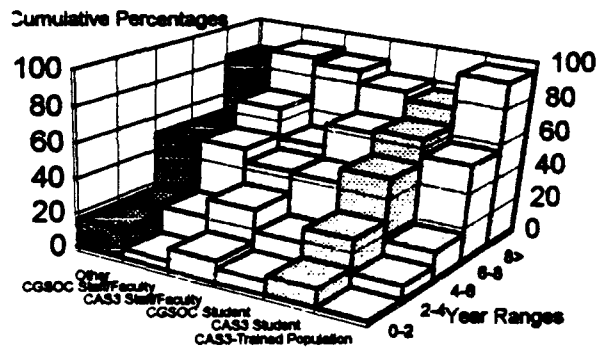


Fig. 24. QUN14 Construct & Use Decision Matrix, by Status

Overall, in comparison with the availability of CAS³ trained personnel, this skill peaked fairly early, with about 64% of officers overall requiring it by the 4-6 year mark, but less than 20% additionally requiring it for the first time thereafter, making it 23rd and 16th respectively for overall needs.

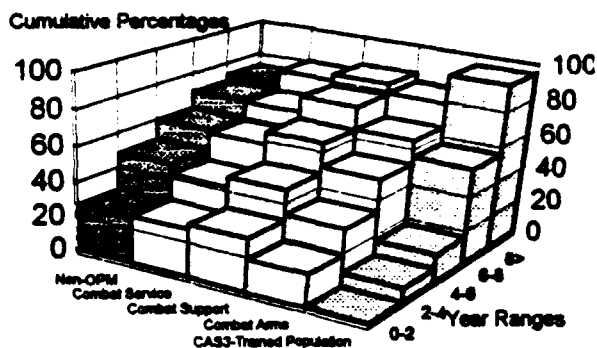


Fig. 25. QUN15 Calculate Basic Statistics, by Branch Group

Officers of the Combat Support branches valued more highly the next skill, "Calculate Basic Statistics," by 5 to 10% above the average for all officers.

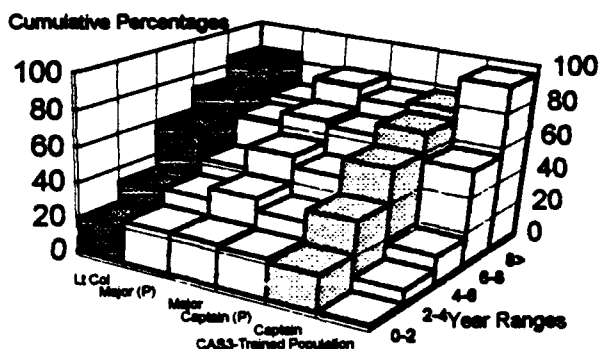


Fig. 26. QUN15 Calculate Basic Statistics, by Rank

Rank was not a significant cross-tab, and no consistent trends were observed. The sharp contrast between promotable Majors and Lieutenant Colonels and non-promotable Colonels is partially explained by the composition of the CAS³ instructor group.

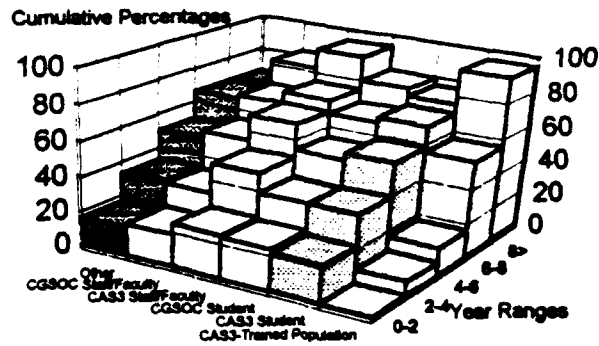


Fig. 27. QUN15 Calculate Basic Statistics, by Status

In Status, while CAS³ instructors gave it about a 5% lead over the experience of other groups cross-tabbed by status, the same sensitivity did not appear in the CAS³ student group. Status was not a significant cross-tab for this skill. 16th at the 4-6 year range in first essential need, it was 18th overall in the survey.

Placing near the bottom of all skills surveyed was "Solve Linear Regression," the third Quantitative Skill. Only 568 officers experienced it as an essential skill, with need about even with the availability of CAS³ trained officers through the 4-6 year range, and well behind such availability thereafter. "Solve Linear Regression" was 33rd at the 4-6 range, 34th overall.

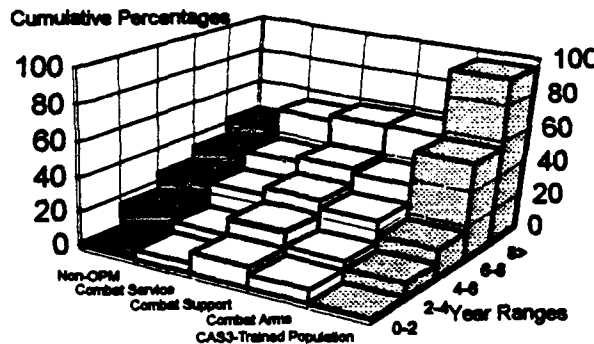


Fig. 28. QUN16 Solve Linear Regression Problem, by Branch Group

Other than a particularly low rating by non-OPM branches, no significant differences were found in the Branch cross-tab, figure 28 above.

TABLE 12
 LINEAR REGRESSION AND CAS³ INSTRUCTORS

Linear Regression	0-2	2-4	4-6	6-8
CAS ³ Instructor	6	31	44	50
Lieutenant Colonel	7	13	21	30

A relatively large additional value perceived by CAS³ instructors in the Status cross-tab did not greatly distort the Lieutenant Colonel's section of the Rank cross-tab (graph not shown), due to the limited number selected overall by the group.

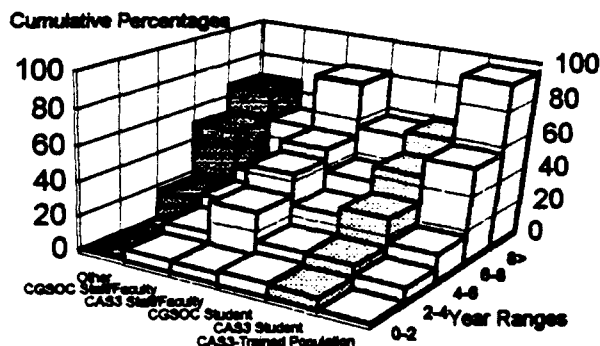


Fig. 29. QUN16 Solve Linear Regression Problem, by Status

The final skill in the Quantitative group was "Use Personal Computer for Word Processing, Spreadsheets, and Statistics." 14th at the 4-6 year range, it was valued overall by survey participants as the eighth most common essential skill, with 980 officers selecting it at some point.

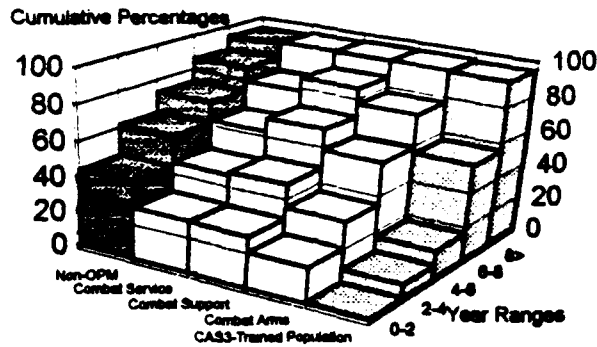


Fig. 30. QUN17 Use Personal Computer, by Branch Group

Non-OPM and Combat Support officers led in their need for computer skills during the first three year groupings.

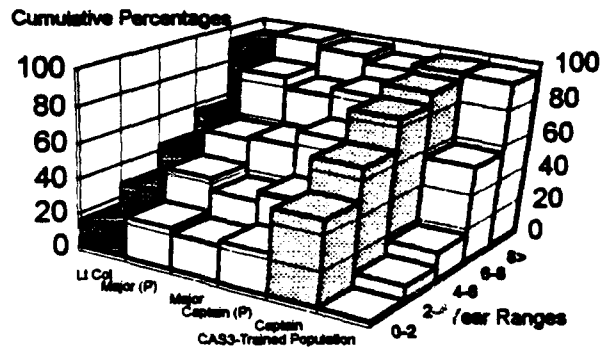


Fig. 31. QUN17 Use Personal Computer, by Rank

Differences by rank were particularly acute, even between promotable Majors and Lieutenant Colonels. A trend toward more, and earlier use was apparent, with a tremendous jump in the Captain sub-group in the first three year ranges.

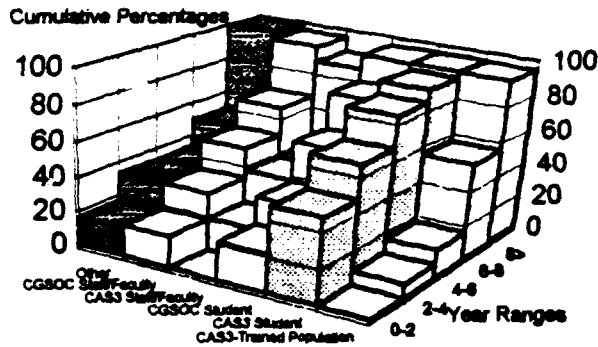


Fig. 32. QUN17 Use Personal Computer, by Status

Excepting CAS³ instructors, division by Status paralleled division by Rank. Junior officers experienced less, but all groups approached 100% cumulative need in the 8> year range.

Management Skills.

High ratings given to the two Management skills made this area the most common, and earliest required of all skill groups.

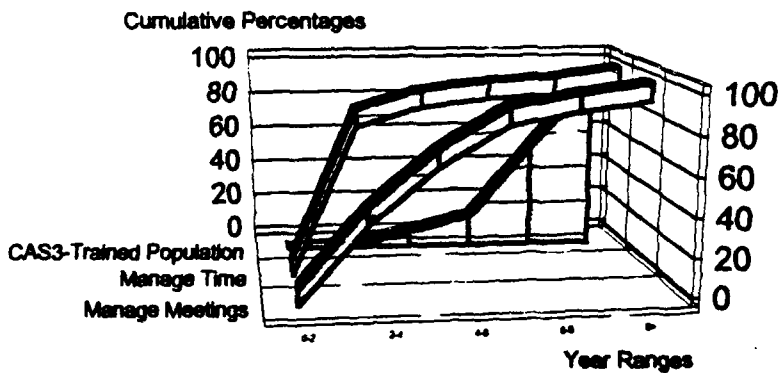


Fig. 33. Management Skills

TABLE 13

MANAGEMENT SKILLS SURVEY COMPARISON

1990 Graduate N=337 1990 Supervisor N=243 1992 All N=1026	1992 TOTAL NEEDS	1992 RANK IN 36	1990 Evaluation Great Improvement Self/Supervisor (%)	1990 Evaluation Moderate Improvement Self/Supervisor (%)
Manage Time	1,017	1	12/18	26/43
Manage Meetings	1,010	4	17/19	31/46

Despite the extremely early perceived needs recorded by the 1992 survey, the 1990 survey indicated that CAS³ was still of considerable benefit in this skill group. 38% of graduates and 61% of supervisors considered CAS³ training to be of great or moderate improvement in the "Manage Time Effectively" category. "Manage Meetings" scored even higher, with great and moderate total improvement scores of 48% and 65% by graduates and supervisors respectively.

No significance was attributable to "Time Management" by Branch Group or by Rank.

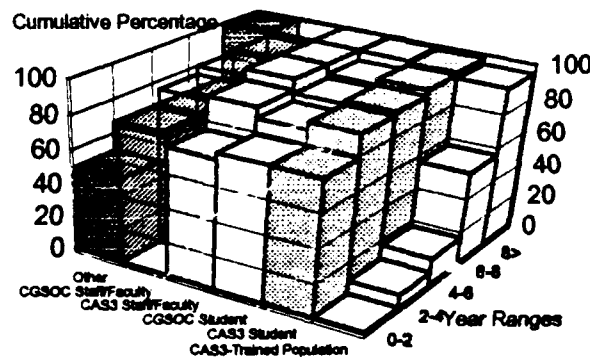


Fig. 34. Mgt18 Manage Time Effectively, by Status

Division by Status met the test of significance, but primarily due to a lesser rating by the small "Others" sub-group. This skill was 1st in cumulative first essential needs in both the 4-6 year range, and for all skills overall.

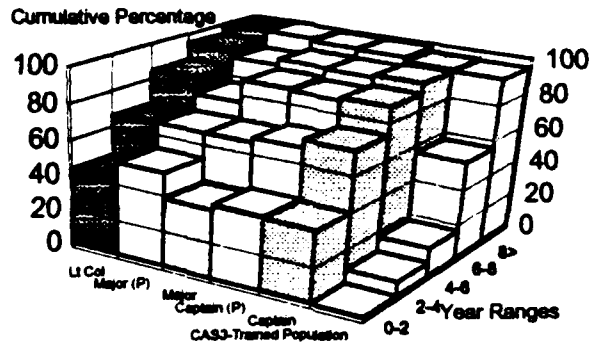


Fig. 35. MGT19 Manage Meetings Effectively, by Rank

"Meeting Management" significant cross-tabs included divisions by Rank and by Status, but it was rated highly by all sub-groups in both population. Fourth overall, "Manage Meetings Effectively" was 2nd at the 4-6 year range.

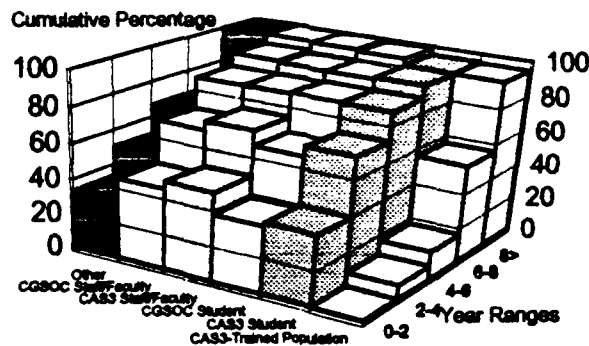


Fig. 36. MGT19 Manage Meetings Effectively, by Status

Training

The two Training Management skills "Develop Training Plans" and "Solve Training Management Problems" both rated strongly in the 1992 survey of perceived essential needs, but both also fell in the lower third of "Great Improvement" ratings by CAS³ Graduates in the 1990 survey of improvement. (See Table 14 on the following page.)

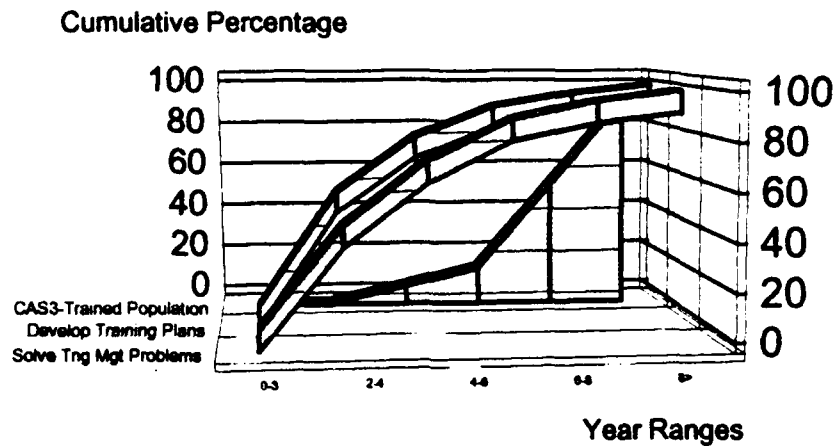


Fig. 37. Training

TABLE 14

TRAINING SKILLS SURVEY COMPARISON

1990 Graduate N=337 1990 Supervisor N=243 1992 All N=1026	1992 TOTAL NEEDS	1992 RANK IN 36	1990 Evaluation Great Improvement Self/Supervisor (%)	1990 Evaluation Moderate Improvement Self/Supervisor (%)
Develop Training Plans	983	7	10/20	22/47
Solve Tng Mgt Problems	978	9	10/18	23/48

For the skill "Develop Training Plans," the cross-tabs of Branch Group and Status were significant.

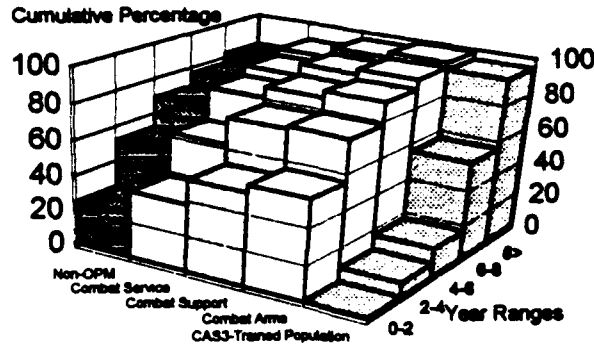


Fig. 38. TNG20 Develop Training Plans, by Branch Group

All branch groups valued the skill highly, with 87% of the total population perceiving an essential need through the 4-6 year range, when it placed 3rd of 36 skills.

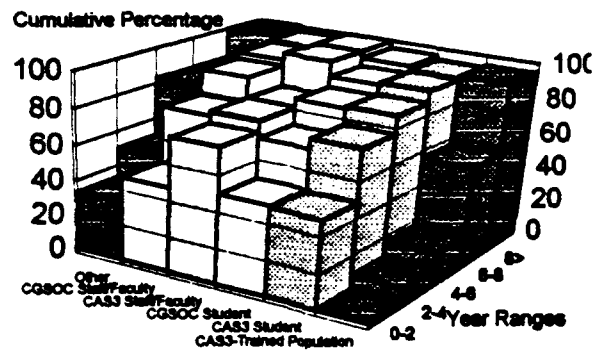


Fig. 39. TNG20 Develop Training Plans, by Branch Group

The Status cross-tab revealed a substantially increased sensitivity by CAS³ instructors towards utilization of this skill in the 0-2 year range. Their 75% selection rate was considerably above the 49% given by Lieutenant Colonels collectively.

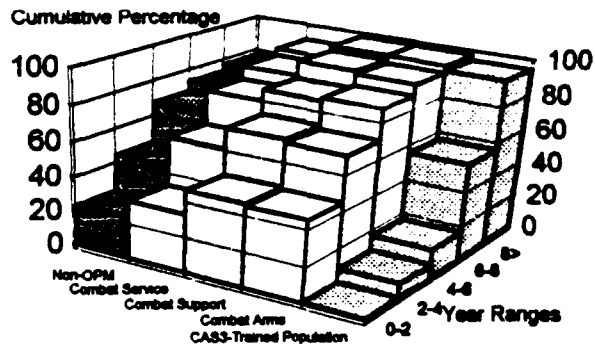


Fig. 40. TNG21 Solve Training Management Problems, by Branch Group

Of the three standard cross-tabs, only the Branch Group selection showed significance for the "Solve Training Management" skill. Utilization by Combat Arms and Combat Support branch groups ran considerably ahead of other divisions through the 2-4 year range. Ninth overall, this skill was 5th of 36 skills at the 4-6 year range.

Manpower and Budget

This skill group ranked relatively low in perceived improvement in the 1990 survey, and also in utilization in the 1992 survey.

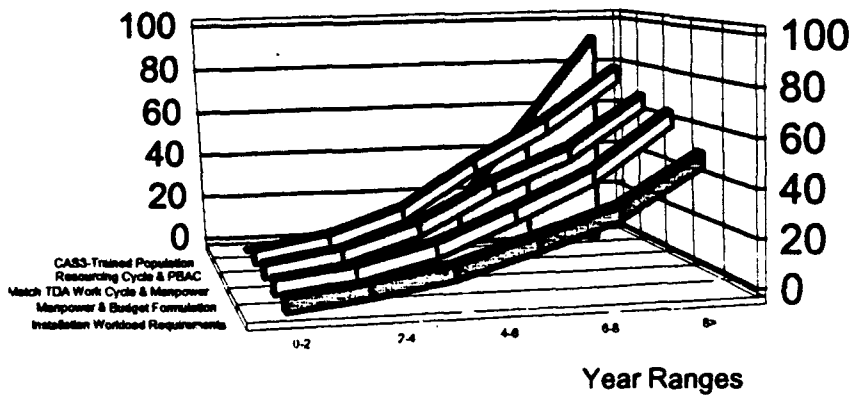


Fig. 41. Manpower & Budget

TABLE 15

MANPOWER & BUDGET SKILLS SURVEY COMPARISON

'90 Graduate N=337 '90 Supervisor N=243 '92 All N=1026	'92 TOTAL NEEDS	'92 RANK IN 36	'90 Evaluation Great Improvement Self/Supervisor (%)	'90 Evaluation Moderate Improvement Self/Supervisor (%)
Resource Cycle & PBAC	790	20	9/12	19/48
Work Category & TDA	690	26	4/12	15/42
Manpower & Budget	652	31	7/10	15/44
Installation Work- load Req	518	36	5/11	13/41

All individual skills did pass the test of significance for each of the three standard subdivisions.

The first skill, "Knowledge of Resourcing Cycle and PBAC," ranked 20 of 36 items surveyed, and was the most highly valued of skills in this group. About 37% of the surveyed population had experienced a first essential need by the 4-6 year range, giving it a rank of 27 at that point.

It showed little difference in divisions by Branch Group (graph not shown), other than a slight lead in importance by members of Combat Support Branches.

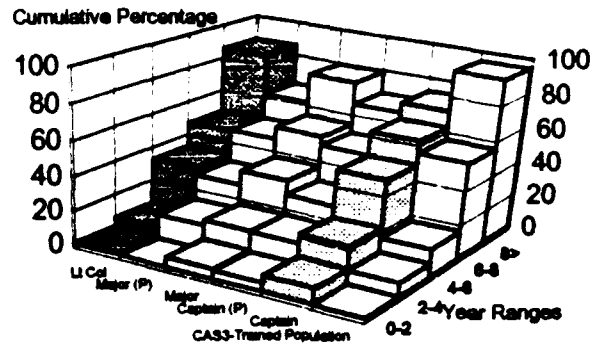
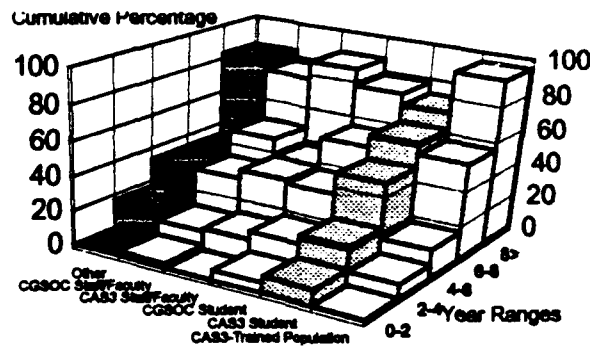


Fig. 42. MNB22 Knowledge of Resourcing Cycle & PBAC, by Rank

Divided by Rank, the strong showing by Lieutenant Colonels in the 8+ year range was not matched by a strong showing by CAS³ instructors, but appeared to be a general need for the skill in later years.

However, an increasing pattern for more junior personnel was shown by both Rank and Status cross-tabs. (See Figure 43 on the page following.)

Fig. 43. MNB22 Knowledge of Resourcing Cycle & PBAC, by Status



The second skill, "Match Work Category & TDA Work Element," received the lowest percentage of any skill (4%) for "Great Improvement" by graduates in the 1990 Survey. It also tied for second lowest for "Moderate Improvement" by graduates with a

rating of only 15%. Supervisor ratings were also low in "Great Improvement, with a 12% rating.

About 32% of the officers surveyed had an essential need through the 4-6 year range. At that point it was only 31st of 36 skills, although it eventually finished at 26th overall.

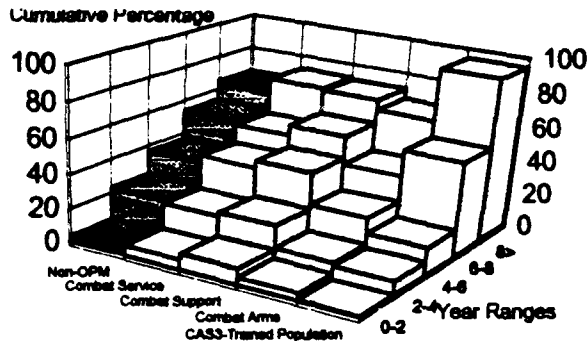


Fig. 44. MNB23 Match Work Category & TDA Work Element, by Branch Group

This skill received low but generally uniform perceptions of need in the 1992 Branch Group cross-tab, with some slightly higher needs perceived by members of the Combat Support Arms.

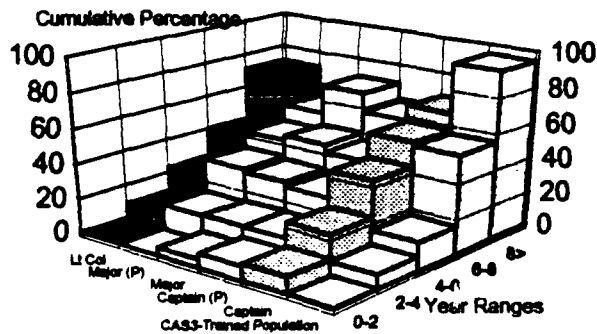


Fig. 45. MNB23 Match Work Category & TDA Work Element, by Rank

Under the Rank cross-tab, "Match Work Category & TDA Work Element" was considered more important by Captains than by any other group.

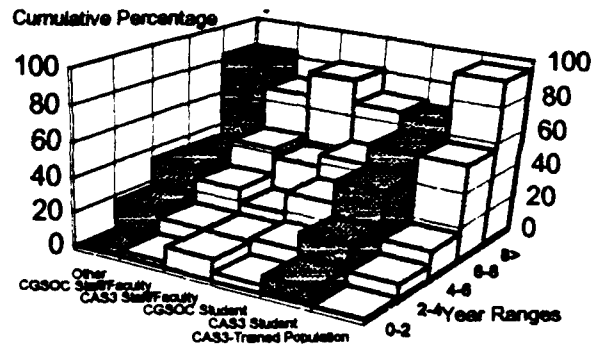


Fig. 46. MNB23 Match Work Category & TDA Work Element, by Status

The sensitivity shown by Captains was traceable to the increased perception shared by CAS³ students and instructors in the Status cross-tab.

"Manpower & Budget Formulation," the next skill in this group, was only 31 of 36 skills overall in perceived need in the 1992 survey (34th at the 4-6 year range), and received only 7% and 12% ratings for "Great" and "Moderate" improvement from CAS³ graduates in the 1990 survey. Supervisors of CAS³ graduates also rated this area as only fair with a 15% rating in the "Great Improvement" category.

In the 1992 survey, only about 26% of the population surveyed had had an essential need for the skill through the 4-6 year range.

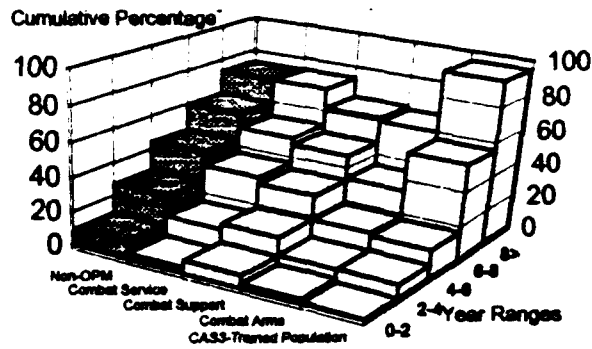


Fig. 47. MNB24 Manpower & Budget Formulation, by Branch Group

Cross-tabulated by Branch Group, the Combat Arms showed lowest usage, with generally highest usage by non-OPM branches.

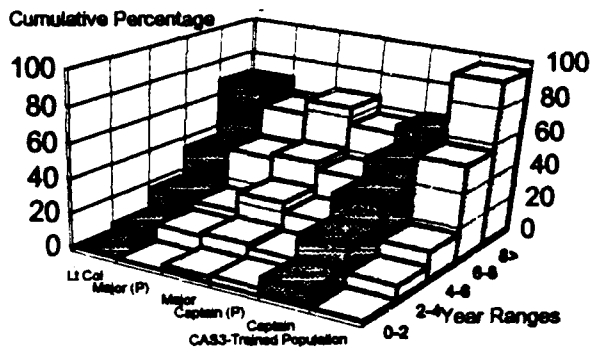


Fig. 48. MNB24 Manpower & Budget Formulation, by Rank

Divisions by Rank and by Status revealed little except the general sensitivity experienced by CAS³ students and instructors.

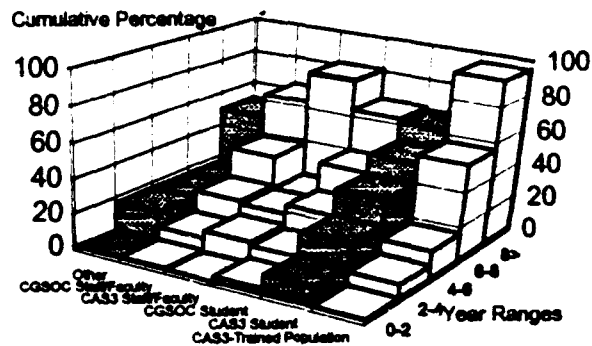


Fig. 49. MNB24 Manpower & Budget Formulation, by Status

The final skill in this group, "Analyze Installation Workload Requirements," was the lowest valued of all 36 skills surveyed in the 1992 survey. The 518 personnel who had experienced were barely half of the total population. At the 4-6 year range, only 19% had experienced such a need. This low score resulted in the skill being last both at the 4-6 year range, and overall for the survey.

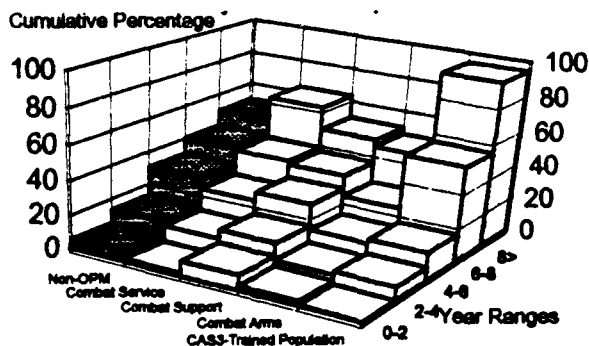


Fig. 50. MNB25 Analyze Installation Workload Requirements, by Branch Group

Although passing the test of significance, little discernible difference was found between Branch Groups. Somewhat lower needs were perceived by members of the Combat Arms throughout the 6-8 year range.

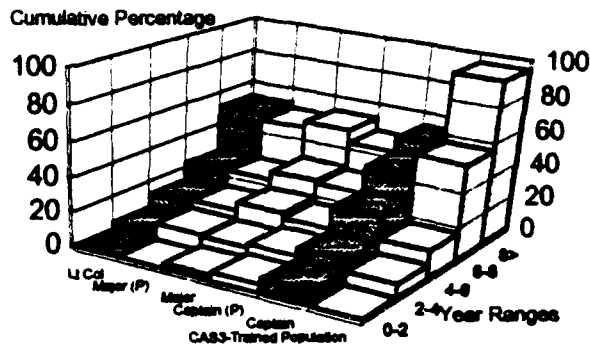


Fig. 51. MNB25 Analyze Installation Workload Requirements, by Rank

The Rank cross-tab exhibited relatively uniform ratings, with a slight emphasis by captains.

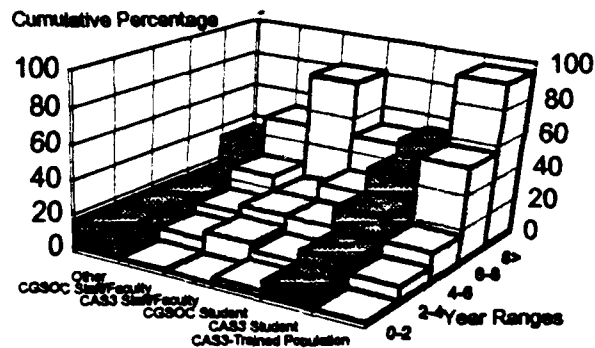


Fig. 52. MNB25 Analyze Installation Workload Requirements, by Status

However, when the Status cross-tab was examined, it became apparent that the reason Lieutenant Colonels had been about even with other ranks was an extremely high rating given by CAS³ instructors in the 8> year range.

Logistics

Both Logistics' skills were given low ratings on the 1990 survey of perceived improvements. Both also fell in the bottom third in essential needs in the 1992 survey.

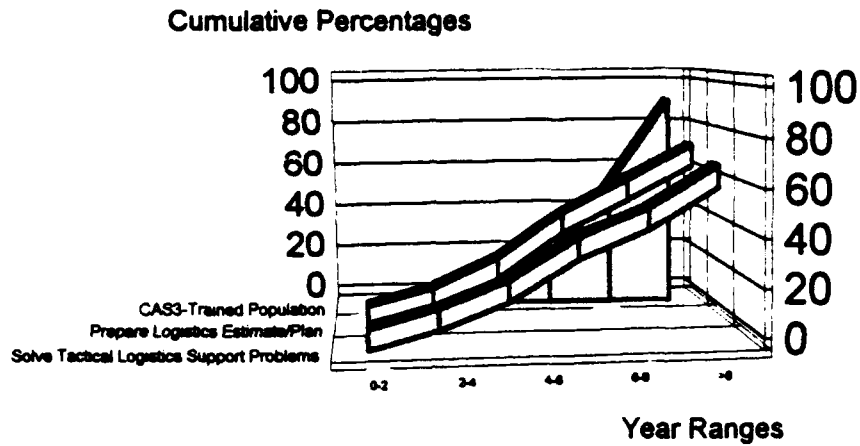


Fig. 53. Logistics

At the 4-6 year range, 40% of officers had experienced an essential need for "Prepare Logistics Estimate/Plan," and 35% had required "Solve Tactical Logistics Support Problem." With those scores, the two logistics' skills were 26th and 29th at the 4-6 year range.

All three standard cross-tabs passed the test of significance in both skill groups.

TABLE 16

LOGISTICS SKILLS SURVEY COMPARISON

1990 Graduate N=337 1990 Supervisor N=243 1992 All N=1026	1992 TOTAL NEEDS	1992 RANK IN 36	1990 Evaluation Great Improvement Self/Supervisor (%)	1990 Evaluation Moderate Improvement Self/Supervisor (%)
Prepare Logistics Estimate	705	25	8/17	23/49
Tactical Log Problems	654	30	9/14	19/48

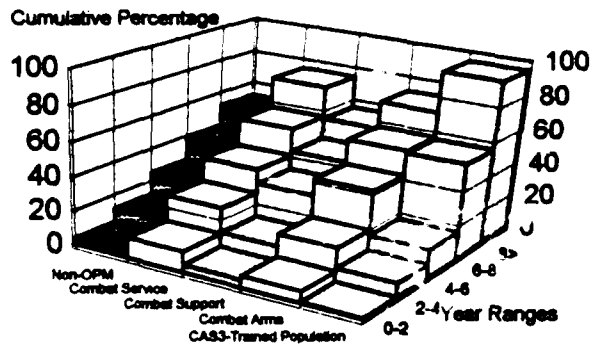


Fig. 54. LOG26 Prepare Logistics Estimate/Plan, by Branch Group

The first skill, "Prepare Logistics Estimate/Plan," was required more strongly by the Combat Arms and Combat Service Branches than all others, but all branches showed increasing need at fairly even rate.

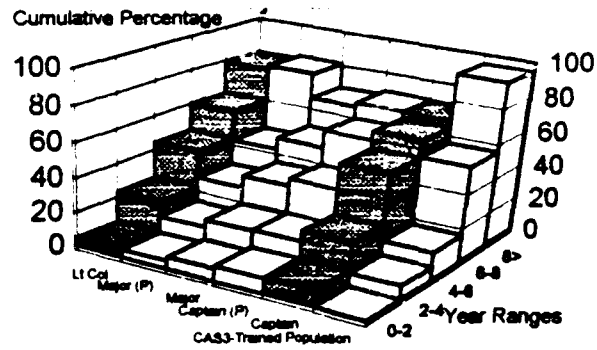


Fig. 55. LOG26 Prepare Logistics Estimate/Plan, by Rank

Cross-tabbed by Rank and by Status, the common pattern of increased sensitivity to the subject was apparent in CAS³ instructors and students.

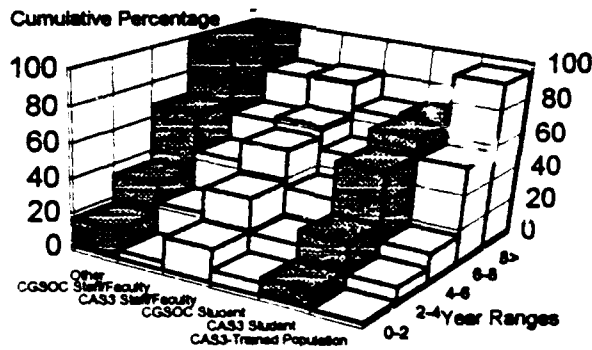


Fig. 56. LOG26 Prepare Logistics Estimate/Plan, by Status

The next skill, "Solve Tactical Logistics Support Problems," also showed a greater need by Combat Service and Combat Arms personnel.

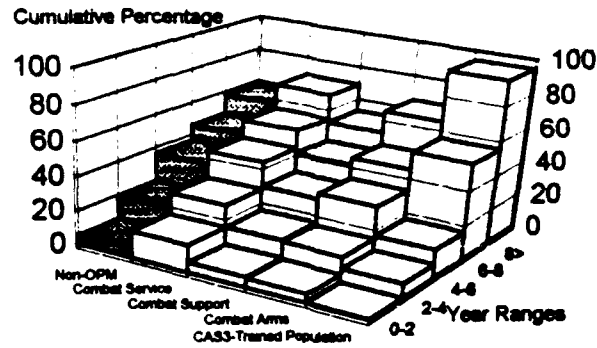


Fig. 57. LOG27 Solve Tactical Logistics Support Problems, by Branch Group

The rate of need for Combat Service officers was double the average at 16% during the 0-2 year range.

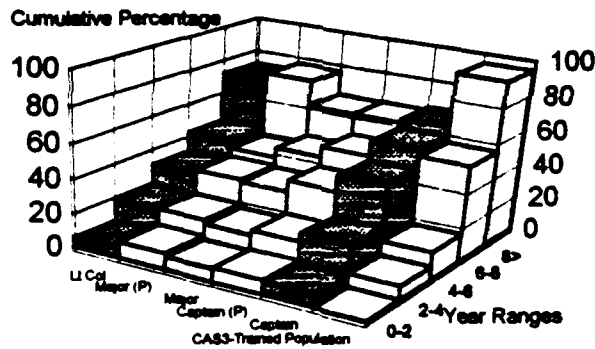


Fig. 58. LOG27 Solve Tactical Logistics Support Problems, by Rank

Divisions by Rank indicated that the need for this skill increased sharply at the 8+ year range. The senior personnel surveyed, promotable Majors and Lieutenant Colonels, only experienced 58% and 43% essential needs through the 6-8 year range respectively, and figure which jumped to 76% and 72% in the 8+ year range.

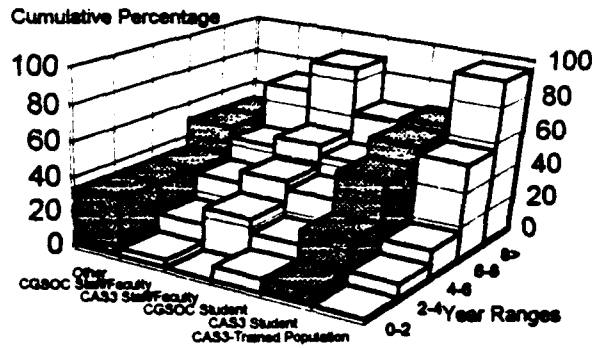


Fig. 59. LOG27 Solve Tactical Logistics Support Problems, by Status

The sharp jump in this skill's utilization perceived by senior ranking personnel was not attributable to sensitivity on the part of any group in the Status cross-tab. Personnel in the more senior categories -- both CAS³ and CGSOC instructors -- indicated a higher incidence of need in the 8> year range.

