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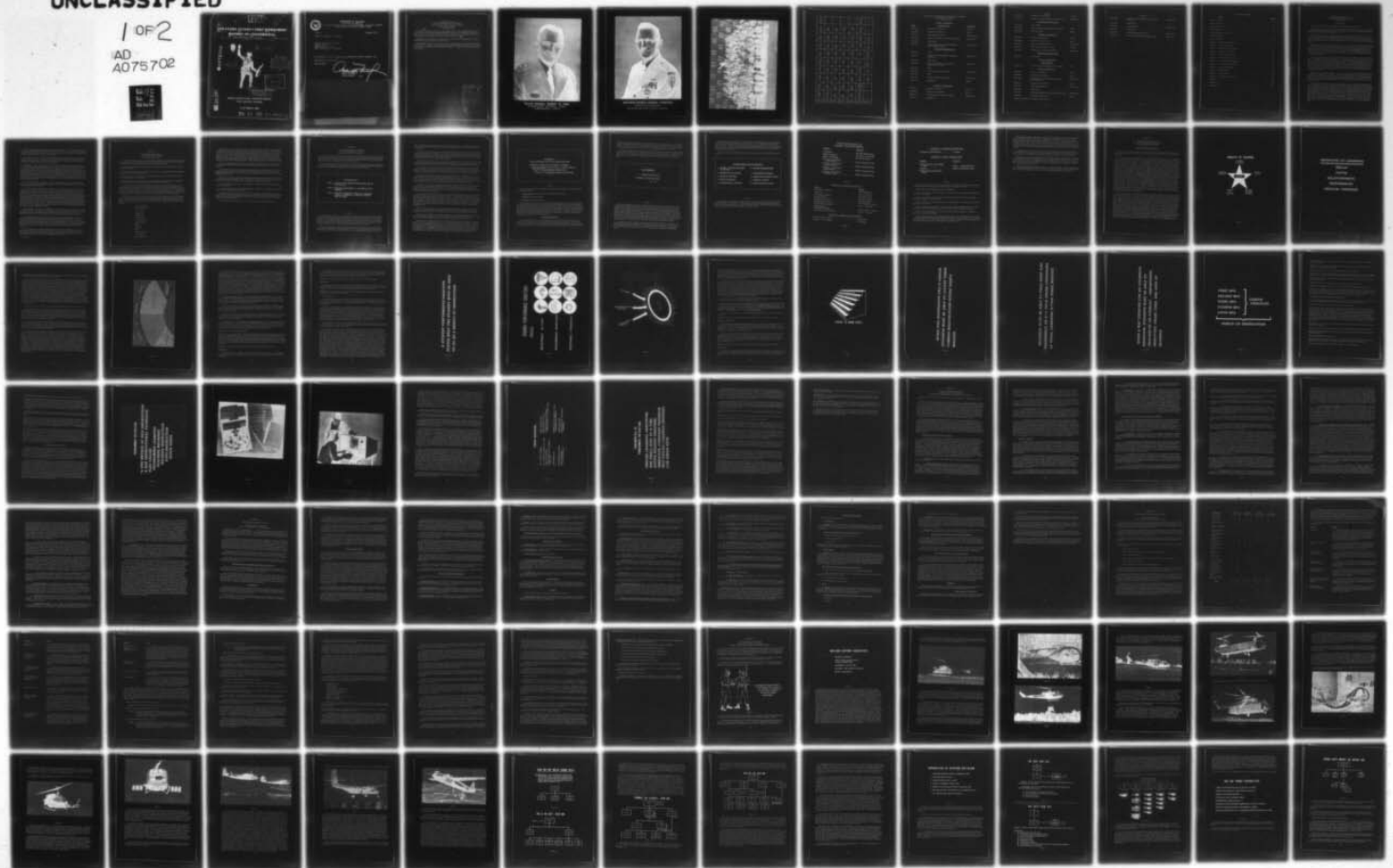
ARMY INFANTRY SCHOOL FORT BENNING GA  
INFANTRY INSTRUCTORS' WORKSHOP: REPORT OF CONFERENCE, 17 - 20 A--ETC(U)  
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# INFANTRY INSTRUCTORS' WORKSHOP: REPORT OF CONFERENCE.

17-20 August 1965.

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UNITED STATES ARMY INFANTRY SCHOOL  
FORT BENNING, GEORGIA

17-20 AUGUST 1965

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FOR THE CHIEF:

ALEXANDER NICOLINI  
Major, Infantry  
R&D Coordinator

REPORT OF THE  
INFANTRY INSTRUCTORS' WORKSHOP  
UNITED STATES ARMY INFANTRY SCHOOL  
Fort Benning, Georgia  
17 - 20 August 1965

↓  
PURPOSE: The Infantry Instructors' Workshop was convened to standardize Infantry doctrine, tactics, and techniques taught at other service schools. It was designed to inform Infantry Instructors of the latest equipment, thinking, and trends in the Infantry; and to discuss Infantry Instructors' problems on an individual and collective basis ↗

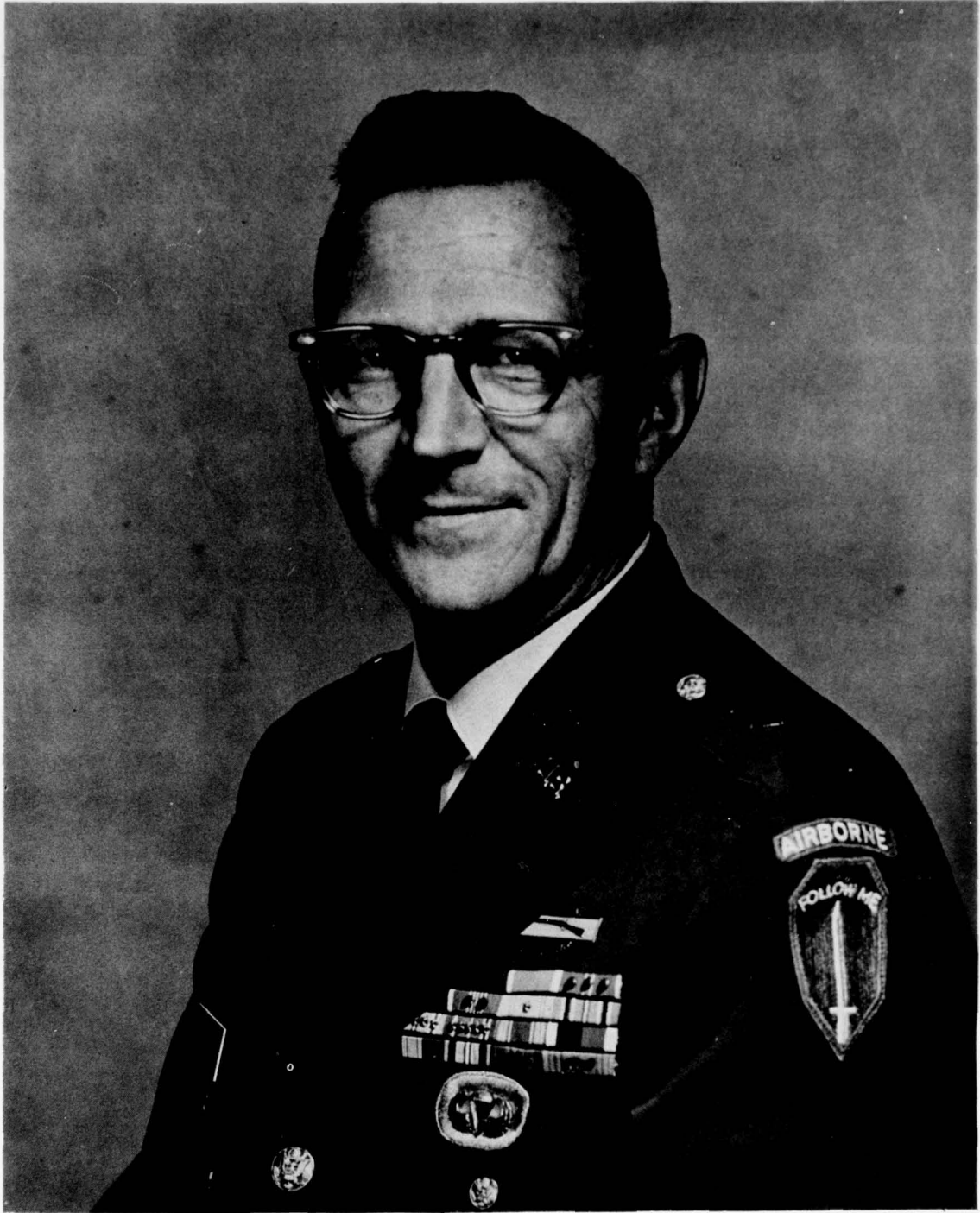
AUTHORITY: The workshop was convened under the provisions of Paragraph 7b, Annex Q, USCONARC Regulation 350-1, dated 18 May 1965.

CONFEREES: Conferees were representative of: Headquarters, DA and USCONARC: Army Service Schools, Colleges, and the United States Military Academy; selected Naval, and Marine Corps Schools, and the Royal Canadian School of Infantry. A roster of Conferees is contained in Appendix II.

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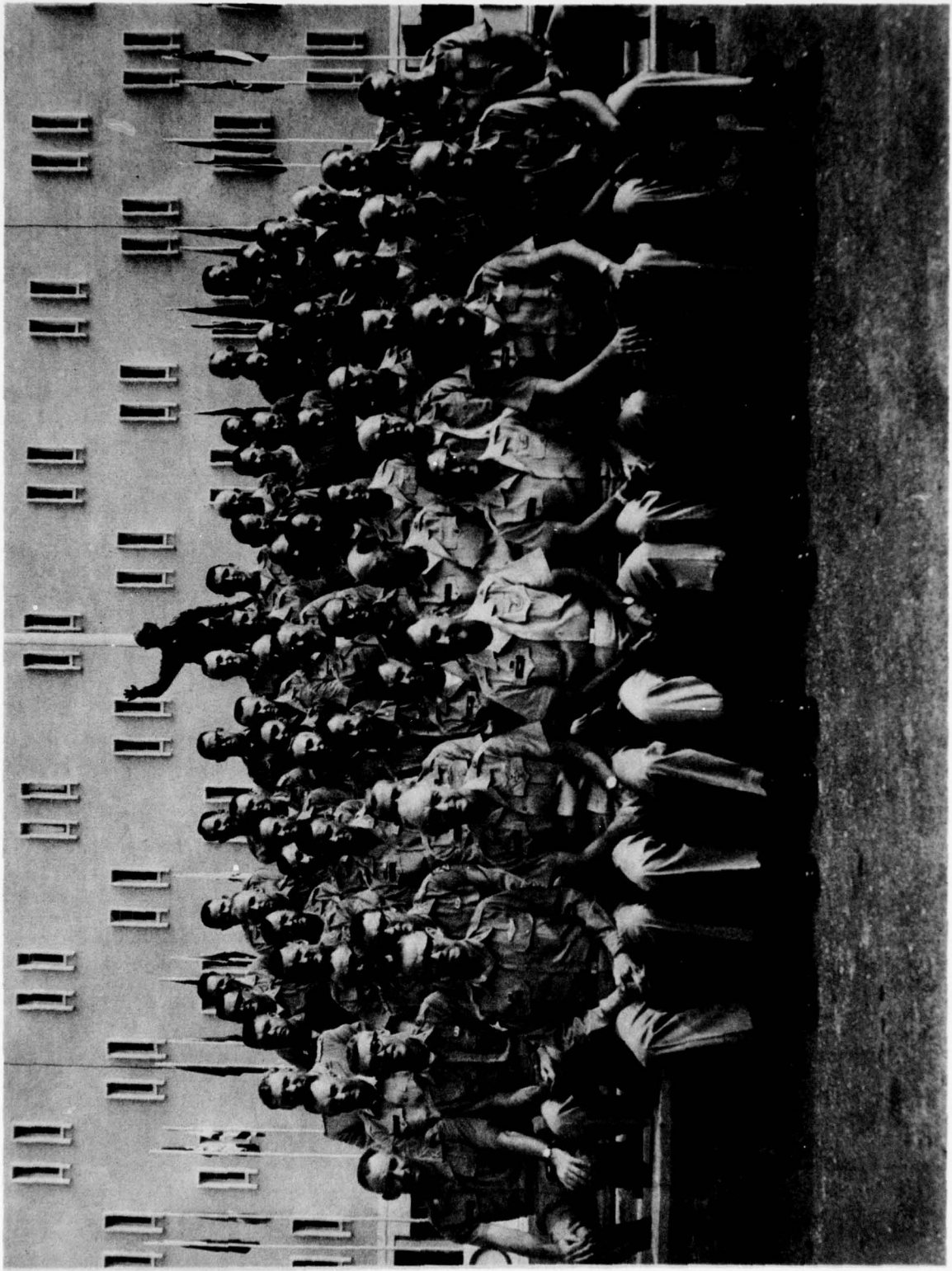
**MAJOR GENERAL ROBERT H. YORK**  
COMMANDING GENERAL, USAIC  
COMMANDANT, USAIS



**BRIGADIER GENERAL GEORGE I. FORSYTHE**

ASSISTANT COMMANDANT

UNITED STATES ARMY INFANTRY SCHOOL



R O W 7	B/M Chief Wall	Capt Dowd	Capt Sandifer	Capt Clay	Capt Branagan	Capt Chauvin	Capt Swanson	Capt Catoe	Capt Mowrey	Capt Knight
R O W 6	Maj Rosengreen	Capt Kelly	Capt Johnson	Capt Royal	Capt Looney	Maj Meisner	Maj Gorvad	Maj Carvell	Maj Thames	
R O W 5	Capt Stewart	Lt Col Rigdon	Maj Pace	Maj Wenck	Maj Thompson	Maj Palmer	Maj Hatch	Maj Malone	Maj Davis	
R O W 4	Maj Field	Maj Foldberg	Maj Rachek	Lt Col McKee	Maj Hayes	Maj Dermatis	Maj Currie	Lt Col Morse	Lt Col Dailey	
R O W 3	Lt Col Epps	Lt Col Moffitt	Lt Col Hartnell	Lt Col Boles	Lt Col Stampley	Maj Morrisset	Lt Col Hardy	Lt Col Jordan	Maj Dotur	
R O W 2	Lt Col Zimmerman	Chaplain (Lt Col) 'Lively	Lt Col Pinkerton	Lt Col Grammer	Lt Col Abt	Lt Col Null	Lt Col Gregg	Lt Col Mainer	Lt Col Abernathy	Lt Col Morgan
R O W 1	—	—	Col Hitchcock	Col Berry	Maj Gen York	Brig Gen Forsythe	Col Hickman	Col Huntley	—	—

AGENDA FOR THE INFANTRY INSTRUCTORS' WORKSHOP  
FORT BENNING, GEORGIA  
17 - 20 August 1965

Tuesday, 17 August 1965

<u>TIME</u>	<u>PRESENTATION</u>	<u>LOCATION</u>
0745-0755	Movement to Building 4	En Route
0755-0800	Assemble in Classroom 20	Bldg 4
0800-0815	Commandant's Welcome	Classroom 20
0815-0845	Outline of Workshop by Director of Instruction	Classroom 20
0845-0905	Coffee Break	
0905-1055	"United States Army Combat Developments Command Infantry Agency"	Classroom 21

CLASSIFIED PRESENTATION

1055-1105	Break	
1105-1155	"Infantry School POI Changes - Educational Television"	Classroom 20
1155-1300	Lunch Break	
1300-1500	"MOI - Student Performance Objectives - Programmed Instruction"	Classroom 21
1500-1510	Break	
1510-1600	"Tactical Operations Handbook"	Classroom 20
1600-1610	Break	
1610-1700	"Mechanized Infantry Operations"	Classroom 21
1700-1720	Photograph	Bldg 4

Wednesday, 18 August 1965

0745-0755	Movement to Building 4	En Route
0755-0800	Assemble in Classroom 20	Bldg 4
0800-0950	"Counterinsurgency Training at USAIS"	Classroom 20
0950-1010	Coffee Break	

AGENDA

1010-1025	Movement to Gordon Field	En Route
1025-1215	"Infantry Communication Now and Tommorrow"*	Gordon Field

CLASSIFIED PRESENTATION

1215-1330	Lunch Break	
1330-1700	Visits to Instructional Departments as Desired	TBA
1900-2030	Official Reception	MOOM

Thursday, 19 August 1965

0745-0755	Movement to Building 4	En Route
0755-0800	Assemble in Classroom 20	Bldg 4
0800-0950	"Army Air Mobile Operations"	Classroom 20
0950-1010	Movement to Sand Patch Test Area	En Route
1010-1200	"United States Army Infantry Board"*	Sandy Patch

CLASSIFIED PRESENTATION

1200-1330	Lunch Break	
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Thursday, 19 August 1965

PRESENTATION

1330-1700	Visits to Instructional Departments as Desired	TBA
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Friday, 20 August 1965

0745-0755	Movement to Building 4	En Route
0755-0800	Assemble in Classroom 20	Bldg 4
0800-0900	"Orientation on HumRRO Training Research and Development"	Classroom 20
0900-0905	Assemble in Classroom 21	Bldg 4
0905-1000	"Leadership Orientation"	Classroom 21
1000-1020	Coffee Break	
1020-1050	"Briefing on Department of Nonresident Instruction"	Classroom 20
1050-1055	Assemble in Classroom 21	Bldg 4

\*Outdoor presentation. Raincoats may be desirable.

AGENDA

1055-1130	"Briefing on United States Army School of the Americas"	Classroom 21
1130-1300	Lunch Break	
1300-1350	"Unit Readiness"	Classroom 20
1350-1410	Coffee Break	
1410-1700	Assistant Commandant's Forum	Classroom 21
1700-1710	Assistant Commandant's Closing Remarks	Classroom 21

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COMMANDANT'S WELCOME  
MAJOR GENERAL ROBERT H. YORK  
17 August 1965

CHAPTER I

Gentlemen, welcome to Fort Benning; we are delighted to have you here.

I don't know too much about your individual assignments, but I do know that you represent the Infantry throughout a large segment of the Department of Defense, in the other branches of the Army as well as with the other services.

Based on my experiences, I know too that you are very carefully selected for your jobs, and that your influence varies considerably with your particular school or agency. We, of course, would like to see your influence strong in every case; but to make it so will depend a lot on your individual knowledge of the Infantry, as well as on your motivation and salesmanship ability.

I think it's good that you are able to come back here from time to time like this so that you can brush up on the current thinking and doctrine. Our doctrine doesn't change too often, but you need to be kept up to date on various trends, and on our overall thinking and techniques. I think this course, this period of instruction, with the various briefings and discussions, can make your job a lot easier and make you more effective. We at The Infantry School place a great deal of value on your visit here, and we would like for it to be rewarding for you as well as interesting and pleasant.

I might say that, as you know, the Army doesn't have a "party line" as such and never has had. In a way this has been extremely good. It has allowed us to be more flexible in our thinking. In a certain way, however, it has hurt the Army. I'm thinking particularly now of the Army Aviation side. We not only had to fight the other services in trying to develop our Army Aviation, but we also had to fight a lot of people in the Army because they just didn't believe in it. They couldn't project themselves out into the future; they were mentally hide-bound to an extent. They were most sincere in their beliefs, but instead of seeing what good could be accomplished, they saw all the obstacles that would have to be overcome and the problems that such operations raised.

I think we are over that hurdle now. Here in The Infantry School we certainly plan to place a great deal of emphasis on air mobility. This is one bit of new area we've pioneered, and I think the Army should be congratulated in having accomplished this--in proving their point as they have. This one area I personally feel is the greatest innovation in tactics since the blitzkrieg the Germans developed in World War II. It's worth all your attention to know as much about it as you can.

I had the job out in Vietnam of evaluating the Mohawk, and the Armed helicopter that were being tested out there by ACTIV. I had to evaluate them from the joint operations standpoint, and, of course, we ran head-on into the Air Force views on Army Aviation. There was a great deal of suspicion, unjustified, I might say, because in anything we suggested or recommended for improvement in the way of air support there, we were immediately suspected of trying to undermine the Air Force's position and support the Army aviation position. This was not so, and I tried to convince my Air Force friends this was not so; that the man out on the ground, these advisors to the battalions, brigades, and divisions, didn't give a damn where the support came from. It was just the fact that when they wanted air support, they wanted it then; they wanted it as quickly as they could get it, and they didn't care which service gave it to them. I think we've overcome some of those obstacles, and we are reaching a closer understanding now.

There is another area that I think the Army can be proud of. You'll recall after World War II they almost disbanded the Army because there was a very successful element which argued that all we needed was the big bomb, the biggest bang for the buck, and if anyone stepped across the line we'd just blast them with a nuclear weapon.

The Army, of course, held out and kept arguing for measured response--for flexibility in response--and this was an awful fight, but we have been proven absolutely right as future developments have indicated. The war we are having today in Vietnam is a good example. So, we do have a number of things that we can be proud of.

Incidentally, I think counterinsurgency is the biggest and most important problem we face. It's almost entirely ground warfare and, of course, mostly Infantry when you get right down to it. This doesn't mean that we don't welcome any support from any of the other arms. We certainly use what we can get, but when we come right down to getting that guerrilla out of the jungle, it's got to be the man on the ground with the weapon in his hands. It's a dirty job. It's a job that is going to take a long time to solve. Counterinsurgency is something to which we can devote much, much thought because in my opinion this may be the nature of warfare in yours and my generation. If we can learn to stop this kind of a war and deal with it successfully, then we may never be faced with a more devastating type of war--which, incidentally, will cost more money, material and lives.

So these are the things, gentlemen, that we in the Infantry must be wrestling with today. These are the things that warrant all our thoughts. These are the things that we can and will discuss while you are here with us.

Here at The Infantry School we are trying to review everything we teach to be sure that what we teach is realistic and practical. We'd like for you to help us any way you can in that respect. We are also very aware of the fact that we don't have all the answers. We are all governed by our experiences to a certain extent, and we want to profit by the experiences of all. In war, I have seen some people who saw a certain segment of the war and came away with a different feeling and different philosophy of fighting than a man who had been through another type of experience. For example, near the end of World War II there were some people who came in when we had complete air superiority and a lot of mobility; we had scattered resistance, and the morale of the enemy was poor. Some got the impression that you could run a bit wild; those people said go, and go, and go. But had they been back in the hedgerows of Normandy and seen where you creeped, and creeped, and creeped before you could get that breakthrough, then they'd have had a little different slant.

But it's through these things, the summation of all our experiences, that we come out with the balanced picture. We expect to learn from you as well as have you learn from us. General Forsythe has a forum scheduled, and everybody will have a chance to throw their ideas on the table; we hope it will be a free exchange, and informative and useful for both you and us.

I would mention just one more point, and that is the matter of motivation. We can teach; we can develop the best weapons in the world; we can have the finest doctrine, tactics, and techniques in the world. But when it comes right down to the final answer, the man who has got to move up on that final objective has to have the motivation to do it. Now this is something that we can't issue out of our supply rooms, it's something that you have to do through leadership. This is one of the reasons we put a great deal of stress on leadership here at Fort Benning.

These are the things, gentlemen, that we hope you will be discussing while you are here. Once again I want to tell you how very pleased we all are to have you. Whatever you need, whatever we can do for you, whatever assistance we can give you to make your job easier or more effective when you go back, we'll be delighted to do it for you.

Thank you.

## CHAPTER 2

### OUTLINE OF CONFERENCE COLONEL HERBERT E. WOLFF Director of Instruction

I would like to add my welcome to that of the Commandant, it is certainly a pleasure to have you as conferees to the 1965 Infantry Instructors' Workshop - particularly those attending from The Royal Canadian School of Infantry and the Allied Liaison Officers.

The agenda for the workshop is contained in the booklet which you received upon your arrival at Fort Benning.

The workshop presentations are based upon what we at The Infantry School feel Infantry instructors at other schools need and desire.

Briefings will be presented by the Instructional Departments of the School and test and development agencies at Fort Benning.

Our objective is to bring you up to date in current Infantry doctrine, tactics, techniques and to introduce you to some of the instructional techniques used at USAIS.

You will be informed of USAIS' philosophy on education, our instructional policies, the courses taught here, combined arms instruction and the areas of increased emphasis in our current programs of instruction. We will present you with a briefing on the use of educational TV today at The Infantry School, as well as our concept for the future use of TV. You will also tour our TV facilities. We will define for you student performance objectives which The Infantry School has used to replace what was known as the hidden pearl, "the teaching point."

I realize that many of you are familiar with the organization and functions of The Infantry School, however, I believe that it would be beneficial to briefly refresh your memory on this subject or if you are new to us to present a self-introduction. I hope that you will consider each of the areas which I will cover as a possible choice for visitation during your stay at Fort Benning.

School Organization  
Bde & Bn Op Dept  
Co Tac Dept  
Ranger Dept  
Weapons Dept  
Mobility Dept  
Comm-Elect Dept  
Airborne Dept  
DNRI  
Secretary  
OIDM  
Operations Office  
Staff Surgeon  
Mgt & Budget Ofc  
DI

This schedule, as you will note, provides several opportunities for you to visit instructional departments and areas of particular interest. Many of you have indicated, in your correspondence, your desires in this respect, you will be provided with individual scheduled appointments. Our instructional departments have been informed of your interest queries and are prepared for your visits. We will be happy to assist those of you who have not as yet made your desires known, to schedule individual or group meetings with any of our departments or agencies. Please advise Major Cassidy, the Workshop Project Officer, of your wishes. He will be present at all the Workshop sessions. These periods, we feel, will be most beneficial.

There is a questionnaire provided in your folders for evaluation of this workshop. Your careful review and constructive comments will enable us to better serve you, the Infantry instructor.

Last, but not least, is the value your visit here will be to The Infantry School. All of our departments and staff agencies welcome your advice and suggestions on how to better teach Infantry subjects, as well as how to keep you, the Infantry Instructor, abreast of today's rapid changes as they occur.

We here at The Infantry School are prepared to render you any assistance we can to assist you in your instructional requirements at your school. The Policy & Plans Section of DI office is your point of contact at USAIS. They can arrange any of the following for you:

1. A visit to USAIS at any time, at your expense, to discuss with interested departments your area of interest.
2. A copy of instructional material and data books. However, we cannot provide you sufficient copies for distribution to your classes.

In addition to what your point of contact can do, the Department of Nonresident Instruction has you on the USAIS monthly mailing list and you can request one gratuitous copy of all items listed. The items listed are significant problems, student text and data books prepared here at USAIS for resident instruction.

We consider each of you as much a part of our faculty as our resident instructors.

CHAPTER 3

INFANTRY SCHOOL POI CHANGES  
LT COLONEL DONALD H. LANIER  
Office of the Director of Instruction

I am Lt Col Lanier, Chief of the Instructional Programs Section, Office of the Director of Instruction. It is my purpose during the next few minutes to discuss our programs of instruction, give you some of The Infantry School philosophy and instructional policies and point out some of the subjects currently receiving greatest emphasis.

At the outset I would like to familiarize you with the fundamental philosophy on which all our views are predicated. We believe in the existence of three basic facts in the combat arms, each of which is normally recognized but often placed out of proper focus.

**"THIS WE BELIEVE"**

**FACT 1: INFANTRY AND ARMOR ARE INSEPARABLE ON THE BATTLEFIELD**

**FACT 2: RESOURCE MANAGEMENT IS A RESPONSIBILITY OF COMMAND**

**FACT 3: COMPANY COMMANDER IS FIRST LINE "MANAGER" IN PEACE--OVERNIGHT--COMMANDS COMBINED ARMS IN COMBAT**

Figure 1.

First, Infantry and Armor are inseparable on the battlefield. Mobile protected firepower has always been employed in close association with Infantry. With the advent of the APC and the tactics of mechanized infantry this fact has taken on increased importance. Accordingly, we believe that company and battalion commanders must be qualified to employ and command both armor and infantry in combined arms teams on the battlefield, and in all types of operational environments. This command orientation begins at the company level.

Second, management of resources made available to Army units--resources from which combat power is generated--is the responsibility of command. Sophisticated machines, technical training and personnel complexities have put new meaning into the management fact of

life. Immediate readiness requirements have sharpened the focus. Accordingly, Army leaders at all levels of command now have increased responsibility in resources and readiness management.

Third, the company commander is the first line manager in peace who overnight may lead his combined arms team in combat. The company commander has the most difficult job in the Army. He is the lowest executive official, the first line management supervisor. He manages human and materiel resources and, after commitment to combat, his success is measured by his ability to employ combat arms on the battlefield.

We recognize that these three facts of life have existed in the Army for a long time. Their importance has grown. The Army organizational structure and the unit readiness system have recognized the increased importance, but the Army's educational system has not kept pace.

As a related matter The Infantry School recognizes that the special techniques and capabilities inherent in each of the combat arms branches make the retention of these branches necessary. We believe that improved battlefield performance can be gained by increased understanding of the various combat arms. In fact, our emphasis is on combined arms training.

Turning now to our POI's. Basic guidance on course content, and format for our 15 resident courses emanates from CONARC's Training Directive 350-1. This directive also prescribes some 44 common subjects which we are required to include in our courses of instruction. This year, however, we have greater latitude in that CONARC did not prescribe minimum hour allocations for these common subjects as had been the case in the recent past.

Because the modern Army changes constantly due to the new and ever increasing demands upon it, POI's must constantly be revised to insure that students are kept up to date. When doctrine is approved and introduced for use, it is automatically integrated into instruction. Indeed in many cases new tactical concepts and theories are included in our instruction before they ever become approved doctrine.

The cornerstone of the USAIS system of maintaining current instruction is the experienced instructor who performs constant research in his area. The officer having the most current and greatest depth of knowledge of a particular subject is assigned to the committee responsible for teaching that subject. Here he can have a direct influence on what is taught. If the instructor recognizes a need for changes in subject, scope, or manner of presentation, he initiates a POI change which is reviewed by his committee chief and department director. Final approval of changes is made by the Director of Instruction after appropriate "murder" and approval at department level.

Course content is influenced by an experienced staff and faculty constantly aware of the need for course improvement, by liaison visits to field units to which graduates are assigned, comments by field commanders on graduate quality as well as directives from USCONARC.

Individual subject changes are readily accepted at any time during the academic year. As a result, programs of instruction are in a constant state of updating and improvement. In addition, all courses are subject to a general revision before each new academic year.

Emphasis on air mobility instruction at The Infantry School, is an area deserving special mention. Airmobile organizations are now an integral part of the Army's structure. Operational missions, conducted by airmobile forces, are executed routinely in Vietnam. The planning and execution of these operations must be a capability of the leaders and commanders of the combat arms. These leaders and commanders need more than mere "book knowledge" of the capabilities and limitations of the Army's family of aircraft, which they must employ in transporting their maneuver forces and fire support elements within the combat zone.

**-AIR MOBILITY-**  
**NOW AN INTEGRAL PART OF THE ARMY STRUCTURE**  
**ESSENTIAL ELEMENTS OF AIR MOBILITY TRAINING:**  
**FAMILIARIZATION WITH THE FAMILY OF ARMY AIRCRAFT**  
**ABILITY TO PLAN AIRMOBILE OPERATIONS**  
**CAPABILITY TO EXECUTE AIRMOBILE OPERATIONS**

Figure 2.

From The Infantry School's viewpoint, the three essential elements of airmobile training are identified as follows:

1. Familiarization with Army aircraft currently in the inventory.
2. Planning airmobile operations.
3. Executing airmobile operations.

Recognizing this requirement, The Infantry School has progressively increased emphasis in this vital instructional area. In FY 66, Airmobile Training for Career Course students is increased from 26 to 34 hours, and for Associate Career Course students from 26 to 31 hours; the difference being attributable to the difference in course length. To permit greater application of airmobile doctrine, especially innovations resulting from exercise Air Assault II, 9-1/2 additional hours were integrated into existing tactics instruction. Programs of instruction for Ranger, Basic, and Officer Candidate Courses also contain tactical problems requiring the planning and execution of airmobile operations.

COUNTERINSURGENCY

Training and education in counterinsurgency now cuts across the entire spectrum of instruction at The Infantry School. Not only does the career student receive 57 hours in this area, but the fundamentals of counterinsurgency operations are integrated in many of our tactical problems. The matter of responses to insurgency and guerrilla actions is under constant

surveillance and teaching emphasis is being kept current. The penultimate week of our career course is designed to specifically orient students for their next assignments. The 76 career graduates from the FY 65 class who departed Fort Benning for Vietnam received a specialized course specifically tailored to prepare them for operational performance in Vietnam.

Psychological operations and civil affairs, like civic action are integrated in our battlefield portrayal in four forms of war: Cold War Activity, Stabilization Operations, Limited War, and General War. Public support and population control are practical exercise requirements in most of the tactical problems. We place great emphasis on the importance of winning the people.

UNIT READINESS

“..... REQUIRES BOTH READY  
PERSONNEL & READY MATERIEL.”

AR 11-14

Figure 3.

Readiness instruction has become a matter of increased emphasis. Time devoted to this subject has been doubled and practical work has been expanded. Our revision efforts on unit readiness for all leader courses has been aimed primarily toward making all aspects of this subject a more comprehensive package. For example our instruction in training management, logistics and personnel has been rewritten to relate it directly to unit readiness and unit readiness reporting. Maintenance and materiel readiness training has been realigned to conform to equipment serviceability criteria and CMMI standards. By next year we will place each career student in the role of a battalion commander who, charged with the readiness of a Phantom Battalion, lives the day-to-day problems of that battalion, reviews unit readiness reports, executes reports, and in general encounters typical problems associated with command.

Our goal is to present a realistic and challenging course of instruction at all levels. Realism is emphasized in all problems be they classroom or terrain exercises. Requirements are designed to challenge the students. Challenge does present a problem, however when classes are large and the experience, general knowledge and mental ability of each student varies.

Challenge for the career student, is enhanced by the introduction of an elective program designed to broaden the education of the career officer. This program will be initiated as an extra curricular effort this year, and will become a part of the curriculum for the career course in FY 67. The electives range from geographic area studies to conversational language training and take the form of research projects, group studies and seminars, and individual self-improvement programs.

Only those students meeting the academic standards desired are authorized to pursue an elective.

CAREER COURSE ELECTIVE SUBJECTS

- |   |                                  |
|---|----------------------------------|
| 1. NATIONAL PURPOSE AND POWER OF THE USSR | 6. READING COMPREHENSION         |
| 2. GEOGRAPHIC AREA STUDIES                | 7. CONTEMPORARY READING          |
| 3. EFFECTIVE SPEAKING                     | 8. COMPARATIVE STUDIES (5 AREAS) |
| 4. EFFECTIVE WRITING                      | 9. HISTORICAL STUDIES            |
| 5. CONVERSATIONAL LANGUAGE                | 10. HUMAN RESEARCH STUDIES       |

Figure 4.

Once enrolled in an elective the student must cover specified ground and achieve designated learning plateaus. For example, a 13-week elective in Vietnamese language requires the attainment of a 1000 word vocabulary. Special recognition will be made on the academic efficiency reports of those students who successfully complete an elective.

GUEST SPEAKER PROGRAM FY 66  
CATEGORY I - POI RELATED SUBJECTS

<u>SUBJECT</u>	<u>SPEAKER</u>
LEADERSHIP .....	MAJ GEN SEBREE (RET.)
WORLD SITUATION .....	DR FRITZ G.A. KRAEMER
WORLD COMMUNISM .....	DR FRANK BARNETT
POLITICAL SITUATION IN LATIN AMERICA .....	PANEL TO BE SELECTED
POLITICAL SITUATION IN MIDDLE AFRICA .....	PANEL TO BE SELECTED
POLITICAL SITUATION IN MIDDLE EAST .....	PANEL TO BE SELECTED
POLITICAL SITUATION IN SOUTHEAST ASIA.....	PANEL TO BE SELECTED

Figure 5.

CATEGORY II - NOT DIRECTLY RELATED TO POI

<u>SUBJECT</u>	<u>SPEAKER</u>
OFF CAREER MANAGEMENT .....	OPO REPRESENTATIVE
ROLE OF CIA .....	MR. PAUL CHRETIEN
DEPARTMENT OF DEFENSE .....	DOD REPRESENTATIVE
NUCLEAR WEAPONS .....	GEN. PAUL D. ADAMS
DECISION MAKING IN DA .....	DA REPRESENTATIVE
CONGRESSIONAL RELATIONS .....	CHIEF, LEGISLATIVE LIAISON
OFFICERS' PERSONAL AFFAIRS .....	MAJ K. F. HANST (RET.)
MORAL FIBER OF THE PROFESSIONAL SOLDIER .....	LT GEN WILLIAM K. HARRISON
CANADIAN FORCES INTEGRATION .....	LT GEN J. V. ALLARD

CATEGORY III - RELATED TO FUTURE ASSIGNMENTS

ROLE OF US ARMY IN PACIFIC .....	CINC USARPAC
ROLE OF US ARMY IN EUROPE .....	CINC USAREUR

Figure 6.

CATEGORY IV - SPEAKERS OF OPPORTUNITY

SPEAKERS OF OPPORTUNITY . . . . . 12 HOURS

CATEGORY V - SPECIAL PRESENTATIONS

<u>SUBJECT</u>	<u>SPEAKER</u>
BRITISH, FRENCH, AND GERMAN ARMIES . . . . .	PANEL - LIAISON OFFICERS
USACDCIA . . . . .	USACDCIA REPRESENTATIVE
MARINE CORPS INSTRUCTION TEAM	

Figure 7.

Our guest speaker program is primarily designed to supplement instruction and to keep the student abreast of the world situation. Shown here is our program for FY 66.

NOTE THAT IT IS BROKEN INTO FIVE CATEGORIES.

CAT 1. POI related - which is scheduled to coincide as near as possible with resident instruction on that subject.

CAT 2. Not related to POI - subjects to enhance students general military knowledge scheduled throughout the academic year.

CAT 3. Related to students next assignments - presentations are scheduled to occur after students receive orders.

CAT 4. Speakers of opportunity - time reserved to enable distinguished visitors to Fort Benning or other important personages to speak to CAR Classes on subjects of interest.

CAT 5. Special presentations. Such as our foreign armies presentation, CDCIA and Marine Corps Team presentations.

We are trying a new method of presentation with some of our speakers this year. Instead of a single authority speaking on a subject we plan to ask two or three experts in a specific field to present their views in a round table, seminar, or debate. We believe this will further stimulate student interest and broaden coverage of the particular subject.

The student's physical conditioning is considered of vital importance, however the number of scheduled hours devoted to the subject in the past was prohibitive. We are now making physical fitness an officer's individual responsibility. Each student is advised that Department of the Army prescribed physical fitness standards are expected. A diagnostic PCPT is administered early in the course. Those who meet the Army standards of 60 per event, and 300 minimum score are authorized to proceed at their pleasure. Those who fail the diagnostic test are placed in a compulsory remedial program scheduled during periods which would otherwise be free.

A standard performance rating system has been developed which includes the grading of selected homework, spot quizzes and class participation evaluation. This system will make every instructor a contributor to the academic rating report executed by faculty advisors.

Homework assignments are being studied to prevent duplication, redundance, and to establish a sound ratio of reinforcing knowledge versus introducing new subject material. The rule of not exceeding 20 minutes of homework for each academic hour will continue. We envisage that in the near future we can program our homework requirements in a computer to facilitate this essential analysis and review.

Gentlemen, The Infantry School is customer, or student, oriented. We place emphasis on what the student needs in peace and war in order to make him a better leader, a better Infantryman, and better equipped to serve the Army, his fellowman and himself. Thank You--

## CHAPTER 4

### METHODS OF INSTRUCTION STUDENT PERFORMANCE OBJECTIVES PROGRAMMED INSTRUCTION

Captain Charles A. Malloy, Jr.  
Office of the Director of Instruction

Gentlemen, the purpose of this discussion is to give you an understanding of the current USAIS concepts on Methods of Instruction, Student Performance Objectives, and Programmed Instruction.

In all of our training, we look upon the student as the customer, therefore, we analyze the needs of our students to enable them to carry out their military assignments upon completion of their resident course of instruction. We emphasize to our instructors that their presentations should be centered on the student. To accomplish this we prepare a profile on each resident course, this profile includes the average length of service and the average age of the members of that resident class. In addition, we indicate by those students' names who have completed assignments as commanders in combined arms units as well as those who have occupied principal staff jobs. This enables the instructor to create interest within his period of instruction by calling on selected students to reflect upon the class their experiences from all parts of the world. Whenever possible, our instruction is oriented around realistic problems and designed to fulfill the missions of the combined arms concept. To involve the student in his learning, we utilize several teaching vehicles to maintain his interest and continuity of instruction within our seven instructional departments. For example, the Brigade and Battalion Operations Department has devised a paper-type infantry unit called the First of the 66th Infantry to include an SOP for this unit. Through this vehicle we give the students tactical exercises to solve and present them with situations which require them to exercise correct leadership. Through this teaching vehicle we are also requiring the student to learn the infantry organization and how to prepare and use a SOP. We believe, here at the School, that no one method is ideal to teach infantry subjects. Although we use a variety of methods, we advise our instructors to analyze their instructional goals and then select the best type or types of instruction which will best achieve the instructional goals. Therefore, it is not uncommon during one hour of instruction to employ three methods of instruction.

Since we recognize the new ROAD organization and that the combined arms team is now considered at company level we must train all of our students to become members of this fighting team. Students in our leader classes are not trained to function solely as a battalion commander or a brigade commander, but they must successfully perform in the roles of the other members of the fighting team: such as the principal staff positions of all the combined arms. To insure that a mutual understanding exists between the instructors of The Infantry School and the students; we advise our instructors to inform the students in advance, what they will be expected to do as a result of that instruction. To accomplish this, the student is issued an advance sheet several days prior to the presentation of the problem. This advance sheet contains the lesson objective and a statement of what the student must be able to do as a result of that period of instruction. For example, the Infantry Officer Basic Course is issued an advance sheet by the map reading committee. The objectives for that block of instruction will be stated in these terms: I quote, "As a result of this period of instruction, you must be able to CALCULATE an azimuth, LOCATE a point on the ground by intersection or resection, INTERPRET the marginal data on the map correctly." In this way the student knows exactly what he must be able to do when he completes this instruction and consequently, can follow it more intelligently and ask

# CONCEPT OF TRAINING

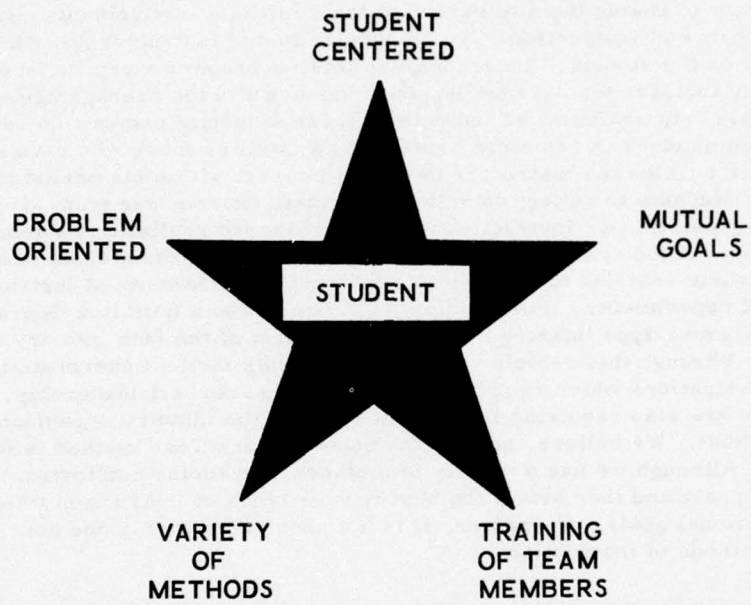


Figure 1.

