

FM 21-5

MILITARY TRAINING



My military experience evolved from a long career in the Army and following retirement to two decades of defense consulting in the United States and overseas, through Civil War reenacting and finally, in 2002 to the World War II hobby. It was a rough ride.

It had been my expectation that the Civil War and WWII hobbies would be pretty much alike, differing only in military fashions and historical basis. In most ways that was the case, but there was and is a major exception. It's pretty simply stated: Civil War reenactors are eager to learn and thereby to improve. Serious hobbyists studied Casey and Hardee and Mahan and Katz and other sources, trying to improve a knowledge of the theory and practice of war in the 1960's. This is rare to find in the WWII hobby. I'm not certain why this is so—war is war and reenacting is reenacting, or so I presumed—or why resistance to learning is so stubborn and so bitter.

In general I have found that WWII reenactors, particularly those who have been around a long time and hold positions of leadership, respond to the idea of training with barely disguised hostility. Newer reenactors are much more receptive to the two basic principles: we don't know everything, and what we don't know is worth learning. This gives me hope for the future of the hobby.

Why is this important? Simple: authenticity is more than uniforms and gear: we need to know how soldiers acted, how they were trained, what they could do. Knowledge is part of authenticity; and authenticity is the key to successful living history.

Certain basic soldier skills require formal training and practice. A good example is map reading, which has a foundation in technical knowledge: symbology, scaling, plane trigonometry and geometry, and other fairly rigorous skills that orienteers have to master (unless they rely exclusively on GPS and mobile phones, which soldiers did not have in *The Day*). But it also requires the ability to analyze and appreciate terrain, how to manage observation and fields of fire, cover and concealment, probably avenues of movement and other military features of the battlefield.

One helpful note: WWII training techniques do not differ in any significant way from current practice; in fact, the training methods that helped the headlong mobilization of a vast defense establishment had to be as efficient as possible, and provided the practical basis for what is now called the *adult education model*.

The formal field manual, reproduced and annotated here, provide a detailed account of how troops were trained. It is a statement of doctrine, and was barely modified throughout the war. In fact, the basic approach was still in place when I was a JROTC cadet in the Fifties.

A companion volume, **TM 21-250**, also in this library, is an instructor's how-to manual. To start mastering the art of military training, look first at the highlighted areas in FM 21-5 to find the ideas that have special applicability to the hobby; then embrace **TM 21-250**, which tells you how to do it.

FM 21-5

BASIC FIELD MANUAL

MILITARY TRAINING

Prepared under direction of the
Chief of Staff



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(For explanation of symbols, see FM 21-6.)

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BASIC FIELD MANUAL

MILITARY TRAINING

(This manual supersedes TR 10-5, August 10, 1935.)

SECTION I

GENERAL

■ **1. SCOPE.**—This manual contains the basic instructions for the training of the Army of the United States. Detailed instructions for military training are contained in Field Manuals and Technical Manuals, in Mobilization Regulations, in training circulars, and in other training directives for the components of the Army. For example, see chapter 9, FM 23-55, and other Field Manuals of the 23-series.

■ **2. PURPOSE OF MILITARY TRAINING.**—The ultimate purpose of all military training is the assurance of victory in the event of war. Such assurance will guarantee the domestic peace and the international security of our people. The conditions which may face the Army of the United States in war cannot be definitely foreseen. It must be trained to function effectively in any type of war in any climate or terrain.

■ **3. ONE ARMY.**—The training of the Regular Army, the National Guard of the United States, and the Organized Reserves will be so directed as to develop a single homogeneous force with the same standards of efficiency. For the missions of the various components of the Army of the United States, see appendix I.

■ **4. OFFENSIVE SPIRIT.**—*a.* Training will be so conducted as to develop in the Army the ability and desire to take offensive action in combat. Although training must include thorough instruction in defensive combat, it must be understood that such combat is only a means to a definite end-offensive action. See **FM 100-5**.

b. To develop an offensive spirit a major objective of training must be the development of aggressive, resolute, thoroughly capable individuals and units whose skill, initiative, and confidence have instilled in them the desire to close with the enemy and destroy him.

■ **5. QUALITIES TO BE DEVELOPED.**—Successful offensive action demands that military training develop in the individual and in the unit the following qualities:

- Morale.
- Discipline.
- Health, strength, and endurance.
- Technical proficiency.
- Initiative.
- Adaptability.
- Leadership.
- Teamwork.
- Tactical proficiency.

Note also the companion volume **TM 21-250**, a handbook on practical training philosophy and techniques that focuses on the instructor's skills and has lots of pictures.

3. This was not universally the case before the war, when state governors had control of their National Guard units, which were not integrated into the whole picture (the Army of the United States) until federalized for war. Training standards in particular were not uniformly followed until the unified force was brought under a single plan in 1941.

It is also useful to understand that there is a difference between the National Guard and the State Guard or State Militia, or whatever a state calls their internal force that is loosely affiliated with the National Guard under direction of the State Adjutant General and takes over the latter's duties inside state borders when the Guard goes to war. This is an echo of the Home Guards during the Civil War.

■ **6. CONDUCT OF TRAINING.**—In order to accomplish its purpose efficiently, military training will be conducted by the use of decentralization, balanced progressive training, and applicatory tactical exercises.

■ **7. DECENTRALIZATION.**—*a.* Responsibility for and control of training are functions of command. It is the duty of each commander to inform his subordinate commanders of the objectives and standards to be attained by training and of the time available for the purpose. The initiative and leadership of the subordinates is developed by the responsibility for choice of methods and for the details of execution.

b. When time, means, or suitable instructors are lacking, the technical training of individuals, particularly specialists, who must be trained to perform identical or similar tasks may be conducted under centralized control. Such control gains speed in basic and technical training and thus permits the further decentralization of training in those subjects which best promote the development of initiative and leadership.

c. Supervision and inspection are made by higher commanders to determine progress in training. Such supervision must not relieve subordinates of their personal responsibility or hamper the exercise of their initiative.

■ **8. BALANCED PROGRESSIVE TRAINING.**—*a.* Training in all subjects progresses from the elementary to the more advanced subjects. The individual must be physically hardened, qualified to march, to use his weapons, and to care for himself and his transportation in the field. Training in these essential basic and technical subjects must be so balanced as to prepare the individual to take the field at any time.

b. Tactical and logistical training begins with the operations of the small unit. Concurrent training of higher and lower units gives to all an appreciation of the part each subdivision must play in the task of the team as a whole. Training of higher units must not be attempted until the lower unit has reached a stage of training which permits it to gain further instruction by combined training with other units. For example, only when the battalions are well trained will they take part in the field exercises of the regiment, the combat team, and the combined training of larger units.

■ **9. APPLICATORY TACTICAL EXERCISES.**—Use of this type of exercise should be commenced as early in training as practicable. These exercises are direct training for combat. All other phases of military training directly or indirectly prepare for tactical exercises. They permit the individual or unit under training to apply the doctrine being taught to an assumed or outlined tactical situation.

■ **10. MOBILIZATION TRAINING.**—In time of emergency, training is conducted in accordance with the doctrine outlined in this manual, with the following exceptions:

a. The conduct of training is centralized to a greater degree, depending on the time, instructors, and means available.

b. Training is intensified and the length of the training day is increased.

7. The headlong mobilization from a modest prewar force to a fighting army of millions had to be done as quickly and efficiently as possible. Early on, new divisions trained as units within the US, under direction of Army Ground Forces. This caused some problems. Almost as soon as a division was formed and ready to deploy, the best officers and NCOs were stripped away to form the cadre of a new division, leaving the original outfits to make do.

On the universal principle that no idea is too dumb to try again, this was still happening in the 1960's. The ill-fated 11th Infantry Brigade suffered from this crippling of leadership, and forced to deploy to Viet Nam in a low state of training and morale. This came to light in the aftermath of My Lai.

Deployed units that had trained together from the start generally did better than ones that were formed hastily and cadred to death. This was a major leadership point made in "Band of Brothers." My own "home" battalion, the 1-77 Armor, deployed by ship from Fort Carson as a whole one-station unit training (OSUT) formation, and hit the ground running. Other units were not so lucky.