Mobilization and Deployment

The individual skills of "Mobilization and Deployment" were ranked about the lower third of all skills in the 1992 survey, and also faired poorly in the 1990 survey.

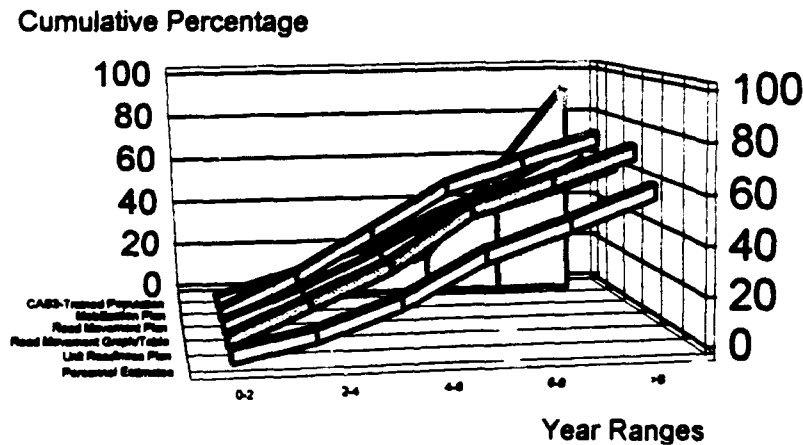


Fig. 60. Mobilization & Deployment

TABLE 17

MOBILIZATION & DEPLOYMENT SURVEY COMPARISON

1990 Graduate N=337 1990 Supervisor N=243 1992 All N=1026	1992 TOTAL NEEDS	1992 RANK IN 36	1990 Evaluation Great Improvement Self/Supervisor (%)	1990 Evaluation Moderate Improvement Self/Supervisor (%)
Mobilization Action Plan	665	29	9/13	18/49
Road Movement Plan	746	24	7/12	17/47
Road Movement Graph	668	28	6/10	17/50
Unit Readiness Plan	748	23	7/13	20/46
Personnel Estimate	617	33	8/16	20/46

The Branch Group cross-tab of the first skill, "Develop Mobilization Action Plan," was not significant, showing low but consistent use by all branches (graph not shown).

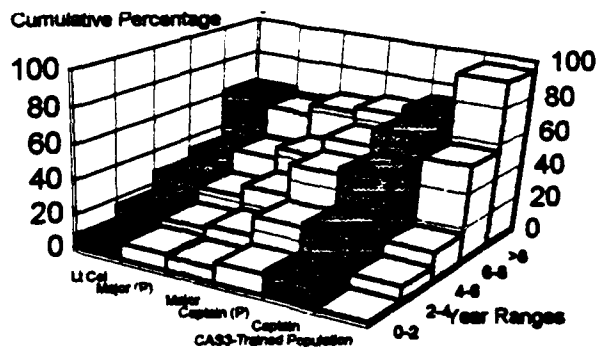


Fig. 61. MOB28 Develop Mobilization Action Plan, by Rank

"Develop Mobilization Action Plan," cross-tabbed by Rank displayed a trend towards small but steadily increasing incidence of need by progressively junior officer groups.

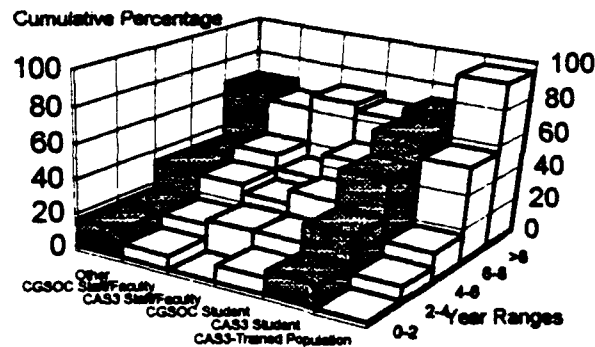


Fig. 62. MOB28 Develop Mobilization Action Plan, by Status

This trend may have been slightly exaggerated by a sensitivity among CAS³ students towards the subject, but a lack of corresponding emphasis by CAS³ instructors, and a continuity among non-CAS³ affiliated groups appears to confirm a growing requirement. 30th at the 4-6 year range in first essential needs, it was 29th overall.

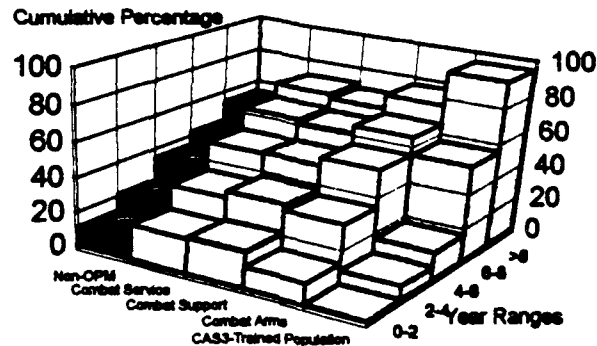


Fig. 63. MOB29 Prepare Road Movement Plan, by Branch Group

The second skill in this group, "Prepare Road Movement Plan," revealed a lower requirement among non-OPM branches than for other groups.

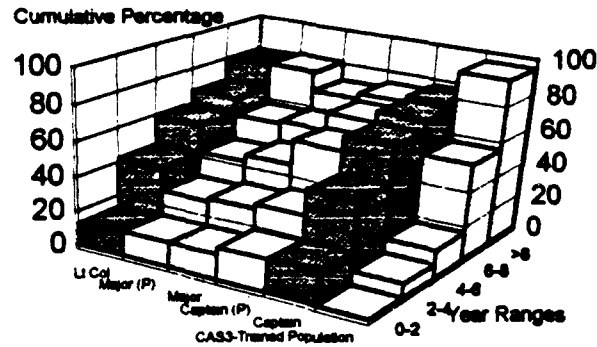


Fig. 64. MOB29 Prepare Road Movement Plan, by Rank

The strong showing among Lieutenant Colonels and Captains in the Rank cross-tab was due to some sensitivity by members of the CAS³ related groups.

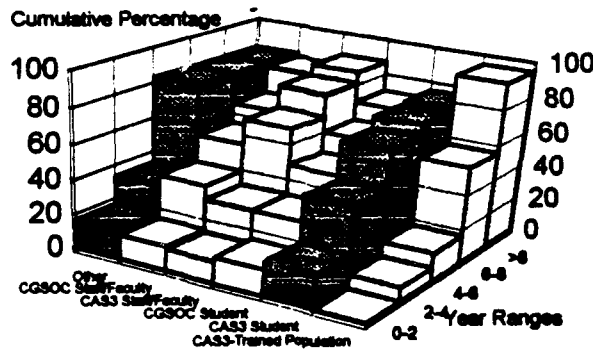


Fig. 65. MOB29 Prepare Road Movement Plan, by Status

72% of all officers who required this skill as an essential need did so by the 4-6 year range. 25% of the overall total was in the 4-6 year group alone. Its cumulative

rating at that point gave it a ranking of 19 out of 36 skills, although it eventually finished 24th.

"Prepare Road Movement Graph or Table," the third skill in the group, was one of the lowest rated by the 1990 graduates with only 6% perceiving a "Major Improvement" in their abilities.

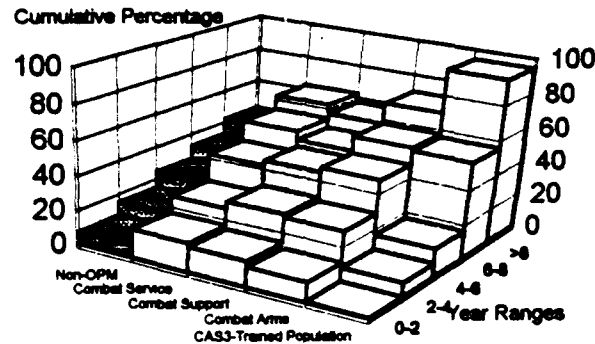


Fig. 66. MOB30 Prepare Road Movement Graph/Table, by Branch Group

In the 1992 survey, divisions by Branch Group showed a particularly low requirement among non-OPM branches. All other branch groups exhibited moderately low but similar requirements.

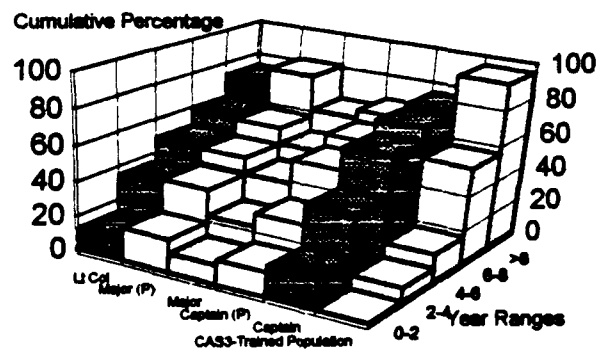


Fig. 67. MOB30 Prepare Road Movement Graph/Table, by Branch Rank

The Rank cross-tab revealed a strong requirement by promotable Majors, possibly as result of branch-qualifying positions.

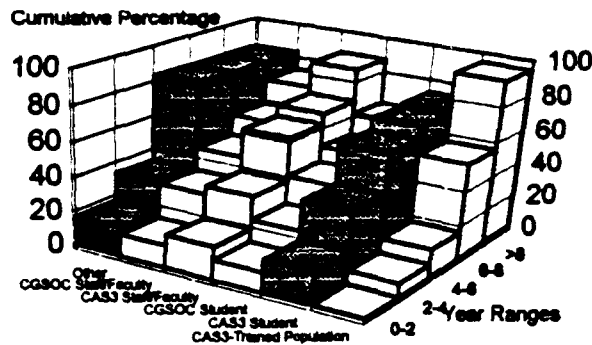


Fig. 68. MOB30 Prepare Road Movement Graph/Table, by Status

Captains also perceived higher rates of need than average, but the an examination by Status suggests it to be a bias of CAS³ related groups.

In common with all skills in this skill group, essential needs were concentrated in the first three year ranges, 69% of all requirements being accrued by the 4-6 year range. 24th at that point, it dropped slightly to 28th overall.

The fourth skill, "Prepare Unit Readiness Plan," was the most needed of any in this group. Its pattern was similar to other mobilizing skills, with a relatively low initial requirement.

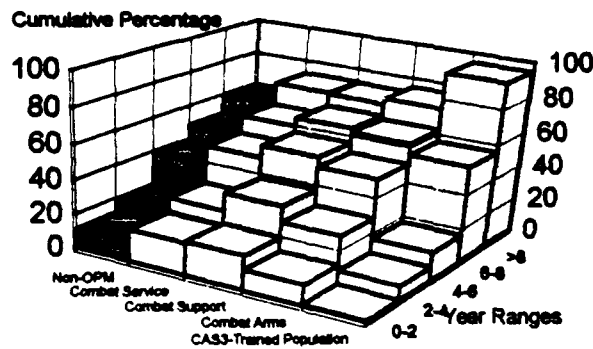


Fig. 69. Prepare Unit Readiness Plan, by Branch Group

Cross-tabbed by Branch Group, non-OPM branches continued to show the lowest requirement overall. Initially, Combat Arms branches had less of a requirement, but finally passed Combat Support and Combat Service branches.

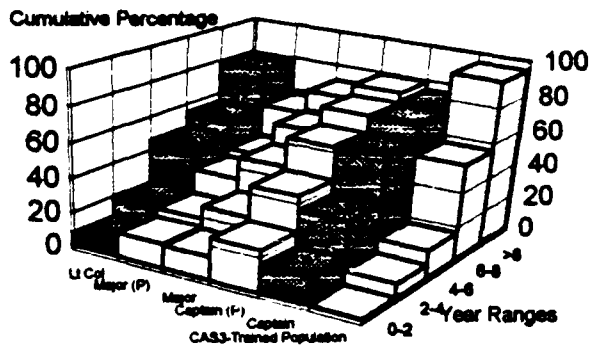


Fig. 70. MOB31 Prepare Unit Readiness Plan, by Rank

Divided by Rank, "Prepare Unit Readiness Plan" revealed a strong, late surge by Lieutenant Colonels not fully accounted for by any sensitivity on the part of CAS³ instructors. Somewhat similar tendencies were also exhibited by promotable Majors, but an increasing trend after them was evident among more junior officers.

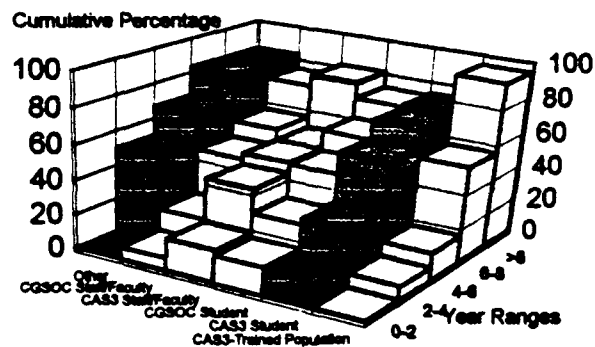


Fig. 71. MOB31 Prepare Unit Readiness Plan, by Status

The results of the Status cross-tab were very mixed, and were of less use for analysis. Trends of the preceding divisions appeared to continue. 21st of 36 skills at the 4-6 year range, it dropped to 23rd overall.

The final skill of the Mobilization group was "Prepare Personnel Estimate." 33 of 36 skills in the survey, (having dropped from 28th at the 4-6 year range), it was the least required of any in this group.

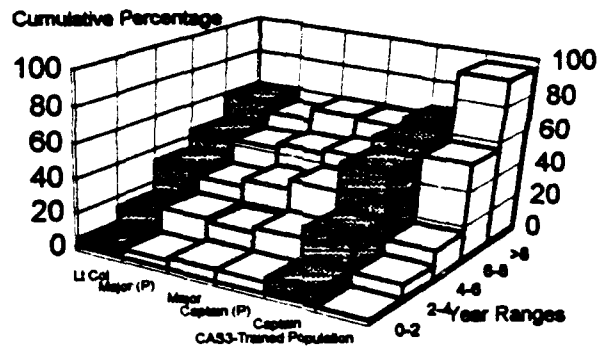


Fig. 72. MOB32 Prepare Personnel Estimate, by Rank

The Branch Group cross-tab was not significant. The Rank cross-tab revealed similar but uniformly low instances of first essential need .

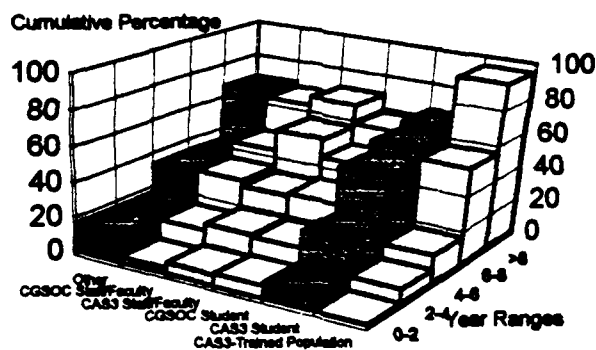


Fig. 73. MOB32 Prepare Personnel Estimate, by Status

The only distinguishing characteristic of the Status cross-tab was a sharply concentrated pool of requirements among Captains in the 4-6 year range.

Army Organization

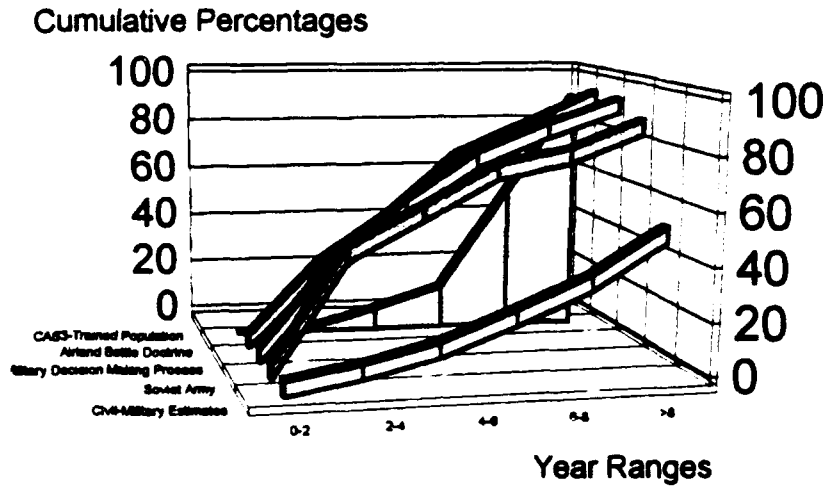


Fig. 74. Army Organization

The four individual skills of the "Army Organization" group included three very highly ranked in the 1992 survey, one only second to last. In the 1990 survey, ratings were mixed, although showing a similar pattern. All three standard cross tabulations passed the test of significance in the 1992 survey.

TABLE 18

ARMY ORGANIZATION SURVEY COMPARISON

1990 Graduate N=337 1990 Supervisor N=243 1992 All N=1026	1992 TOTAL NEEDS	1992 RANK IN 36	1990 Evaluation Great Improvement Self/Supervisor (%)	1990 Evaluation Moderate Improvement Self/Supervisor (%)
Airland Battle Doctrine	957	10	10/33	28/45
Military Decision Making	951	11	18/32	32/49
Soviet Army	893	13	9/22	23/46
Civil-Military Estimate	526	35	7/16	16/39

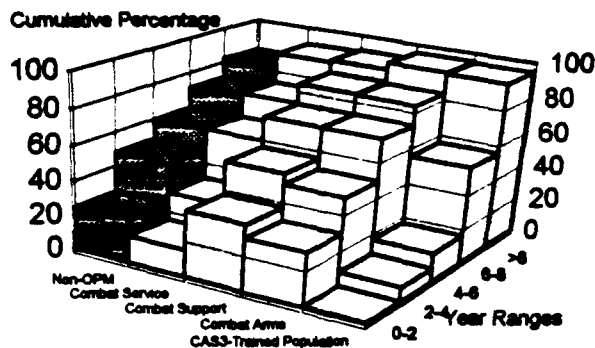


Fig. 75. ORG33 Knowledge of Airland Battle Doctrine, by Branch Group

Cross-tabbed by Branch, the first skill of this group, "Knowledge of Airland Battle Doctrine," revealed initial strong showings by Combat Arms, Combat Support, and non-OPM branches during the first three year ranges, with non-OPM branches leveling out thereafter.

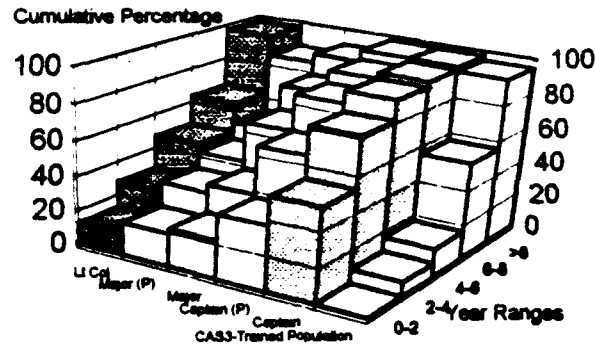


Fig. 76. ORG33 Knowledge of Airland Battle Doctrine, by Rank

The Rank cross-tab showed strong evidence of an increasing need among progressively junior personnel. The trend was consistent at every year range and with all ranks from promotable Major to Captain.

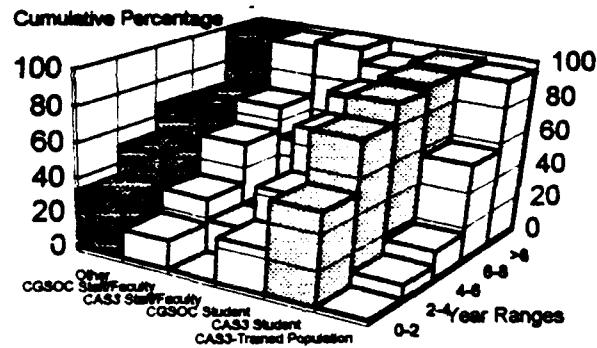


Fig. 77. ORG33 Knowledge of Airland Battle Doctrine, by Status

The trend of increasing need was confirmed by the Status cross-tabulation. The marked sensitivity by CAS³ instructors evident in many other skills did not appear in this one, and progressively junior groups evidenced greater need at earlier times.

Overall, 74% of all first essential needs for "Airland Battle" had been registered by the 4-6 year range. 11th at that point, it finished 10th overall.

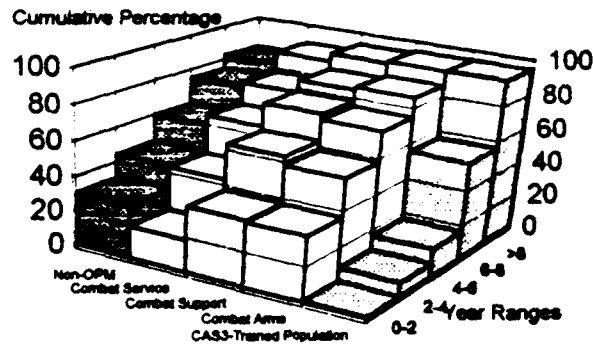


Fig. 78. ORG34 Knowledge of the Military Decision Making Process, by Branch Group

Result of cross-tabbing the second skill, "Knowledge of the Military Decision Making Process," by Branch Group were extremely similar to those of "Airland Battle Doctrine." Lower needs by Combat Service officers eventually leveled out with other groups.

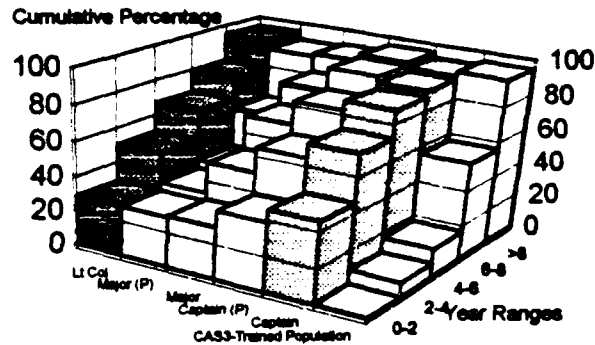


Fig. 79. ORG34 Knowledge of the Military Decision Making Process, by Rank

Unlike the previous skill, in "Knowledge of the Military Decision Making Process," the tendency of increasing needs from promotable Major to Captain was somewhat skewed by CAS³ related group sensitivity. This effect, however, was not as strong as in most other skills in the survey, and the trend has at least some validity.

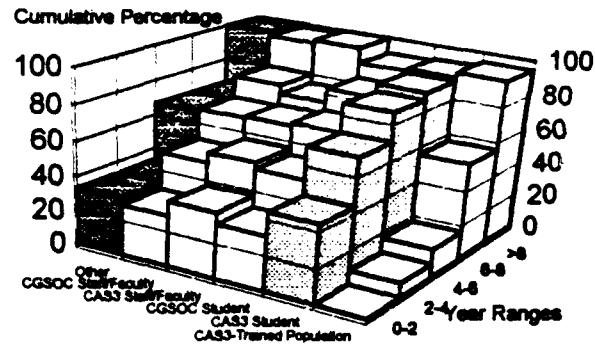


Fig. 80. ORG34 Knowledge of the Military Decision Making Process, by Status

Of all officers indicating a first essential need for "Military Decision Making Process," 78% had experienced that first need by the 4-6 year range, the 7th highest percentage at that point.

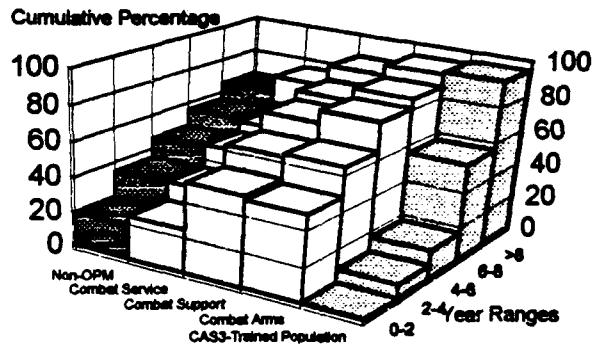


Fig. 81. ORG35 Knowledge of the Soviet Army, by Branch Group

The third skill, "Knowledge of the Soviet Army," showed a marked early requirement by Combat and Combat Support branches. Over half of Combat Arms officers who experienced an essential need did so during the 0-2 year range, as did 80% of Combat Support officers. Combat Service and non-OPM branches were far more moderate, but had risen to 47% and 52% of total first needs by the 2-4 year range. The skill was 10th for all officers at the 4-6 year range.

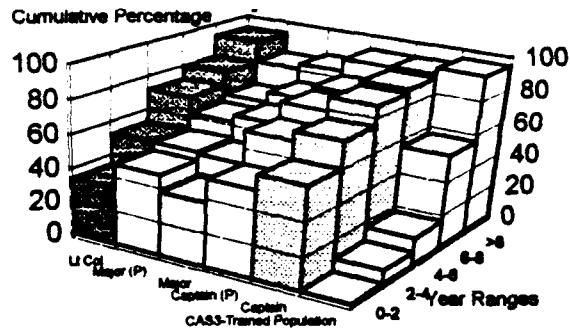


Fig. 82. ORG35 Knowledge of the Soviet Army, by Rank

The Rank and Status cross-tabs revealed a trend towards earlier usage, with minor skewing by CAS³ affiliated groups.

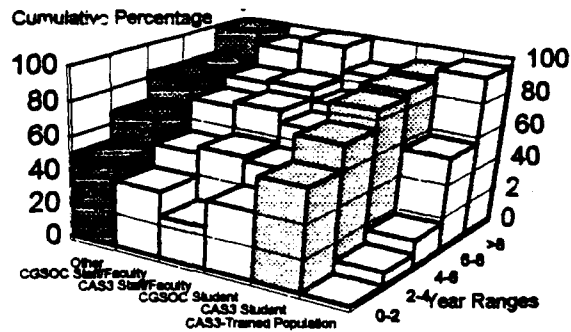


Fig. 83. ORG35 Knowledge of the Soviet Army, by Status

The final skill in this group, "Prepare Civil-Military Estimates," was second to last in total perceived needs in the 1992 survey, and was among the lower ranked skills for "Great" or "Moderate" improvement in the 1990 survey. Usage tended to weigh towards the later career year ranges. 35th at the 4-6 year range, the skill had 56% of its first essential needs occurring after that point.

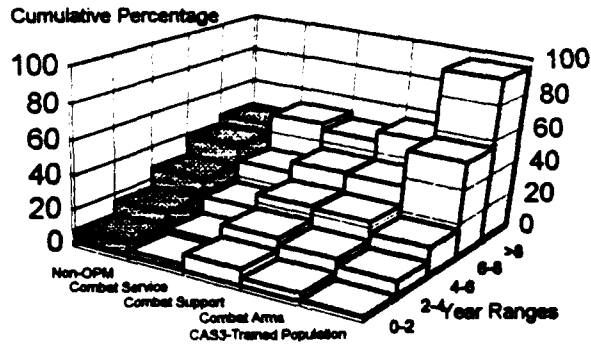


Fig. 84. ORG36 Prepare Civil-Military Estimate, by Branch Group

While passing the test of significance, little was apparent from the Branch cross-tab other than a uniformly low level of utilization.

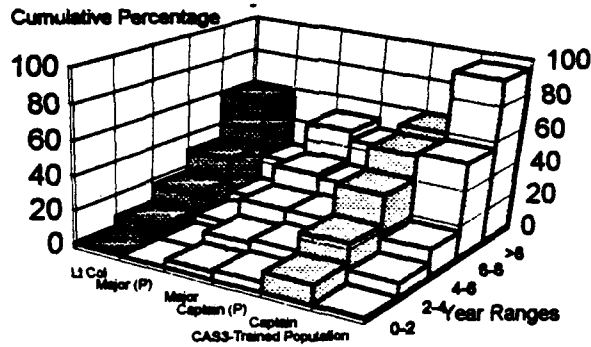


Fig. 85. ORG36 Prepare Civil-Military Estimate, by Rank

Cross-tabulations by Rank and by Status indicate a moderately increasing trend towards earlier first essential need, somewhat exaggerated by a sensitivity among CAS³ affiliated groups.

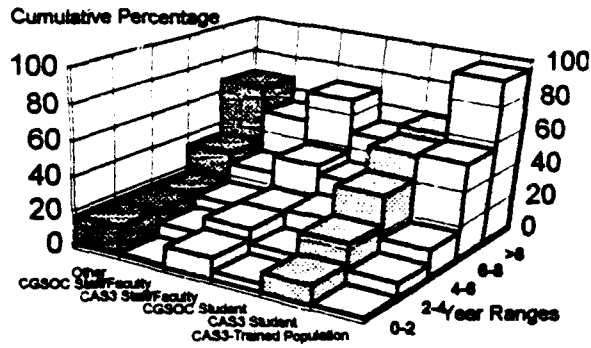


Fig. 86. ORG36 Prepare Civil-Military Estimate, by Status

Combat Operations

The final group of skills, "Combat Operations," was the largest, with eight individual skills. [Presented here in two graphs for clarity.]

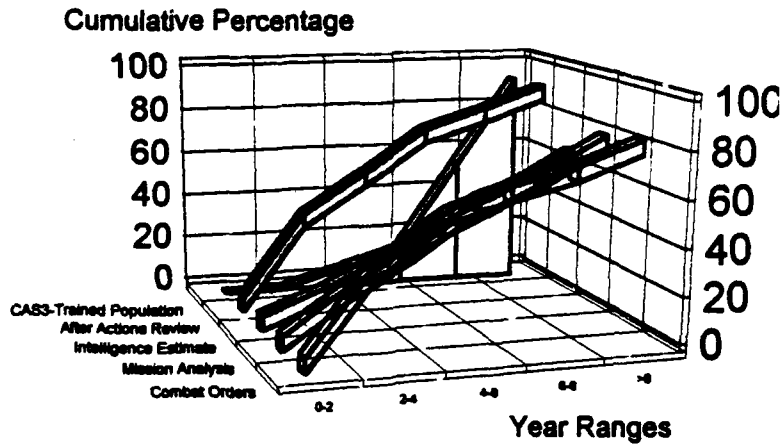


Fig. 87. Combat Operations

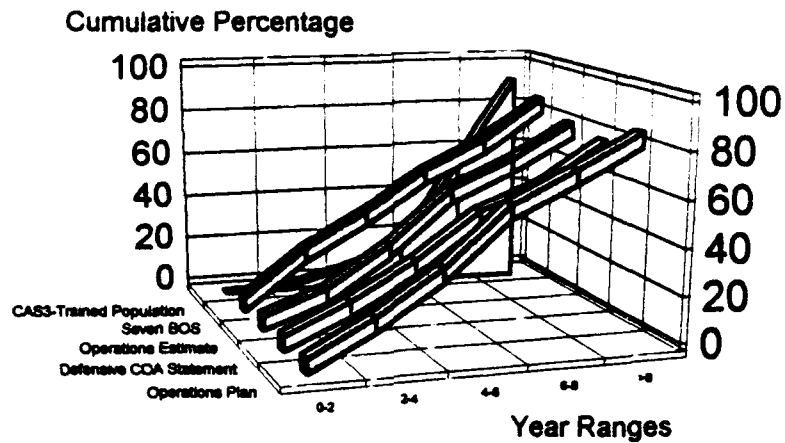


Fig. 88. Combat Operations

TABLE 19

COMBAT OPERATIONS SURVEY COMPARISON

1990 Graduate N=337 1990 Supervisor N=243 1992 All N=1026	1992 TOTAL NEEDS	1992 RANK IN 36	1990 Evaluation Great Improvement Self/Supervisor (%)	1990 Evaluation Moderate Improvement Self/Supervisor (%)
Knowledge of 7 BOS	862	14	9/22	21/50
Prepare Operations Estimate	795	19	12/26	22/53
Defensive COA Statement	769	22	9/22	20/50
Develop Operations Plan	857	15	12/30	25/49
Conduct After Actions Review	918	12	12/28	22/48
Prepare Intelligence Estimate	673	27	12/19	17/49
Prepare Mission Analysis	789	21	8/25	19/50
Prepare Combat Orders	825	17	10/26	19/50

In the 1990 survey of improvement, perceived value ranged from the middle to the lower groups of scores.

In the 1992 survey of essential needs, scores were about evenly distributed through the upper, middle, and lower thirds of group rankings. All three standard cross-tabs passed the test of significance for all skills.

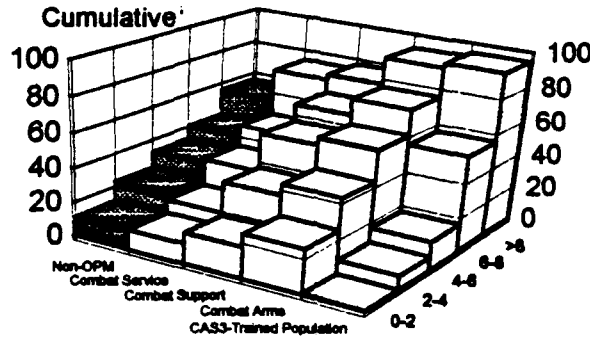


Fig. 89. CBT37 Knowledge of Seven BOS, by Branch Group

17th at the 4-6 year range, "Knowledge of the Seven BOS," revealed very different patterns of need by branch groups. Combat Arms officers led with a strong, early requirement, over 60 percent regarding it as essential by the 4-6 year range. Combat Support officers demonstrated a similar need. Combat Service and non-OPM officers had a much weaker requirement through the 4-6 year range. Combat Service officers did surge strongly in later years as revealed by an additional 27% requirement in the 8> year range.

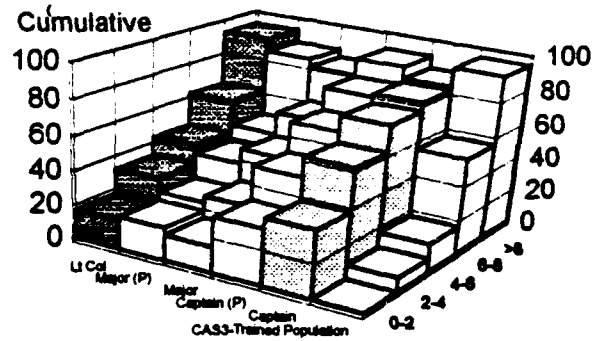


Fig. 90. CBT37 Knowledge of Seven BOS, by Rank

The Rank cross-tab indicated a trend towards earlier, but not greater use of this skill, as progressively junior officer groups from promotable Major to Captain were examined.

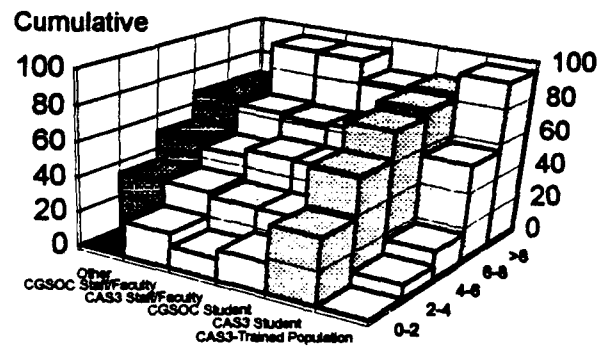


Fig. 91. CBT37 Knowledge of Seven BOS, by Status

A strong showing by Lieutenant Colonels proved, by examination of the Status cross-tab, to be partially but not completely the result of sensitivity by CAS³ instructors.

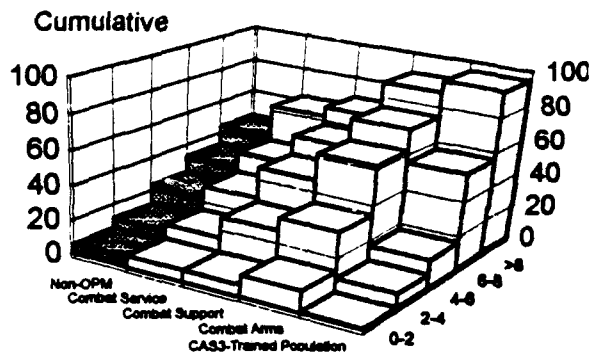


Fig. 92. CBT38 Prepare Operations Estimate, by Branch Group

The next skill, "Prepare Operations Estimate," showed a clear pattern in both timing and total requirements with non-OPM branches at the low end, through Combat Service and Combat Support to Combat Arms at the high end.

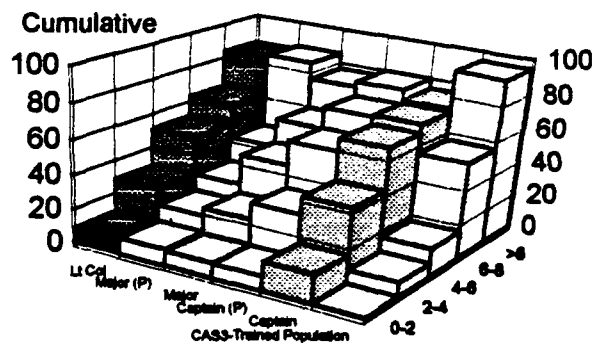


Fig. 93. CBT38 Prepare Operations Estimate, by Rank

Reviewed by Rank and by status, results were very mixed. Sensitivity by CAS³ instructors and students to the subject made it difficult to judge whether a moderate tendency towards earlier usage was valid.

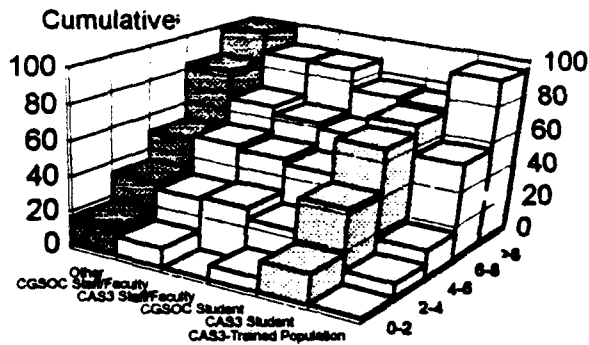


Fig. 94. CBT38 Prepare Operations Estimate, by Status

To clarify the actual pattern of need, the percent of total usage, by year range, was also examined, see Figure 95 below.

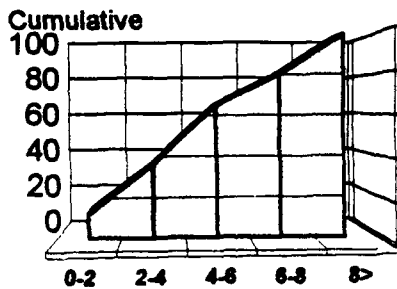


Fig. 95. Combat Orders: % of Total Use, by Year Range

From this perspective, it was clear that the incidence of first essential need was somewhat steeper during the first 6 years than thereafter.

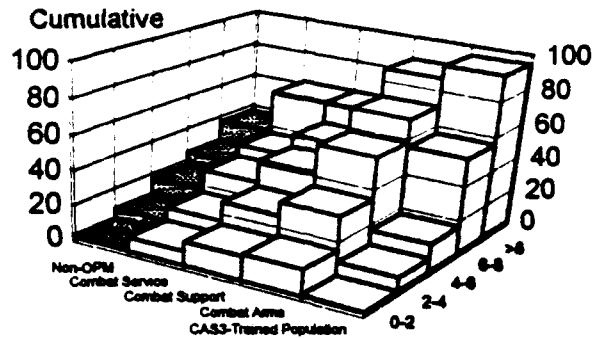


Fig. 96. CBT39 Develop Defensive COA Statement, by Banch Goup

The third skill, "Develop Defensive Course of Action Statement," continued the pattern of strong need by Combat Arms officers, more moderate requirements by Combat Support and Combat Service officers, and weak requirements by non-OPM personnel.