**PRODUCTS OF LEARNING**

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**SKILLS**

**FACTS**

**RELATIONSHIPS**

**PREFERENCES**

**CRITICAL THINKING**

Figure 2.

questions which are more meaningful. That, briefly, is our concept of training. Through this concept we achieve the following products of learning:

The student must be able to master the various skills that exist between command and staff functions; facts regarding the organization of the military units in our combined arms, the personnel assigned to these units, their equipment and weapons to include the capabilities of these weapons and equipment. Throughout all of our instruction, we emphasize the relationships of the squad, platoon, company, battalion, and brigade. In accomplishing the mission through the combined arms team concept, we interrelate these elements during instruction - some introductory training is given on higher military units such as division, corps, and Army operations, but most of this training is reserved for Command and General Staff College. We realize that every Army in the world develops certain preferences for tactical maneuvering and tactical operations. Through these products of learning, and as a result of his training, the student develops an appreciation of the organization of the combined arms; its fire power, its communication, and its mobility. Over and above all of these products of learning, is the need to develop in our company grade personnel the ability to practice critical thinking; that is, to weigh all of the pros and cons, consider all the advantages and disadvantages, prior to selecting a course of action in arriving at a decision. Then they must properly apply the techniques of the problem-solving process.

We utilize four basic methods of instruction to accomplish these products of learning.

Figure 3 indicates the methods as well as the relative importance and use of each method in accomplishing our concept of training. The lecture method is referred to as the "telling" of facts, principles, theories or relationships that we want the student to learn. Here at The Infantry School this method of instruction includes preplanned questions directed to the students to check their understanding periodically during the presentation. Since student interest is difficult to maintain by a lecture alone, we emphasize the use of good training aids, questions and further require a dynamic presentation manner.

The demonstration and performance method is exactly what the words imply. This reinforces the students' learning process by showing the correct procedures and expected standards required by The Infantry School. This method of instruction emphasizes student practice, and is followed by student application of those principles and procedures taught. We feel that learning is frequently not complete without practice.

The conference method of instruction at The Infantry School is the instructor-led discussion method in which students contribute information and ideas toward accomplishing a common purpose. Although the objectives of the conference are preplanned, the outcome of this conference is not preplanned. The instructor stimulates thought and discussion with questions designed to bring out different experiences, opinions and techniques, so they may be analyzed, compared and discussed during that period of instruction. Here we emphasize the importance of preparing thought-provoking questions and utilizing them at the appropriate times during the conference. The instructional conference encourages active student participation; therefore, it maintains the student interest and is ideal for instruction on tactics utilizing the combined arms concept. This also gives the instructor the opportunity to have the student practice critical thinking in making comparisons and relating infantry ideas and doctrine to their personal experiences and previous learning. The result of a good conference is that the students consider all aspects of the problem before rendering a solution. In other words, use the problem-solving process.

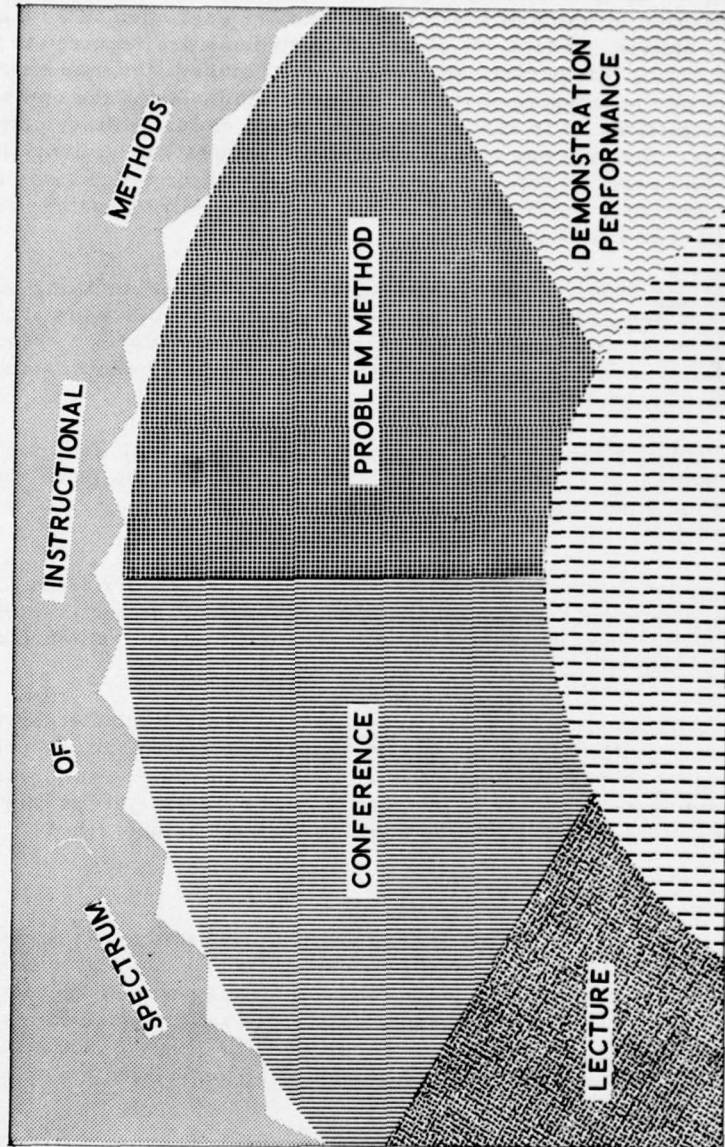


Figure 3.

The problem method of instruction is widely used here at The Infantry School, and it contains five basic forms. They are the practice exercise, the map exercise, the terrain exercise, problem exercise and the case study method. The practice exercise is used to teach subjects such as maintenance, and the operation of weapons and vehicles. It is applicable to classroom situations as well as on the firing range. We emphasize the routine of practice and repractice during marksmanship training to develop in the student those skills desired. The map exercise is a performance situation in which military operations are presented on a map with requirements for decisions, actions, orders, or plans. The students are required to act as commanders or staff officers during this performance exercise. Further, the map exercise is normally progressive and presents successive phases of an operation involving the operations of personnel, intelligence or logistics. It is realistic because much of our military planning is accomplished by using maps. Not only are we maintaining the student's proficiency in map reading but we also provide him practice with any terrain in the world for which maps are available. This also gives the instructor the flexibility of depicting any desired weather condition or enemy disposition as long as it is realistic.

The terrain exercise requires the correct application on actual terrain, of the principles and techniques that are being taught, and requires the student to follow the problem-solving process. This is particularly useful for instruction because the student is required to analyze the terrain and accomplish both a ground and map reconnaissance before he actually locates the disposition of his units and weapons on the ground.

The problem-solving process is also required in obtaining solutions to the problem exercise. A simple situation may be presented orally and followed by questions, or the situation may be presented to the student in writing. These exercises may vary from a few minutes to several hours in duration.

For example, our two leader courses, the Career and Associate Career Course, are given a command post exercise during the last phase of their resident instruction. Here they are required to perform, both physically and mentally, in the positions of command and staff and develop their plans of operation.

Our leadership committee utilizes the case study method to teach the correct application of leadership techniques. Critical incidents of command, supervision and leadership are depicted to the students through a short five-minute film. These films are shown to our platoon leader and company command leader courses of instruction. The students are arranged in the classroom in groups of six, they then witness the showing of a five-minute film.

(SHOW FILM 7-3197, FEAR AND PANIC)

What are your actions and orders? This is the question presented to the students; then they are afforded the opportunity to discuss the possible solutions to this particular incident within their respective groups. The instructor then calls upon a student in each group to present the group solution. The instructor and the other students constructively critique these solutions to insure that the correct leadership techniques have been utilized. During the conclusion of the class the instructor summarizes these solutions, again emphasizing the application of correct leadership techniques.

QUESTION: What methods of instruction are you using at your service schools?

DISCUSSION:

Ft McClellan: We are using the seminar for instructional combat arms. To accomplish management instruction we utilize the same techniques as The Infantry School does on the problem method.

Quartermaster School: Same thing as you do here. We augment our training films with tactical situations. We also use problems in our practical exercises after the training film is shown. Our classes are broken down into groups of six to eleven. The group discusses the situation, then selected groups are called upon to discuss the solution.

QUESTION: What subjects do you select for your seminars or case study methods?

DISCUSSION:

Armor School: We select certain courses for the Basic officers and different courses for CAR and ACAR. We use primarily the conference and practical exercise, with much emphasis on practical exercise. We then critique the solutions through class discussion.

QUESTION: In your practical exercises are you utilizing students as principal staff officers during your combined arms instruction?

Armor School: Yes

Command and General Staff College: We use the conference and practical exercise to include all the methods you use here. We probably spend more time on conference and practical exercise than any of the others. The seminar is used particularly on leadership and management subjects.

In order to accomplish our lesson objectives utilizing these methods of instruction we are presently using student performance objectives. This is a term that we have devised here at The Infantry School, but when related to the other service schools, they are called functional objectives or duty-oriented objectives or teaching points as referred to in FM 21-6. We selected this term because it reinforces in the mind of the instructor, and the student, that he must actually perform in order to accomplish that given objective. We feel that unless the student demonstrates in some manner that he understands what is being taught, an instructor cannot impartially and comprehensively evaluate the student's understanding. A student performance objective can be defined briefly as what the student must be able to do.

Our student performance objectives contain three basic elements which we refer to as performance objectives. In preparing a student performance objective the instructor must specify a measurable action required by the student.

For example, a student must be able to FIRE the M-14 rifle; or we may say that the student must be able to check his risers on the parachute when released from the 250-foot tower. The performance condition includes the materials that the students are given to accomplish that action, as well as the conditions that exist when he must perform this action. Here we may say, "given a protractor the student must be able to CONSTRUCT a 45° angle." The instructor determines the acceptable standards, or the minimum standards, for that period of instruction. Of course, this is approved by the instructional department before utilizing it in a lesson outline. The standard may be stated as minutes, particularly in a physical training test; another example involving map reading - the student may be required to move from Point A to Point B and arrive there within ten meters. The margin that the student is allowed, that of ten meters, indicates the minimum standard that the instructor desires as a result of his instruction. A question may come to your mind - "where do we determine the basis for writing the student performance objectives?" These are selected from the POI annex which has been approved by Hq, CONARC, as well as from examination questions, advance sheets, and practical exercises used during class. Much of our material is obtained from letters received from commanders in the field. For example, a few years ago when the Army started reorganizing to the ROAD organization, the commanders in the field informed the school that the company grade officers graduated from The Infantry School did not possess sufficient knowledge on maintenance. Very

**A STUDENT PERFORMANCE OBJECTIVE  
STATES WHAT THE STUDENT MUST BE ABLE  
TO DO AS A RESULT OF INSTRUCTION.**

Figure 4.

# STUDENT PERFORMANCE OBJECTIVES

## SPECIFY

MEASURABLE ACTIONS

PERFORMANCE CONDITIONS

ACCEPTANCE STANDARDS

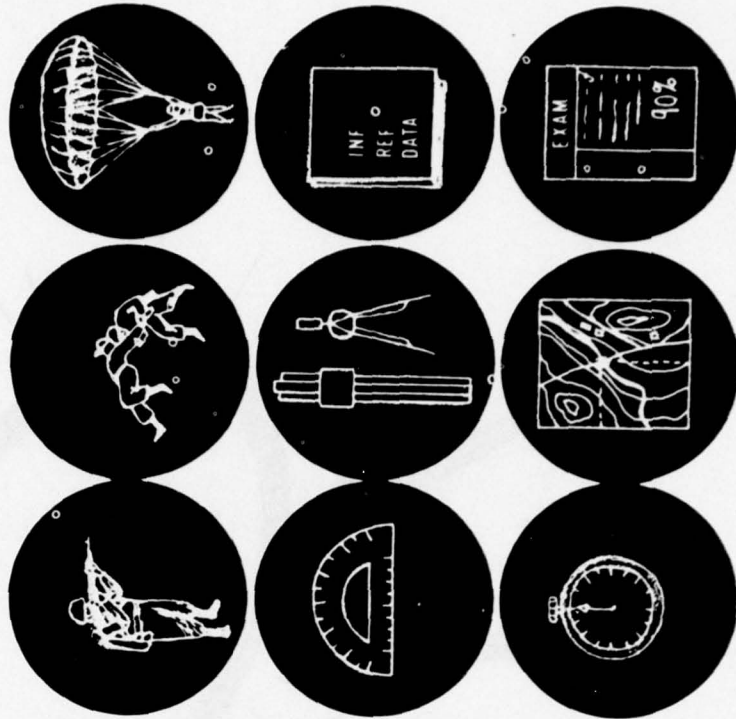


Figure 5.

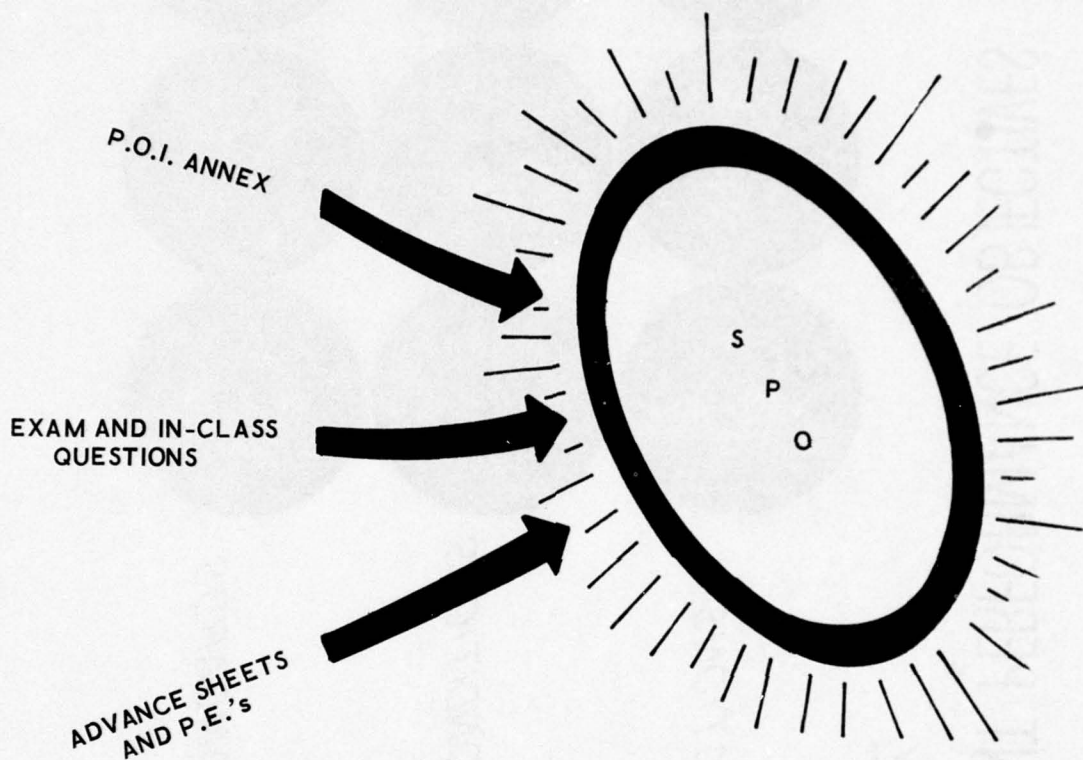


Figure 6.

recently another letter was received from the field indicating the product from The Infantry School was adequately prepared to perform his assigned task except in the field of administration. These letters are then staffed to the responsible instructional departments to assist in preparing their student performance objectives. During our Instructor Training Course, conducted here at The Infantry School, we advise our instructors to follow these steps in developing a good student performance objective.

First, he must analyze his lesson objective very thoroughly and consider all of the actions that the student must perform in order to accomplish the stated lesson objective. The instructor then lists all of these student actions regardless of how major or minor they may appear, in order that the student may accomplish each lesson objective. During this step, he may see a similarity or even a duplication in some of the actions. He then combines them into "like-action" groups. Now, for the first time, he organizes these combined action groups into a logical sequence of actions so that he may accomplish the learning process of progressing the student from the simple to the more complex. Once he has developed his sequence of actions he is prepared to convert these actions into student performance objectives, considering the three basic elements of a student performance objective.

Let's take a look at a few student performance objectives that I have selected at random to determine if they contain these three desired elements.

This Student Performance Objective (Figure 8) does contain all three of the basic elements. The condition has been stated in that the student is given five inoperative PRC-10 radios. The measurable action contained in this student performance objective is: the student must be able to LOCATE malfunctions. Our minimum standard in this particular student performance objective is: three common malfunctions within thirty minutes.

Let's carefully analyze another student situation (Figure 9) to determine the performance objectives.

QUESTION: What is the acceptable standard within this student performance objective?

GENERAL DISCUSSION:

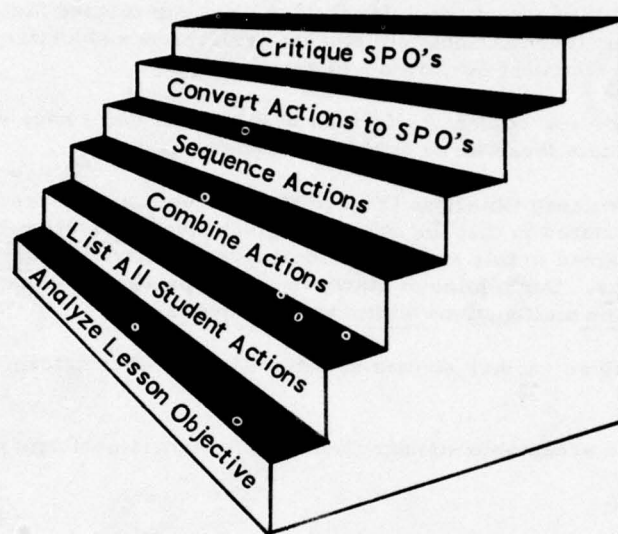
This particular student performance objective does not contain an acceptable standard, but the other two elements within the student performance objective are clearly stated. Here at The Infantry School we are requiring all student performance objectives to contain the measurable action. Based upon the subject matter being presented, they may or may not contain the performance condition and acceptable standard.

Now that we have prepared our student performance objectives, we then critique each one, utilizing the same process as we have used here during our discussion, before we send these student performance objectives to our instructional departments for approval. Once the department has approved our student performance objective, we present these student performance objectives in the logical sequence to accomplish our lesson objective within any given period of instruction.

QUESTION: What other service schools have instituted student performance objectives?

DISCUSSION:

Ft Rucker: Every lesson plan has knowledges and skills. Knowledge is everything we think they should know. Although many of our classes pertain just to knowledge, some of them do require the teaching of skills. This is the performance objective for the entire block of instruction.



**STEPS TO GOOD SPO's**

Figure 7.

**GIVEN FIVE INOPERATIVE PRC-10 RADIOS,  
STUDENTS MUST BE ABLE TO LOCATE THREE  
COMMON MALFUNCTIONS WITHIN THIRTY  
MINUTES.**

Figure 8.

**STUDENTS MUST BE ABLE TO FIELD STRIP AND  
REASSEMBLE AN M-14 RIFLE UNDER CONDITIONS  
OF TOTAL DARKNESS WITHIN THREE MINUTES**

Figure 9.

**GIVEN A MAP EXERCISE FOR AN OFFENSIVE  
MANEUVER, STUDENTS MUST BE ABLE TO  
INDICATE ON AN OVERLAY. . CHECKPOINTS,  
OBJECTIVES, PHASE LINES, AND AXIS OF  
ADVANCE.**

Figure 10.

FIRST SPO

SECOND SPO

THIRD SPO

FOURTH SPO

FIFTH SPO

LESSON  
OBJECTIVE

PERIOD OF INSTRUCTION

Figure 11.

QUESTION: Do you state this action in verbs or do you state that the student must obtain a general knowledge?

ANSWER: We usually list everything they should know in detail; state conditions, and our standard is how much they should know.

QUESTION: How do you refer to your teaching objectives at Ft Rucker?

ANSWER: We call them student performance objectives. I will give you an example - Without the aid of notes or references, "students must be able to LIST the components of the aircraft."

QUESTION: (By unknown attendee) How many student performance objectives would you have for a one-hour class?

ANSWER: (Ft Rucker) I would say four or five per one hour of instruction.

QUESTION: (By instructor) How do you develop and construct your teaching objectives?

ANSWER: (AG SCHOOL) We list for our lesson plans an overall objective. We outline in broad terms what we want the student to get. In front of the objective we list the main points of this lesson plan. In other words, the student must be able to indicate, discuss, perform or maneuver. Specifically, we state what we want the fellow to leave the classroom with.

COMMENTS FROM THE ASSISTANT COMMANDANT:

The Infantry School has frankly fallen in love with this type of instruction. It helps the student to focus his attention on what he must be able to do as a result of instruction.

QUESTION TO THE AC: Doesn't this give away the examinations?

AC: It probably does. But really, does that make a lot of difference? Certainly it helps the student to sort out the techniques and skills that he must leave here with. The examples shown here today deal specifically with hardware, but here at The Infantry School we believe they are easily adaptable to tactics. In other words, the student must be able to EXPLAIN, INDICATE, DISCUSS, and etc. Further, the instructor utilizing student performance objectives really knows what he is teaching to the student. This is particularly helpful when a new commandant asks him what he teaches. The instructor can be specific in his answer. You can show not only the commandant but the student, precisely, what you expect him to accomplish in your period of instruction.

INSTRUCTOR: What is your service school primarily using to convert teaching points to student performance objectives?

ANSWER: We use the format that you use here. More details in writing the lesson objective.

QUESTION FROM AUDIENCE: How long have you been using student performance objectives at The Infantry School?

ANSWER (INSTRUCTOR) About a year.

COMMENT FROM AUDIENCE: I feel this could cause you at The Infantry School to find that in certain areas you are going to have to instruct a little more to meet the objectives.

ANSWER (INSTRUCTOR): Precisely, this fulfills our concept of training.

QUESTION (COL JORDAN): What is your experience in analyzing your instruction?

ANSWER (MR FREEMAN): Revision of lesson plans into terms of student performance objectives has worked both ways: it revealed problems with "water" in them, and other problems needed more time to achieve the desired learning goals. When you ask the principal instructor what precisely the student must be able to do as a result of what he is teaching, you force him to reevaluate his instruction and do some soul searching. If an instructor fumbles and stumbles when answering this question, the student learning outcomes are probably vague or of little practical use.

QUESTION (ATTENDEE): Doesn't this run into memorizing? The student will only remember this on the examination. There is no room for him to let his judgment choose the correct answer.

INSTRUCTOR: We cannot rule out memorization entirely but let's take the principles of war for example. If we construct our student performance objectives stating the student must be able to LIST the principles of war - certainly this tends to require memorization - but we can take this same material and convert the student performance objective with an action verb of EXPLAIN. In other words the student must be able to EXPLAIN the principles of war and ANALYZE them in a given situation.

AC: We haven't stamped out memory completely. We evaluate the student action as to how he can apply, rather than to sheer memory. To date we haven't achieved our mission 100%. We haven't gone as far as we want to on our student performance objectives. We are continually searching our souls, and this is a continuous process to insure that we just aren't mouthing student performance objectives. A constant stage of evaluation and reappraisal is maintained. Whenever you can prepare an examination that really challenges the student thinking so that there is no pure answer, then he has to exercise his judgment and apply three or four specific actions. Here we show the students that real life isn't pure and perfect. Generally, the decision is selecting the best course of action.

#### PROGRAMMED INSTRUCTION

Programmed instruction began at The Infantry School in 1963, with a directive from CONARC to all service schools to investigate the use of modern instructional techniques such as programmed instruction and educational TV. This morning you received a conference on military TV here at The Infantry School. Programmed instruction is another new method of self-instruction, a new instructional technique. It is also called by other names (shown in Figure 12). Presently at The Infantry School we are only utilizing the self-instructional text. At civilian educational institutes they are using the self-teaching machines.

Upon receipt of the CONARC directive, the Assistant Commandant published a memorandum assigning the responsibility for writing programmed self-instructional texts to the principal instructors at The Infantry School. This insured that the current trends and doctrine developed in the Infantry were maintained in these programs. Therefore, the Assistant Commandant insured that an authentic program was maintained. He further elaborated on five areas of instruction applicable to programmed materials: First, was a precourse booklet. These are study materials sent to the student before he arrives for his resident course of instruction. The student is required to complete this material while enroute to Ft Benning. For example, the map reading committee has prepared a programmed instructional text for the CAR and ACAR courses. Upon arrival at the school for their resident instruction, they complete an examination based on the material that has been programmed in the precourse booklet. Those who fail the examination are required to attend remedial instruction.

**PROGRAMMED INSTRUCTION**

**"A NEW METHOD OF SELF-INSTRUCTION"**

**"A NEW INSTRUCTIONAL TECHNIQUE"**

**ALSO CALLED:**

**PROGRAMMED LEARNING**

**TEACHING MACHINES**

**MACHINE INSTRUCTION**

**AUTO-INSTRUCTION**

**TUTOR TEXTS**

Figure 12.

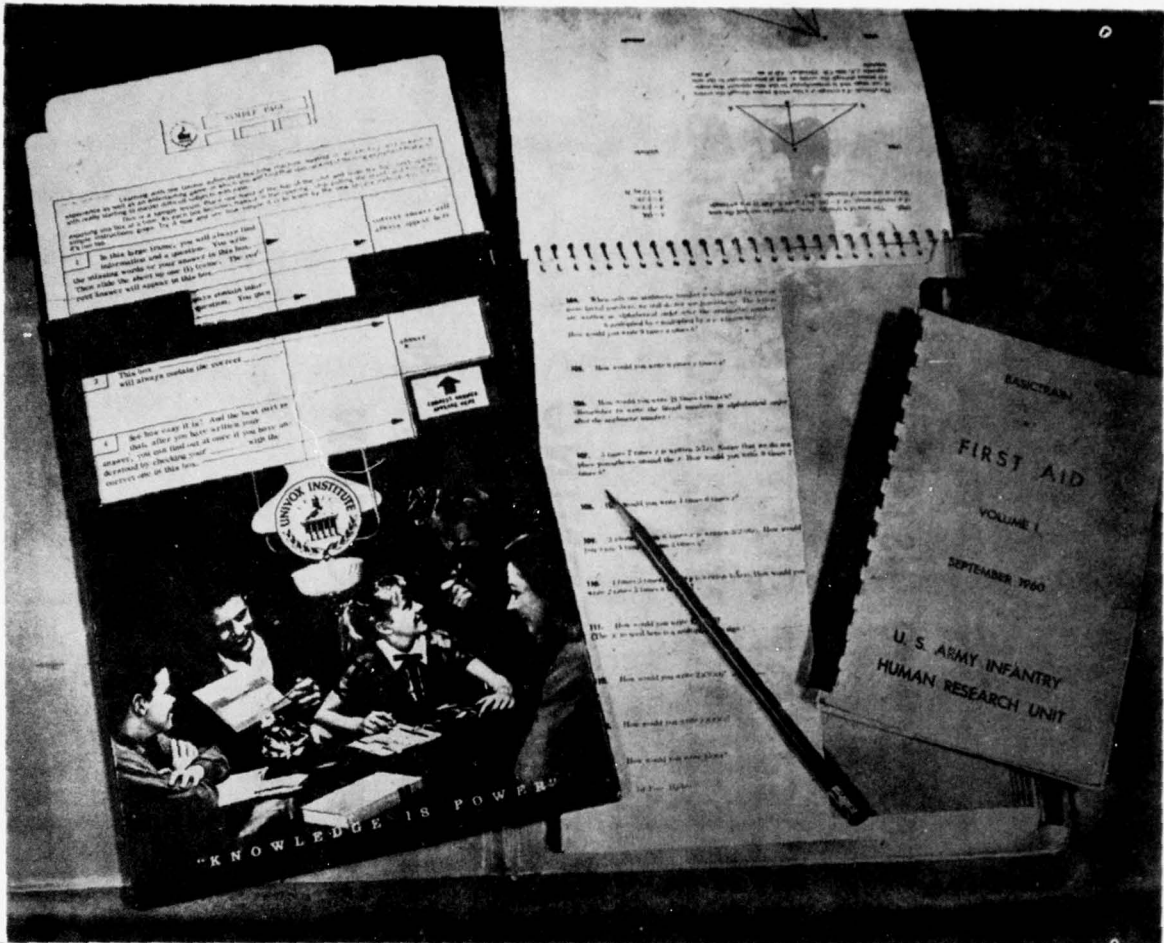


Figure 13.



Figure 14.

The second area is the preclass booklet, commonly referred to as an advance sheet. This enables the instructor to increase the level of the proficiency of the students in a given subject matter prior to his presentation of live instruction. The Office of the Director of Instruction currently has a preclass booklet on testing, which is given to the students attending the Instructor Training Course. These are potential instructors at The Infantry School. To replace some of our lectures on facts and principles we prepare programmed material, and use it as an in-class instructional text. This affords the student an opportunity to work under ideal conditions while teaching himself. Further, it gives the instructor the flexibility of helping individuals who are having difficulty in a particular area. The remedial text of programmed material is specifically designed for those students who fail examinations, or students who miss resident instruction due to emergency leaves, or accidents where they may be confined to the hospital.

Again, some booklets supplement our live instruction, and can also be useful for those students who demonstrate weaknesses in those subject areas.

The Department of Nonresident Instruction has selected some of our programmed material utilized for our resident classes, and is presently sending these texts to the troops in the field.

To aid our principal instructors in preparing programmed material, an Educational Advisor, assigned to the Office of the Director of Instruction, is available to assist and advise our instructors on how to select the precise objectives in order to control student behavior in accomplishing the lesson objective. We are presently using two major types of programmed instruction, the linear and branching.

First, let's discuss the characteristics of the linear method, and then we will compare it to the branching method. Under the linear technique, all the students are required to answer all items or frames in a set sequence. With this technique, material is constant, and time is the only variable factor. This material is presented to the student in small steps which may consist of a sentence or two. The student is required to actively respond by placing his answer in a fill-in block, or as a completion-type statement. Since the correct response only is shown to the student, there is no discussion of errors. By repetitious emphasis placed on the correct response, the student retains the knowledge, and we accomplish a low error rate of 5%. This type of programmed instruction is best suited to teach basic facts or principles, or even set procedures. For example, you may prepare a self-instructional text on how to calibrate a PRC PRC-10 radio. The student can adequately teach himself if he has the self-instructional text and a PRC-10 radio.

Now, the branching type of programmed instruction permits good students to skip part of the subject matter being presented. Furthermore, more information is being presented to the student at a given time, or within a given frame. This may consist of one-half page, or a page in length. Using the branching method the student must select the correct responses from a set of multiple-choice answers. By requiring the student to select an alternate, errors can be built into this program to check student understanding and retention of the knowledge taught. Since errors are deliberately built into the program, the branching method provides for discussion of these errors. Should a student select the incorrect response, he is so informed in the next frame; and is given a discussion of why he is incorrect through the use of the informational frames. Once he has completed this remedial instruction, he is then looped back to the original item and may progress through the rest of the instructional text. This technique is best suited in teaching tactics, whereby a student is required to interpret, analyze, and exercise his judgment. Here at The Infantry School we are using this technique to teach some of our unit level tactics, as well as organization of the infantry division support command.

Regardless of the type selected for preparing this programmed text, or whether the programmer or instructor combines both of these types in the same text, there are certain fundamentals that must be adhered to.

## LINEAR BRANCHING

ALL STUDENTS ANSWER	GOOD STUDENT SKIPS
ALL STUDENTS ANSWER ALL ITEMS	MORE INFO (HALF PAGE)
SMALL BITS OF INFO	STUDENT SELECTS ALTERNATE (INFO PLUS MULTIPLE CHOICE ITEM)
STUDENT CONSTRUCTS RESPONSE (FILL-IN)	
LOW ERROR RATE	ERRORS BUILT DELIBERATELY INTO PROGRAM AS ALTERNATE
NO DISCUSSION OF ERRORS	ERRORS DISCUSSED
BASIC KNOWLEDGE (FACTS, PRINCIPLES)	INTERPRETATIONS, INFERENCES, JUDGMENTS

Figure 15.

**FUNDAMENTALS OF  
PROGRAMMED INSTRUCTION**

**PRECISE LEARNING OBJECTIVES  
ONE SMALL STEP AT A TIME  
ACTIVE STUDENT RESPONSE  
IMMEDIATE, CONSTANT FEEDBACK  
SELF-PACING (LEARNER-CENTERED)  
LOW ERROR RATE**

Figure 16.

The principal instructor must select precise learning objectives. These objectives are stated in more detail than our student performance objectives. In a self-instructional text, we frame these objectives in small steps by the use of frames. To maintain student interest, we require him to actively respond by either the fill-in on the linear technique, or the selection of the correct response from a multiple-choice set of answers using the branching technique. To reinforce the student learning process while he teaches himself, we immediately feed back to him the correct response, or a discussion of his error.

Again, to insure that our instruction is centered on the student, the student can progress through the instructional text at his own pace. Those who have already developed a high level of proficiency in this subject matter can certainly complete the text more rapidly than those who are weak in this particular subject area. Utilizing either the linear or branching method, we obtain a low error rate of 5%.

QUESTION: What other areas of instruction are you presently programming at your service school?

FT RUCKER: I am not involved in programmed instruction, but I do know that they have it.

QUESTION (INSTRUCTOR): Who writes your programmed materials?

ANSWER: Each instructional department writes their own - whoever teaches the class. It then goes through the Director of Instruction. We are presently using two or three subjects in our Basic class. Although I have not talked to the instructors, the students attending my classes who have had it seem to like it quite a bit. Some go through it only once while others do it over.

DISCUSSION BY ATTENDEE: I recently completed the CAR course at Ft Monmouth. We took several courses in programmed instruction. I understand the Nonresident Instruction Department is going totally programmed. In my present assignment we are just beginning to scratch the surface. One question - it appears that programmed learning will be utilized much more in the future. Does this school teach what programming is to the students? I feel in our school that an officer should know the principles of this since it is the coming thing.

ANSWER: Students who are attending our resident instruction do not receive instruction on programming materials, but in our Instructor Training Course which is conducted for newly assigned instructors we present a two-hour block basically on the material that I have presented here today, to include the programmed text on programmed instruction that I have placed in your packet.

QUARTERMASTER SCHOOL: We are allocated very few hours to put across a great deal of instruction. We use the branching method primarily as a precourse text and finally as a supplement to the instruction they receive from the platform. We give the CAR course three hours of programmed map reading and a six-hour map exercise. We have very little time to cover subjects that they really need to know. We just give them a pretty fair general background and rely on programmed instruction to supplement our live instruction.

FT MONMOUTH: I just wrote a programmed text and I went to several places for information. They all said they had no experience in programming - that I should go back and come up with ideas, and they would take a look at it. I finally came up with a half-way decent programmed text. We find it very successful as a study assignment (advance sheet). When the student walks into the classroom, we throw him right into a map exercise, and as we walk down the aisles we can tell immediately which ones have studied the programmed material. Of course, this gives the students who have studied quite an edge on the examination, and the students who failed to utilize the programmed material develop an incentive to use it in the future.

QUESTION (ATTENDEE): As these texts are published at The Infantry School, isn't there some way we can receive copies?

INSTRUCTOR: Sir, if you will come by the office in Room 528, during departmental visiting hours and leave us your mailing address, based upon the availability of the material on hand, we will be glad to assist you.

MR FREEMAN: Hqs, CONARC, required a list of all published programmed materials at our service schools to arrive at CONARC no later than June 1965. If you contact CONARC they can provide you with all this information. But, they are going to disseminate this information sometime this fall to all of our service schools.

Gentlemen, in the rear of the classroom we have a display of the twenty programmed instructional texts that have been prepared here at The Infantry School. Mr Freeman and I will be available in that area to discuss them with you. It has been a pleasure to speak to such a distinguished group, and I wish you good luck.

## CHAPTER 5

### TACTICAL OPERATIONS HANDBOOK MAJOR DANIEL W. FRENCH BRIGADE AND BATTALION OPERATIONS DEPARTMENT

There has existed in the Army for many years a great need for a compendium of tactical doctrine.

The list of conflicts between the diverse elements of tactics is endless and added to daily as new weapons come into the inventory; and as service school instructors and CDC project officers come and go. The changes we do note are often not progress, but progressive misunderstanding. Throughout the Army the need to systematize and teach tactical science is growing as we realize that most differences in our tactical doctrine are not fundamental in nature, but can be easily resolved through systematic study and education. Try to explain delay or withdrawal as tactical operations, and distinguish them from the retrograde actions taken by security forces during the early stages of an area defense operation. Treat for a moment the logic of why the armor manuals mention supporting attacks, but fail to identify the main attack of a penetration or envelopment maneuver, which by definition calls for such a distribution of force.

The Tactical Operations Handbook (TOH) text, in form and content, subscribes to the Jomini theory that a definition of tactical terms is a prerequisite to the development of sound military thought; it is intolerant of loose military terminology, yet it recognizes that tactics is not a science of geometric figures, nor an art restricted to military genius alone. Instead, it underscores the endless chain of uncertain situations that exist on the battlefield; situations that require a variety of solutions and invariably demand tactical discrimination on the part of the decision maker. This presentation will cover the material content of the TOH, seen through the framework of definition, and show how this content is made relevant to student instruction at The Infantry School.

#### A. A Definition of the TOH Content - TACTICS:

1. The definition of tactics, as used here at the Infantry School is: "Military tactics is the science and art of disposing and maneuvering military forces in the presence of the enemy, or in battle. It involves the employment of units in combat, and the ordered arrangement and maneuver of units in relation to each other and the enemy, in order to utilize their full potentialities." This is fully explained in Chapter 5, MILITARY DOCTRINE, where tactics and strategy are compared and contrasted. Military strategy is the art and science of employing the armed forces of a nation to secure the objectives of national policy by the application of force or the threat of force. The principle difference between military tactics and military strategy is scope. Military strategy concerns the conduct of a war or lengthy campaign (series of military operations), while tactics concerns the conduct of a single battle (the actions taken to execute a specific military operation). Their similarity lies in the fact that both are oriented on the enemy, and are regarded as components of the science and art of warfare.

2. Tactical Doctrine: The summation of what is taught concerning tactics as a science and tactics as an art.

a. Tactics as a Science: Tactics is not an occult science beyond human understanding. Only the untrained and ill informed commander notes a relationship to astrology or other magic arts. Such mysteries that surround tactics stem equally from failure to isolate it as a subject of study, and from failure to keep it in proper perspective with other subjects of our military discipline. As a science it demands definition and study to ascertain the facts, to systematize this knowledge, and to evolve a response based on reasoning rather than intuition or conjecture. Accordingly tactics as a science employs the scientific processes of logical

induction and deduction, study of precedent, and verification in practice to develop our tactical doctrine and to evolve ways and means of applying that doctrine. Specifically, it covers the identification and enunciation of the principles, fundamentals, methods, techniques, and procedures of conducting battles - our tactical theory. We know this system of professional rules and methods as the basic tactics found in our numerous field manuals and training circulars.

Systematization of knowledge is necessary to a science. Like other disciplines, tactics has evolved a tactical classification by which the myriad of tactical actions necessary to dispose, maneuver, and employ troops in battle may be categorized for study, research, and teaching. This classification covers all the aspects of tactics as defined, including: the battlefield itself, the types of tactical operations, and the opposing military forces.

b. Tactics as an Art: Tactics is the skillful application of our tactical theory in combat operations. As an art, it involves as many facets as there are personalities sufficiently trained or gifted to employ the tactical knowledge available to our profession. It, unlike the science, will accept an intuitive response provided it is based on the instantaneous apprehension of the facts present; however, it too rejects haphazard estimates and guesswork. We must attempt to instill in all our leaders this ability to respond swiftly and skillfully to a situation.

Tactics as an art includes the ability to evolve a clever and effective tactical plan for a particular combat operation, and the troop leading procedure employed by the commander to develop and execute such a plan. Probably the most important aspect of tactics involved in its successful application is included in the concept of combat power. Development of combat power requires the skillful integration of the physical means available to the commander with intangibles present, the latter encompassing such items as professional competence, outstanding leadership, and the preparation of the force for combat. The composite of such intangibles is often described as "generalship". Superior generalship recognizes the operational and tactical environment present and attempts to isolate those factors which influence the decision. Here is the essence of the art: the skillful selection, combination, and application of the total means available to create a tactical force capable of executing its tactical mission.

#### B. Tactics as a Science:

1. Principles of War: Of greatest magnitude in the application of tactics are the principles of war, those universal truths applicable in all military situations and unchanged by time and technology. Their proper application is essential to successful tactical operations. The Army notes ten principles of war, discerned by military scholars from certain repetitious patterns on the battlefield, one of which was added only this year. They are: Objective, Offensive, Mass, Economy of Force, Maneuver, Unity of Command, Security, Surprise, Simplicity, and Public Support. The newest principle (in the sense of being recognized as such) is the principle of Public Support.

a. The principle of public support concerns the help of the people as a force to strengthen and assist the direction of effort. It has application to all forms of war. When total resources of belligerents are employed, public support is an essential element of the total war effort. In conflict short of general war, public support is needed to exercise conscious restraint; and in the geographic area of conflict, public support is sought to assist the achievement of military objectives. In the various phases of cold war, public support is needed to resist insurgency, or counterinsurgency, and to prevent overt armed conflict by denying aid and assistance to guerrillas.

b. In purely domestic forms, and with particular regard to nuclear war, public support involves recuperability and resiliency to insure the continued will to resist. Without that moral fiber of the general public at home, the war effort of any military force will suffer.

c. Public support as a principle of war covers the spectrum from civic action efforts (to improve relations with the population of an area), to the protection and control of civilian populations. It addresses itself to the will to fight.

2. Fundamentals: By definition, a fundamental is essentially the same as a principle; however, in military usage a distinction can be made between a tactical principle and a tactical fundamental - the latter may change over a period of time. Fundamentals represent general rules by which the principles of war are applied in combat situations based on the state of the art, organization, or tactical doctrine as it exists. Immutability is not claimed (as in the Principles of War) rather, fundamentals may change with significant changes in organization, equipment and doctrine. Their use is to bridge the gap between the principles of war on one hand and tactical methods and techniques on the other. The principle list of fundamentals are the Fundamentals of Combat Operations. These fundamentals are generally applicable to both of- fensive and defensive operations. The list is not complete nor exhaustive. It does represent accepted and time proven tactical guidance applicable to infantry, whether mechanized, air- mobile, or employed as a nucleus of a combined arms force. All tactical fundamentals taught (Fundamentals of: Offensive Tactics, Defensive Tactics, Retrograde Tactics, Reconnaissance Operations, Security Operations, Airmobile Operations, etc.) illustrate the application of prin- ciples of war in tactical operation and supplement the list of "Fundamentals of Combat Opera- tions."

C. The Material Content of The Tactical Operations Handbook:

1. Part One: Generally, everything that has been said so far is covered in Part One of the TOH entitled TACTICAL DOCTRINE, with a few exceptions that will be noted shortly. In actuality, Part One of the TOH forms the basis of discussion for the rest of the book - and the principles, fundamentals, and definitions found therein are constantly referred to, ex- pounded upon, and emphasized. Chapters 1-5 define the problem and discern the issues involved in tactical doctrine. Chapters 6-10 refer to tactics as a science and define the principles, fundamentals, and terms to be used. Chapter 11, THE APPLICATION OF TACTICS, concerns itself with the art of tactics as previously mentioned.

2. The Battlefield: The battlefield, as the area of operations, significantly influences the application of tactics and establishes the parameters for further tactical study. The sig- nificance and relationship of the battlefield to the particular combat operation is the subject of Chapter 7.

a. While the battlefield essentially represents only the site where the tactical operation and resulting battle takes place, it is difficult to separate its physical characteristics and dimensions from those of the opposing forces who elect to engage their forces thereon. It is the presence of these forces in various dispositions and formations that converts the area of operations from a geographic area into a battlefield. Hence, study of the battlefield includes not only consideration of its physical properties but also the dispositions and actions of the op- posing forces to accomplish a military mission.

b. The battlefield is important to the tactician as a site where he must tactically dispose his forces and engage in battle to gain a decision or to accomplish some other tactical mission. He properly views it as a unit, yet recognizes that its overall configuration and com- ponent subdivisions reflect the dispositions of the opposing forces. Comprehension of the inter- action and relationship of those elements is necessary for proper study, planning, and conduct of military missions by the tactician.

c. By its nature the battlefield is often compared to a playing field or gameboard, since such areas or devices represent the sites where opposing players engage in games whose purpose is the defeat of an adversary. The merit of the comparison is that similar to such

competitive sports, knowledge of the characteristics and dimensions of the battlefield is essential to orderly and proper planning and to conduct a tactical operation. Such comparison, however, should be made carefully for several reasons:

(1) War, as opposed to the game, is governed by only a few rules (international law), which generally have little impact on the employment of tactical forces.