9. As of this writing (December 2016) the Army is starved for mission training time as endless hours of mandatory training on such topics as sexual harassment/assault reporting and prevention (SHARP) crowd the available training hours.

10. In mobilization there is limited time for low-priority topics, and troops are often run ragged. The good part: combat is often seen as a relief from the endless, grueling training.

c. Such special training is required as the development of particular task forces demands.

d. Such other exceptions as are prescribed in War Department Mobilization Regulations and Mobilization Training Programs.

SECTION II TRAINING MANAGEMENT

■ **11. DEFINITION.**—Training management is the planning and direction of training so as to make the most effective use of the means and time available to accomplish the training mission.

■ **12. RESPONSIBILITY.**—Training management is a function of command and therefore the responsibility of every unit commander.

■ **13. DIRECTION.**—*a.* The direction of training to secure uniformity and coordination of effort is exercised through the established chain of command from the highest to the lowest headquarters. The announcement of policies and doctrines, assignment of training objectives, allotment of time and means, and the promulgation of plans for the training of individuals and units are accomplished through the medium of training orders.

b. Training orders, issued as training directives, general orders, mobilization regulations, administrative letters, and training circulars are issued usually by higher headquarters. Training programs and schedules embody the more detailed training plans of tactical commanders down to and including commanders of companies and similar units. They may be supplemented by memorandums which publish detailed instructions for subordinate commanders.

■ **14. TRAINING PLAN.**—The training plan results from an estimate of the training situation and is announced in training programs and schedules. Planning involves a careful consideration of training methods suitable to the existing state of training, to the personnel available, to weather and climatic conditions, and to the objective to be reached. From this is evolved a correct determination of the sequence of subjects or courses, the use of available facilities, and the division of time to meet the several requirements.

■ **15. ESTIMATE OF THE TRAINING SITUATION.**—The following factors are considered in an estimate of the training situation:

- a.* Mission (training objective).
- b.* Essential subjects (relative importance and scope of each).
 - (1) Basic.
 - (2) Technical.
 - (3) Tactical and logistical.
- c.* Time available.
- d.* Equipment and facilities available.
- e.* Personnel available as instructors.

II. This makes clear the idea of an "estimate of the situation" for training.

What are we trying to accomplish? What is the goal (desired end state)? How do we select and prepare instructors? What resources to we need (sand tables, handouts, models)? Do you have the documentation: FM's TMs training circulars, and all the how-to guides? NOTE: If you say "no", you're an idiot—you're reading *this*, and I've made dozens of other resources available for the literate.

All this is part of the "estimate of the training situation at para 15.

Specify the training goal. **Okay: critical concept.** Don't make the mistake of starting with what you want to teach and how you want to teach it. Start with *what you want your unit to be able to do* when the training is done and how you are going to evaluate performance. Work backwards from that.

I know that's not what teachers and trainers usually do. But if you think about it, it makes sense. Work toward an outcome, not a process; once you have a firm idea what the desired result will look like, the rest sort of falls into place. Because the hobby is an every-sixth-weekend-warrior effort, you have no time to waste.

f. Local conditions.

(1) Climate.

(2) Terrain.

g. Existing state of training.

h. Organization for training.

i. Obstacles.

(1) Administrative.

(2) Physical

(3) Human.

■ **16. MISSION.**—The mission is the most important factor in a training problem. The commander of every organization must analyze carefully the training mission or objective designated by a higher echelon to ascertain precisely what he is expected to accomplish. Each commander must analyze his own requirements and assure himself that the training objective he has designated can be attained if the time, facilities, and personnel are properly employed.

■ **17. ESSENTIAL SUBJECTS.**—*a.* In the training of any combatant arm it will be found that the essential subjects may be classified under three groups: basic, technical, and tactical and logistical. Definite standards of proficiency can easily be established for most technical subjects and for some basic subjects, but in tactical and logistical training an arbitrary measurement is hardly possible. Commanders of all grades must be familiar with tactical doctrine. Their tactical judgment should be developed and confirmed by applying the doctrine in the solution of all types of problems. By the solution of tactical problems each commander will become acquainted with the part he plays in tactical operations, and teamwork will be secured.

b. The relative importance of subjects and the scope of each are determined by the training objective, that is, the mission. Broadly speaking, in the training of enlisted personnel, emphasis should be placed upon basic and technical training; in the training of officers, upon tactical and logistical training. Officers must know thoroughly the details of basic and technical training and be able to instruct in them. Accurate knowledge of details and precision in execution are essential requirements in the training of a soldier. Noncommissioned officers must understand the tactical handling of the units they command.

■ **18. TIME AVAILABLE.**—The time available should be reduced to hours, and morning hours listed separately from afternoon hours. This is particularly necessary in preparing detailed programs and schedules. Morning hours should be used for training requiring the greatest mental concentration. Afternoons are suited to subjects requiring action and movement. Athletic games should be played in the afternoon.

NOTE.—In considering the available time it is necessary to allow for the time consumed in going to and returning from training areas. Such time must be considered a training loss and not computed in the hours devoted to the subject of instruction.

18. Training is generally available only at events, since this is the best opportunity for maximum attendance. My first reaction to the hobby (in a good, proud unit) was that huge amounts of good training time were being wasted.

But there is a balance to be carefully observed. Events have objectives that include educating the public and, always, having a good time. Some kinds of training do not fit well except before or after the public arrives. Other kinds of training, however, fit well because we can entertain and educate the public by going through authentic training, meeting two goals at once. Not everything works. We should be conversant with radio procedure, for example, but training in this topic is not particularly interesting to watch.

One way to handle this is to develop a training plan several events in advance, choosing the training goals most appropriate for the event.

20. Most units of any size will have one or more veterans who are experienced trainers, and these can be relied on to prepare and deliver instructional blocks (though it's important to be careful not to teach "cool" stuff that isn't appropriate for the 1940's). Long term, however, it is important to select and develop non-veteran reenactors as trainers so that the membership does not see the vets as an elite.

Important point: veterans are there to have a good time as well, but they are most important as models of soldier behavior and attitude and as teachers—not as automatic leaders.

■ **19. EQUIPMENT AND FACILITIES AVAILABLE.**—The use of limited facilities and equipment, such as rifle ranges and impact areas, will be coordinated by a higher commander so that each unit may have its necessary share of time for use in training. The need for any special equipment should be foreseen, so that it may be ready for use at the designated time and place.

■ **20. PERSONNEL AVAILABLE FOR INSTRUCTORS.**—A careful consideration of the number and qualifications of instructors available within the organization is an important part of every detailed training plan. Lack of competent instructors in technical or specialized subjects handicaps the training of a unit. Such deficiencies must be foreseen and provided against by securing outside instructors, or by establishing schools for the training of local officers, noncommissioned officers, or selected privates as instructors.

■ **21. LOCAL CONDITIONS.**—*a.* Seasonal changes will usually require that some training be conducted indoors. Except in the far south there will be periods when outdoor training will be impracticable. The training plan must provide for indoor training. Schools for officers, noncommissioned officers, and specialists can be conducted indoors. Preparatory training for outdoor exercises can be conducted indoors, thus insuring an economic use of time.

b. Where local terrain is limited or unsuited to certain phases of tactical training, it will be necessary to go outside the limits of military reservations to secure adequate terrain. If this is impracticable training methods must be modified. Sand tables are especially valuable in teaching the use of cover and concealment, scouting and patrolling, and the tactical handling of small units. Simple map exercises illustrating definite tactical doctrine may be used as a substitute for practical work in the field. Training films which give demonstrations of the application of tactical doctrine may be used to advantage. Energy and resource can always improvise means for teaching minor tactics when suitable terrain is not available.

■ **22. EXISTING STATE OF TRAINING.**—The existing state of training of the organization as a whole and also of the individuals composing it should be considered in order to avoid repetition where the desired standard has already been attained. All qualified individuals should be used to instruct those who have not yet reached the required standard. Units that are qualified in any phase of training should be used for demonstration purposes to assist in training less advanced units.