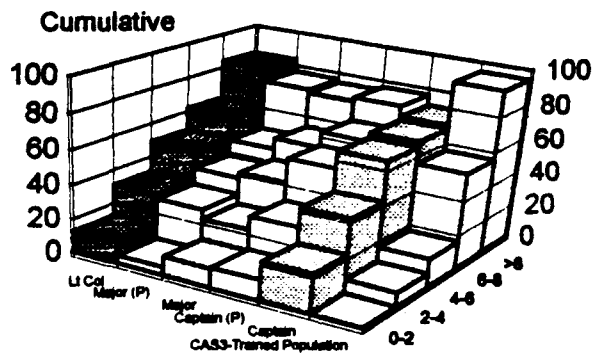


Fig. 97. CBT39 Develop Defensive COA Statement, by Rank

The Rank cross-tab showed some evidence of increasing needs at earlier career points, with sharply increased requirements noted at the Captain and promotable Captain level. More senior ranking officers had a larger portion weighed at the 8> year range, particularly among promotable Majors and Lieutenant Colonels.

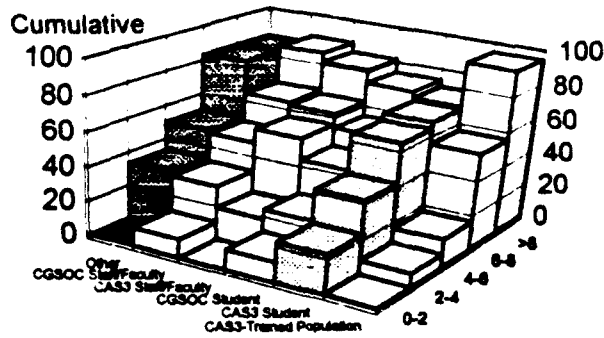


Fig. 98. CBT39 Develop Defensive COA Statement, by Status

Cross-tabbing by Status revealed little other than a slightly heavier valuation by CAS³ associated groups. This skill was 22nd of 36 skills in total first essential needs both at the 4-6 year range and overall.

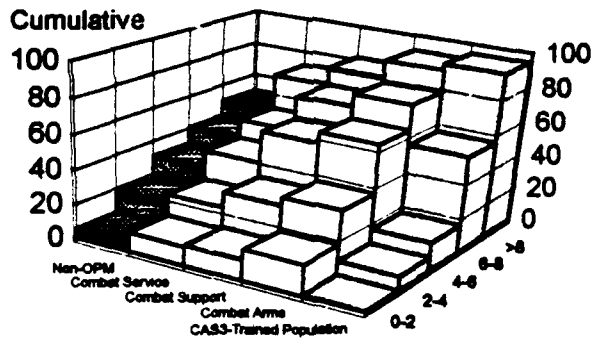


Fig. 99. CBT40 Develop Operations Plan, by Branch Group

The fourth skill, "Develop Operations Plan," had a Branch Group cross-tab very similar to "Defensive COA," greater, earlier needs by Combat Arms officers, growing less through Combat Support and Combat Service, and lowest for non-OPM branches.

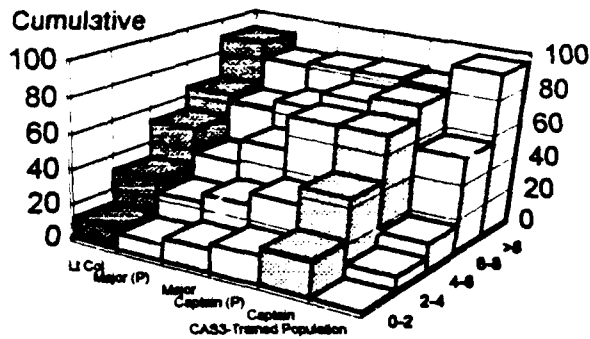


Fig. 100. CBT40 Develop Operations plan, by Rank

By Rank, the picture was less clear, but strong requirements by promotable (i.e., non-CAS³) Captains in the 4-6 year range indicate at least a moderate movement towards earlier use than experienced by the Field Grade officers in the study.

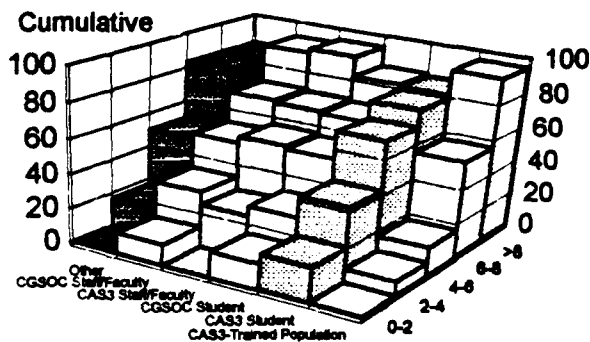


Fig. 101. CBT40 Develop Operations Plan, by Status

The Status cross-tab confirmed this observation, as no bias towards early need was in evidence among CAS³ instructors, and CGSOC faculty and students both exhibited earlier requirements than the more senior CAS³ faculty.

Even given the lesser early needs of more senior personnel, the overall requirement of initial essential need for this skill was 67% at the 4-6 year range. This gave it a rating of 15th at the time, which it maintained for the overall rating.

"Conduct After Actions Review" was the fifth of eight items in this group. It scored highest of all eight in the 1992 survey of essential need, but was undistinguished from others in this group in the 1990 survey of improvement.

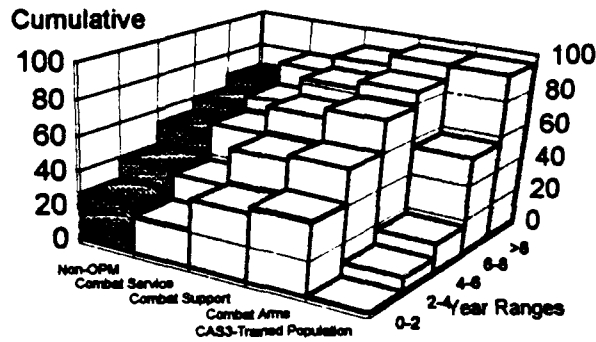


Fig. 102. CBT41 Conduct After Actions Review, by Branch Group

The Branch cross-tab, however, showed much less variation between branches than occurred in the first four skills. The general trend of needs -- Combat Arms first, etc. -- remained the same as others in "Combat Operations," but requirements by non-OPM and Combat Service personnel were relatively much stronger.

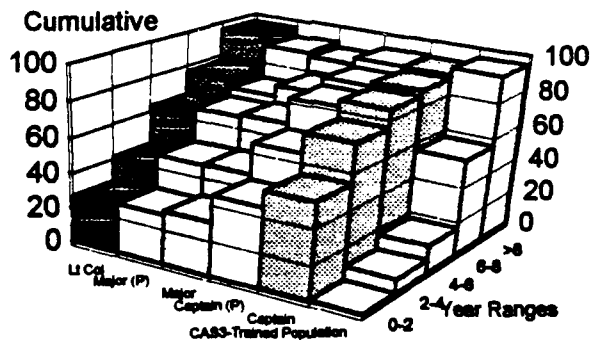


Fig. 103. CBT41 Conduct After Actions Review, by Rank

The Rank cross-tab, figure 102 on the previous page, revealed a fairly consistent rise in early usage from Lieutenant Colonel to Captain.

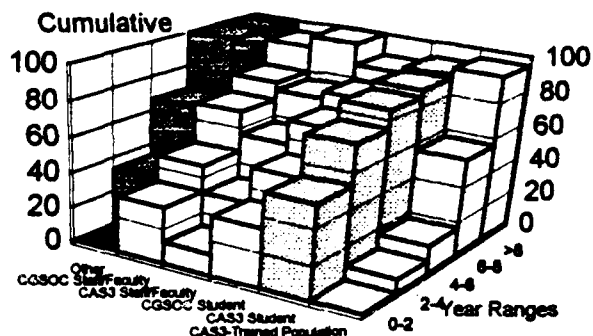


Fig. 104. CBT41 Conduct After Actions Review, by Status

This trend was strongly confirmed by the Status cross-tab, where more senior ranking groups had obviously experienced lesser requirements early in their careers, and no sensitivity by CAS³ instructors was visible.

Overall, early use of "Conduct After Actions Review" was very strong. 60% of all first essential needs had been registered by the 2-4 year range, and an additional 20% in the 4-6 year range alone. It was 9th in cumulative needs at that time.

The next skill, "Prepare Intelligence Estimate," received the lowest overall rating of any in this group, although it received similar ratings to others in the group in the 1990 survey of perceived improvements. Only 65% of all officers had ever required it as an essential part of their job skills, accounting for its 25th place at the 4-6 year range, and 27th place finish overall.

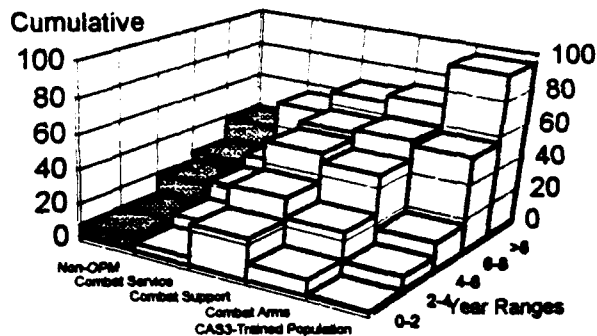


Fig. 105. CBT42 Prepare Intelligence Estimate, by Branch Group

Needs by Branch varied widely, heaviest early usage being noted by Combat Support Officers, then Combat Arms, with a late surge—45% of their total requirements—exhibited by Combat Service branches in the 8 > year range.

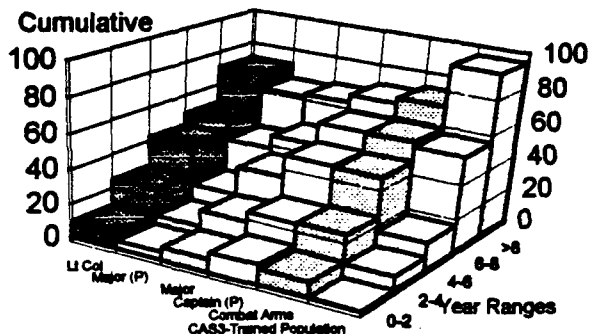


Fig. 106. CBT42 Prepare Intelligence Estimate, by Rank

The Rank cross tab showed strong earlier usage by Lieutenant Colonels, then a sharp drop off by promotable Majors, building back progressively to Captains.

The sensitivity towards the subject shown by CAS³ instructors in the Status cross-tab partially explained the trend, but the bias was less than shown towards many other skills in the survey.

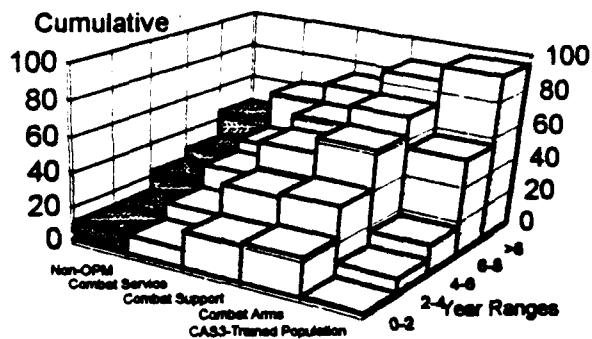


Fig. 107. CBT42 Prepare Intelligence Estimate, by Status

The next skill, "Prepare Mission Analysis," exhibited the pattern common to Branch cross-tabs in this group, non-OPM to Combat Arms at an increasing rate (graph not shown).

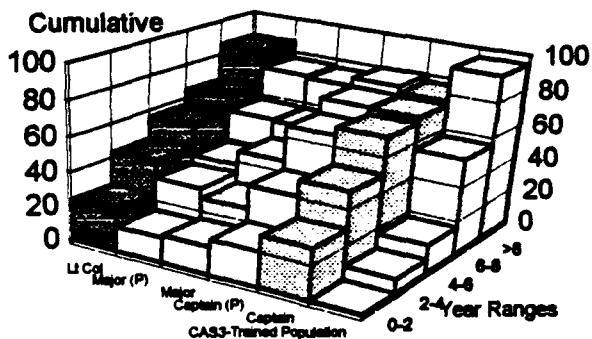


Fig. 108. CBT43 Prepare Mission Analysis, by Rank

The Rank cross-tab revealed no clear pattern, although promotable (non-CAS³ student) Captains had an earlier pattern of first essential need that may be evidence of a tendency in that direction.

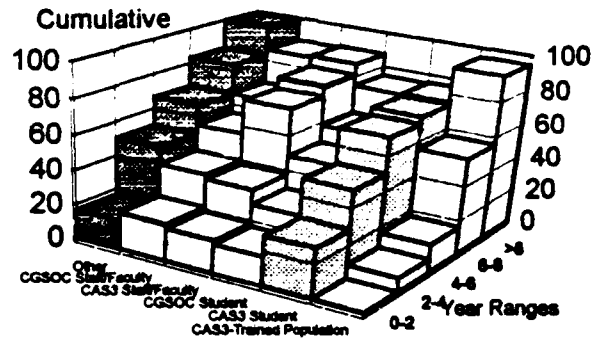


Fig. 109. CBT43 Prepare Mission Analysis, by Status

The significance of high ratings by Captains and Lieutenant Colonels, however, was reduced by examination of the Status cross-tab. Particular sensitivity towards this item was shown by CAS³ instructors in the 4-6 year range, and by CAS³ students in all of the first three ranges. At the 4-6 year range it was 18th, and finished 21st overall.

The final skill in this group, and in the 1992 survey, was "Prepare Combat Orders." This skill showed strong evidence of early need, with 79% of all first essential needs being counted by the 4-6 year mark. At that point, it was 13th of 36 skills in cumulative first requirements.

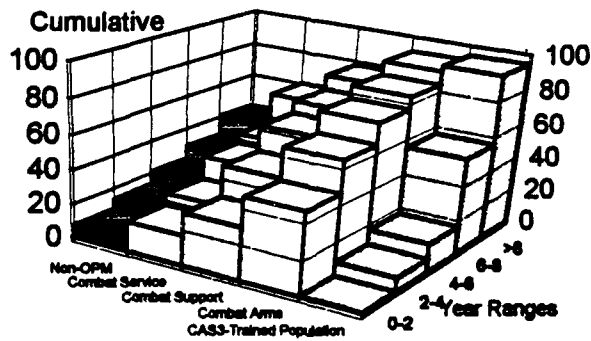


Fig. 110. CBT44 Prepare Combat Orders, by Branch Group

Divided by Branch Group, Combat Arms and Combat Support branches dominated both early and total requirements. Even non-OPM branches, although demonstrating low needs throughout their early year ranges, did manage to accumulate a 40% requirement overall.

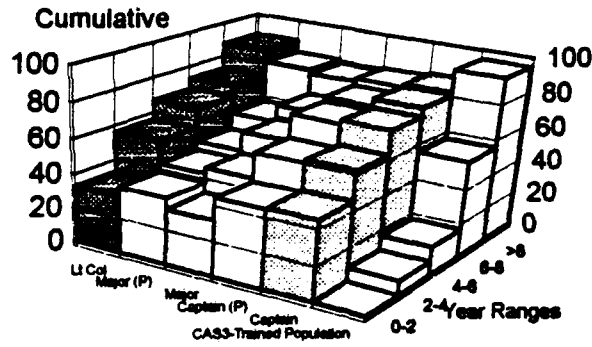


Fig. 111. CBT44 Prepare Combat Orders, by Rank

Showings by Rank indicated relatively even requirements for all personnel. A moderate tendency towards earlier requirements was visible from promotable Majors through Captains.

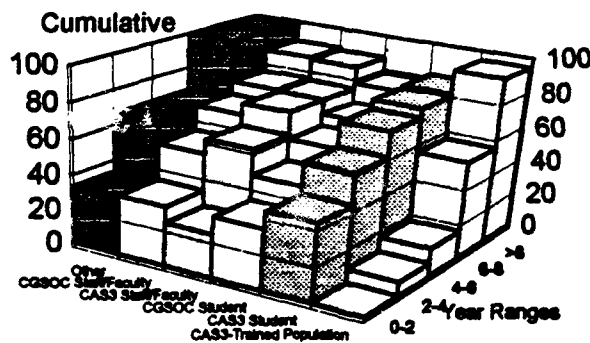


Fig. 112
CBT44 Prepare Combat Orders, by Status

Given the slight sensitivity shown by CAS³ instructors in the Status cross-tab, (not shown) this trend is probably stronger than dividing by Rank would indicate.

Summary

The skill-by-skill analysis in this chapter revealed a continual pattern of need prior to training. Although there are variations by Branch Group, Rank, and duty Status, the first essential needs for every CAS³-taught skill in the survey were primarily experienced prior to CAS³ attendance. The number of officers experiencing an essential need for a given skill did vary considerably, from a high of 99% (Manage Time) to a low of 51% (Installation Workload Ability) overall.

⁵⁰ Branch Group was selected as a cross-tab in order to enable conclusions to be divided by such groups, if warranted. Rank was used to determine if particular trends for a skill were developing over time. Status was used to confirm or deny particular sensitivity by any particular division within the population that was related to position in the school, as opposed to the Army at large.

CHAPTER V
CONCLUSIONS AND RECOMMENDATION

Conclusions

Four contributing questions were developed to answer the research question "When should active duty officers attend CAS³?" This section presents conclusions in answer to those questions, addressing the purpose of CAS³, when the skills it teaches are needed by the target population, when personnel are actually attending the course, and when they should attend based on requirements. Finally, questions for future study are proposed on topics essential to implementation of the recommendations.

The Purpose Of CAS³

The skill-by-skill analysis in the preceding chapter revealed, in many cases, that first essential requirements for CAS³-taught skills were likely to be experienced prior to attendance at the course. The preponderance of statistical evidence points to substantial training benefits to earlier attendance in general. Nonetheless, cautions have been levied against moving the course back to an earlier point in the career path.

The *Linkage Study* listed three ramifications to moving CAS³ back and "linking" it to attendance at OAC's:

- (1) Lack of formal military training between CAS³ and the Command and General Staff Officers Course (CGSOC) is projected to be approximately eight years versus the present, approximately five years.
- (2) Officers not selected for CGSOC will receive no additional formal military training.
- (3) Implementing the linkage plan will create a backlog of OAC graduates needing to attend CAS³. Based on input from PERSCOM, this backlog could be 8,400 officers.⁵¹

To the above cautions should be added the PDOS perspective of 1985:

CAS³ is...designed to provide training for captains in staff skills required at brigade, division, and installation level and serves as a transition to in-depth staff operations and procedures.⁵²

In response to these objections, there is little perception in the field that a greater gap between OAC and CGSOC would be a problem. General officer comments obtained by the CAS³ Study Group indicate rather that fewer scholastic distractions, not more, are desired. As far as military schooling for officers not considered for CGSOC is concerned, moving CAS³ would neither add nor delete from their total Army education, and the reason for that objection is unclear. The backlog of officers that would be created by moving the course is of concern, and is addressed below in "Questions for Future Study."

The PDOS' definition limiting the objectives of CAS³ training to preparation of Captains for work at Brigade and above is at odds with both requirements from the field, the policy of having all officers attend, and with AR 351-1.

TABLE 20

RECENT CAS³ STUDENTS PRIOR EXPERIENCE ON STAFF

1991 Student Assignments as Staff Officers prior to CAS ³ (CAS ³ Records)	
Battalion Only	39%
Brigade Only	11%
Battalion and Brigade	17%
Above Brigade	14%
Total with Staff Experience	81%

AR 351-1 provides for CAS³ between the end of OAC and the ninth year of service, and expects that officers will serve at Battalion, Brigade, and Division levels. The preponderance of staff duty for Captains is at Battalion level, although, as indicated by Table 20 above, the majority of officers attending CAS³ have had some form of staff experience. Comments from Senior Leadership in the field are that CAS³ training comes so late for most officers that they have little opportunity to take advantage of their training--and statistics from 6 years of survey data support that contention. For active duty officers, the purpose of CAS³ is to train Captains for staff duties at the Battalion, Brigade, and Division levels.

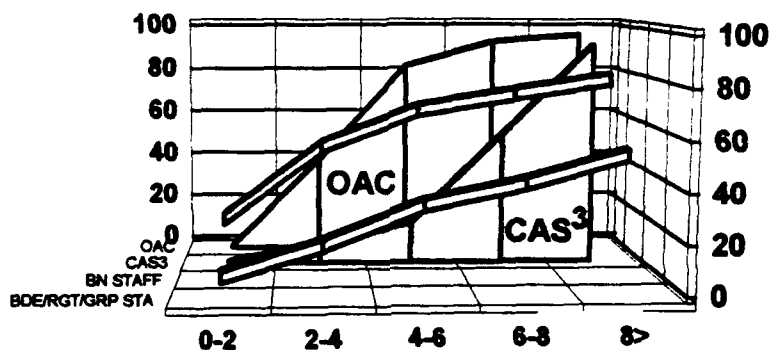


Fig. 113. Cumulative First Staff Experience at the Battalion & Brigade Level vs. School Trained Populations

Cas³-Taught Skills Are Increasingly Needed After 2 Years AFCS

After the second year of commissioned service, the rate at which officers are assigned to battalion staff duties for the first time increases rapidly: 23% had first time staff positions in the 0-2 year range, and additional 40% in years 2-4. Brigade level staff assignments come more slowly: only 18% had held Brigade staff positions at the end of their fourth year. These are only first assignments, junior officers in junior staff positions, but the statistics indicate that CAS³- taught skills are increasingly needed after the second year of service.

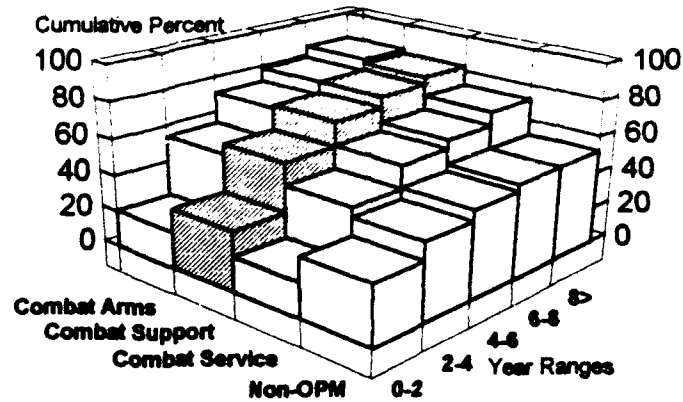


Fig. 114. First Position on Battalion Staff 6 Months or More Cumulative, by Branch Group

As illustrated in Figure 115 above, there are variations on this pattern between branch groups, but none support the current practice of training only 18% of the officer corps at CAS³ through the sixth year of service.

First essential requirements for CAS³-taught skills closely parallel assignment to staff positions. While attendance at the advanced courses occurs at a rate even or ahead of the need for staff skills, attendance at CAS³ clearly lags. Some skills are more needed than others, but in the 4-6 year range of the 1992 survey, with less than 17% of the officers having attended CAS³, the *least* required of any CAS³-taught skill (Analyze Installation's Ability to perform Workload Requirements) had been an essential staff requirement for 19% of the officers surveyed. In the 6-8 year range, the availability of CAS³-trained officers rose to 56%; the average first essential need for a CAS³ skill was 68%.

The experience of 604 Captains in CAS³ class groups 91-3 and 91-4 surveyed by the *Linkage Study* indicates that the trend of pre-CAS³ staff utilization continues. Analysis of CAS³-taught skills in the previous chapter revealed that there is an extensive trend towards earlier usage of skills. Official evaluations done afterwards grouped Battalion and Brigade level staff experience together for analysis, and were clearly concerned with the benefits derived from CAS³ to Captains working at all staff levels.

Clearly, requirements and expectations of company officer staff-skill proficiency are not limited to Brigade and above.

Officers Should Attend CAS³ Immediately After Their Advanced Course

The primary purpose of CAS³ is prepare Captains for staff duty at Battalion, Brigade, and Division level. Duty requirements demand CAS³-taught skills far earlier than the current scheduling provides for. One possibility would be to continue the method of school assignment from units in the field, but several factors indicate that TDY from OAC's is a better way.

Scheduling CAS³ is a Burden for Many Units

"It is very disruptive to take an officer out of a unit to attend CAS³. Sometime after company command is as good as any. The field is not getting much use of officers between OAC and CGSC. I don't think we can afford company commanders to be CAS³ graduates." *Commander, III Corps.*⁵³

The current practice of sending Captains TDY from the field is disliked by junior officers and senior commanders alike. The III Corps Commander's concern was echoed by a large number of officers in the 1992 survey: 26% considered scheduling CAS³ scheduling to be difficult, and a burden for their units. An additional 17% felt the process was extremely difficult, a major burden. As illustrated in the chart following, the degree of burden varies by Branch Group, but is significant to all.

A policy of TDY and return to the Branch School, as opposed to TDY enroute may be the best, enabling more timely training while preserving the branch mix of officers that has been a strong point of the course. Also, branch training does not always stop with the end of OAC. For example, the Commandant of the Infantry School pointed out to the CAS³ Study Group that there is a need for OAC officers to attend follow-on branch schools such as Ranger and Bradley Leader.

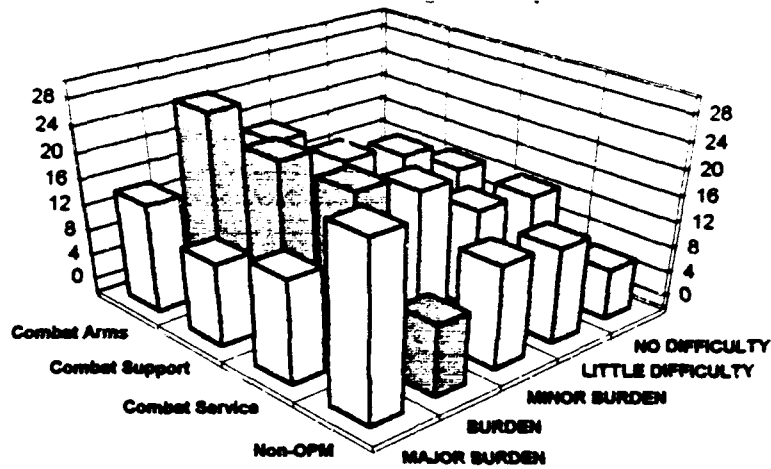


Fig. 115. CAS³ Scheduling Difficulty

There is also a need to reduce hardship on the officers and their families. The 1987 *External Evaluation* observed that:

graduate written comments indicate that the TDY and return option is the best way to attend CAS³, although some supervisors disagreed based on an inability of the personnel system to guarantee that the individual would return to the same unit....Student comments that the TDY enroute option causes excessive family hardship were supported by supervisor and SGL comments.⁵⁴

The III Corps Commander's frustration with the current CAS³ scheduling system is understandable. Nonetheless, the Army can afford to have CAS³ graduates as commanders, and as staff officers also. What it cannot afford is to surrender officer time from those command and staff positions when an alternate method of scheduling is available.

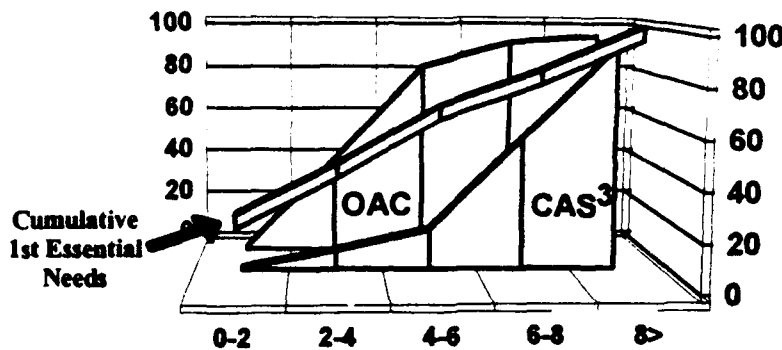


Fig. 116. Schools and Skills: First Essential Needs & Trained Personnel

Officers Support Attendance at CAS³ Immediately After the Advanced Course

The benefits of "linking" CAS³ attendance to OAC were apparent to many of the officers who participated in the 1992 survey. Furthermore, while 54% of all who responded preferred attendance immediately after OAC, the rate for CAS³ students was even higher at 65%.⁵⁵ These figures were closely paralleled by the answers tying attendance to experience: 58% felt that CAS³ should be attended prior to the first staff experience.⁵⁶

Recommendations

[We] need CAS³ prior to post OAC assignment. [The] vast majority of officers serve as primary staff officers in first post-OAC job. CAS³ attendance prior, post-OAC, would benefit both officers and units. Battle Staff effectiveness is key to Combat readiness/success. We've been saying this now for at least four years. Is anyone listening? *Comment from CGSOC officer on the back of his 1992 Survey Form.*

This study found that the mission of CAS³ is to prepare Captains for staff duties at the Battalion, Brigade, and Division level; that in the majority of cases the first staff positions Captains experience is at Battalion level; that the majority of Captains are experiencing their first staff position prior to attendance at CAS³, and that the majority of first essential need for CAS³-taught skills is being experienced before attendance at the course. Furthermore, it found that the current method of scheduling CAS³ is a burden on

units in the field and on CAS³ students. Therefore, it is recommended that the timing of CAS³ attendance in the officer career path be changed to send officers from their advance courses to CAS³, TDY and return.

Since inception in 1981, CAS³ has proven itself as a superb course. Its excellent reputation for development of officer staff skills is backed by strong statistical evidence. The Army of the 1990's, however, is placing demands on junior officers that force them to develop staff skills the old, hard way. As now attended, CAS³ serves primarily as a refinery against some future need.

Moving the course back four to six years in the officer career path will likely be as difficult as implementing it for all officers was in the first place: the evidence is that it will also be as dramatically rewarding.

Topics For Further Study.

Reduction Of The CAS³ Officer Backlog

In March 1991, the authors of the *Linkage Study* expressed concern over the large backlog of officers that would be created by requiring earlier attendance at CAS³. At the time, Personnel Command (PERSCOM) estimated that the backlog of officers who had attended OAC but not CAS³ was 7,000-8,400 officers, while the annual CAS³ capacity at the time was only 4,200.⁵⁷ Several options were examined by the study, including the impact of a shorter CAS³ course, and the potential for additional courses, but this aspect of changing CAS³ needs to be reexamined in light of current and projected changes to officer strength.

Adjusting Course Content To The Needs Of More Junior Officers

The data gathered by the 1992 survey indicates widely varying needs for CAS³ taught skills depending on the year range examined. Officers attending CAS³ immediately after OAC would be largely in their fourth and fifth years of service. By virtue of not having to have "learned it the hard way," they would be less proficient in the skills CAS³ teaches when they arrive at the course.

Redesign of Phase I content, and tailoring of resident instruction to capitalize on the skills they do bring, will be required. Figure 21 below is a summary of 1992 survey cumulative first essential needs for skills through the sixth year and overall. Table 22 in Annex D has complete data for each skill, and each year range

TABLE 21
CUMULATIVE PERCENT WITH ESSENTIAL NEEDS, THROUGH 0-6 YEAR RANGE AND OVERALL

SKILLS	YEAR RANGES	
	0-6	8>
Manage Time Effectively	93	99
Manage Meetings Effectively	88	98
Develop Training Plans	87	96
Communicate Verbally (Give Briefings)	86	99
Solve Training Management Problems	85	95
Produce High Quality Written Correspondence	78	99
Military Decision Making Process	73	93
Coordinate Staff Actions	73	97
Conduct After Actions Review	72	90
Soviet Army	71	87
Airland Battle Doctrine	70	93
Produce High Quality Briefings	67	98
Prepare Combat Orders	64	80
Use Personal Computer	62	95
Develop Operations Plan	57	84
Calculate Basic Statistics	55	80
Seven Battlefield Operating Systems	53	84
Prepare Mission Analysis	53	77
Prepare Road Movement Plan	53	73
Prepare Operations Estimate	51	78
Prepare Unit Readiness Plan	50	73
Develop Defensive Course of Action	48	75

SKILLS	YEAR RANGES	
	0-6	8>
Construct and Use Decision Matrix	46	81
Prepare Road Movement Graph/Table	45	65
Prepare Intelligence Estimate	41	65
Prepare Logistics Estimate/Plan	40	69
Knowledge of Resourcing Cycle & PBAC	37	77
Prepare Personnel Estimate	37	60
Solve Tactical Logistics Problems Corps to User	35	64
Develop Mobilization Action Plan	35	65
Match Work Categories w/TDA Work Element	32	67
Solve PERT Network	31	60
Solve Linear Regression Problem	26	55
Manpower & Budget at Installation Level	26	64
Prepare Civil-Military Estimate	22	51
Installation Ability and Workload Requirements	19	51

⁵¹ _____ *Final Report of the OAC/CAS³ Linkage Study* (Fort Leavenworth: Combined Arms Command, U.S. Army Command and General Staff College, 22 March 1991), p. 1.

⁵² Quoted by the *Final Report of the OAC/CAS³ Linkage Study* (Fort Leavenworth: Combined Arms Command, U.S. Army Command and General Staff College, 22 March 1991), p. 3.

⁵³ Matthews, John E. LTC, "Senior Leadership Assessment [Fort Hood Trip Report]", (FT Leavenworth: Combined Arms Command, U.S. Army Command and General Staff College, 5 March 1991), p. 1.

⁵⁴ _____ *External Assessment of Combined Arms and Services Staff School (CAS³)*, (Fort Leavenworth: Office of Evaluation and Standardization, Department of Academic Operations, U.S. Army Command and General Staff College, February 1987), p. 18.

⁵⁵ Due to the confusion over the wording of this question in the 1992 survey, and additional 150 CAS³ students were surveyed in 1993. In the 1992 survey, 65% preferred immediately after OAC; in the 1993 survey, 64%. In the 1992 survey, 20% of CAS³ students chose the improperly worded "1/4 of the way between CAS³ and CGSOC." In the 1993 survey 28% of CAS³ chose the properly worded "1/4 way between OAC and CGSOC." From these comparisons it was concluded that the miswording of the 1992 survey had not biased opinion in favor of "Immediately after OAC."

⁵⁶ 56% of one group, CAS³ instructors, favored attendance after 6 months of staff experience, compared to 44% who favored attendance prior to staff duty. 56% also favored attendance 1/4 of the way between OAC and CGSOC, compared to 38% who favored attendance immediately after OAC. They are the only group--although one well familiar with the subject--who apparently believe that the benefits of some staff time prior to CAS³ attendance outweigh the burden to units and students.

⁵⁷ _____ *Final Report of the OAC/CAS³ Linkage Study* (Fort Leavenworth: Combined Arms Command, U.S. Army Command and General Staff College, 22 March 1991), p. 8.

ANNEX A

SURVEYS

14 October 1992

FROM: MAJ John Friedson, CGSC Staff Group 21C

TO: Command and General Staff College, ATTN: ATZL-SWO-E, Fort Leavenworth,
Kansas 66027-6900

SUBJECT: Request for Survey Approval

1. Request approval of the attached survey as an instrument to be used in conjunction with MMAS thesis: 'The Timing of CAS³ Attendance in the Officer Career Path', for presentation in November and December 1992 .

2. Survey analysis will be used to derive officer judgment from participating groups on the research question 'When should officers attend CAS³?'. The questions presented are largely based on recent external surveys of 'how well' does CAS³ teach. This relationship will be used to facilitate relating needs and timing to capability.

3. Four groups of officers will be surveyed: CAS³ students, CGSC (Army) students, the CAS³ faculty, and the CGSC faculty. Demographic data gathered will permit separation of officer groups by branch group, rank, and command and staff experience.

4. Answers to the survey will directly address (to confirm or deny) two of the three significant possible symptoms of the problem statement:
 - Do officers commonly attend CAS³ only after significant time on Battalion or higher level staffs?

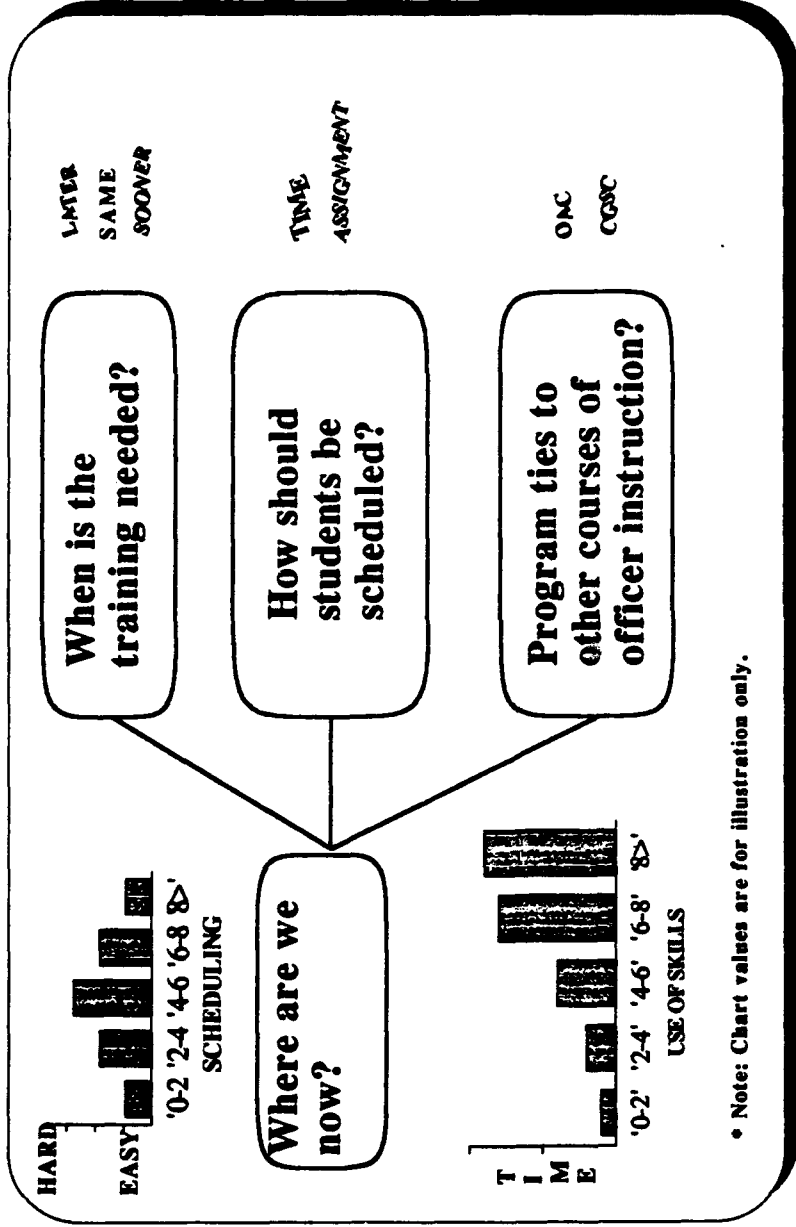
 - Are units having significant difficulty in scheduling officers to attend CAS in a timely manner?as well as examining the perceived need for CAS³ skills at intervals on the officer career path.

5. The career path intervals have been chosen to roughly represent: 0-2 years, junior lieutenant; 2-4 years, senior lieutenant; 4-6 years, junior captain; 6-8 years, senior captain; 8 years and more, senior captain or field grade.

6. The diagram enclosed illustrates that portion of the thesis logic flow in which survey analysis will be used.

Original Signed
JOHN M. FRIEDSON
MAJ, QM

Encl: as



Survey Control No. CGSC 9236-260

OFFICER TRAINING REQUIREMENTS SURVEY

14 October 1992

**Command and General Staff College
ATTN: ATZL-SWO-E
Fort Leavenworth, Kansas 66027-6900**

VERIFICATION SAMPLE

**POCs:
Dr. Ernest G. Lowden
MAJ John M. Friedson**

**Telephone:
DSN 552-3320
Commercial (913) 684-3320**

Page 1 of 9 Pages. Go to Page 2.

GROUP LEADERS/SECTION CHIEFS: When done, please collect all survey materials and return them as a group to room 126 Bell Hall, NLT 15 October 1992.