(2) Military operations are conducted with a primary purpose of defeating the opponent and gaining control of his population and resources, not by simply overcoming him as in a game.

(3) While some forms of war, such as limited war may result in certain mutually acceptable restrictions which limit the battlefield (e. g., Korea), there is no referee to insure that the opposing forces observe the rules or restrictions normal to a game. In fact the opponent can be expected to break the self-imposed restriction any time he believes it will result in a decision favorable to him.

(4) The nature of a battlefield changes as the conditions present change. In this regard, it may be compared to a pinball machine which continually changes the characteristics of the playing area confronting the player, thus preventing repetition of successful patterns of play.

d. Successful military leaders have always regarded the battlefield in its total dimension, being equally aware of its depth as opposed to undue attention to the immediate enemy to his front. Today, alertness to the vertical third dimension is likewise essential to gain maximum efficiency from the means available.

e. Comprehension of the battlefield in its totality, as a contiguous area of operations, yet aware of its component parts and their relationship to each other, provides the tactician with an essential starting point to apply his art. He should visualize occupied, unoccupied, fire covered areas, and gaps as a product of positions and formations and note their relationship to objectives, avenues of approach, and maneuver. Similarly, he should recognize the significance of distance and interval and their impact on mutual support, reaction time, fires, etc. His awareness of the sensitivity of flanks, lines of communications, and base of operations should cause him to seek out the enemy's and to protect his own, to the degree consistent with his mission. Above all, knowledge of the battlefield will enable the leader to operate in a familiar environment and to recognize the relationship of his role and mission to other forces arrayed about him. While the familiarity of the environment is tempered by the ever changing nature of the battlefield, recognition of the fact that the basic orientation of any force on the battlefield automatically establishes certain dimensions of depth and width, with inclusive fire covered areas, flanks, LOC, etc., continuously provides the tactician with an important point of departure in his application of tactics.

f. Significantly, the characteristics and dimensions of the battlefield need not be described in the multitude of words and phrases which abound in the military jargon. In general, the battlefield can be described in non-technical terms or in terms which have long standing in the military profession and have precise definitions and meanings. These increase the ability of the tactician to master his professional field, to communicate with his associates, and to train the new soldiers. Proper use of such terms as forward area, rear area, gap, and front, preserve this advantage. Such usage is based on an overall appreciation of the battlefield and its included parts.

g. The Enemy: The last indispensable element in any discussion of the battlefield is the enemy. It is necessary to have an enemy force on the battlefield in order to dispose the friendly force tactically. When the enemy is located, immediate study is required to determine

more accurately the risks involved in a course of action. In the modern world situation, our strategic enemy is a real one. In Vietnam, our tactical enemy is also very real. To gain the required knowledge on these enemies, real intelligence is required. However, for training purposes a real enemy cannot always be made available; therefore, the enemy employed in peacetime tactical instruction, field exercises, and maneuver, is the Aggressor. Knowledge of his organization, equipment, and tactical doctrine permits realistic tactical evaluations and actions in training situations. The Aggressor is the subject of Section III, Chapter 7, and Appendix II, Part VI. The capabilities of our own forces are relative and only significant with respect to the enemy. An evaluation of relative combat power of the opposing forces usually indicates the type operation or combination of operations which the force may undertake to accomplish a mission.

3. The Tactical Moves (Chapter 8): If we understand the battlefield and the enemy we oppose, we must next look at the accepted moves that can be made by either player. This is the subject of Part One, Chapter 8. The ultimate objective of any battle is to kill the enemy. The battle is fought by a combination of offensive and defensive action. In their broadest sense, the terms offensive and defensive encompass the entire range of tactical operations in which combat power may be employed. In this chapter the relationship of offensive and defensive action is discussed, with an indication how they may be combined at higher command levels. Phases of the attack and defense are discussed along with the classifications of the supporting fires. Offensive and defensive operations are discussed only in their very general sense. The degree of resistance in the defense or the form of maneuver in the offense give rise to varying forms of offense and defense.

4. Functions and Capabilities of Forces (Chapter 16, Appendix III): Before extending our discussion beyond the battlefield and the generally accepted moves, a knowledge of the functions and capabilities of our own forces is required. The functions and capabilities of the forces available to the commander are key elements in the tactical disposition and maneuver of his forces before, during, and after the battle. However, it must be remembered that knowledge of the functions and capabilities of own forces attains tactical significance only in relation to the functions and capabilities of the opposing force. With the enemy as a point of orientation, the force commander is then prepared to employ his principal means (fire and maneuver) to achieve combat superiority at the decisive time and place. This is the object of Chapter 16 - to introduce the functions and capabilities of forces. The basic content of this chapter is largely technical in nature as it addresses itself to the combat, combat support, and combat service support elements found in a division level of command and elaborates upon the functions of each. Additionally, the chapter compares the capabilities of combat forces with respect to relative maneuver/mobility capabilities, firepower, reconnaissance, surveillance and target acquisition means, and command and control/communication ability. Conclusions are drawn with regard to the capabilities and limitations of the infantry, mechanized infantry, armored, and airborne divisions. Also discussed are the capabilities and limitations of the maneuver battalions (infantry, mech inf, tank). Appendix III, Weapons Employment, supplements the information contained in Chapter 16.

5. Tactical Maneuver: The specific forms of offensive and defensive maneuver will now be more meaningful in light of the understanding of the battlefield, the enemy, own capabilities, functions of forces, and the principles and fundamentals expressed up to this time. Three basic forms of military operations are recognized for purposes of classification, they are: offensive, defensive, and retrograde.

a. Offensive maneuver is the subject of Chapters 17, 18, and 19. However, the offense is not discussed in any of these chapters as if it stood alone. Chapter 17 deals with maneuver of forces in the offense, but maneuver of forces in general as it pertains to the offense and defense is discussed first by defining the purpose, application, and intent of maneuver of forces in general. Then the forms of offensive maneuver (frontal attack, penetration, envelopment, turning movement) are discussed. Chapter 18 is concerned with the distribution of

forces and it too first discusses the scope, terminology, purpose, and application of distribution of forces in general. Combat formations are also discussed with reference to the situation and point of orientation that designates which formation is to be used. Then the chapter proceeds into distribution in the offense, elaborating on distribution in depth (by echelon), and lateral distribution. Organization for combat is the subject of Chapter 19, but organization is initially discussed in a manner applicable to any combat situation. The principles of organization, command relationships, tactical significance, and tactical missions are made relevant to organization for combat. The organization of the ROAD division and brigade is discussed briefly with respect to tactical control headquarters, allocation of troops, task forces, and teams. Finally, offensive organization for combat as it relies on infantry heavy, tank heavy, or balanced forces or teams is discussed.

In effect, Part Two is devoted to the offense, but the methods by which the forms of the offense are introduced and the topics which are used to discuss the offense are applicable to all the forms of tactical maneuver. This might be noted as a principle within the TOH; i. e., each succeeding topic relies heavily upon the topics which have gone before it - it is a building block concept. The section on the offense is longer size wise not because the data pertaining only to the offense is greater than the data pertaining to the defense, but rather because new principles of tactical significance must be developed to discuss the particular topic relating to the offense. The succeeding chapters on the defense assume a general knowledge of these principles when they discuss, for example, organization for combat in the defense.

b. Section Three is concerned with defensive tactics to include retrograde tactics. Chapter 24 introduces the principles of the defense and retrograde in detail in addition to the types and variations of defensive operations, special operations, and maneuver of forces in the defense. In Chapter 25 the area and mobile defense are detailed according to the functions and mission of each echelon, coordination and control, and other factors relating to the successful accomplishment of a good defense. In addition, topics such as reverse slope defense, strong point defense, and defense of a river line are discussed. Relief operations as they influence the conduct of a defense or a retrograde are the topic of Chapter 27. A relief in place to continue the defense or the attack is detailed according to planning and sequences of action.

c. The retrograde, Chapter 26, discusses the delay, withdrawal, and retirement, using all the topics developed preceding the chapter as a basis for the discussion, i. e., characteristics of the battlefield, functions and capabilities of forces, etc. Each form is discussed with reference to the actions taken by each echelon of the command, command/control and coordination, and the relative resistance indicated by the specific form of delay, withdrawal, or retirement.

6. Security (Chapter 21): Security of forces is an important consideration to each level of command, and Chapter 21 is devoted to this topic, particularly as it influences the conduct of the offense. There are many methods of securing a force. Such methods as maneuver and fire support means, reconnaissance operations, security operations, intelligence and counterintelligence operations, tactical cover and deception, and passive security measures are discussed in this chapter. Such security missions as guard, cover, screen are defined along with the guiding principles that govern each form of security operation.

7. Concentration of Forces: Chapter 20 is concerned with the concentration of forces as it effects the movement of forces and the selection of bivouac and assembly areas and attack positions. Relief operations also involve a problem in the concentration of forces and are given due emphasis in this chapter.

8. Coordination and Control - Troop Leading: The remaining chapters to be discussed deal not only with the science of tactics, but to a great extent with the art of the profession. The coordination and control of forces (Chapter 22) and troop leading procedures (Part IV) are

important elements of any successful operation. Phasing an operation, fire control measures, movement control measures, special control measures, communications means, orders and reports, and the use of liaison and staff officers are the particular topics of interest in Chapter 22. Part IV is the book within the book. It is perhaps the most significant first of this comprehensive effort to fill a void of many years in the field of tactics. Tactical planning is a complex and often misunderstood part of the tactical operation. Chapter 29 is devoted to detail the troop leading procedures for the commander of battalion level or higher. Both a detailed deliberate method and an accelerated method for tactical planning are outlined. In Chapter 30, using troop leading procedures as the guidepost to arrive at clear and intelligent orders, a combat mission is analyzed and moved to completion through every step of logical sequence. The six steps of the deliberate method are made meaningful by actual application and the employment of current techniques. The relationship of the sequence of commander and staff actions to staff and commander's estimate is portrayed graphically and demonstrated with actions and orders during a normal day of battle. Chapter 31 goes on to explain the peculiarities of planning the defense.

9. Glossary: There is but one part of the book left to be discussed, and it is the foundation of any tactical discussion. The Glossary of Tactical Terms attempts to clear up some of the semantic mud that surrounds every tactical discussion. Its use and acceptance by the tactical community of thought will greatly reduce the disputes which turn out not to be disputes of principle, but only disputes over the terminology. Most items of terminology included in this section are extracted from officially approved sources such as AR 320-5 and DA field manuals. Other sources are Webster's New World Dictionary, and definitions written and approved for use at The Infantry School. A wider acceptance of The Infantry School definitions is sought to increase understanding among all branches of the service.

We have discussed the Tactical Operations Handbook, noting its content and framework. Tactics has been exposed as both an art and a science, but is this really important? "Academic" cries the critic. "Of little practical importance" snickers the skeptic. "Give us the meat without the bone" states the practitioner. These are some of the criticisms made of the approach taken by the authors of the TOH. These reviewers expected another FM, but what did they get? --a tactical philosophy with workable principles and fundamentals that assist in selecting courses of tactical action. The TOH is founded on the principle that the unexpected can be the normal. It will be the commander who has the creative imagination (generalship) capable of moulding the principles and fundamentals (the science) into a workable plan that will win the battle. The TOH makes the academic practical. It provides the framework within which generalship can operate. To be sure, the TOH has not resolved all the questions, particularly if it is compared with specific points in any of the existing referenced FM's (7, 17, 23 series manuals). We feel though that it provides an acceptable compromise on many points of tactical dissent, and clears up many semantic problems. The TOH, when accepted as a user's manual, will require that existing FM's be brought in line with its reasoning. Another possibility is that the TOH itself will become the accepted doctrinal source of tactics for Army usage. Both methods of extending the TOH's influence are being investigated. To date it has been limited to instruction and student use here at The Infantry School, where it is a primary source document and takes precedence over other sources in matters pertaining to Infantry tactics. It is being kept current as changes in weapons and thinking dictate. A great deal of effort went into compiling this handbook and results are just now being noticed. It is an accurate and handy source for any tactical question, thus eliminating the need to reference many field manuals for student instruction and instructor preparation.

## CHAPTER 6

### MECHANIZED INFANTRY TACTICS

MAJOR DANIEL W. FRENCH

Brigade and Battalion Operations Department

Gentlemen, mobility is combat power . . . . The Frenchman Guibert, the prophet of mobility, gave this concept its initial impetus, and we have seen its fruition in such great commanders as Napoleon, Rommel and Patton. The introduction of tactical nuclear weapons to the battlefield has made mobility not an optional requirement for success but a mandatory element, essential to survival.

The current division organization which has produced a significant increase in mechanized infantry forces has given us a tremendous inherent mobility capability. As infantry instructors who teach the commanders and staff officers of these units and their supporting units, it is our task to plant the seed of knowledge as to the capabilities of these mechanized forces and the tactical methods and techniques applicable to their employment. This seed, once planted by instruction, and nourished by practical experience in the field, will ripen into the fruit - capable commanders with the skills and the mental mobility to match the tactical mobility of their units.

This discussion will cover two general areas of interest. First, an analysis of the capabilities and limitations of mechanized infantry forces and secondly, the tactical methods for employing a mechanized infantry battalion task force in both offensive and defensive operations.

At the close of the hour, I would like to spend a few minutes in a brief exploration of the impact that the proposed mechanized infantry fighting vehicle may have on tactical employment of mechanized infantry forces.

#### ORGANIZATION OF MECHANIZED INFANTRY BATTALION

Since any unit derives its basic capabilities and/or limitations from its organization and equipment, we must first review the organizational and equipment differences that set the mechanized infantry battalion apart from the standard infantry battalion.

We can summarize the major organizational differences very simply. There are none. Within sections and platoons there are differences of course, and these are primarily concerned with the maintenance and other support sections required to support the tracked vehicles. The only major difference is within the scout platoon/reconnaissance platoon. The mechanized battalion now has a scout platoon equipped with 9 M114 command and reconnaissance vehicles, while the infantry battalion will retain the reconnaissance platoon.

#### EQUIPMENT

The major equipment difference is the presence of 87 full tracked vehicles organic to the mechanized infantry battalion. This organic mechanization provides the battalion tremendous cross country mobility, a degree of armor protection, and an amphibious capability, which we will discuss more fully a little later in the hour.

The tracked vehicles of the mechanized battalion provide more than a means of transportation. The OEM weapons and the capability to carry additional squad weapons increases the fire power of the battalion tremendously.

Let us examine a comparative relative fire power value of the various battalions at ranges of 300 to 1000 meters. The difference in fire power between the mechanized battalion and the infantry battalion is primarily in the 91 additional 50 cal machine guns and the 44 additional 7.62mm machine guns which are organic to the mechanized battalion.

Tied very closely to fire power is the responsiveness of both the rifle company 81mm mortar section and the battalion heavy mortar platoon 4.2" mortars. In the mechanized infantry battalion, all mortars are mounted in full tracked mortar carriers. The capability of firing these weapons from their carriers reduces the response time required to deliver effective supporting fires to the rifle companies.

One other major equipment difference between the mechanized and "normal" infantry battalions is the amount and varied types of FM radio equipment. Because the mechanized battalion conducts mounted as well as dismounted operations it requires multiple FM radio communication. Each tracked vehicle is equipped with FM radio communications for command and control of mounted operations. The portable FM sets for command and control of dismounted elements are essentially the same as in the infantry battalion. This duplication of radios provides tremendous communication flexibility as well as the increased ranges required to support mechanized operations.

### TACTICAL OPERATIONS

Thus far in our discussion we have been talking about "pure" battalions. However, current tactical doctrine envisions the formation and employment of combined arms teams. For the balance of our discussion we will talk in terms of a mechanized infantry heavy battalion task force. For the purpose of this discussion, our task force is composed of a mechanized infantry battalion which has received the attachment of one tank company and has released one of its rifle companies.

This internal tactical tailoring of tank and infantry elements does not stop at battalion level. The task force commander will normally create company teams within the battalion task force. He does this by cross attaching infantry and tank platoons from company headquarters to company headquarters. The obvious question is - on what basis does the commander determine the make up of company teams? The organization of the company teams is based upon the commander's estimate and analysis of the tactical factors present in the specific tactical situation. These factors include the mission, enemy situation, terrain and weather, time and space, and troops available. The task force commander seeks to achieve the optimum organization and balance of combat power and capabilities for each of the subordinate elements so that each can accomplish its mission within the battalion scheme of maneuver. This organization for combat of the task force is based upon the commander's analysis of the situation as he knows it. It is not, however, a hard and fixed organization. As the situation develops in which one or more of the tactical factors change, the commander will change the organization of his force to meet the changing requirements.

Just as the battalion commander can modify the task force's internal organization to meet changes in the situation, the brigade commander may also add to or subtract companies from his attached battalions to meet changes in the brigade situation.

It is the extensive communications and organic mobility of the force which enables the commander to rapidly change the organization for combat and also to rapidly shift the weight of his attack or defense to the decisive point at the proper time. In essence, this is the heart of mechanized and tank tactics ---- mobile combined arms teams at each subordinate echelon, consisting of tanks, infantry, fire support, and engineers capable of rapid, semi-independent execution of a wide variety of missions.

This discussion now leads us to a more complete understanding of the capabilities and limitations of mechanized infantry heavy forces. I would like to briefly touch on a few capabilities. It was Bourcet who stated, "Calculated dispersion is often the only way to effective concentration". This is particularly apt in the nuclear environment. In the nuclear attack we visualize attacking units moving rapidly from deep widely dispersed assembly areas under the cover of nuclear preparatory fires, violently closing with the enemy at the point of decision... then immediately exploiting the effects of those nuclear weapons.

Since we anticipate that nuclear conflict will result in frequent and violent meeting engagements and since aggressor doctrine includes the meeting engagement as a type of offensive operation, we teach and practice the attack from march column. It becomes a coordinated action with the addition of fire support.

Mechanized infantry can and does operate at tank speeds. In a fast moving battle of maneuver, the force commander uses his mechanized infantry to maintain and increase the momentum of the tank heavy forces. Of some interest is the capability to cross inland water obstacles. By virtue of the fact that our carriers are amphibious, the mechanized force commander can place a great number of troops across an inland water barrier in a short time. Further, the provision of amphibious fire support vehicles allows the commander to build up considerable combat power rapidly on the far shore, thus enabling supporting engineers to begin raft and bridge construction sooner.

The mechanized infantry, when dismounted, has the same capabilities as the infantry for combat in built-up areas or wooded terrain. The mechanized infantry heavy task force can conduct all forms of offensive and defensive maneuver. Specifically of interest is the conduct of mounted daylight and night attacks and we will cover this further when we discuss the coordinated attack.

You will note that we also list infiltration as a capability of the mechanized infantry force and we use this as a technique of movement to assist penetration or envelopment.

The elemental tasks in the offense are quite simply stated as find, fix, fight, follow and finish and these can be equated to the types of offensive operations.

#### TYPES OF OFFENSIVE OPERATIONS

Our preliminary offensive operations are the movement to contact, and the reconnaissance in force.

Movement to Contact. Our purpose in the movement to contact is to make or regain contact with the enemy and then place ourselves in an advantageous position with respect to the enemy so that we can undertake further offensive action.

Reconnaissance in Force. The reconnaissance in force is an offensive operation designed to develop the situation and to give us information of the enemy's dispositions, weapons, flanks, rear, gaps, and reserves. This is particularly appropriate to mechanized forces since it is the fastest means of obtaining information.

Coordinated Attack. This is the deliberate attack undertaken to destroy the enemy by the coordinated efforts of all the force. We will discuss it in detail later on.

Exploitation. It is in the exploitation environment that the "spirit of the offense" manifests itself. Strong, mobile, combined arms teams keep the enemy off balance, allowing him no respite from battle, nor any chance to reconstitute an organized defense.

Pursuit. Pursuit is the logical extension of exploitation with the mission of final destruction of the enemy and is, therefore, the most decisive of our types of offensive operations.

The provision of nuclear weapons can telescope these offensive operations and there is no requirement for them to follow in this exact sequence. As a matter of fact, the prompt exploitation of nuclear fires may permit the pursuit to be launched during the initial assault.

#### OFFENSIVE EMPLOYMENT OF MECHANIZED INFANTRY HEAVY TASK FORCE

There are certain missions which the mechanized infantry heavy task force will normally perform in each of our types of offensive operation.

#### MOVEMENT TO CONTACT

1. Advance Guard. The mechanized infantry heavy task force may have the mission of ensuring the uninterrupted advance of the main body of the brigade or--
2. Covering Force. --suitably reinforced with artillery, engineers and other combat support be the covering force for the division.
3. Flank and Rear Security. Self-explanatory.

#### RECONNAISSANCE IN FORCE

1. Conduct Limited Objective Attacks. The mechanized infantry heavy task force is ideally organized to answer the question -- "Is the enemy delaying?" or "Is he in fact, in an organized defensive posture?" Further, by the conduct of limited objective attacks, this force, by either mounted or dismounted ground attack, may discover a weakness which may be immediately exploited. This violent closing with the enemy denies him the capability of using small yield nuclear weapons in conjunction with delaying tactics without inflicting casualties on his own troops.

2. Conduct Raids. The task force may conduct the raid method of reconnaissance in force either through the use of organic mechanization or by the use of the helicopters from within the division aviation battalion.

#### EXPLOITATION

The missions appropriate to the mechanized infantry force in the exploitation are those associated with the tasks of the exploitation, i. e., move and attack rapidly with maximum combat power forward on a broad front to prevent the enemy from reestablishing an organized defense or withdrawing in good order.

#### PURSUIT

We teach that the pursuit is normally conducted with two elements:

1. Direct Pressure Force. This force applies continuous pressure day and night against the withdrawing enemy. The sustained capability for rapid movement allows the mechanized infantry heavy task force to perform this mission.

2. Encircling Force. The mechanized infantry force is also ideally suited for operation as the encircling force against an enemy which does not possess equivalent mobility, or it may take temporary leave of its carriers and become airmobile through the assignment of army aviation support from the division or corps.

I stated earlier that we would deal with the coordinated attack in detail. For purposes of example, I would like to use the daylight coordinated attack with nonnuclear fire support.

### COORDINATED ATTACK

We conduct the coordinated attack in three phases; I will talk about two of these, the preparatory phase and the conduct phase.

Preparatory Phase. During the preparatory phase, preliminary operations are executed to tactically dispose the force to conduct the attack. For purposes of mobility comparison, assume that a task force (as a part of the division reserve) is moving from a rear assembly area 15 kilometers to the rear of the line of departure. An infantry battalion (not mechanized) using its own organic transportation, conducting a two shuttle motor march, would require 4 1/2 hours to be committed into battle -- whereas, its mechanized counterpart could accomplish the same operation in 68 minutes. One of the reasons is that the mechanized infantry force does not normally occupy forward assembly areas even though it may allow 1/2 hour for final orientation of junior leaders, organization of combat teams, refueling and resupply operations.

1. Concentration. Mechanized infantry heavy task forces will normally concentrate in the forward area, moving through attack positions in combat ready formations. This rapid concentration reduces vulnerability to enemy nuclear weapons.

2. Attack Planning. The mechanized infantry heavy task force commander uses an accelerated attack planning sequence and troop leading procedure and rapidly performs his continuing estimate of the situation. Orders are usually fragmentary in nature, issued over the radio.

3. Fire Support. Fires before the preparation will be completed and preparation fires begin.

Conduct Phase. We say that a mounted attack is one in which attacking rifle platoons are mounted in carriers for any part of their movement forward of the line of departure. We normally leave this decision in the hands of the mechanized company team commander.

To get a real feeling for the mechanized attack let us talk about how the mechanized rifle company team conducts its operation.

1. Mounted Versus Dismounted. One of the first decisions the team commander must make is whether to attack mounted or dismounted. He will carefully evaluate the enemy's dispositions, antitank means and location of heavy machine guns. He will then consider the available avenues of approach, cover and concealment, and distance to the objective. He will evaluate combat power to include availability and quantity of tank support, and other fire support to include smoke and time-fuzed munitions. From this estimate, he will determine how far he can advance under the cover of supporting fires and select tentative dismount areas as close to the objective as possible.

2. Methods of Attack Employed by the Infantry Rifle Company and Tanks. There are three general methods of employing the rifle company teams and tanks together in the attack.

a. Converging Routes. Tanks and infantry (dismounted) move on separate routes which converge on the objective. In this method, the infantry moves over the terrain most suitable for their employment. Normally, the tanks initially support the movement of the infantry by fire and then close on the objective in time to join the infantry in the assault.

b. Same Route. Tanks and infantry may close on the objective using the same route. This may be accomplished in one of two ways:

(1) Different Speeds. Tanks initially support the movement of the infantry by fire and then close on the objective in time to join the infantry in the assault.

(2) Same Speed. Tanks and infantry advance together at the same speed. This technique is normally employed when there are no positions from which tanks can initially support by fire or when there is an increased need for close mutual support between the tanks and infantry. The infantry may move slightly in advance of, between, or immediately to the rear of the tanks, depending upon the terrain visibility and enemy situation.

c. Tanks Support by Fire Only. When terrain or enemy-emplaced obstacles prevent tanks from closing on the objective, they may be required to support by fire only. This method is the least desirable since it does not take maximum advantage of the mobility, shock effect, and combat power of the tanks. As soon as the obstacle is breached or a suitable bypass is located, the tanks should rejoin the attacking infantry as rapidly as possible.

d. Methods of Tank Infantry Assault. There are two general methods of assault of an objective.

(1) Tanks Followed by Mounted Infantry. Tanks may advance and sweep over an objective under the cover of smoke and timed fire followed by the mounted infantry "buttoned up". Timed fires are lifted, infantry dismounts its carriers taking advantage of shock effect and mops up the objective or

(2) Dismounted Infantry Closing On Final Coordination Line and Joined in the Assault by the Tanks. Dismounted infantry fires and moves in small inconspicuous formations, taking advantage of local cover and concealment to close on the final coordination line, then tanks and infantry assault together.

e. Advantages of a Mounted Attack.

(1) Surprise and Shock. The surprise and shock effect of a mounted attack generates a combat power advantage for the attacker.

(2) Flexibility. The mechanized rifle company team retains flexibility by remaining mounted as long as possible. Once the force dismounts, the "die is cast" and the capability to rapidly exploit the reaction of the enemy is greatly reduced. Any tendency to dismount prematurely will slow the tempo of battle.

We think that this concept of flexibility must permeate every echelon of command in tank - mechanized infantry operations. The commander who rigidly adheres to a plan, no matter how good it is, and who does not take advantage of changing situations cannot expect success in a war of maneuver. The commander must be alert for the precise time to commit his reserves of fire power as well as maneuver, or he must be prepared for a variety of contingencies, some of which may cause him to have to discard his original plan entirely. In effect, he must constantly ask himself as Napoleon did "What should I do if the enemy suddenly appears on my flank or rear." This same flexibility must carry over into his defensive operations.

## DEFENSIVE OPERATIONS

### Types of Defensive Operations.

#### 1. Area Defense.

General. This is a defense based on retention of specific terrain. The commander uses his maneuver elements and fires well forward to stop and repulse the attacker. If the enemy does succeed in penetrating the line, the reserve is used to counterattack and destroy the enemy.

#### Mission of the Mechanized Infantry Heavy Task Force.

- a. Defend the forward edge of the battle area.
- b. Block enemy penetration.
- c. Counterattack.

Normally, we attempt to employ the preponderance of our tanks in the counterattack role to take advantage of their offensive capability.

#### 2. Mobile Defense.

General. In the mobile defense, minimum forces are deployed forward to warn of impending attack, canalize the attacking forces into less favorable terrain, and impede, harass, and disorganize them. Primary reliance is placed on the maneuver and fires of the reserve to destroy the enemy. This is the preferred form of defense on a wide front for the armored and mechanized divisions since it permits maximum use of offensive mobile combat power to destroy the enemy. The forward elements may defend or delay dependent on their planned use in the overall scheme. In this operation a portion of the FEBA is lightly held and the enemy is allowed to penetrate in a pre-selected area.

#### Missions of the Mechanized Infantry Heavy Task Force.

- a. Hold portions of the FEBA which we do not want penetrated (defend).
- b. Delay the enemy in the expected area of penetration (sufficient resistance must be provided to cause the enemy to mass).
- c. Move to block the penetration.
- d. Participate in the counterattack.

#### 3. Delay.

a. General. In the delay, the force while under enemy pressure, trades space for time while inflicting maximum punishment on the enemy. The force does not become decisively engaged. The mechanized infantry heavy force is especially well-suited to conduct a delay because of their mobility and capability to rapidly disengage.

#### b. Missions of the Mechanized Infantry Heavy Task Force in the Delay.

- (1) Defend.
- (2) Delay.

(3) Withdraw to avoid decisive engagement.

4. Withdrawal. In the withdrawal operation, all or a part of a deployed force disengages from the enemy. The purpose is to move the force away from the enemy and it differs from the delay in that we do not attempt to hold as long as possible. In the withdrawal, it is normal that some part of the force will be left in contact with the enemy as a covering force in order to gain time in the new position. The tasks of the mechanized infantry with the covering force are to maintain contact, protect tank forces, or delay the enemy in areas which are not suitable for the employment of tanks.

5. Retirement. This is a type of operation in which a force not in contact moves away from the enemy. The organization is similar to the advance to contact.

#### IMPACT OF PROPOSED INFANTRY FIGHTING VEHICLE

Historically, the development and standardization of full tracked armored personnel carriers to support mechanized operations has involved the use of fully enclosed carriers with a very limited capability for the squad to fight from the vehicle. This type of vehicle offered a tremendous advantage in that it could close on the objective under friendly artillery fires without subjecting the infantry to casualties.

There were also some disadvantages to this design. First - there was a definite problem in orientation of the troops to the terrain when they dismounted. Secondly there was a gap or lag in the fire superiority of the attacking force during the critical time of dismounting.

#### MECHANIZED INFANTRY FIGHTING VEHICLE

The tactical doctrine of several of our NATO Allies calls for mechanized infantry to fight from their carriers, dismounting only when forced to by enemy action. The carriers provided these forces are designed to facilitate the employment of the squads firepower while mounted, yet provide substantially the same degree of protection to enemy fire.

Tests recently completed here by the Infantry Board, utilizing a modified M113 personnel carrier revealed that the provision of firing and/or observation ports to the personnel carrier "substantially increased the ability of soldiers being transported to maintain a sense of terrain orientation and to acquire targets." It was also determined that "the provision of firing ports can contribute to increased combat effectiveness of the M113 Armored Personnel Carrier to the extent that they permit the members of the squad to deliver effective suppressive fire from within the vehicle." Further testing and evaluation is being conducted with prototype vehicles. The major impact of such a vehicle on our present doctrine appears to be that it will enable mechanized infantry forces to increase the speed of operations by reducing the frequency that they must dismount. Additionally such a vehicle would enable us to more frequently utilize the method of assault whereby the infantry closes on the objective before dismounting.

#### SUMMARY

"And the Lord was with Judah, and he drove out the inhabitants of the mountains but he could not drive out the inhabitants of the valley because they had chariots of iron."

Judges, Chapter 1, 19th Verse

In this rather brief discussion we have attempted to acquaint you with the tactical methods and missions of our current doctrine for the employment of our modern "chariots of iron."

The major tactical differences in the employment of mechanized infantry force revolve around two points.

First, the flexibility built into the mechanized force enables the commander to rapidly react to changes in the tactical situation by changing the direction and power of his attack in the offense or shifting forces rapidly in the defense.

Secondly, the mobility potential of the mechanized infantry force enables it to operate cross country at tank speeds, thus multiplying the shock effect generated by a powerful combined arms force rapidly closing with the enemy. These differences evolve from the inherent mobility, firepower and extensive communications of the mechanized force.

We have briefly reviewed the types of offensive and defensive operations and indicated the missions that mechanized forces may accomplish within these operations. Finally we reviewed the methods of attack and the assault, and briefly explored the possible effects on this doctrine of the introduction of the infantry fighting vehicle.

Since the Civil War, offensive tactical doctrine has envisioned the combination of fire power and mobility to carry the battle to the enemy. The mechanized infantry gives us tremendous capabilities to accomplish this. It remains now for us to teach future commanders to appreciate this capability and successfully apply doctrine to employ this capability to the maximum.

## CHAPTER 7

### COUNTERINSURGENCY TRAINING AT USAIS

MAJOR JOHN W. KENT

Brigade and Battalion Operations Department

There should be little doubt in anyone's mind that ground combat power in the form of the guerrilla is meeting with marked success throughout various areas of the world today. There should be equally as little doubt in anyone's mind that the majority of these incidents are being instigated or at least aided and abetted by the communists.

One historian's list of 21 warlike incidents which have taken place since World War II shows 17 of these incidents as primarily guerrilla actions and 16 of them involving major communist participation. In fact control of entire countries or parts of countries has been won by this guerrilla warfare, for example, China, Indochina, and Cuba.

With this success in mind, progressively greater emphasis has been placed on combating these guerrilla wars by the US Government, the US Army and in turn the US Army Infantry School.

During this period we will discuss the nature of this increased emphasis here at the Infantry School to include:

Counterinsurgency POI.

Scope of instructional problems and methods of presentation.

"Win in Vietnam" Program.

Special C/I instruction for students, staff and faculty on orders to Vietnam.

"Day in Vietnam" presentation.

An open discussion on C/I instructional problem areas.

This presentation will be informal in nature and although we will utilize the last part of the class for answering questions and discussion of problem areas, I would like for you to feel perfectly free to ask questions or make comments at any time during presentation.

In general, the overall objective for counterinsurgency instruction as presented at the United States Army Infantry School is "to teach the student that knowledge and skill required to meet the world wide needs of the Army in counterinsurgency operations to include: background of insurgency; communism; US counterinsurgency policy, strategy, and programs; and tactics and techniques with special emphasis on counter guerrilla operations."

This objective is achieved by presenting the instructional problems in the sequence and time frame as indicated below. As you read through this chart, note the comparison of FY 65 and FY 66 POI hours and you will see part of this increased emphasis on C/I instruction at the Infantry School. Also note that a wide disparity exists in the number of hours presented to CAR-ACAR and BASIC-OC Courses. This difference is due to the knowledge level "goal" for each of the courses and to the total POI hours for each course as allocated by CONARC. As a result of this, BASIC and OC classes are primarily lectures on the fundamentals and principles with fewer conferences and practical exercises than the CAR and ACAR.

PROBLEMS	CAR		ACAR		BASIC		OC	
	FY 65	FY 66	FY 65	FY 66	FY 65	FY 66	FY 65	FY 66
Communism	0	6	0	6	0	2	0	2
US C/I Policy	0	2	0	2	0	2	0	2
Fund of C/I	2	2	2	2	0	1	2	2
Legal Aspects of C/I	2	2	2	2				
Mob & Riot Control in C/I	3	3	3	3				
Fund of Psy Op & Civic Action	0	2	0	1	0	1	0	2
Fund of Guerrilla Operations	3	3	2	3	0	1	1	2
Unconventional Warfare	1	1	1	1	0	1	1	1
Fund of CG Op	4	4	3	4	0	2	2	4
Arty Employment in CG Op	1	1	1	1				
Combat Intel in CG Op	3	3	3	3				
Special Air Warfare	1	2	1	2				
Bde in CG Op	6	6	4	6				
Bn In CG Op	8	10	8	10				
Role of the MAAG Advisor in C/I Op	8	8	4	6				
Case Study - Algeria-Malaya	2	2						
Guest Speakers	5	10						
Evasion & Escape	1	1	1	1				
Air Mobile CG Patrol					9	9	9	9
Rifle Co & Platoon in CG Op					0	7	9	9
Totals	50	68	35	53	9	26	24	33

As indicated by the above figures, there has been an increase of 18 hours for CAR, 18 hours for ACAR, 17 hours for BASIC and a nine hour increase for OC students. However, in order to present a more complete picture of counterinsurgency instruction, we must include approximately 8 hours of integrated counterinsurgency training, such as civil affairs, use of chemical defoliants, etc., to each course thus making a total of 212 hours for the four classes for FY 66. Comparing this 212 hours for FY 66 with the 118 hours as presented in FY 65, there is a 94 hours increase or approximately 100% increase in counterinsurgency instruction for FY 66.

The method of presentation and scope for the problems presented to the CAR Course is as indicated below:

<u>Problem</u>	<u>Scope</u>
Communism	An integrated lecture, conference and case study covering the threat of communism to include: ideology, organization, goals, strategy and techniques employed in underdeveloped areas; doctrinal approaches of the Soviet Union and Communist China to political power. With particular attention placed on the various problems of developing nations and communist methods of exploiting these problems.
US Counterinsurgency Policy	A conference on US counterinsurgency policy and programs to include: background information on the scope of action of the cold war; goals and objectives of US foreign policy; announced strategy of the US; and current actions related to the global involvement of the US in counterinsurgency.
Fundamentals of Counterinsurgency	A conference on the fundamentals of counterinsurgency to include: concepts of the US Country Team; functions and missions of US MAAGs; organization and employment of US counterinsurgency forces; and "in country" counterinsurgency programs and plans.
Legal Aspects of Counterinsurgency	A conference on the nature of international law; the presence of American forces in host countries based upon invitation plus agreements; types of agreements; and insurgency and the status of participants.
Mob and Riot Control in Counterinsurgency	A conference on the fundamentals of mob and riot control to include: causative factors; mob psychology; basic principles of mob and riot control; command and staff planning for riot control operations; employment of troops; and application of principles in a type situation.
Fundamentals of Psychological Operations and Civic Action	A conference on the fundamentals of psychological operations and civic action to include: the positive program; environmental improvement; the concept of propaganda as it applies to counterinsurgency situations.
Fundamentals of Guerrilla Operations	A conference on the communist guerrilla to include: background material on resistance movements; organization of the guerrilla forces; objectives of guerrilla operations; and guerrilla tactics and techniques.

Problem

Scope

Unconventional Warfare

A conference on the US Army's concept of unconventional warfare to include: the three aspects of UW; guerrilla warfare, evasion and escape, and subversion against a hostile state; the objectives and conduct of UW within enemy controlled territory by indigenous forces; US Army concepts of UW under conditions of cold, limited and general war; and UW teams.

Fundamentals of Counter guerrilla Operations

An integrated lecture, conference and map exercise covering the fundamentals of counter guerrilla operations to include: the mission and general principles; conduct of police and combat operations; psychological operations and civic action as a part of counter guerrilla operations; tailoring of forces; organization for combat; organization of areas; and combat service support.

Artillery Employment in Counter guerrilla Operations

A conference on the tactical employment of artillery in counter guerrilla operations to include: problems encountered; forms of mobility and displacement; night operations; methods employed by artillery units in defense against guerrilla attack; and support of counter guerrilla airmobile task force.

Combat Intelligence in Counter guerrilla Operations

A conference on the production and use of combat intelligence in counter guerrilla operations to include: intelligence personnel requirements; information collection techniques and sources and agencies appropriate to counter guerrilla operations; counterintelligence planning and measures; and selected historical examples.

Special Air Warfare

A conference on special air warfare to include: mission, organization, and capabilities of USAF Special Air Warfare Forces; types of aircraft and weapons employed; and the tactics and techniques employed.

Infantry Brigade in Counter guerrilla Operations

A map exercise covering the employment of the infantry brigade in a counter guerrilla operation to include: evaluation of the civil and military situation; organization for combat; police operations in conjunction with local civil authorities; security of lines of communication; combat operations; and logistical support. The area of operations is in the vicinity of an international boundary of a country friendly to the enemy guerrilla. Emphasis is placed on command relationship unique to military operations in a country where a young republican form of government continues to function during military operations.

Infantry Battalion in Counter guerrilla Operations

A map exercise covering the techniques and principles in planning and conducting an infantry battalion counter guerrilla operation to include: the conduct of psychological operations and civic action; strategic hamlet concept; organization of an area of operation; conduct of police, harassing and offensive operations; employment of company and battalion reaction forces; and combat service support.

Problem

Scope

Role of the MAAG  
Advisor in  
Counterinsurgency  
Operations

An integrated lecture, conference and practical exercise covering the missions and basic tasks of a MAAG advisor in a counterinsurgency situation to include: the provisions of training and operational assistance to indigenous regular military forces and paramilitary units; planning for the use of Army transport aviation and the tactical employment of armored personnel carriers; participation in the organization of a village defense program; assistance in civic action; and case studies of factual advisory problems.

Case Study -  
Algeria-Malaya

A lecture and question period on the nature of the insurgent threat encountered in Algeria and Malaya; types of operations conducted to counter this threat; and lessons learned from these operations. (Presented by the British and French Liaison Officers.)

Evasion and Escape

A conference on evasion and escape to include: evasion; escape; survival; and the code of conduct in a cold war, counterinsurgency situation.

Guest Speakers

Experts in communism and the counterinsurgency field, i. e., Dr. Fritz G. A. Kraemer, Office of Chief of Staff, Department of Army, whose subject is "Ideological, Sociological and Political Factors in the Present Power Struggle" and Dr. Frank Barnett, President of the National Strategy Information Center, N. Y., whose subject is "World Communism".

As further indication of the increased emphasis upon C/I, a "Win in Vietnam" program was initiated at the Infantry School in September 1964 by the then Assistant Commandant, Brig Gen Norton. The purpose of this program was and is to "exemplify and support a determination to 'Win in Vietnam'". The key objective was: "What can and must we do to help the national effort in Vietnam?" Steering and working committees comprised of representatives from each department, staff section and major troop commands within the Infantry School and Center were established. These committees formulated the following phases, objectives and tasks for the "Win in Vietnam" Program.

Phase I: Preparation (October-November 1964).

Objective: To develop an organization for the conduct of the "Win in Vietnam" Program.

Phase II: Interest (November-December 1964).

Objective: To stimulate among the staff and faculty, school troops and students of USAIS, a greater interest in and understanding of the conflict in South Vietnam and to instill a greater confidence and determination to win the war against communist insurgency.

Phase III: Information (January-June 1965).

Objective: To identify infantry doctrinal, organizational and material needs in South Vietnam and in similar nations. To expand the scope of the participants and audience of the "Win in Vietnam" Program to include the population of Fort Benning and neighboring communities.

Phase IV: Education (July 1965 - ).

Objective: To insure the most suitable and effective instruction and education for all USAIS personnel applicable to their future assignments in Vietnam and in similar operations.

Some media by which this program is accomplished are:

Integration into the POI. It is our intention to keep all of our instruction as current as possible and to add new problems or subjects as the need arises. You have seen examples of this in the comparison of the FY 65 and FY 66 POI's and will see other indications of it as we continue through this discussion.

Guest Speakers at the Infantry School. In addition to those examples previously mentioned we also have "Speakers of Opportunity" in this field, i. e., recent returnees from Vietnam such as Colonel Wilbur Wilson and Colonel Ben Ward and allied students and visitors.

USAIS Speakers for Civic Organizations. Personnel from the Infantry School, speaking on Vietnam and the "Win in Vietnam" Program, appear before various civic clubs, high schools and colleges throughout the state of Georgia, and at times have traveled as far as South Carolina to speak on this subject. In the past 3 months USAIS speakers have appeared before 16 civic organizations in 6 different cities.

Daily Bulletin. Slogans and short quotes are printed.

Newspapers. Articles in the post newspaper the "Bayonet" and local Columbus papers.

Periodicals. Articles on the effort in Vietnam and counterinsurgency are submitted to such periodicals as "Infantry" and "Army".