■ **23. ORGANIZATION FOR TRAINING.**—*a.* The organization for training depends primarily upon the purpose for which the training is conducted. If the mission is to qualify men for appointment as officers, or to train those already commissioned, training under specialists is recognized as the most efficient method. It is the method of all service schools. It can also be used to train noncommissioned officers and specialists as instructors. This method gives uniformity in training standards and requires fewer instructors and less time for training.

b. Organization for unit training must assure the development of leadership and teamwork as well as the training of individuals. It must be

19. Some skills can be taught anywhere, particularly if the topic lends itself to lecture. But the lecture is a poor way to deliver most instruction, since this format is effective only if there is no other way and the material is intrinsically interesting to the audience. Lecture also leads to what we now call "death by PowerPoint", where topics are listed and delivered in a mechanical way.

Ground for tactical training is not easy to find, particularly when there will be blank (or live!) firing. But it is also useful to start tactical training with a chalk talk or illustration with a sand table (see **TM 21-250**). I've seen otherwise sound reenactors froth at the mouth at the thought of actually learning how to do something before trying to do it. It's the responsibility of the developer and instructor to find the most merciful way to prepare soldiers for hands-on practice.

22. It's critical in develop training plans and schedules to assess how much the audience knows, and in particular who is experienced and who is not. Nobody wants to stand out in the sun learning school of the soldier from the ground up if he has already mastered manual of arms and only requires a short practice session.

This creates a challenge. Members of any outfit are likely to include different levels of training, and hence different training goals and priorities. Sometimes it is useful to take the new members aside and train them on a given subject separately. My home unit had a rule of placing new members (usually those at their first Gap) and running them through the first steps of a "basic training" program. Experienced guys could go to the flea markets or do their own thing unless there was overall training on the schedule while the "goon squad" ran through the very basics in a more structured program.

so planned as to make use of all officers and noncommissioned officers for instruction of their subordinates. Training will thus develop the leadership, initiative, and judgment of all combat leaders, and the respect and confidence of their subordinates. To develop teamwork, unit training places emphasis on the combat role of each subordinate group, as well as that of the unit as a whole in the team of combined arms.

■ **24. OBSTACLES.**—In his estimate of the training situation, each commander must remember that one of his most important duties is to remove obstacles to training. This will most often confront post and regimental commanders, and, to a lesser extent, company commanders. Obstacles may be classified as administrative, physical, and human.

a. Excessive guard, fatigue, and numbers on special duty are the principal administrative obstacles. In an efficient organization, good administration and good training exist at the same time. Administrative requirements must be held to the minimum to reduce interference with training. The requirements of guard, fatigue, and special duty should be analyzed. The size of fatigue details should be large enough to meet labor requirements and no larger. Soldiers become dissatisfied when kept with a fatigue detail with nothing to do, or doing obviously useless work. When fatigue duties of a continuing nature are required, it is better to detail men for a short period of time, excusing them from all formations. By frequent rotation of fatigue and special duty details, the men receive the requisite training. Every effort should be made to have nonmilitary tasks performed by suitable civilian labor thus releasing the men for military training.

b. The methods of overcoming physical obstacles have been mentioned previously under equipment, facilities, and terrain. Inclement weather is frequently an obstacle to training. The training plan must make provision for the interference of such weather. Means of training suggested under local conditions are applicable. Lectures and training films on subjects of general information may be used. Inclement weather should not be a reason for postponing tactical exercises. If the state of training and the physical condition of the troops permit, tactical training in bad weather is excellent preparation for combat.

c. Personal eccentricities and interests of commanders often present a definite obstacle to the well-rounded training of a unit. A commander must not permit his personal interest in a particular subject to result in over-emphasis of training in that subject at the expense of other necessary training.

■ **25. DETAILED PLAN.**—*a.* The plans must include, first of all, a basis for the allotment of training subjects, by the day and by the week, for the entire training period. Therefore, a tabulation of hours is necessary. Training must be so planned and conducted that the objective is reached in the minimum time without sacrificing thoroughness.

b. In assigning the sequence of subjects, consideration should be given to any special conditions known to exist, such as limited availability of equipment or other facilities. If no special conditions exist, subjects should be arranged to secure balanced progressive training.

a. The most common drawdown to reenactor training is that attendance at events (including specified training events) is voluntary, and getting enough members together at one time to get the goals met is almost impossible. We miss some proportion of the audience first time around, and it's a deadly task to do it again and force people who endured it the first time to go through it again.

c. Commanders note this paragraph. It's not what you're interested in, it's what your people need to know.

25. Detailed plan? I'm bullshitting you, right? No, I'm very serious. If you haven't planned and prepared the training, it will be obvious to the trainees and they will focus on your laid-back incompetence instead of the training. Even recruits know poorly planned training when they observe it. It takes an act of God to get reenactors interested in training, and lousy training is a turn-off.

c. The necessity for completing certain subjects at specified times does not preclude concurrent instruction in subjects to be completed later. Monotony is avoided and interest stimulated by variety in subjects when such variety does not interfere with the efficient use of time.

d. The plan must fix responsibility for the conduct of instruction. The plan should provide for the necessary schools for officers and noncommissioned officers, and for specialist training.

■ **26. TRAINING PROGRAMS.**—Training programs, giving the general plan for training the entire command over a considerable period of time, are prepared and issued by responsible commanders down to and including the commanders of companies or similar units. The scope and contents of this program will depend upon the size and character of the command for which it is issued. In general, it amplifies the training orders received from higher authority and coordinates and directs the training of subordinate units. Form for a Unit Training Program is given in appendix II. It includes such of the following as are appropriate:

a. A division of the training into phases or periods, if necessary, with an allotment of time and a training objective or subject for each phase. This will include any period required for combined training, or training of the unit as a whole, under the personal direction of the issuing commander.

b. Assignment of periods, when necessary, for the use of general training facilities, ranges, impact areas, etc., by the various subordinate units or activities.

c. Citation of orders, regulations, or policies to be followed in the conduct of training.

d. General instructions as to any special features of training which are to be emphasized.

e. Instructions as to administrative duties in their relation to training.

f. Instructions as to the establishment, attendance, and conduct of troop schools.

g. Instructions in regard to tactical or training inspections, with dates of tactical inspections to be made by the issuing commander or higher commanders.

h. A statement of expected training losses. These show the demands of higher headquarters, guard duty and fatigue which can be foreseen, and holidays. Periods reserved by higher headquarters for its own purposes should not be postponed, when lost due to inclement weather or other uncontrollable reason, unless open time has been held for such a contingency.

i. Instructions as to the submission of programs or schedules by subordinate commanders.

j. Date the program becomes effective.

■ **27. TRAINING SCHEDULES.**—*a.* Training schedules, giving detailed instructions for the conduct of training over a short period of time, are issued by the commander of a company or similar unit for all training within the unit, and by a higher commander only for such training as is to be conducted under his personal direction. A training schedule contains

specific instructions, including text references, for each days' training, as to what is to be done, who is to do it, when and where it is to be done, the uniform, and the equipment required. If complete, no additional information is required for training during the period covered by the schedule.

b. Form for a Unit Training Schedule is given in appendix IV.

■ **28. DISTRIBUTION OF TRAINING DUTIES.**—The training plan is carried out by an intelligent distribution of training duties to subordinates. Training must be carried out along methodical and progressive lines. The commanding officer is responsible for all training in his unit, but responsibility for the details of training, and attaining and preserving certain standards, must be delegated to subordinates down to include the squad leader. Correct distribution of training duties and responsibilities is a manifestation of leadership and insures correct training of subordinates. See paragraphs 49 and 50.

■ **29. EXECUTION OF TRAINING PLAN.**—A detailed discussion of methods of instruction is given in section VI.