1. The attached survey instrument is being used for graduate research into Army training. The result of this study will help to provide Army Officer input into the value and timing of specific training areas.
2. Your personal experience in mid-career is particularly useful, as you have had the exposure to job-related requirements for which the training under consideration is expected to prepare young officers.
3. Use the enclosed mark sense form (CGSC Form 953, 1 Apr 86) to indicate your answers.
4. Use only a No. 2 pencil and completely blacken each oval that contains the letter you select as an answer. If you change an answer, be sure to erase it completely.
5. Select only one response to each question. Please answer only questions that apply to your career path - some will not.
6. Your additional comments are welcome - please annotate them on the back of the mark sense form.
7. We will keep all information confidential and present results only in summary form. We request the last four digits on your social security number to assign each survey participant a unique case number in the computer file. (Note and read privacy Act statement in the upper right corner of the CGSC Form 953.)
8. Please return the mark sense form to your section leader or department chief.

SECTION LEADERS/DEPARTMENT CHIEFS: Please return marked sense sheets and question sheets to: Room 126, Bell Hall.

DEMOGRAPHIC INFORMATION

1. BRANCH GROUP.
 - a. Combat Arms (AD, AR, AV, EN, FA, IN, SF)
 - b. Combat Support Arms (MP, SC, CM)
 - c. Combat Service Support Arms (AG, FI, JA, OD, QM, TC)
 - d. Non-OPM (AN, SP, CH, DC, MC, MS, VC)

THIS IS A VERIFICATION SAMPLE

This sample survey is being used to test construction validity (i.e., can you understand what each question is asking, and are the provided choice of answers clear, relevant, and sufficient?).

Your assistance in testing this survey will help insure that valid conclusions may be drawn from it, and that sufficient time is provided to other officers who will be taking it. Please take a moment to note the time you are starting this survey before you begin.

START TIME _____

THANK YOU!

Page 2 of 9 Pages. Go to Page 3.

2. RANK.

- a. Captain
- b. Captain (P)
- c. Major
- d. Major (P)
- e. Lieutenant Colonel

3. Component.

- a. Regular Army
- b. ARNG
- c. USAR

4. On Active Duty Now.

- a. Yes.
- b. No.

5. Years Active Federal Commissioned Service.

- a. At least 1 but not more than 3 years.
- b. At least 4 but not more than 6 years.
- c. At least 7 but not more than 10 years.
- d. Over 10 years.

6. Current Status

- a. CAS³ Student
- b. CGSOC Student
- c. CAS³ Staff/Faculty
- d. CGSOC Staff/Faculty
- e. Other (Please note on back of mark sense form.)

CHOOSE ONLY ONE FROM '7' OR '8'

7. If you are TDY what is your current assignment? If PCS, what was your last assignment?

- a. Company/Battery/Troop/Detachment
- b. Battalion/Squadron
- c. Brigade/Regiment
- d. Division
- e. Corps/EAC

8. If you are TDY what is your current assignment? If PCS, what was your last assignment?

- a. JCS/JOINT/HQDA/COMBINED
- b. MACOM
- c. School/Center
- d. Installation
- e. OTHER (Please list on back of marked sense form.)

USE THE SCALE AT RIGHT ---->

For each of the following questions, indicate the range of years during which you *first* needed the skill as an essential part of your duty performance, i.e., one without which you could not do your job. *If you have not yet needed a particular skill, leave the entry for that number blank.*

- a. 0 to 2 YEARS
- b. 2 to 4 YEARS
- c. 4 to 6 YEARS
- d. 6 to 8 YEARS
- e. 8 or more YEARS

Please use this scale for questions 9 through 23

COMMUNICATION SKILLS

- 9. Ability to produce high quality briefings.
- 10. Ability to produce high quality written correspondence.
- 11. Ability to communicate verbally (give briefings).
- 12. Ability to coordinate staff actions.

QUANTITATIVE SKILLS

- 13. Ability to solve a PERT network problem.
- 14. Ability to construct and use a decision matrix.
- 15. Ability to calculate basic statistics.
- 16. Ability to solve a linear regression problem.
- 17. Use of a personal computer for word processing, spreadsheets, statistics.

MANAGEMENT SKILLS

- 18. Manage time effectively.
- 19. Manage meetings effectively.

TRAINING

- 20. Develop training plans.
- 21. Solve training management problems.

MANPOWER AND BUDGET

- 22. Knowledge of resourcing cycle and PBAC.
- 23. Match work categories with appropriate TDA work elements.

Page 4 of 9 Pages. Go to Page 5.

USE THE SCALE AT RIGHT ---->

For each of the following questions indicate the range of years during which you needed the skill as an essential part of your duty performance, i.e., one without which you could not do your job. *If you have not yet needed a particular skill, leave the entry for that number blank.*

- a. 0 to 2 YEARS
- b. 2 to 4 YEARS
- c. 4 to 6 YEARS
- d. 6 to 8 YEARS
- e. 8 or more YEARS

Please use this scale for questions 24 through 36

- 24. Knowledge of manpower and budget formulation through installation level.
- 25. Analyze installation's ability to perform workload requirements.

LOGISTICS

- 26. Prepare logistics estimate/plan.
- 27. Solve problems in providing logistical support of unit service support operating systems from corps to user level in tactical sustainment.

MOBILIZATION AND DEPLOYMENT

- 28. Develop a plan of action for mobilization.
- 29. Prepare road movement planning documents.
- 30. Prepare road movement graph/table.
- 31. Prepare plan to bring unit to highest readiness level before deployment.
- 32. Prepare personnel estimates.

ARMY ORGANIZATION

- 33. Knowledge of AirLand Battle Doctrine.
- 34. Knowledge of the military decision making process.
- 35. Knowledge of Soviet Army organization, operations, tactics, and equipment.
- 36. Prepare civil-military estimate.

USE THE SCALE AT RIGHT —>

For each of the following questions, indicate the range of years during which you *first* needed the skill as an essential part of your duty performance, i.e., one without which you could not do your job. *If you have not yet needed a particular skill, leave the entry for that number blank.*

- a. 0 to 2 YEARS
- b. 2 to 4 YEARS
- c. 4 to 6 YEARS
- d. 6 to 8 YEARS
- e. 8 or more YEARS

Please use this scale for questions 37 through 51

COMBAT OPERATIONS

- 37. Knowledge of seven battlefield operating systems.
- 38. Prepare operations estimate.
- 39. Develop defensive course of action statement.
- 40. Develop operations plan (OPLAN).
- 41. Conduct an after action review (AAR).
- 42. Prepare an intelligence estimate.
- 43. Prepare mission analysis.
- 44. Prepare combat orders.

UTILIZATION

During which times did you first start a tour of 6 months or more on the following staffs? If you were never on a particular staff, leave the entry on the marked sense sheet blank.

- 45. Battalion.
- 46. Brigade/Regimental/Group.
- 47. Division.
- 48. Installation/Center/School.
- 49. MACOM.
- 50. HQDA.
- 51. Joint Staff

USE THE SCALE AT RIGHT ---->

For each of the following questions, indicate the range of years during which you *first* needed the skill as an essential part of your duty performance, i.e., one without which you could not do your job. *If you have not yet needed a particular skill, leave the entry for that number blank.*

- a. 0 to 2 YEARS
- b. 2 to 4 YEARS
- c. 4 to 6 YEARS
- d. 6 to 8 YEARS
- e. 8 or more YEARS

Please use this scale for questions 52 through 58

COMPANY COMMAND

52. When did you start your first tour as Commander at Company/Battery/ Troop/Detachment? If you have not commanded a company sized unit, leave the entry on the marked sense form blank.

FIELD GRADE

53. During which time did you first start a tour of 6 months or more as Executive Officer/S-3/MMO or other O-4 authorized position? For this survey, you did not have to be Field Grade or promotable at the time, if you served 6 months or more in the position. If you have not served in a Field Grade position, leave the entry on the marked sense sheet blank.

SCHOOLING

During which time periods did you first start the following schools? If you have not attended a particular school, leave the marked sense sheet entry blank.

- 54. Officer Advance Course.
- 55. Resident CAS³.
- 56. Nonresident CGSOC (correspondence).
- 57. Resident CGSOC.
- 58. RC-CAS³ (Reserve Component CAS³).

BATTALION COMMAND

59. Have you had a tour as a Battalion level commander?

- a. Yes.
- b. No.

OPINION

To answer the following two questions, consider: when do you think an officer should attend CAS?³
(Please answer both 60 and 61.)

60. If based on experience.

- a. Before first staff experience.
- b. After 6 months staff experience.
- c. After completion of first staff tour.
- d. Other. (Please comment on back of marked sense form.)

61. If based on time.

- a. Immediately after the Officer Advanced Course.
- b. 1/4 of the way between CAS³ and CGSOC.
- c. 1/2 of the way between CAS³ and CGSOC.
- d. Other. (Please comment on back of marked sense form.)

62. Was scheduling attendance at CAS³ a burden for the units you served with? (Relate this to your both your own attendance and others in your units, if appropriate.)

- a. YES, a major burden. It was extremely difficult to do while considering the needs of both the unit and the individual.
- b. YES, a burden. It was difficult to do while considering the needs of both the unit and the individual.
- c. YES, a minor burden. It was slightly difficult to do while considering the need of both the unit and the individual.
- d. NO, there was little difficulty in doing so while considering the needs of both the unit and individual.
- e. NO, there was no difficulty in doing so while considering the needs of both the unit and individual.

Page 8 of 9 Pages. Go to Page 9.

63. How should officers be scheduled to attend CAS³?

- a. Send from unit based on assignment and need.
- b. Send during non-unit time; i.e. in conjunction with another school, during PCS move, etc.
- c. Combination of a. and b. above; have a standardized time during non-unit assignments, but be able to schedule from unit if time and need permit.

THIS IS A VERIFICATION SAMPLE

Please take a moment to note the time you complete this survey before you turn it in.

ENDING TIME _____

THANK YOU FOR YOUR ASSISTANCE

PLEASE MAKE COMMENTS ON THE BACK OF THE MARK SENSE FORM

If you have additional comments on the timing or content of CAS³, please use the back of the data entry form. All comments will be considered!

**PLEASE RETURN THIS SURVEY AND THE MARK SENSE SHEET TO YOUR STAFF GROUP
LEADER OR SECTION CHIEF**

THANK YOU!

—————NOTHING FOLLOWS—————

Verification Sample Surveys

Initial verification sample surveys were administrated to three CGSC students in Staff Group 21C, face-to-face, on 20 and 21 October 1992. As a result of their comments, several small typographical corrections were made, and several questions clarified. Questions seven and eight were clarified by additional instruction to list current assignment for TDY personnel, and most recent assignment for PCS personnel. Question 60 was clarified by adding a line to answer the question if it was based on experience, and 61 to answer the question if it was based on time. Time utilized to answer the survey varied between 9 and 18 minutes.

A wider sample was taken with the revised survey, enclosed, and administrated to members of a CGSC Staff Section. Nine mark sense forms were returned.

Seven of the samples included times to complete: 15, 20, 20, 10, 8, 20, 15 minutes were listed. As a result, the 'Estimated time to complete' listing for the survey was established as '15 to 20 minutes.'

One mark sense form included the comments, '#8 ARCENT Contracting Activity, CENTCOM AOR', and 'General comment - where you want SSN entered - i.e. on the survey or mark sense form is not clear'.

OFFICER TRAINING REQUIREMENTS SURVEY

1 November 1992

**Command and General Staff College
ATTN: ATZL-SWO-E
Fort Leavenworth, Kansas 66027-6900**

GROUP LEADERS/SECTION CHIEFS

**When done, please collect all survey materials and
return them as a group to room 126 Bell Hall, not
later than 1 March 1993.**

Thank you for your assistance!

**POCs:
MAJ John M. Friedson, 21C
Dr. Ernest G. Lowden**

**Telephone:
DSN 552-3320
Commercial (913) 684-3320**

Page 1 of 9 Pages. Go to Page 2.

OFFICER TRAINING REQUIREMENTS SURVEY INSTRUCTIONS

1. The attached survey instrument is being used for graduate research into Army training. The result of this study will help to provide Army Officer input into the value and timing of specific training areas. **This survey is for Army Officers only.**
2. Your personal experience in mid-career is particularly useful, as you have had the exposure to job-related requirements for which the training under consideration is expected to prepare young officers.
3. Use the enclosed mark sense form (CGSC Form 953, 1 Apr 86) to indicate your answers. You do not have to enter your name, but please place the two-letter abbreviation of your branch (ex. "IN") in the first two blocks of 'D. LAST NAME'.
4. Use only a No. 2 pencil and completely blacken each oval that contains the letter you select as an answer. If you change an answer, be sure to erase it completely.
5. Select only one response to each question. Please answer only questions that apply to your career path - some will not.
6. Your additional comments are welcome - please annotate them on the back of the mark sense form.
7. We will keep all information confidential and present results only in summary form. CGSC Students, place your exam code in the space provided for 'student number' in the mark sense form. All others please place the last four digits on your social security number to assign each survey participant a unique case number in the computer file. (Note and read privacy Act statement in the upper right corner of the CGSC Form 953.)
8. Please return the mark sense form to your section leader or department chief.

MAJ John M. Friedson
Section 21C

**THIS SURVEY WILL TAKE APPROXIMATELY 15 - 20
MINUTES TO COMPLETE**

**THANK YOU VERY MUCH FOR YOUR ASSISTANCE IN
COMPLETING THIS IMPORTANT SURVEY**

DEMOGRAPHIC INFORMATION:

1. BRANCH GROUP.
 - a. Combat Arms (AD, AR, AV, EN, FA, IN, SF)
 - b. Combat Support Arms (MP, SC, CM)
 - c. Combat Service Support Arms (AG, FI, JA, OD, QM, TC)
 - d. Non-OPM (AN, SP, CH, DC, MC, MS, VC)

2. RANK.
 - a. Captain
 - b. Captain (P)
 - c. Major
 - d. Major (P)
 - e. Lieutenant Colonel

3. Component.
 - a. Regular Army
 - b. ARNG
 - c. USAR

4. On Active Duty Now.
 - a. Yes.
 - b. No.

5. Years Active Federal Commissioned Service.
 - a. At least 1 but not more than 3 years.
 - b. At least 4 but not more than 6 years.
 - c. At least 7 but not more than 10 years.
 - d. Over 10 years.

6. Current Status
 - a. CAS³ Student
 - b. CGSOC Student
 - c. CAS³ Staff/Faculty
 - d. CGSOC Staff/Faculty
 - e. Other (Please note on back of mark sense form.)

CHOOSE ONLY ONE FROM '7' OR '8'

7. If you are TDY what is your current assignment? If PCS, what was your last assignment?
 - a. Company/Battery/Troop/Detachment
 - b. Battalion/Squadron
 - c. Brigade/Regiment
 - d. Division
 - e. Corps/EAC

8. If you are TDY what is your current assignment? If PCS, what was your last assignment?
 - a. JCS/JOINT/HQDA/COMBINED
 - b. MACOM
 - c. School/Center
 - d. Installation
 - e. OTHER (Please list on back of marked sense form.)

Page 3 of 9 Pages. Go to Page 4.

USE THE SCALE AT RIGHT ---->

For each of the following questions, indicate the range of years during which you *first* needed the skill as an essential part of your duty performance, i.e., one without which you could not do your job. *If you have not yet needed a particular skill, leave the entry for that number blank.*

- a. 0 to 2 YEARS
 - b. 2 to 4 YEARS
 - c. 4 to 6 YEARS
 - d. 6 to 8 YEARS
 - e. 8 or more YEARS
- Please use this scale for questions 9 through 23

COMMUNICATION SKILLS

- 9. Ability to produce high quality briefings.
- 10. Ability to produce high quality written correspondence.
- 11. Ability to communicate verbally (give briefings).
- 12. Ability to coordinate staff actions.

QUANTITATIVE SKILLS

- 13. Ability to solve a PERT network problem.
- 14. Ability to construct and use a decision matrix.
- 15. Ability to calculate basic statistics.
- 16. Ability to solve a linear regression problem.
- 17. Use of a personal computer for word processing, spreadsheets, statistics.

MANAGEMENT SKILLS

- 18. Manage time effectively.
- 19. Manage meetings effectively.

TRAINING

- 20. Develop training plans.
- 21. Solve training management problems.

MANPOWER AND BUDGET

- 22. Knowledge of resourcing cycle and PBAC.
- 23. Match work categories with appropriate TDA work elements.

Page 4 of 9 Pages. Go to Page 5.

USE THE SCALE AT RIGHT —>

For each of the following questions, indicate the range of years during which you *first* needed the skill as an essential part of your duty performance, i.e., one without which you could not do your job. *If you have not yet needed a particular skill, leave the entry for that number blank.*

- a. 0 to 2 YEARS
- b. 2 to 4 YEARS
- c. 4 to 6 YEARS
- d. 6 to 8 YEARS
- e. 8 or more YEARS

Please use this scale for questions 24 through 36

- 24. Knowledge of manpower and budget formulation through installation level.
- 25. Analyze installation's ability to perform workload requirements.

LOGISTICS

- 26. Prepare logistics estimate/plan.
- 27. Solve problems in providing logistical support of unit service support operating systems from corps to user level in tactical sustainment.

MOBILIZATION AND DEPLOYMENT

- 28. Develop a plan of action for mobilization.
- 29. Prepare road movement planning documents.
- 30. Prepare road movement graph/table.
- 31. Prepare plan to bring unit to highest readiness level before deployment.
- 32. Prepare personnel estimates.

ARMY ORGANIZATION

- 33. Knowledge of AirLand Battle Doctrine.
- 34. Knowledge of the military decision making process.
- 35. Knowledge of Soviet Army organization, operations, tactics, and equipment.
- 36. Prepare civil-military estimate.

USE THE SCALE AT RIGHT —>

For each of the following questions, indicate the range of years during which you *first* needed the skill as an essential part of your duty performance, i.e., one without which you could not do your job. *If you have not yet needed a particular skill, leave the entry for that number blank.*

- a. 0 to 2 YEARS
 - b. 2 to 4 YEARS
 - c. 4 to 6 YEARS
 - d. 6 to 8 YEARS
 - e. 8 or more YEARS
- Please use this scale for questions 37 through 51

COMBAT OPERATIONS

- 37. Knowledge of seven battlefield operating systems.
- 38. Prepare operations estimate.
- 39. Develop defensive course of action statement.
- 40. Develop operations plan (OPLAN).
- 41. Conduct an after action review (AAR).
- 42. Prepare an intelligence estimate.
- 43. Prepare mission analysis.
- 44. Prepare combat orders.

UTILIZATION

During which times did you first start a tour of 6 months or more on the following staffs? If you were never on a particular staff, leave the entry on the marked sense sheet blank.

- 45. Battalion.
- 46. Brigade/Regimental/Group.
- 47. Division.
- 48. Installation/Center/School.
- 49. MACOM.
- 50. HQDA.
- 51. Joint Staff

USE THE SCALE AT RIGHT —>

For each of the following questions, indicate the range of years during which you *first* needed the skill as an essential part of your duty performance, i.e., one without which you could not do your job. *If you have not yet needed a particular skill, leave the entry for that number blank.*

- a. 0 to 2 YEARS
- b. 2 to 4 YEARS
- c. 4 to 6 YEARS
- d. 6 to 8 YEARS
- e. 8 or more YEARS

Please use this scale for questions 52 through 58

COMPANY COMMAND

52. When did you start your first tour as Commander at Company/Battery/ Troop/Detachment? If you have not commanded a company sized unit, leave the entry on the marked sense form blank.

FIELD GRADE

53. During which time did you first start a tour of 6 months or more as Executive Officer/S-3/MMO or other O-4 authorized position? For this survey, you did not have to be Field Grade or promotable at the time, if you served 6 months or more in the position. If you have not served in a Field Grade position, leave the entry on the marked sense sheet blank.

SCHOOLING

During which time periods did you first start the following schools? If you have not attended a particular school, leave the marked sense sheet entry blank.

- 54. Officer Advance Course.
- 55. Resident CAS³.
- 56. Nonresident CGSOC (correspondence).
- 57. Resident CGSOC.
- 58. RC-CAS³ (Reserve Component CAS³).

BATTALION COMMAND

59. Have you had a tour as a Battalion level commander?

- a. Yes.
- b. No.

OPINION

To answer the following two questions, consider: when do you think an officer should attend CAS?³
(Please answer both 60 and 61.)

60. If based on experience.

- a. Before first staff experience.
- b. After 6 months staff experience.
- c. After completion of first staff tour.
- d. Other. (Please comment on back of marked sense form.)

61. If based on time.

- a. Immediately after the Officer Advanced Course (OAC).
- b. 1/4 of the way between CAS³ and CGSOC.
- c. 1/2 of the way between CAS³ and CGSOC.
- d. Other. (Please comment on back of marked sense form.)

62. Was scheduling attendance at CAS³ a burden for the units you served with? (Relate this to your both your own attendance and others in your units, if appropriate.)

a. YES, a major burden. It was extremely difficult to do while considering the needs of both the unit and the individual.

b. YES, a burden. It was difficult to do while considering the needs of both the unit and the individual.

c. YES, a minor burden. It was slightly difficult to do while considering the need of both the unit and the individual.

d. NO, there was little difficulty in doing so while considering the needs of both the unit and individual.

e. NO, there was no difficulty in doing so while considering the needs of both the unit and individual.

63. How should officers be scheduled to attend CAS?

- a. Send from unit based on assignment and need.
- b. Send during non-unit time; i.e. in conjunction with another school, during PCS move, etc.
- c. Combination of a. and b. above; have a standardized time during non-unit assignments, but be able to schedule from unit if time and need permit.
- d. No change. Keep the current system.

THANK YOU FOR YOUR ASSISTANCE

**PLEASE RETURN THIS SURVEY AND THE MARK SENSE
SHEET TO YOUR STAFF GROUP LEADER OR SECTION
CHIEF**

**If you have additional comments on the timing or content of CAS³, please use
the back of the mark sense form. All comments will be considered!**

THANK YOU!

—————NOTHING FOLLOWS—————

OFFICER TRAINING REQUIREMENTS SURVEY

1 February 1993

**Command and General Staff College
ATTN: ATZL-SWO-E
Fort Leavenworth, Kansas 66027-6900**

GROUP LEADERS/SECTION CHIEFS

**When done, please collect all survey materials and
return them as a group to room 126 Bell Hall, not
later than 1 March 1993.**

Thank you for your assistance!

**POCs:
MAJ John M. Friedson, 21C
Dr. Ernest G. Lowden**

**Telephone:
DSN 552-3320
Commercial (913) 684-3320**

Page 1 of 9 Pages. Go to Page 2.

OFFICER TRAINING REQUIREMENTS SURVEY INSTRUCTIONS

1. The attached survey instrument is being used for graduate research into Army training. The result of this study will help to provide Army Officer input into the value and timing of specific training areas. **This survey is for Army Officers only.**
2. Your personal experience in mid-career is particularly useful, as you have had the exposure to job-related requirements for which the training under consideration is expected to prepare young officers.
3. Use the enclosed mark sense form (CGSC Form 953, 1 Apr 86) to indicate your answers. You do not have to enter your name, but please place the two-letter abbreviation of your branch (ex. "IN") in the first two blocks of 'D. LAST NAME'.
4. Use only a No. 2 pencil and completely blacken each oval that contains the letter you select as an answer. If you change an answer, be sure to erase it completely.
5. Select only one response to each question. Please answer only questions that apply to your career path - some will not.
6. Your additional comments are welcome - please annotate them on the back of the mark sense form.
7. We will ~~keep~~ all information confidential and present results only in summary form. CGSC Students, place your exam code in the space provided for 'student number' in the mark sense form. All others please place the last four digits on your social security number to assign each survey participant a unique case number in the computer file. (Note and read privacy Act statement in the upper right corner of the CGSC Form 953.)
8. Please return the mark sense form to your section leader or department chief.

MAJ John M. Friedson
Section 21C

**THIS SURVEY WILL TAKE APPROXIMATELY 15 - 20
MINUTES TO COMPLETE**

**THANK YOU VERY MUCH FOR YOUR ASSISTANCE IN
COMPLETING THIS IMPORTANT SURVEY**

DEMOGRAPHIC INFORMATION:

1. BRANCH GROUP.
 - a. Combat Arms (AD, AR, AV, EN, FA, IN, SF)
 - b. Combat Support Arms (MP, SC, CM)
 - c. Combat Service Support Arms (AG, FI, JA, OD, QM, TC)
 - d. Non-OPM (AN, SP, CH, DC, MC, MS, VC)

2. RANK.
 - a. Captain
 - b. Captain (P)
 - c. Major
 - d. Major (P)
 - e. Lieutenant Colonel

3. Component.
 - a. Regular Army
 - b. ARNG
 - c. USAR

4. On Active Duty Now.
 - a. Yes.
 - b. No.

5. Years Active Federal Commissioned Service.
 - a. At least 1 but not more than 3 years.
 - b. At least 4 but not more than 6 years.
 - c. At least 7 but not more than 10 years.
 - d. Over 10 years.

6. Current Status
 - a. CAS' Student
 - b. CGSOC Student
 - c. CAS' Staff/Faculty
 - d. CGSOC Staff/Faculty
 - e. Other (Please note on back of mark sense form.)

CHOOSE ONLY ONE FROM '7' OR '8'

7. If you are TDY what is your current assignment? If PCS, what was your last assignment?
 - a. Company/Battery/Troop/Detachment
 - b. Battalion/Squadron
 - c. Brigade/Regiment
 - d. Division
 - e. Corps/EAC

8. If you are TDY what is your current assignment? If PCS, what was your last assignment?
 - a. JCS/JOINT/HQDA/COMBINED
 - b. MACOM
 - c. School/Center
 - d. Installation
 - e. OTHER (Please list on back of marked sense form.)

Page 3 of 9 Pages. Go to Page 4.

USE THE SCALE AT RIGHT —>

For each of the following questions, indicate the range of years during which you *first* needed the skill as an essential part of your duty performance, i.e., one without which you could not do your job. *If you have not yet needed a particular skill, leave the entry for that number blank.*

- a. 0 to 2 YEARS
- b. 2 to 4 YEARS
- c. 4 to 6 YEARS
- d. 6 to 8 YEARS
- e. 8 or more YEARS

Please use this scale for questions 9 through 23

COMMUNICATION SKILLS

- 9. Ability to produce high quality briefings.
- 10. Ability to produce high quality written correspondence.
- 11. Ability to communicate verbally (give briefings).
- 12. Ability to coordinate staff actions.

QUANTITATIVE SKILLS

- 13. Ability to solve a PERT network problem.
- 14. Ability to construct and use a decision matrix.
- 15. Ability to calculate basic statistics.
- 16. Ability to solve a linear regression problem.
- 17. Use of a personal computer for word processing, spreadsheets, statistics.

MANAGEMENT SKILLS

- 18. Manage time effectively.
- 19. Manage meetings effectively.

TRAINING

- 20. Develop training plans.
- 21. Solve training management problems.

MANPOWER AND BUDGET

- 22. Knowledge of resourcing cycle and PBAC.
- 23. Match work categories with appropriate TDA work elements.

Page 4 of 9 Pages. Go to Page 5.

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Page 8 of 9 Pages. Go to Page 9.

63. How should officers be scheduled to attend CAS³?

- a. Send from unit based on assignment and need.
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- d. No change. Keep the current system.

THANK YOU FOR YOUR ASSISTANCE

**PLEASE RETURN THIS SURVEY AND THE MARK SENSE
SHEET TO YOUR STAFF GROUP LEADER OR SECTION
CHIEF**

**If you have additional comments on the timing or content of CAS³, please use
the back of the mark sense form. All comments will be considered!**

THANK YOU!

—————NOTHING FOLLOWS—————

ANNEX B

PROGRAMMING

dBase Programs

dBase programs were used to process raw data into formats useable in spreadsheet and graphics programs. The following list action diagrams (with line numbers and action symbols) and pure source code for each program used in the study.

```
1 *.....
2 *:
3 *:   Program: ALLPERCN.PRG
4 *:
5 *:   System: CAS3 ALLPERCEN
6 *:   Author: John M. Friedson
7 *:   1993
8 *:   Last modified: 01/10/93   21:59
9 *:
10 *:   Uses: GRAPHBAC.DBF
11 *:       : GRAPH.DBF
12 *:       : PRCNTTL.DBF
13 *:
14 *:   Documented 04/14/93 at 10:20
15 *.....
16   use graphbac
17   copy to graph
18
19   select a
20   use graph
21   skip 5
22   select b
23   use prcnttl
24
25
26 +=do while .t.
27 |   select a
28 |
29 |   replace a->x0 with b->x0
30 |   replace a->x1 with b->x1
31 |   replace a->x2 with b->x2
32 |   replace a->x3 with b->x3
33 |   replace a->x4 with b->x4
34 |   replace a->x5 with b->x5
35 |
36 |   select a
37 |   skip 7
38 |
39 | +=if eof()
40 v-----exit
41 | +=endif (eof())
42 |
```

```

43 | select b
44 | skip
45 |
46 +=enddo
47 select a
48 browse
49
50
51 close data
52 return
54 *: EOF: ALLPERCN.ACT

```

```

1 *.....
2 *:
3 *:   Program: CAS2.PRG
4 *:
5 *:   System: CAS3 CAS2
6 *:   Author: John M. Friedson
7 *:   1993
8 *:   Last modified: 01/10/93   1:05
9 *:
10 *:   Uses: CAS.DBF
11 *:       : SPREAD.DBF
12 *:       : FIELDLST.DBF
13 *:       : DEMOLST.DBF
14 *:
15 *:   Documented 04/14/93 at 10:23
16 *.....
17
18 select a
19 use cas
20
21 select b
22 use spread
23 zap
24
25
26 select c
27 use fiELDist
28
29 select d
30 use demolst
31
32 demovar=d->demoname
33
34 fieldnam=" "
35
36 numvar=0
37
38 +=DO WHILE .T.
39 | FIELDNAM=C->FIELD_NAME

```

```

40 | ? FIELDNAM
41 | +=DO WHILE .T.
42 | | select d
43 | | DEMOVAR=D->DEMONAME
44 | | ? DEMOVAR
45 | | select b
46 | | append blank
47 | | replace demo with demovar
48 | | REPLACE FIELD WITH FIELDNAM
49 | | SELECT A
50 |
51 | | count FOR &DEMOVAR=1 .AND. &fieldnam=0 to numvar
52 | | replace b->L00 with numvar
53 | | count for &DEMOVAR=1 .and. &fieldnam=1 to numvar
54 | | replace b->L01 with numvar
55 | | count for &DEMOVAR=1 .and. &fieldnam=2 to numvar
56 | | replace b->L02 with numvar
57 | | count for &DEMOVAR=1 .and. &fieldnam=3 to numvar
58 | | replace b->L03 with numvar
59 | | count for &DEMOVAR=1 .and. &fieldnam=4 to numvar
60 | | replace b->L04 with numvar
61 | | count for &DEMOVAR=1 .and. &fieldnam=5 to numvar
62 | | replace b->L05 with numvar
63 | | count FOR &DEMOVAR=2 .AND. &fieldnam=0 to numvar
64 | | replace b->L10 with numvar
65 | | count for &DEMOVAR=2 .and. &fieldnam=1 to numvar
66 | | replace b->L11 with numvar
67 | | count for &DEMOVAR=2 .and. &fieldnam=2 to numvar
68 | | replace b->L12 with numvar
69 | | count for &DEMOVAR=2 .and. &fieldnam=3 to numvar
70 | | replace b->L13 with numvar
71 | | count for &DEMOVAR=2 .and. &fieldnam=4 to numvar
72 | | replace b->L14 with numvar
73 | | count for &DEMOVAR=2 .and. &fieldnam=5 to numvar
74 | | replace b->L15 with numvar
75 | | count FOR &DEMOVAR=3 .AND. &fieldnam=0 to numvar
76 | | replace b->L20 with numvar
77 | | count for &DEMOVAR=3 .and. &fieldnam=1 to numvar
78 | | replace b->L21 with numvar
79 | | count for &DEMOVAR=3 .and. &fieldnam=2 to numvar
80 | | replace b->L22 with numvar
81 | | count for &DEMOVAR=3 .and. &fieldnam=3 to numvar
82 | | replace b->L23 with numvar
83 | | count for &DEMOVAR=3 .and. &fieldnam=4 to numvar
84 | | replace b->L24 with numvar
85 | | count for &DEMOVAR=3 .and. &fieldnam=5 to numvar
86 | | replace b->L25 with numvar
87 | | count FOR &DEMOVAR=4 .AND. &fieldnam=0 to numvar
88 | | replace b->L30 with numvar
89 | | count for &DEMOVAR=4 .and. &fieldnam=1 to numvar
90 | | replace b->L31 with numvar
91 | | count for &DEMOVAR=4 .and. &fieldnam=2 to numvar

```

```

92 | | replace b->L32 with numvar
93 | | count for &DEMOVAR=4 .and. &fieldnam=3 to numvar
94 | | replace b->L33 with numvar
95 | | count for &DEMOVAR=4 .and. &fieldnam=4 to numvar
96 | | replace b->L34 with numvar
97 | | count for &DEMOVAR=4 .and. &fieldnam=5 to numvar
98 | | replace b->L35 with numvar
99 | | count FOR &DEMOVAR=5 .AND. &fieldnam=0 to numvar
100 | | replace b->L40 with numvar
101 | | count for &DEMOVAR=5 .and. &fieldnam=1 to numvar
102 | | replace b->L41 with numvar
103 | | count for &DEMOVAR=5 .and. &fieldnam=2 to numvar
104 | | replace b->L42 with numvar
105 | | count for &DEMOVAR=5 .and. &fieldnam=3 to numvar
106 | | replace b->L43 with numvar
107 | | count for &DEMOVAR=5 .and. &fieldnam=4 to numvar
108 | | replace b->L44 with numvar
109 | | count for &DEMOVAR=5 .and. &fieldnam=5 to numvar
110 | | replace b->L45 with numvar
111 | | SELECT D
112 | | SKIP
113 | | +-IF EOF()
114 | | | GO TOP
115 | | v-----EXIT
116 | | +-ENDIF (EOF())
117 | |
118 | | +-ENDDO (.T.)
119 | | SELECT C
120 | | SKIP
121 | | +-IF EOF()
122 | | v-----EXIT
123 | | +-ENDIF (EOF())
124 | | +-ENDDO (.T.)
125 |
126 | CLOSE DATA
127 | RETURN
129 | *: EOF: CAS2.ACT

```

```

1 | .....
2 | *:
3 | *:   Program: CAS2CHK1.PRG
4 | *:
5 | *:   System: CAS3 CAS2CHK1
6 | *:   Author: John M. Friedson
7 | *:   1993
8 | *: Last modified: 03/17/93   15:55
9 | *:
10 | *:   Uses: CAS2.DBF
11 | *:
12 | *:   Documented 04/14/93 at 10:40
13 | .....