Bulletin Boards. On which slogans, quotes and displays are posted. You have seen examples of these in the hallways of this building.

Special Displays. All troop units of the Infantry Center and departments of the Infantry School have "Win in Vietnam" displays and again there are examples in this building.

Special Reading Section in Library. All books pertaining to counterinsurgency and Vietnam have been gathered into one area within the School library in order that a person might have immediate access to all material on this subject.

TV, Radio. Two TV tapes on this subject have been made by local TV stations and several taped radio interviews for both local and national radio networks have been made. As an example of the above let me quote from the last "Win in Vietnam" progress report: "On 6 April 1965 at 1830 hours, a 30-minute documentary program, 'Vietnam Special', was presented by a local TV station. Considerable reference was made to the 'Win in Vietnam' Program during the presentation." This special was not only made up of interviews with personnel from the Infantry School but the still picture and movie footage used was provided by the School.

Command Information Program. Increased emphasis on the war in Vietnam and counterinsurgency and a portion of each commander's call is devoted to the "Win in Vietnam" Program. In the 30 March 1965 Information Summary, published by the 3rd Army Information Office, USAIS was congratulated for its initiation and promotion of the "Win in Vietnam" Program. It stated that the Command Information Program was incorporating this theme in their information program where appropriate.

This program has received considerable attention and many requests for information on this program have been received by the Infantry School.

To further prepare the CAR student, staff and faculty for duty in Vietnam, a special 40 hour POI is given to those personnel who have received orders to Vietnam. This POI is designed, and I quote from the directive, "to provide those students, staff and faculty on orders to the Republic of Vietnam with a concerted orientation toward background information on the country of Vietnam, United States' involvement in the Republic of Vietnam, and specifics pertaining to the requirements, tasks and duties of a MAAG Advisor."

These special classes are given during May near the end of the CAR Course. This presentation is given by staff and faculty and students who are returnees from Vietnam and by Vietnamese students attending the Infantry School. The Vietnamese officers cover such subjects as the history, geography, customs of Vietnam and "what your Vietnamese counterpart desires and expects from you." The presentations by American personnel covers the specifics of "this is what you will be doing in this job and how you can best accomplish it" at all levels and types of advisory and support unit positions. As stated above, this program now includes only representatives from advisory and support units, but it is anticipated that it will include representatives of US ground units in Vietnam as soon as these personnel start rotating back to the States and become available. This program was started 2 years ago as an experiment and on a voluntary basis. As a result of this experiment this program was formalized and proved to be such a success that it is now a part of our POI.

In seeking things which would help fulfill the objective of the "Win in Vietnam" Program, a copy of the script for "A Day In Vietnam", a production first presented at the AUSA Convention in 1964, was obtained from the Association. This production portrays a type day in the life of 11 advisors in Vietnam. These advisors consist of a:

- Battalion Advisor.
- Sector Advisor.
- APO Sergeant.
- Popular Forces Training NCO.
- Division Senior Advisor.
- Airmobile Platoon Commander.
- Armed Escort Gunner.
- Corps G3 Advisor.
- Special Forces Det A Commander.
- Division G5 Advisor.
- MACV J3 Staff Officer.

This production is a combination of slides, films, and people presenting... instead of talking about it let us look and listen to the first scene. This will give you a much better understanding of this production.

NARRATOR: "Here is a newspaper item that might appear in today's paper. It might have appeared in the past, and it might appear tomorrow:

'A United States Army enlisted man was wounded today while accompanying Vietnamese troops who beat off a Viet Cong attack in the village of Ngoc Ho, located in Ba Dinh Province, 70 miles south of Saigon. United States' officials said the enlisted man was serving as an advisor to an Army of Vietnam battalion which was airlifted by helicopter after a Popular Forces unit had been under attack for several hours. The Saigon government claimed 26 Viet Cong killed, while friendly losses were reported as 8 dead and 12 wounded. The name of the American advisor, a sergeant, is being withheld pending notification of next of kin!'

This may be all you will find on your front page concerning Vietnam - but seldom can a news item give an indication of the great variety and complexity of individual duties, which, in total, make up the Army contribution to that country.

The purpose of this presentation, which we have called 'A Day in Vietnam', is to give you, in as realistic a manner as possible, some comment on individual daily duties which make up this total picture. In the interest of security, this will be a story of a fictional, composite day, with fictitious names of people, units, and places. The visual aids are representative and not to be connected, word by word, with the message of the presenters. But what is described is real, and it takes place day in and day out. It involved the lives of millions of Vietnamese and many thousands of Americans.

This is an Army story, but this audience knows well that the Army effort is but a component within a component. The perspective must be maintained - the Army contributes to the total defense effort, and defense resources function under the Country Team concept which stems from our overseas policy at the national, interdepartmental level.

I believe that as you listen to these men you will find a better understanding of the Army's role in counterinsurgency, will understand better the complex military and civic functions in defeating subversion and will better understand why the objective of both sides is the winning of the people.

Let us assume that our day in Vietnam is this day, and that this day is coming to a close. Let's talk to one of our men who has been close to the action which was reported in your paper, and see how his day went.

BATTALION ADVISOR: 'I'm dead tired. I might not know much about the big picture, but it seems to me that the 3rd Battalion of the 39th Infantry has to fight the whole war by itself. This show today makes 6 operations so far this month - four with the whole battalion and two with a couple of companies. Me, I make 'em all - and now its time to get started on the after action report. Sergeant Dix could help with this, but, as you heard, Sergeant Dix went out by air evacuation this morning.

The first we knew about the Ngoc Ho trouble was at 0530 this morning, and the Popular Force troops had been shooting for about an hour by then. For you old timers, the Self Defense Corps is now the "Popular Force", and the Civil Guard is now the "Regional Force". Regiment told us that the choppers would be here for a 0715 take off, with a company of Huey's making two lifts. We had the 11th and 12th Companies lined up and ready. In general, the plan was to get a cut-off force across the road below town and push with the rest so we could back the VC against the river. A company of M-113's from the Cavalry Squadron had been started this way to catch anything going across the river and then come on across the link up.

I went with the 11th Company and Captain Tuan, the Battalion Commander, Lt Collins and Sergeant Dix were with 12th Company down below. Tuan did a good job of running this thing. He stuck close to the plan we had laid out together, and he did some fanny-kicking to keep it going. Maybe I can stick in my report another plug to get him the promotion he ought to have.

The VC broke off their attack on the village just as soon as our lead elements moved in. South of the town, we got a good bag of them, but that's also where Sergeant Dix got his hole in the leg.

Captain Tuan and I are on the eyeball-to-eyeball level of this advisory concept, and its been a big experience for me. Some guy told me he expected it would take at least 6 months before he and his counterpart could really work together. That's a crock of baloney. If you get two

people who have some common ground in their training and make some extra effort to see the other guy's way of thinking this "rapport" business can be set up in about five minutes. But maybe I had a lucky break on this. Tuan went to Fort Benning for the four-month course, and we can get pretty much of the same picture of things, whether its operations or just battalion housekeeping. Tuan's still a little touchy of doing things without getting approval of higher headquarters, but he's finding out that he can strike out on his own without getting in big trouble.

What next? We'll spend tomorrow cleaning up from this one, and with a little breather we can get back to some training. Call it what you want to - "in-place training", "combat readiness training", or just "training in between operations", we have to do it, and Tuan goes along with it. He told me the other day that he could really see a difference in performance when we squeeze in the time for the battalion to get this training. Priority still has to go to night operations training - patrolling and ambushes - so that's what it will be.

We also have to find the time to turn out a platoon or two for the District project on restoring the bridge. I promised I'd get in touch with the Sector Advisor on that today, but today was spent somewhere else.

An operation like today represents a good part of my mission, the pay-off part - contact with the Viet Cong. But in the long run, I'd say my job was to do as much as I can to work with Captain Tuan and make it an outfit that doesn't need an advisor. That includes training, logistics, administration, the whole thing, and I think we're moving in that direction.

It's been a long day!"

NARRATOR: So, that's the way it was with one of our battalion advisors. Another combat operation with what he now thinks of as "his" battalion - it doesn't belong to him, he belongs to it. We detected a sense of pride and a sense of progress in getting the mission accomplished.

The role of the battalion today was that of reaction to a VC attack on Provincial troops. In coming days it will more likely be on planned operations in response to intelligence. But what is the mechanism which ties together the regular troops - "ARVN", they are called, for Army of Vietnam - with the Provincial troops, such as the Popular Forces, and the Regional Forces? The keystone here is the Province Chief. His American military counterpart is called a Sector Advisor."

The Sector Advisor followed by each member of the cast as listed above gives a presentation on their day, based upon the Ngoc Ho incident, much in the same manner as you have heard the battalion advisor.

This production has proven not only entertaining but educational as well and has now become a permanent production here at the Infantry School. We plan to have it taped for TV in the near future and the problems of casting and setting will be alleviated.

For those of you who are interested in obtaining the full script of this production, it was published in the February 1965 issue of Army magazine.

Gentlemen, this is the picture of the counterinsurgency effort at the United States Army Infantry School, but as with all instruction, we do have some problem areas. The main problem area in counterinsurgency instruction that we face at the Infantry School is that of up-to-date information from Vietnam. Although we receive intelligence reports, interrogation reports, lessons learned, and some material such as combat notes and operation orders from the 173rd Airborne Brigade, we do not receive after action reports and operational reports. This applies to American ground force units as well as Vietnamese actions. Although this area has not been

cleared up completely as yet, certain steps have been taken or are in the process of being taken to remedy this problem area. Among these steps are:

Official and personal communication with units and personnel in Vietnam.

Interviews with all available recent returnees from Vietnam.

Interviews with Vietnamese students attending the Infantry School.

Official correspondence with DA and other government agencies.

Liaison with other service schools and agencies.

Liaison trip to MACV and American units in Vietnam.

It is our hope that through a combination of the above, we can present up-to-the-minute information in all of our classes.

As I stated at the beginning, I would like to devote the remainder of our time to a general discussion and questions from the floor.

What are your questions or comments?

In closing, I would like to issue an open invitation to all of you to contact the C/I Committee here at the US Army Infantry School at any time in the future when we can be of any assistance to you.

## CHAPTER 8

### ARMY AIRMOBILE OPERATIONS LT COLONEL JAMES R. WATSON BRIGADE AND BATTALION OPERATIONS DEPARTMENT

The Army Air Mobility Concept means many things to many people. In fact, if each of you tried to define this concept I'm sure that you would produce as many different definitions as we have members present. In order to establish a common point of departure for this discussion, I have selected a paragraph from the booklet titled The Army Air Mobility Concept published by Headquarters, Department of Army in December 1963.

"The Army Air Mobile Concept envisions the use of organic aerial vehicles to assure the balance of mobility, firepower, intelligence, support and command and control."

It is obvious from this rather brief definition that Army Aviation must provide the needed support in the areas mentioned, if the concept is to become doctrine. At this point we will briefly review the mission of Army Aviation.



**THE MISSION OF ARMY AVIATION  
IS TO AUGMENT THE CAPABILITY  
OF THE ARMY TO CONDUCT  
EFFECTIVE COMBAT  
OPERATIONS.**

Figure 1.

As you can see the mission of Army Aviation is very broad. In order to better understand the support that can be provided we will examine the five functions of Army Aviation.

The Mission Support Objectives are accomplished by providing aerial means to exercise the best possible command and control. When a commander is provided an aerial vehicle for this purpose ground obstacles and distances present less of a problem. This enables the

## MISSION SUPPORT OBJECTIVES

COMMAND & CONTROL

BATTLEFIELD SURVEILLANCE &  
AERIAL OBSERVATION

AEROMEDICAL EVAUCATION

AIR MVMT: TRPS, EQUIPT, SUPPLIES

AERIAL FIRE SUPPORT

Figure 2.

commander and key staff officers to be at the place where their presence is most needed for making observations and decisions relative to the conduct of operations. The next function, Battle Surveillance and Aerial Observation provides the commander with immediate up-to-date information about the enemy and the area of operations. The introduction of Airborne Surveillance devices such as the side looking airborne radar and infrared devices and improved aerial camera systems provides the commander responsive, economical and reliable means to keep an area or the enemy within a given area under an effective watch. This enables the commander to employ his forces based on the current situation and not on the situation that existed hours or days earlier. The next function, the air movement of troops' equipment and supplies is the most important function of Army Aviation. This provides the commander with the choice of action with less regard of terrain obstacles within the area. Objectives, such as supply dumps, command posts and lines of communications located in the enemy rear can be attacked and destroyed and the force extracted before a superior enemy force can react against the airmobile force. This I'm sure does not need further amplification at this time. The next function, Aerial Fire Support augments the ground commander's capability to deliver selective, responsive, accurate discriminating fires. This is especially true when a unit is engaged in an airmobile operation and is maneuvering beyond the range of ground support weapons. The aerial weapons are able to maneuver at the same speeds as the airmobile force, and in turn provides the fire support normally provided by ground weapons systems which because of their weight cannot accompany the force. It is quite obvious that no one function of Army Aviation stands alone. All functions must be accomplished simultaneously during any one operation if the maximum support that is available from Army Aviation is to be realized.

The tools that are used by Army Aviation to accomplish the mission are of course aircraft. At this time we will cover the present family of army aircraft and related equipment. The light observation helicopter currently in inventory is the OH-13C Sioux.

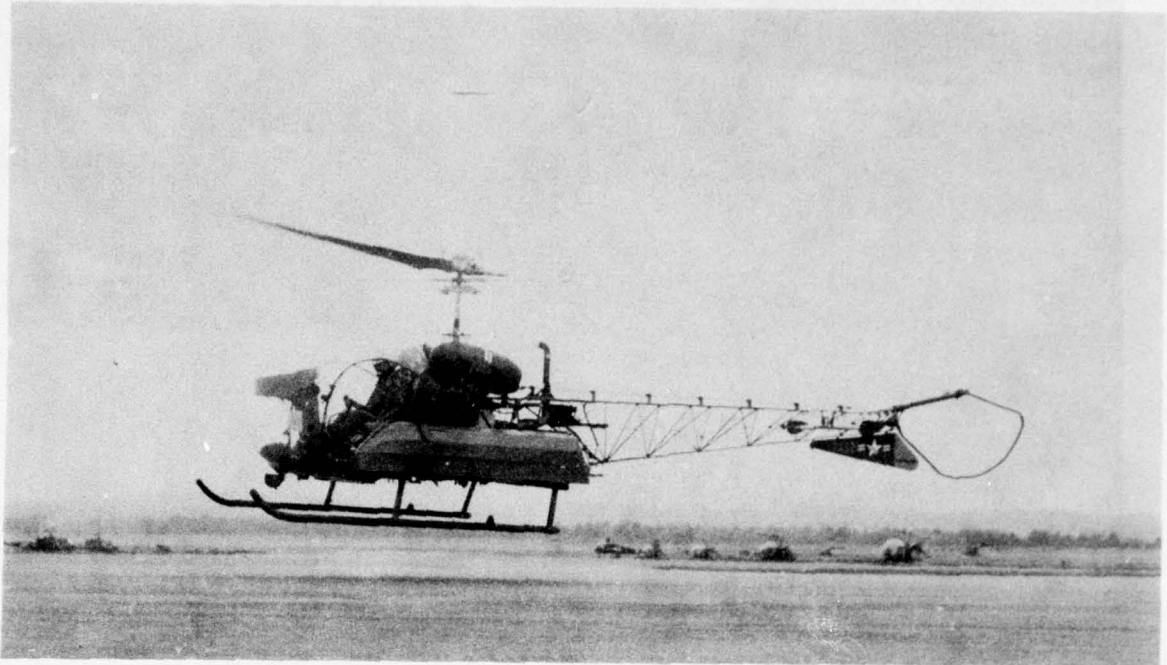


Figure 3.

This aircraft has been in inventory since the latter phases of the Korean War and will be found in inventory for some time to come. The characteristics of this OH-13 are: It will carry a crew of one and 1 passenger or a crew of 1 and 2 litter patients. It will cruise at approximately 70 knots and will stay aloft about 2 hours. The OH-13 is primarily used for command and control, surveillance and reconnaissance type missions. The OH-13 will accept an armament kit.

The next aircraft that we will cover is the light observation helicopter OH-6A which is produced by Hughes Tool Company. When available, this aircraft will replace the OH-13 and the O1-A Bird Dog and the U-6 Beaver. Early this year a contract was signed with Hughes Tool Company to produce more than 400 of these aircraft. The first of these aircraft are scheduled to be received by the Army early in calendar year 66. The OH-6A would carry a pilot, 3 fully equipped combat troops, will cruise at a speed of 125 knots, stay aloft some 3 hours and will accept an armament kit. The OH-6A will primarily be used for command and control, reconnaissance, surveillance and aerial fire adjustment type missions. It is expected that the Army will procure over 3400 of these aircraft.

We will now turn our attention to the Utility Helicopters found in the inventory. The UH-1 Series Helicopter manufactured by Bell Helicopter Corporation is a utility type compact design aircraft which features a low silhouette. The helicopter is powered by a single gas turbine engine. All models are capable of operating from unprepared landing areas under all weather conditions.

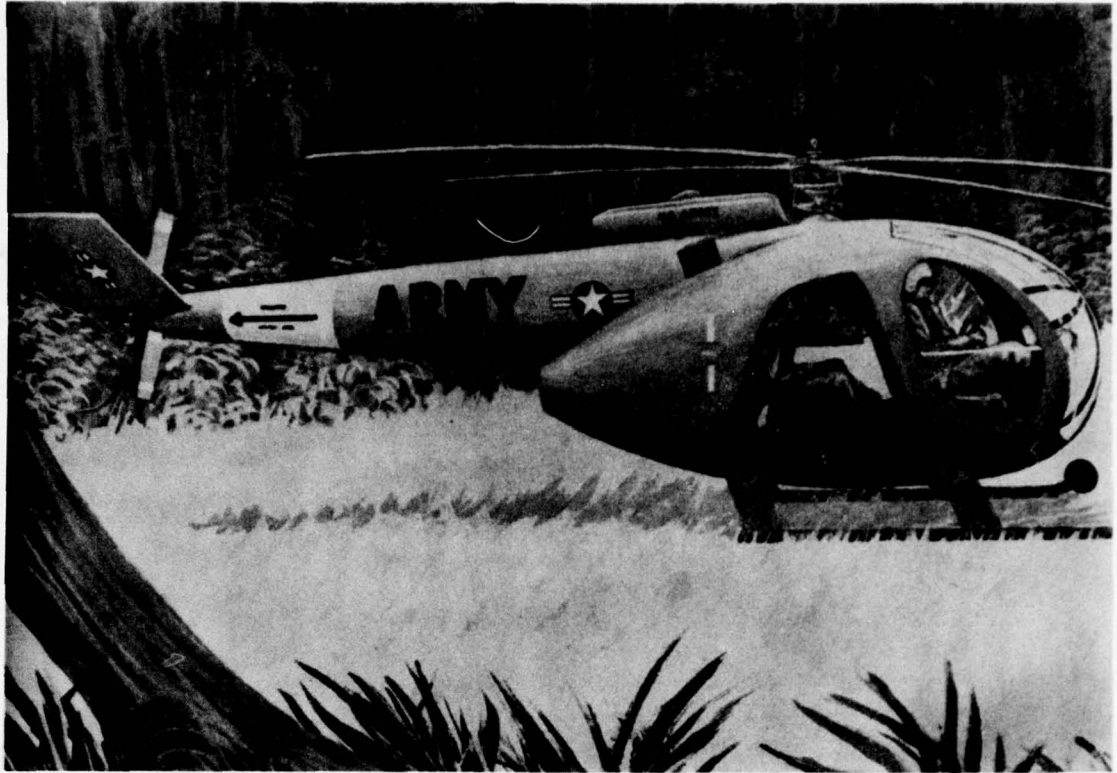


Figure 4.

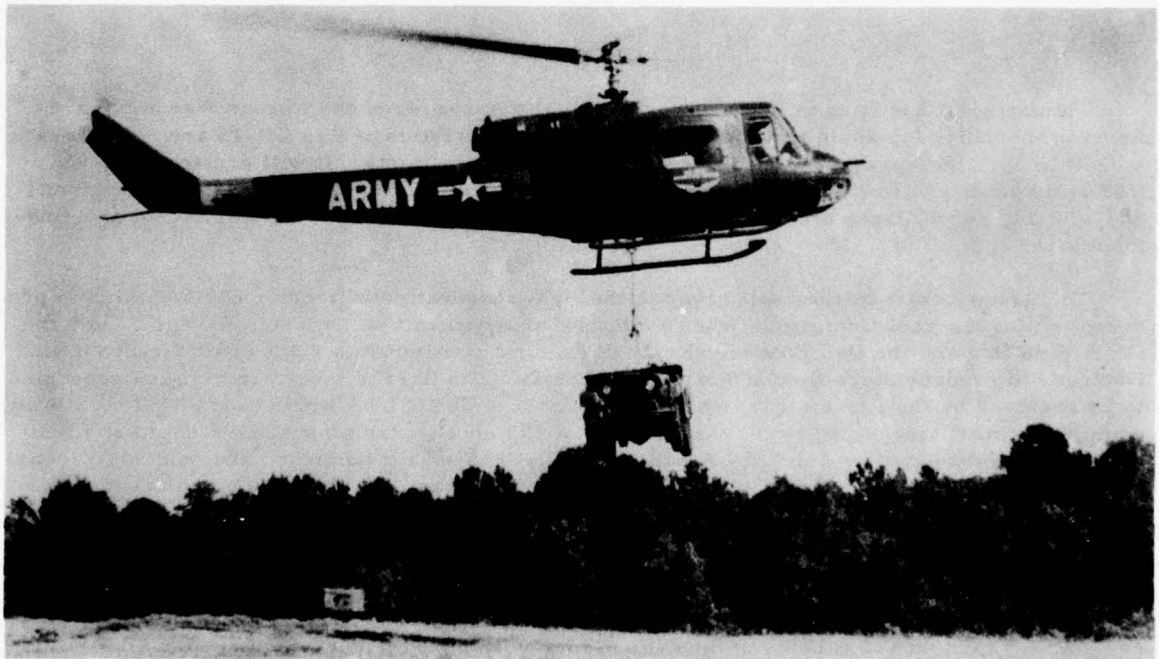


Figure 5.

We have 2 models of the UH-1 type helicopter, the BRAVO model is the aircraft that you see here. This particular ship will carry a pilot, 8 fully equipped combat troops or 3 litter patients and 1 attendant and lift approximately 4000 lbs, travel at a speed of about 90 knots and stay aloft about 1 hour and 50 minutes. The BRAVO model is primarily used for command and control purposes and as an aerial weapons platform.



Figure 6.

The UH-1D helicopter is shown on this vugraph. You will note that the cargo compartment has been extended to provide additional space in the cargo compartment. We commonly call this aircraft the Army aerial personnel carrier. It will accommodate a pilot and 12 fully equipped combat troops, or a pilot and 6 litter patients plus 1 attendant and can lift a useful load of approximately 4000 lbs. It will cruise at a speed of approximately 100 knots and stay aloft about 1 hour and 55 minutes. Although this ship is primarily used to lift troops, cargo and equipment it will accept armament kits, and can be used in the aerial fire support role.

This covers the current family of utility helicopters. Now we will turn our attention to the medium helicopter we have in inventory, the CH-47.

This aircraft is capable of lifting a crew of 3 and 32 fully equipped combat troops or 16,000 lbs. A point of interest is that this ship was used as a prime mover for the direct support artillery by the 11th Air Assault Division. The CH-47 will cruise at a speed of about 100 knots and will stay aloft approximately 2 hours. It also has an all weather capability. The CH-47 is the only medium helicopter we currently have in inventory. Although many of you realize that the old CH-37 medium helicopter is currently being used in the Far East and Europe. These aircraft will be replaced as more of the CH-47 aircraft become available.



Figure 7.

The only heavy lift rotary wing aircraft we have is the CH-54 which you see here.



Figure 8.

This aircraft was designed to lift out-sized loads, as you can see on this figure the CH-54 does not have a cargo compartment. However, a cargo pod has been developed to give this aircraft a troop carrier capability. The lift capability of this aircraft is approximately 20,000 lbs. During the tests that were conducted by the 11th Air Assault Division this ship was used to lift or displace a tactical operations center, which was housed in a standard aircraft pod. The CH-54 is not included in the TOE of any unit at the present time. It is expected that this aircraft will appear in the TOE at Army level.

This completes the current family of rotary wing aircraft. All of these aircraft will be used well forward in the combat zone with many of them being used as aerial weapons platforms; therefore, we will now cover the standard weapon kits that have been developed to be used on these helicopters.

The first we will discuss is the XM1 Weapons System. It consists of 2 M37C machineguns which are remotely controlled by the aviator. This system is designed for use on the observation helicopter. The machineguns are rigidly mounted on the skids of the helicopter. Although the pilot does have the capability of elevating the weapons a few degrees he must direct the helicopter towards the target in order to aim his fire. This system is primarily used for suppressive fire. This weapons system is obsolete and is being replaced by the M2 Weapons System. It is identical to the M1 system with the exception that the M37C machineguns have been replaced by the 7.62 machineguns.

The remaining weapons system that we have can be used in the aerial fire support role. The first of these is the M6 Weapons System.

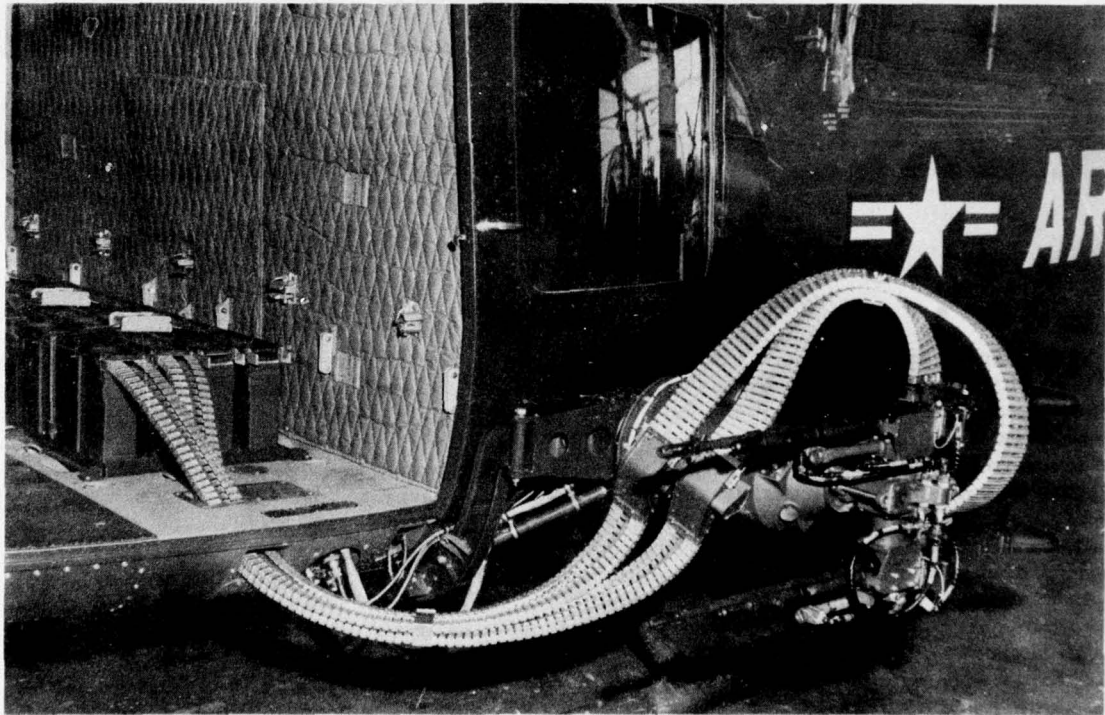


Figure 9

The M6 System consists of 4 7.62 machineguns, two mounted on each side of the helicopter. This system has a cycle rate of fire of 2200 to 2400 rounds per minute. The gunner can elevate the guns 15 degrees, depress them 60 degrees and deflect the system 12 degrees inward and 70 degrees outward. This system is capable of engaging point targets.

The use of armed aerial vehicles has not been restricted to machineguns alone, but has been expanded to include an aerial rocket system.



Figure 10.

This weapons system consists of 2 launcher pods each containing 24 rockets - 1 mounted on each side of the helicopter. The pods can be jettisoned. This system is employed as a direct fire area weapon in the air or ground role against troops, lightly armored vehicles and other point or area targets. The effective range of the 2.75 rocket is 700 to 2000 meters. The minimum fuze arming distance is 300 meters. This weapon provides us with an aerial artillery capability that can maneuver at the same speed as the maneuvering force.

At the present time in Viet Nam they are combining the machinegun and rocket systems thereby providing the commander with additional flexibility by making it possible to bring one or both weapons to bear on a given target from the same aircraft. This is the XM-16 weapons system. We have covered up to this point the automatic weapons mounted on the aerial vehicle that can support the ground commander in a normal ground role, or can accompany the air-mobile force. We have also provided the commander with aerial artillery which can maneuver at the same speed as his airmobile force. Now we will turn our attention to the armor threat which has long been a major problem facing the commander of airborne forces. The SS-11 is mounted on the utility helicopter to provide this needed support.



Figure 11.

As you see, six SS-11 antitank guided missiles have been mounted on the aircraft. This missile is a French developed, zero launched, wire-guided system, capable of providing point fire support against such small dimensional targets as tanks, armored vehicle, pillboxes and bridges. The warhead is capable of neutralizing any known armor in existence today. The maximum range of this missile is 3500 meters which is determined by the length of wire stored in the missile itself. It can be fired while the aircraft is on the ground, hovering or in forward flight. Each missile can be selected, launched and guided by a gunner sitting in the co-pilot seat using a sighting device.

The missile is guided by a small wobble stick mounted on a control box which is directly in front of the gunner. The minimum range for effective control is dependent on the proficiency of the gunner, but is normally 500 to 800 meters. The gunner has to gain control of the missile and guides it to the target. It takes some time after the missile leaves its launcher for the gunner to gain control of the missile. For most direct fire weapons the probability of obtaining a hit decreases as range increases. The hit probability of this system is unique in that the probability of hits increase with an increase in range. This system can be fired most effectively at ranges greater than 1,000 meters. This standoff distance keeps the aircraft out of range of most small arm fires and allows a gunner time to locate the missile in the optical sight and to stabilize it on target. A well-trained gunner can obtain approximately 80% first round hits.

We have covered the rotary wing aircraft we currently find in inventory and their related weapons system. Let us now move to the fixed wing aircraft. The first fixed wing aircraft we will discuss is the OV-1 Mohawk.



Figure 12

The OV-1 Mohawk comes in three models, the ALPHA, the BRAVO, and the CHARLIE models. But only the B and C models are found in TOE units. The ALPHA model is used only as a training vehicle. The characteristics of all of the OV-1's are generally the same. They're completely instrumented having an all weather capability, an automatic flight control system and will carry a crew of two. The normal cruise speed is approximately 200 knots, endurance at this particular speed is about 1 hour and 55 minutes. The OV-1 is used solely for surveillance purposes. The distinguishing feature between the BRAVO model and the CHARLIE model is the antennae pod that houses the side looking airborne radar antennae which you find on the BRAVO model. The BRAVO model is equipped with the side looking airborne radar unit. This aircraft using this equipment can detect vehicles moving at the speed of 5 kilometers or faster in excess of 50 kilometers from the point over which it is orbiting. This equipment is used more for area coverage or search than for point type surveillance. The image that appears on the scope in the aircraft is data linked to the ground station located normally at the division instrumented airfield. This means that as the information is available in the aircraft it is simultaneously available in the division area. This equipment is not affected by weather. This is the OV-1C. This aircraft is equipped with infrared and photo equipment. The infrared is employed to provide air to ground infrared surveillance of routes, zones or areas within enemy territory, and to acquire targets therein. For satisfactory imagery photo or infrared detectors aircraft are required to fly below cloud level in the target area. The infrared image that appears on the scope within the aircraft can also be data linked to a station in the division area, the image is similar to a fuzzy aerial photo. A good interpreter can determine what type of vehicle, the direction the vehicle is moving, or the status of a bridge from the imagery received. This capability gives a division commander an instantaneous intelligence source from which he can base the employment of not only his airmobile forces, his ground forces and firepower. The OV-1 is capable of being employed in the armed role. In fact some 4,000 lbs of ordinance can be lifted by this vehicle externally. The aircraft was used in Viet Nam for this purpose.

The next fixed wing aircraft we find in inventory is the CV-2B which you see in this vugraph.



Figure 13.

The CV-2B will carry a crew of three and 33 fully equipped combat troops or a crew of three and in excess of six thousands pounds of cargo, cruise at about 150 knots, can stay aloft from 2 to 6 hours depending on the payload it is carrying. The ship can operate from unimproved strips located in the combat zone. It has an all-weather capability and is primarily used to establish aerial lines of communication. The Army is currently testing an improved version of the CV-2 which is called the CV-7A. The major improvement that has been made on the CV-7A is that the engines have been replaced by turbo-prop engines which provide more horsepower per pound. This in turn, increases the payload of the aircraft and also improves its operational characteristics considerably, as far as operating from unimproved strips and at high altitudes. A point of interest the Indian government is using this particular aircraft to resupply their forces facing the Chinese in the vicinity of the Tibetan border in the Himalaya Mountains. Since this aircraft is manufactured in Canada by DeHavilland, the Defense Department has been reluctant to spend the money to procure this aircraft because of the gold flow problem. Senator Russell, recently made a statement that the Canadians had agreed to buy a number of fighter aircraft in this country if we would spend the like amount of dollars procuring the Caribou or the CV-7A aircraft. If this transaction can be worked out I'm sure that we will find these aircraft being phased into inventory in the near future.

This completes the manned fixed wing aircraft we have in inventory. However, we do have on unmanned aerial platform which is used as an aerial surveillance vehicle. This is the MQM-57A drone.

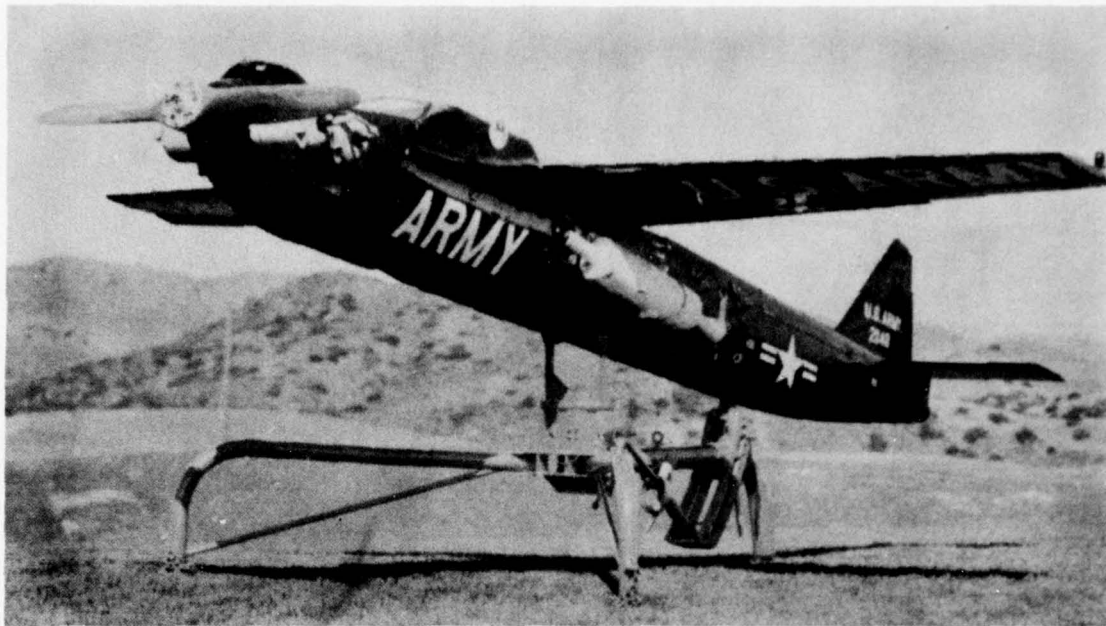


Figure 14.

This aircraft has a speed of approximately 150 knots and can stay aloft about 30 minutes. This aircraft has a zero launch capability and is parachute recoverable. It has a day and night aerial photo capability.

We have discussed up to this point the Army air mobility concept, the mission of Army aviation and the aircraft and related equipment we currently have in inventory. We will now discuss the aviation units organic to division, Corps and Army. The first aviation unit which we will cover will be the division aviation battalion which I'm sure all of you are familiar with.

The aviation battalion is organized with the headquarters and headquarters detachment, an airmobile company and an aviation general support company. The mission of the aviation battalion is to provide immediate responsive aviation support of the division, division support command, elements within the division without organic aviation and general support and reinforcement of the units of the division possessing organic aviation. The battalion has a normal staff, with the exception of one member a major who is the assistant division aviation officer. It is his responsibility to establish and run the Army aviation element which is part of the division tactical operations center. All aviation support requests are funneled through the division tactical operations center for approval or disapproval by the G3 based on the guidance provided by the Chief of Staff and the division commander. It is the responsibility of the assistant division aviation officer to advise the G3 and other members of the division tactical operations center on the feasibility of using aviation to support requested missions. It is also his responsibility to maintain a status of all the aircraft within the aviation battalion and to advise the other members of the staff if aircraft will be available at the requested time, in the required numbers. If the decision is made to provide the support to the requesting unit the requirement is levied on the aviation battalion to provide the means by the assistant division aviation officer.

# AVN BN INF MECH ARMD DIVS

MISSION PROVE: TAC AIR MVMT OF CMBT TRPS,  
SUPPLIES & EQUIP; AVN STAFF AVN SPT FOR:  
DIV HQ, SPT COMD, UNITS W/O ORGANIC ACFT,  
MED RN SURV & TGT ACQUISITION; GEN SPT &  
REINF UNIT W/ORGANIC ACFT.

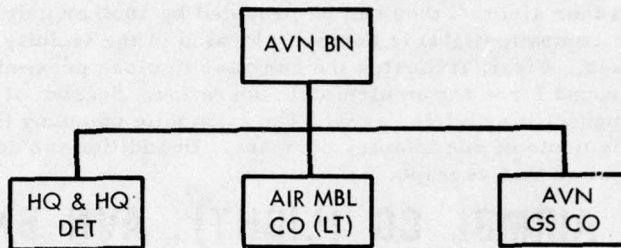


Figure 15.

## HQ & HQ DET, AVN BN

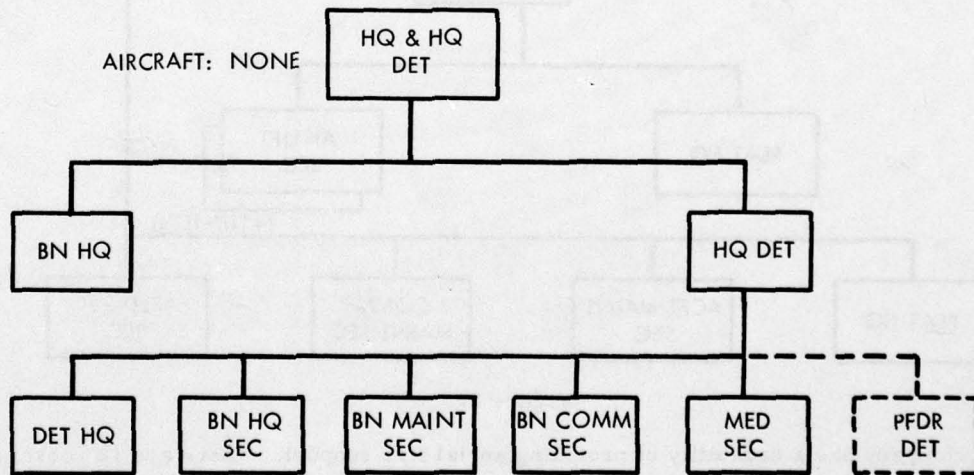


Figure 16.

This slide shows a break out of the headquarters and headquarters detachment of the aviation battalion. The only reason that I show you this particular vugraph is to point out that when a pathfinder detachment is attached to the division it is further attached to the headquarters and headquarters detachment of the Aviation Battalion. From here the detachment would be placed in support or attached to the ground unit that is going to conduct the mobile operation. This attachment will last only for the period of the operation.

The first flying unit we will discuss is the airmobile company (light) of the aviation battalion. This unit is equipped with 25 UH-1 Delta helicopters, the aerial personnel carrier. The company is organized into three airlift platoons and a service platoon. Each airlift platoon is further organized into two airlift sections, each equipped with four UH-1D type helicopters. The best method of employment for this unit is to use the entire company, if not the company, the platoon. Of course if you do not have a requirement for 8 helicopters, use an airlift section. If at all possible, the tactical integrity of the section should not be broken. If there is a requirement for less than four aircraft they can be provided by another unit found in aviation battalions. The airmobile company (light) is normally located in the vicinity of a reserve brigade. This serves two purposes. First, it locates the company in close proximity to the unit that will normally provide the ground force for an airmobile operation. Second, it provides for a dispersal of the aircraft throughout the division area. The airmobile company (light) can lift, simultaneously the assault elements of one infantry company. In addition the company can accomplish the other missions shown on this vugraph.

### AIRMBL CO (LIGHT), AVN BN

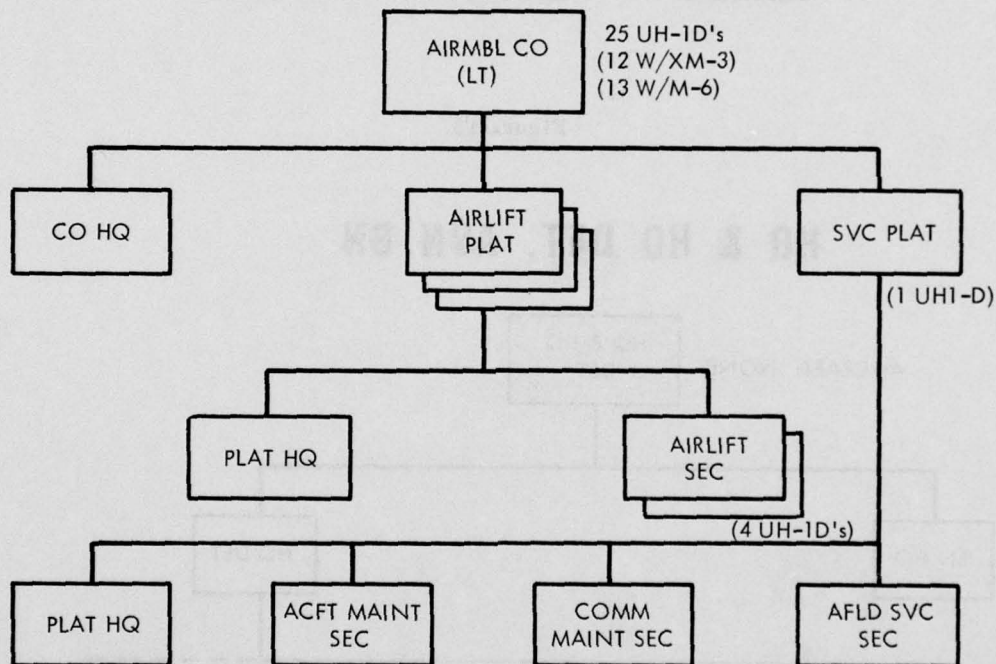


Figure 17.

This company has a capability of providing aerial fire support. There are 12 rocket and 13 machinegun systems available to mount on the aircraft. We do not use these aircraft in a dual role. Either use the aircraft in a troop lift role or in the fire support role, not both simultaneously.

It is the current Department of the Army policy to assign aircraft down to the lowest unit that habitually uses and can economically maintain the aircraft. This policy precludes assignment of aircraft to a number of units in the division which require aircraft but cannot economically maintain them. These aircraft are assigned to the general support company of the aviation battalion.