■ **30. TRAINING SUPERVISION.**—*a.* The commander retains supervision over all training delegated to subordinates. This will consist of daily supervision, training inspections, and tactical inspections. It should be exercised when practicable, by the commander in person, assisted by his staff. He assists, coordinates, and, when necessary, corrects errors observed.

b. Intervention in the work of a subordinate while he is engaged in the training of his unit should be avoided, except to avert serious errors. Such interference tends to destroy, not only the initiative of the subordinate, but the confidence and respect of the group in its leader. If an instructor's methods are obviously wrong and the results unsatisfactory, remedial action must be taken. The necessary correction should be given the instructor in private, or, if necessary, the instructor must be replaced.

c. Daily supervision is informal and should not interrupt the continuity of training. When a group under instruction is called to attention on the appearance of supervising officers, their train of thought is interfered with, their attention lost, and valuable time is wasted.

d. Training inspections are essentially informal and are made by all commanders to determine progress and adequacy in training. Such inspections should be based on the training standards and objectives which have been assigned to subordinate units.

e. Tactical inspections may be either formal or informal. Those made by commanders of units up to and including the regiment are normally informal. Formal tactical inspections by higher commanders are defined and prescribed in AR 265-10. Training inspections are designed to promote combat efficiency of units as well as to determine their degree of readiness for field service.

30. Know this: somebody has to *train the trainers* before inexperienced instructors inflict poor formats and methods, inaccurate content, or bad delivery on soldiers who expect and deserve better. My personal opinion, for what it's worth: being able to prepare and deliver training should be a basic skill of any NCO, and certainly of any officer.

This suggests something like formal mentorship of members who want to be trainers, and it includes follow-up observation and feedback.

I hear a lot about "born teachers." There is no such thing. Some people just learn how to teach faster and better than others. I've been teaching military topics for fifty years, training GI's, officer candidates, West Point cadets, special operations units from Abu Dhabi, Qatar, and Mexico, FBI hostage rescue agents, and—worst of all—reenactors. I've taught training methods on many occasions, and I collected a bonus MA in adult education. And I'm still learning how to do it.

Don't be reluctant to take on this task, but have a little respect for the challenges involved.

e. Remember this: "The troops do well only what the boss checks."

SECTION III

MEANS AND SCOPE OF TRAINING

■ **31. GENERAL.**—Military training develops and fosters those qualities necessary for success in battle by means of military education and unit training.

■ **32. MILITARY EDUCATION.**—This means affords a variety of instruction to the individual without regard to his membership in any particular unit. It is carried out by the Army school system (AR 350-5) and the Army Extension Courses (AR 350-3000). Individual members of the various components of the Army receive this instruction in troop schools, special and general service schools, and the United States Military Academy, and by Army Extension Courses. These schools insure uniformity in doctrine and methods of instruction and provide trained specialists.

■ **33. Unit Training.**—The military training of organizations, generally referred to as unit training, is the direct responsibility of unit commanders. Unit training is accomplished by means of drill, practice, applicatory tactical exercises, troop schools, and physical training and athletics.

■ **34. DRILL.**—*a.* Drill is practice in standardized procedure. The object of drill is the attainment of skill in the performance of such duties, methods, or movements as are of frequent use, development and maintenance of discipline and military bearing, physical development of the individual, and assurance of skillful performance of duty under stress of battle.

b. It must be clearly understood that drill is a means to an end, not an end in itself. Drill should be formal, precise; and brief. Thus conducted it is a great aid in the development of self-control and of a group spirit among the members of the unit.

■ **35. PRACTICE.**—Practice with weapons, equipment, and means of transport is the best means of attaining proficiency in their use. Practice should be continuous throughout the training period.

■ **36. APPLICATORY TACTICAL EXERCISES.**—Application of tactical doctrine to imaginary or simulated tactical situations is a most important part of unit training. For the preparations and use of such exercises see section VIII.

■ **37. TROOP SCHOOLS.**—*a.* Troop schools are an important means for training personnel to meet the requirements of the training program. They are used for the military education of the individual officer and noncommissioned officer, the training of specialists, and for the training of instructors to coordinate and insure uniformity of instruction.

b. Lack of time and facilities will preclude sending all officers and noncommissioned officers to service schools. Refresher training will be conducted in troop schools. Instruction will be given in new tactical doctrine and in the use and care of new equipment. Preparation for tactical exercises should be conducted in these schools. Map exercises and command post exercises should be conducted in troop schools prior to field maneuvers. Officers and noncommissioned officers are thus instructed in the doctrine to be followed and are well grounded in the procedure. They

34. Reenactors are generally comfortable with training and practice in school of the soldier and of the squad (practice for platoon and company is hard to achieve because of limited numbers). But there is little understanding of just why soldiers still learn close order drill. There are really two reasons (as the paragraph suggests): soldiers learn to carry out basic functions correctly and without a lot of thought, and they learn to work as a team. Unlike Civil War reenactors, they do not fight the way they drill. (Practice in tactical procedures was then called "extended order drill.")

36. NOTE: An "applicatory tactical exercise" has no relationship to what is known in reenacting as a "tactical." A "tactical" has no application—it is usually just a silly game in which no one learns anything. Remember also that "tactical" is an adjective, not a noun. One of the most difficult challenges is to overcome limiting reenactor mind set about operating in the field.

are thus able to give maximum attention to the tactical training of the troops during the maneuver.

c. Consolidation of troop schools in identical or similar subjects should always be sought within a unit. Such centralization, particularly for the training of specialists and instructors, permits the most efficient use of instructor personnel, materiel, and training facilities and expedites training.

d. An average of an hour or more daily, except Sundays and holidays, should be devoted to troop schools throughout the training period.

■ **38. PHYSICAL TRAINING AND ATHLETICS.**—*a.* Modern warfare requires the highest possible development of physical strength, endurance, and stamina. Physical training must be a subject of constant attention by all commanders. Quickening exercises, group games, and mass athletics should be included in the training program to augment calisthenics and develop team spirit and aggressiveness. Athletics develop individuals mentally and physically and certain forms teach leadership and teamwork. Voluntary athletics should be encouraged for recreation and to build up morale.

b. In all physical training and athletics the emphasis must be placed on the physical development of all the individuals of the unit. Concentration on the training of a few individuals, in the effort to develop a winning team, inevitably leads to the neglect of the physical training of the majority. Overemphasis of the importance of a team will frequently result in neglect of the military training of the individuals composing the team.

■ **39. VARIETY OF INSTRUCTION.**—Training subjects and methods should be varied to stimulate interest and thus insure effective results. Monotonous routine will produce apathy and boredom and often do more harm than good. Variety will arouse the enthusiasm and cooperation of those being trained.

■ **40. RECREATION.**—Commanding officers are responsible for the contentment and well-being of their commands. Training and administrative duties are so regulated that a satisfactory proportion of the individual's time may be given to rest and recreation. Provision of such time alone is not enough. Thought and ingenuity on the part of the commander must provide suitable means and facilities for the application of this leisure time.

■ **41. MORAL TRAINING.**—It is a duty of commanding officers to give their support to chaplains and other proper agencies in matters concerning the moral training, character building, and religious guidance of the soldier.

■ **42. SCOPE OF TRAINING.**—Troops of all arms and services will be proficient in the following:

- a. Disciplinary training of the soldier.
- b. Physical training, military sanitation, and first aid.
- c. Marching.
- d. Their own administration.
- e. Their own shelter, supply, and movement.

c. What is really needed here is a relaxation of the walls erected by reenactor politics, which prevent units from training together. The purpose of "troop schools" is to learn to do it right and learn to do it uniformly, objectives that are too often ignored or dismissed in the hobby.

38. PT—an Army ritual—does in fact have a place in the hobby. Why?

(a) Soldiers do it, usually every day. We learn and present the soldier's life, but why get nervous and giggly about a little cardio?

(b) It's a healthy habit, and fitness is an often-cited limitation on performance in the hobby. *Duh.*

At the *very least*, it makes sense to start the reenacting day with at least some simple stretching exercises (in those days called "setting-up exercises") to make other physical activities easier and more fun and to reduce the likelihood of pains and strains. Once you get in the habit, you might take it home with you. Your family will bless you for it, and you will feel better.