```

text

this program calculates the percentages of the opinion questions •
on the second survey of cas3

ENDTEXT

```
18 store 0 to temp0,temp1, temp2, temp3,  
temp4,temp5,temper0,temper1,temper2,temper3,temper4,temper5  
19 store "opn60" to opn  
20 tempper=0  
21 use cas2  
22 go bottom  
23 store recno() to lastrec  
24 go top  
25  
26 +=do while .t.  
27 | go top  
28 | count for &opn=0 to temp0  
29 | temper0=temp0/(lastrec-temp0)  
30 | count for &opn=1 to temp1  
31 | temper1=temp1/(lastrec-temp0)  
32 | count for &opn=2 to temp2  
33 | temper2=temp2/(lastrec-temp0)  
34 | count for &opn=3 to temp3  
35 | temper3=temp3/(lastrec-temp0)  
36 | count for &opn=4 to temp4  
37 | temper4=temp4/(lastrec-temp0)  
38 | count for &opn=5 to temp5  
39 | temper5=temp5/(lastrec-temp0)  
40 |  
41 | set print on  
42 | ? opn  
43 | ? "0 = ",temp0, temper0  
44 | ? "1 = ",temp1, temper1  
45 | ? "2 = ",temp2, temper2  
46 | ? "3 = ",temp3, temper3  
47 | ? "4 = ",temp4, temper4  
48 | ? "5 = ",temp5, temper5  
49 | ?  
50 | set print off  
51 | wait  
52 | +-if opn="opn60"  
53 | | opn="opn61"  
54 | ^=====loop  
55 | +-endif (opn="opn60")  
56 | +-if opn="opn61"  
57 | | opn="opn62"  
58 | ^=====loop  
59 | +-endif (opn="opn61")  
60 | +-if opn="opn62"  
61 | | opn="opn63"  
62 | ^=====loop  
63 | +-endif (opn="opn62")  
64 | +-if opn="opn62"
```

```

65 | | opn="opn63"
66 ^-----loop
67 | +-endif (opn="opn62")
68 | +-if opn="opn63"
69 v-----exit
70 | +-endif (opn="opn63")
71 | go top
72 +-enddo
73
74 close data
75 return
76
78 *: EOF: CAS2CHK1.ACT

```

```

1 *.....
2 *:
3 *:   Program: CAS3.PRG
4 *:
5 *:   System: CAS3 CAS3
6 *:   Author: John M. Friedson
7 *:   1993
8 *:   Last modified: 01/10/93   14:43
9 *:
10 *:   Uses: CAS.DBF
11 *:       : SPREAD.DBF
12 *:       : FIELDLST.DBF
13 *:       : DEMOLST.DBF
14 *:
15 *:   Documented 04/14/93 at 10:41
16 *.....
17
18 select a
19 use cas
20
21 select b
22 use spread
23 zap
24
25
26 select c
27 use fiELDist
28
29 select d
30 use demolst
31
32 demovar=d->demoname
33
34 fieldnam="  "
35
36 numvar=0
37

```

```

38 +=DO WHILE .T.
39 |   FIELDNAM=C->FIELD_NAME
40 |   ? FIELDNAM
41 | +=DO WHILE .T.
42 |   select d
43 |   DEMOVAR=D->DEMONAME
44 |   ? DEMOVAR
45 |   select b
46 |   append blank
47 |   replace demo with demovar
48 |   REPLACE FIELD WITH FIELDNAM
49 |   SELECT A
50 |
51 |   count FOR &DEMOVAR=1 .AND. &fieldnam=0 to numvar
52 |   replace b->L00 with numvar
53 |   count for &DEMOVAR=1 .and. &fieldnam=1 to numvar
54 |   replace b->101 with numvar
55 |   count for &DEMOVAR=1 .and. &fieldnam=2 to numvar
56 |   replace b->L02 with numvar
57 |   count for &DEMOVAR=1 .and. &fieldnam=3 to numvar
58 |   replace b->103 with numvar
59 |   count for &DEMOVAR=1 .and. &fieldnam=4 to numvar
60 |   replace b->104 with numvar
61 |   count for &DEMOVAR=1 .and. &fieldnam=5 to numvar
62 |   replace b->105 with numvar
63 |   count FOR &DEMOVAR=2 .AND. &fieldnam=0 to numvar
64 |   replace b->L10 with numvar
65 |   count for &DEMOVAR=2 .and. &fieldnam=1 to numvar
66 |   replace b->111 with numvar
67 |   count for &DEMOVAR=2 .and. &fieldnam=2 to numvar
68 |   replace b->L12 with numvar
69 |   count for &DEMOVAR=2 .and. &fieldnam=3 to numvar
70 |   replace b->L13 with numvar
71 |   count for &DEMOVAR=2 .and. &fieldnam=4 to numvar
72 |   replace b->L14 with numvar
73 |   count for &DEMOVAR=2 .and. &fieldnam=5 to numvar
74 |   replace b->L15 with numvar
75 |   count FOR &DEMOVAR=3 .AND. &fieldnam=0 to numvar
76 |   replace b->L20 with numvar
77 |   count for &DEMOVAR=3 .and. &fieldnam=1 to numvar
78 |   replace b->121 with numvar
79 |   count for &DEMOVAR=3 .and. &fieldnam=2 to numvar
80 |   replace b->L22 with numvar
81 |   count for &DEMOVAR=3 .and. &fieldnam=3 to numvar
82 |   replace b->L23 with numvar
83 |   count for &DEMOVAR=3 .and. &fieldnam=4 to numvar
84 |   replace b->L24 with numvar
85 |   count for &DEMOVAR=3 .and. &fieldnam=5 to numvar
86 |   replace b->L25 with numvar
87 |   count FOR &DEMOVAR=4 .AND. &fieldnam=0 to numvar
88 |   replace b->L30 with numvar
89 |   count for &DEMOVAR=4 .and. &fieldnam=1 to numvar

```

```

90 | | replace b->L31 with numvar
91 | | count for &DEMOVAR=4 .and. &fieldnam=2 to numvar
92 | | replace b->L32 with numvar
93 | | count for &DEMOVAR=4 .and. &fieldnam=3 to numvar
94 | | replace b->L33 with numvar
95 | | count for &DEMOVAR=4 .and. &fieldnam=4 to numvar
96 | | replace b->L34 with numvar
97 | | count for &DEMOVAR=4 .and. &fieldnam=5 to numvar
98 | | replace b->L35 with numvar
99 | | count FOR &DEMOVAR=5 .AND. &fieldnam=0 to numvar
100 | | replace b->L40 with numvar
101 | | count for &DEMOVAR=5 .and. &fieldnam=1 to numvar
102 | | replace b->L41 with numvar
103 | | count for &DEMOVAR=5 .and. &fieldnam=2 to numvar
104 | | replace b->L42 with numvar
105 | | count for &DEMOVAR=5 .and. &fieldnam=3 to numvar
106 | | replace b->L43 with numvar
107 | | count for &DEMOVAR=5 .and. &fieldnam=4 to numvar
108 | | replace b->L44 with numvar
109 | | count for &DEMOVAR=5 .and. &fieldnam=5 to numvar
110 | | replace b->L45 with numvar
111 | | SELECT D
112 | | SKIP
113 | | +-IF EOF()
114 | | | GO TOP
115 | | v-----EXIT
116 | | +-ENDIF (EOF())
117 | |
118 | | +-ENDDO (.T.)
119 | | SELECT C
120 | | SKIP
121 | | +-IF EOF()
122 | | v-----EXIT
123 | | +-ENDIF (EOF())
124 | | +-ENDDO (.T.)
125 |
126 | CLOSE DATA
127 | RETURN
129 | *: EOF: CAS3.ACT

```

```

1 | .....
2 | *:
3 | *:   Program: CASTAT.PRG
4 | *:
5 | *:   System: CAS3 CASTAT
6 | *:   Author: John M. Friedson
7 | *:   1993
8 | *:   Last modified: 04/14/93   10:43
9 | *:
10 | *:   Uses: SPREAD.DBF
11 | *:   : DEM01.DBF

```



```

12 *:
13 *: Documented 04/14/93 at 10:44
14 *: .....
15 store 0 to total00, total01, total02, total03, total04, total05
16 store 0 to total10, total11, total12, total13, total14, total15
17 store 0 to total20, total21, total22, total23, total24, total25
18 store 0 to total30, total31, total32, total33, total34, total35
19 store 0 to total40, total41, total42, total43, total44, total45
20 store 0 to total50, total51, total52, total53, total54, total55
21
22 store 0 to total00p, total01p, total02p, total03p, total04p, total05p
23 store 0 to total10p, total11p, total12p, total13p, total14p, total15p
24 store 0 to total20p, total21p, total22p, total23p, total24p, total25p
25 store 0 to total30p, total31p, total32p, total33p, total34p, total35p
26 store 0 to total40p, total41p, total42p, total43p, total44p, total45p
27 store 0 to total50p, total51p, total52p, total53p, total54p, total55p
28
29 store " " to dbf1var
30 store " " to dbf2var
31
32 store " " to rowvar
33
34
35
36 select b
37 use spread
38
39
40
41 select a
42 use dem01
43
44
45 count for dem01=0 .and. com09=0 to total00
46 count for dem01=0 .and. com09=1 to total01
47 count for dem01=0 .and
48
49
50 +=do while .t.
51 |
52 | +-if dem01=0 .and. com09=0
53 | | total00?=total00+1
54 | +-endif (dem01=0 .and. com09=0)
55 |
56 | +-if
57 | |
58 | |
59 | | skip
60 | | +-if eof()
61 | |-----exit
62 | | +-endif (eof())
63 | |

```

```

64 | +-endif
65 |
66 +-enddo
67
68
69   wait
70
71
72
73   close data
74   return
76   *: EOF: CASTAT.ACT

```

```

1  *.....
2  *:
3  *:   Program: GRAPH.PRG
4  *:
5  *:   System: CAS3 GRAPH
6  *:   Author: John M. Friedson
7  *:   1993
8  *:   Last modified: 01/10/93   19:49
9  *:
10 *:   Uses: PRCEN.DBF
11 *:   : GRAPH.DBF
12 *:
13 *:   Documented 04/14/93 at 10:44
14 *.....
15   SELECT A
16   USE PRCEN
17
18   SELECT B
19   USE GRAPH
20
21   ZAP
22   STORE 0 TO X0TTL, X1TTL, X2TTL, X3TTL, X4TTL, X5TTL
23   STORE 0 TO DIVAR
24
25 +-DO WHILE .T.
26 |   SELECT B
27 |   APPEND BLANK
28 |
29 |   SELECT A
30 |   ? COM
31 |   ? DEM
32 |   ?
33 |   REPLACE B->DEM WITH DEM
34 |   REPLACE B->COM WITH COM
35 |   REPLACE B->X0 WITH D1X0
36 |   REPLACE B->X1 WITH D1X1
37 |   REPLACE B->X2 WITH D1X2
38 |   REPLACE B->X3 WITH D1X3
39 |   REPLACE B->X4 WITH D1X4

```

```

40 | REPLACE B->X5 WITH D1X5
41 | X0TTL=X0TTL+B->X0
42 | X1TTL=X1TTL+B->X1
43 | X2TTL=X2TTL+B->X2
44 | X3TTL=X3TTL+B->X3
45 | X4TTL=X4TTL+B->X4
46 | X5TTL=X5TTL+B->X5
47 | +-IF (B->X0+B->X1+B->X2+B->X3+B->X4+B->X5)>0
48 | |   DIVAR=DIVAR+1
49 | +-ENDIF ((B->X0+B->X1+B->X2+B->X3+B->X4+B->X5)>0)
50 |
51 |
52 | SELECT B
53 | APPEND BLANK
54 | SELECT A
55 | REPLACE B->DEM WITH DEM
56 | REPLACE B->COM WITH COM
57 | REPLACE B->X0 WITH D2X0
58 | REPLACE B->X1 WITH D2X1
59 | REPLACE B->X2 WITH D2X2
60 | REPLACE B->X3 WITH D2X3
61 | REPLACE B->X4 WITH D2X4
62 | REPLACE B->X5 WITH D2X5
63 | X0TTL=X0TTL+B->X0
64 | X1TTL=X1TTL+B->X1
65 | X2TTL=X2TTL+B->X2
66 | X3TTL=X3TTL+B->X3
67 | X4TTL=X4TTL+B->X4
68 | X5TTL=X5TTL+B->X5
69 | +-IF (B->X0+B->X1+B->X2+B->X3+B->X4+B->X5)>0
70 | |   DIVAR=DIVAR+1
71 | +-ENDIF ((B->X0+B->X1+B->X2+B->X3+B->X4+B->X5)>0)
72 |
73 | SELECT B
74 | APPEND BLANK
75 | SELECT A
76 | REPLACE B->DEM WITH DEM
77 | REPLACE B->COM WITH COM
78 | REPLACE B->X0 WITH D3X0
79 | REPLACE B->X1 WITH D3X1
80 | REPLACE B->X2 WITH D3X2
81 | REPLACE B->X3 WITH D3X3
82 | REPLACE B->X4 WITH D3X4
83 | REPLACE B->X5 WITH D3X5
84 | X0TTL=X0TTL+B->X0
85 | X1TTL=X1TTL+B->X1
86 | X2TTL=X2TTL+B->X2
87 | X3TTL=X3TTL+B->X3
88 | X4TTL=X4TTL+B->X4
89 | X5TTL=X5TTL+B->X5
90 | +-IF (B->X0+B->X1+B->X2+B->X3+B->X4+B->X5)>0
91 | |   DIVAR=DIVAR+1

```

```

92 | +-ENDIF ((B->X0+B->X1+B->X2+B->X3+B->X4+B->X5)>0)
93 |
94 | SELECT B
95 | APPEND BLANK
96 | SELECT A
97 | REPLACE B->DEM WITH DEM
98 | REPLACE B->COM WITH COM
99 | REPLACE B->X0 WITH D4X0
100 | REPLACE B->X1 WITH D4X1
101 | REPLACE B->X2 WITH D4X2
102 | REPLACE B->X3 WITH D4X3
103 | REPLACE B->X4 WITH D4X4
104 | REPLACE B->X5 WITH D4X5
105 | X0TTL=X0TTL+B->X0
106 | X1TTL=X1TTL+B->X1
107 | X2TTL=X2TTL+B->X2
108 | X3TTL=X3TTL+B->X3
109 | X4TTL=X4TTL+B->X4
110 | X5TTL=X5TTL+B->X5
111 | +-IF (B->X0+B->X1+B->X2+B->X3+B->X4+B->X5)>0
112 | |   DIVAR=DIVAR+1
113 | +-ENDIF ((B->X0+B->X1+B->X2+B->X3+B->X4+B->X5)>0)
114 |
115 | SELECT B
116 | APPEND BLANK
117 | SELECT A
118 | REPLACE B->DEM WITH DEM
119 | REPLACE B->COM WITH COM
120 | REPLACE B->X0 WITH D5X0
121 | REPLACE B->X1 WITH D5X1
122 | REPLACE B->X2 WITH D5X2
123 | REPLACE B->X3 WITH D5X3
124 | REPLACE B->X4 WITH D5X4
125 | REPLACE B->X5 WITH D5X5
126 | X0TTL=X0TTL+B->X0
127 | X1TTL=X1TTL+B->X1
128 | X2TTL=X2TTL+B->X2
129 | X3TTL=X3TTL+B->X3
130 | X4TTL=X4TTL+B->X4
131 | X5TTL=X5TTL+B->X5
132 | +-IF (B->X0+B->X1+B->X2+B->X3+B->X4+B->X5)>0
133 | |   DIVAR=DIVAR+1
134 | +-ENDIF ((B->X0+B->X1+B->X2+B->X3+B->X4+B->X5)>0)
135 |
136 | SELECT B
137 | APPEND BLANK
138 | REPLACE B->DEM WITH "TOTAL"
139 | REPLACE B->COM WITH COM
140 | REPLACE B->X0 WITH X0TTL/DIVAR
141 | REPLACE B->X1 WITH X1TTL/DIVAR
142 | REPLACE B->X2 WITH X2TTL/DIVAR
143 | REPLACE B->X3 WITH X3TTL/DIVAR

```

```

144 | REPLACE B->X4 WITH X4TTL/DIVAR
145 | REPLACE B->X5 WITH X5TTL/DIVAR
146 | X0TTL=0
147 | X1TTL=0
148 | X2TTL=0
149 | X3TTL=0
150 | X4TTL=0
151 | X5TTL=0
152 | DIVAR=0
153 |
154 | append blank
155 | SELECT A
156 | SKIP
157 | +-IF EOF()
158 | EXIT
159 | +-ENDIF (EOF())
160 |
161 | +=ENDDO (.T.)
162 | SELECT B
163 | BROWSE
164 |
165 | CLOSE DATA
166 | RETURN
168 | *: EOF: GRAPH.ACT

```

```

1 *.....
2 *:
3 *:   Program: GRAPH1.PRG
4 *:
5 *:   System: CAS3 GRAPH1
6 *:   Author: John M. Friedson
7 *:   1993
8 *: Last modified: 01/10/93   20:08
9 *:
10 *:   Uses: PRCEN.DBF
11 *:       : GRAPH.DBF
12 *:
13 *:   Documented 04/14/93 at 10:45
14 *.....
15 | SELECT A
16 | USE PRCEN
17 |
18 | SELECT B
19 | USE GRAPH
20 |
21 | ZAP
22 | STORE 0 TO X0TTL, X1TTL, X2TTL, X3TTL, X4TTL, X5TTL
23 | STORE 0 TO DIVAR
24 |
25 | +=DO WHILE .T.
26 | | SELECT B

```

```

27 | APPEND BLANK
28 |
29 | SELECT A
30 | ? COM
31 | ? DEM
32 | ?
33 | REPLACE B->DEM WITH DEM
34 | REPLACE B->COM WITH COM
35 | REPLACE B->X0 WITH D1X0
36 | REPLACE B->X1 WITH D1X1
37 | REPLACE B->X2 WITH D1X2
38 | REPLACE B->X3 WITH D1X3
39 | REPLACE B->X4 WITH D1X4
40 | REPLACE B->X5 WITH D1X5
41 |
42 | SELECT B
43 | APPEND BLANK
44 | SELECT A
45 | REPLACE B->DEM WITH DEM
46 | REPLACE B->COM WITH COM
47 | REPLACE B->X0 WITH D2X0
48 | REPLACE B->X1 WITH D2X1
49 | REPLACE B->X2 WITH D2X2
50 | REPLACE B->X3 WITH D2X3
51 | REPLACE B->X4 WITH D2X4
52 | REPLACE B->X5 WITH D2X5
53 |
54 | SELECT B
55 | APPEND BLANK
56 | SELECT A
57 | REPLACE B->DEM WITH DEM
58 | REPLACE B->COM WITH COM
59 | REPLACE B->X0 WITH D3X0
60 | REPLACE B->X1 WITH D3X1
61 | REPLACE B->X2 WITH D3X2
62 | REPLACE B->X3 WITH D3X3
63 | REPLACE B->X4 WITH D3X4
64 | REPLACE B->X5 WITH D3X5
65 |
66 | SELECT B
67 | APPEND BLANK
68 | SELECT A
69 | REPLACE B->DEM WITH DEM
70 | REPLACE B->COM WITH COM
71 | REPLACE B->X0 WITH D4X0
72 | REPLACE B->X1 WITH D4X1
73 | REPLACE B->X2 WITH D4X2
74 | REPLACE B->X3 WITH D4X3
75 | REPLACE B->X4 WITH D4X4
76 | REPLACE B->X5 WITH D4X5
77 |
78 | SELECT B

```

```

79 | APPEND BLANK
80 | SELECT A
81 | REPLACE B->DEM WITH DEM
82 | REPLACE B->COM WITH COM
83 | REPLACE B->X0 WITH D5X0
84 | REPLACE B->X1 WITH D5X1
85 | REPLACE B->X2 WITH D5X2
86 | REPLACE B->X3 WITH D5X3
87 | REPLACE B->X4 WITH D5X4
88 | REPLACE B->X5 WITH D5X5
89 |
90 | SELECT B
91 |
92 | append blank
93 | SELECT A
94 | SKIP
95 | +-IF EOF()
96 | EXIT
97 | +-ENDIF (EOF())
98 |
99 | +-ENDDO (.T.)
100 | SELECT B
101 | BROWSE
102 |
103 | CLOSE DATA
104 | RETURN
106 | *: EOF: GRAPH1.ACT

```

```

1 | *****
2 | *:
3 | *:   Program: OPN.PRG
4 | *:
5 | *:   System: CAS3 OPN
6 | *:   Author: John M. Friedson
7 | *:   1993
8 | *: Last modified: 03/13/93   14:01
9 | *:
10 | *:   Uses: GRAPH.DBF
11 | *:   : OPN.DBF
12 | *:
13 | *:   Documented 04/14/93 at 10:45
14 | *****

```

text

The purpose of this file is to use the Graph.dbf and convert it from cumulative percentages to simple percentages.

ENDTEXT

```

19 | select a
20 | use graph
21 | copy structure to opn
22 | select b
23 | use opn

```

```

24
25 +=do while .t.
26 | select b
27 | append blank
28 | +-if a->dem<>" "
29 | | replace com with a->com
30 | | replace dem with a->dem
31 | | replace x0 with a->x0
32 | | replace x1 with a->x1
33 | | replace x2 with (a->x2-a->x1)
34 | | replace x3 with (a->x3-a->x2)
35 | | replace x4 with (a->x4-a->x3)
36 | | replace x5 with (a->x5-a->x4)
37 | +-endif (a->dem<>" ")
38 | select a
39 | skip
40 |
41 | +-if eof()
42 | v-----exit
43 | +-endif (eof())
44 +=enddo
45 close data
46 return
48 *: EOF: OPN.ACT

```

```

1 *.....
2 *:
3 *:   Program: PERCENT1.PRG
4 *:
5 *:   System: CAS3 PERCENT1
6 *:   Author: John M. Friedson
7 *:   1993
8 *:   Last modified: 01/12/93   11:38
9 *:
10 *:   Uses: SPREAD.DBF
11 *:         : PRcen.DBF
12 *:         : PRCNTTL.DBF
13 *:
14 *:   Documented 04/14/93 at 10:46
15 *.....
16 store 0 to x0ttl, x1ttl, x2ttl, x3ttl, x4ttl, x5ttl, dvar
17 demovar=" "
18 LTOTAL=0
19 select a
20 use spread
21 demovar=a->demo
22 select b
23 use prcen
24 ZAP
25
26 select c

```



```

27 use prcnttl
28 zap
29
30 +=do while .t.
31 | LTOTAL=0
32 |
33 | select b
34 | append blank
35 |
36 | select a
37 |
38 | replace b->dem with a->demo
39 | replace b->com with a->field
40 | LTOTAL=(L00+L01+L02+L03+L04+L05)/100
41 | +-IF LTOTAL>0
42 | | replace b->d1x0 with L00/LTOTAL
43 | | REPLACE B->D1X1 WITH L01/LTOTAL
44 | | REPLACE B->D1X2 WITH (L01+L02)/LTOTAL
45 | | REPLACE B->D1X3 WITH (L01+L02+L03)/LTOTAL
46 | | REPLACE B->D1X4 WITH (L01+L02+L03+L04)/LTOTAL
47 | | REPLACE B->D1X5 WITH (L01+L02+L03+L04+L05)/LTOTAL
48 | |
49 | | replace x0ttl with x0ttl+a->L00
50 | | REPLACE X1TTL WITH X1TTL+A->L01
51 | | REPLACE X2TTL WITH X2TTL+A->L02
52 | | REPLACE X3TTL WITH X3TTL+A->L03
53 | | REPLACE X4TTL WITH X4TTL+A->L04
54 | | REPLACE X5TTL WITH X5TTL+A->L05
55 | | DVAR=DVAR+1
56 | |
57 | +-ENDIF (LTOTAL>0)
58 |
59 | LTOTAL=(L10+L11+L12+L13+L14+L15)/100
60 | +-IF LTOTAL>0
61 | | replace b->d2x0 with L10/LTOTAL
62 | | REPLACE B->D2X1 WITH L11/LTOTAL
63 | | REPLACE B->D2X2 WITH (L11+L12)/LTOTAL
64 | | REPLACE B->D2X3 WITH (L11+L12+L13)/LTOTAL
65 | | REPLACE B->D2X4 WITH (L11+L12+L13+L14)/LTOTAL
66 | | REPLACE B->D2X5 WITH (L11+L12+L13+L14+L15)/LTOTAL
67 | |
68 | | replace x0ttl with x0ttl+a->L10
69 | | REPLACE X1TTL WITH X1TTL+A->L11
70 | | REPLACE X2TTL WITH X2TTL+A->L12
71 | | REPLACE X3TTL WITH X3TTL+A->L13
72 | | REPLACE X4TTL WITH X4TTL+A->L14
73 | | REPLACE X5TTL WITH X5TTL+A->L15
74 | | DVAR=DVAR+1
75 | |
76 | +-ENDIF (LTOTAL>0)
77 | LTOTAL=(L20+L21+L22+L23+L24+L25)/100
78 | +-IF LTOTAL>0

```

```

79 | | replace b->d3x0 with L20/LTOTAL
80 | | REPLACE B->D3X1 WITH L21/LTOTAL
81 | | REPLACE B->D3X2 WITH (L21+L22)/LTOTAL
82 | | REPLACE B->D3X3 WITH (L21+L22+L23)/LTOTAL
83 | | REPLACE B->D3X4 WITH (L21+L22+L23+L24)/LTOTAL
84 | | REPLACE B->D3X5 WITH (L21+L22+L23+L24+L25)/LTOTAL
85 | |
86 | | replace x0ttl with x0ttl+a->L20
87 | | REPLACE X1TTL WITH X1TTL+A->L21
88 | | REPLACE X2TTL WITH X2TTL+A->L22
89 | | REPLACE X3TTL WITH X3TTL+A->L23
90 | | REPLACE X4TTL WITH X4TTL+A->L24
91 | | REPLACE X5TTL WITH X5TTL+A->L25
92 | | DVAR=DVAR+1
93 | |
94 | | +-ENDIF (LTOTAL>0)
95 | | LTOTAL=(L30+L31+L32+L33+L34+L35)/100
96 | | +-IF LTOTAL>0
97 | | | replace b->d4x0 with L30/LTOTAL
98 | | | REPLACE B->D4X1 WITH L31/LTOTAL
99 | | | REPLACE B->D4X2 WITH (L31+L32)/LTOTAL
100 | | | REPLACE B->D4X3 WITH (L31+L32+L33)/LTOTAL
101 | | | REPLACE B->D4X4 WITH (L31+L32+L33+L34)/LTOTAL
102 | | | REPLACE B->D4X5 WITH (L31+L32+L33+L34+L35)/LTOTAL
103 | | |
104 | | | replace x0ttl with x0ttl+a->L30
105 | | | REPLACE X1TTL WITH X1TTL+A->L31
106 | | | REPLACE X2TTL WITH X2TTL+A->L32
107 | | | REPLACE X3TTL WITH X3TTL+A->L33
108 | | | REPLACE X4TTL WITH X4TTL+A->L34
109 | | | REPLACE X5TTL WITH X5TTL+A->L35
110 | | | DVAR=DVAR+1
111 | | |
112 | | | +-ENDIF (LTOTAL>0)
113 | | | LTOTAL=(L40+L41+L42+L43+L44+L45)/100
114 | | | +-IF LTOTAL>0
115 | | | | replace b->d5x0 with L40/LTOTAL
116 | | | | REPLACE B->D5X1 WITH L41/LTOTAL
117 | | | | REPLACE B->D5X2 WITH (L41+L42)/LTOTAL
118 | | | | REPLACE B->D5X3 WITH (L41+L42+L43)/LTOTAL
119 | | | | REPLACE B->D5X4 WITH (L41+L42+L43+L44)/LTOTAL
120 | | | | REPLACE B->D5X5 WITH (L41+L42+L43+L44+L45)/LTOTAL
121 | | | |
122 | | | | replace x0ttl with x0ttl+a->L40
123 | | | | REPLACE X1TTL WITH X1TTL+A->L41
124 | | | | REPLACE X2TTL WITH X2TTL+A->L42
125 | | | | REPLACE X3TTL WITH X3TTL+A->L43
126 | | | | REPLACE X4TTL WITH X4TTL+A->L44
127 | | | | REPLACE X5TTL WITH X5TTL+A->L45
128 | | | | DVAR=DVAR+1
129 | | | |
130 | | | | +-ENDIF (LTOTAL>0)

```

```

131 |
132 | select a
133 | skip
134 |
135 | +-if eof() .or. a->demo<>demovar
136 | | SELECT C
137 | | APPEND BLANK
138 | | LTOTAL=(X0TTL+X1TTL+X2TTL+X3TTL+X4TTL+X5TTL)/100
139 | | REPLACE DEM WITH demovar
140 | | demovar=a->demo
141 | | REPLACE COM WITH A->FIELD
142 | | REPLACE X0 WITH X0TTL/LTOTAL
143 | | REPLACE X1 WITH X1TTL/LTOTAL
144 | | REPLACE X2 WITH (X1ttl+X2ttl)/LTOTAL
145 | | REPLACE X3 WITH (X1ttl+X2ttl+X3ttl)/LTOTAL
146 | | REPLACE X4 WITH (X1ttl+X2ttl+X3ttl+X4ttl)/LTOTAL
147 | | REPLACE X5 WITH (X1ttl+X2ttl+X3ttl+X4ttl+X5ttl)/LTOTAL
148 | | store 0 to x0ttl, x1ttl, x2ttl, x3ttl, x4ttl, x5ttl
149 | | SELECT A
150 | +-endif (eof() .or. a->demo<>demovar)
151 |
152 | select a
153 | +-if eof()
154 | | exit
155 | +-endif (eof())
156 |
157 |
158 | +-ENDDO
159 |
160 |
161 | SELECT B
162 | BROWSE
163 | CLOSE DATA
164 | RETURN
166 | *: EOF: PERCENT1.ACT

```

dBase Stats (SPSS) Programming

The following program was used to generate cross-tabs of demographic data against other survey questions.

```
SET /BELL=ON /ERRORBREAK=ON /PRINTER=OFF  
/LISTING=  
'CASCRTAB.LIS'  
/SEED=796147363 /EJECT=ON /BOXSTRING=SINGLE  
/HISTOGRAM='U' /LENGTH=120 /WIDTH=WIDE /MORE=OFF.
```

```
USE 'CAS.DBF'.
```

FIELD LABELS

```
DEM01 "BRANCH GROUP"  
DEM02 "RANK"  
DEM03 "COMPONENT"  
DEM04 "ACTIVE DUTY?"  
DEM05 "YEARS AFCS"  
DEM06 "STATUS"  
DEM07 "ASSIGNMENT A"  
DEM08 "ASSIGNMENT B"  
COM09 "PRODUCE BRIEFINGS"  
COM10 "WRITTEN CORRESPONDENCE"  
COM11 "GIVE BRIEFINGS"  
COM12 "COORDINATE STAFF"  
QUN13 "SOLVE PERT"  
QUN14 "DECISION MATRIX"  
QUN15 "BASIC STATISTICS"  
QUN16 "LINEAR REGRESSION"  
QUN17 "USE PC"  
MGT18 "MANAGE TIME"  
MGT19 "MANAGE MEETINGS"  
TNG20 "TRAINING PLANS"  
TNG21 "TRAINING MANAGEMENT"  
MNB22 "RESOURCE CYCLE & BUDGET"  
MNB23 "TDA WORK ELEMENTS"  
MNB24 "MANPOWER & BUDGET"  
MNB25 "ANALYZE WORKLOAD REQUIREMENTS"  
LOG26 "PREPARE LOG ESTIMATE/PLAN"  
LOG27 "SOLVE TACTICAL CSS SUPPORT"  
MOB28 "MOBILIZATION PLAN"  
MOB29 "ROAD MOVEMENT PLAN"  
MOB30 "ROAD MOVEMENT GRAPH/TABLE"  
MOB31 "REAL BUSINESS PLAN"  
MOB32 "PERSONNEL ESTIMATES"  
ORG33 "AIRLAND BATTLE DOCTRINE"  
ORG34 "DECISION MAKING PROCESS"  
ORG35 "SOVIET ARMY"
```

ORG36 "CIVIL-MILITARY ESTIMATE"
CBT37 "SEVEN BOS"
CBT38 "OPERATIONS ESTIMATE"
CBT39 "DEFENSIVE COA"
CBT40 "OPERATIONS PLAN"
CBT41 "CONDUCT AAR"
CBT42 "INTELLIGENCE ESTIMATE"
CBT43 "MISSION ANALYSIS"
CBT44 "COMBAT ORDERS"
UTL45 "BATTALION"
UTL46 "BDE/RGT/GRP"
UTL47 "DIVISION"
UTL48 "INSTAL/CENTER/SCHOOL"
UTL49 "MACOM"
UTL50 "HQDA"
UTL51 "JOINT STAFF"
CMD52 "CO COMMAND"
FGR53 "FIELD GRADE STAFF"
SCL54 "OAC"
SCL55 "RESIDENT CAS3"
SCL56 "NON-RES CGSC"
SCL57 "RES CGSC"
SCL58 "RESERVE CAS3"
BNC59 "BN CMD"
OPN60 "EXPERIENCE"
OPN61 "TIME"
OPN62 "CAS3 BURDEN"
OPN63 "HOW SCHEDULE CAS3?".

FILTER (DEM01 GT 0).
CROSSTABS TABLES=DEM01 BY
COM09 COM10 COM11 COM12 QUN13 QUN14 QUN15 QUN16 QUN17 MGT18 MGT19
TNG20
TNG21 MNB22
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM01 GT 0).
CROSSTABS TABLES=DEM01 BY
MNB23 MNB24 MNB25 LOG26 LOG27 MOB28 MOB29 MOB30 MOB31 MOB32 ORG33
ORG34
ORG35
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM01 GT 0).
CROSSTABS TABLES=DEM01 BY
ORG36 CBT37 CBT38 CBT39 CBT40 CBT41 CBT42 CBT43 CBT44 UTL45 UTL46 UTL47
UTL48
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM01 GT 0).
CROSSTABS TABLES=DEM01 BY
UTL49 UTL50 UTL51 CMD52 FGR53 SCL54 SCL55 SCL56 SCL57 SCL58 BNC59 OPN60
OPN61 OPN62 OPN63
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM02 GT 0).
CROSSTABS TABLES=DEM02 BY
COM09 COM10 COM11 COM12 QUN13 QUN14 QUN15 QUN16 QUN17 MGT18 MGT19
TNG20
TNG21 MNB22
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM02 GT 0).
CROSSTABS TABLES=DEM02 BY
MNB23 MNB24 MNB25 LOG26 LOG27 MOB28 MOB29 MOB30 MOB31 MOB32 ORG33
ORG34
ORG35
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM02 GT 0).
CROSSTABS TABLES=DEM02 BY
ORG36 CBT37 CBT38 CBT39 CBT40 CBT41 CBT42 CBT43 CBT44 UTL45 UTL46 UTL47
UTL48
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM02 GT 0).
CROSSTABS TABLES=DEM02 BY
UTL49 UTL50 UTL51 CMD52 FGR53 SCL54 SCL55 SCL56 SCL57 SCL58 BNC59 OPN60
OPN61 OPN62 OPN63
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM03 GT 0).
CROSSTABS TABLES=DEM03 BY
COM09 COM10 COM11 COM12 QUN13 QUN14 QUN15 QUN16 QUN17 MGT18 MGT19
TNG20
TNG21 MNB22
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM03 GT 0).
CROSSTABS TABLES=DEM03 BY
MNB23 MNB24 MNB25 LOG26 LOG27 MOB28 MOB29 MOB30 MOB31 MOB32 ORG33
ORG34

ORG35
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM03 GT 0).
CROSSTABS TABLES=DEM03 BY
ORG36 CBT37 CBT38 CBT39 CBT40 CBT41 CBT42 CBT43 CBT44 UTL45 UTL46 UTL47
UTL48
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM03 GT 0).
CROSSTABS TABLES=DEM03 BY
UTL49 UTL50 UTL51 CMD52 FGR53 SCL54 SCL55 SCL56 SCL57 SCL58 BNC59 OPN60
OPN61 OPN62 OPN63
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM04 GT 0).
CROSSTABS TABLES=DEM04 BY
COM09 COM10 COM11 COM12 QUN13 QUN14 QUN15 QUN16 QUN17 MGT18 MGT19
TNG20
TNG21 MNB22
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM04 GT 0).
CROSSTABS TABLES=DEM04 BY
MNB23 MNB24 MNB25 LOG26 LOG27 MOB28 MOB29 MOB30 MOB31 MOB32 ORG33
ORG34
ORG35
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM04 GT 0).
CROSSTABS TABLES=DEM04 BY
ORG36 CBT37 CBT38 CBT39 CBT40 CBT41 CBT42 CBT43 CBT44 UTL45 UTL46 UTL47
UTL48
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM04 GT 0).
CROSSTABS TABLES=DEM04 BY
UTL49 UTL50 UTL51 CMD52 FGR53 SCL54 SCL55 SCL56 SCL57 SCL58 BNC59 OPN60
OPN61 OPN62 OPN63
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM05 GT 0).
CROSSTABS TABLES=DEM05 BY

COM09 COM10 COM11 COM12 QUN13 QUN14 QUN15 QUN16 QUN17 MGT18 MGT19
TNG20
TNG21 MNB22
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM05 GT 0).
CROSSTABS TABLES=DEM05 BY
MNB23 MNB24 MNB25 LOG26 LOG27 MOB28 MOB29 MOB30 MOB31 MOB32 ORG33
ORG34
ORG35
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM05 GT 0).
CROSSTABS TABLES=DEM05 BY
ORG36 CBT37 CBT38 CBT39 CBT40 CBT41 CBT42 CBT43 CBT44 UTL45 UTL46 UTL47
UTL48
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM05 GT 0).
CROSSTABS TABLES=DEM05 BY
UTL49 UTL50 UTL51 CMD52 FGR53 SCL54 SCL55 SCL56 SCL57 SCL58 BNC59 OPN60
OPN61 OPN62 OPN63
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM06 GT 0).
CROSSTABS TABLES=DEM06 BY
COM09 COM10 COM11 COM12 QUN13 QUN14 QUN15 QUN16 QUN17 MGT18 MGT19
TNG20
TNG21 MNB22
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM06 GT 0).
CROSSTABS TABLES=DEM06 BY
MNB23 MNB24 MNB25 LOG26 LOG27 MOB28 MOB29 MOB30 MOB31 MOB32 ORG33
ORG34
ORG35
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM06 GT 0).
CROSSTABS TABLES=DEM06 BY
ORG36 CBT37 CBT38 CBT39 CBT40 CBT41 CBT42 CBT43 CBT44 UTL45 UTL46 UTL47
UTL48
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM06 GT 0).

CROSSTABS TABLES=DEM06 BY
UTL49 UTL50 UTL51 CMD52 FGR53 SCL54 SCL55 SCL56 SCL57 SCL58 BNC59 OPN60
OPN61 OPN62 OPN63
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM07 GT 0).
CROSSTABS TABLES=DEM07 BY
COM09 COM10 COM11 COM12 QUN13 QUN14 QUN15 QUN16 QUN17 MGT18 MGT19
TNG20
TNG21 MNB22
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM07 GT 0).
CROSSTABS TABLES=DEM07 BY
MNB23 MNB24 MNB25 LOG26 LOG27 MOB28 MOB29 MOB30 MOB31 MOB32 ORG33
ORG34
ORG35
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM07 GT 0).
CROSSTABS TABLES=DEM07 BY
ORG36 CBT37 CBT38 CBT39 CBT40 CBT41 CBT42 CBT43 CBT44 UTL45 UTL46 UTL47
UTL48
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM07 GT 0).
CROSSTABS TABLES=DEM07 BY
UTL49 UTL50 UTL51 CMD52 FGR53 SCL54 SCL55 SCL56 SCL57 SCL58 BNC59 OPN60
OPN61 OPN62 OPN63
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM08 GT 0).
CROSSTABS TABLES=DEM08 BY
COM09 COM10 COM11 COM12 QUN13 QUN14 QUN15 QUN16 QUN17 MGT18 MGT19
TNG20
TNG21 MNB22
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM08 GT 0).
CROSSTABS TABLES=DEM08 BY
MNB23 MNB24 MNB25 LOG26 LOG27 MOB28 MOB29 MOB30 MOB31 MOB32 ORG33
ORG34
ORG35
/OPTIONS= RPCT CPCT TPCT

/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM08 GT 0).

CROSSTABS TABLES=DEM08 BY

ORG36 CBT37 CBT38 CBT39 CBT40 CBT41 CBT42 CBT43 CBT44 UTL45 UTL46 UTL47
UTL48

/OPTIONS= RPCT CPCT TPCT

/STATISTICS= CHI LAMBDA GAMMA .

FILTER (DEM08 GT 0).

CROSSTABS TABLES=DEM08 BY

UTL49 UTL50 UTL51 CMD52 FGR53 SCL54 SCL55 SCL56 SCL57 SCL58 BNC59 OPN60
OPN61 OPN62 OPN63

/OPTIONS= RPCT CPCT TPCT

/STATISTICS= CHI LAMBDA GAMMA .

The following program was used to cross-tab demographic data against other demographic data.

SET /BELL=ON /ERRORBREAK=ON /PRINTER=OFF

/LISTING=

'DEMOGRAF.LIS'

/SEED=796147363 /EJECT=ON /BOXSTRING=SINGLE

/HISTOGRAM='U' /LENGTH=120 /WIDTH=WIDE /MORE=OFF.

USE 'CAS.DBF'.

FIELD LABELS

DEM01 "BRANCH GROUP"

DEM02 "RANK"

DEM03 "COMPONENT"

DEM04 "ACTIVE DUTY?"

DEM05 "YEARS AFCS"

DEM06 "STATUS"

DEM07 "ASSIGNMENT A"

DEM08 "ASSIGNMENT B" .

CROSSTABS TABLES=DEM01 BY

DEM01 DEM02 DEM03 DEM04 DEM05 DEM06 DEM07 DEM08

/OPTIONS= RPCT CPCT TPCT

/STATISTICS= CHI .

CROSSTABS TABLES=DEM02 BY

DEM01 DEM02 DEM03 DEM04 DEM05 DEM06 DEM07 DEM08

/OPTIONS= RPCT CPCT TPCT

/STATISTICS= CHI .

CROSSTABS TABLES=DEM03 BY

DEM01 DEM02 DEM03 DEM04 DEM05 DEM06 DEM07 DEM08

/OPTIONS= RPCT CPCT TPCT

/STATISTICS= CHI .

CROSSTABS TABLES=DEM04 BY
DEM01 DEM02 DEM03 DEM04 DEM05 DEM06 DEM07 DEM08
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI .

CROSSTABS TABLES=DEM05 BY
DEM01 DEM02 DEM03 DEM04 DEM05 DEM06 DEM07 DEM08
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI .

CROSSTABS TABLES=DEM06 BY
DEM01 DEM02 DEM03 DEM04 DEM05 DEM06 DEM07 DEM08
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI .

CROSSTABS TABLES=DEM07 BY
DEM01 DEM02 DEM03 DEM04 DEM05 DEM06 DEM07 DEM08
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI .

CROSSTABS TABLES=DEM08 BY
DEM01 DEM02 DEM03 DEM04 DEM05 DEM06 DEM07 DEM08
/OPTIONS= RPCT CPCT TPCT
/STATISTICS= CHI .