### AVN GS CO, AVN BN

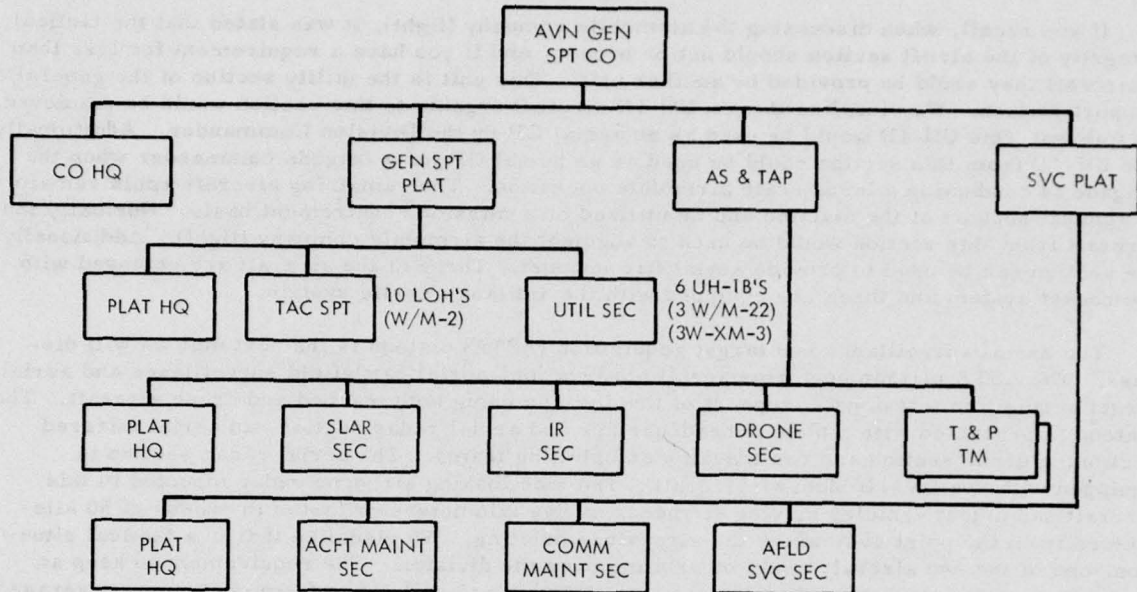


Figure 18.

The mission of the general support company is to provide aviation support to division headquarters, division support command and other units with organic aircraft. General support and reinforcement to units with organic aircraft and medium range surveillance. The general support company is organized with a company headquarters, a general support platoon, an aerial surveillance and target acquisition platoon and a service platoon. The general support platoon provides aviation support to units within the division without organic aircraft and reinforcement to other units with organic aircraft.

The platoon has a platoon headquarters, tactical support section and a utility section. The tactical support section is equipped with ten observation helicopters which provide aviation support and aerial transportation for division units without organic aircraft. We feel that most of the aircraft in the tactical support section will be allocated on an SOP basis. One method of employment would be that one or two of these aircraft would be located at the division helicopter pad to provide transportation for the division commander and his staff. The MP company commander, the engineer battalion commander, the signal battalion commander and the support command commander all have units operating throughout the division area. If they're to adequately supervise these units, they must be able to move rapidly to any point within the division zone. Therefore we feel each of these units will probably be provided at least one light observation helicopter for this purpose.

In addition to these units, the armored cavalry squadron commander requires aviation support. Although there are 26 aircraft in the Air Cavalry Troop which are organic to the Armored Cavalry squadron, these aircraft are tactical aircraft and should not be used for administrative purposes. Therefore if the squadron commander has a requirement for a light observation helicopter this helicopter would be provided by the tactical support section. The remaining aircraft of this section would be on stand-by to division instrumented airfield and employed on a mission basis.

If you recall, when discussing the airmobile company (light), it was stated that the tactical integrity of the airlift section should not be broken, and if you have a requirement for less than 4 aircraft they could be provided by another unit. This unit is the utility section of the general support platoon. We visualize the six UH-1D aircraft organic to this section would be employed as follows: One UH-1D would be used as an aerial CP by the Division Commander. Additionally, one UH-1D from this section could be used as an aerial CP for a brigade commander when the brigade is conducting a large scale airmobile operation. The remaining aircraft would remain in general support of the division and be utilized on a mission requirement basis. Normally the aircraft from this section would be used to augment the airmobile company (light). Additionally, the section can be used to provide aerial fire support. Three of the aircraft are equipped with the rocket system and three are equipped with the antitank missile system.

The aerial surveillance and target acquisition (ASTA) platoon is the next unit we will discuss. The ASTA platoon performs aerial observation, aerial battlefield surveillance and aerial target acquisition missions in support of the division using both manned and drone aircraft. The platoon is organized with a platoon headquarters and aerial radar section, an aerial infrared section, a drone section and two tracking and plotting teams. The aerial radar section is equipped with two OV-1B Mohawk aircraft. The side looking airborne radar mounted in this aircraft can detect vehicles moving at speeds of five kilometers or faster in excess of 50 kilometers from the point over which the aircraft is orbiting. We visualize that in a tactical situation, one of the two aircraft would be orbiting over the division. The requirement to keep an aircraft on station will depend on the tactical situation and will range from continuous coverage to coverage once every hour or so.

The aerial infrared section is equipped with 2 OV-1C Mohawk aircraft and is primarily used to complement the radar section. Once movement is detected by the aerial radar section it is very likely that an infrared equipped aircraft will be launched to procure more detailed information in the area that movement was detected. Remember the infrared section is primarily used for point and route type surveillance missions. The image that appears in the aircraft is simultaneously data linked to a ground station located in the division area. It is visualized that these aircraft will be employed on a mission requirement basis.

The drone section is equipped with the AN/USD-1 Drone System. This equipment complements the aerial radar and infrared section by providing the aerial photo support needed by the division within the division's area of influence. The tracking and plotting teams are used primarily to guide the drones over the selected target area actuate cameras at the proper time and return the drones to a predetermined recovery site where the film is recovered, developed, and delivered to the requesting agency. There are 2 tracking and plotting teams organic to this section. This gives the section the capability of handling 2 drone missions simultaneously. The OV-1 Mohawk aircraft found in the radar and infrared sections are also equipped with aerial cameras however they should not be used for aerial photo missions until the drone section has exhausted its capability.

This completes the organization of the Aviation Battalion. To review the capabilities of the aviation battalion we will look at Figure 19.

## CAPABILITIES OF AVIATION BATTALION

1. PROVIDE COMMAND CONTROL COMMUNICATIONS
2. AVIATION SPECIAL STAFF
3. MEDIUM RANGE SURVEILLANCE
4. CONDUCT AIRMOBILE OPERATIONS
5. OPERATE DIV AIRFIELD (24 HR ALL WEATHER OPN)
6. PROVIDE AIRCRAFT TO SUPPORT ALL ELEMENTS OF DIV
7. 100: MOBILE USING GND AIR VEHICLES

Figure 19.

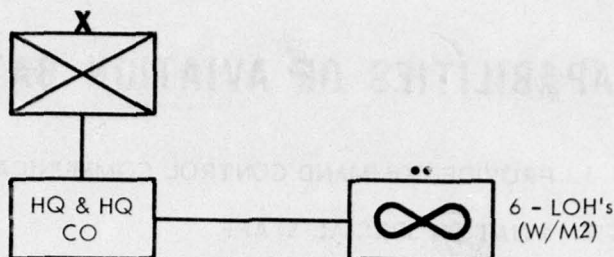
As you can see the battalion has the capability of performing all of the functions assigned army aviation to include command and control, battlefield surveillance and aerial observation, aerial medical evacuation, the air movement of troops, equipment and supplies and aerial fire support.

The next unit to be discussed is the aviation section organic to the brigade.

The brigade aviation section which is organic to the brigade headquarters and headquarters company provides aircraft for command and control, battlefield surveillance and aerial observation to the brigade headquarters and attached units. To accomplish this mission this section is equipped with 6 OH type aircraft. The section commander is a captain who is also the brigade aviation officer. In this capacity he advises the brigade commander and his staff on the utilization of army aviation and assists subordinate units of the brigade in planning airmobile operations, and integrating army aviation into their day to day operations. The brigade aviation section is under the staff supervision of the brigade S3.

It is visualized that the 6 light observation helicopters of the brigade will be employed as follows: 1 observation helicopter will be placed under the operational control of each of the forward battalions, one in all probability, will be on stand-by to support the brigade commander and the remaining aircraft will be in general support of the brigade and utilized on a mission requirement basis.

## INF BDE AVN SEC



**Mission.** Provide limited aviation support to the brigade headquarters and units attached to the brigade.

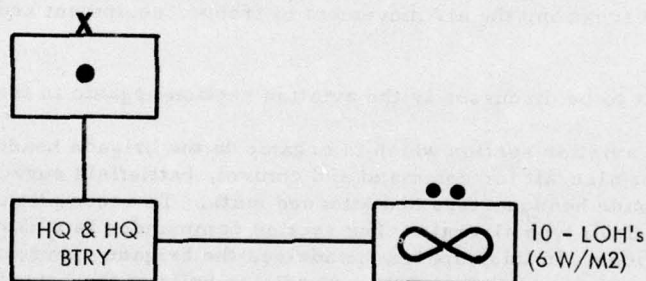
**Capabilities.** With its six observation helicopters, the brigade aviation section is capable of providing -

- (1) Aerial vehicles for command and control.
- (2) Aerial observation and battlefield surveillance.
- (3) Aerial wire laying.
- (4) Radiological survey.

Figure 20.

To provide the division artillery commander with aviation support an aviation section is organic to the headquarters and headquarters battery.

## DIV ARTY AVN SEC



**Mission.** Provide limited aviation support to the div arty hqs and the organic arty bns.

**Capabilities.**

- (1) Adjustment of artillery fires.
- (2) Aerial vehicles for command and control.
- (3) Aerial observation and battlefield surv.
- (4) Aerial wire laying.
- (5) Aerial radio relay.
- (6) Radiological survey.
- (7) Limited aerial resupply.
- (8) Augmentation to the Army Medical Service for aeromedical evacuation.
- (9) Limited battle area illumination.

Figure 21.

The mission of the division artillery aviation section is to provide the artillery commander with aircraft for command and control, battlefield surveillance and aerial observation. The aviation section is commanded by a major. In addition to this duty he is also the division artillery aviation officer. In this capacity he advises the division artillery commander and staff on matters pertaining to army aviation. To accomplish this mission 10 light observation helicopters are organic to this section. It is visualized that 2 of these observation helicopters will be placed under the operational control of each direct support artillery battalion to be used primarily for the aerial adjustment of artillery fires with the remaining held in general support with one standing by to support the Division Artillery Commander and his staff. Only 6 of the 10 aircraft in this section are armed.

The last major flying element found in the division is the Air Cav troop which is organic to the division air cavalry squadron.

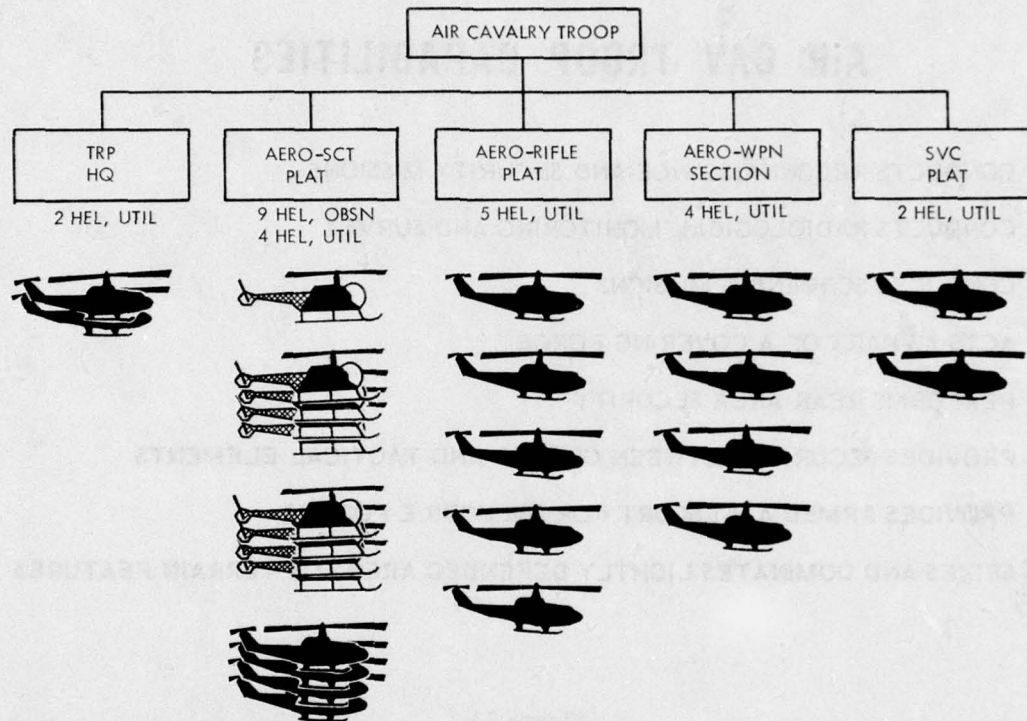


Figure 22.

The Air Cav Troop extends the reconnaissance and security capability of the armored cavalry squadron of the division. The troop is organized with a troop headquarters, aerial scout platoon, aerial rifle platoon, aerial weapons section and a service platoon. This is truly an aerial combined arms teams.

The aerial scout platoon is organized with a platoon headquarters, 2 aerial scout sections (light) and 1 aerial scout section (heavy). The platoon headquarters is equipped with 1 observation helicopter. Each aerial scout section (light) is equipped with 4 observation helicopters. These helicopters are armed with the M2 weapons system. The aerial scout section (heavy) is equipped with 4 UH-1B aircraft which are armed with the antitank wire-guided missile system. This system provides the troop and the squadron with an aerial antitank capability. Elements of this section will normally be integrated into teams formed from other elements of the platoon and company.

The aerial rifle platoon provides the troop with a ground capability. The platoon is organized with 4 rifle squads, there is no weapons squad organic to the platoon. The platoon has 5 UH-1D helicopters for transportation. The platoon can be fragmented to support 1 or more teams formed to accomplish separate missions. The aerial weapons section provides aerial fire support for elements of the troop or squadron. This section may be employed in tact or part of a team formed from other elements of the troop. The section has 4 UH-1B aircraft equipped with the rocket weapons system. The service platoon is organized with a maintenance section and a supply section, this platoon has 2 utility helicopters 1 in the maintenance section the other in the supply section.

The Air Cav Troop has a capability of performing the following missions shown in Figure 23.

## **AIR CAV TROOP CAPABILITIES**

**CONDUCTS RECONNAISSANCE AND SECURITY MISSIONS**

**CONDUCTS RADIOLOGICAL MONITORING AND SURVEY**

**CONDUCTS SCREENING MISSIONS**

**ACTS AS PART OF A COVERING FORCE**

**PERFORMS REAR AREA SECURITY**

**PROVIDES SECURITY BETWEEN GROUND AND TACTICAL ELEMENTS**

**PROVIDES ARMED AIR ESCORT FOR AIRMOBILE FORCES**

**SEIZES AND DOMINATES LIGHTLY DEFENDED AREAS OR TERRAIN FEATURES**

Figure 23.

There is one additional aviation unit in the division. This unit is the transportation aircraft maintenance company which is organic to the maintenance battalion of the support command.

This unit is capable of performing third echelon maintenance on all aircraft organic to the division, and has 2 utility type helicopters.

## TRANS ACFT MAINT CO, MAINT BN

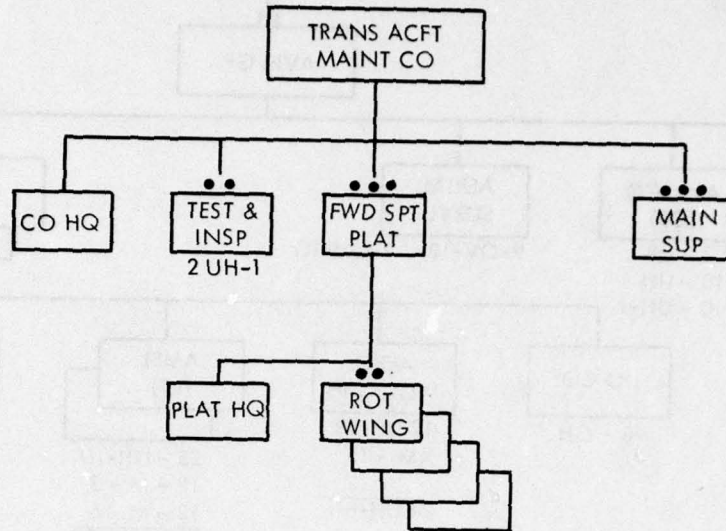


Figure 24.

Thus far we have discussed the aviation elements at division level. We are now ready to turn our attention to the aviation element found at corps and field army level.

Aviation within the field army is grouped so that the major lift capability is located at corps and army level while the majority of the command and control aircraft are organic within the divisions.

The type field army troop list we use as a teaching vehicle is a twelve division, three corps force - we will limit our discussion of the nondivisional aviation units in the field army to the aviation groups at corps and field army level.

The aviation group at corps will be discussed first.

The corps aviation group is organized with a HQ Co, Avn Co (GS), Aerial Surveillance Company and two airmobile battalions. We will not discuss the HQ Co and the Avn Co (GS) since these units provide aviation support to the aviation group and corps headquarters. The aerial surveillance company is the eyes and ears of the corps commander. There are eighteen OV-1 aircraft organic to the company. Nine are equipped with radar and photographic devices and nine are equipped with infrared and photographic devices. In all probability six of these aircraft will be refitted with target locator equipment when it becomes available.

The aerial surveillance company is normally employed to augment the division aircraft in the execution of the division reconnaissance and surveillance plans and to execute additional missions to satisfy the intelligence needs of the corps and army.

The two airmobile battalions are organized with a headquarters company, aero-weapons company, two airmobile companies (light) and two helicopter companies (medium).

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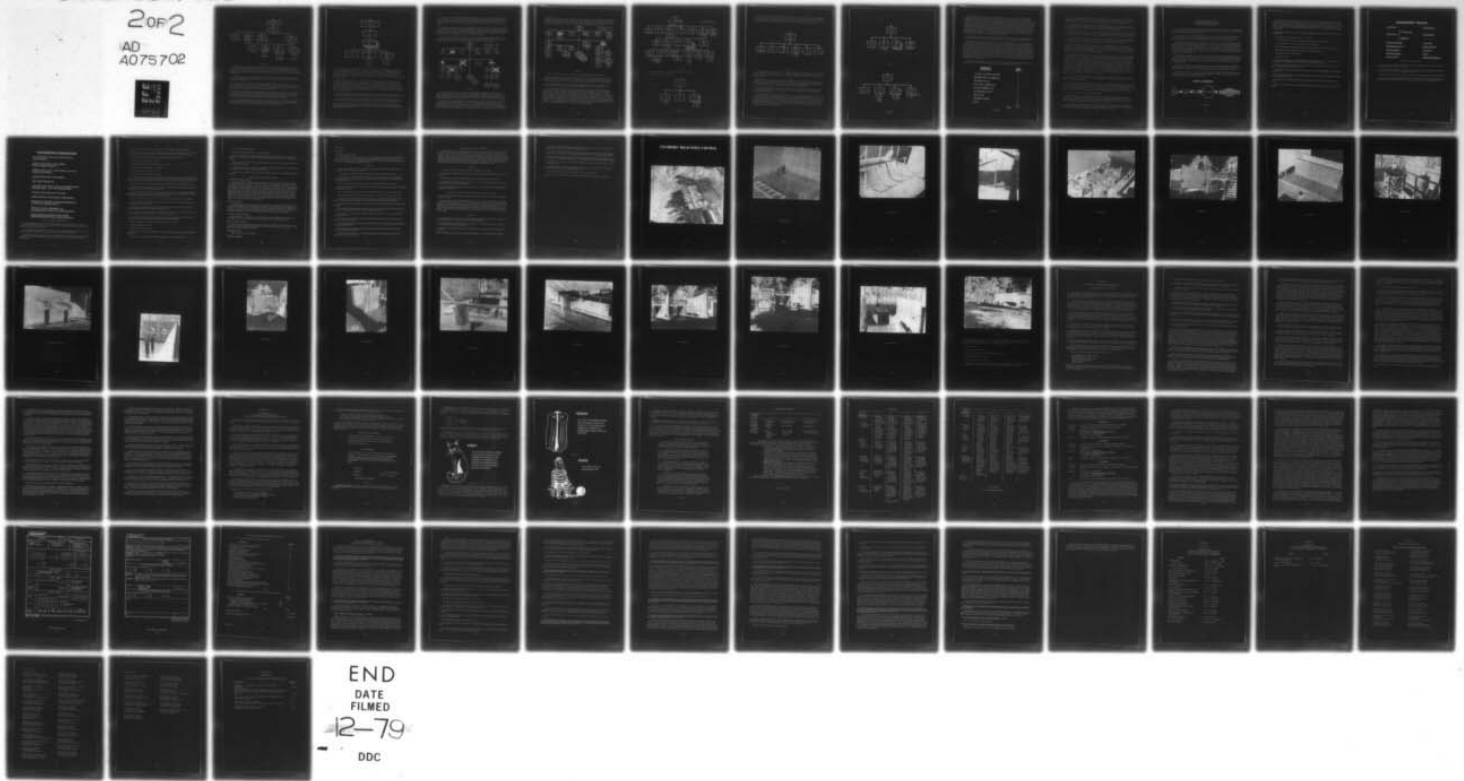
ARMY INFANTRY SCHOOL FORT BENNING GA  
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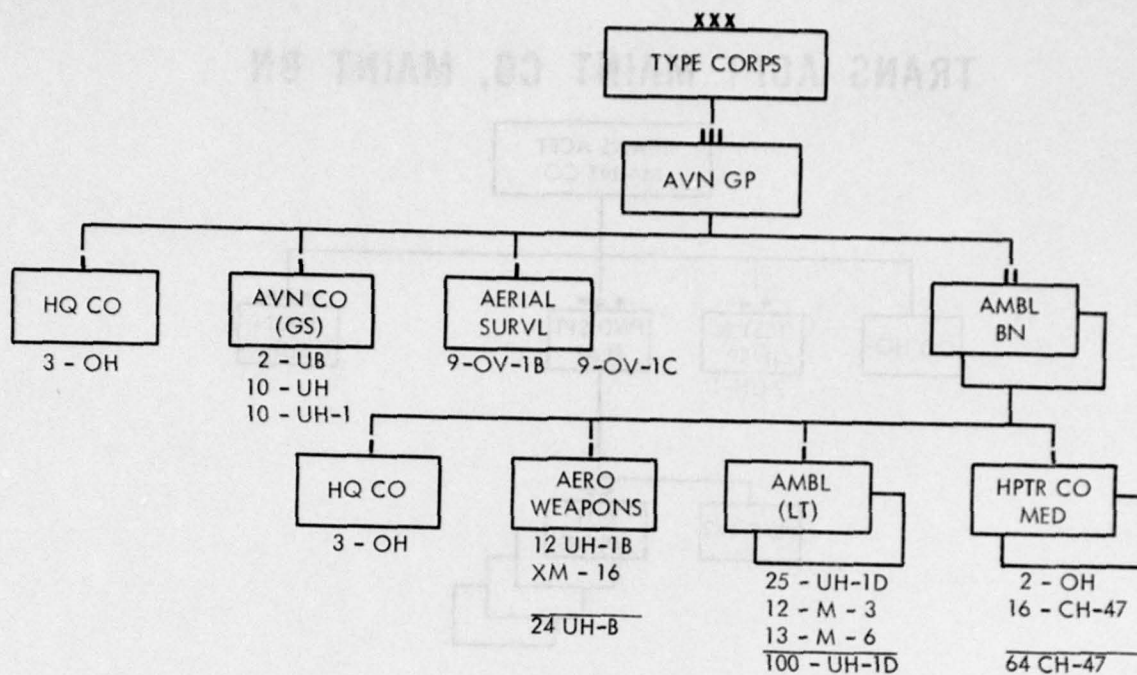


Figure 25.

The aero-weapons company is equipped with twelve UH-1B aircraft armed with XM-16 weapons system which consists of a mixture of 2.75 rockets and 7.62 machineguns. This gives the gunner the capability of selecting the type ordnance to use on a target. This unit can provide escort for an airmobile force, to include aerial fire support for the force during the ground combat phase.

The two airmobile companies (light) are identical to the airmobile company (light) at division level. The company is equipped with UH-1D aircraft and can lift the assault elements of one rifle company in one lift.

The two helicopter companies (medium) are equipped with 16 CH-47 aircraft. This aircraft can lift thirty-two combat troops or 16,000 pounds. With all aircraft operating and available, the company can transport simultaneously any of the following loads with a radius of 100 nautical miles: 528 troops, or 64 tons of cargo, or 384 liters.

In summary, we find in the corps aviation group, 24 aerial fire support aircraft, 100 UH-D aircraft and 64 CH-47 aircraft. If these aircraft are made available to a division commander, this would enable him to lift approximately 1/3 of the combat elements of the division. This increases considerably the divisions capability to conduct airmobile operations.

As we move up the ladder to field army we find an aviation group. The aviation group at field army is organized with four transportation aircraft battalions. It is at this level that we first find a mixture of fixed wing and rotary wing aircraft in the same unit.



As a result the "tactical mobility requirements board" was formed by the Department of Army to determine how far and how fast the Army could go in replacing ground-based transport systems with the more versatile aerial vehicles and land-based weapons system with aerial weapons platform. This board was chaired by General Howze and became known as the Howze Board.

General Howze had approximately four months to conduct this study. The final report was forwarded in August of 1962. The report stated that, because of the time available, the results were not totally conclusive or complete and that further study and tests were desired and recommended. The report included a number of organizations which were designed to accomplish these tests, one of these units was the 11th Air Assault Division.

The 11th Air Assault Division resembles very closely the standard infantry division. In fact, the development of the air assault organization started with the ROAD division. The relationship can be best shown by projecting first the present ROAD organization.

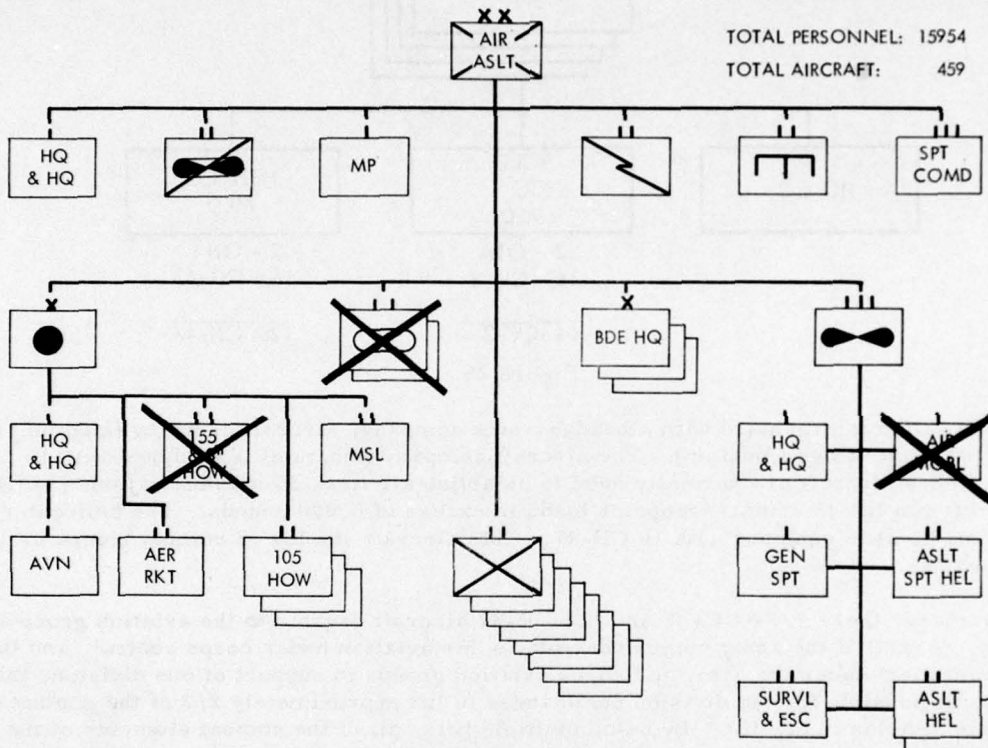


Figure 27

You will note that there is a division base consisting of a headquarters company, an armored cavalry squadron, an MP company, signal and engineer battalions, and a support command. There is also a division artillery, two tank battalions, eight infantry battalions, three brigade headquarters and an aviation battalion, for a total of 15,954 personnel and 459 aircraft.

The areas indicating the changes of the two divisions as pertains to the basic structure are marked with an X. These differences are: an air cavalry squadron, instead of an armored cavalry squadron; an increase of the division artillery aviation section to an aviation battery; replacing the medium artillery with an aerial rocket battalion; deletion of the two tank battalions; and increasing the aviation battalion to an aviation group; that is increasing the reconnaissance

capability of the general support company to a surveillance and escort battalion, and increasing the organic lift capability to one-third of the combat elements of the division, by replacing the airmobile company with an assault support helicopter battalion and two assault helicopter battalions. These changes resulted in a total of 15,954 personnel and 459 aircraft.

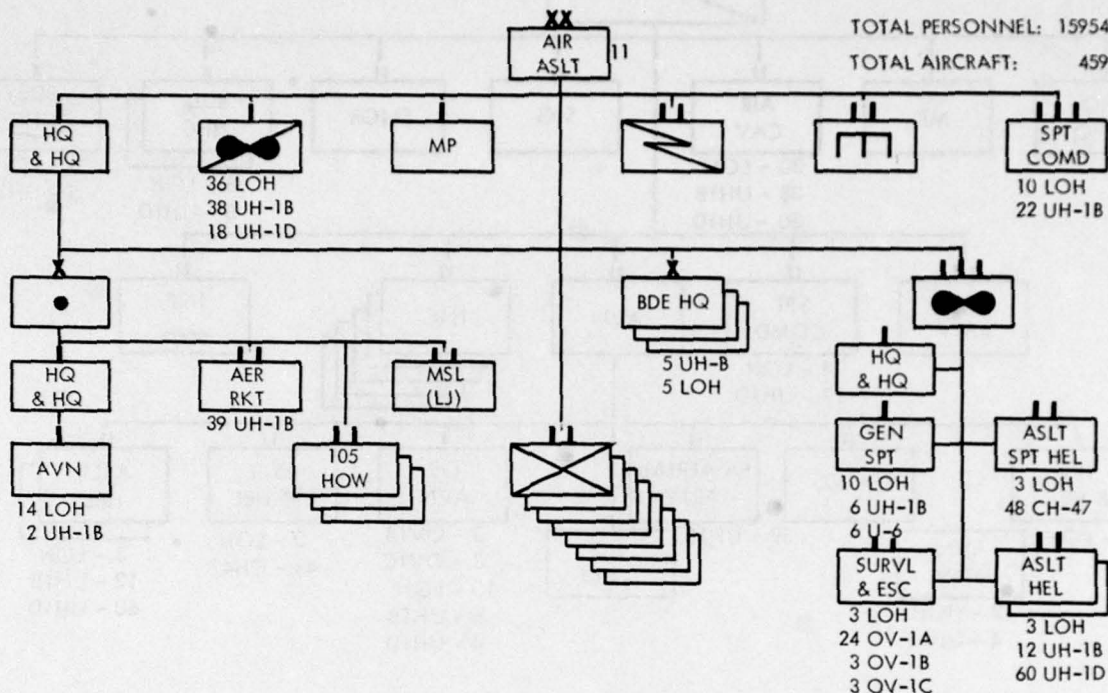


Figure 28

This is a "cleaned up" version of the air assault organization just discussed.

The air assault division conducted extensive tests here at Fort Benning and in North and South Carolina over the last two years. The report of test was submitted early this year and the decision to form the Army's first airmobile division was announced on 1 July of this year.

The reason that I went into such detail on the organization of the air assault division, is that the airmobile division is organized almost identically to the air assault division.

We find in the airmobile division that the surveillance and escort battalion was deleted, and the 24 armed OV-1 aircraft were dropped, the 6 OV-1 surveillance aircraft were moved to the general support company. The next major change was the deletion of the Little John missile battalion. This leaves the division without a nuclear delivery capability. This unit has been retained in the army troop list and would be available for attachment to the division if the situation required. These are the only units that were deleted. However, there is one significant change that should be noted. In the air assault division there was only one airborne infantry battalion. In the airmobile division there are three, with one airborne brigade headquarters, and the normal supporting units, i. e. engineer, artillery and signal.

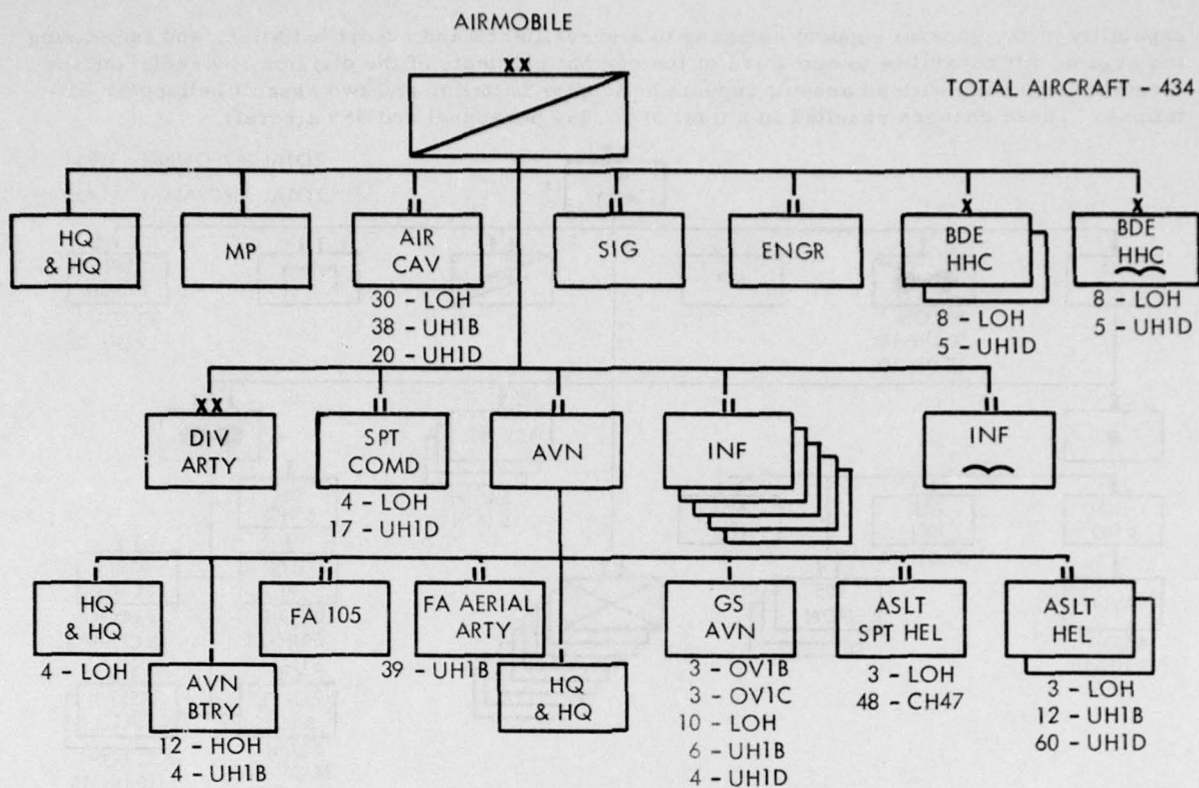


Figure 29

Now we will examine the subordinate units of the divisions.

First, the air cavalry squadron.

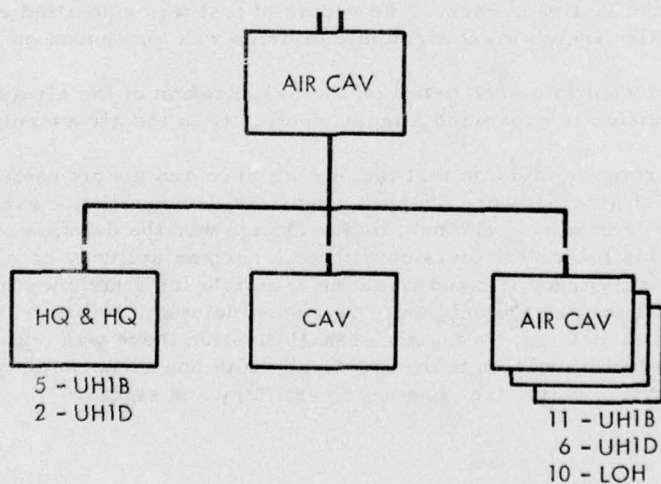


Figure 30  
90

The squadron is organized with a headquarters troop, ground cavalry troop, and three air cavalry troops. The air cavalry troops are identical to the troop found in the ROAD division. The headquarters and headquarters troop has been provided with five UH-1B helicopters which provide the commander with the capability to maneuver with his combat elements.

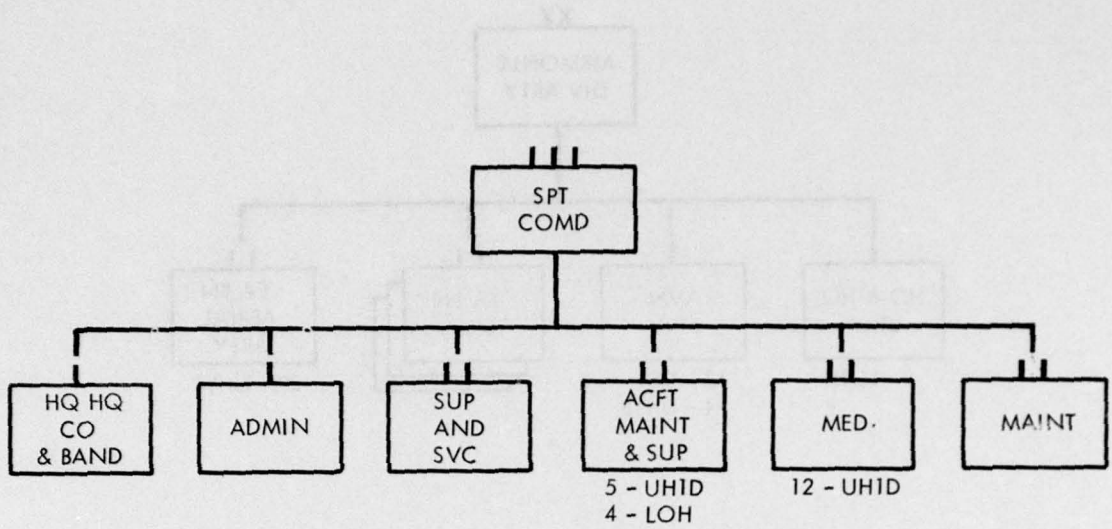


Figure 31

As you can see there is an aircraft maintenance battalion which replaces the aircraft maintenance company in the ROAD division. The medical battalion has organic 12 UH-D aircraft. Nine of these aircraft will be used for aero-medical evacuation and three will be used for crash rescue purposes.

The division arty is organized as shown in Figure 32. The aviation section organic to the headquarters and headquarters battery in the ROAD division has been deleted and replaced by an aviation battery. The three direct support battalions are transportable in organic aircraft. As a point of interest, it takes eight CH-47 to lift one 105mm How battery.

The aerial field artillery battalion is organized into three firing batteries each equipped with 12 UH-1B's armed with the 2.75 rockets. Three ships are organic to the headquarters and headquarters battery.

The aviation group is organized as shown in Figure 33. I call your attention to the assault helicopter battalions. Each battalion has 60 UH-1D aircraft and 12 armed UH-1B aircraft. The armed aircraft are used to provide escort for the airmobile force and aerial fire support to the ground force once the force is in the objective area. Using organic aircraft, the aviation group can lift approximately one-third of the combat element of the division. To be more specific, the unit can lift simultaneously five infantry battalions or four infantry battalions and one artillery battery or any combination thereof.

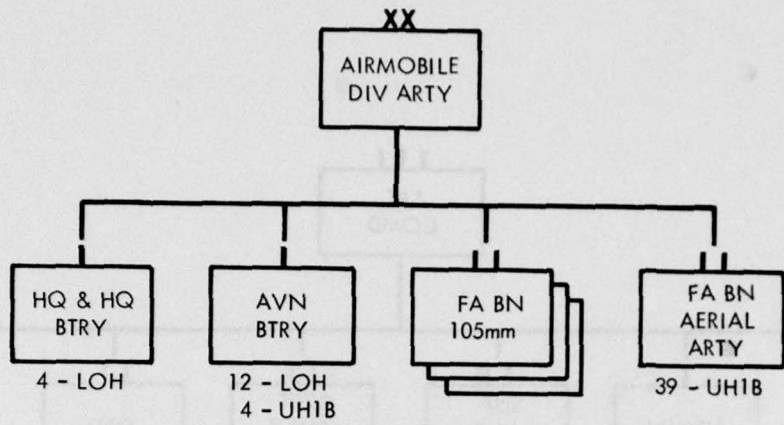


Figure 32

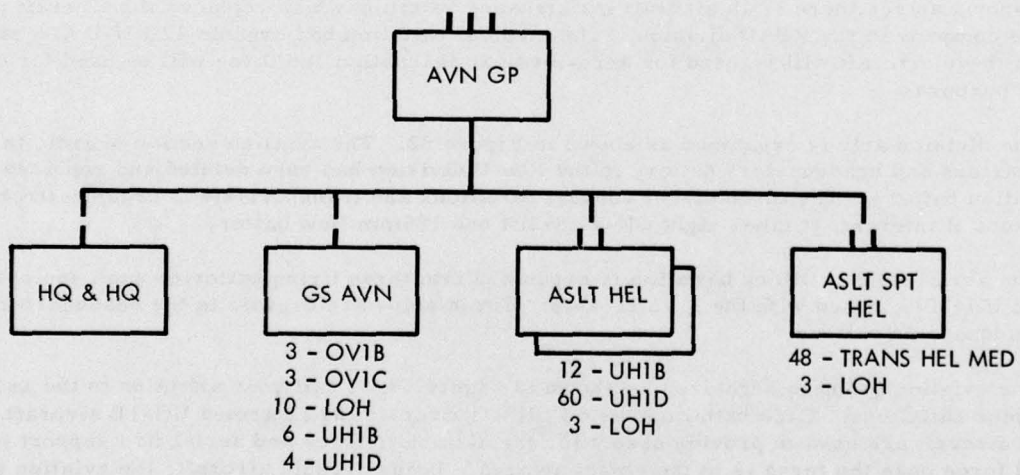


Figure 33

This completes the organization of the airmobile division. In summary, the division is equipped to use the aerial vehicle as its primary mode of transportation. This permits the commander to apply decisive firepower and manpower in the most critical area of the battlefield at the most critical time of the battle without regard to terrain, and also to operate over an area several times that of an Infantry division in operations such as those against guerrillas in under-developed areas. In raids and similar missions, airmobile forces may often be equivalent to airborne units except that they can ride home rather than wait for ground linkup. The airmobile division is more effective than an infantry division in a mobile defense in rough terrain, but is not as well suited for static defense as the Infantry division because it lacks organic armor and medium and heavy artillery. Transportation, the division has 333 more aircraft and approximately 1550 less ground vehicles than the Infantry division.

One might ask, why have an airmobile division then? With the aircraft organic within the field army, we can lift approximately two-thirds of the combat elements of a ROAD division.

The Infantry division orients on terrain, the armored division with its increased mobility is able to orient more on the enemy force but is still tied to terrain because of its dependence on ground mobility. The airmobile division because of its mobility can orient on the enemy force almost without regard to terrain. In order to acquire this mobility most equipment within the division that was too heavy to be lifted with organic aircraft was deleted or reduced in weight until it could be lifted or a lighter item substituted. To make a point, the weight of the airmobile division is approximately one-third that of the ROAD Infantry Division. In turn, when the Infantry division conducts an airmobile operation the force will not have the maneuverability once in the objective area that the Airmobile Division enjoys. The combat support and the combat service support available will also be less because a number of the weapons and equipment can not be lifted into the objective area.