Personally, I *hate* PT. The Army insists that "pain is weakness leaving the body", but I personally believe it is "stupidity entering the body." But I do it religiously because of 60 years of habit and stubbornness, even at the age of 73. Why drag out your old M1 to get the damned kids off your lawn when you can just kick their asses? Stretching exercises, floor exercises, free weights, two hours a week at a gym and hikes with a 50-pound MOLLE pack. We're all going to die—it isn't optional—but let's at least die at a comfortable fitness level.

f. Their own security, to include measures against air and mechanized attacks.

g. Camouflage.

h. Signal communication.

i. Protective measures against chemicals.

j. Expert care and use of their weapons, equipment, and transport.

k. Tactics and technique of their arm or service, to include its employment in suppression of domestic disturbances.

l. Their cooperative duties as part of the combat team. The arm, service, and type of unit determine the special training required by each.

■ **43. FUNDAMENTALS OF MILITARY TRAINING.**—Every officer and enlisted man who plans, supervises, or conducts training must constantly bear in mind the following fundamentals of military training:

a. That military training is but the application of common sense to military ends. There is little in military training that the average man cannot grasp if it is properly presented to him.

b. That, as a rule, those under instruction come to the instructor with an open mind, anxious to accept instruction, and ready to interest themselves in their new work. The example of keenness and enthusiasm in the instructor will be reflected by those under training. Half-hearted or leisurely methods will carry a heavy penalty later in battle.

c. That the average man is more quickly and permanently impressed with a fact when it is taught to him as something which has a practical value. It is the instructor's duty to make his pupils understand the *practical battle value* of the knowledge taught.

d. That evidence to the student of satisfactory progress stimulates his interest and enthusiasm. Praise must be given where it is due, genuine effort encouraged, and mistakes corrected by constructive criticism.

SECTION IV

TRAINING OF INDIVIDUALS

■ **44. OBJECT.**—a. The object of individual training is the development of the skill and knowledge necessary to enable the individual to play his part effectively in the military team in order to assure its success in battle. See MR 3-1.

b. Modern battle is marked by noise and confusion. The individual must develop in training, such skill in the technique of operating his implements of war, whether it be vehicle, weapon, or men, that he habitually follows correct procedure under any conditions which may be encountered.

c. The increased tempo of modern war, its rapid changes in local situations, and the great spaces it covers make it impossible for commanders to control the detailed action of subordinate units. Hence subordinates must be trained to take proper action to accomplish the expressed will of their commander. Responsibility for making decisions in local situations must be decentralized. These decisions require sound judgment and initi-

a. Yes, it's common sense. But it helps to understand *why* it is common sense, and this comes from learning enough to see the connection between method and purpose. Military training (if done properly and protected from PowerPoint mentality) has one devastatingly simple guiding principle: *everything you do is done for a purpose*. Everything that does not serve that purpose (performance competence) is wasted time and effort. Experienced teachers already know this—it isn't limited to troop training. To this end, an instructor's actions should reinforce the end purpose of the training—keeping the soldier healthy, functioning, and kicking ass. This requires the acquisition of carefully developed knowledge, skills, and attitudes. All these reasons should be revealed and reinforced in training.

b. A "tactical" also has a lot of noise and confusion; however, the confusion is usually self-generated and there is often no apparent purpose to the exercise except to create—well, to create noise and confusion.

Part of this problem—well most of it—is the result not of the "fog of war" but rather of the "fog of the mind." To keep up the noise and reduce the confusion, you must know *how*. And this requires *training*, like it or not.

ative-qualities which must be systematically developed and fostered in the training of every individual.

■ **45. RECRUIT TRAINING.**—*a.* A recruit's first mental reactions to military life are almost certain to be confused. The first instruction of the recruit should be designed to orient him in his new surroundings. Simple lectures should be carefully prepared to tell him what is expected of him, his hours of duty, his time off, the location of such facilities as the post exchange and the post theater, his leave expectations, pay day, and other information necessary to dispel his ignorance of his new life and surroundings. See **FM 21-100**.

b. Recruits should receive immediate instruction in the Articles of War, local orders, military courtesy, and customs of the service, such uniform regulations as are applicable, sex hygiene, and in personal hygiene and sanitation. The plan for instruction should make use of the many training films available as instructional aids in these subjects. Elementary training in other basic subjects may be carried on during this orientation stage.

c. After recruits are accustomed to their new organization their training is continued to render them proficient in the basic subjects. Instruction is given in those technical subjects of which a knowledge is necessary to fit them for the higher and more specialized training of their particular arm or service.

d. Sequence of subjects in basic training is left to the discretion of unit commanders. The War Department Mobilization Training Programs for replacement training centers will be the general guide.

e. In time of emergency, training is centralized to a greater degree than in normal times of peace. Most recruits will receive their initial basic and technical training at replacement training centers.

■ **46. REFRESHER TRAINING.**—Trained soldiers need refresher instruction in subjects which are not regularly repeated. This should be accomplished by using the men as instructors or in demonstration units. When this is not practicable, short refresher courses may be given, followed by requalification tests.

■ **47. INSTRUCTORS AND SPECIALISTS.**—*a.* Training of instructors and specialists is most efficiently conducted under centralized control. They are trained preferably at general and special service schools, or, on mobilization, at unit training centers or enlisted replacement training centers. Troop schools may be established for this purpose.

b. In newly organized or expanded units it may be necessary to train instructors concurrently with the troops. Special instruction is given to the instructors a short time before the training is imparted to their units. For further discussion on training instructors see paragraph 63.

45. I believe firmly that recruit training as a separate and planned activity is essential to the quality of the hobby.

(a) There are basic skills that every reenactor needs to master, and separate recruit training on entry allows all new members to master these skills to the same level and in a uniform way.

(b) Training recruits separately allows drills and practice and instruction on topics the older members have already gained to go on without dragging all the veterans through them again.

(c) Recruit training, done right, also provides a rite of passage, a sense of shared effort that is part of the process of becoming a member of a strong team. Membership should not be bought cheaply.

Pick the best trainer you have, one who understands from long experience how (c) is best accomplished in the context of the hobby, and let the fun begin.

Yes, it's hard to get all the recruits together in one place at one time. Make it a requirement for membership to participate. They will value it more if they have to sacrifice.

46. I have heard it said that one should never give reenactors a 10-minute break or you will have to retrain them. This is a bit harsh (and was originally applied to the lowest-rung immigrant group *du jour*), but there is some truth. Some skills, like school of the soldier with and without arms (love that expression), are "over-trained" to reduce them to a sort of muscle memory, without which a drill session will resemble a zombie apocalypse.

■ **48. TRAINING IN LEADERSHIP.**—The successful action of a military unit will be possible only if it has an efficient and respected leader. Military training must develop leaders who can rise above the depressing influences of the modern battlefield and carry their groups to a successful completion of the mission. The leader gains the respect and confidence of those under his command by his knowledge of his profession, his example of courage, self-reliance, and vigor, by thought and care for the welfare of his command, by his firm and impartial administration of justice, and by his loyalty to his subordinates. The development of leadership is of primary importance in the training of officers and noncommissioned officers.

■ **49. TRAINING NONCOMMISSIONED OFFICERS.**—Noncommissioned officers are given responsibility appropriate to their grade and required to conduct the instruction of their units. Troop schools are used to instruct them in their duties and to teach them proper methods and procedure. It is essential that the training of noncommissioned officers develop initiative and a sense of responsibility. They should be given frequent opportunities to exercise command above their grades. Those individuals selected to form the cadre of an inactive unit should be trained and practiced in the duties of their mobilization assignment. Selected privates should always be undergoing training in the duties of a noncommissioned officer.