ANNEX C

STATISTICS

TABLE 22

CUMULATIVE ANSWERS 1992 SURVEY % OF TOTAL (N)

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
COM09	Combat Arms	11	34	65	81	98
COM09	Combat Support	27	54	78	91	98
COM09	Combat Service	19	42	68	90	98
COM09	Non-OPM	21	38	62	75	88
	TOTAL	15	39	67	84	98
COM09	Captain	22	45	76	86	93
COM09	Captain (P)	16	39	70	92	97
COM09	Major	14	37	64	82	98
COM09	Major (P)	19	38	76	76	95
COM09	Lt Col	13	38	68	85	100
	TOTAL	15	39	67	84	97
COM09	Regular Army	15	39	67	84	97
COM09	ARNG	13	28	64	79	97
COM09	USAR	20	44	70	85	94
	TOTAL	15	39	67	84	97
COM09	Active Duty Yes	15	38	67	84	97
COM09	Active Duty No	25	75	81	88	94
	TOTAL	15	39	67	84	97
COM09	1-3 Years AFCS	13	25	50	50	63
COM09	Years AFCS	24	52	91	94	97
COM09	7-10 Years AFCS	20	44	74	86	92
COM09	>10 Years AFCS	14	37	65	83	98
	TOTAL	15	39	67	84	97
COM09	CAS3 Student	23	46	77	87	92
COM09	CGSOC Student	14	37	66	84	98
COM09	CAS3 Staff/Faculty	19	31	38	63	88

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
COM09	CGSOC Staff/Faculty	12	38	65	81	98
COM09	Other	17	33	67	83	100
	TOTAL	15	39	67	84	97
COM09	Co/Btry/Trp/Det	14	38	68	78	95
COM09	Bn/Sqdn	17	36	70	86	98
COM09	Bde/Rgt	7	33	63	88	98
COM09	Division	17	43	62	76	97
COM09	Corps/EAC	20	43	72	87	100
	TOTAL	15	38	68	85	98
COM09	JCS/JOINT/HQDA/Com	23	50	73	85	99
COM09	MACOM	11	39	64	84	99
COM09	School/Center	18	43	74	87	97
COM09	Installation	13	38	56	73	89
COM09	Other	14	40	69	84	96
	TOTAL	16	42	69	84	97
COM10	Combat Arms	25	51	73	87	99
COM10	Combat Support	43	72	87	96	98
COM10	Combat Service	36	61	81	92	100
COM10	Non-OPM	42	60	81	87	94
	TOTAL	31	56	78	89	99
COM10	Captain	44	69	88	95	96
COM10	Captain (P)	28	55	83	94	100
COM10	Major	30	56	75	87	99
COM10	Major (P)	33	43	52	76	95
COM10	Lt Col	22	46	80	90	100
	TOTAL	31	57	78	89	99
COM10	Regular Army	31	56	77	89	99
COM10	ARNG	18	44	72	85	100
COM10	USAR	36	67	85	96	98
COM10	TOTAL	31	57	78	89	99

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8- 95%
COM10	Active Duty Yes	31	56	77	89	99
COM10	Active Duty No	25	75	94	94	94
	TOTAL	31	57	78	89	99
COM10	1-3 Years AFCS	25	50	88	88	88
COM10	Years AFCS	52	76	94	97	97
COM10	7-10 Years AFCS	41	68	90	96	97
COM10	>10 Years AFCS	29	54	75	88	99
	TOTAL	31	57	78	89	99
COM10	CAS3 Student	45	70	89	96	97
COM10	CGSOC Student	30	55	76	88	99
COM10	CAS3 Staff/Faculty	38	63	94	100	100
COM10	CGSOC Staff/Faculty	22	49	73	87	100
COM10	Other	0	17	67	83	100
	TOTAL	31	56	78	89	99
COM10	Co/Btry/Trp/Det	29	54	84	92	100
COM10	Bn/Sqdn	31	55	79	91	99
COM10	Bde/Rgt	22	52	78	88	99
COM10	Division	33	66	83	90	100
COM10	Corps/EAC	27	51	78	90	100
	TOTAL	28	55	80	90	100
COM10	JCS/JOINT/HQDA/Com	38	59	74	91	99
COM10	MACOM	27	53	78	91	99
COM10	School/Center	39	68	84	91	98
COM10	Installation	30	66	80	86	97
COM10	Other	31	53	74	85	99
	TOTAL	34	60	78	90	99
COM11	Combat Arms	41	67	85	93	99
COM11	Combat Support	55	77	91	97	99
COM11	Combat Service	48	71	87	97	99

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
COM11	Non-OPM	38	65	81	87	90
	All Give Briefing	45	69	86	94	99
COM11	Captain	48	74	88	93	95
COM11	Captain (P)	50	72	90	97	99
COM11	Major	44	67	85	94	100
COM11	Major (P)	38	67	81	86	95
COM11	Lt Col	46	73	89	98	100
	TOTAL	45	69	86	94	99
COM11	Regular Army	46	70	87	95	99
COM11	ARNG	33	62	74	87	100
COM11	USAR	45	70	85	94	97
	TOTAL	45	69	86	94	99
COM11	Active Duty Yes	45	69	86	94	99
COM11	Active Duty No	63	81	94	100	100
	TOTAL	45	69	86	94	99
COM11	1-3 Years AFCS	50	75	88	100	100
COM11	Years AFCS	39	79	88	91	91
COM11	7-10 Years AFCS	46	69	88	94	96
COM11	>10 Years AFCS	45	69	86	94	100
	TOTAL	45	69	86	94	99
COM11	CAS3 Student	47	73	87	92	94
COM11	CGSOC Student	44	68	85	94	99
COM11	CAS3 Staff/Faculty	56	88	88	94	100
COM11	CGSOC Staff/Faculty	44	73	91	98	100
COM11	Other	50	67	83	83	100
	TOTAL	45	70	86	94	99
COM11	Co/Btry/Trp/Det	44	72	89	97	100
COM11	Bn/Sqdn	37	60	85	96	99
COM11	Bde/Rgt	33	63	81	93	100

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
COM11	Division	52	79	93	98	100
COM11	Corps/EAC	43	73	88	97	98
	TOTAL	40	67	86	96	99
COM11	JCS/JOINT/HQDA/Com	56	74	88	94	100
COM11	MACOM	38	67	84	92	99
COM11	School/Center	51	73	89	95	98
COM11	Installation	33	59	77	88	95
COM11	Other	50	74	84	93	98
	TOTAL	47	71	86	93	98
COM12	Combat Arms	10	41	72	87	98
COM12	Combat Support	22	60	82	94	97
COM12	Combat Service	18	49	72	90	99
COM12	Non-OPM	15	33	58	71	88
	All Coordinate Staff	14	45	73	88	97
COM12	Captain	20	52	79	90	94
COM12	Captain (P)	17	45	76	93	98
COM12	Major	13	44	71	87	98
COM12	Major (P)	10	38	57	71	90
COM12	Lt Col	14	45	76	90	99
	TOTAL	15	46	73	88	97
COM12	Regular Army	15	47	75	89	98
COM12	ARNG	3	15	46	77	97
COM12	USAR	15	46	70	82	92
	TOTAL	15	46	73	88	98
COM12	Active Duty Yes	14	45	73	88	98
COM12	Active Duty No	25	63	75	75	81
	TOTAL	15	45	73	88	97
COM12	1-3 Years AFCS	25	38	63	75	88
COM12	Years AFCS	15	45	85	91	91

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
COM12	7-10 Years AFCS	21	53	78	89	93
COM12	>10 Years AFCS	13	44	72	88	98
	TOTAL	15	45	73	88	97
COM12	CAS3 Student	20	52	78	89	94
COM12	CGSOC Student	13	43	71	88	98
COM12	CAS3 Staff/Faculty	38	69	88	94	100
COM12	CGSOC Staff/Faculty	15	47	77	91	99
COM12	Other	17	33	33	67	83
	TOTAL	15	45	73	88	97
COM12	Co/Btry/Trp/Det	15	39	71	89	96
COM12	Bn/Sqdn	11	39	69	89	98
COM12	Bde/Rgt	10	37	65	84	97
COM12	Division	16	57	76	86	95
COM12	Corps/EAC	19	48	82	94	99
	TOTAL	14	42	72	89	97
COM12	JCS/JOINT/HQDA/Com	22	53	76	90	100
COM12	MACOM	15	44	71	87	98
COM12	School/Center	16	48	75	88	96
COM12	Installation	11	48	70	84	92
COM12	Other	13	45	68	86	95
	TOTAL	16	48	73	88	97
QUN13	Combat Arms	11	17	32	45	63
QUN13	Combat Support	10	20	34	47	60
QUN13	Combat Service	3	10	28	41	60
QUN13	Non-OPM	6	12	19	27	37
	All PERT	9	16	31	44	60
QUN13	Captain	10	17	34	46	59
QUN13	Captain (P)	10	19	34	45	58
QUN13	Major	8	15	30	44	61
QUN13	Major (P)	5	5	24	38	48

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
QUN13	Lt Col	11	16	29	41	65
	TOTAL	9	16	31	44	61
QUN13	Regular Army	9	16	30	43	60
QUN13	ARNG	5	15	31	38	56
QUN13	USAR	8	17	38	54	71
	TOTAL	9	16	31	44	61
QUN13	Active Duty Yes	9	16	31	44	61
QUN13	Active Duty No	6	19	44	56	63
	TOTAL	9	16	31	44	61
QUN13	1-3 Years AFCS	0	25	50	50	50
QUN13	Years AFCS	9	21	39	45	48
QUN13	7-10 Years AFCS	11	19	35	47	60
QUN13	>10 Years AFCS	9	15	29	43	61
	TOTAL	9	16	31	44	61
QUN13	CAS3 Student	11	18	34	46	58
QUN13	CGSOC Student	8	15	30	43	60
QUN13	CAS3 Staff/Faculty	19	31	44	44	88
QUN13	CGSOC Staff/Faculty	10	15	30	45	64
QUN13	Other	0	17	50	50	67
	TOTAL	9	16	31	44	61
QUN13	Co/Btry/Trp/Det	15	20	30	53	61
QUN13	Bn/Sqdn	11	18	34	49	64
QUN13	Bde/Rgt	7	11	31	40	60
QUN13	Division	5	14	36	50	60
QUN13	Corps/EAC	6	16	31	42	64
	TOTAL	9	16	33	47	62
QUN13	JCS/JOINT/HQDA/Com	6	14	31	38	60
QUN13	MACOM	10	18	33	53	67
QUN13	School/Center	9	12	30	42	59

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
QUN13	Installation	11	25	39	50	63
QUN13	Other	9	17	31	43	55
	TOTAL	9	16	32	45	61
QUN14	Combat Arms	8	19	47	66	85
QUN14	Combat Support	9	24	48	68	81
QUN14	Combat Service	7	20	46	61	77
QUN14	Non-OPM	12	21	33	42	58
	All Decision Matrix	8	20	46	64	81
QUN14	Captain	10	27	52	67	77
QUN14	Captain (P)	8	18	46	71	83
QUN14	Major	8	20	44	64	81
QUN14	Major (P)	5	5	29	43	71
QUN14	Lt Col	7	21	50	61	88
	TOTAL	8	20	46	64	81
QUN14	Regular Army	8	21	46	64	82
QUN14	ARNG	8	15	46	56	79
QUN14	USAR	6	17	42	69	81
	TOTAL	8	20	46	64	82
QUN14	Active Duty Yes	8	20	46	64	82
QUN14	Active Duty No	19	19	44	63	63
	TOTAL	8	20	46	64	81
QUN14	1-3 Years AFCS	0	38	63	75	88
QUN14	Years AFCS	18	36	70	76	79
QUN14	7-10 Years AFCS	8	24	47	63	73
QUN14	>10 Years AFCS	8	19	45	64	83
	TOTAL	8	20	46	64	81
QUN14	CAS3 Student	11	27	51	65	75
QUN14	CGSOC Student	8	19	43	63	80
QUN14	CAS3 Staff/Faculty	13	31	44	50	88

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
QUN14	CGSOC Staff/Faculty	5	21	51	67	91
QUN14	Other	17	17	50	50	83
	TOTAL	8	20	46	64	81
QUN14	Co/Btry/Trp/Det	11	30	49	72	84
QUN14	Bn/Sqdn	4	17	43	64	83
QUN14	Bde/Rgt	6	15	52	67	89
QUN14	Division	12	21	45	59	72
QUN14	Corps/EAC	7	18	48	63	81
	TOTAL	7	19	47	65	83
QUN14	JCS/JOINT/HQDA/Com	8	19	38	55	73
QUN14	MACOM	8	19	52	73	88
QUN14	School/Center	7	23	47	63	80
QUN14	Installation	13	28	53	70	77
QUN14	Other	12	19	39	61	78
	TOTAL	9	21	45	64	80
QUN15	Combat Arms	19	34	52	65	79
QUN15	Combat Support	31	48	65	78	84
QUN15	Combat Service	27	42	58	69	80
QUN15	Non-OPM	27	48	60	69	73
	All Basic Statistics	23	38	55	68	80
QUN15	Captain	21	40	59	71	77
QUN15	Captain (P)	23	33	49	65	74
QUN15	Major	24	40	55	68	81
QUN15	Major (P)	24	33	43	62	67
QUN15	Lt Col	20	32	58	72	85
	TOTAL	23	38	55	68	80
QUN15	Regular Army	23	38	55	68	80
QUN15	ARNG	13	41	64	72	82
QUN15	USAR	22	36	54	67	82
	TOTAL	23	38	56	68	80

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8- 95%
QUN15	Active Duty Yes	23	38	55	68	80
QUN15	Active Duty No	25	56	63	63	63
	TOTAL	23	38	55	68	80
QUN15	1-3 Years AFCS	13	38	88	88	88
QUN15	Years AFCS	21	33	64	67	70
QUN15	7-10 Years AFCS	22	41	58	71	75
QUN15	>10 Years AFCS	23	38	54	68	81
	TOTAL	23	38	55	68	80
QUN15	CAS3 Student	22	39	58	70	75
QUN15	CGSOC Student	24	39	54	68	80
QUN15	CAS3 Staff/Faculty	25	50	69	75	94
QUN15	CGSOC Staff/Faculty	19	33	55	69	83
QUN15	Other	17	33	50	67	67
	TOTAL	23	38	55	68	80
QUN15	Co/Btry/Trp/Det	23	42	62	73	78
QUN15	Bn/Sqdn	25	41	58	69	80
QUN15	Bde/Rgt	21	32	62	69	81
QUN15	Division	17	31	45	57	66
QUN15	Corps/EAC	21	37	58	65	82
	TOTAL	22	37	58	67	79
QUN15	JCS/JOINT/HQDA/Com	18	35	49	59	74
QUN15	MACOM	19	36	58	75	86
QUN15	School/Center	21	38	53	68	79
QUN15	Installation	25	47	55	66	72
QUN15	Other	30	41	53	70	79
	TOTAL	22	38	53	68	79
QUN16	Combat Arms	8	13	25	37	57
QUN16	Combat Support	12	22	30	39	57
QUN16	Combat Service	6	12	26	36	53

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
QUN16	Non-OPM	2	15	25	33	42
	All Liner Regression	8	14	26	37	55
QUN16	Captain	6	14	31	46	59
QUN16	Captain (P)	10	18	29	40	52
QUN16	Major	8	14	25	36	55
QUN16	Major (P)	0	5	19	29	48
QUN16	Lt Col	7	13	21	30	53
	TOTAL	8	14	26	37	55
QUN16	Regular Army	8	14	26	37	54
QUN16	ARNG	5	15	31	41	64
QUN16	USAR	7	12	28	44	65
	TOTAL	8	14	26	37	56
QUN16	Active Duty Yes	8	14	26	37	56
QUN16	Active Duty No	6	6	19	31	44
	TOTAL	8	14	26	37	55
QUN16	1-3 Years AFCS	0	38	63	63	63
QUN16	Years AFCS	6	6	30	42	42
QUN16	7-10 Years AFCS	7	15	31	44	58
QUN16	>10 Years AFCS	8	14	25	35	55
	TOTAL	8	14	26	37	55
QUN16	CAS3 Student	7	14	30	46	58
QUN16	CGSOC Student	8	14	26	37	55
QUN16	CAS3 Staff/Faculty	6	31	44	50	81
QUN16	CGSOC Staff/Faculty	7	13	20	28	50
QUN16	Other	0	0	17	50	67
	TOTAL	8	14	26	37	55
QUN16	Co/Btry/Trp/Det	6	13	30	46	56
QUN16	Bn/Sqdn	8	17	28	38	54
QUN16	Bde/Rgt	7	15	25	40	58

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
QUN16	Division	7	19	26	38	48
QUN16	Corps/EAC	6	11	30	38	61
	TOTAL	7	15	28	40	56
QUN16	JCS/JOINT/HQDA/Com	8	12	23	31	55
QUN16	MACOM	8	16	30	45	64
QUN16	School/Center	6	9	25	36	57
QUN16	Installation	11	25	34	45	61
QUN16	Other	8	18	27	42	55
	TOTAL	8	14	27	39	58
QUN17	Combat Arms	20	35	59	77	96
QUN17	Combat Support	29	48	70	86	96
QUN17	Combat Service	30	47	63	79	95
QUN17	Non-OPM	44	62	73	87	94
	All Use Computer	25	41	62	79	95
QUN17	Captain	48	67	85	91	96
QUN17	Captain (P)	24	42	67	84	92
QUN17	Major	20	36	59	79	96
QUN17	Major (P)	24	43	57	86	100
QUN17	Lt Col	16	28	43	56	93
	TOTAL	25	41	62	80	96
QUN17	Regular Army	24	40	61	79	96
QUN17	ARNG	41	54	79	90	100
QUN17	USAR	30	46	64	84	92
	TOTAL	25	41	62	79	96
QUN17	Active Duty Yes	25	41	62	79	96
QUN17	Active Duty No	31	56	88	94	94
	TOTAL	25	41	62	79	96
QUN17	1-3 Years AFCS	13	50	63	63	88
QUN17	Years AFCS	64	85	94	94	97

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
QUN17	7-10 Years AFCS	42	61	82	90	95
QUN17	>10 Years AFCS	20	36	57	77	96
	TOTAL	25	41	62	79	96
QUN17	CAS3 Student	48	67	85	92	96
QUN17	CGSOC Student	22	37	60	81	96
QUN17	CAS3 Staff/Faculty	0	19	38	38	88
QUN17	CGSOC Staff/Faculty	18	33	51	67	96
QUN17	Other	17	33	33	50	100
	TOTAL	25	41	62	79	95
QUN17	Co/Btry/Trp/Det	32	51	68	82	96
QUN17	Bn/Sqdn	28	43	65	82	98
QUN17	Bde/Rgt	22	36	58	79	93
QUN17	Division	26	45	62	72	91
QUN17	Corps/EAC	23	40	57	76	97
	TOTAL	26	42	62	79	96
QUN17	JCS/JOINT/HQDA/Com	24	38	58	73	95
QUN17	MACOM	25	41	61	78	98
QUN17	School/Center	31	50	67	86	96
QUN17	Installation	22	41	55	81	95
QUN17	Other	20	33	59	75	89
	TOTAL	26	42	61	79	95
MGT18	Combat Arms	79	89	93	94	99
MGT18	Combat Support	78	88	92	94	99
MGT18	Combat Service	77	87	92	95	99
MGT18	Non-OPM	83	94	98	98	98
	TOTAL	79	89	93	95	99
MGT18	Captain	78	93	94	97	98
MGT18	Captain (P)	84	90	92	94	98
MGT18	Major	78	87	92	94	99
MGT18	Major (P)	81	86	90	95	100

		Answers--> or Year Ranges --> CAS3-Trained Population (%)				
		a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
MGT18	Lt Col	81	90	95	98	100
	TOTAL	79	89	93	95	99
MGT18	Regular Army	79	89	93	95	99
MGT18	ARNG	74	87	87	87	100
MGT18	USAR	79	87	90	93	98
	TOTAL	79	89	93	95	99
MGT18	Active Duty Yes	79	89	93	95	99
MGT18	Active Duty No	75	88	88	94	100
	TOTAL	79	89	93	95	99
MGT18	1-3 Years AFCS	75	100	100	100	100
MGT18	Years AFCS	73	94	94	97	97
MGT18	7-10 Years AFCS	80	91	92	95	99
MGT18	>10 Years AFCS	79	88	93	94	99
	TOTAL	79	89	93	95	99
MGT18	CAS3 Student	78	92	94	97	98
MGT18	CGSOC Student	79	88	92	94	99
MGT18	CAS3 Staff/Faculty	75	94	100	100	100
MGT18	CGSOC Staff/Faculty	83	91	96	97	100
MGT18	Other	50	67	67	67	100
	TOTAL	79	89	93	95	99
MGT18	Co/Btry/Trp/Det	82	91	94	95	100
MGT18	Bn/Sqdn	76	89	93	96	99
MGT18	Bde/Rgt	76	85	90	92	98
MGT18	Division	83	88	93	97	100
MGT18	Corps/EAC	74	90	97	97	99
	TOTAL	77	89	93	95	99
MGT18	JCS/JOINT/HQDA/Com	78	90	94	96	99
MGT18	MACOM	76	86	92	94	99
MGT18	School/Center	82	88	93	95	99

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 3%	4-6 17%	6-8 56%	8> 95%
MGT18	Installation	77	88	89	91	98
MGT18	Other	72	85	90	91	98
	TOTAL	77	88	92	94	99
MGT19	Combat Arms	40	68	89	94	99
MGT19	Combat Support	39	68	87	96	98
MGT19	Combat Service	41	69	87	94	99
MGT19	Non-OPM	35	56	83	90	94
	TOTAL	40	68	88	94	98
MGT19	Captain	40	73	89	94	96
MGT19	Captain (P)	41	69	87	93	98
MGT19	Major	38	66	88	94	99
MGT19	Major (P)	52	67	76	90	100
MGT19	Lt Col	44	66	85	95	100
	TOTAL	40	68	88	94	98
MGT19	Regular Army	41	68	88	95	99
MGT19	ARNG	31	77	85	87	100
MGT19	USAR	37	58	82	90	96
	TOTAL	40	68	88	94	98
MGT19	Active Duty Yes	40	68	88	94	99
MGT19	Active Duty No	25	75	81	88	94
	TOTAL	40	68	88	94	98
MGT19	1-3 Years AFCS	50	63	75	88	88
MGT19	Years AFCS	42	79	91	94	94
MGT19	7-10 Years AFCS	40	70	88	94	97
MGT19	>10 Years AFCS	39	67	88	94	99
	TOTAL	40	68	88	94	98
MGT19	CAS3 Student	40	72	88	95	96
MGT19	CGSOC Student	38	66	88	94	99
MGT19	CAS3 Staff/Faculty	50	75	88	94	100

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
MGT19	CGSOC Staff/Faculty	46	70	87	95	100
MGT19	Other	33	50	67	67	100
	TOTAL	40	68	88	94	99
MGT19	Co/Btry/Trp/Det	42	71	89	94	100
MGT19	Bn/Sqdn	46	68	86	95	99
MGT19	Bde/Rgt	35	64	85	93	97
MGT19	Division	47	69	86	95	98
MGT19	Corps/EAC	35	63	85	94	97
	TOTAL	41	67	86	94	98
MGT19	JCS/JOINT/HQDA/Com	44	70	88	93	97
MGT19	MACOM	41	70	87	95	100
MGT19	School/Center	36	68	88	94	98
MGT19	Installation	38	61	81	86	94
MGT19	Other	35	67	91	93	99
	TOTAL	39	68	88	93	98
TNG20	Combat Arms	56	79	90	96	99
TNG20	Combat Support	52	77	87	93	96
TNG20	Combat Service	38	62	81	87	90
TNG20	Non-OPM	25	52	69	77	83
	TOTAL	50	74	87	92	96
TNG20	Captain	50	79	88	94	94
TNG20	Captain (P)	54	77	89	92	94
TNG20	Major	49	72	86	92	97
TNG20	Major (P)	38	57	76	81	86
TNG20	Lt Col	49	76	89	94	97
	TOTAL	50	74	87	92	96
TNG20	Regular Army	50	74	88	93	96
TNG20	ARNG	41	72	79	85	92
TNG20	USAR	51	71	80	88	93
	TOTAL	50	74	87	92	96

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
TNG20	Active Duty Yes	49	74	87	92	96
TNG20	Active Duty No	69	69	94	94	94
	TOTAL	50	74	87	93	96
TNG20	1-3 Years AFCS	63	63	88	100	100
TNG20	Years AFCS	48	91	94	97	97
TNG20	7-10 Years AFCS	49	74	85	90	92
TNG20	>10 Years AFCS	50	73	87	93	96
	TOTAL	50	74	87	92	96
TNG20	CAS3 Student	49	77	87	93	94
TNG20	CGSOC Student	50	72	86	92	96
TNG20	CAS3 Staff/Faculty	75	81	81	100	100
TNG20	CGSOC Staff/Faculty	47	79	93	96	97
TNG20	Other	33	50	83	83	100
	TOTAL	50	74	87	93	96
TNG20	Co/Btry/Trp/Det	59	77	89	94	96
TNG20	Bn/Sqdn	53	78	89	98	100
TNG20	Bde/Rgt	40	70	87	93	96
TNG20	Division	40	62	78	83	91
TNG20	Corps/EAC	46	70	83	90	93
	TOTAL	49	73	86	93	96
TNG20	JCS/JOINT/HQDA/Com	50	80	91	95	98
TNG20	MACOM	53	74	85	91	94
TNG20	School/Center	50	74	86	92	95
TNG20	Installation	41	66	77	83	89
TNG20	Other	49	77	90	93	96
	TOTAL	50	75	86	92	95
TNG21	Combat Arms	45	71	87	94	98
TNG21	Combat Support	47	73	86	96	98
TNG21	Combat Service	33	61	80	87	91

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
TNG21	Non-OPM	23	44	67	73	77
	TOTAL	42	68	85	92	95
TNG21	Captain	41	71	86	94	94
TNG21	Captain (P)	42	73	87	93	95
TNG21	Major	43	66	84	91	96
TNG21	Major (P)	38	52	76	81	86
TNG21	Lt Col	37	65	86	91	97
	TOTAL	42	68	85	91	95
TNG21	Regular Army	42	68	86	93	96
TNG21	ARNG	28	62	67	77	95
TNG21	USAR	39	65	79	88	91
	TOTAL	42	67	85	92	95
TNG21	Active Duty Yes	41	67	85	91	95
TNG21	Active Duty No	56	63	88	94	94
	TOTAL	42	67	85	92	95
TNG21	1-3 Years AFCS	25	63	88	88	100
TNG21	Years AFCS	45	85	91	97	97
TNG21	7-10 Years AFCS	40	65	83	91	92
TNG21	>10 Years AFCS	42	67	84	91	96
	TOTAL	42	67	85	92	95
TNG21	CAS3 Student	39	69	85	93	93
TNG21	CGSOC Student	43	67	84	91	95
TNG21	CAS3 Staff/Faculty	50	69	75	94	100
TNG21	CGSOC Staff/Faculty	36	67	90	95	98
TNG21	Other	33	50	83	83	100
	TOTAL	41	67	85	92	95
TNG21	Co/Btry/Trp/Det	42	76	86	94	96
TNG21	Bn/Sqdn	40	68	85	95	99
TNG21	Bde/Rgt	36	60	86	91	96

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8-> 95%
TNG21	Division	40	52	78	88	93
TNG21	Corps/EAC	40	66	81	88	93
	TOTAL	39	65	84	92	96
TNG21	JCS/JOINT/HQDA/Com	47	77	92	94	96
TNG21	MACOM	40	68	81	87	92
TNG21	School/Center	42	68	85	93	96
TNG21	Installation	33	63	77	84	89
TNG21	Other	43	70	86	89	94
	TOTAL	42	69	85	90	94
MNB22	Combat Arms	4	12	31	50	76
MNB22	Combat Support	10	24	51	64	80
MNB22	Combat Service	7	21	43	57	78
MNB22	Non-OPM	4	25	42	67	83
	TOTAL	6	17	37	55	77
MNB22	Captain	9	22	49	63	72
MNB22	Captain (P)	5	17	29	50	66
MNB22	Major	6	17	37	55	79
MNB22	Major (P)	0	14	29	48	62
MNB22	Lt Col	1	6	33	47	86
	TOTAL	6	17	37	54	77
MNB22	Regular Army	6	16	37	54	76
MNB22	ARNG	3	13	36	54	82
MNB22	USAR	7	25	44	63	80
	TOTAL	6	17	37	55	77
MNB22	Active Duty Yes	6	17	37	55	77
MNB22	Active Duty No	6	6	25	38	56
	TOTAL	6	17	37	54	77
MNB22	1-3 Years AFCS	0	38	63	63	63
MNB22	Years AFCS	9	18	70	73	79

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
MNB22	7-10 Years AFCS	10	22	44	62	72
MNB22	>10 Years AFCS	5	15	34	52	78
	TOTAL	6	17	37	54	77
MNB22	CAS3 Student	9	22	48	62	72
MNB22	CGSOC Student	6	17	36	55	78
MNB22	CAS3 Staff/Faculty	0	13	38	38	88
MNB22	CGSOC Staff/Faculty	3	11	33	48	77
MNB22	Other	0	17	33	33	83
	TOTAL	6	17	37	54	77
MNB22	Co/Btry/Trp/Det	9	20	46	59	75
MNB22	Bn/Sqdn	3	12	35	54	78
MNB22	Bde/Rgt	5	17	36	58	76
MNB22	Division	2	19	41	53	81
MNB22	Corps/EAC	3	12	39	55	79
	TOTAL	4	15	38	56	78
MNB22	JCS/JOINT/HQDA/Com	5	18	33	51	77
MNB22	MACOM	4	18	48	60	87
MNB22	School/Center	6	17	34	50	68
MNB22	Installation	6	17	39	56	70
MNB22	Other	8	19	34	53	74
	TOTAL	6	18	38	54	76
MNB23	Combat Arms	4	10	26	41	65
MNB23	Combat Support	10	24	45	57	71
MNB23	Combat Service	6	21	40	51	72
MNB23	Non-OPM	4	23	37	54	65
	TOTAL	5	15	32	46	67
MNB23	Captain	10	23	44	57	67
MNB23	Captain (P)	8	14	29	41	58
MNB23	Major	5	15	32	45	69
MNB23	Major (P)	0	14	33	43	52

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
MNB23	Lt Col	0	9	23	40	71
	TOTAL	6	15	32	46	67
MNB23	Regular Army	6	15	31	45	66
MNB23	ARNG	5	18	44	54	79
MNB23	USAR	4	19	36	60	75
	TOTAL	6	15	32	46	67
MNB23	Active Duty Yes	6	15	32	46	67
MNB23	Active Duty No	0	6	25	38	50
	TOTAL	6	15	32	46	67
MNB23	1-3 Years AFCS	25	25	38	38	38
MNB23	Years AFCS	12	30	58	67	73
MNB23	7-10 Years AFCS	9	24	42	56	65
MNB23	>10 Years AFCS	4	13	29	44	68
	TOTAL	6	15	32	46	67
MNB23	CAS3 Student	10	23	44	56	65
MNB23	CGSOC Student	5	14	31	45	67
MNB23	CAS3 Staff/Faculty	13	13	19	38	81
MNB23	CGSOC Staff/Faculty	3	13	27	43	67
MNB23	Other	0	17	33	33	83
	TOTAL	6	15	32	46	67
MNB23	Co/Btry/Trp/Det	11	20	42	53	66
MNB23	Bn/Sqdn	5	12	30	46	67
MNB23	Bde/Rgt	5	12	31	49	67
MNB23	Division	2	17	29	43	66
MNB23	Corps/EAC	4	21	38	54	75
	TOTAL	6	16	33	49	68
MNB23	JCS/JOINT/HQDA/Com	4	16	32	44	66
MNB23	MACOM	5	20	44	56	78
MNB23	School/Center	6	14	30	41	62

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
MNB23	Installation	6	22	38	52	67
MNB23	Other	8	16	31	47	71
	TOTAL	6	17	34	47	68
MNB24	Combat Arms	3	8	18	34	60
MNB24	Combat Support	8	18	32	47	62
MNB24	Combat Service	3	15	36	51	73
MNB24	Non-OPM	10	27	44	60	73
	TOTAL	4	12	26	41	64
MNB24	Captain	10	23	38	49	60
MNB24	Captain (P)	4	9	20	36	55
MNB24	Major	3	11	26	41	65
MNB24	Major (P)	0	10	14	38	57
MNB24	Lt Col	0	4	16	34	68
	TOTAL	4	12	26	41	64
MNB24	Regular Army	4	12	26	41	64
MNB24	ARNG	3	13	21	33	64
MNB24	USAR	8	16	26	44	63
	TOTAL	4	12	26	41	64
MNB24	Active Duty Yes	4	12	26	41	64
MNB24	Active Duty No	6	13	19	25	38
	TOTAL	4	12	26	41	64
MNB24	1-3 Years AFCS	0	25	25	25	25
MNB24	Years AFCS	15	24	45	52	61
MNB24	7-10 Years AFCS	9	25	36	49	60
MNB24	>10 Years AFCS	3	9	23	39	64
	TOTAL	4	12	25	41	63
MNB24	CAS3 Student	11	24	39	51	67
MNB24	CGSOC Student	3	10	24	40	63
MNB24	CAS3 Staff/Faculty	0	13	19	19	81

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
MNB24	CGSOC Staff/Faculty	1	8	21	38	63
MNB24	Other	0	17	17	17	50
	TOTAL	4	12	26	41	63
MNB24	Co/Btry/Trp/Det	8	18	29	42	59
MNB24	Bn/Sqdn	4	9	23	37	59
MNB24	Bde/Rgt	5	11	22	43	66
MNB24	Division	2	10	21	41	62
MNB24	Corps/EAC	2	10	32	46	67
	TOTAL	4	11	25	41	63
MNB24	JCS/JOINT/HQDA/Com	1	15	28	39	67
MNB24	MACOM	3	11	28	48	73
MNB24	School/Center	6	12	25	37	58
MNB24	Installation	5	16	28	45	63
MNB24	Other	5	16	25	41	61
	TOTAL	4	13	27	41	64
MNB25	Combat Arms	3	6	14	25	46
MNB25	Combat Support	9	17	29	37	50
MNB25	Combat Service	2	11	24	39	63
MNB25	Non-OPM	6	13	31	40	50
	TOTAL	4	9	19	30	51
MNB25	Captain	9	15	29	44	52
MNB25	Captain (P)	5	11	16	28	44
MNB25	Major	3	9	19	29	51
MNB25	Major (P)	0	10	14	24	48
MNB25	Lt Col	0	4	12	23	51
	TOTAL	4	9	20	31	50
MNB25	Regular Army	4	10	20	30	51
MNB25	ARNG	3	8	26	41	54
MNB25	USAR	4	9	17	30	51
	TOTAL	4	9	20	31	51

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
MNB25	Active Duty Yes	4	10	20	31	51
MNB25	Active Duty No	6	6	19	25	38
	TOTAL	4	9	19	31	50
MNB25	1-3 Years AFCS	0	25	25	25	25
MNB25	Years AFCS	9	15	30	42	48
MNB25	7-10 Years AFCS	9	17	29	44	52
MNB25	>10 Years AFCS	3	8	17	27	50
	TOTAL	4	9	19	30	50
MNB25	CAS3 Student	9	15	30	44	53
MNB25	CGSOC Student	3	8	18	29	49
MNB25	CAS3 Staff/Faculty	0	13	19	19	81
MNB25	CGSOC Staff/Faculty	1	8	14	27	51
MNB25	Other	17	17	17	17	33
	TOTAL	4	10	20	31	50
MNB25	Co/Btry/Trp/Det	8	15	25	33	48
MNB25	Bn/Sqdn	4	6	15	31	50
MNB25	Bde/Rgt	5	11	19	35	51
MNB25	Division	2	7	10	24	48
MNB25	Corps/EAC	2	12	23	34	56
	TOTAL	4	10	19	32	51
MNB25	JCS/JOINT/HQDA/Com	2	8	20	26	47
MNB25	MACOM	4	12	24	37	60
MNB25	School/Center	5	9	20	29	50
MNB25	Installation	8	11	25	42	56
MNB25	Other	3	14	25	32	47
	TOTAL	4	10	22	32	52
LOG26	Combat Arms	7	20	42	57	71
LOG26	Combat Support	4	13	32	43	55
LOG26	Combat Service	12	27	41	57	74

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
LOG26	Non-OPM	4	12	25	38	52
	TOTAL	7	20	40	54	69
LOG26	Captain	10	25	55	65	69
LOG26	Captain (P)	9	19	40	60	69
LOG26	Major	7	19	35	49	67
LOG26	Major (P)	5	14	29	43	81
LOG26	Lt Col	5	23	44	60	79
	TOTAL	8	20	40	54	69
LOG26	Regular Army	7	20	40	54	69
LOG26	ARNG	10	28	46	67	77
LOG26	USAR	7	16	40	51	64
	TOTAL	7	20	40	54	69
LOG26	Active Duty Yes	7	20	40	54	68
LOG26	Active Duty No	25	31	50	69	81
	TOTAL	8	20	40	54	69
LOG26	1-3 Years AFCS	25	25	50	50	63
LOG26	Years AFCS	21	33	61	70	73
LOG26	7-10 Years AFCS	10	26	54	65	67
LOG26	>10 Years AFCS	6	19	37	52	69
	TOTAL	8	20	40	54	69
LOG26	CAS3 Student	10	26	56	66	68
LOG26	CGSOC Student	7	18	35	49	66
LOG26	CAS3 Staff/Faculty	19	38	56	63	81
LOG26	CGSOC Staff/Faculty	5	23	45	60	79
LOG26	Other	17	33	67	100	100
	TOTAL	8	20	40	54	69
LOG26	Co/Btry/Trp/Det	11	20	46	58	72
LOG26	Bn/Sqdn	8	21	44	66	78
LOG26	Bde/Rgt	7	22	48	61	73

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
LOG26	Division	7	19	38	45	66
LOG26	Corps/EAC	10	27	41	56	74
	TOTAL	9	22	44	59	74
LOG26	JCS/JOINT/HQDA/Com	10	22	37	46	61
LOG26	MACOM	8	18	33	58	73
LOG26	School/Center	9	23	41	53	67
LOG26	Installation	5	20	39	50	67
LOG26	Other	9	22	41	53	60
	TOTAL	8	21	38	52	66
LOG27	Combat Arms	5	15	33	45	65
LOG27	Combat Support	6	16	30	41	53
LOG27	Combat Service	16	28	44	55	69
LOG27	Non-OPM	6	19	37	46	58
	TOTAL	7	18	35	47	64
LOG27	Captain	7	24	48	59	64
LOG27	Captain (P)	8	19	39	50	62
LOG27	Major	7	17	32	44	62
LOG27	Major (P)	10	19	33	38	76
LOG27	Lt Col	6	18	31	43	72
	TOTAL	7	18	35	47	64
LOG27	Regular Army	7	18	35	47	64
LOG27	ARNG	13	23	33	51	64
LOG27	USAR	6	17	36	43	60
	TOTAL	7	18	35	47	64
LOG27	Active Duty Yes	7	18	35	47	64
LOG27	Active Duty No	19	19	31	56	56
	TOTAL	7	18	35	47	64
LOG27	1-3 Years AFCS	0	25	38	38	50
LOG27	Years AFCS	12	36	55	61	64

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8-> 95%
LOG27	7-10 Years AFCS	9	23	46	58	63
LOG27	>10 Years AFCS	7	17	33	44	64
	TOTAL	7	18	35	47	64
LOG27	CAS3 Student	8	25	49	60	64
LOG27	CGSOC Student	8	17	33	44	62
LOG27	CAS3 Staff/Faculty	0	25	38	50	88
LOG27	CGSOC Staff/Faculty	5	15	31	44	70
LOG27	Other	33	33	33	50	50
	TOTAL	7	18	35	47	64
LOG27	Co/Btry/Trp/Det	5	16	37	49	62
LOG27	Bn/Sqdn	8	18	39	56	73
LOG27	Bde/Rgt	7	17	36	47	71
LOG27	Division	10	17	38	52	67
LOG27	Corps/EAC	5	23	38	45	70
	TOTAL	7	19	38	51	70
LOG27	JCS/JOINT/HQDA/Com	8	21	36	42	58
LOG27	MACOM	5	16	32	45	67
LOG27	School/Center	9	21	38	49	59
LOG27	Installation	6	17	25	45	61
LOG27	Other	11	23	38	48	57
	TOTAL	8	20	35	46	61
MOB28	Combat Arms	8	17	34	46	65
MOB28	Combat Support	15	25	35	49	64
MOB28	Combat Service	12	23	38	49	64
MOB28	Non-OPM	12	21	38	52	63
	TOTAL	10	20	35	48	65
MOB28	Captain	14	31	52	66	72
MOB28	Captain (P)	12	28	49	56	66
MOB28	Major	8	16	30	45	63
MOB28	Major (P)	10	14	24	38	57