The remainder of this discussion will cover the airmobile instruction presented here at The Infantry School. The student receives 40 hours of pure airmobile instruction.

<u>SUBJECT</u>	<u>HRS</u>
TAC EMPLY OF ARMY AVIATION	4
INTRODUCTION TO AIRBORNE OP	4
MOVEMENT BY AIR	4
RIFLE CO IN AIRMOBILE OP	4
INF BN IN AIRMOBILE OP	8
SEP ABN BDE IN JTF OP	8
AIR CAV TRP	2
AIR MOBILE TRENDS	4
EXAM	2
	<hr/>
TOTAL	40

Figure 34  
93

The tactical employment of Army aviation serves as an introductory problem. During this four hours the student is introduced to the present family of Army aircraft, the aviation units within the division; the missions of these units and how they are normally employed.

The next problem, Introduction to Airborne Operations, is a four hour conference and practical exercise where the student is introduced to airmobile planning. An infantry battalion conducting an airmobile operation is used as a teaching vehicle in this problem.

Movement by air is a four hour problem where the student is introduced to problems unique to movement by airforce and army aircraft. In a practical exercise he is required to determine the aircraft required to lift a rifle company, and then develop type loads for each aircraft used.

The next problem "Rifle Company in Airmobile Operations" requires that the student plan a company-sized airmobile operation to seize an objective and defend the objective until link-up can be accomplished. This problem is taught by the Company Tactics Department.

Infantry Battalion in Airmobile Operations is an eight-hour problem, with a setting in Viet Nam in which the student is required to prepare supporting plans for an Infantry Battalion conducting a raid against a key insurgent base. Plans include the ground tactical plan, landing plan, airmovement plan, and withdrawal by air plan. This problem is based on current airmobile doctrine tailored to fit a guerrilla type situation.

The Separate Airborne Brigade in a Joint Task Force Operation deals with the deployment of a separate airborne brigade to an overseas staging area and the employment of the brigade into an objective area. In this problem the student is introduced to all of the coordination conferences that must be conducted and the plans that must be prepared to support an operation such as this, to include the redeployment of the brigade back to home station after completion of the exercise. I might add that a unique method was used writing this problem, in fact all that we did here at The Infantry School was take the plans prepared and used by STRICOM and the 1st Brigade, 101st Airborne Division during Operation Delawar and modify them, using 20/20 hindsight (lesson learned), to develop this problem. Each student is provided a complete set of these plans to take with him when he leaves. These plans include contingency plans for movement by rail, water and commercial air. They will serve as an invaluable aid if he is ever required to participate in any strategic movement by air.

The next problem "Air Cavalry Troop" is a two-hour problem dealing with the employment of the Air Cavalry Troop in support of division operations. The troop is employed as part of the armored cavalry squadron.

The four hours that we devote to airmobile trends is a flexible block in that we use the time to cover the latest information available in this area. A typical example of what could be covered are the actual airmobile operations that are being conducted by the 173d Airborne Brigade at this time. Since this problem is scheduled to be presented in the last part of the academic year, we hope to have on hand, by that time, actual combat notes prepared by the 1st Cavalry Division.

The exam that is reflected needs no amplification.

In addition, to the pure airmobile instruction, the majority of the tactical problems presented at The Infantry School employ the normal aviation support that would be available in an actual tactical situation. Many problems include major airmobile requirements, but because of time available I am unable to examine each of these problems.

In summary, I can say that here at The Infantry School airmobile instruction is integrated throughout the curriculum and when the student graduates he is well equipped to make decisions and/or recommendations on problems peculiar to airmobile operations.

LEADERSHIP ORIENTATION  
LT COLONEL WILBURN E. MILTON  
Company Tactics Department

I am Colonel Milton, Chairman of the Leadership Committee, Company Tactics Department. During this period, we will outline to you the subject matter and methods that we use in presenting leadership instruction to resident classes.

During your current or future assignments many of your subordinates undoubtedly are, or will be, graduates of one of the courses here at The Infantry School. Therefore, you will, no doubt, be interested in the material presented to these officers in the various classes.

Generally the impact of the nuclear era has not been as great on leadership as it has been on organization, tactics, weaponry, or equipment. Yet there are certain areas where emphasis will be required. The battlefield will dictate more decentralization of authority to the subordinate commander than before. Additional reliance on the subordinate commander will be the rule rather than the exception when engaged in combat operations such as in Vietnam and other similar areas throughout the world. This demands the development of the finest type of positive leadership within subordinates.

During this presentation we will briefly review the concept of leadership as it is taught here at the United States Army Infantry School. We will illustrate techniques in developing discussions involving leadership problems. I will conduct a briefing and demonstration of the Train-lead Film Program. Finally, the purpose and operation of the Leaders' Reaction Course will be explained to you.

The concept of leadership is presented to all classes as the initial period of instruction. This furnishes the student with a firm foundation upon which to base the remainder of his leadership instruction. We feel that in this era of rapid developments this concept is sound.

As a point of departure we define military leadership as the art of influencing and directing men in such a way as to obtain their willing obedience, confidence, respect and loyal cooperation in order to accomplish the mission.

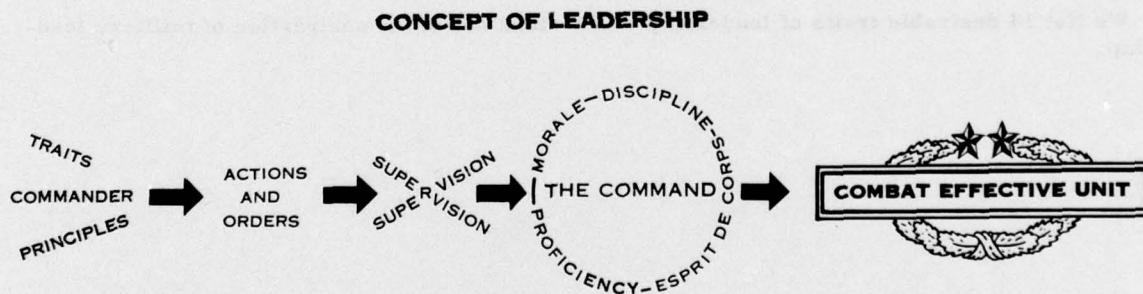


Figure 1.

Our objective as a leader is to influence and direct men; therefore, we use man as an entrance to the concept. He is our primary concern. We assess our effectiveness by the manner in which this man performs on the battlefield for it is man that will give us final victory. Therefore, we devote our energies and efforts to ensure that he performs in a superior manner. In order to exploit the finest fighting man in the world today, we must understand the forces that motivate man.

Although the leader need not be a graduate psychologist he should know about the forces that motivate man.

We call these the "basic human needs." They are:

1. Physical needs - food, water, shelter, and other body activities, and
2. Learned needs - security, recognition, social approval.

We teach that the commander is in a position to assist in the satisfaction of these needs.

Generally these can be condensed into two basic responsibilities:

Accomplishment of the mission, and

Welfare of the men.

Whenever there may be a conflict between these responsibilities, in the mind of the commander, the "accomplishment of the mission" always takes precedence.

When the commander satisfies the responsibility of accomplishing the mission he is, in effect, providing for the welfare of his men.

Leadership now resolves itself into a meeting of two or more personalities - the commander and his men.

The commander should develop a personality adequate to cope with all leadership situations which may arise in his unit.

His personality is nothing more than the sum total of his characteristics, which we call traits.

We list 14 desirable traits of leadership which stand out in the analyzation of military leadership.

## LEADERSHIP TRAITS

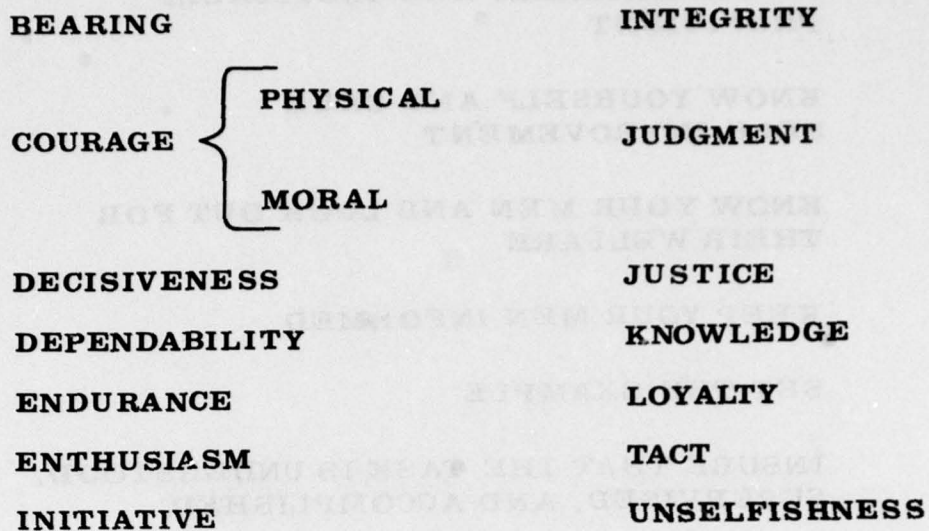


Figure 2. Leadership Traits.

The commander is taught to capitalize on his strong desirable traits of a leader while he seeks to develop those in which he is weak.

Determining the strong traits, by an honest self-evaluation, the commander's personality becomes a tool to assist him in the exercise of command.

Now he must have something to use as a guide in the development of this leadership ability.

We have guides which are called principles of leadership. There are eleven of these principles which are fundamental truths and, if used, will make the job of leadership easier.

## **LEADERSHIP PRINCIPLES**

**BE TECHNICALLY AND TACTICALLY  
PROFICIENT**

**KNOW YOURSELF AND SEEK  
SELF-IMPROVEMENT**

**KNOW YOUR MEN AND LOOK OUT FOR  
THEIR WELFARE**

**KEEP YOUR MEN INFORMED**

**SET THE EXAMPLE**

**INSURE THAT THE TASK IS UNDERSTOOD,  
SUPERVISED, AND ACCOMPLISHED**

**TRAIN YOUR MEN AS A TEAM**

**MAKE SOUND AND TIMELY DECISIONS**

**DEVELOP A SENSE OF RESPONSIBILITY  
IN YOUR SUBORDINATES**

**EMPLOY YOUR COMMAND IN  
ACCORDANCE WITH ITS CAPABILITIES**

**SEEK RESPONSIBILITY AND TAKE  
RESPONSIBILITY FOR YOUR ACTIONS**

Figure 3. Leadership Principles.

The commander capitalizes on his strong desirable traits of leadership, and using the principles of leadership as a guide, he employs various techniques of leadership in the form of actions and orders to the command.

It is common knowledge that a commander devotes a small percentage of his time issuing orders and taking actions. The majority of his time is devoted to supervision.

Supervision is a technique that a leader uses to keep himself informed of the status of tasks which he has assigned to subordinates. Supervision should be accomplished without undue harassment.

However, we do not desire the word harassment be synonymous with supervision.

The commander's effectiveness as a leader is determined by evaluating his unit in the light of four indications of leadership: Morale, Discipline, Proficiency, and Esprit de Corps.

We teach that all indications should be developed concurrently in the unit;

That they are all interrelated, and that

A continued evaluation of these indications will reveal:

The commander's effectiveness as a leader,

The existence of problem areas, and the

Probable combat effectiveness of the unit.

The commander, capitalizing on his strong traits and being guided by the principles of leadership, employs leadership techniques in the form of actions and orders with proper supervision to influence and direct his command towards his one ultimate goal - a combat effective unit.

Practical exercises are used extensively in the presentation of leadership instruction.

Students must be able to organize a given period of instruction by using realistic practical exercises, group problem solving and discussion.

In order to facilitate discussion during the exercises, the class is organized into six-man table groups, the practical exercise is presented by the instructor with sufficient time allowed for student discussion, and then the solutions are discussed.

The practical exercises are geared or slanted to the level of the class. For example:

The Officer Candidate and Infantry Officer Basic Course classes receive leadership practical exercises on the platoon level.

The Career and Associate Career classes receive problems on the company, battalion staff, battalion commander, and brigade commander level.

For all classes we present leadership problems within such areas as human behavior, command in garrison, command in training, and command in combat.

For the Career and Associate Career classes we present additional problems on the commander/staff relationship and staff/subordinate commander relationship.

Practical exercises or situations are presented by various means:

The printed handout, which is

Satisfactory to some extent, but

Realism suffers because of the difficulty involved for the student to inject himself into the situation; and

A problem of misinterpretation (reading something into the problem) exists.

The tape and situations, which

Uses two of the physical senses - sight and hearing.

One such problem (4-hour class) for BASIC and OC students, "Exercise for Leaders in Combat," is a "home-grown product," and was developed and produced by the Leadership Committee.

These problems consist of 20 situations, with use of sound tape, as 35mm slides and short films depict the situations.

The problem serves as a "wrap-up" or summary of all previous instruction in Platoon Tactics, Map Reading, Leadership and Communications.

A typical problem begins with a lieutenant assuming command of a mechanized rifle platoon in combat.

#### Typical Exercise for Leaders in Combat

##### PLATOON LEADER (TAPED)

"We are attacking at 0500 tomorrow morning along Pinetree - Red Arrow roads. We are the advance party for the company. We must move as fast as possible; crossing the UPATOI on this bridge. We are receiving 3 tanks from Company A, 2d Battalion, 4th Armor, tonight at 2130 hours. Sergeant Miller will meet them at the entrance to our area here. The tanks will lead, with my carrier right behind them. The 1st Squad will be with me, then, in order, 2d Squad, Wpns Squad and 3d Squad. Watch for aggressor air and at halts post security, be prepared to dismount and assist the tanks if they run into trouble. We will button up if we start receiving artillery; remember, keep moving. Any questions? Good, my call sign is Faded Mercy 86, you know your own call signs. The tanks call signs are Spare Bunch 96, 92 and 93. Stand too is at 0330, I will conduct a quick precombat inspection at that time. Breakfast is at 0400, we move out from here at 0450 for the SP."

##### MONITOR (TAPED)

"Seventh Situation. Your platoon sergeant awakens you at 0315 and at 0330 hours you begin your precombat inspection. Everything looks good and you are satisfied with the condition of the carriers, weapons and individual equipment until you inspect the weapon of a rifleman in the 3d Squad. This has been a fast inspection but you notice that this man's weapon is dirty and rusty and personal gear is not on the same standard as the other men in this squad."

##### PLATOON LEADER (TAPED)

"Sergeant Moore, come with me. . . . Private Bohem's gear and especially his weapon are substandard. What is the meaning of this, the other men in your squad look good?"

##### SQUAD LEADER (TAPED)

"Sir, this man, Private Bohem, has been a troublemaker since he joined the squad. He is hard to control while moving dismounted and as you see he doesn't take care of his gear. I have talked to him but he still doesn't improve."

##### MONITOR (TAPED)

"What are your actions and orders?"

##### STUDENT RESPONSE

## DISCUSSION

## SOLUTION

### PLATOON LEADER (TAPED)

"Sergeant Moore send this man to see me at the Platoon CP in 15 minutes. I will talk to him. In the future if you have a problem that you need help with, talk to me about it. If he doesn't react favorably to my counseling, I will keep him with me and solve this problem later. If he does, count on him staying with your squad."

### Figure 4.

The problem of Officer-NCO social relations is introduced by the use of a barroom skit. In this skit, which takes place in Joes Bar,

A lieutenant or an officer candidate is chosen from the class and sent to the bar.

A group of NCOs are present from the same company and attempt to buy him a drink and get "buddy buddy," - they try to establish a first name basis, and induce the lieutenant to sit at the table with them.

The class is told that it is best to avoid bars that enlisted men frequent, and that

Social relations with NCOs are usually the result of unplanned off duty encounters or planned organizational functions.

In any event, dignity and courtesy are the paramount elements of any such relationship.

The lessons learned are: Do not be compromised, and use common sense in all cases.

To supplement the previously indicated methods of presenting practical exercises and to inject more realism in the situation, we have developed the Trainlead Film Program.

Trainlead consists of a series of short, situational type films of about three to eight minutes duration.

They provide an additional means of presenting the student with practical exercises and, of course, take advantage of two physical senses, sight and hearing.

These films are used to present realistic leadership problems to the class and stimulate student discussion.

The films are divided into two series, precommission and post commission. We have a total of 37 of them now in use.

It was discovered that many of the precommissioned films are appropriate for presentation at the commissioned level.

While each film is designed to develop a specific teaching point, it may well bring out leadership problems in other areas.

At this time I will show you one of the precommissioned films dealing with the basic responsibilities of the commander.

#### Resume of TF 7-3197, Fear and Panic

The situation depicts a rifle platoon in the attack. The action is focused on the 1st Squad. During the movement to the assault position one man is killed by mortar fire, another by a sniper. A third man, who has exhibited great fear throughout the movement, receives a minor shrapnel wound. He panics and runs to the rear shouting he has been hit. Unable to stop the man by command the squad leader chases after him. Believing the squad leader and the wounded man are running to the rear because something has gone wrong, other men follow suit. The platoon leader, busy supervising the rest of the platoon, is unaware of the situation until the last minute, when he sees five men and the squad leader running to the rear.

#### Figure 5.

To solve this problem, a discussion leader is appointed at each table.

The students are allowed sufficient time to discuss among themselves their solutions to the problem.

This allows the student to be placed in the role of the main character of the film.

Several groups are called upon to present their views, and the instructor then presents a solution and summarizes the teaching points.

The next Trainlead film will be a postcommissioned one, "HANDLING OF SUBORDINATE LEADERS IN COMBAT."

#### Resume of TF 7-2707, Handling of Subordinate Leaders in Combat

This film is intended to introduce a typical leadership problem in "handling of subordinate leaders in combat."

Delta company's advance is being held up because its second platoon has been pinned down by enemy heavy machinegun fire. The company commander crawls to within grenade-throwing distance of the enemy gun emplacement, lobs in a grenade, and puts the gun out of action. The following day, the group commander informs his staff he is considering the promotion of the Delta company commander from first lieutenant to captain and invites their opinions about the officer. The executive officer and the S2 are for the promotion. The S3 and the S4 are against the promotion.

#### Figure 6.

In this situation we may discuss commander-staff relationship; development of aggressiveness in junior leaders, and the selection of subordinate leaders.

We feel that these Trainlead films prove beneficial to, and greatly assist, all instructors in the vital field of presenting leadership.

In addition, these films inject realism into the classroom, develop interest, and stimulate discussion.

NOTE: TRAINLEAD FILMS ARE AVAILABLE THROUGH ARMY FILM LIBRARY SERVICE.

The majority of our instruction is presented in the classroom; however, we do have one outside problem which is the Leaders' Reaction Course.

The course consists of 16 tasks or situations, and is designed to test the student's organizational ability to accomplish these tasks while leading a five-man group through a situation.

While attempting to accomplish these tasks the student displays the leadership traits of DECISIVENESS - JUDGMENT - INITIATIVE - ENTHUSIASM - ENDURANCE - UNSELFISHNESS.

The purpose of the course is to assist the young leader in becoming a better leader. This is accomplished by:

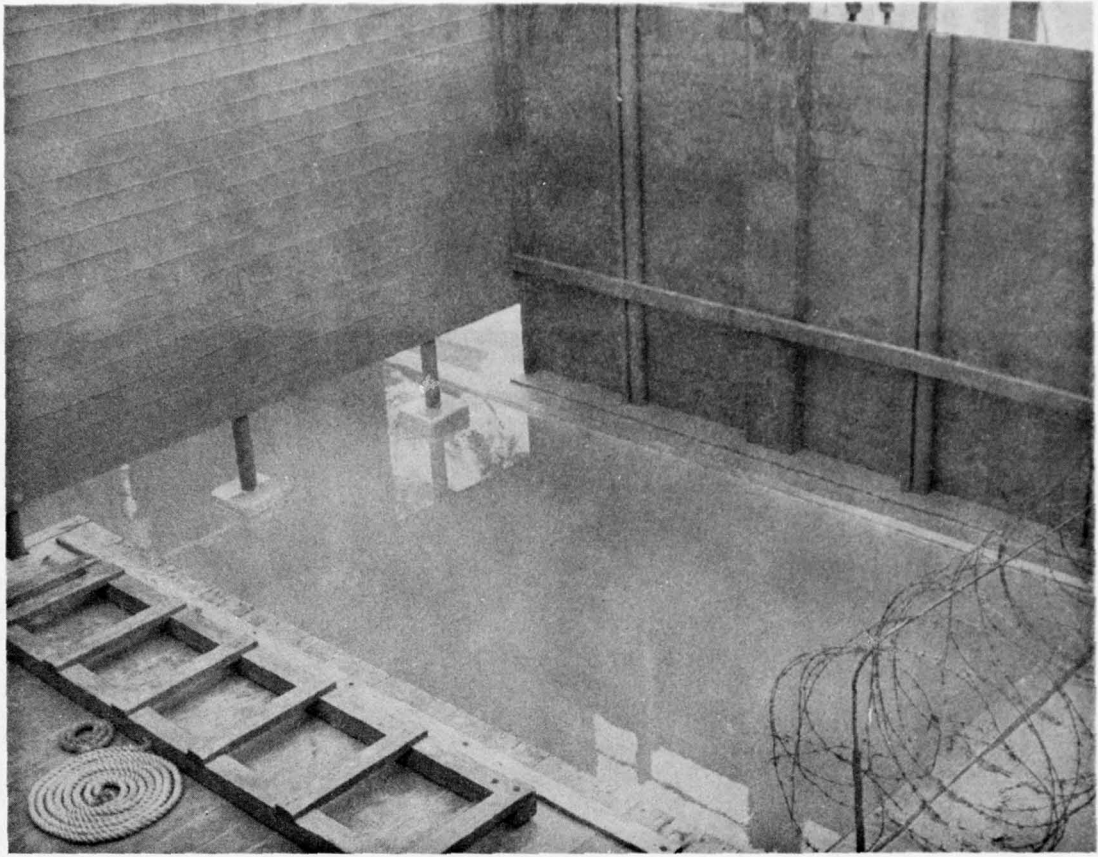
Applying lessons learned in the classroom, and allowing an honest self-evaluation of his leadership ability as he leads a group through a task.

Also, the student observes other students in leadership roles, and is

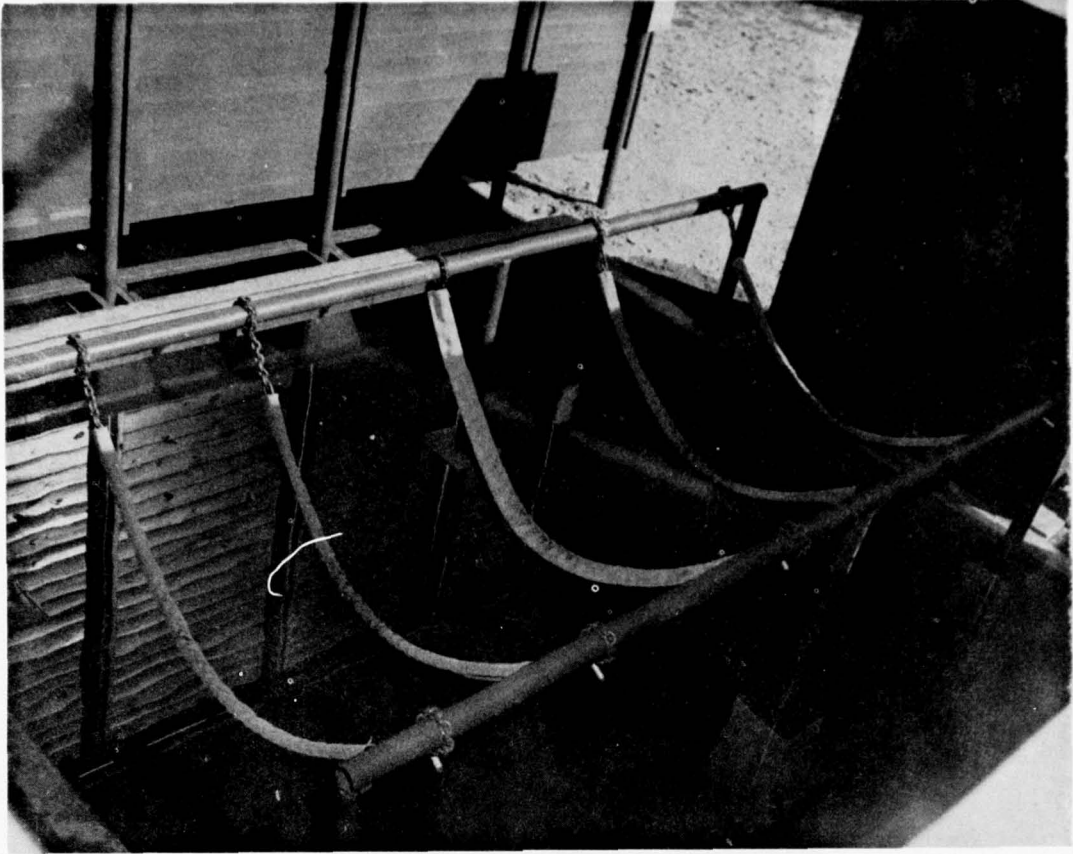
Observed, and counseled by an experienced commissioned officer after completing the tasks.

# LEADERS' REACTION COURSE





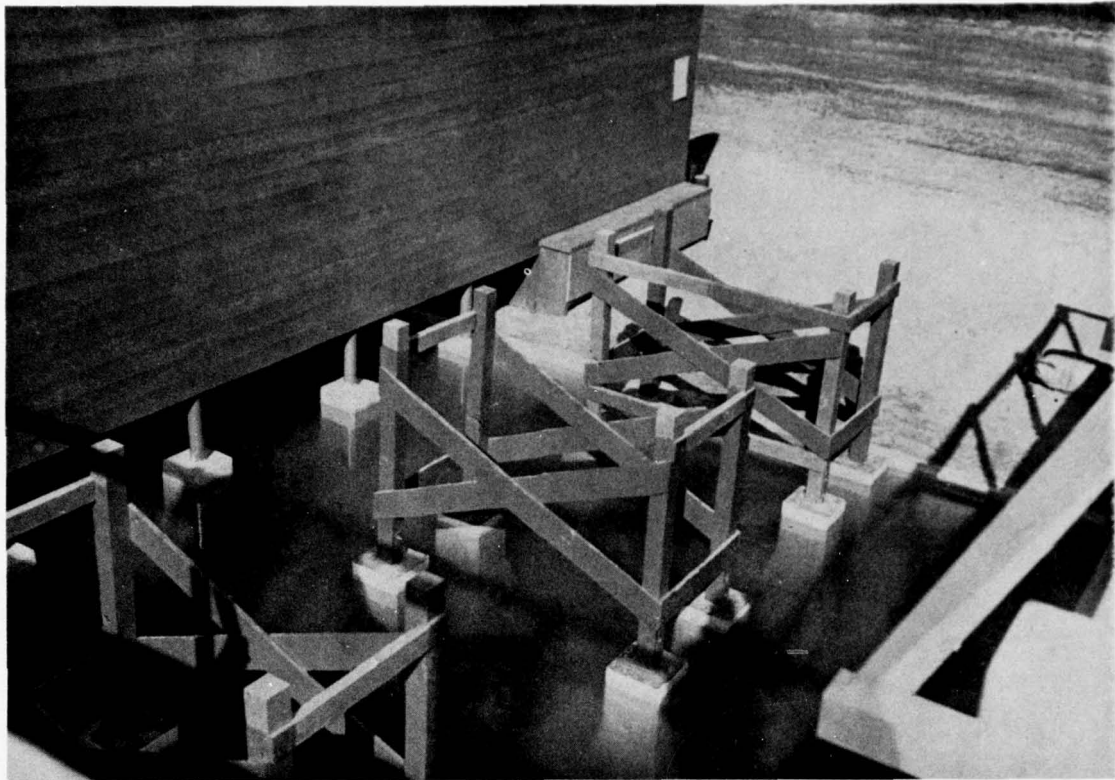
Task Number 1



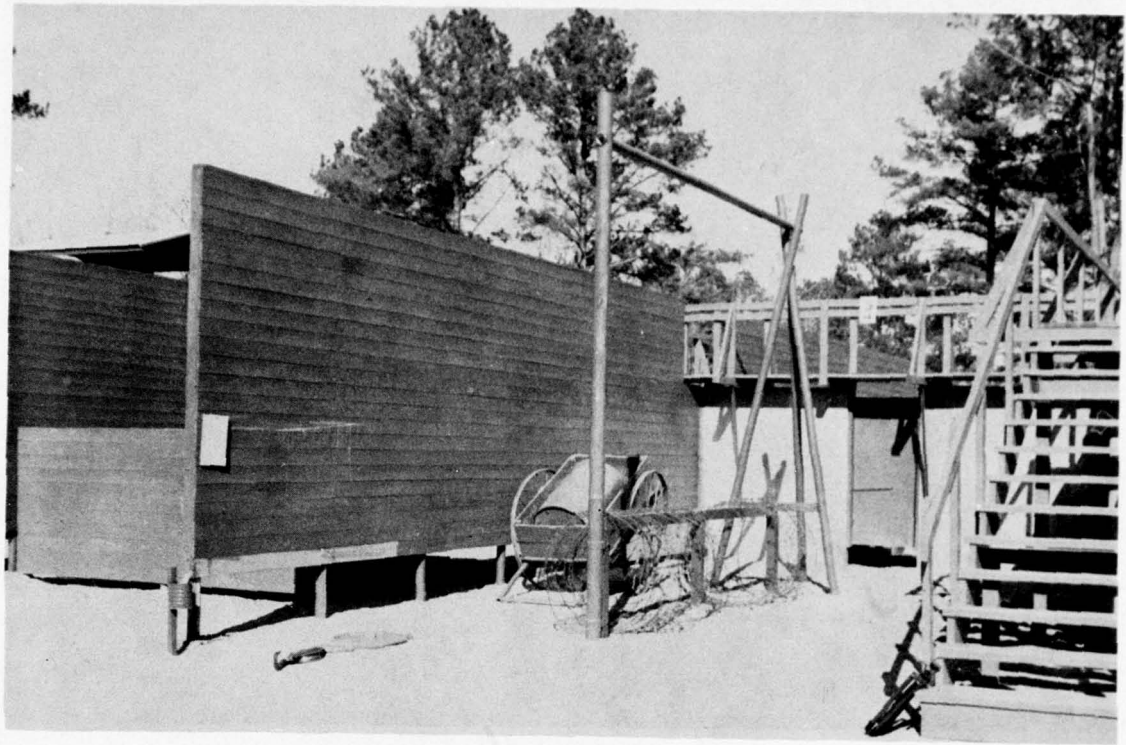
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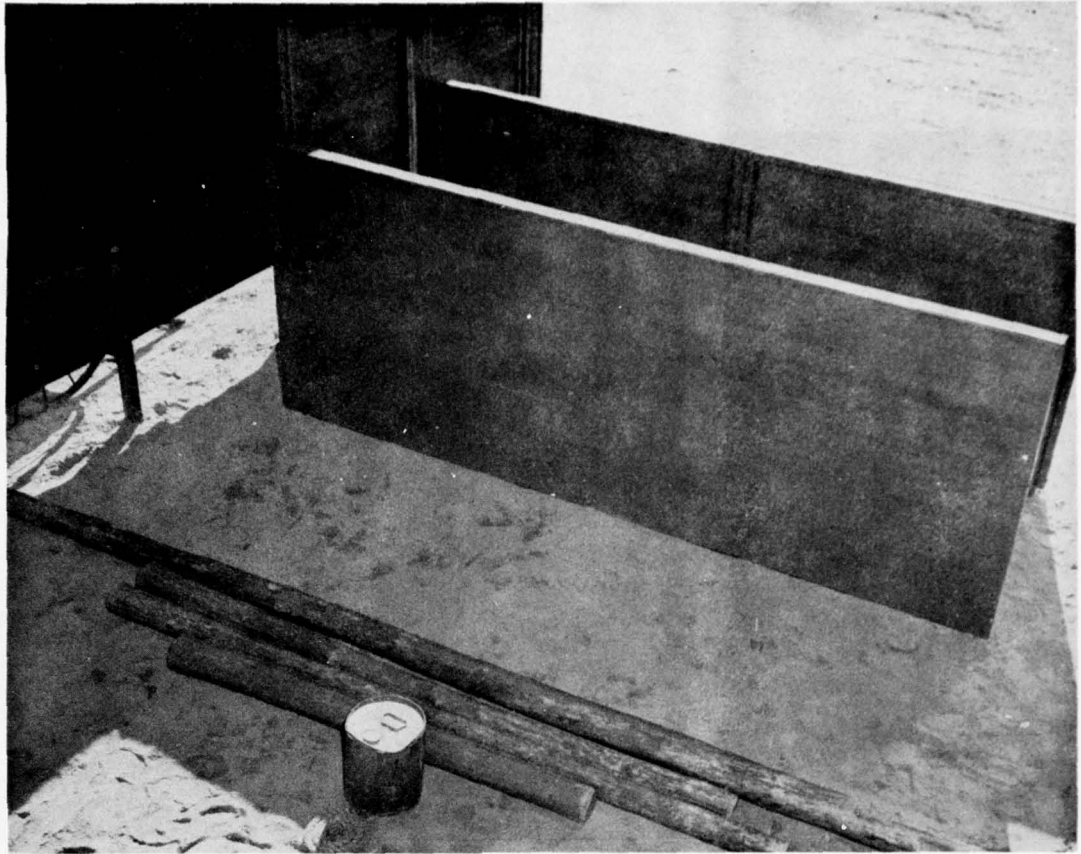
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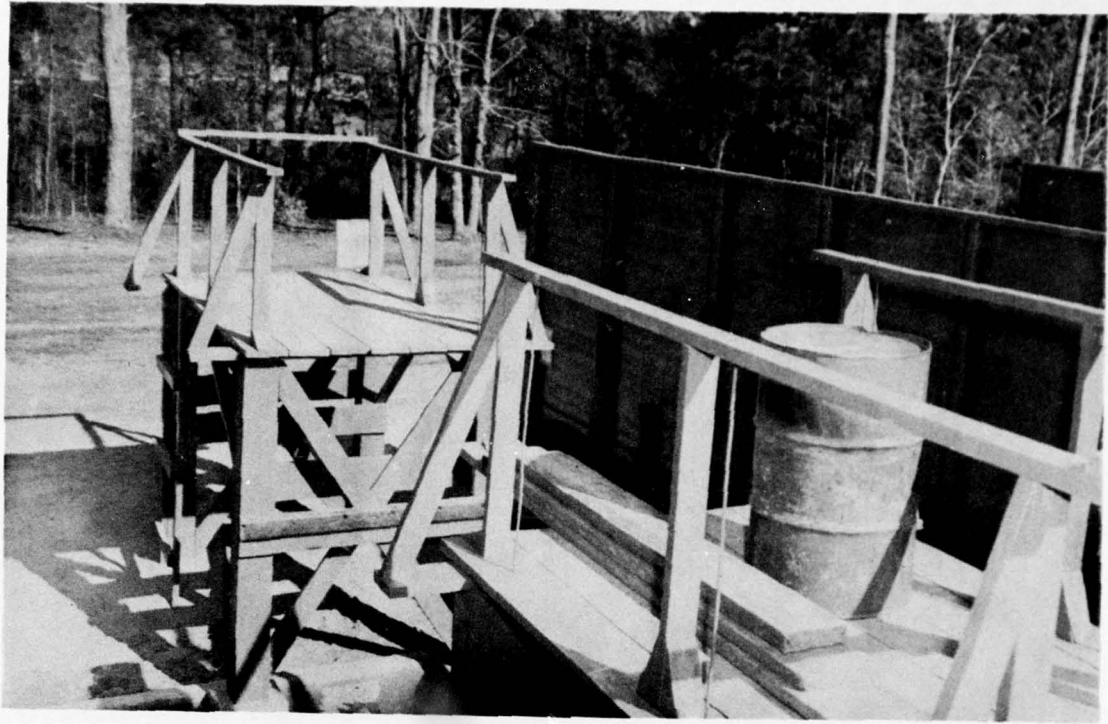
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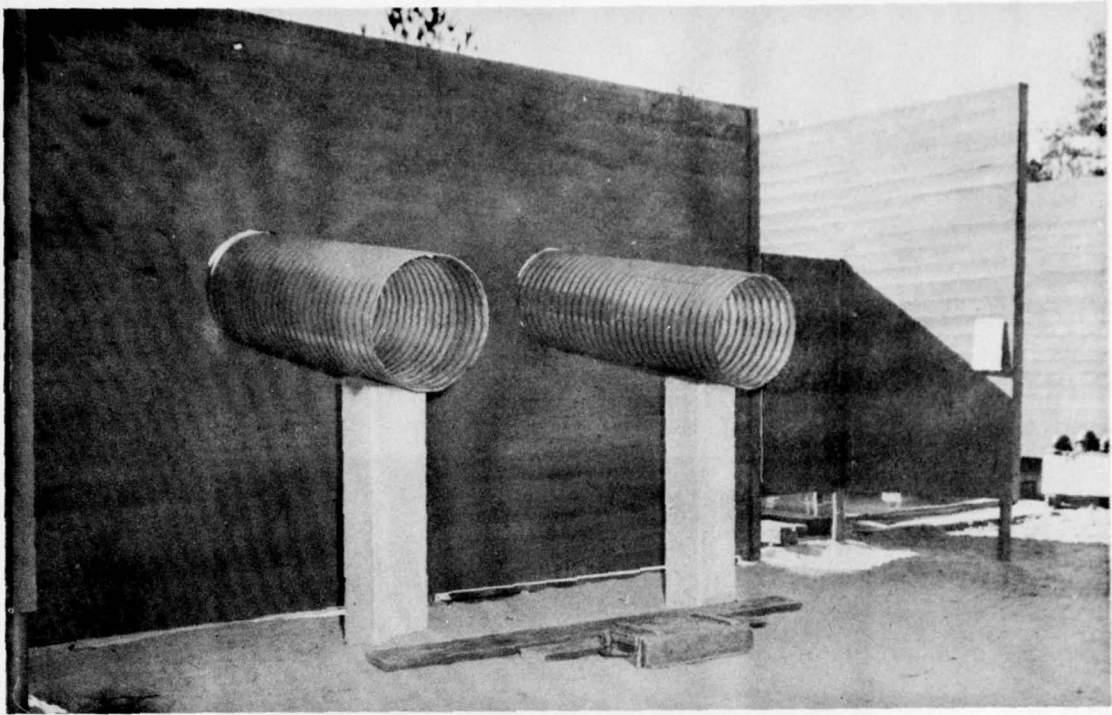
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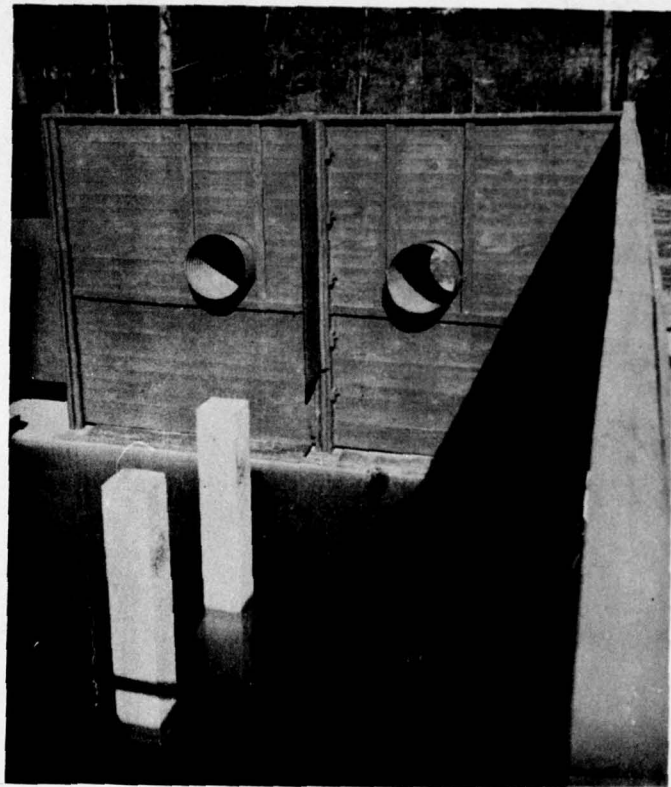
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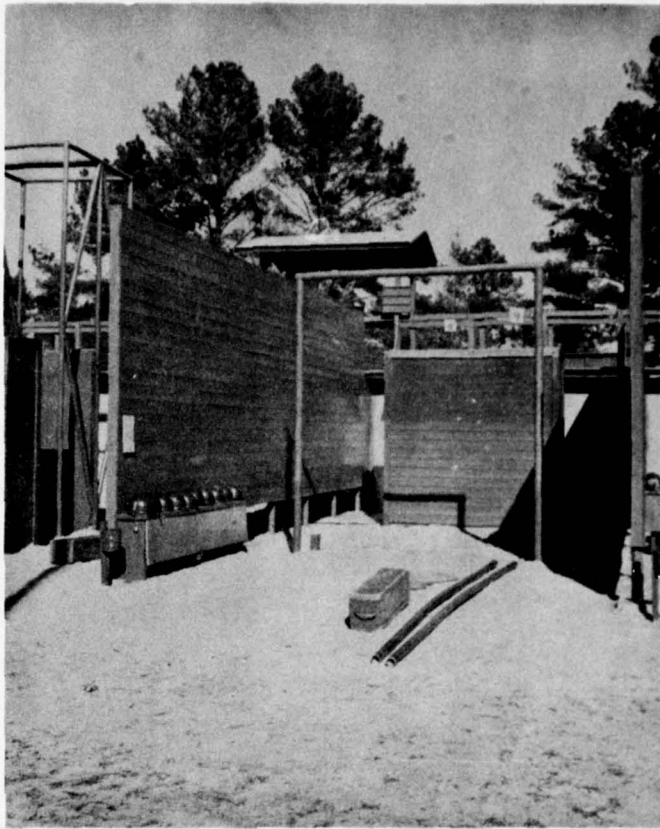
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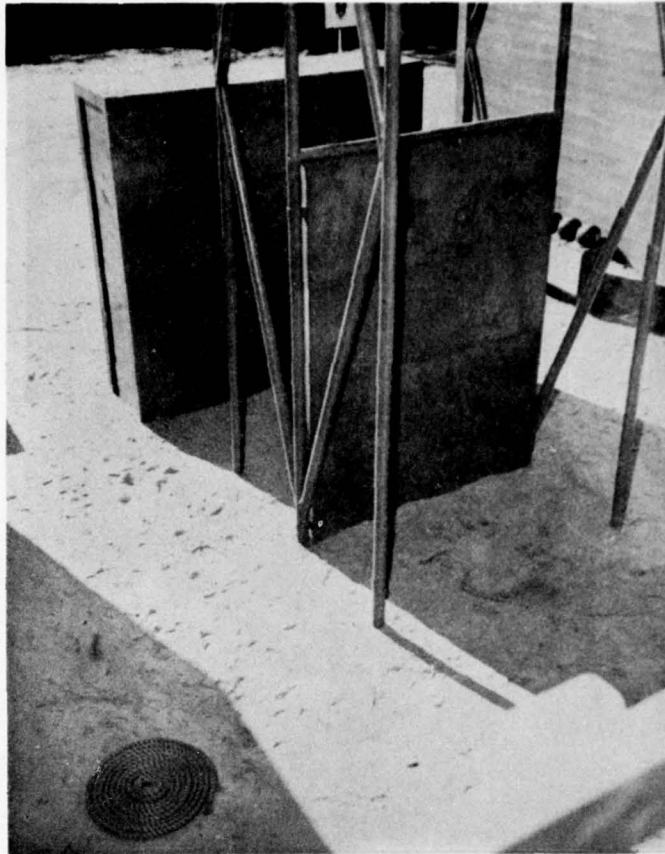
Task Number 8 Outside