■ **50. OFFICER TRAINING.**—*a.* The training of officers is continuous throughout their service.

b. Every officer has a dual role in training, he is responsible for his own training and for the training of the officers and enlisted men under him. The confidence and ability necessary to lead troops successfully in battle come from a full knowledge of the duties he may be called upon to perform.

c. The theoretical training of officers is accomplished through troop schools, the various schools of the military educational system (AR 350-5), and by individual application and study. It is the duty of every officer to apply himself to the study of his profession so as to increase his knowledge and proficiency. It is the duty of every commander to use all means at his disposal to encourage and assist his subordinates in increasing their knowledge and attainments.'

d. The practical training of officers is accomplished by actual experience in command and staff duties appropriate to their grades. It is of particular importance that young officers receive early and thorough practical training in the basic duties of a company (troop or battery) officer. To give varied and well-rounded experience to these officers they should be rotated in the duties within the company and within the different units of the regiment.

e. Lack of experience on the part of his subordinates must never lead a commander to increased centralization and relief of his subordinates from responsibility. The lack of experience must be overcome by giving them increased opportunities for the exercise of judgment and initiative. Mistakes must be corrected by wise supervision and not made subjects

49. Most reenactor units seem to promote on the basis of seniority or popularity. The result is leaders who have been pleasantly doing the wrong thing for years and years.

Nobody should be an NCO or—God forbid—an officer without mastering basic soldiering. This is a bitter pill to swallow for many, but it would solve a lot of our problems.

50. What an officer is supposed to do is one of the big mysteries of the hobby. They actually don't get the chance to do much because most units are too small to justify an officer at all, and such officers as are around exist as a necessary part of delivering living history interpretation to the public. When units have to operate as part of a larger aggregation, things get confused. Thoughtful reenactor officers understand the rank, if not backed up by knowledge, skills, and leadership, is nothing but costume jewelry.

'fi were King of the Forest, as the cowardly lion put it, I would establish consolidated schools run by the best and most experienced reenactors, seasoned with reenactor-veterans, to develop officers. Since the rank levels in the hobby (particularly at the few really big events) are inflated beyond the comprehension of God or Man, this would result (with high attendance) a gaggle of reenactors from second lieutenant to field marshal, with basic knowledge and skills entirely unconnected to seniority. This is the unavoidable result, not of person-

for discouragement or censure provided that they are not due to lack of interest or lack of effort.

■ **51. STAFF TRAINING.**—The staff of a combat unit must be trained primarily to function in tactical operations. Training programs should provide for staff instruction. The staff should be used to the fullest extent in the preparation of tactical and logistical exercises. When engaged in tactical exercises, the operation of the staff should be a subject of discussion, during a critique, to the same degree as that of other elements of the unit.

■ **52. INDIVIDUAL TACTICAL TRAINING WITHOUT TROOPS.**—Applicatory tactical exercises are used to provide tactical, staff, and logistical training of individuals. For training in the tactics of squads, platoons, and companies, sand table exercises and tactical rides or walks are to be preferred to map exercises. Map exercises, map maneuvers, tactical rides or walks, and command post exercises are suitable means for training individuals in the tactics of larger units.

SECTION V

UNIT TRAINING

■ **53. GENERAL.**—Unit training is designed to promote the development of teamwork and leadership, and the application of technique and tactical doctrine to combat situations.

■ **54. TEAMWORK.**—Success in combat demands the subordination of the individual to the accomplishment of the group mission. A feeling of unity must be achieved if the group of individuals is to function as a unit. Such a feeling is obtained by the careful training of the individual and unit in the part each has to play as an element of the fighting team, and by the training and utilization of all elements in coordinated action toward a single end. Teamwork is based on the belief that the team task can be accomplished, the knowledge that the leadership is competent, and the confidence that each member of the team will perform his share of the task.

■ **55. TACTICAL PROFICIENCY.**—The ultimate goal of military training is the ability to apply on the battlefield the doctrine and procedure learned in training. This ability requires the possession and exercise by the individual and the unit of all the qualities which military training must develop. Tactical proficiency is developed by tactical exercises on the sand table and maps and by exercises in the field under simulated war conditions.

■ **56. NEWLY ORGANIZED UNITS.**—The training problem in newly organized units will vary depending upon the size of the trained nucleus and the number of partially trained and untrained men in it. Training plans must provide instruction for all groups in such a manner as to avoid needless repetition for the well trained, and to assure thorough and progressive training for the untrained. To this end the trained cadre should be utilized as instructors to the greatest extent practicable. When the

al failings, but of the established habits and politics of a large, fun hobby trying to be several contradictory things at once with no accepted measure of success. (This is a lot like life, by the way).

Suggestion: have volunteers arrive without rank insignia (which may or may not reflect the level of attainment, and in any case is too vague to use as a measure of entry level skill)

number of trained personnel is limited, greater centralization of training is necessary. For example, due to lack of qualified instructors, a platoon commander might find it necessary to conduct the greater part of all training in his platoon until suitable instructors can be trained. This procedure should be followed only until the noncommissioned officers are instructed in their duties in troop schools. War Department Unit Training Programs for mobilization will be used as a general guide.

■ **57. REFRESHER TRAINING.**—*a.* In units whose members are largely well trained, basic and technical training should be repeated only to the extent necessary for requalification tests. Untrained individuals in such units should be trained separately in basic and technical subjects. In such units the major and continuing emphasis in training should be placed on tactical exercises of all types.

b. The training of staffs should proceed concurrently with that of the units. It is essential that the staff of each unit be prepared to function in tactical exercises at the earliest time practicable.

■ **58. COMBINED TRAINING.**—Unit tactical training will be conducted by appropriate teams. Thus a company field exercise should include appropriate battalion and regimental weapons. Field exercises involving an infantry battalion should include supporting artillery and regimental weapons. Regimental field exercises will, when possible, include artillery, engineers, tanks or armored units, and aviation. Requests for attachments of supporting troops should be made to higher headquarters in ample time to be included in the training programs of the commanders of the supporting arms. It is only by combined training that the maximum combat effectiveness of tactical groups of all arms and services can be assured.

■ **59. PROGRESSIVE TRAINING IN FIELD EXERCISES.**—Field training must be progressive, starting with the training of the smallest unit and continuing with the training of successively larger units. The object of the training of each unit is to fit it to take its place in the next higher organization. Until the battalions are trained, or when funds are restricted or time limited, the more advanced training of the regiment and larger units may consist of command post exercises and war games for the higher commanders and their staffs.

■ **60. PRACTICE IN TACTICAL LEADERSHIP.**—Commanders of all grades, particularly junior officers and noncommissioned officers, should be trained in the exercise of command in higher grades to provide for expected battle casualties. During a period of tactical training the superior commander will prepare and conduct exercises designed to give junior commanders training in higher commands. For example, the battalion commander prepares and conducts exercises in which platoon leaders command companies and company commanders command the battalion. An officer commanding a unit should never attempt to command it while directing an exercise for its tactical training. He should appoint a temporary commander if he wishes to direct the exercise, an officer to direct if he wishes to command.

57. Again, reenactors (like most of us) are not fond of receiving the same training again and again. But some skills deteriorate in a fairly short time if they are not practiced and reinforced every day. The Army finds this easy; reenactors meet, on average, less than once a month (even less than the National Guard!). A quick refresher will do most of the time to reboot everybody without too much anguish.

59. Because the hobby is fragmented into dozens of small packets, progressive training is hard to impose. Note also that the WWII hobby has never had to develop the concept of the "affiliation" structure that provides glue for clusters of like-minded Civil War units. We need to find a way to fix this. It's hard to learn how to operate as a company or a battalion if you practice just 1-2 days a year at Indiantown Gap.

60. Just as there are no "born teachers", there are no "born leaders." We are all the products of what we are encouraged to be, grounded on the practice opportunities we get. Lesson: show some selflessness and rotate leadership positions in the units and in the temporary clusters at big events. It's the only way to learn, the only way to teach.

SECTION VI

INSTRUCTION

■ **61. GENERAL.**—The success in reaching the standards prescribed by the training program will depend primarily on the care with which instructors are selected and trained. Knowledge of the subject is not alone sufficient. The instructor must be able to arouse the student's interest in that subject and then, by use of proper methods of instruction, transmit the necessary knowledge to the student.

■ **62. INSTRUCTORS.**—From time to time in all phases of training it is necessary for the unit commander to utilize most of his officers and non-commissioned officers as instructors, in order to complete the training program as planned. Instructing is one of the means by which leadership and initiative are developed. It is essential that the individuals selected as instructors either possess or develop the following personal and professional qualifications:

a. Personal.—(1) The instructor must be experienced in handling men.