		Answers--> or Year Ranges --> CAS3-Trained Population (%)				
		a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
MOB28	Lt Col	8	16	27	33	62
	TOTAL	10	20	35	48	65
MOB28	Regular Army	9	18	34	46	63
MOB28	ARNG	15	36	49	67	87
MOB28	USAR	13	26	45	57	71
	TOTAL	10	20	35	48	65
MOB28	Active Duty Yes	9	20	35	48	65
MOB28	Active Duty No	31	38	44	56	69
	TOTAL	10	20	35	48	65
MOB28	1-3 Years AFCS	0	50	50	63	63
MOB28	Years AFCS	24	45	64	76	76
MOB28	7-10 Years AFCS	14	28	49	62	69
MOB28	>10 Years AFCS	8	17	31	44	63
	TOTAL	10	20	35	48	65
MOB28	CAS3 Student	13	30	52	66	71
MOB28	CGSOC Student	9	19	33	46	64
MOB28	CAS3 Staff/Faculty	0	19	25	31	69
MOB28	CGSOC Staff/Faculty	8	16	31	40	61
MOB28	Other	17	17	33	33	67
	TOTAL	10	20	35	48	65
MOB28	Co/Btry/Trp/Det	10	22	46	58	78
MOB28	Bn/Sqdn	11	21	39	51	69
MOB28	Bde/Rgt	7	19	38	49	65
MOB28	Division	9	17	28	47	64
MOB28	Corps/EAC	12	23	43	54	70
	TOTAL	10	21	40	52	69
MOB28	JCS/JOINT/HQDA/Com	9	23	37	46	64
MOB28	MACOM	9	21	40	55	68
MOB28	School/Center	12	22	35	48	62

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8- 95%
MOB28	Installation	8	17	27	38	55
MOB28	Other	15	23	37	51	62
	TOTAL	11	22	36	48	63
MOB29	Combat Arms	12	34	55	66	76
MOB29	Combat Support	21	38	51	61	68
MOB29	Combat Service	20	34	50	63	71
MOB29	Non-OPM	12	21	35	42	54
	TOTAL	15	34	53	63	73
MOB29	Captain	19	48	69	75	77
MOB29	Captain (P)	18	33	61	69	73
MOB29	Major	14	30	47	59	70
MOB29	Major (P)	14	29	43	57	81
MOB29	Lt Col	13	42	58	67	80
	TOTAL	15	34	53	63	73
MOB29	Regular Army	15	34	53	63	72
MOB29	ARNG	23	46	56	74	87
MOB29	USAR	16	35	53	60	71
	TOTAL	15	35	53	63	73
MOB29	Active Duty Yes	15	34	53	63	72
MOB29	Active Duty No	19	44	56	69	88
	TOTAL	15	34	53	63	73
MOB29	1-3 Years AFCS	25	75	75	88	88
MOB29	Years AFCS	24	48	67	76	76
MOB29	7-10 Years AFCS	19	45	67	72	75
MOB29	>10 Years AFCS	14	31	49	61	72
	TOTAL	15	34	53	63	73
MOB29	CAS3 Student	20	46	68	74	75
MOB29	CGSOC Student	15	31	48	60	70
MOB29	CAS3 Staff/Faculty	13	31	69	81	88

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
MOB29	CGSOC Staff/Faculty	14	39	55	66	81
MOB29	Other	17	33	83	83	83
	TOTAL	15	35	53	63	73
MOB29	Co/Btry/Trp/Det	15	34	59	75	82
MOB29	Bn/Sqdn	17	38	56	67	78
MOB29	Bde/Rgt	15	39	59	68	76
MOB29	Division	14	26	45	55	66
MOB29	Corps/EAC	21	37	57	67	78
	TOTAL	17	36	56	67	77
MOB29	JCS/JOINT/HQDA/Com	17	34	51	57	68
MOB29	MACOM	16	36	58	70	76
MOB29	School/Center	17	38	55	66	73
MOB29	Installation	8	16	31	45	56
MOB29	Other	19	36	52	60	69
	TOTAL	16	34	52	62	71
MOB30	Combat Arms	11	29	48	58	70
MOB30	Combat Support	15	31	45	49	57
MOB30	Combat Service	17	27	42	54	63
MOB30	Non-OPM	8	15	25	33	42
	TOTAL	13	28	45	54	65
MOB30	Captain	18	42	65	72	74
MOB30	Captain (P)	14	30	52	59	66
MOB30	Major	11	23	38	48	61
MOB30	Major (P)	19	38	48	57	81
MOB30	Lt Col	13	35	49	59	73
	TOTAL	13	28	45	54	65
MOB30	Regular Army	13	28	45	54	64
MOB30	ARNG	18	41	59	77	85
MOB30	USAR	11	29	43	53	64
	TOTAL	13	28	45	55	65

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
MOB30	Active Duty Yes	13	28	45	54	65
MOB30	Active Duty No	19	38	50	63	81
	TOTAL	13	28	45	54	65
MOB30	1-3 Years AFCS	25	63	75	88	88
MOB30	Years AFCS	30	42	64	76	76
MOB30	7-10 Years AFCS	16	42	63	68	70
MOB30	>10 Years AFCS	12	25	41	51	63
	TOTAL	13	28	45	54	65
MOB30	CAS3 Student	19	42	65	72	73
MOB30	CGSOC Student	12	24	40	49	61
MOB30	CAS3 Staff/Faculty	19	38	63	69	88
MOB30	CGSOC Staff/Faculty	13	33	46	58	73
MOB30	Other	17	33	83	83	83
	TOTAL	13	28	45	55	65
MOB30	Co/Btry/Trp/Det	14	30	51	68	75
MOB30	Bn/Sqdn	14	32	48	61	73
MOB30	Bde/Rgt	16	33	54	60	69
MOB30	Division	12	26	40	50	59
MOB30	Corps/EAC	15	30	48	55	68
	TOTAL	14	31	49	59	70
MOB30	JCS/JOINT/HQDA/Com	14	26	42	47	59
MOB30	MACOM	17	31	48	59	68
MOB30	School/Center	14	31	49	59	68
MOB30	Installation	11	20	33	44	52
MOB30	Other	10	21	41	49	59
	TOTAL	14	27	45	54	63
MOB31	Combat Arms	12	28	51	62	75
MOB31	Combat Support	20	38	56	64	71
MOB31	Combat Service	19	27	49	60	72

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
MOB31	Non-OPM	12	17	38	48	60
	TOTAL	14	29	50	61	73
MOB31	Captain	16	36	64	73	75
MOB31	Captain (P)	24	45	63	73	79
MOB31	Major	13	26	46	58	71
MOB31	Major (P)	14	19	33	38	57
MOB31	Lt Col	8	20	46	55	79
	TOTAL	14	29	51	62	73
MOB31	Regular Army	14	29	51	61	72
MOB31	ARNG	21	38	51	69	87
MOB31	USAR	12	26	45	64	74
	TOTAL	14	29	51	62	73
MOB31	Active Duty Yes	14	29	51	61	73
MOB31	Active Duty No	19	31	50	69	75
	TOTAL	15	29	51	62	73
MOB31	1-3 Years AFCS	50	75	75	88	88
MOB31	Years AFCS	18	52	61	73	73
MOB31	7-10 Years AFCS	17	31	61	69	72
MOB31	>10 Years AFCS	14	28	48	59	73
	TOTAL	15	29	51	61	73
MOB31	CAS3 Student	15	34	61	72	73
MOB31	CGSOC Student	16	30	49	60	72
MOB31	CAS3 Staff/Faculty	19	44	50	50	81
MOB31	CGSOC Staff/Faculty	7	20	47	56	75
MOB31	Other	0	50	67	83	83
	TOTAL	15	29	51	61	73
MOB31	Co/Btry/Trp/Det	15	27	51	75	84
MOB31	Bn/Sqdn	14	28	48	59	74
MOB31	Bde/Rgt	11	26	56	64	77

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
MOB31	Division	12	21	38	50	67
MOB31	Corps/EAC	20	36	57	67	76
	TOTAL	15	28	51	63	76
MOB31	JCS/JOINT/HQDA/Com	16	33	55	60	74
MOB31	MACOM	18	33	52	65	76
MOB31	School/Center	16	36	59	68	76
MOB31	Installation	9	16	33	42	52
MOB31	Other	16	27	44	57	65
	TOTAL	16	32	52	62	72
MOB32	Combat Arms	5	17	37	50	62
MOB32	Combat Support	10	18	34	42	54
MOB32	Combat Service	11	24	39	48	61
MOB32	Non-OPM	6	17	31	44	50
	TOTAL	7	19	37	48	60
MOB32	Captain	9	27	54	61	64
MOB32	Captain (P)	7	20	38	48	59
MOB32	Major	7	17	33	45	60
MOB32	Major (P)	5	19	29	43	52
MOB32	Lt Col	5	14	33	44	59
	TOTAL	7	19	37	48	60
MOB32	Regular Army	7	18	36	46	59
MOB32	ARNG	8	31	49	62	79
MOB32	USAR	4	21	40	55	66
	TOTAL	7	19	37	48	60
MOB32	Active Duty Yes	7	19	36	48	60
MOB32	Active Duty No	13	31	44	50	63
	TOTAL	7	19	37	48	60
MOB32	1-3 Years AFCS	0	25	50	63	63
MOB32	Years AFCS	9	24	52	58	61

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
MOB32	7-10 Years AFCS	10	28	52	59	63
MOB32	>10 Years AFCS	6	17	33	45	59
	TOTAL	7	19	36	48	60
MOB32	CAS3 Student	9	28	54	61	65
MOB32	CGSOC Student	7	18	33	46	58
MOB32	CAS3 Staff/Faculty	6	19	31	56	69
MOB32	CGSOC Staff/Faculty	3	15	35	44	64
MOB32	Other	17	17	33	33	67
	TOTAL	7	19	36	48	60
MOB32	Co/Btry/Trp/Det	8	23	43	59	73
MOB32	Bn/Sqdn	6	17	36	48	64
MOB32	Bde/Rgt	7	19	45	55	66
MOB32	Division	3	22	41	52	62
MOB32	Corps/EAC	8	23	39	48	58
	TOTAL	6	20	40	51	64
MOB32	JCS/JOINT/HQDA/Com	9	22	40	46	60
MOB32	MACOM	7	19	33	49	62
MOB32	School/Center	12	22	37	49	58
MOB32	Installation	6	19	39	47	61
MOB32	Other	4	18	32	40	50
	TOTAL	8	20	36	47	59
ORG33	Combat Arms	30	50	73	84	96
ORG33	Combat Support	38	56	73	85	92
ORG33	Combat Service	15	31	60	73	91
ORG33	Non-OPM	25	48	60	71	83
	TOTAL	28	47	70	81	93
ORG33	Captain	53	81	93	96	98
ORG33	Captain (P)	37	66	86	92	97
ORG33	Major	22	38	65	79	91
ORG33	Major (P)	19	33	43	52	86

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
ORG33	Lt Col	13	28	47	64	97
	TOTAL	28	47	70	81	93
ORG33	Regular Army	26	46	69	81	94
ORG33	ARNG	49	67	74	85	92
ORG33	USAR	35	52	76	88	92
	TOTAL	28	47	70	81	93
ORG33	Active Duty Yes	27	47	70	81	93
ORG33	Active Duty No	44	63	88	94	100
	TOTAL	28	47	70	81	93
ORG33	1-3 Years AFCS	38	63	100	100	100
ORG33	Years AFCS	48	85	91	100	100
ORG33	7-10 Years AFCS	50	75	88	92	94
ORG33	>10 Years AFCS	23	41	65	78	93
	TOTAL	28	47	70	81	93
ORG33	CAS3 Student	52	80	92	95	97
ORG33	CGSOC Student	25	44	70	82	91
ORG33	CAS3 Staff/Faculty	0	19	19	50	100
ORG33	CGSOC Staff/Faculty	17	31	54	68	97
ORG33	Other	33	50	67	67	100
	TOTAL	28	47	70	81	93
ORG33	Co/Btry/Trp/Det	38	71	86	89	95
ORG33	Bn/Sqdn	30	47	66	81	99
ORG33	Bde/Rgt	32	52	77	85	98
ORG33	Division	21	33	64	79	95
ORG33	Corps/EAC	23	37	63	77	92
	TOTAL	29	48	70	82	96
ORG33	JCS/JOINT/HQDA/Com	26	44	63	76	87
ORG33	MACOM	27	45	70	83	94
ORG33	School/Center	35	59	79	85	94

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
ORG33	Installation	20	39	58	75	86
ORG33	Other	27	45	68	78	90
	TOTAL	29	49	70	81	91
ORG34	Combat Arms	37	58	75	86	95
ORG34	Combat Support	38	63	78	85	94
ORG34	Combat Service	19	43	65	78	89
ORG34	Non-OPM	31	44	60	75	83
	TOTAL	33	55	73	84	93
ORG34	Captain	46	72	88	91	93
ORG34	Captain (P)	39	65	82	94	96
ORG34	Major	30	51	70	81	92
ORG34	Major (P)	29	33	38	62	90
ORG34	Lt Col	29	50	67	79	95
	TOTAL	33	55	73	84	93
ORG34	Regular Army	33	55	73	84	93
ORG34	ARNG	38	62	77	82	90
ORG34	USAR	29	52	69	85	91
	TOTAL	33	55	73	84	93
ORG34	Active Duty Yes	33	55	73	84	93
ORG34	Active Duty No	50	75	88	88	94
	TOTAL	33	55	73	84	93
ORG34	1-3 Years AFCS	63	63	75	88	88
ORG34	Years AFCS	36	73	94	97	97
ORG34	7-10 Years AFCS	46	69	83	90	92
ORG34	>10 Years AFCS	30	52	70	82	93
	TOTAL	33	55	73	84	93
ORG34	CAS3 Student	44	71	87	91	92
ORG34	CGSOC Student	31	53	71	83	91
ORG34	CAS3 Staff/Faculty	38	56	69	75	100

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
ORG34	CGSOC Staff/Faculty	29	51	68	80	98
ORG34	Other	33	33	67	67	100
	TOTAL	33	55	73	84	93
ORG34	Co/Btry/Trp/Det	41	72	84	90	91
ORG34	Bn/Sqdn	35	61	75	84	98
ORG34	Bde/Rgt	31	50	75	85	98
ORG34	Division	34	53	69	81	93
ORG34	Corps/EAC	21	42	63	79	90
	TOTAL	32	56	73	84	95
ORG34	JCS/JOINT/HQDA/Com	30	49	69	76	85
ORG34	MACOM	32	52	71	85	94
ORG34	School/Center	43	69	82	90	96
ORG34	Installation	23	50	66	80	88
ORG34	Other	28	44	62	81	90
	TOTAL	34	55	72	84	91
ORG35	Combat Arms	49	65	81	86	93
ORG35	Combat Support	51	63	74	79	87
ORG35	Combat Service	25	35	48	54	75
ORG35	Non-OPM	19	35	46	56	65
	TOTAL	42	57	71	77	87
ORG35	Captain	60	75	87	90	91
ORG35	Captain (P)	51	70	79	82	92
ORG35	Major	38	51	66	73	84
ORG35	Major (P)	48	52	62	67	81
ORG35	Lt Col	34	52	72	80	93
	TOTAL	43	57	71	77	87
ORG35	Regular Army	44	58	72	77	87
ORG35	ARNG	41	51	64	74	82
ORG35	USAR	33	51	67	74	85
	TOTAL	43	57	71	77	87

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
ORG35	Active Duty Yes	43	57	71	77	87
ORG35	Active Duty No	44	56	88	94	94
	TOTAL	43	57	71	77	87
ORG35	1-3 Years AFCS	75	75	88	88	88
ORG35	Years AFCS	61	85	94	94	94
ORG35	7-10 Years AFCS	54	69	81	86	89
ORG35	>10 Years AFCS	40	54	69	74	86
	TOTAL	43	57	71	77	87
ORG35	CAS3 Student	60	75	85	89	91
ORG35	CGSOC Student	40	54	68	74	85
ORG35	CAS3 Staff/Faculty	25	56	75	81	100
ORG35	CGSOC Staff/Faculty	39	53	72	79	93
ORG35	Other	50	67	83	83	100
	TOTAL	43	57	71	77	87
ORG35	Co/Btry/Trp/Det	47	71	80	86	90
ORG35	Bn/Sqdn	49	63	78	85	94
ORG35	Bde/Rgt	45	60	79	82	93
ORG35	Division	34	43	57	66	83
ORG35	Corps/EAC	40	48	61	69	85
	TOTAL	44	58	73	79	90
ORG35	JCS/JOINT/HQDA/Com	41	50	65	69	79
ORG35	MACOM	45	55	70	78	87
ORG35	School/Center	54	68	79	83	91
ORG35	Installation	23	39	59	69	80
ORG35	Other	33	50	67	73	83
	TOTAL	43	56	70	76	85
ORG36	Combat Arms	5	12	24	35	53
ORG36	Combat Support	10	17	25	36	47
ORG36	Combat Service	3	6	16	29	51

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
ORG36	Non-OPM	8	15	27	38	44
	TOTAL	5	12	22	34	51
ORG36	Captain	12	23	41	54	59
ORG36	Captain (P)	6	13	20	29	45
ORG36	Major	5	11	20	32	50
ORG36	Major (P)	0	0	5	10	24
ORG36	Lt Col	1	7	17	30	58
	TOTAL	5	12	23	34	51
ORG36	Regular Army	5	12	22	34	50
ORG36	ARNG	8	13	28	41	59
ORG36	USAR	8	12	26	40	57
	TOTAL	5	12	23	35	51
ORG36	Active Duty Yes	5	12	23	34	51
ORG36	Active Duty No	13	19	38	44	50
	TOTAL	5	12	23	35	51
ORG36	1-3 Years AFCS	38	38	50	63	75
ORG36	Years AFCS	12	24	33	48	55
ORG36	7-10 Years AFCS	13	24	41	54	61
ORG36	>10 Years AFCS	4	10	19	30	49
	TOTAL	5	12	23	34	51
ORG36	CAS3 Student	11	23	41	54	59
ORG36	CGSOC Student	5	10	21	32	49
ORG36	CAS3 Staff/Faculty	13	19	19	38	69
ORG36	CGSOC Staff/Faculty	1	9	16	27	52
ORG36	Other	17	17	17	33	67
	TOTAL	5	12	23	35	51
ORG36	Co/Btry/Trp/Det	13	19	33	52	56
ORG36	Bn/Sqdn	6	13	26	37	56
ORG36	Bde/Rgt	9	13	25	41	59

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
ORG36	Division	2	14	22	29	48
ORG36	Corps/EAC	2	9	17	29	51
	TOTAL	6	13	25	38	55
ORG36	JCS/JOINT/HQDA/Com	3	9	26	32	49
ORG36	MACOM	8	12	22	38	53
ORG36	School/Center	5	14	27	37	54
ORG36	Installation	9	23	31	42	56
ORG36	Other	6	13	18	29	43
	TOTAL	6	13	25	36	51
CBT37	Combat Arms	26	43	61	76	92
CBT37	Combat Support	18	37	57	66	77
CBT37	Combat Service	12	19	34	47	74
CBT37	Non-OPM	12	23	33	40	56
	TOTAL	21	36	53	66	84
CBT37	Captain	38	62	77	82	84
CBT37	Captain (P)	32	51	68	81	91
CBT37	Major	15	28	47	61	81
CBT37	Major (P)	19	24	38	48	86
CBT37	Lt Col	17	32	43	62	93
	TOTAL	21	36	54	66	84
CBT37	Regular Army	21	37	55	67	85
CBT37	ARNG	23	41	59	74	85
CBT37	USAR	15	26	40	53	72
	TOTAL	21	36	53	66	84
CBT37	Active Duty Yes	21	36	53	66	84
CBT37	Active Duty No	25	50	75	75	81
	TOTAL	21	36	53	66	84
CBT37	1-3 Years AFCS	50	50	63	63	63
CBT37	Years AFCS	30	73	85	88	91

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
CBT37	7-10 Years AFCS	37	55	72	75	80
CBT37	>10 Years AFCS	17	31	49	64	85
	TOTAL	21	36	53	66	84
CBT37	CAS3 Student	38	61	77	82	84
CBT37	CGSOC Student	17	31	50	63	82
CBT37	CAS3 Staff/Faculty	13	31	50	63	94
CBT37	CGSOC Staff/Faculty	20	34	46	64	94
CBT37	Other	0	33	50	67	67
	TOTAL	21	36	53	66	84
CBT37	Co/Btry/Trp/Det	34	54	66	72	85
CBT37	Bn/Sqdn	23	41	60	76	94
CBT37	Bde/Rgt	20	36	57	72	89
CBT37	Division	22	31	52	71	90
CBT37	Corps/EAC	15	25	40	55	81
	TOTAL	22	38	55	69	88
CBT37	JCS/JOINT/HQDA/Com	18	33	51	60	76
CBT37	MACOM	23	36	52	65	84
CBT37	School/Center	25	48	60	73	85
CBT37	Installation	16	23	44	58	77
CBT37	Other	19	28	45	62	81
	TOTAL	21	37	53	65	82
CBT38	Combat Arms	12	34	62	75	89
CBT38	Combat Support	7	27	47	58	68
CBT38	Combat Service	7	15	29	41	63
CBT38	Non-OPM	6	12	23	33	44
	TOTAL	10	28	51	63	78
CBT38	Captain	17	43	67	72	74
CBT38	Captain (P)	8	33	60	71	80
CBT38	Major	9	24	46	59	77
CBT38	Major (P)	10	19	29	43	86

		Answers--> or Year Ranges --> CAS3-Trained Population (%)				
		a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
CBT38	Lt Col	9	29	51	63	84
	TOTAL	10	28	51	63	78
CBT38	Regular Army	11	28	52	63	78
CBT38	ARNG	8	31	59	72	82
CBT38	USAR	6	24	42	57	72
	TOTAL	10	28	51	63	78
CBT38	Active Duty Yes	10	28	51	63	78
CBT38	Active Duty No	19	44	69	69	75
	TOTAL	10	28	51	63	77
CBT38	1-3 Years AFCS	0	50	50	75	75
CBT38	Years AFCS	15	33	61	67	70
CBT38	7-10 Years AFCS	16	42	65	70	74
CBT38	>10 Years AFCS	9	26	48	61	78
	TOTAL	10	28	51	63	77
CBT38	CAS3 Student	18	43	67	72	74
CBT38	CGSOC Student	8	24	47	60	76
CBT38	CAS3 Staff/Faculty	0	31	50	63	88
CBT38	CGSOC Staff/Faculty	11	30	53	67	88
CBT38	Other	17	33	50	83	100
	TOTAL	10	28	51	63	78
CBT38	Co/Btry/Trp/Det	16	38	63	71	77
CBT38	Bn/Sqdn	12	31	56	71	90
CBT38	Bde/Rgt	11	25	60	70	87
CBT38	Division	14	33	48	60	72
CBT38	Corps/EAC	6	23	40	50	70
	TOTAL	11	29	54	65	81
CBT38	JCS/JOINT/HQDA/Com	13	28	45	53	69
CBT38	MACOM	9	25	48	60	75
CBT38	School/Center	12	35	55	66	80

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
CBT38	Installation	9	23	44	56	72
CBT38	Other	8	24	50	64	76
	TOTAL	11	28	50	61	75
CBT39	Combat Arms	15	35	58	71	87
CBT39	Combat Support	14	27	42	49	61
CBT39	Combat Service	8	16	29	36	61
CBT39	Non-OPM	2	8	17	25	37
	TOTAL	13	28	48	58	75
CBT39	Captain	22	43	65	69	70
CBT39	Captain (P)	12	31	55	63	76
CBT39	Major	11	23	41	54	74
CBT39	Major (P)	5	29	38	48	76
CBT39	Lt Col	13	31	49	62	84
	TOTAL	13	28	47	58	75
CBT39	Regular Army	13	28	48	58	75
CBT39	ARNG	10	31	54	72	85
CBT39	USAR	8	22	40	52	70
	TOTAL	13	28	48	58	75
CBT39	Active Duty Yes	13	28	47	58	75
CBT39	Active Duty No	19	50	69	69	81
	TOTAL	13	28	47	58	75
CBT39	1-3 Years AFCS	0	38	75	88	88
CBT39	Years AFCS	18	42	64	67	70
CBT39	7-10 Years AFCS	24	41	62	65	68
CBT39	>10 Years AFCS	11	25	44	56	76
	TOTAL	13	28	47	58	75
CBT39	CAS3 Student	23	42	65	68	70
CBT39	CGSOC Student	12	24	43	54	74
CBT39	CAS3 Staff/Faculty	0	19	56	63	81

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
CBT39	CGSOC Staff/Faculty	11	31	48	65	87
CBT39	Other	0	33	50	83	83
	TOTAL	13	28	48	58	75
CBT39	Co/Btry/Trp/Det	15	41	63	70	78
CBT39	Bn/Sqdn	11	28	54	64	84
CBT39	Bde/Rgt	14	32	50	61	83
CBT39	Division	16	29	52	53	69
CBT39	Corps/EAC	14	22	37	49	69
	TOTAL	13	29	51	60	78
CBT39	JCS/JOINT/HQDA/Com	14	26	42	50	65
CBT39	MACOM	13	25	45	56	73
CBT39	School/Center	14	34	54	64	78
CBT39	Installation	11	20	41	53	72
CBT39	Other	13	31	45	58	75
	TOTAL	13	29	47	57	73
CBT40	Combat Arms	18	37	64	79	91
CBT40	Combat Support	12	32	59	71	82
CBT40	Combat Service	11	24	40	51	72
CBT40	Non-OPM	6	17	31	40	50
	TOTAL	15	32	57	70	84
CBT40	Captain	22	45	71	80	81
CBT40	Captain (P)	17	35	71	76	83
CBT40	Major	13	29	51	67	83
CBT40	Major (P)	10	24	38	62	81
CBT40	Lt Col	12	31	52	65	90
	TOTAL	15	32	57	70	83
CBT40	Regular Army	15	33	57	71	84
CBT40	ARNG	15	38	59	69	79
CBT40	USAR	12	27	51	62	76
	TOTAL	15	32	57	70	84

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
CBT40	Active Duty Yes	14	32	56	70	83
CBT40	Active Duty No	38	56	75	75	94
	TOTAL	15	32	57	70	84
CBT40	1-3 Years AFCS	0	13	63	75	75
CBT40	Years AFCS	27	58	76	79	79
CBT40	7-10 Years AFCS	20	40	66	77	80
CBT40	>10 Years AFCS	13	30	54	68	84
	TOTAL	15	32	57	70	84
CBT40	CAS3 Student	20	42	70	80	81
CBT40	CGSOC Student	15	30	55	68	82
CBT40	CAS3 Staff/Faculty	0	25	56	69	94
CBT40	CGSOC Staff/Faculty	12	33	53	70	91
CBT40	Other	0	17	50	83	83
	TOTAL	15	32	57	70	84
CBT40	Co/Btry/Trp/Det	19	37	67	76	82
CBT40	Bn/Sqdn	16	34	60	77	94
CBT40	Bde/Rgt	17	31	64	74	89
CBT40	Division	17	34	53	62	79
CBT40	Corps/EAC	13	28	52	63	82
	TOTAL	16	32	59	72	87
CBT40	JCS/JOINT/HQDA/Com	17	35	54	65	79
CBT40	MACOM	12	25	54	68	82
CBT40	School/Center	18	38	63	73	82
CBT40	Installation	9	25	44	56	75
CBT40	Other	16	35	58	72	84
	TOTAL	15	33	56	69	81
CBT41	Combat Arms	42	60	78	87	95
CBT41	Combat Support	38	58	73	83	89
CBT41	Combat Service	21	36	58	67	80

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
CBT41	Non-OPM	27	38	52	60	67
	TOTAL	36	54	72	80	90
CBT41	Captain	54	76	86	89	91
CBT41	Captain (P)	45	66	82	87	92
CBT41	Major	31	48	68	78	88
CBT41	Major (P)	29	48	67	71	90
CBT41	Lt Col	27	41	63	77	96
	TOTAL	36	54	72	80	89
CBT41	Regular Army	36	53	72	81	90
CBT41	ARNG	46	72	79	87	92
CBT41	USAR	34	51	66	78	84
	TOTAL	36	54	72	81	90
CBT41	Active Duty Yes	36	54	72	80	89
CBT41	Active Duty No	44	75	94	94	94
	TOTAL	36	54	72	81	89
CBT41	1-3 Years AFCS	50	50	88	88	88
CBT41	Years AFCS	52	73	88	88	88
CBT41	7-10 Years AFCS	51	72	82	87	89
CBT41	>10 Years AFCS	33	50	69	79	90
	TOTAL	36	54	72	80	89
CBT41	CAS3 Student	53	75	85	89	91
CBT41	CGSOC Student	34	51	70	79	88
CBT41	CAS3 Staff/Faculty	13	31	56	75	100
CBT41	CGSOC Staff/Faculty	32	47	69	79	94
CBT41	Other	0	33	67	100	100
	TOTAL	36	54	72	80	89
CBT41	Co/Btry/Trp/Det	54	70	85	90	94
CBT41	Bn/Sqdn	41	60	78	88	97
CBT41	Bde/Rgt	30	48	69	79	91

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
CBT41	Division	36	52	64	81	88
CBT41	Corps/EAC	24	43	69	77	86
	TOTAL	37	55	74	83	92
CBT41	JCS/JOINT/HQDA/Com	28	56	76	81	90
CBT41	MACOM	33	52	68	79	90
CBT41	School/Center	44	60	76	82	90
CBT41	Installation	30	41	55	61	78
CBT41	Other	29	50	72	80	86
	TOTAL	35	54	72	79	88
CBT42	Combat Arms	9	25	47	59	71
CBT42	Combat Support	24	36	53	57	68
CBT42	Combat Service	5	12	22	30	54
CBT42	Non-OPM	8	8	19	25	38
	TOTAL	10	23	41	50	65
CBT42	Captain	20	40	64	66	68
CBT42	Captain (P)	12	24	48	59	68
CBT42	Major	8	19	35	46	64
CBT42	Major (P)	5	10	19	38	62
CBT42	Lt Col	10	25	42	49	71
	TOTAL	10	23	42	51	66
CBT42	Regular Army	10	24	42	51	66
CBT42	ARNG	3	13	33	49	59
CBT42	USAR	11	22	39	48	64
	TOTAL	10	23	42	51	66
CBT42	Active Duty Yes	10	23	42	51	66
CBT42	Active Duty No	6	25	44	44	63
	TOTAL	10	23	42	51	66
CBT42	1-3 Years AFCS	0	50	63	75	75
CBT42	Years AFCS	18	30	58	61	64

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
CBT42	7-10 Years AFCS	17	36	59	62	66
CBT42	>10 Years AFCS	9	21	38	48	65
	TOTAL	10	23	42	51	66
CBT42	CAS3 Student	20	38	61	64	66
CBT42	CGSOC Student	9	20	38	48	64
CBT42	CAS3 Staff/Faculty	19	38	44	63	81
CBT42	CGSOC Staff/Faculty	7	21	40	48	69
CBT42	Other	0	17	33	50	83
	TOTAL	10	23	42	51	66
CBT42	Co/Btry/Trp/Det	15	34	57	59	66
CBT42	Bn/Sqdn	11	25	47	57	75
CBT42	Bde/Rgt	12	24	46	54	72
CBT42	Division	7	12	38	48	60
CBT42	Corps/EAC	12	23	34	47	64
	TOTAL	12	24	44	54	69
CBT42	JCS/JOINT/HQDA/Com	13	20	33	43	60
CBT42	MACOM	12	25	39	50	68
CBT42	School/Center	14	32	53	60	72
CBT42	Installation	8	23	36	44	53
CBT42	Other	5	15	35	43	57
	TOTAL	11	25	41	50	65
CBT43	Combat Arms	23	40	63	73	87
CBT43	Combat Support	21	38	54	62	73
CBT43	Combat Service	11	20	34	41	62
CBT43	Non-OPM	12	12	23	29	44
	TOTAL	19	34	53	62	77
CBT43	Captain	29	50	71	74	76
CBT43	Captain (P)	20	41	66	75	80
CBT43	Major	16	27	46	56	75
CBT43	Major (P)	14	33	38	57	76

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
CBT43	Lt Col	24	43	56	65	86
	TOTAL	19	34	53	62	77
CBT43	Regular Army	20	35	54	63	78
CBT43	ARNG	21	33	54	64	77
CBT43	USAR	12	22	45	57	70
	TOTAL	19	34	53	62	77
CBT43	Active Duty Yes	19	34	53	62	77
CBT43	Active Duty No	19	44	81	81	88
	TOTAL	19	34	53	62	77
CBT43	1-3 Years AFCS	25	25	63	88	88
CBT43	Years AFCS	18	36	67	70	73
CBT43	7-10 Years AFCS	28	49	68	72	73
CBT43	>10 Years AFCS	18	32	50	60	77
	TOTAL	19	34	53	62	77
CBT43	CAS3 Student	28	50	70	74	75
CBT43	CGSOC Student	17	29	48	58	75
CBT43	CAS3 Staff/Faculty	19	38	75	81	88
CBT43	CGSOC Staff/Faculty	21	40	55	67	87
CBT43	Other	17	50	67	83	100
	TOTAL	19	34	53	62	77
CBT43	Co/Btry/Trp/Det	24	44	68	71	77
CBT43	Bn/Sqdn	19	37	58	70	85
CBT43	Bde/Rgt	20	34	55	64	85
CBT43	Division	29	34	48	59	72
CBT43	Corps/EAC	10	22	40	50	68
	TOTAL	19	34	54	63	79
CBT43	JCS/JOINT/HQDA/Com	20	35	52	58	72
CBT43	MACOM	16	28	48	59	75
CBT43	School/Center	25	42	58	68	80

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
CBT43	Installation	16	33	48	55	72
CBT43	Other	17	31	50	61	75
	TOTAL	20	35	52	61	76
CBT44	Combat Arms	47	65	77	84	92
CBT44	Combat Support	30	48	62	69	78
CBT44	Combat Service	17	24	38	43	60
CBT44	Non-OPM	8	13	21	29	40
	TOTAL	36	51	64	70	80
CBT44	Captain	45	62	76	81	82
CBT44	Captain (P)	45	61	74	76	81
CBT44	Major	32	46	59	67	79
CBT44	Major (P)	38	43	48	57	81
CBT44	Lt Col	33	56	67	73	88
	TOTAL	36	51	64	70	80
CBT44	Regular Army	37	52	65	72	81
CBT44	ARNG	44	59	69	77	85
CBT44	USAR	24	38	49	58	71
	TOTAL	36	51	64	71	80
CBT44	Active Duty Yes	36	51	63	70	80
CBT44	Active Duty No	50	75	88	88	88
	TOTAL	36	51	64	71	80
CBT44	1-3 Years AFCS	50	75	88	88	88
CBT44	Years AFCS	48	67	79	85	85
CBT44	7-10 Years AFCS	44	60	72	77	78
CBT44	>10 Years AFCS	34	49	62	69	80
	TOTAL	36	51	64	71	80
CBT44	CAS3 Student	44	61	75	80	82
CBT44	CGSOC Student	35	48	60	67	78
CBT44	CAS3 Staff/Faculty	25	63	75	75	88

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
CBT44	CGSOC Staff/Faculty	34	55	69	76	89
CBT44	Other	33	67	67	100	100
	TOTAL	36	51	64	71	80
CBT44	Co/Btry/Trp/Det	43	61	75	78	82
CBT44	Bn/Sqdn	40	57	71	80	89
CBT44	Bde/Rgt	35	46	64	73	88
CBT44	Division	31	43	52	59	72
CBT44	Corps/EAC	24	40	52	61	74
	TOTAL	35	50	64	72	83
CBT44	JCS/JOINT/HQDA/Com	34	52	63	67	76
CBT44	MACOM	36	48	59	68	79
CBT44	School/Center	41	59	70	77	84
CBT44	Installation	22	41	52	56	69
CBT44	Other	36	55	66	71	78
	TOTAL	36	53	64	70	79
UTL45	Combat Arms	21	54	71	79	85
UTL45	Combat Support	33	59	73	79	83
UTL45	Combat Service	20	47	60	65	72
UTL45	Non-OPM	33	42	48	52	52
	TOTAL	23	53	68	74	80
UTL45	Captain	30	56	73	77	77
UTL45	Captain (P)	22	61	78	82	87
UTL45	Major	22	50	65	72	78
UTL45	Major (P)	19	38	52	62	76
UTL45	Lt Col	22	54	68	76	90
	TOTAL	23	53	68	74	80
UTL45	Regular Army	24	54	69	75	81
UTL45	ARNG	10	33	49	64	77
UTL45	USAR	26	55	73	78	80
	TOTAL	23	53	68	75	80

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
UTL45	Active Duty Yes	23	53	68	75	81
UTL45	Active Duty No	25	56	56	56	69
	TOTAL	23	53	68	74	80
UTL45	1-3 Years AFCS	0	13	50	50	50
UTL45	Years AFCS	18	52	64	70	70
UTL45	7-10 Years AFCS	28	52	70	74	76
UTL45	>10 Years AFCS	23	53	68	75	82
	TOTAL	23	53	68	75	80
UTL45	CAS3 Student	30	56	73	77	77
UTL45	CGSOC Student	21	51	66	72	79
UTL45	CAS3 Staff/Faculty	38	44	69	81	88
UTL45	CGSOC Staff/Faculty	23	59	73	81	92
UTL45	Other	33	50	67	67	67
	TOTAL	23	53	68	74	80
UTL45	Co/Btry/Trp/Det	25	52	68	76	81
UTL45	Bn/Sqdn	21	47	69	80	94
UTL45	Bde/Rgt	21	54	73	76	80
UTL45	Division	21	59	69	74	81
UTL45	Corps/EAC	26	57	70	77	82
	TOTAL	23	53	70	77	85
UTL45	JCS/JOINT/HQDA/Com	21	53	66	70	76
UTL45	MACOM	25	57	68	75	80
UTL45	School/Center	28	58	71	77	81
UTL45	Installation	25	47	66	70	77
UTL45	Other	19	48	64	71	74
	TOTAL	24	54	68	73	78
UTL46	Combat Arms	4	15	31	40	53
UTL46	Combat Support	12	31	45	54	64
UTL46	Combat Service	8	19	34	41	51

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
UTL46	Non-OPM	4	15	29	37	38
	TOTAL	6	18	34	42	53
UTL46	Captain	5	27	44	47	49
UTL46	Captain (P)	11	21	37	48	56
UTL46	Major	6	17	32	41	52
UTL46	Major (P)	0	0	10	19	48
UTL46	Lt Col	5	18	36	45	66
	TOTAL	6	19	34	42	54
UTL46	Regular Army	6	18	34	43	54
UTL46	ARNG	10	15	23	33	59
UTL46	USAR	10	27	35	42	47
	TOTAL	6	18	34	42	54
UTL46	Active Duty Yes	6	18	34	42	53
UTL46	Active Duty No	31	44	50	56	63
	TOTAL	6	19	34	42	54
UTL46	1-3 Years AFCS	38	38	38	38	38
UTL46	Years AFCS	9	36	58	61	64
UTL46	7-10 Years AFCS	6	25	42	44	46
UTL46	>10 Years AFCS	6	17	32	42	55
	TOTAL	6	19	34	42	54
UTL46	CAS3 Student	4	27	44	47	50
UTL46	CGSOC Student	7	16	31	41	51
UTL46	CAS3 Staff/Faculty	13	25	38	63	63
UTL46	CGSOC Staff/Faculty	5	20	38	45	71
UTL46	Other	17	17	33	33	50
	TOTAL	6	19	34	43	54
UTL46	Co/Btry/Trp/Det	10	19	35	41	48
UTL46	Bn/Sqdn	4	16	31	38	54
UTL46	Bde/Rgt	6	23	51	64	93

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
UTL46	Division	7	19	31	43	57
UTL46	Corps/EAC	6	18	36	41	51
	TOTAL	6	19	37	45	60
UTL46	JCS/JOINT/HQDA/Com	6	19	35	42	47
UTL46	MACOM	7	21	36	45	55
UTL46	School/Center	6	23	35	43	47
UTL46	Installation	5	13	22	33	52
UTL46	Other	13	22	36	43	54
	TOTAL	7	21	34	42	50
UTL47	Combat Arms	1	6	13	20	30
UTL47	Combat Support	9	13	18	22	27
UTL47	Combat Service	5	10	20	27	35
UTL47	Non-OPM	4	10	12	15	19
	TOTAL	3	8	15	21	30
UTL47	Captain	4	10	15	20	21
UTL47	Captain (P)	5	11	17	21	27
UTL47	Major	3	7	15	21	29
UTL47	Major (P)	10	19	29	29	52
UTL47	Lt Col	3	11	18	24	50
	TOTAL	3	9	15	21	30
UTL47	Regular Army	3	8	15	21	31
UTL47	ARNG	0	10	13	13	13
UTL47	USAR	4	11	18	24	29
	TOTAL	3	8	15	21	30
UTL47	Active Duty Yes	3	8	15	21	30
UTL47	Active Duty No	6	25	25	25	31
	TOTAL	3	8	15	21	30
UTL47	1-3 Years AFCS	0	25	25	38	38
UTL47	Years AFCS	3	15	15	15	15