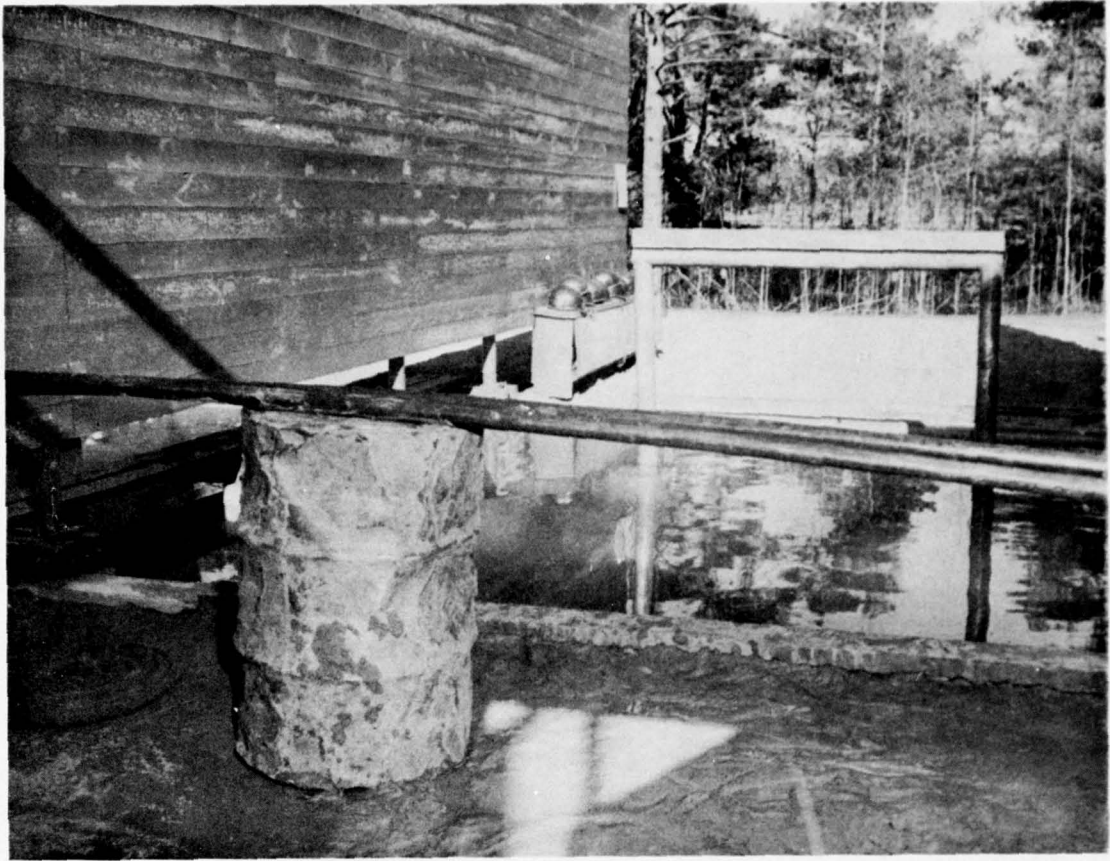
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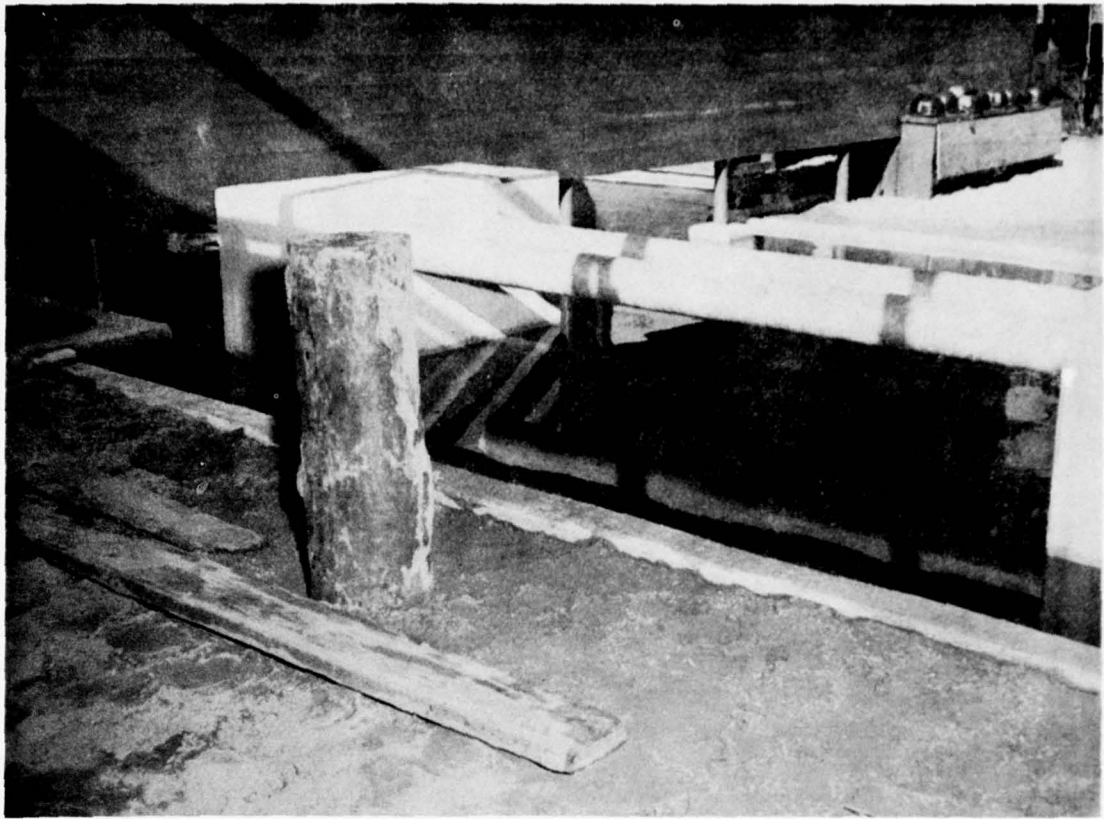
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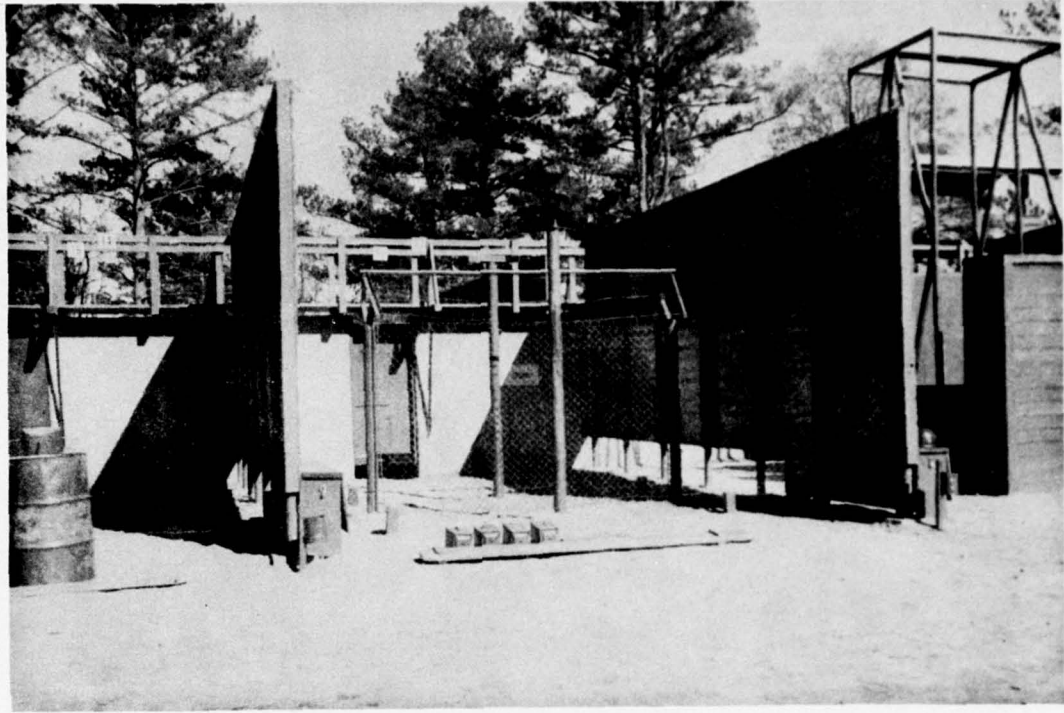
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Task Number 11



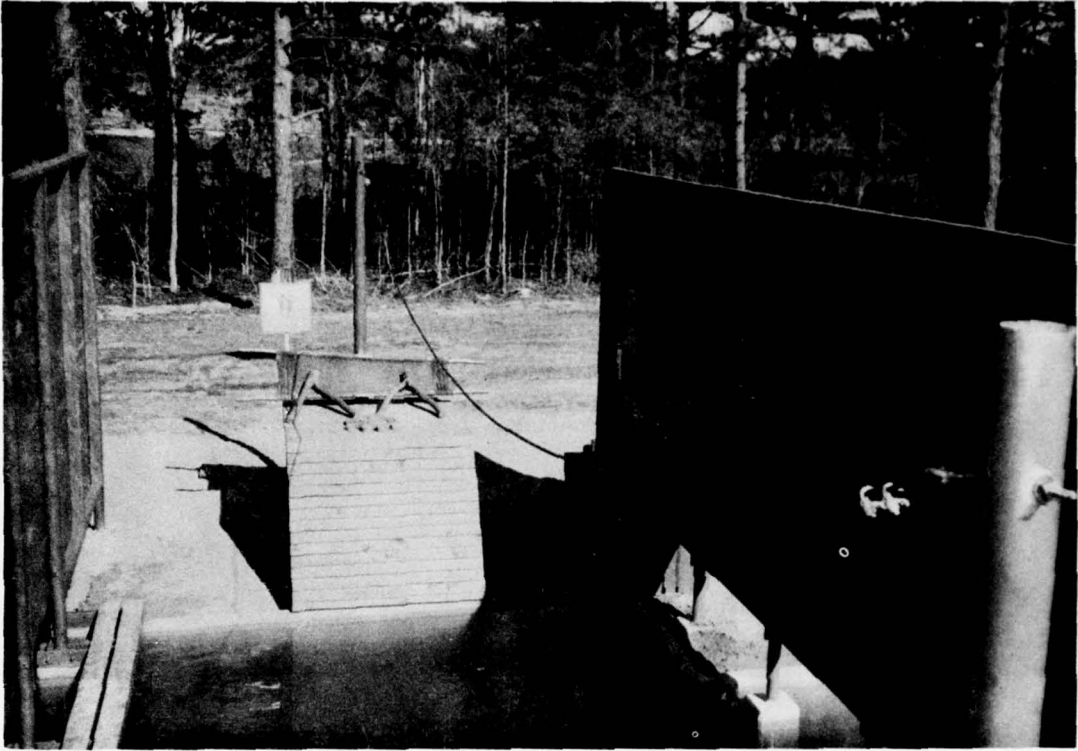
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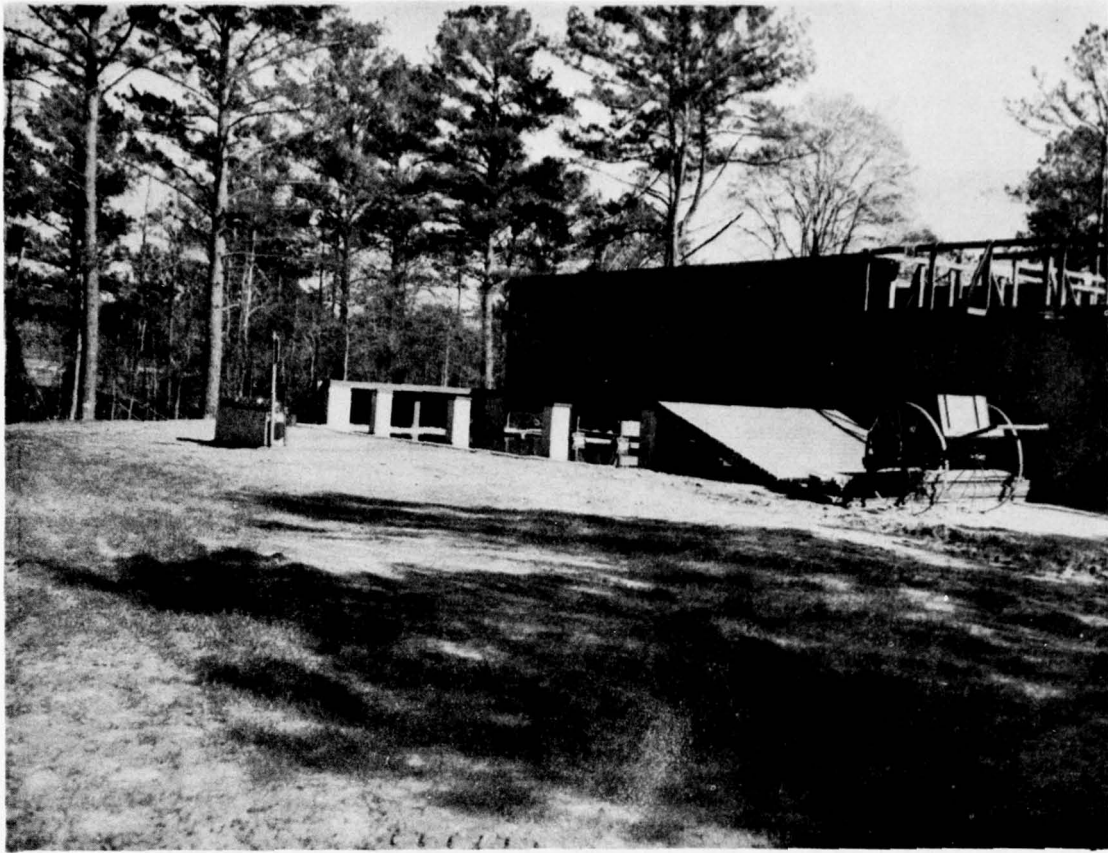
Task Number 13



Task Number 14



Task Number 15



Task Number 16

The information presented to you during the past hour is generally what The Infantry School graduates will have been exposed to prior to being assigned to units and staff positions which you will command in your current or future assignments.

We have discussed:

The concept of leadership, the

Various techniques used to present practical exercises,

The Trainlead Film Program, and

The Leaders' Reaction Course.

As leaders in the Army, you command the most important, the most complex weapon of war - MAN. You are responsible to provide him with the leadership he deserves.

## CHAPTER 10

### DEPARTMENT OF NONRESIDENT INSTRUCTION

LT COLONEL CHESLEY O. NUNLEY

The Department of Nonresident Instruction is very happy to have this opportunity to acquaint you with our several nonresident programs. We are particularly proud of the part which we play in the military education of the members of our Armed Forces. We feel that we are performing a vital function in this area.

Generally, visitors to the Infantry School are greatly impressed by the things which they see. They marvel at impressive demonstrations of firepower and mobility, and are highly complimentary concerning the efficient and timely instruction. They are amazed by the clock-work timing and the tremendous number of students who are in training here at the school. And well they might be. Our resident students number in excess of 30,000 each fiscal year, and the instruction presented here is universally recognized as some of the best in the world.

Living in the shadow of our resident instruction is another lesser known and not so glamorous, but vitally important aspect of Infantry School operations. This is the nonresident school program, administered by the Department of Nonresident Instruction. We are currently supporting, through our various nonresident programs, over 300,000 students. This is almost ten times the number of students who were fortunate enough to attend the Infantry School last year.

All other service schools have nonresident instructional programs of varying size and scope. However, none can compare with that of the Infantry School in either total number of students supported, or in types of programs administered.

This briefing is designed to show just what our department does for the nonresident student. Our students are not limited to members of our reserve components, although this does constitute the majority. In addition to members of our Reserve and National Guard, we have students from the Active Army, other services, Department of the Army, civilians, and allied countries.

Our mission is divided into three parts: Preparation and printing of instructional materials; Administering of the material to nonresident students; and Liaison with the agencies supported.

In carrying out this mission, we attempt to provide our students with Prompt, Accurate, Courteous and Efficient military educational service. This enables our nonresident student to keep PACE with his resident counterpart in furthering his military education.

We have five major nonresident programs. They are:

- United States Army Reserve Schools
- Army Extension Courses
- Reserve Officers Training Corps
- National Guard State OCS
- Staff Training

In addition, we operate the USAIS mailing branch, which is a focal point for correspondence and dissemination of information and instructional materials to units and individuals not a part of the above programs.

The Department of Nonresident Instruction is organized as follows:

The Director is a Colonel, responsible to the commandant for the accomplishment of the mission which we discussed. He is also the ROTC advisor to the commandant.

The Deputy Director assists the director in all matters and performs the normal functions of a second-in-command.

The Education Specialist is a civilian, trained in educational concepts and techniques. It is his duty to see that the material which we produce is educationally sound--that is, that it follows the latest educational methods and procedures and that the sequence and arrangement of the lesson is educationally correct. He is particularly helpful in assisting our writers with examination techniques and preparation.

The Operations Section coordinates our activities with other departments and agencies at Fort Benning. They also control supply and budgeting for the department.

The Reserve Components Committee administers four of the five major programs of the department and also the USAIS Mailing Branch activities.

The Army Extension Course Committee administers the Infantry School portion of the Army Extension Course program. It also administers the Precommission Course for all branches except WAC.

The Instructional Materials Committee, as the name implies, is responsible for the preparation of all instructional material to support the nonresident programs of instruction.

The Storage and Distribution Section receives, collates, distributes and maintains stocks of instructional materials.

We have both military and civilian writers in our writing committee. As a minimum, the military writers should be graduates of the career course. Our civilian writers have all had some military experience and have other qualifications which are prerequisites for the positions. This organization is somewhat different from most other service schools. In most service schools the actual writing effort for nonresident instruction is performed by the resident instructor. At the Infantry School, our writer works very closely with the resident principal instructor throughout the development of the material. Under no circumstances does DNRI originate doctrine, tactics or techniques. This is the responsibility of Combat Developments Command Infantry Agency and/or the resident instructional departments. We merely take the approved doctrine or technique and put it in proper form for nonresident use.

In addition to consulting with the resident instructor, the writer actually attends classes in session. He listens to students' comments and questions and tries to isolate particular problem areas which might need detailed explanation in our nonresident version of the problem.

Upon completion of a final draft, all material, to include examinations, prepared for any of our nonresident programs must be reviewed and approved by the responsible resident department prior to being forwarded to the Army Field Printing Plant for reproduction.

Our printing is done by the Printing Plant located here at Fort Benning. We provide this facility, which prints for the entire Third Army Area, with approximately 45% of their total workload. This gives you some measure of the tremendous volume of material required in supporting our students. We currently have six publication and distribution warehouses where our receiving, collating, packaging and mailing activities take place. We run our own post-office operation with most of our mail dispatched by truckloads, frequently directly to railway mail cars in nearby Columbus.

With this brief background on our procedures, let us discuss each of our major programs in more detail. First, look at the United States Army Reserve School Program.

In this program we currently teach only at career course level. There are, however, two types of courses. First, the regular four-year Infantry Course which parallels the Associate Infantry Officer Career Course conducted here at Fort Benning in subject matter and scope, and as nearly as possible in sequence of presentation. Next, we have the new Common Subjects Course beginning this fall (SY 1965-66). All new students, regardless of branch, will be enrolled in the Common Subjects Course. They will all study the same subjects during the Reserve Duty Training period, which consists of 24 two-hour assemblies during the fall, winter and spring. They will then attend branch training during the Active Duty Training period, which is the two-week summer training following the RDT period. One RDT period and one ADT period make up a year of instruction.

We plan to phase out all of our currently enrolled students under the current Infantry Course, while concurrently enrolling all new students in the new common subjects course. The Common Subjects Course will be phased in one year at a time and all students must progress through the course in numerical sequence. This means that as of the summer of 1968, all students in our current Infantry Course will have completed the course. Concurrently, all years of the new Common Subjects Course will be phased in by School Year 1968-69.

USAR School Career Courses are an excellent means by which reserve component officers may satisfy military education prerequisites for promotion. To be eligible to enter the course, the officer must have satisfied promotion prerequisites to Captain. He must have completed, or have credit for, his branch basic course. Completion of one-half of the Career Course satisfies military education prerequisites to Major; and completion of the course satisfies prerequisites to Lieutenant Colonel.

All members of the staff and faculty and all students are reservists not on active duty. They may be a banker or lawyer by day, but a USAR school instructor or student by night.

In the new Common Subjects Course all service schools will maintain academic records and grade examinations for students of their branch. They will also issue yearly completion certificates, letters of promotion eligibility, and certificates of course completion.

We will permit students to complete phases of the course by extension subcourse substitution for attendance at either a RDT or ADT period of instruction. This will normally be permitted, for cogent reasons, such as a salesman being on the road during RDT, or the officer being unable to attend ADT because of employment complications or other problems.

Our next major program for discussion is the Army Extension Course Program. This is one of our better known programs and most of you, I am sure, are generally aware of procedures involved. However, to review, let's take a look at what makes up an extension course. The basic unit of instruction is the lesson. A lesson consists of from one to four "credit hours". These "credit hours" are a convenient unit of time measurement, and represent the normal time required for an average student to complete a lesson. A reserve component student earns retirement or retention points based on "credit hours" at the rate of one point for each three credit hours satisfactorily completed. A lesson has a lesson exercise which must be successfully completed.

A series of lessons covering a particular subject area makes up a subcourse. Each subcourse has an examination which must be completed, except that in the case of one lesson subcourses the lesson exercise serves as the examination.

A group of subcourses leading to a diploma constitutes an extension course. Completion of an extension course marks a definite plateau of progression in the student's military education and in most instances satisfies either promotion eligibility requirements or the requirements for a commission.

Just what courses are offered by the Infantry School?

Our first course is the "NCO Leadership and Career Development" course. This is one subcourse consisting of approximately 20 credit hours. It is designed for the NCO or the potential NCO and satisfies no requirements for promotion, as such.

The Army Precommission Extension Course is administered to all branches of the Army, except WAC, by the Infantry School. It is a fairly long course consisting of 19 subcourses and 220 credit hours. Completion of this course satisfies the academic requirements for a commission as 2d Lieutenant. The candidate must meet all the other prerequisites for a commission and must go through the normal procedures of application and appearance before a board.

The first officer-level course, which is offered, is the Infantry Officer Basic Extension Course. This course parallels the resident basic course conducted here at Fort Benning. It consists of 160 credit hours and is designed to be completed in two years. All newly commissioned officers, except the regular OCS graduate who is commissioned in the same branch as the OCS which he attended and Military Academy graduates, are currently required to complete a basic course, either in residency or through extension course work. Completion of the branch basic course satisfies military educational requirements for promotion to the grade of Captain in the USAR or National Guard.

The Career Extension Course parallels the Associate Career Course given here at the school and also the USAR School Career Course. There are currently two versions of the course. The E-24 Course is pure extension, six phases of approximately 70-80 credit hours each. Normal completion time for a phase is one year or less, so that this entire course normally requires approximately six years to complete. It can be completed much faster, of course. The C-24 is a combination nonresident-resident course. The first two phases are extension course work. The third phase is a required two-week active duty period conducted here. Phase IV is extension, and Phase V is optional, either extension or two weeks active duty. This particular course can be completed in approximately three years, or four, depending upon how the fifth phase is taken. The two active duty phases (III and V) are the same as the ADT periods of the 2nd and 4th years of the USAR School Infantry Officer Career Course. This facilitates interchange of students.

The graduate of the career extension course receives a diploma certifying to his completion and academic credit equivalent to the associate resident career course. He is qualified, as far as military education is concerned, for promotion to the grade of Lieutenant Colonel and is eligible for entry into the Command and General Staff College, either extension, resident, or USAR School.

In addition to the courses mentioned, we also offer two special series; the "Infantry Non-commissioned Officer Career Series" and the "Infantry Officer Tactical Refresher Series". These are packets of selected subcourses taken from the Precommission and Basic Courses in the case of the NCO Series, and from the Career Courses for the Officers Tactical Refresher Series. Students may also enroll for specific subcourses as desired.

The enrollment in the Army Extension courses which we administer is over 40,000 students.

The Reserve Officer Training Corps is well known everywhere. Perhaps not so well known is the fact that the US Army Infantry School provides 90-95% of the military educational training support for the entire ROTC throughout the United States. There are four divisions of ROTC.

The Senior Division is located in our colleges and universities and is officer-producing. We are currently supporting 247 Senior Division units located throughout the United States and in Puerto Rico. There are two types of programs in the Senior Division. In the regular four-year program the student completes a two-year basic course, on-campus, during his freshman and sophomore years and a two-year advanced course during his junior and senior year. In the new two-year program the student substitutes a six-week basic camp, taken just after his sophomore year, for the two-year basic course. The type of program conducted is at the option of the institution. They may conduct either the four-year program, the two-year program, or a combination of the two. Regardless of which program they are completing, all cadets must attend and complete the six-week advance summer camp, normally between their junior and senior year.

The ROTC Vitalization Act of 1964, in addition to authorizing the two-year program, also authorized each service to award scholarships, up to a maximum of 5,500. These scholarships pay the students \$50.00 each month, plus tuition, books, and laboratory fees. Only four-year students may be awarded scholarships.

The Military Schools Division of ROTC consists of the six-year Military Junior Colleges and the four-year Military Institutes. We currently support nine MJC and 31 MI units. These are the essentially military schools where students are subject to military discipline and wear the uniform at all times. The Military Junior College student normally attends summer camp after his college freshman year. He is eligible for a commission provided he successfully completes the MJC ROTC program and attains a degree from an accredited institution within a specified time after graduation from junior college.

Junior Division ROTC is a three-year program in high schools. We support 254 Junior Division units throughout the country. The Junior Division is not officer-producing.

The National Defense Cadet Corps is a three, or four, year program at high school level. The primary difference between NDCC and Junior Division is that active army instructors are not provided for NDCC units. They must be hired by the institution. Otherwise, NDCC units receive essentially the same support as the Junior Division units.

The new ROTC legislation does authorize the utilization of retired personnel as administrators and instructors in the Junior Division. Such personnel will be paid full pay and allowances of their grade, with one half the difference between this retired pay and this full pay being provided by the institution and the remainder by the service concerned. Such personnel will not be counted against active army strength, nor do they accrue further longevity.

Our approximate annual enrollment in ROTC is 259,000 students.

The Staff Training Program is a means of providing material for the training of staffs of Reserve and National Guard units of battalion or higher level. Basically, we prepare and distribute a catalog listing available materials. We do not write any problems specifically for this purpose. Units then order desired problems and exercises. Reserve units order directly from DNRI, while National Guard units order through the state Adjutant General from the Book Department, USAIS.

The National Guard State OCS program is another vital activity. DNRI is currently supporting with a Program of Instruction and 230 hours of instructional material, 51 Officer Candidate Schools in 49 states, the District of Columbia and Puerto Rico. Alaska is the only state which does not have a state OCS.

This OCS program is extremely important in that it provides the great majority of new officers for our National Guard. It is absolutely essential to the maintenance of strong, trained and ready National Guard units. Most company-sized units of the National Guard are officered by graduates of this program. Some graduates in a few states which began the program early have reached field-grade.

The OCS normally runs a one-year course beginning with a two-week active duty training period. This is followed by a weekend assembly training period conducted in the fall, winter and spring. Most states conduct a minimum of twelve weekend assemblies. The same rigid discipline and high standards of instruction are maintained throughout this period. These OCS's are patterned after the OCS here.

After the weekend assembly training period, the students attend a second two-week active duty training period as senior cadets. Upon successful completion of the course they are eligible for a commission as 2d Lieutenant, with federal recognition. There must, of course, be a unit vacancy, but this has never been a problem in the past.

Annual procurement of Second Lieutenants from this source is now in excess of 2000. The National Guard hopes to eventually push this total up to 6000 new officers each year! To this end, extensive recruiting of prospective candidates is being pushed at all levels.

The Department of Nonresident Instruction is responsible for the USAIS Mailing Branch Activities. One of the duties involved in this activity is the preparation and distribution of a "Monthly List of Instructional Materials". This list goes to over 900 addressees. In some instances, it is accompanied by a gratuitous issue of listed items; in others, the addressee is offered the opportunity to order one free copy of anything listed and may purchase additional copies from the Book Department.

The mailing branch also distributes the "Commandant's Periodic Letter" to Commanding Generals of divisions, and certain other Commanders. This letter is normally an informal discussion of common problems or goals and invites comment from addressees.

The bulk of our workload in the mailing branch is in answering individual requests for information and/or material. We process an average of 200 such requests each week. This is in addition to our normal correspondence workload generated by our other five programs.

We make every effort to provide requested materials. If individual requests concern tactics or techniques or other matters not within our scope, we request assistance from the appropriate resident department in the form of information upon which to base a reply.

By way of summary, then, let's look once again at the major programs and activities of our department. Each program is separate and distinct, designed for a different level of student. We feel that we have something for the Infantryman, wherever he may be. We can reach him with the latest Infantry School doctrine, tactics, and techniques.

And finally, we also feel that regardless of vast strides in technology and weapons, and regardless of the scene of the next conflict, in the final analysis it is going to be this man - the Combat Infantryman, on the ground who is going to be the final deciding factor.

## CHAPTER 11

### UNIT READINESS LT COLONEL EDWIN W. EMERSON BRIGADE AND BATTALION OPERATIONS DEPARTMENT

Several years ago when the Army was using a subjective evaluation to determine unit readiness, there were two significant events that caused a re-appraisal of the entire readiness program.

First, a transportation truck battalion on the west coast continuously reported a very high vehicular deadline condition. Yet, in spite of this unsatisfactory posture, one company was dispatched several hundred miles to Yakima, Washington, to support field operations of a tactical unit. The mission was accomplished without losing a vehicle.

The second incident concerns a tactical unit that was ordered to Europe in 1961 during the Berlin build-up. Under the same reporting system, the unit was reported fully prepared for overseas deployment and eventual combat, if required. On the contrary, when the unit was alerted, close scrutiny disclosed that it had neither its personnel nor equipment, and furthermore, the training required for deployment had not been conducted.

In these two incidents the transportation truck battalion was obviously far better maintained than had been reported. The second was clearly a case of reporting willingness, rather than the actual condition as it existed. Both are a matter of judgment that was permitted by the Army-wide subjective reporting system.

In addition to the two events just related, Headquarters Department of the Army, and major commanders, did not know the actual readiness condition of the many company, battery and troop units in the Army, and detailed data was lacking on the number of many major items of equipment existing in the inventory at any particular time. Obviously, there was a real need for a program to insure a continuous state of readiness; secondly, one that would accurately reflect the readiness condition of units of the Army, and thirdly, a system to measure the effectiveness of the Army's management of resources. Consequently, in 1963 the Army Readiness Program was devised, and first used in September of that year. AR 220-1, entitled "Unit Readiness," outlines the program.

Command emphasis on this important area has increased, and it will be given greater attention in the future. To illustrate this point, two excellent articles have been published in the Army Information Digest. Lt Col Charles D. Greer wrote an article entitled "How Ready Is My Unit?" in the November 1964 edition. In May of this year (1965) General Creighton Abrams addressed the "Army Readiness Program" highlighting the importance of accuracy in reporting.

This introductory class provides the background necessary for the understanding of subsequent Unit Readiness instruction at the Infantry School. Although new to many, it is "old hat" to others. Past experience has proved that some officers have worked with the system, but in many cases this was done without knowledge of their relationship to the overall program. Therefore, this period is designed to assist all of you in one way or another.

Specifically, the objectives of this period are to focus on:

- The purpose of the Army Readiness Program.
- Some definitions to provide common footing for everyone.
- A brief exposure to the Unit Readiness Report.
- Instruction presented at USAIS.

We have previously outlined the purposes of the Army Readiness Program as being three-fold, but they are sufficiently important to warrant repeating:

- To insure a continuous state of readiness of units of the Army.
- A reporting system that will accurately reflect the readiness condition.
- The provision of information covering the Army's utilization of the resources of personnel, training (time and facilities) and equipment.

With regard to definitions, there has been some confusion as to the exact meaning of Unit Readiness. (See Figure 1.) There are those who erroneously consider it to be only a reporting system, but this is not the case. Closer inspection reflects similarity between the two terms: Operational Readiness and Unit Readiness. For the purpose of our discussion, a definition of both is in order.

#### OPERATIONAL READINESS

THE STATE OF PREPAREDNESS OF A UNIT TO EXECUTE AT THE TIME PRESCRIBED IN APPROVED PLANS THE MISSION REFLECTED IN THE TOE OR TD UNDER WHICH THE UNIT IS ORGANIZED.

#### UNIT READINESS

THE CAPABILITY OF A UNIT TO PERFORM ITS OPERATIONAL MISSION. IT INCLUDES: THE MANAGEMENT OF PERSONNEL, TRAINING (TIME & FACILITIES) & LOGISTICS (MATERIEL READINESS) PLUS THE EVALUATION OF THE REDCON OF THE UNIT--

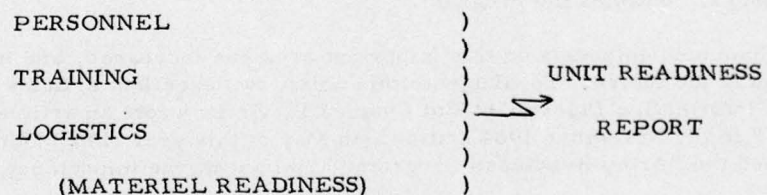
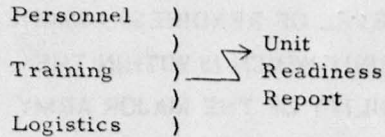


Figure 1.

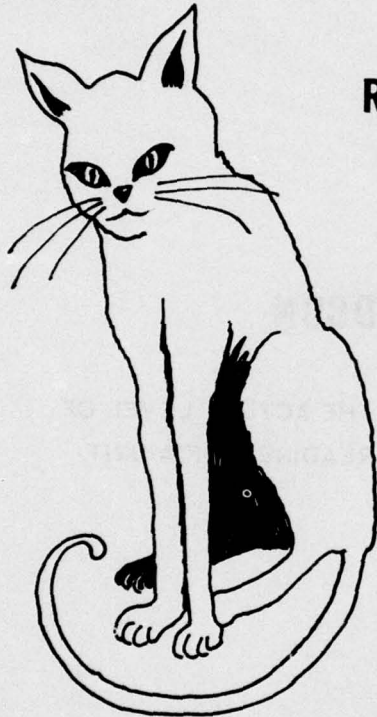
Operational Readiness: "The state of preparedness of a unit to execute at the time prescribed in approved plans the mission reflected in the TOE or TD under which the unit is organized."

Unit Readiness: "The capability of a unit to perform its operational mission." There is little difference in the real intent of the two terms. However, the latter includes emphasis on the management of the resources available, plus the evaluation of the readiness condition (REDCON) of the unit and a reflection of the REDCON in the Unit Readiness Report, illustrated below:



It is significant to note that Unit Readiness instruction at USAIS highlights the managerial aspects of our resources - in this respect, the report itself is a management tool.

Other definitions that place the Readiness Program into perspective are REDCAT, REDCAPE and REDCON. These are important because a general lack of understanding of their meaning often casts an air of mysticism about the entire program. In order that we may have a better understanding, we will now define the three previously mentioned terms:

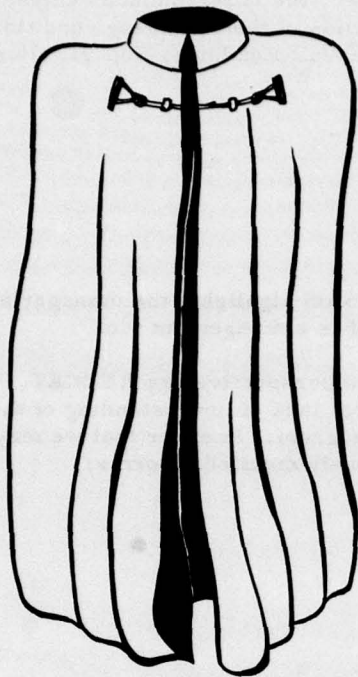


## REDCAT

THE LEVEL OF READINESS ASSIGNED IN PEACETIME TO EACH UNIT OF A COMMAND AS REQUIRED BY THAT COMMAND TO ACCOMPLISH THE COMMAND'S ASSIGNED MISSION IN RELATION TO THE DEPLOYMENT SCHEDULE OF THE UNIT

Figure 1b.

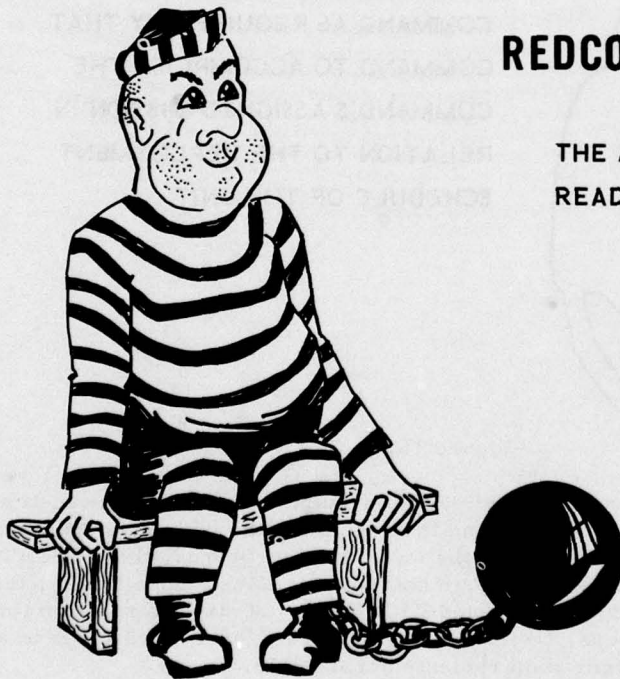
REDCAT - Readiness Requirement - the level of readiness assigned in peacetime to each unit of a command as required by that command to accomplish the command's assigned mission in relation to the deployment schedule of the unit. In other words, the REDCAT normally matches the reaction time required of the unit in contingency plans. Specifically, this means: REDCAT 1 = 24 hours, REDCAT 2 = 15 days and REDCAT 3 = 30 days in reaction time. REDCAT is associated with Headquarters, Department of the Army level since DA is aware of the requirements world-wide and assigns requirements accordingly.



## REDCAPE

THE LEVEL OF READINESS ASSIGNED  
EACH UNIT WHICH IS WITHIN THE  
CAPABILITY OF THE MAJOR ARMY  
COMMAND TO SUPPORT WITH  
PROGRAMMED AND/OR ALLOCATED  
RESOURCES

Figure 1c.



## REDCON

THE ACTUAL LEVEL OF  
READINESS OF A UNIT

Figure 1d.

REDCAPE - Readiness Capability - the level of readiness assigned each unit which is within the capability of the major Army command both CONUS and overseas to support with programmed and/or allocated resources. In other words, Hq DA assigns REDCAT and the major command is responsible for assigning REDCAPE and maintaining the level of readiness accordingly.

REDCON - Readiness Condition - the actual level of readiness of a unit. This is the business at hand for commanders and staff officers and operators at all echelons.

Why do we have REDCAT, REDCAPE and REDCON? They are directly related to the resources of money, personnel and equipment or facilities, or a shortage of these in the Army. Since unlimited resources are not available, the Army Readiness Program establishes priorities and places our resources where they are needed. As a practical matter, there is no need, nor can we afford to maintain units at full TOE in equipment and personnel if their reaction time in contingency plans does not call for immediate deployment. (See Figure 2 for further discussion of the above terms.)

#### UNIT READINESS REPORT

The Unit Readiness Report is a periodic report of a unit's operational readiness submitted quarterly in accordance with AR 220-1. Its purpose is to provide objective information on actual readiness of units with regard to personnel, training and logistics.

Unit Readiness Reports are submitted quarterly on DA Form 2715, by unit commanders as of 31 March, 30 June, 30 September, and 31 December. All numbered TOE units, company size or larger, and designated combat support TD units will submit the report. Numbered TOE subordinate units of separate brigades, groups, or battalions will report individually.

Operational readiness is defined as the state of readiness of a unit to execute at the time prescribed in approved plans the mission reflected in the TOE or TD under which the unit is organized. There are three indicators of readiness: (a) Requirement Indicator - REDCAT; (b) Capability Indicator - REDCAPE; and (c) Condition Indicator - REDCON.

REDCAT - The level of readiness assigned in peacetime to each unit of a command as required by that command to accomplish the command's assigned mission in relation to the deployment schedule of the unit. REDCAT represents hard operational requirements which will provide Department of the Army the basis for realigning or reallocating resources available to the Army and for seeking changes to the Five-Year Force Structure and Financial Program.

REDCAPE - The level of readiness assigned each unit which is within the capability of the major Army command to support with programmed and/or allocated resources. REDCAPE serves two purposes - they constitute the goal for the unit commander and they represent the planned and programmed allocation of resources to the unit.

Figure 2.

REDCAT AND REDCAPE

Requirement/ capability indicator	C1	C2	C3
Authorized personnel strength.	100% full TOE (TOE C1 column).	90% full TOE (TOE C2 column).	80% full TOE (TOE C3 column).
Authorized equipment strength.	100% full TOE.	100% full TOE.	100% full TOE.
Unit deploy- ment time.	Ready to initiate deployment within 24 hours.	Ready to deploy as C1 within 15 days.	Ready to deploy as C1 within 30 days.

(c) REDCON - The actual level of readiness of a unit. So that REDCON can be measured objectively, and uniformly, common factors (C1-C4) in the areas of personnel, training and logistics have been selected as readiness indicators. See Figure 6, below.

1. REDCON C1: A unit fully prepared for and capable of undertaking combat operations on the outbreak of hostilities. It can perform its TOE mission without assignment of additional personnel and equipment and without additional training.
2. REDCON C2: A unit which, though short some personnel or equipment, is capable of initiating combat operations on the outbreak of hostilities but which requires fill of shortages to perform its TOE mission for sustained periods. It can absorb filler personnel and serviceable equipment without requiring additional training. The unit can attain status of REDCON C1 within 15 days.
3. REDCON C3: A unit which has shortages of sufficient magnitude that it has limited capability to perform its TOE mission and it can do so only for a very limited period. It is capable of completing advanced unit training in a limited time after receipt of advanced individual trained fillers and of operating and maintaining additional serviceable equipment upon receipt. The unit can attain status of REDCON C1 within 30 days.
4. REDCON C4. A unit which has shortages of such magnitude that it requires more than 30 days to attain REDCON C1 status.

(4) For TOE units only, REDCAT/REDCAPE is scaled on a percentage basis of 100% (C1), 90% (C2) and 5% (C3). TD units REDCAT/REDCAPE is always 100% (C1).

Figure 2 (Cont).

REDCON

Condition Indicator	C1	C2	C3	C4
<b>PERSONNEL</b>				
1. Strength	Assigned strength not less than 97% full TOE	Assigned strength not less than 87% full TOE	Assigned strength not less than 77% full TOE	Assigned strength less than 77% full TOE
2. Military Occupational Specialties	Not less than 90% of assigned strength are qualified to perform the duties of the position to which assigned.	Not less than 85% of assigned strength are qualified to perform the duties of the position to which assigned.	Not less than 80% of assigned strength are qualified to perform the duties of the position to which assigned.	Less than 80% of assigned strength are personnel who to perform the duties of the position to which assigned.
<b>TRAINING</b>				
3. Army training tests if applicable)	Satisfactory rating on most recent ATT within 13 months.	In opinion of next higher commander, can complete successfully without additional training.	In opinion of next higher commander, with additional training can complete successfully within 30 days.	In opinion of next higher commander, cannot complete successfully within 30 days.
4. Technical proficiency inspection (if applicable)	Satisfactory rating on most recent TPI within 13 months.	In opinion of next higher commander, can complete successfully without additional training.	In opinion of next higher commander, with additional training can complete successfully within 30 days.	In opinion of next higher commander, cannot complete successfully within 30 days.
5. Participation in major exercise (if applicable)	Satisfactory participation within 13 months.	In opinion of next higher commander, can complete successfully without additional training.	In opinion of next higher commander, with additional training can complete successfully within 30 days.	In opinion of next higher commander, cannot complete successfully within 30 days.
6. Specialized training (if applicable).	Satisfactory completion within 13 months	In opinion of next higher commander, can complete successfully without additional training.	In opinion of next higher commander, with additional training can complete successfully within 30 days.	In opinion of next higher commander, cannot complete successfully within 30 days.