(2) He must have a personality that inspires confidence and stimulates interest.

(3) His manner must be pleasant but firm in dealing with students.

(4) He must be neat, dignified, and have a keen interest in his subject.

(5) He must be patient and sympathetic with the student's problems and must be able to put himself mentally in the position of the student.

b. Professional.—(1) He must have a complete knowledge of the subject to be taught.

(2) He should be able to plan instruction and must be competent to carry the plan into effect.

(3) He must be able to demonstrate successfully the subject which he is to teach.

(4) He must have a knowledge of proper instructional methods. The instructor must always bear in mind the mentality, age, and physical condition of the student. The language used must be that which the student understands. Examples, comparisons, and contrasts cited must be within the student's experience. Exertion required must be within his physical capabilities.

■ **63. TRAINING OF INSTRUCTORS.**—*a.* Regardless of the source of instructors, the officer responsible for the attainment of the training objective, for which the instruction is to be given, is charged with the responsibility of preparing the instructors to teach the assigned subjects. Those who are deficient in the technique of their subject are brought up to standard. Coordination and uniformity of instruction must be assured by conferences and troop schools for instructors, held prior to the commencement of training. The unit commander must verify the instructors' ability to teach and their knowledge of correct methods.

61. Teaching is strategies, formats, tricks of the trade. The content is the content. This may seem a blinding flash of the obvious, but the most practiced instructor in the world cannot effectively teach things he does not know. So: **Rule 1—It's the content, stupid.** To be effective, an instructor has to focus on the students and *what they need to know*. Polish and popularity come through practice and confidence. Confidence, real confidence, comes from mastery of what you are teaching.

62. Note that this paragraph starts out with personal traits; I would have put *b* first.

(4) It does, however, suggest an instructor must care about his subject. He not only has to know it cold, but he has to be interested. If he isn't, the soldiers will notice in immediately and will zone out.

b. You not only have to know the subject, you must know how to teach it most effectively. These are usually two separate things (unless you are teaching about teaching, I suppose. I've been taught how to teach by more than one professor who hated to teach. At least I learned a lot of what-not-to-do's.

63. Unsurprisingly, then, note the natural aversion reenactors have to training in general (because they have seen so much bad training). Training about training is even more suspect; reenactors view it as a vampire views sunrise. Instructors in training should be good trainers themselves and must enjoy doing it. Training is the one real key to improving the hobby, which means work developing instructors is time and effort well spent.

b. In training instructors, they must be impressed with the importance of planning their work so as to make full use of the available time. They must assure themselves that all necessary equipment and such aids to instruction as they are to use are available in proper condition before the period begins. See paragraphs 88 to 92.

■ **64. MECHANISM OF INSTRUCTION.**—The process involved in teaching must be understood and mastered by the instructor. It applies in teaching a single lesson, a specific item of information or procedure, or an entire subject. It consists of—

Preparation by instructor.

Explanation.

Demonstration.

Application.

Examination.

Discussion.

■ **65. PREPARATION BY INSTRUCTOR.**—The instructor must have mastered the subject which he is to teach. He must analyze the subject and the schedule he is to follow, considering the purpose of the subject and the essential facts which must be taught. He must select his material texts to be used, equipment, and aids to instruction which he will need. The essential facts are arranged for presentation in a logical and progressive order. He then prepares his specific plan (lesson) for each instructional period. See paragraph 88.

■ **66. EXPLANATION.**—The student must understand at the beginning of the instruction just what he is to learn and why he is to learn it. The subject is explained to the student so that his interest is gained and his mind prepared to receive the instruction. Lengthy explanations are avoided and an illustration or experience sought which will accomplish the desired result. Comparison or contrast to those things which the student already knows are preferable to a detailed discussion. Narratives which are brief, to the point, and which excite interest, are advantageous in gaining and holding the student's attention.

■ **67. DEMONSTRATION.**—A demonstration of the subject will frequently make a more lasting impression than can be made by other means. Graphic, step-by-step illustrations are helpful in teaching certain subjects. The use of carefully rehearsed demonstrations simplifies instruction and aids the student in remembering the points brought out. Training films provide excellent demonstrations of many subjects which may be repeated as often as is necessary to make the essential points clear.

■ **68. APPLICATION.**—By practice of those things in which he has received instruction the student acquires further knowledge through his performance and develops skill by repetition. Application must be supervised by the instructor in order to prevent the forming of bad habits which are difficult to eradicate. Under supervision the students practice correct methods until those methods become fixed habits. Intelligent use of competition between individuals and groups stimulates interest and activity and increases knowledge and skill. The object of such competition is the use of friendly rivalry to establish the proficiency of all in the subject, not to emphasize relative merit between individuals and groups.

65. As I have mentioned before, start with the desired end result: *the soldier will field strip and reassemble the M1 rifle in four minutes, 6 minutes blindfolded.* I chose this example to illustrate **66**.

66. Why should we be sitting on the grass, shelter halves on the ground in front of us on this beautiful day, taking apart our weapons and reassembling them? *Simple: your rifle has no sense of duty, and will malfunction at the worst possible time. You may have to strip your weapon under fire to find and repair a problem. You may have to do it at night, under fire. Any other questions, dumb ass?*

67. I will now demonstrate the procedure for field stripping the US Rifle, cal. .30, M1. Lay the weapon down with the trigger guard up, muzzle to the left. No, your *other* left, Schmuckatello. I will now demonstrate . . .

68. We will now field strip our weapons, one step at a time. First—remove the trigger housing group by disengaging the trigger guard. No, not the [maledicta deleted] stacking swivel, Schmuckatello. *The trigger guard.*

Systematic and continuous competition tends to develop jealousy and prevents the development of teamwork.

■ **69. TESTS AND EXAMINATIONS.**—*a.* These have the twofold purpose of reviewing the essentials of the subject of instruction and thus impressing them on the mind of the student, and of determining whether or not the student has the requisite knowledge and the ability to apply it. They may take the form of written or oral answers to questions; of applications of doctrine; or of performance demonstrating certain required phases of drills, exercises, or mechanical technique. Performance tests should be used whenever practicable. The progress of units is normally tested by training or tactical inspections.

b. One great virtue of tests and examinations is that they encourage the student to strenuous effort. He must show that he understands the subject and consequently he must review his instruction, analyze the subject matter, and be able to apply his knowledge to a concrete situation. Knowing that he will be judged by the result of his examination or test, his pride will spur him on to greater effort.

c. Examination questions should be confined to the essential facts of the subject. Questions should be framed to suggest practical application of the knowledge acquired, not simply to test the memory. Questions must be clear, there must be no doubt in the student's mind as to the information desired. A question that can be misunderstood will be misunderstood.

Questions for written examinations should be discussed with a disinterested person before they are given to the student. They should require specific answers; questions such as "Tell all you know" or "Discuss briefly" should be avoided. Examinations should be susceptible of uniform grading for fairness in comparison. Provision should be made for full discussion of an examination with the students examined to point out errors and clear up all points of misunderstanding.

d. Examinations which show lack of knowledge of the essentials of the subject, or inability to apply the knowledge to particular situations indicate either faulty instruction or lack of ability or application on the part of the student. Supervision by the commander will generally indicate whether the instructor or the student is at fault. When there is a general failure on the part of a group to absorb instruction, the methods of instruction used should be critically regarded and the instructors surveyed to determine where the fault lies.

■ **70. DISCUSSION.**—The purpose of discussion is to sum up and clarify the important points of the subject which have been developed by the previous steps. In the discussion the instructor points out correct and incorrect methods of execution and makes uniform the general understanding of the subject. The discussion may take the form of a conference, and, when held at the conclusion of an applicatory tactical exercise, is generally called a critique.