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
UTL47	7-10 Years AFCS	6	11	16	22	24
UTL47	>10 Years AFCS	3	8	15	22	31
	TOTAL	3	9	15	21	30
UTL47	CAS3 Student	4	10	15	20	22
UTL47	CGSOC Student	4	8	15	20	27
UTL47	CAS3 Staff/Faculty	0	13	13	13	63
UTL47	CGSOC Staff/Faculty	2	9	19	28	48
UTL47	Other	17	17	17	17	67
	TOTAL	3	8	15	21	30
UTL47	Co/Btry/Trp/Det	3	8	19	23	25
UTL47	Bn/Sqdn	4	8	14	17	24
UTL47	Bde/Rgt	2	8	19	29	42
UTL47	Division	5	10	14	26	72
UTL47	Corps/EAC	3	11	18	23	32
	TOTAL	3	9	16	22	35
UTL47	JCS/JOINT/HQDA/Com	4	10	18	22	27
UTL47	MACOM	4	12	16	24	30
UTL47	School/Center	2	6	15	20	24
UTL47	Installation	5	11	17	27	36
UTL47	Other	7	12	18	22	25
	TOTAL	4	10	16	22	27
UTL48	Combat Arms	2	6	15	25	42
UTL48	Combat Support	8	13	24	32	41
UTL48	Combat Service	8	13	27	37	52
UTL48	Non-OPM	0	2	8	17	27
	TOTAL	4	8	19	28	43
UTL48	Captain	5	8	15	21	23
UTL48	Captain (P)	3	6	19	29	39
UTL48	Major	4	8	19	28	44
UTL48	Major (P)	14	24	24	33	52

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
UTL48	Lt Col	2	9	19	36	74
	TOTAL	4	8	19	28	43
UTL48	Regular Army	4	9	20	30	46
UTL48	ARNG	3	5	10	18	26
UTL48	USAR	1	3	10	18	28
	TOTAL	4	8	19	28	43
UTL48	Active Duty Yes	4	8	19	28	44
UTL48	Active Duty No	6	6	13	19	25
	TOTAL	4	8	19	28	43
UTL48	1-3 Years AFCS	0	0	25	38	38
UTL48	Years AFCS	3	3	12	12	12
UTL48	7-10 Years AFCS	6	10	15	23	26
UTL48	>10 Years AFCS	4	8	19	30	47
	TOTAL	4	8	19	28	43
UTL48	CAS3 Student	5	8	15	22	23
UTL48	CGSOC Student	4	8	19	28	41
UTL48	CAS3 Staff/Faculty	0	0	25	31	75
UTL48	CGSOC Staff/Faculty	4	11	21	35	69
UTL48	Other	0	0	0	0	67
	TOTAL	4	8	19	28	43
UTL48	Co/Btry/Trp/Det	5	8	14	18	28
UTL48	Bn/Sqdn	3	10	20	26	38
UTL48	Bde/Rgt	4	8	18	28	52
UTL48	Division	2	3	12	21	36
UTL48	Corps/EAC	2	7	21	30	40
	TOTAL	3	8	18	25	40
UTL48	JCS/JOINT/HQDA/Com	5	8	20	26	36
UTL48	MACOM	5	12	23	30	39
UTL48	School/Center	4	8	17	34	59

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
UTL48	Installation	9	13	25	34	50
UTL48	Other	6	8	20	24	31
	TOTAL	5	9	20	30	45
UTL49	Combat Arms	2	4	7	12	24
UTL49	Combat Support	4	5	10	16	27
UTL49	Combat Service	3	5	13	21	41
UTL49	Non-OPM	0	0	2	4	13
	TOTAL	2	4	8	14	28
UTL49	Captain	2	3	8	11	15
UTL49	Captain (P)	3	5	8	15	24
UTL49	Major	2	3	8	15	29
UTL49	Major (P)	5	10	10	10	29
UTL49	Lt Col	2	6	9	15	48
	TOTAL	2	4	8	14	28
UTL49	Regular Army	2	4	8	14	28
UTL49	ARNG	3	10	15	18	26
UTL49	USAR	2	3	8	11	22
	TOTAL	2	4	8	14	28
UTL49	Active Duty Yes	2	4	8	14	28
UTL49	Active Duty No	6	6	6	13	13
	TOTAL	2	4	8	14	28
UTL49	1-3 Years AFCS	0	0	0	25	25
UTL49	Years AFCS	0	0	12	15	15
UTL49	7-10 Years AFCS	3	4	7	11	14
UTL49	>10 Years AFCS	2	4	8	14	30
	TOTAL	2	4	8	14	28
UTL49	CAS3 Student	3	4	8	11	13
UTL49	CGSOC Student	2	3	8	14	27
UTL49	CAS3 Staff/Faculty	0	6	6	19	69

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
UTL49	CGSOC Staff/Faculty	3	5	11	17	40
UTL49	Other	0	0	0	17	33
	TOTAL	2	4	8	14	28
UTL49	Co/Btry/Trp/Det	3	4	5	14	19
UTL49	Bn/Sqdn	4	6	9	13	21
UTL49	Bde/Rgt	4	7	10	11	22
UTL49	Division	0	0	2	10	14
UTL49	Corps/EAC	2	4	13	21	50
	TOTAL	3	5	9	14	26
UTL49	JCS/JOINT/HQDA/Com	1	3	9	15	24
UTL49	MACOM	4	5	12	25	64
UTL49	School/Center		2	6	11	15
UTL49	Installation	3	5	11	13	19
UTL49	Other	4	7	10	13	18
	TOTAL	2	4	9	16	29
UTL50	Combat Arms	1	1	3	5	12
UTL50	Combat Support	1	3	4	8	15
UTL50	Combat Service	1	3	5	9	20
UTL50	Non-OPM	0	0	4	8	19
	TOTAL	1	2	3	6	15
UTL50	Captain	1	2	3	4	6
UTL50	Captain (P)	3	3	6	13	24
UTL50	Major	1	1	3	6	16
UTL50	Major (P)	5	10	10	10	10
UTL50	Lt Col	1	1	3	5	15
	TOTAL	1	2	3	7	15
UTL50	Regular Army	1	2	3	7	16
UTL50	ARNG	0	0	3	5	10
UTL50	USAR	2	3	4	4	10
	TOTAL	1	2	3	7	15

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
UTL50	Active Duty Yes	1	2	3	7	15
UTL50	Active Duty No	6	6	6	6	6
	TOTAL	1	2	3	7	15
UTL50	1-3 Years AFCS	0	0	0	25	25
UTL50	Years AFCS	3	3	3	3	3
UTL50	7-10 Years AFCS	2	3	4	6	8
UTL50	>10 Years AFCS	1	1	3	7	16
	TOTAL	1	2	3	7	15
UTL50	CAS3 Student	2	3	3	4	6
UTL50	CGSOC Student	1	2	4	8	18
UTL50	CAS3 Staff/Faculty	0	0	0	13	13
UTL50	CGSOC Staff/Faculty	1	1	2	3	9
UTL50	Other	0	0	0	0	0
	TOTAL	1	2	3	7	15
UTL50	Co/Btry/Trp/Det	1	1	3	9	16
UTL50	Bn/Sqdn	2	2	2	3	5
UTL50	Bde/Rgt	3	4	5	5	7
UTL50	Division	0	3	5	5	7
UTL50	Corps/EAC	0	0	3	12	28
	TOTAL	1	2	3	6	12
UTL50	JCS/JOINT/HQDA/Com	2	3	8	16	56
UTL50	MACOM	2	4	4	8	11
UTL50	School/Center		1	1	4	7
UTL50	Installation	0	0	3	5	9
UTL50	Other	3	3	4	6	11
	TOTAL	2	2	4	8	19
UTL51	Combat Arms	1	2	5	7	14
UTL51	Combat Support	3	4	8	10	22
UTL51	Combat Service	1	1	3	6	12

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
UTL51	Non-OPM	2	4	4	4	6
	TOTAL	1	2	5	7	14
UTL51	Captain	3	6	7	9	12
UTL51	Captain (P)	3	3	7	11	16
UTL51	Major		1	4	6	14
UTL51	Major (P)	5	5	5	5	14
UTL51	Lt Col	1	3	6	9	21
	TOTAL	1	2	5	7	14
UTL51	Regular Army	1	3	5	8	15
UTL51	ARNG	0	0	13	13	15
UTL51	USAR	0	0	0	1	6
	TOTAL	1	2	5	7	14
UTL51	Active Duty Yes	1	2	5	7	14
UTL51	Active Duty No	0	13	19	19	19
	TOTAL	1	2	5	7	15
UTL51	1-3 Years AFCS	0	0	0	25	25
UTL51	Years AFCS	0	3	6	6	6
UTL51	7-10 Years AFCS	3	6	8	10	13
UTL51	>10 Years AFCS	1	2	4	7	15
	TOTAL	1	2	5	7	15
UTL51	CAS3 Student	3	6	8	9	11
UTL51	CGSOC Student	1	2	4	7	15
UTL51	CAS3 Staff/Faculty	0	6	6	31	50
UTL51	CGSOC Staff/Faculty	1	1	4	5	13
UTL51	Other	0	0	0	0	17
	TOTAL	1	2	5	7	14
UTL51	Co/Btry/Trp/Det	1	3	6	11	13
UTL51	Bn/Sqdn	2	5	8	9	13
UTL51	Bde/Rgt	3	4	5	5	7

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
UTL51	Division	2	3	5	7	9
UTL51	Corps/EAC	1	3	6	11	30
	TOTAL	2	4	6	9	15
UTL51	JCS/JOINT/HQDA/Com	1	3	8	14	40
UTL51	MACOM	3	4	6	7	12
UTL51	School/Center	1	2	3	4	6
UTL51	Installation	2	3	6	8	16
UTL51	Other	2	2	3	6	14
	TOTAL	2	3	5	7	16
CMD52	Combat Arms	4	26	70	86	93
CMD52	Combat Support	2	23	57	76	86
CMD52	Combat Service	3	30	60	75	80
CMD52	Non-OPM	2	19	33	40	42
	TOTAL	4	26	64	80	86
CMD52	Captain	1	14	39	56	59
CMD52	Captain (P)	1	28	81	89	97
CMD52	Major	4	27	65	83	91
CMD52	Major (P)	10	43	71	76	81
CMD52	Lt Col	7	34	77	88	92
	TOTAL	4	26	64	80	86
CMD52	Regular Army	3	26	66	83	88
CMD52	ARNG	8	36	56	64	85
CMD52	USAR	6	21	51	62	67
	TOTAL	4	26	64	80	86
CMD52	Active Duty Yes	3	26	64	80	86
CMD52	Active Duty No	13	31	81	88	88
	TOTAL	4	26	64	80	86
CMD52	1-3 Years AFCS	0	25	63	63	75
CMD52	Years AFCS	6	15	27	33	36

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
CMD52	7-10 Years AFCS	1	16	44	63	67
CMD52	>10 Years AFCS	4	28	69	85	92
	TOTAL	4	26	64	80	86
CMD52	CAS3 Student	1	13	39	56	60
CMD52	CGSOC Student	3	27	66	83	90
CMD52	CAS3 Staff/Faculty	13	56	75	88	100
CMD52	CGSOC Staff/Faculty	6	34	79	91	95
CMD52	Other	17	17	67	83	83
	TOTAL	4	26	64	80	86
CMD52	Co/Btry/Trp/Det	3	20	52	78	94
CMD52	Bn/Sqdn	3	28	61	75	83
CMD52	Bde/Rgt	4	22	68	78	83
CMD52	Division	5	33	64	71	79
CMD52	Corps/EAC	5	32	63	84	87
	TOTAL	4	27	62	78	85
CMD52	JCS/JOINT/HQDA/Com	5	27	67	80	88
CMD52	MACOM	4	28	64	82	88
CMD52	School/Center	3	24	65	80	84
CMD52	Installation	2	22	59	72	78
CMD52	Other	4	25	69	82	88
	TOTAL	4	26	65	80	86
FGR53	Combat Arms	1	6	15	29	62
FGR53	Combat Support	3	13	26	39	66
FGR53	Combat Service	1	5	21	38	77
FGR53	Non-OPM	0	8	21	29	46
	TOTAL	1	7	18	33	65
FGR53	Captain	1	7	22	28	31
FGR53	Captain (P)	0	7	19	40	52
FGR53	Major	2	7	18	33	71
FGR53	Major (P)	0	5	14	29	86

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
FGR53	Lt Col	3	9	17	35	93
	TOTAL	1	7	18	33	65
FGR53	Regular Army	1	7	18	34	67
FGR53	ARNG	0	8	21	41	69
FGR53	USAR	2	9	17	24	47
	TOTAL	1	7	18	33	65
FGR53	Active Duty Yes	1	7	18	33	65
FGR53	Active Duty No	6	19	31	38	56
	TOTAL	1	7	18	33	65
FGR53	1-3 Years AFCS	0	0	25	25	38
FGR53	Years AFCS	3	9	21	24	30
FGR53	7-10 Years AFCS	1	6	23	31	36
FGR53	>10 Years AFCS	1	7	17	34	72
	TOTAL	1	7	18	33	65
FGR53	CAS3 Student	1	6	22	28	32
FGR53	CGSOC Student	1	8	18	34	65
FGR53	CAS3 Staff/Faculty	0	0	31	44	100
FGR53	CGSOC Staff/Faculty	2	8	15	33	96
FGR53	Other	17	17	17	17	83
	TOTAL	1	7	18	33	65
FGR53	Co/Btry/Trp/Det	3	8	20	30	51
FGR53	Bn/Sqdn	1	5	14	26	74
FGR53	Bde/Rgt	3	7	18	32	78
FGR53	Division	3	10	14	28	72
FGR53	Corps/EAC	0	6	22	37	72
	TOTAL	2	6	17	30	71
FGR53	JCS/JOINT/HQDA/Com	1	7	25	39	63
FGR53	MACOM	2	6	17	35	72
FGR53	School/Center	2	9	19	35	54

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
FGR53	Installation	0	6	11	30	64
FGR53	Other	3	13	21	38	61
	TOTAL	2	8	19	36	62
SCL54	Combat Arms	2	43	85	95	98
SCL54	Combat Support	1	39	86	96	97
SCL54	Combat Service	0	39	85	96	98
SCL54	Non-OPM	6	25	77	96	98
	TOTAL	1	41	85	95	98
SCL54	Captain	4	33	86	96	97
SCL54	Captain (P)	1	45	87	99	99
SCL54	Major	1	43	84	94	97
SCL54	Major (P)	5	33	90	100	100
SCL54	Lt Col	0	32	79	95	98
	TOTAL	1	41	84	95	98
SCL54	Regular Army	1	42	86	96	98
SCL54	ARNG	3	31	67	87	97
SCL54	USAR	4	33	82	94	98
	TOTAL	1	41	85	95	98
SCL54	Active Duty Yes	1	41	84	95	98
SCL54	Active Duty No	0	31	94	94	100
	TOTAL	1	41	84	95	98
SCL54	1-3 Years AFCS	0	50	88	88	100
SCL54	Years AFCS	6	42	88	97	100
SCL54	7-10 Years AFCS	3	33	83	95	96
SCL54	>10 Years AFCS	1	42	85	95	98
	TOTAL	1	41	84	95	98
SCL54	CAS3 Student	3	32	85	96	97
SCL54	CGSOC Student	1	43	85	95	98
SCL54	CAS3 Staff/Faculty	0	19	81	94	100

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
SCL54	CGSOC Staff/Faculty	1	42	83	95	97
SCL54	Other	0	67	67	83	100
	TOTAL	1	41	85	95	98
SCL54	Co/Btry/Trp/Det	4	34	85	92	97
SCL54	Bn/Sqdn	1	41	89	96	97
SCL54	Bde/Rgt	2	45	86	95	98
SCL54	Division	3	45	67	90	95
SCL54	Corps/EAC	0	44	88	97	97
	TOTAL	2	42	85	95	97
SCL54	JCS/JOINT/HQDA/Com	1	42	81	94	98
SCL54	MACOM	1	38	85	95	96
SCL54	School/Center	1	41	84	95	97
SCL54	Installation	5	36	81	91	95
SCL54	Other	0	42	88	99	100
	TOTAL	1	40	84	95	97
SCL55	Combat Arms	1	3	18	56	76
SCL55	Combat Support	0	3	14	68	87
SCL55	Combat Service	0		15	56	72
SCL55	Non-OPM	2	10	31	60	77
	TOTAL		3	18	58	77
SCL55	Captain	2	6	24	65	92
SCL55	Captain (P)	0	7	26	81	98
SCL55	Major		2	16	60	79
SCL55	Major (P)	0	0	14	38	48
SCL55	Lt Col	1	1	6	12	13
	TOTAL		3	18	58	76
SCL55	Regular Army		3	18	59	76
SCL55	ARNG	0	3	10	33	62
SCL55	USAR	1	4	17	60	83
	TOTAL		3	18	58	77

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
SCL55	Active Duty Yes	1	3	18	58	77
SCL55	Active Duty No	0	0	0	19	38
	TOTAL		3	18	58	76
SCL55	1-3 Years AFCS	0	38	38	63	75
SCL55	Years AFCS	0	9	70	79	88
SCL55	7-10 Years AFCS	2	6	14	63	91
SCL55	>10 Years AFCS		2	16	56	74
	TOTAL		3	18	58	76
SCL55	CAS3 Student	2	4	23	65	93
SCL55	CGSOC Student		3	18	65	84
SCL55	CAS3 Staff/Faculty	0	13	13	13	13
SCL55	CGSOC Staff/Faculty	1	2	10	26	34
SCL55	Other	0	17	17	33	50
	TOTAL		3	18	58	77
SCL55	Co/Btry/Trp/Det	1	8	22	63	84
SCL55	Bn/Sqdn	1	3	16	54	69
SCL55	Bde/Rgt	1	4	17	50	67
SCL55	Division	2	5	16	45	67
SCL55	Corps/EAC	0	1	18	65	74
	TOTAL	1	3	17	56	72
SCL55	JCS/JOINT/HQDA/Com	0	1	13	56	77
SCL55	MACOM	1	4	19	59	77
SCL55	School/Center		4	22	64	85
SCL55	Installation	2	5	16	61	80
SCL55	Other	1	3	22	66	82
	TOTAL	1	3	19	61	81
SCL56	Combat Arms	1	2	3	12	34
SCL56	Combat Support	1	1	4	14	36
SCL56	Combat Service		1	3	18	47

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
SCL56	Non-OPM	0	0	8	27	50
	TOTAL	1	1	3	15	38
SCL56	Captain	1	2	3	7	8
SCL56	Captain (P)	0	0	3	12	27
SCL56	Major		1	4	16	44
SCL56	Major (P)	0	0	10	38	67
SCL56	Lt Col	1	1	2	19	55
	TOTAL	1	1	3	15	38
SCL56	Regular Army	1	1	4	16	39
SCL56	ARNG	0	0	0	8	23
SCL56	USAR	1	2	3	9	30
	TOTAL	1	1	3	15	38
SCL56	Active Duty Yes	1	1	3	15	38
SCL56	Active Duty No	0	0	0	0	44
	TOTAL	1	1	3	15	38
SCL56	1-3 Years AFCS	0	0	0	38	38
SCL56	Years AFCS	0	0	3	6	18
SCL56	7-10 Years AFCS	1	3	4	9	10
SCL56	>10 Years AFCS		1	3	16	43
	TOTAL	1	1	3	15	38
SCL56	CAS3 Student	1	3	3	6	7
SCL56	CGSOC Student		1	3	16	40
SCL56	CAS3 Staff/Faculty	0	0	0	19	75
SCL56	CGSOC Staff/Faculty	1	1	3	19	55
SCL56	Other	17	17	17	17	67
	TOTAL	1	1	3	15	38
SCL56	Co/Btry/Trp/Det	1	3	4	15	23
SCL56	Bn/Sqdn	1	1	3	17	39
SCL56	Bde/Rgt	1	3	4	13	32

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
SCL56	Division	0	2	2	12	48
SCL56	Corps/EAC	0	1	2	17	42
	TOTAL	1	2	3	15	37
SCL56	JCS/JOINT/HQDA/Com	1	2	6	9	27
SCL56	MACOM	1	2	4	22	47
SCL56	School/Center	0		3	11	27
SCL56	Installation	0	2	3	17	36
SCL56	Other	2	2	2	17	49
	TOTAL	1	2	4	15	36
SCL57	Combat Arms	2	2	2	4	77
SCL57	Combat Support	1	2	2	3	75
SCL57	Combat Service	1	1	1	1	75
SCL57	Non-OPM	0	0	2	10	60
	TOTAL	1	1	2	4	75
SCL57	Captain	1	1	2	4	6
SCL57	Captain (P)	0	1	1	6	92
SCL57	Major	2	2	2	4	90
SCL57	Major (P)	5	5	5	5	81
SCL57	Lt Col	0	0	0	2	73
	TOTAL	1	1	2	4	75
SCL57	Regular Army	1	1	1	3	77
SCL57	ARNG	10	10	13	21	74
SCL57	USAR	1	1	2	4	62
	TOTAL	1	1	2	4	75
SCL57	Active Duty Yes	1	1	2	4	75
SCL57	Active Duty No	6	6	6	13	69
	TOTAL	1	1	2	4	75
SCL57	1-3 Years AFCS	0	0	13	50	88
SCL57	Years AFCS	0	0	3	3	18

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
SCL57	7-10 Years AFCS	2	2	3	6	15
SCL57	>10 Years AFCS	1	1	1	3	88
	TOTAL	1	1	2	4	75
SCL57	CAS3 Student	1	1	1	1	1
SCL57	CGSOC Student	2	2	2	5	95
SCL57	CAS3 Staff/Faculty	0	0	0	13	69
SCL57	CGSOC Staff/Faculty	0	0	0	3	63
SCL57	Other	0	0	0	0	33
	TOTAL	1	1	2	4	75
SCL57	Co/Btry/Trp/Det	1	1	3	8	54
SCL57	Bn/Sqdn	0	0	1	2	63
SCL57	Bde/Rgt	2	2	2	5	72
SCL57	Division	2	2	2	2	72
SCL57	Corps/EAC	1	1	1	1	78
	TOTAL	1	1	1	3	68
SCL57	JCS/JOINT/HQDA/Com	2	2	2	3	83
SCL57	MACOM	1	1	2	5	72
SCL57	School/Center	1	1	1	4	77
SCL57	Installation	2	2	2	5	67
SCL57	Other	2	2	3	6	86
	TOTAL	1	1	2	4	77
SCL58	Combat Arms		4	4	4	6
SCL58	Combat Support	1	1	1	1	3
SCL58	Combat Service		2	2	3	3
SCL58	Non-OPM	0	0	0	2	2
	TOTAL		3	3	3	4
SCL58	Captain	1	2	3	3	4
SCL58	Captain (P)	0	3	3	5	5
SCL58	Major		3	3	4	5
SCL58	Major (P)	0	10	10	10	10

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8-> 95%
SCL58	Lt Col	1	1	1	1	2
	TOTAL		3	3	4	5
SCL58	Regular Army		3	3	4	5
SCL58	ARNG	0	0	0	5	8
SCL58	USAR	0	0	0	1	1
	TOTAL		3	3	4	5
SCL58	Active Duty Yes		3	3	4	4
SCL58	Active Duty No	0	0	0	6	19
	TOTAL		3	3	4	5
SCL58	1-3 Years AFCS	0	0	0	25	25
SCL58	Years AFCS	0	0	0	3	6
SCL58	7-10 Years AFCS	1	2	3	3	3
SCL58	>10 Years AFCS		3	3	4	5
	TOTAL		3	3	4	5
SCL58	CAS3 Student	1	2	3	3	3
SCL58	CGSOC Student		4	4	4	5
SCL58	CAS3 Staff/Faculty	0	0	0	13	13
SCL58	CGSOC Staff/Faculty	1	1	1	1	2
SCL58	Other	0	0	0	0	0
	TOTAL		3	3	4	5
SCL58	Co/Btry/Trp/Det	0	3	3	6	9
SCL58	Bn/Sqdn	1	3	3	3	4
SCL58	Bde/Rgt	1	2	3	4	7
SCL58	Division	0	2	2	2	2
SCL58	Corps/EAC	0	3	3	3	3
	TOTAL		3	3	4	5
SCL58	JCS/JOINT/HQDA/Com	1	4	5	6	6
SCL58	MACOM	1	6	6	7	9
SCL58	School/Center	0	3	3	3	4

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
SCL58	Installation	0	2	2	3	5
SCL58	Other	1	4	4	4	4
	TOTAL	1	4	4	5	6
BNC59	Combat Arms	3	90	90	90	90
BNC59	Combat Support	4	93	93	93	93
BNC59	Combat Service	5	92	92	92	92
BNC59	Non-OPM	0	90	90	90	90
	TOTAL	4	91	91	91	91
BNC59	Captain	2	75	75	75	75
BNC59	Captain (P)	1	89	89	92	92
BNC59	Major	2	93	93	93	93
BNC59	Major (P)	5	90	90	90	90
BNC59	Lt Col	15	97	97	97	97
	TOTAL	3	90	90	90	90
BNC59	Regular Army	4	90	90	91	91
BNC59	ARNG	3	90	90	90	90
BNC59	USAR	1	90	90	90	90
	TOTAL	3	90	90	91	91
BNC59	Active Duty Yes	3	90	90	90	90
BNC59	Active Duty No	13	94	94	94	94
	TOTAL	4	90	90	90	90
BNC59	1-3 Years AFCS	0	75	75	100	100
BNC59	Years AFCS	3	76	76	76	76
BNC59	7-10 Years AFCS	3	74	74	74	74
BNC59	>10 Years AFCS	4	94	94	94	94
	TOTAL	4	90	90	90	90
BNC59	CAS3 Student	3	73	73	73	73
BNC59	CGSOC Student	2	93	93	93	93
BNC59	CAS3 Staff/Faculty	56	88	88	100	100

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
BNC59	CGSOC Staff/Faculty	5	95	95	95	95
BNC59	Other	17	100	100	100	100
	TOTAL	4	90	90	90	90
BNC59	Co/Btry/Trp/Det	3	84	84	86	86
BNC59	Bn/Sqdn	9	92	92	92	92
BNC59	Bde/Rgt	3	91	91	92	92
BNC59	Division	3	90	90	90	90
BNC59	Corps/EAC	3	94	94	94	94
	TOTAL	5	91	91	91	91
BNC59	JCS/JOINT/HQDA/Com	2	92	92	92	92
BNC59	MACOM	6	92	92	93	93
BNC59	School/Center	1	86	86	86	86
BNC59	Installation	0	89	89	91	91
BNC59	Other	4	92	92	92	92
	TOTAL	3	90	90	90	90
OPN60	Combat Arms	60	86	93	97	97
OPN60	Combat Support	58	90	96	100	100
OPN60	Combat Service	53	87	93	96	96
OPN60	Non-OPM	50	92	94	96	96
	TOTAL	58	87	94	97	98
OPN60	Captain	60	86	94	97	97
OPN60	Captain (P)	61	87	92	98	98
OPN60	Major	56	87	93	97	97
OPN60	Major (P)	71	90	90	95	95
OPN60	Lt Col	51	89	96	99	99
	TOTAL	57	87	93	97	97
OPN60	Regular Army	57	87	94	98	98
OPN60	ARNG	49	82	90	92	92
OPN60	USAR	63	94	97	97	97
	TOTAL	58	87	94	98	98

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
OPN60	Active Duty Yes	58	88	94	98	98
OPN60	Active Duty No	44	69	75	81	81
	TOTAL	57	87	93	97	97
OPN60	1-3 Years AFCS	50	100	100	100	100
OPN60	Years AFCS	58	76	94	94	94
OPN60	7-10 Years AFCS	58	85	90	94	94
OPN60	>10 Years AFCS	57	88	94	98	98
	TOTAL	57	87	93	97	97
OPN60	CAS3 Student	59	86	94	97	97
OPN60	CGSOC Student	58	87	93	97	97
OPN60	CAS3 Staff/Faculty	44	100	100	100	100
OPN60	CGSOC Staff/Faculty	56	87	95	99	99
OPN60	Other	67	100	100	100	100
	TOTAL	57	87	94	97	98
OPN60	Co/Btry/Trp/Det	63	87	91	95	95
OPN60	Bn/Sqdn	57	86	96	99	99
OPN60	Bde/Rgt	60	87	96	98	98
OPN60	Division	57	91	93	95	95
OPN60	Corps/EAC	57	90	97	100	100
	TOTAL	59	88	95	98	98
OPN60	JCS/JOINT/HQDA/Com	56	89	93	96	97
OPN60	MACOM	62	89	94	97	97
OPN60	School/Center	59	83	91	98	98
OPN60	Installation	66	88	94	95	95
OPN60	Other	50	83	92	99	99
	TOTAL	58	86	93	97	97
OPN61	Combat Arms	57	81	91	96	97
OPN61	Combat Support	51	74	89	95	95
OPN61	Combat Service	51	80	92	97	97

	Answers -> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
OPN61	Non-OPM	56	81	92	94	94
	TOTAL	55	79	91	96	96
OPN61	Captain	62	83	91	96	96
OPN61	Captain (P)	65	87	96	99	99
OPN61	Major	52	78	91	95	95
OPN61	Major (P)	62	81	90	100	100
OPN61	Lt Col	45	71	82	96	96
	TOTAL	55	80	91	96	96
OPN61	Regular Army	56	81	91	97	97
OPN61	ARNG	18	54	82	90	90
OPN61	USAR	55	79	92	94	94
	TOTAL	55	80	91	96	96
OPN61	Active Duty Yes	55	80	91	96	97
OPN61	Active Duty No	25	56	69	75	75
	TOTAL	54	79	91	96	96
OPN61	1-3 Years AFCS	13	88	100	100	100
OPN61	Years AFCS	64	85	94	94	94
OPN61	7-10 Years AFCS	60	79	88	92	93
OPN61	>10 Years AFCS	54	79	91	97	97
	TOTAL	54	79	91	96	96
OPN61	CAS3 Student	65	84	92	96	97
OPN61	CGSOC Student	54	80	91	96	96
OPN61	CAS3 Staff/Faculty	38	94	94	100	100
OPN61	CGSOC Staff/Faculty	50	72	85	96	96
OPN61	Other	33	67	100	100	100
	TOTAL	54	79	91	96	96
OPN61	Co/Btry/Trp/Det	56	84	95	96	97
OPN61	Bn/Sqdn	54	79	94	97	97
OPN61	Bde/Rgt	63	84	93	98	98

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
OPN61	Division	48	74	90	97	97
OPN61	Corps/EAC	53	80	90	97	97
	TOTAL	55	81	92	97	97
OPN61	JCS/JOINT/HQDA/Com	53	83	91	96	96
OPN61	MACOM	53	80	90	96	96
OPN61	School/Center	55	77	90	96	96
OPN61	Installation	56	80	88	91	91
OPN61	Other	55	76	85	95	95
	TOTAL	54	79	89	95	96
OPN62	Combat Arms	17	45	67	84	94
OPN62	Combat Support	13	38	60	80	95
OPN62	Combat Service	16	42	64	80	95
OPN62	Non-OPM	27	38	54	69	87
	TOTAL	17	43	64	82	94
OPN62	Captain	15	41	68	81	98
OPN62	Captain (P)	22	45	70	92	100
OPN62	Major	17	43	61	80	93
OPN62	Major (P)	19	62	76	81	86
OPN62	Lt Col	11	38	70	81	88
	TOTAL	17	43	65	82	94
OPN62	Regular Army	17	43	65	82	95
OPN62	ARNG	8	38	49	74	85
OPN62	USAR	20	43	65	79	90
	TOTAL	17	43	65	82	94
OPN62	Active Duty Yes	17	43	64	82	94
OPN62	Active Duty No	19	56	75	81	81
	TOTAL	17	43	65	82	94
OPN62	1-3 Years AFCS	25	50	50	75	88
OPN62	Years AFCS	12	42	67	79	94

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a	b	c	d	e
		0-2 <1%	2-4 8%	4-6 17%	6-8 56%	8> 95%
OPN62	7-10 Years AFCS	18	42	65	80	97
OPN62	>10 Years AFCS	17	43	64	82	94
	TOTAL	17	43	65	82	94
OPN62	CAS3 Student	16	42	68	82	99
OPN62	CGSOC Student	18	43	62	81	94
OPN62	CAS3 Staff/Faculty	13	44	69	94	100
OPN62	CGSOC Staff/Faculty	11	45	73	85	91
OPN62	Other	0	17	50	50	50
	TOTAL	17	43	65	82	94
OPN62	Co/Btry/Trp/Det	24	53	72	90	97
OPN62	Bn/Sqdn	17	52	70	86	97
OPN62	Bde/Rgt	16	48	69	83	97
OPN62	Division	24	47	76	81	97
OPN62	Corps/EAC	16	35	57	78	93
	TOTAL	18	47	68	84	96
OPN62	JCS/JOINT/HQDA/Com	16	42	65	81	93
OPN62	MACOM	10	38	58	75	93
OPN62	School/Center	18	40	64	80	95
OPN62	Installation	17	42	58	78	91
OPN62	Other	21	41	58	84	92
	TOTAL	16	40	61	80	93
OPN63	Combat Arms	7	41	84	96	96
OPN63	Combat Support	6	45	82	98	98
OPN63	Combat Service	7	40	75	96	96
OPN63	Non-OPM	6	44	75	94	94
	TOTAL	7	41	81	96	96
OPN63	Captain	10	48	83	98	98
OPN63	Captain (P)	6	44	87	98	99
OPN63	Major	7	40	81	95	95
OPN63	Major (P)	0	33	81	90	90

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
OPN63	Lt Col	6	34	79	98	98
	TOTAL	7	41	82	96	96
OPN63	Regular Army	7	42	81	97	97
OPN63	ARNG	10	26	85	87	87
OPN63	USAR	10	43	81	98	98
	TOTAL	7	41	82	96	96
OPN63	Active Duty Yes	7	41	81	96	97
OPN63	Active Duty No	6	38	88	88	88
	TOTAL	7	41	81	96	96
OPN63	1-3 Years AFCS	38	75	88	88	88
OPN63	Years AFCS	9	45	79	97	97
OPN63	7-10 Years AFCS	8	44	83	97	97
OPN63	>10 Years AFCS	7	40	82	96	97
	TOTAL	7	41	82	96	96
OPN63	CAS3 Student	9	49	82	98	98
OPN63	CGSOC Student	7	41	82	96	96
OPN63	CAS3 Staff/Faculty	31	56	94	100	100
OPN63	CGSOC Staff/Faculty	5	35	77	96	96
OPN63	Other	0	0	67	100	100
	TOTAL	7	41	82	96	96
OPN63	Co/Btry/Trp/Det	8	47	85	99	99
OPN63	Bn/Sqdn	7	43	83	97	97
OPN63	Bde/Rgt	6	40	82	99	99
OPN63	Division	7	29	84	95	95
OPN63	Corps/EAC	10	47	77	96	97
	TOTAL	7	42	82	97	97
OPN63	JCS/JOINT/HQDA/Com	5	36	74	96	97
OPN63	MACOM	6	46	81	96	96
OPN63	School/Center	6	43	84	96	96

	Answers--> or Year Ranges --> CAS3-Trained Population (%)	a 0-2 <1%	b 2-4 8%	c 4-6 17%	d 6-8 56%	e 8> 95%
OPN63	Installation	14	50	88	97	97
OPN63	Other	8	46	82	98	98
	TOTAL	7	43	81	96	96

BIBLIOGRAPHY

BOOKS

Backstrom, Charles H. and Hursh, Gerald D. *Survey Research*, Minneapolis: Northwestern University Press, 1963.

_____ *dBase Stats*, Torrance, CA: Tate Publishing, Ashton-Tate Corporation, 1989.

Issac, Stephen and Michael, William B. *Handbook in Research and Evaluation*, San Diego: Edits Publishers, 1971.

GOVERNMENT PUBLICATIONS

U.S. Army. *AR 351-1, Individual Military Education and Training*. Washington: Department of the Army, 15 October 1987, w/change 1 dtd 27 February 1992.

U.S. Army. *CGSC Circular 351-1, Command and General Staff College Catalog*. Fort Leavenworth: U.S. Army Command and General Staff College, July 1992.

PERIODICALS

Snow, Joe LTC So. *You Want to Be a CAS³ Student*, Fort Bliss: Air Defense Artillery Magazine Summer 1985.

Forman, Robert H. LTG *Small Group Instruction Beyond CAS³*, Fort Leavenworth: Military Review, October 1988.

ORIGINAL MANUSCRIPTS

Babbitt, Bettina A. and Nystrom, Charles O. *Training and Human Factors Research on Military Systems*. Fort Hood: Army Research Institute for the Behavioral and Social Sciences, January 1985.

Clark, Lawrence P. *Introduction to Surveys and Interviews*, Croton-on-Hudson, New York: The Maxwell School University, 1976.

Ekwall, Ralph *Constructing a Cube: A History of the Combined Arms and Services Staff School*, Fort Leavenworth: Combined Arms and Services Staff School. Unpublished draft, magnetic media, November 1992.

_____ *External Assessment of Combined Arms and Services Staff School (CAS³)*, Fort Leavenworth: Office of Evaluation and Standardization, Department of Academic Operations, U.S. Army Command and General Staff College, February 1987.

_____ *External Evaluation of the Combined Arms and Services Staff School (CAS³)*, Fort Leavenworth: Office of Evaluation and Standardization, Department of Academic Operations, U.S. Army Command and General Staff College, May 1990.

_____ *Final Report of the OAC/CAS³ Linkage Study*. Fort Leavenworth: Combined Arms Command, U.S. Army Command and General Staff College, 22 March 1991.

_____ *Final Report RC Officer Education*. Fort Leavenworth: Task Force for the Review of Reserve Component Officer Education. U.S. Army Command and General Staff College, 29 November 1989.

Boyce, Reynold J. "CAS³ Survey Senior Leadership Response". FT Carson: AFZC-CC, 10 March 1993.

Jones, George B. *CAS³ Review and Recommendations*, U.S. Army Command and General Staff College, June 1981.

Kelly, Charles G., Colonel CM. "Design of Post Cold War CAS³". Fort McClellan: US Army Chemical School, 10 March 1993.

Matthews, John E. LTC "Senior Leadership Assessment [Fort Hood Trip Report]". FT Leavenworth: Combined Arms Command, U.S. Army Command and General Staff College, 5 March 1991.

Miller, Larry L. MAJ and Roach, Paul W. MAJ *CAS³ and CGSC: A Comparison*. Fort Leavenworth: Director of Academic Operations (DAO), May 1982.

_____ *Post Cold War CAS³*. Fort Leavenworth: Combined Arms Services Staff School, draft edition of briefing slides as of 15 April 1993.

_____ *Study for the Comparison of The Combined Arms and Services Staff School (CAS³) and The Command and General Staff Officer Course (CGSOC)*, Fort Leavenworth: Evaluation and Standardization Division, Directorate of Academic Operations, U.S. Army Command and General Staff College, 21 May 1991.

Robertson, Phyllis D. "Post Cold War Combined Army & Services Staff School". Fort Sill: US Army Field Artillery School, 9 March 1993.

White, Jerry A., Major General (Signature Block not Signed). "CAS³ Redesign" (DRAFT), Fort Benning: US Army Infantry School, not dated.

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