Figure 2. (Cont)

Condition Indicator	C1	C2	C3	C4
<b>LOGISTICS</b>				
7. Equipment on hand.	Not less than 90% of reportable line items at 90% fill.	Not less than 90% of reportable line items at 80% fill.	Not less than 85% of reportable line items at 70% fill.	Less than 85% of reportable line items at 70% fill.
8. Serviceability of equipment.	Unit equipment serviceability profile not less than 70 20 10.	Unit equipment serviceability profile not less than 55 30 15.	Unit equipment serviceability profile not less than 40 40 20.	Unit equipment serviceability profile less than 40 40 20.
*9. Unit Loads: Class I, III and V.	Not less than 95% of authorized line items on hand at 90% fill.	Not less than 85% of authorized line items on hand at 90% fill.	Not less than 85% of authorized line items on hand at 90% fill.	Less than 85% of authorized line items on hand at 90% fill.
Class II and IV repair parts.	Not less than 85% of authorized line items on hand at 80% fill.	Not less than 85% of authorized line items on hand at 75% fill.	Not less than 80% authorized line items on hand at 60% fill.	Less than 80% of authorized line items on hand at 60% fill.
10. Command Maintenance Management Inspections.	Satisfactory rating on most recent CMMI within 13 months (for 90% of subordinate units for battalion size or larger reporting units).	Satisfactory rating for 80% of subordinate units for battalion size or larger reporting units most recent CMMI within 13 months.	Satisfactory rating for 70% of subordinate units for battalion size or larger reporting units on most recent CMMI within 13 months.	Satisfactory rating for 70% of subordinate units of battalion size or larger reporting units on most recent CMMI within 13 months.
*Comprises five indicators				

Figure 2 (Cont).

Levels of REDCON Readiness

Of primary concern to all of us is the term REDCON. This causes the daily evaluation of the readiness condition of the unit. However, more important is the associated corrective action resulting from the evaluation. In other words, the REDCON evaluation is not a quarterly exercise, but by necessity one that must be performed daily for the Readiness Program to function as visualized. Below listed are indices that establish a REDCON C-1, C-2, and C-3. These are also covered in greater detail in Inclosure 2, and in pages 9-24 and 9-25 of the Operations and Training Handbook, USAIS, Fort Benning, Georgia, First Edition, FY 66.

#### C-1 REDCON

Personnel: Assigned - 97% full TOE w/90% of Asgd MOS position qualified.  
Training: ATT/TP1/Maj Exer/Sp Tng - Satisfactory w/13 months.  
Logistics: Equipment - 90% at 90% fill  
Serviceability - 70% Green 20% Amber 10% Red  
C1, I, III and V - 95% at 90% fill  
C1 II and IV - 85% at 80% fill  
CMMI - Satisfactory rating w/13 months/90% subordinate units Bn or larger

#### C-2 REDCON

Personnel: Assigned 87% full TOE w/85% of Asgd MOS position qualified.  
Training: ATT/TP1/Maj Exer/Sp Tng - In opinion of next higher CO can complete w/o additional tng.  
Logistics: Equipment - 80% at 80% fill.  
Serviceability - 55% Green 30% Amber 15% Red  
C1, I, III and V - 90% at 90% fill  
C1 II and IV - 85% at 75% fill  
CMMI - Satisfactory rating w/13 months/80% subordinate units Bn or larger.

#### C-3 REDCON

Personnel: Assigned - 77% full TOE w/80% of Asgd MOS position qualified.  
Training: ATT/TP1/Maj Exer/Sp Tng - In opinion of next higher CO can complete within 30 days.  
Logistics: Equipment - 85% at 70% fill.  
Serviceability - 40% Green 40% Amber 20% Red.  
C1, I, III and V - 85% at 90% fill  
C1 II and IV - 80% at 60% fill  
CMMI - Satisfactory rating w/13 months/70% subordinate units Bn or larger.

A discussion of the REDCON indicators logically brings us to the Unit Readiness Report. At the risk of redundancy, it is worthwhile to emphasize that although the report is rendered on a quarterly basis, to assist in managing your resources, a daily evaluation is made and necessary corrective action is accomplished. In fact, current directives require the submission of pertinent information at anytime the REDCON of a unit falls below its assigned REDCAPE. To illustrate the application of the indicators, a sample Unit Readiness Report is shown in Figure 2. AR 220-1 and supporting publications explain the entries in the report. However, a brief discussion at this time is in order. Now let's turn our attention to the Readiness Report form itself, DA Form 2715 (Figure 2). We will go through the form discussing each entry making an evaluation of a hypothetical unit.

In the upper left hand corner you see the word classification. Readiness Reports, like any other document, should be classified as to content. However, reports on company size and larger units are required by AR 220-1 to be classified confidential as a minimum, once the unit commander's evaluation and comments are placed on the form. The "as of" date of the report is that date on which the report is prepared. Reports are submitted as of the last day of each of the quarters of the fiscal year.

The report is submitted to commanding general, USCONARC, Fort Monroe, Virginia, through the commanding general of the ZI Army in which the unit is stationed. For the sake of this discussion, we will use the hypothetical unit, 2d Bn (Mech) 76th Infantry of the 52d Mech Inf Div, which is stationed at Fort Benning, Georgia. The report would be submitted by the battalion commander to Division Headquarters through the commanding general of Third US Army.

The TOE of the 2d Bn (Mech), 76th Infantry is 745E. This TOE designation is entered in blocks 63-66.

Blocks 67-71 are provided for entering the aggregate full TOE strength of the unit as reflected on the TOE document. In this case, blocks 67 and 68 would be left blank and blocks 69, 70 and 71 would reflect the digits 9, 0 and 1, respectively, for an aggregate strength of 901 personnel.

Next, we consider block 32, the REDCAT. No entry will be made under item 32. The REDCAT is confidential, as a privileged communication, and is not disseminated below CONARC level. Block 33 will reflect the REDCAPE of your unit or if you will, the readiness goal. The REDCAPE of our unit is C-2 which places our unit in a priority status ahead of all REDCAPE C-3 outfits, and our unit must be deployable in 15 days. Number 2 is entered in block 33.

Commencing with Section A, Personnel, let us discuss the body of the Readiness Report. The assigned strength of our hypothetical battalion is 662. This is only 73% of an authorized strength of 901 personnel. Therefore, Block 34 strength readiness condition is C-4. This is reflected by entering a 4 in the space underneath block 34. The numbers 901 and 662 are shown in the long space right of the strength block to show higher headquarters how we arrived at REDCON C-4. In block 35 we indicate our MOS posture. In this case, our hypothetical unit deserves a C-3 in the blank space below Block 35 because 82% of the assigned personnel are properly qualified. This illustrates the fact that in your Personnel REDCON both the aggregate strength and the skills are evaluated. The overall Personnel REDCON is C-4, the lowest of the two ratings because of the overall shortage of personnel. This will be discussed later in conjunction with the commander's statement of his REDCON. Figure 2 shows the requirement for meeting various Readiness conditions.

Under Section B - Training the 2d Bn (Mech) 76th Inf rates a REDCON C-1 in all cases. All ATT's were successfully completed. The battalion took part in a major exercise, and air movement training required in our contingency plan was accomplished. Figure 1 shows the requirements for meeting various Training REDCONs.

Section C (Logistics) of the report will be prepared by the S4. It covers Equipment on Hand (Block 40), Serviceability of Equipment (Block 41), Unit Equipment Profile (Block 42-47), Unit and Prescribed Loads (Block 48-52) and CMMI (Block 53) (see Figure 1).

For the equipment on hand block, not less than 90 percent of reportable TOE line items (reportable, i.e., listed in AR 711-140) must be on hand at 90 percent fill for the unit to attain a C1 rating. Thus a 10 percent tolerance takes care of low density line items and others for which the unit may be short more than 10 percent. Of the remaining 90 percent, however, the units must have 90 percent of the authorized number of each on hand to attain the aforementioned C1 rating. Assuming that our unit has not less than 90 percent of reportable line items at 80 percent fill, you would enter the number 2 in the square below block 40. On your

work sheet, you should enter the numbers representing the reportable items (AR 711-140) and percentage used in computing REDCON; for example, 200/25/165/5. The figure 200 represents the total reportable line items in your TOE. The figure 25 represents the number of these line items at 90 percent fill; the figure 165 represents the number of items at 80 percent fill and the figure 5 represents the number at 70 percent fill. You will notice that these numbers do not add up to 200 because the number of items below 70 percent are not counted. Comparing these figures with paragraph 7 of Appendix I, AR 200-1, we determine the REDCON of this block to be 2. Although not required by the AR, major commanders will normally require reporting units to list the shortages of TOE equipment reported in this block. (Example: CONARC Regulation 220-2 requires the attachment of DA Form 413 to each report.

In the equipment serviceability area (Block 41), the S4 determines the Unit Equipment Profile (UEP) using TM 38-750, AR 750-10, and the unit's materiel readiness report, DA Form 2406. To assist you in understanding this part of the report, we will review the terms "GREEN," "AMBER," and "RED" system outlined in AR 750-10, Serviceability of Unit Equipment. GREEN denotes combat ready equipment free of any discernible condition limiting the reliable performance of its primary mission for a period equivalent to or approximating 90 days of operation. AMBER denotes combat equipment possessing limiting conditions which may restrict a reliable performance of its primary mission. RED denotes combat equipment unable to perform its primary mission immediately or possessing an unacceptable reliability for sustained performance (90 days) of its primary mission. In order for a unit to report REDCON C1 under this indicator, at least 70 percent of the unit equipment for which equipment serviceability criteria (ESC) have been established must score in the GREEN and of the remaining 30 percent, not more than 10 percent may score in the RED. After the UEP is computed and placed in block 42-47 (these percentages must add up to 100), it is applied against the criteria established in Appendix II of AR 220-1 and the REDCON is placed in block 41. For example, our academic unit has a UEP of 70, 20, 10, which gives us a REDCON for block 41 of C1. It is important to point out that, regardless of the GREEN and AMBER percentage, a unit cannot exceed the 10 percent RED factor to retain a C1 rating in this area.

Unit load of Class I and Class III and basic loads of Class V are reported in blocks 48, 49 and 51, respectively. As you can see, the criteria for a REDCON C1 has changed somewhat for those blocks in that the unit must have not less than 95 percent of authorized line items on hand at a 90 percent fill to attain this rating. In computing for Class I, we have 1 reportable line item (Individual Rations) at a 90 percent fill; therefore, we enter the number 1 in the block 48. For Class III, we have 10 reportable line items and all 10 are at 90 percent fill; therefore, the REDCON for block 49 is C1. Block 51 pertains to the unit's basic load of Class V. Assuming that our unit has 25 reportable line items and all 25 are at 90 percent fill, we will enter 1 in block 51. We use the same reasoning in determining the readiness condition of our unit in Class II and IV supplies (PLL) in block 50, except that to be C1, the unit must have not less than 85 percent of the authorized line items on hand at an 80 percent fill and to be C3 must not have less than 80 percent of the authorized line items on hand at a 50 percent fill; anything less than this places the unit in C4. In this case we will assume that our unit has 400 reportable items; of these, 300 are on hand at an 80 percent fill, which gives us a REDCON C2 for block 50. Not less than 85 percent of the 400 items are on hand at a 75 percent fill. Block 52 is applicable only to a support type unit; therefore, our battalion will place an N in this block. As with block 40, some major commands require you to show your arithmetic; if so, the space to the right of block 52 may be used for this purpose.

Block 53 pertains to Command Maintenance Management Inspections (CMMI). This portion takes cognizance of the fact that CMMI's are conducted at company/battery level. For a parent unit to score REDCON C1 in this block, 90 percent of its subordinate units must have received satisfactory rating on the most recent CMMI within the past 13 months. A reporting unit which has no subordinate units is either C1 or C4, i.e., C1 if it has received a satisfactory rating on the most recent CMMI within the past 13 months or C4 if it received an unsatisfactory rating or

failed to take a CMMI during the past 13 months. For example, let us assume that our battalion has received a CMMI within the past 13 months and that all units, made satisfactory on the inspection. C1 is entered in block 53. Some major commands require the results of the CMMI to be spelled out in the space to the right of block 53. (Example: Hq & Hq Co, 10 Oct 63, UNSAT, SECOND ARMY CMMI, Co A, 10 Oct 63, SAT, etc.) Third Army, for another example, requires the ESC to be shown in this space. This entry is almost a duplicate of the report submitted on the DA Form 2406 and lists the number of items in the GREEN, AMBER and RED category. Additionally, items in the RED category must be explained as to: ESC score, shortage, TDY, obsolete, inspection, lack of application of an urgent MWO, or lack of parts. It is important to note that other army commanders may require different procedures for this block.

In executing Section D of the report, the commander first inserts in block 54 the lowest of the readiness conditions entered in the Personnel, Training and Logistics sections of the report. He must also explain why his REDCON does not meet the assigned REDCAPE. This narrative portion of the report is important because it is the opportunity for the commander to show where he stands, and why he is there. In other words, he can bring out his problems so that the next higher can specifically see what must be done about them.

Section E is for the higher commander to evaluate the overall REDCON in the three areas of Personnel, Training and Logistics. But of greater importance is that he is caused to act upon the commander's comments in Section D and correct the shortcomings, if remedial action is within his capability.

As previously stated, the Readiness Report is submitted quarterly. However, commanders must make a daily evaluation in order that the proper REDCON may be ascertained, and within existing resources, remedial action may be taken. In fact, at any time the REDCON of a unit drops beneath its REDCAPE, a report is made to higher headquarters and with an explanation as to why the change. The Readiness Report is a management tool in that based upon the entries contained therein, major commanders are now in a better position to allocate resources where they are required. Additionally, the commander at each level can readily see the status of Personnel, Training and Logistics and make corrections accordingly.

It should be borne in mind, however, that accurate reporting is the key. Unless the integrity of the report is maintained, there will be no demands upon the supply system whether personnel or equipment. As a consequence, resources will not be forthcoming.

Figure 2 is a listing of Unit Readiness subjects presented at USAIS. The program is being continuously revised in order that the graduate will understand the program and have the background necessary to make him immediately productive when he reports to a unit.

Unit Readiness is the way of life in the Army today. If properly administered, it will insure a continuous state of readiness, reflect the REDCON of units, and serve as a basis for measuring the effectiveness of the Army's management of resources. However, the program is only as good as the effort put into it. All commanders, staff officers and operators must make a daily evaluation and take corrective action within their means. If the problems cannot be solved, then higher headquarters must be informed so that resources may be re-allocated to priority units. To this end, the integrity of the reporting system must be maintained and reports must accurately reflect the REDCON.

UNIT READINESS (AR 220-1)		AS OF 30 June 1965	REPORTS CONTROL SYMBOL CSGPO-266 (R1)																																																					
TO: Commanding General USCONARC ATTN: ATUTR-OPS		THRU: Commanding General Third US Army Fort McPherson, Ga		FROM: Commanding Officer 2d Bn (Mech), 76th Inf 52d Mech Inf Div Fort Benning, Ga 31905																																																				
<table border="1"> <tr> <th colspan="6">TOE/TD NUMBER</th> </tr> <tr> <td>61</td><td>62</td><td>63</td><td>64</td><td>65</td><td>66</td> </tr> <tr> <td>0</td><td>0</td><td>7</td><td>4</td><td>5</td><td>E</td> </tr> </table>				TOE/TD NUMBER						61	62	63	64	65	66	0	0	7	4	5	E	<table border="1"> <tr> <th colspan="5">AGGREGATE FULL TOE/TD STRENGTH</th> </tr> <tr> <td>67</td><td>68</td><td>69</td><td>70</td><td>71</td> </tr> <tr> <td>0</td><td>0</td><td>9</td><td>0</td><td>1</td> </tr> </table>		AGGREGATE FULL TOE/TD STRENGTH					67	68	69	70	71	0	0	9	0	1	<table border="1"> <tr> <th colspan="4">FOR USE BY DPU</th> </tr> <tr> <th colspan="4">PROCESSING CODE</th> </tr> <tr> <td>74</td><td>75</td><td>76</td><td>77</td> </tr> <tr> <td></td><td></td><td></td><td></td> </tr> </table>		FOR USE BY DPU				PROCESSING CODE				74	75	76	77				
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TECHNICAL PROFICIENCY INSPECTION				SPECIALIZED TRAINING		Air Movement Training FTX Green Tree, 22-24 Sep 64																																																		
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SECTION C - LOGISTICS																																																								
EQUIPMENT ON HAND		200/180/10/5 See attached DA Form 413		SERVICEABILITY OF EQUIPMENT		42 43 44 45 46 47 7 0 2 0 1 0																																																		
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DA FORM 2715  
1 APR 64

REPLACES EDITION OF 1 SEP 63 WHICH IS OBSOLETE.

CLASSIFICATION

Unit Readiness Report.

CLASSIFICATION

SECTION D - UNIT COMMANDER'S EVALUATION AND COMMENTS								
THE OPERATIONAL READINESS CONDITION (REDCON) OF MY UNIT IS	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr><td style="padding: 2px;">54</td></tr> <tr><td style="text-align: center; padding: 2px;">4</td></tr> </table>	54	4					
54								
4								
COMMENTS ON UNUSUAL PROBLEMS INDICATED IN SECTIONS A, B, AND C <u>Section A.</u> Block 34. Levies for overseas replacement in June 1965 caused an unexpected reduction in strength of the battalion. The battalion has 12 EM undergoing OJT in MOS 63c.20 and has requested school quotas for 8 EM to attend Tracked Vehicle Mechanic Course, USAIS, Ft Benning, Ga. <u>Section C.</u> Block 50. Principal cause of REDCON C2 rating is shortage of sending units for M113 APC and fan belts for M151 1/4 ton vehicles. <u>Section D.</u> Unit is committed to OPLAN 12, 16, and 19.								
SIGNATURE OF UNIT COMMANDER	/s/ John Doe JOHN DOE Lt Col, Inf	DATE 2 July 1965						
SECTION E - HIGHER COMMANDER EVALUATION AND COMMENTS								
THIS UNIT HAS THE FOLLOWING REDCON RATINGS								
PERSONNEL	TRAINING	LOGISTICS						
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55								
4								
56								
1								
57								
2								
COMMENTS								
<u>Section A</u> - Programmed replacements should alleviate personnel shortage in this unit by 1 Aug 65. Quotas for Tracked Vehicle Mechanic Course have been submitted to Third Army. <u>Section C</u> - Sending units for M113 APC is considered critical, appropriate follow up action was taken on 20 Jun 65.								
SIGNATURE	/s/ William C. Jones WILLIAM C. JONES Major General	DATE 5 July 1965						
SECTION F - ARMY COMMANDER EVALUATION AND COMMENTS								
THIS UNIT HAS THE FOLLOWING REDCON RATINGS								
PERSONNEL	TRAINING	LOGISTICS						
<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr><td style="padding: 2px;">58</td></tr> <tr><td style="height: 15px;"></td></tr> </table>	58		<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr><td style="padding: 2px;">59</td></tr> <tr><td style="height: 15px;"></td></tr> </table>	59		<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr><td style="padding: 2px;">60</td></tr> <tr><td style="height: 15px;"></td></tr> </table>	60	
58								
59								
60								
COMMENTS								
SIGNATURE	DATE							

UNIT READINESS INSTRUCTION (CAR) AT USAIS

1. To be completed prior to Christmas holidays:

<u>SUBJECT</u>	<u>HOURS</u>
Introduction to the Army Readiness Program	1
Introduction to Personnel Management	1
Personnel Procedures	3
Maintenance of Unit Strength	3
Brigade and Battalion S3	1
Logistical Considerations in Unit Readiness	4
Introduction to Training Management	2
Training Programs	2
Training Schedules	3
Supervision of Training	2
Preparation of a Battalion Field Exercise	8
Preliminary Preparation of Unit Readiness Report	2
Mobility Department Orientation	1
Inspection of Tactical Vehicles	1
Ground Vehicles Available to Infantry Commanders	2
Field Expedient Recovery	2
Future Aspects of Ground Mobility	1
Wheeled Vehicle Inspection and Services	2
Army Maintenance System and Management	1
Driver Selection, Training and Supervision	1
Army Equipment Records System	4
Repair Parts Supply	4
Command and Staff Aspects of Preventive Maintenance	4
Materiel Readiness and Equipment Serviceability Criteria	3
Tracked Vehicle Inspections and Services	4
Preventive Maintenance Program	9
Total	<u>71</u>

2. To be completed during period 10 January 1966 to 15 April 1966:

<u>SUBJECT</u>	<u>HOURS</u>
Readiness Evaluation of TOE Mech Bn	10
Readiness Condition Indicators	(2)
Evaluation of TOE Equipment	(4)
Preparation of Unit Readiness Report for a TOE Bn	(2)
Critique of Unit Readiness Report	(2)
Readiness Condition of a Category I Division	2
Total	<u>12</u>
Integrated Instruction	10.25 Hours
Total Unit Readiness Instruction	93.25 Hours.

Inclosure 3

CHAPTER 12  
ASSISTANT COMMANDANT'S FORUM  
BRIGADIER GENERAL GEORGE I. FORSYTHE

General Forsythe opened the Forum by introducing the Department Directors, the Director of Instruction, the Commanding Officer of Combat Development Command Infantry Agency, and the President of the United States Army Infantry Board to the assembled workshop members. Several members of the workshop had submitted questions, and it was agreed that these would be discussed before asking for questions from the floor.

1. How do we at USAIS acquaint officer and noncommissioned officers with the necessary training requirements and methods that will enable them to carry out their responsibility in the field of Infantry heavy weapon training? (CONARC)

The Weapons Department presents the bulk of its instruction to officer personnel, the one exception being the NCO Heavy Mortar Davy Crockett Course; therefore, comments referring to officers also include in general the NCO students.

All instruction is oriented to the needs of students. As an example, in the weapons instruction presented to junior leaders, certain portions of all instruction is keyed to familiarize the student with range management and safety procedures. In addition, the instructional methods used by the department must certainly be considered a training vehicle which is an example of how training should be conducted. By participating in practical work, students are familiarized with a type of range organization that is both efficient and effective. Emphasis is placed on "hands on equipment" training and on known problem areas in weapons training. Training devices are both utilized and discussed during instructional periods where applicable. Opening remarks to all resident classes emphasizes that training requirements stressed and training methods utilized are applicable to units to which the student will ultimately be assigned.

Due to the limited amount of time allocated to the senior leadership courses for weapons instruction and considering the years of additional experience possessed by these individuals, it is neither favorable nor desirable to impart the same amount of knowledge in this field. Where special requirements exist, as they did for the CAR 1 and 2 students assigned to ATC's in FY 65, special end of course periods of instruction were presented covering range requirements, organization safety, current and proposed Army Subject Schedules and use and availability of subcaliber devices and training aids.

2. How are officers and NCO's familiarized with those training procedures which are set forth in pertinent DA Training Literature? (CONARC)

This information is furnished to the student by reference to pertinent DA Publications during instructional periods, and by issue of weapons handbooks, wallet size cards and other publications that contain information relating to FM's, ASubSch's, GTA's, TC's and TM's covering the various weapons.

3. How can Mortar Training be simplified? (CONARC)

Mortar training under our present procedure consists of training in both direct fire and indirect fire procedures. Since the simplest form of mortar gunnery is the direct lay firing method, it obviously follows that to simplify mortar training all that is required is to limit our training to this one method. However, the indirect fire method (Target Grid Method), which is presently used by ourselves and many of our allies: i. e., Germany, France, Canada, Britain, was adopted by the U. S. after World War II when it was realized that a need existed for an improved method for employment of mortars. This method of fire control is highly effective, though admittedly not a method to be learned over night.

Without a redesign of sights and fire control instruments in order to simplify usage, mortar training can best be simplified by ensuring that personnel assigned to receive training are mentally capable and physically coordinated in order to learn the method and procedures being taught. This can be accomplished by screening personnel records to ensure that the individual has a GT of at least 90, that he has qualified with his basic weapon and has obtained a passing score on his physical proficiency test. Further, Commanders should ensure that only well qualified instructors are utilized in conducting all phases of mortar training.

The training can further be enhanced by applying ordinary methods of military instruction, i. e., keep the instruction interesting, use existing training aids and devices, stay on the student level, provide for maximum amount of practical work, refrain from proceeding to another phase of instruction without ensuring that the student has a complete knowledge of the preceding phase.

Once the student has learned the fundamentals of mortar gunnery, he must be given ample time to train as a member of a team to become proficient.

Although, admittedly, not a means of simplifying mortar training, impress upon Commanders at all levels the importance of continual training for mortar personnel. For only through proper and continual training will mortar crews obtain and retain the required proficiency.

#### Can we do away with the FDC and Plotting Board?

The mortar sections can operate without an FDC. The procedures for this type of firing are currently being taught at the Infantry School and are included in current field manuals. This type of firing is for special situations and offers the following disadvantages versus firing with an FDC:

- (1) Fires cannot be easily massed from other supporting indirect fire weapons.
- (2) Restricts the movement of the FO, as he must remain on or within 100 meters of the mortar target line to fire effectively.
- (3) Reduces the number of FO's on the front lines, as the individual soldier cannot call for fires unless he knows where the mortars are located.
- (4) Reduces the capability of counter-mortar fires.
- (5) Almost completely eliminates accurate night firing.
- (6) Requires the mortars to be employed too far forward which reduces the amount of continuous fire support available during retrograde operations.
- (7) Provides no central point for determining priority of fires in the event of multiple fire missions.
- (8) Requires the gunner or FO to determine deflection, elevation and charge resulting in slowing down response time.
- (9) Reduces the accuracy of unobserved fires.
- (10) Reduces the amount of intelligence information normally received and relayed by the FDC.

The FDC, as a separate section, could be eliminated by providing the FO with a plotting board. This method offers the following disadvantages:

(1) Places ALL of the fire control responsibilities on an individual located in a vulnerable position. If this individual becomes a casualty the firepower available from his firing section is eliminated until a qualified replacement is provided.

(2) During displacement or occupation of a new position, firing cannot commence until the forward observer determines the mortars location and mounting azimuth.

(3) Requires one individual to perform too many operations.

(4) In the event there were more than one FO equipped with a plotting board, the problems of multiple fire missions would still exist.

(5) Numerous FO/FDC teams would have to be training to maintain a 24 hour operation.

This is why we believe that we are teaching the proper procedure; however, we do intend to emphasize the "quick and dirty" method more in our instruction to both the OC and Basic classes as well as to the CAR and ACAR classes.

4. What is the relationship between USAIS and the Infantry instructors at the other service schools? (SIGNAL SCHOOL)

The Infantry School view is that you are our representatives at your service school.

We here at the Infantry School are prepared to render you any and all assistance to aid you in presenting "first-class" instruction at your school.

The Policy, Plans and Projects Section of the Director of Instruction's Office has been designated as the USAIS Point of Contact for Infantry Instructors at other service schools. Your school was so notified by a letter dated 26 Jan 65. If for some reason you did not receive this letter, you should note it now and take down the telephone number of this office. It is 545-5504. The Chief of Policy, Plans and Projects Section is Lt Colonel Robert H. Robinson.

This section can help you arrange a visit, at your expense, to USAIS. It will schedule you to meet with those personnel who are the USAIS' experts in your areas of interest. Col Robinson's personnel will also obtain for you a copy of instructional material which you ask for if the Infantry School has a problem written on it.

We cannot provide you sufficient copies for distribution to your classes. However, if you desire several copies of published problems or data books, you can purchase them from our book store.

You also have another means of obtaining significant instructional material and data handbooks published here at USAIS. Our DNRI publishes a Monthly Mailing List which is sent to the Librarian at your school. You can request and obtain one gratuitous copy of each item.

We here at USAIS consider each of you as much a part of our faculty as our resident instructors.

5. It is noted that service schools, i. e., Armor and Artillery, provide (or make available) instruction packets to include 35mm slides, vu-graphs, etc. Could USAIS do the same for annex "Q" common subjects? (Transportation School)

Yes, we will furnish you with anything you ask us for, but we don't like the idea of sending out all kinds of packets without even knowing how many hours you are teaching on the subject. We teach 16 courses, and in some cases we can give you a two-hour version or a four-hour version of the same problem, depending on what courses have been taught. We request that you let us know what you want as far as quantity and subject area go; however, we do have an in-house limitation which will not allow us to fulfill your total school requirements.

In our nonresident USAR School's career program we prepare instructor sets as well as student sets. It may be that there are some subjects in this area which would be helpful. It might not be the required number of hours you want and it might not be exactly the way you want to teach it, but I'm sure it will be of some assistance.

6. How can information on Airmobile Division, to include organization, missions and employment, be expedited to the instructors at other service schools? (Army Security Agency School)

The Brigade and Battalion Operations Department is preparing a supplement to the Infantry Reference Data which will contain the complete organization and mission and capability statements. This supplement will be sent to mailing list addressees in late September or early October 65. The supplement is based on TOE 67T, 10 July 1965. Many minor changes to this TOE are anticipated. Development and publication of employment doctrine (up to brigade level) is a responsibility of CDC Infantry Agency. Airmobile additions to FM's 7-20 (Battalion) and 7-30 (Brigade) are programmed by CDCIA for publication sometime in January 1966. FM 57-35 (Airmobile Operations) is being revised to update airmobile doctrine and incorporate more on the Airmobile Division. It is programmed for publication about June 1966. Current FM's 57-35, 7-20, and 7-30 contain some information on airmobile operations which is generally applicable to airmobile as well as other brigades and battalions. These FM's are the best available source of information until changes and/or revisions are published. (The Brigade and Battalion Operations Department is considering the requirement for an airmobile handbook, special text, or supplement to the TOH as an interim measure pending publication of changes to FM's 7-20 and 7-30, and revision of FM 57-35.)

7. What is the status of airmobile division as to mission and equipment? (Intelligence School)

It was agreed that this had already been covered by the answer to question six.

8. What means can be used to improve the responsiveness of the Infantry Instructors to the current doctrine and future trends in Infantry and counterinsurgency subjects taught by USAIS? (Signal School)

We feel the current monthly list of instructional material may not always be reaching the correct people. To correct this, we are considering a quarterly newsletter to be addressed by name which will list some of the most important documentary we are producing as well as the current thinking that we are incorporating in our instruction well before it is presented. This newsletter will supplement rather than replace the current monthly list.

9. How does the Infantry School prepare, plan or visualize the use of closed circuit TV in the instruction of tactical subjects? (Armor School)

There are three plateaus of television application: Initially TV is another training aid, it doesn't really curtail time of instruction, or replace the instructor. Next we have the taped lecture presentation where the instructor watches himself on TV and answers questions after the presentation. And last we have the final plateau where the questions have been scientifically anticipated and included in the presentation. When we reach this level we are really making the job easier and may be able to reduce the number of instructors. Applying these three plateaus

to tactics we feel the first application is in the area of using TV as a training aid in examination critiques. This reaches over into the second area because this saves time which would have to be set aside for critique periods. Another early application could be a review of material prior to examinations. Finally, with respect to CPX's and map maneuvers we can use TV tapes for reconnaissance purposes instead of still photos. In the same manner we can animate some of the more complex tactical maneuvers and tie them right into the tactical instruction.

We visualize the day when presentations and demonstrations will be piped out to the schools live, and saved on tape for future use. Right now we have the River Crossing exercise on tape, and whenever we get rained out, we bring the students into the classroom and show them the demonstration on TV.

We feel that we have barely scratched the surface in this area and will certainly be more knowledgeable and proficient within a short time.

10. How successful are heliborne tactical operations in Vietnam? What have been the lessons learned thus far? (Adjutant General School)

US combat units in RVN have had relatively little time to gain experience in heliborne (airmobile) operations and the only yardstick we have for measuring the success of these operations is our military judgment.

The 173d Abn Bde has furnished USAIS several reports which indicate that these operations are successful. The following brief description of a 173d Abn Bde operation illustrates one of their airmobile operations.

This operation took place about 50 km north of Bien Hoa on 6, 7, and 8 July 65. It involved the landing of three battalion size task forces (2098 troops) in three landing zones following a preparation fired by prepositioned artillery and armed helicopters. The concept was for the battalions to land north of the Song Dong Nai River (which runs generally east - west) then sweep southward through the area to pin the VC against the river. The entire force was then to be extracted by helicopter from LZ's near the river on D+3. All resupply and evacuation, and substantial fire support, was provided by helicopter throughout the operation. The operation was executed as planned. Results: Killed 56 VC (body count) and 150 probables. 28 POW's taken and an estimated 200 VC wounded. 300 buildings; 100 tons of rice; and numerous domestic animals destroyed. A ton of VC documents captured along with 30 weapons and 4 radios. All this was accomplished at a very small cost in US killed and wounded. A total of 1494 helicopter sorties were flown in support of this operation.

Not all airmobile operations are as successful as the one described. There are varying degrees of success in these operations. Helicopters as a means of mobility are definitely a success. They are also successful in reconnaissance/surveillance; fire support; combat service support; communications; and command control and liaison roles. In short, the helicopter is a versatile air vehicle which provides us with a large part of the superior mobility required to defeat the guerrilla. We must not, however, always equate mobility with the helicopter. In the 173d Abn Bde operation, as in practically all operations, troops closed with the VC on foot.

Many of the lessons learned in airmobile operations are nothing more than a relearning of fundamentals and many others pertain to the limitations of the aerial vehicles involved. It is not possible to mention all of these lessons. Some of the more salient are:

The presence of helicopters alerts the guerrilla.

Excessive aerial reconnaissance may cause the guerrilla to disperse or prepare to meet an assault.

The presence of helicopters above a friendly unit (like hovering vultures) will give away the unit's position.

The length of preparatory fires (from any source) must be adjusted to the mission and situation. Lengthy preparations or those not followed promptly by troops give the guerrilla an opportunity to escape or adjust to meet an assault.

When helicopters of like characteristics are used in the aerial column and in the accompanying fire support (escort) role, the fire support helicopter cannot catch up with the column if it stops to shoot.

USAIS will remain in contact with the CG, 173d Abn Bde, and will be in contact with the 1st Cav Div. It is hoped that we can gain more information (lessons) on airmobile operations from these units.

11. What is the Thinking at USAIS on the use of the APC as a fighting vehicle? (Armor School)

The Armored Personnel Carrier (APC) was developed primarily as a combat carrier and not a fighting vehicle. It was designed to increase the battlefield mobility of the infantryman, to conserve his energy and to afford him a degree of armor protection.

Current infantry doctrine concludes that in the attack the terrain and enemy action will determine that point at which the Infantryman must dismount to close with and destroy the enemy. Attacking units will advance mounted as far forward as possible. Mounted assaults are conducted against light or discontinuous enemy resistance, or in exploitation. If the situation requires a dismounted attack, Infantrymen should be moved as close to the objective as possible before they dismount. The .50 cal MG employed on the carrier must be used aggressively whenever possible to support the assault.

It is proposed that the Mechanized Infantry Combat Vehicle replace the Armored Personnel Carrier. This vehicle will be equipped with observation and firing ports to allow the Infantryman the capability of observing and firing while mounted, thereby allowing for the delivery of suppressive fires and providing some antitank protection for the carrier. Nevertheless, dismounted action must be employed whenever effective enemy fire or terrain considerations dictate. The primary purpose of the MICV is a carrier and not a fighting machine. No radical changes from current tactical doctrine are foreseen as the new carrier becomes available.

12. What should be the overall role of US Army Special Forces in the "War of Movement" phase, i. e., South Vietnam, and what should be the command relationship between conventional and unconventional forces? (Adjutant General School)

The overall role of Special Forces in counterinsurgency is contained in FM 31-22, US Army Counterinsurgency Forces. Special Forces usually participate in the counterinsurgency effort as a part (usually the major element) of a Special Action Force (SAF). The mission of Special Forces in counterinsurgency (paragraph 34, FM 31-22) is to provide training, operational advice, and assistance to host country Special Forces. US Special Forces are doing this in RVN and there is no indication that this will change during Phase III of the insurgency. There is a possibility that during Phase III US Special Forces might cease their advisory role and become operational or assume both operational and advisory missions. At what point this might occur (if ever) is speculation.

There is some feeling that US Special Forces should have an operational mission in NVN rather than advisory mission in RVN. If such operations are going on (which is doubtful in view of our national policy) they are clandestine or covert operations about which USAIS has no knowledge.

The command relationship between conventional and unconventional forces depends considerably on the situation; the forces involved; and command arrangements at the highest level. As a general rule, unconventional forces come under the operational control of the conventional force when located in the conventional force area of influence. This is necessary to insure complete coordination and unity of effort. This operational control should normally be at division or higher level.

In RVN the indigenous force developed by RVN Special Forces (advised by US Special Forces) comes under the operational control of the ARVN Corps or of the ARVN Division when located in the division tactical zone. This varies, however, between corps. The US Special Forces Team, of course, remains in the US Special Forces chain. The command arrangement to be used when the 1st Cav Div begins operations in RVN is not known at this time.

13. Are there any future changes planned for airborne TOE's? Why were the recent changes made?

Yes, there will be future changes, and this will be a continuing process. The changes that were made came about largely as a result of the Airmobile Division experimenting with non-standard equipment. We now have a project that will integrate these changes into our tables of organization and equipment.

Airborne divisions have recently been reorganized under TOE 57F. The details of this TOE will be published as a change to the FY66 Infantry Reference Data; however, some of the significant changes are: The mission orients the division to unsophisticated or semi-sophisticated areas; reinforcements would be required for operations in a sophisticated area. Also, the division nuclear capability (Little John and Davy Crockett) is eliminated, and the division supply and transport battalion is reduced to a supply company. The 90mm Recoilless Rifle (M67) of the rifle company is replaced by the 3.5" rocket launcher, and the number of 2 1/2 ton trucks is also reduced from 15 to 4 in the Airborne Infantry Battalion. The last significant change is that the light tank battalion is deleted.

These changes were made primarily because the ROAD Airborne Division was too heavy and it required too many aircraft to move it.

14. What Agency has responsibility for developing doctrine for counterinsurgency at Brigade and lower level?

CONARC Regulation 350-1 assigns the overall responsibility for counterinsurgency to Fort Bragg and singles out certain specific areas therein to other schools. The Infantry School is specifically given pronency for counter guerrilla operations, Escape and Evasion.

15. Do we want the 60mm mortar back in the Infantry? (USAIS)

Yes.....because it's quick and dirty.

16. What is the chain of command established between US and RVN units?

Nobody knows, because it's not set up. It happens on a mission basis.

General Forsythe closed the workshop by thanking the various participating departments and staff sections for their efforts in making the workshop successful. General Forsythe also thanked the members of the workshop for their contributions to its success, and reminded them of the Infantry School's desire to furnish them all the support possible.

APPENDIX I

SECTION I

DIRECTORY OF  
 UNITED STATES ARMY INFANTRY SCHOOL  
 STAFF AND DEPARTMENT DIRECTORS  
 1965 INFANTRY INSTRUCTORS' WORKSHOP

<u>Position</u>	<u>Name</u>
COMMANDANT	Maj Gen ROBERT H. YORK
Aide-de-Camp	1st Lt S. SILVASY, JR.
ASSISTANT COMMANDANT	Brig Gen G. I. FORSYTHE
Acting Aide-de-Camp	2 Lt J. M. CARISS
DEPUTY ASSISTANT COMMANDANT	Col T. W. LONG
DIRECTOR OF INSTRUCTION	Col H. E. WOLFF
EDUCATION ADVISOR	Dr. H. S. TATE
SECRETARY	Col T. E. TISDALE
OFFICE OF INFANTRY DOCTRINE AND MATERIEL	Col W. B. WISDOM, JR.
OPERATIONS OFFICE	Col W. J. HIGGINS, JR.
STAFF SURGEON	Col R. M. HALL
MANAGEMENT AND BUDGET OFFICE	Col J. W. LAWSON
BRIGADE AND BATTALION OPERATIONS DEPARTMENT	Col J. O. JONES
COMPANY TACTICS DEPARTMENT	Col R. J. O'NEILL
RANGER DEPARTMENT	Col I. A. EDWARDS
WEAPONS DEPARTMENT	Col B. E. EDWARDS
MOBILITY DEPARTMENT	Col J. E. JENKINS
COMMUNICATIONS-ELECTRONICS DEPARTMENT	Col D. A. BEYER
AIRBORNE DEPARTMENT	Col L. A. WELCH
DEPARTMENT OF NONRESIDENT INSTRUCTION	Col N. B. MABRY
THE STUDENT BRIGADE	Col J. W. WALLS
AIR FORCE ADVISOR	Lt Col M. W. MAGNAN
MARINE ADVISOR	Lt Col S. DAVIS

SECTION II  
DIRECTORY OF  
FORT BENNING AGENCIES CONTRIBUTING TO  
THE 1965 INFANTRY INSTRUCTORS' WORKSHOP

<u>Position</u>	<u>Name</u>
COMBAT DEVELOPMENTS COMMAND INFANTRY AGENCY	Col P. L. HOOPER
USA INFANTRY BOARD	Col J. J. MUIR
USA INFANTRY HUMAN RESEARCH UNIT	Lt Col T. E. LAWRENCE

APPENDIX II

DIRECTORY OF CONFEREES

1965 INFANTRY INSTRUCTORS' WORKSHOP

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Lt Col Robert H. Hammerle  
USA Transportation School  
Fort Eustis, Virginia 23604

Lt Col Earl C. Hardy  
USA Command and General Staff College  
Fort Leavenworth, Kansas 66027

Lt Col George W. Hartnell  
USA Air Defense School  
Fort Bliss, Texas 79906

Lt Col Clarence E. Jordan, Jr.  
USA School of the Americas  
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Lt Col George W. Mainer  
USA Ordnance School  
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Maryland 21005

Lt Col John P. Moffitt  
USA Transportation School  
Fort Eustis, Virginia 23604

Lt Col Ernest H. Morgan  
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Fort Knox, Kentucky 40120

Lt Col Herbert E. Morse  
USA Signal School  
Fort Monmouth, New Jersey 07703

Lt Col James McKee  
Brooke Army Medical Center  
Fort Sam Houston, Texas 78234

Roster (Cont'd)

Lt Col Jack G. Null  
USA Combat Surveillance School  
Fort Huachuca, Arizona 85613

Lt Col Bobbie J. Pinkerton  
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Fort Leavenworth, Kansas 66027

Lt Col Charles D. Stampley  
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Lt Col Freddy R. Wenck  
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Fort Monmouth, New Jersey 07703

Lt Col Phillip E. Zimmerman  
USA Engineer School  
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Major Richard F. Carvell  
USA Quartermaster School  
Fort Lee, Virginia 23801

Major James D. Currie  
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Aberdeen Proving Ground  
Maryland 21005

Major Harry O. Davis, Jr.  
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Fort Sill, Oklahoma 73503

Major Walter G. Dermatis  
Transportation School  
Fort Eustis, Virginia 23604

Major Stephen P. Dotur  
USA Adjutant General School  
Fort Benjamin Harrison, Indiana 46216

Major Peter S. Field (British Army)  
US Military Academy  
West Point, New York 10996

Major John D. Foldberg  
US Military Academy  
West Point, New York 10996

Major Peter L. Gorvad (US LNO)  
Royal Canadian School of Infantry  
Camp Borden, Ontario, Canada

Major Richard L. Hatch  
US Marine Corps Schools  
Quantico, Virginia 22134

Major Alva W. Hayes  
USA JFK Special Warfare School  
Fort Bragg, N.C. 28307

Chaplain (Major) Carlos J. Lively, Jr.  
USA Chaplains School  
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