■ **71. METHODS OF INSTRUCTION.**—The only means by which human beings impart ideas to one another are the physical senses—seeing, hearing, smelling, tasting, and feeling. Teachers impart ideas to students by one or more of these physical senses. Teaching methods have been de-

69. You will now field strip and reassemble your weapons for time. When I say "begin", you will strip the weapon. When you have finished reassembling, you will stand in front of your weapon at the position of attention. You have four minutes to pass. Ready . . . wait a minute—where the [maledicta deleted] is Schmuckatello?

c. Questions and other requirements should be critical to the task at hand, not designed to trip up the soldiers or spread the distribution of scores. Your job is to qualify all of them, not make their scores fit a curve. Soldiers should compete against the requirement, not against nitroid details or the evil inventiveness of the instructor. You may have to drag Schmuckatello across the finish line kicking and screaming, but that's your job. There's a war on, Einstein.

Instructors nowadays will be joined at the hip with "Taxonomy of the cognitive domain" by Bloom and Krathwohl. In the 40's they just had to be as precise and as fair as possible.

It's your *duty* to make sure Schmuckatello passes.

70. Okay, today we learned how to field strip and reassemble the M1. Believe me, we will not let you forget how to do it. You will be doing it again and again as a part of your duties as a soldier, and you will be able to do it in your sleep. Long after the [maledicta] war is over, you will be dreaming about it. Next time we will learn common malfunctions of the M1 rifle and immediate actions to correct them.

veloped from this fundamental fact. The teaching methods most commonly used for military instruction are—

- Lectures.
- Conferences.
- Demonstrations.
- Group performance.
- Coach-and-pupil method.

■ **72. LECTURES.**—*a.* A lecture is an oral discourse. It may be given with or without aids to instruction. (Par. 80.) Without such aids a lecture involves but one physical sense, hearing. Illustrated lectures, aided by training films or film strips, for example, are more valuable than lectures in which no aid is used. The lecture method is one of the poorest methods of imparting knowledge because the teacher has no way of knowing whether or not his lecture is making the proper impression, if any, on the mind of the student.

b. The success of this method of instruction depends upon the subject, the character of the audience, the phraseology and form of presentation of the subject, and the use made of aids to instruction. The instructional value of a lecture is dependent not only on the personality, method of delivery, and experience of the instructor, but also on the mentality of his audience and its experience in acquiring knowledge from lectures. Lectures are frequently employed in the training of officers, occasionally in the training of noncommissioned officers, but have limited value in the instruction of organizations in mass.

c. The lecture method may be used when it is necessary for one instructor to present certain subjects to a large group of students, or to orient students at the start of a course of instruction. The development of the training film permits an excellent presentation of certain difficult subjects, requiring considerable explanation, by the illustrated lecture method.

d. Lectures should be brief and confined to the subject. No lecture should exceed 50 minutes in length; in recruit training, periods of 15 minutes are preferable. Demonstrations accompanying lectures increase the teaching value. Many instructional aids such as illustrations by training films or strips, lantern slides, charts, diagrams, and blackboard drawings may be employed to increase the efficacy of the lecture method of instruction. For the preparation and delivery of lectures, see section VII.

■ **73. CONFERENCES.**—*a.* The conference method of instruction is a directed discussion of a subject. A conference may be used for a detailed discussion either of text material which has been studied by the class or of a subject presented to the class by the instructor. Conferences are most often concerned with the application of a doctrine or procedure to specific situations. This method presents or explains ideas by use of the sense of hearing as does the lecture method. It has the distinct advantage over the lecture method in that it enables the instructor to determine readily whether his ideas are making the correct impression and allows the student to clear up, by questions, those points which he does not understand.

b. Although a conference does not require a long discourse, as does a lecture, it requires more preparation, skill, and alertness on the part of the

71. Okay, this is teachers' college 101. We call it *instructional format*. Each one of these formats is suitable for a given range of topics. But choosing the best format is important for the kinds of knowledge and skills we will be teaching.

72. Lecture has a bad name. Lecture is *instructor centered*, not *student centered*. It's always boring. It depends on the skill of the lecturer. It's better to use group learning. I have had several cubic kilometers of this shoved up my gazoo for years.

In fact, lecture works very well for some topics and some groups. For example, when I was teaching mechanisms of synaptic transmissions at West Point (in the biopsychology course required for human factors engineering majors) I sort of had to lecture. Groups wouldn't have worked because the collected knowledge of the people being taught was about zip; he basics and processes had to be laid out for them. Neural processes are not democratic; they are biologically fixed, and debating their fairness or sensitivity is a waste of time.

Bottom line: *choose the best instructional format for the subject and the audience.*

Best format is "lecture-discussion", which means getting feedback from the audience. ("Bueller? Bueller?")

Advantage of teaching 1940's style: you are not under pressure to use brainless PowerPoint bullet charts.

73. Conference format works if students have had a study assignment or other preparation. If not, people just sit around with their hands folded waiting for chow break.

b. The instructor has to use some skill in what is basically "democratic/Socratic discourse." It may be difficult to keep the discussion in bounds and productive.

instructor. In preparation he must anticipate pertinent questions and be able to give sound reasons for the correctness and incorrectness of all points at issue. He must be skilled in leading the discussion in such a way that the minds of the students will be kept on the subject under discussion. He must be alert to guard against loss of control of the discussion. Questions of general interest are encouraged to expose and clear up obscure and difficult points. Irrelevant and inconsequential questions, which lead away from the subject or waste time in discussion of trivial points, must be skillfully avoided.

c. There are two general types of conferences, the informational type and the developmental type. In the informational type the instructor states facts which he wishes the students to learn and answers questions, asked by the students, to clear up points which are not understood. This type transmits facts from the mind of the instructor to that of the student. It is used when the instructor is sure that the ideas transmitted will be accepted as true by the students.

d. The developmental type of conference requires the student himself to develop the ideas which the instructor wishes to teach. Leading questions are put by the instructor and are answered by the student who uses his own reasoning and judgment. This method requires the student to have sufficient basic knowledge of the subject to work out a reasonable answer to a question which the instructor may ask. This method enables the instructor to impress the essentials of the subject on the student's mind and develops confidence on the part of the student in his ability to think his way through problems on the subject under discussion.

e. When the conference method of instruction fails to evoke response and interest it may be assumed that another method of presenting the subject should be employed.

■ **74. DEMONSTRATIONS.**—*a.* A demonstration is an accurate portrayal of a subject or procedure to be taught. A well planned and carefully presented demonstration is one of the most effective methods of instruction in basic, technical, and tactical and logistical subjects. The demonstration is based on the fact that seeing an object or procedure usually makes a more rapid and lasting impression on the mind than that obtained by the other senses. A demonstration is always preceded by a thorough explanation of the work to be demonstrated and therefore is not a distinct and separate method of instruction. Demonstrations used in conjunction with other methods of instruction add to the instructional value of the other methods.

b. A demonstration demands considerable preparation on the part of those concerned with its execution. Preparation includes a careful study of the subject, complete plans based on the result of such study, and, finally, repeated rehearsals by all personnel involved in the demonstration. The demonstration should convey to the student, not only a clear and accurate picture of the subject or procedure, but also a standard of excellence which he or his group is to attain. It should arouse admiration in those for whose benefit it is given and stimulate a desire to emulate it.

c. The many time-consuming factors in demonstrations, preparation and rehearsal of the necessary troops, time required to set up facilities

d. I used this method to allow students in a leader development weekend for my home unit to develop a collective theory of leadership for reenactors. This followed a fairly intricate discussion of the topic, after which the responsibility for development shifted to the students. The result was a fairly sophisticated paper.

b. Demonstrations must employ as much realism as necessary to carry the message in a way that can be turned into team performance. Below is a sand table—a common illustrative model—used to demonstrate boat team assault techniques at the Conneaut D Day demonstration.



and equipment, time lost in taking the group to and from observation points are all eliminated by the use of training films. In planning instruction FM 21-6 should be consulted and full use made of the available training films for demonstration purposes.

d. In preparing for a demonstration the subject must be studied from all aspects and the entire demonstration must be worked out in detail before rehearsals are attempted. Decisions must be made as to exactly what is to be demonstrated; what phases are to be emphasized; what facilities are at hand and what additional facilities must be procured; the personnel and equipment necessary; and the exact time and place of not only the finished demonstration but also of the rehearsals.

e. The above decisions having been made, the entire plan for the demonstration should be drawn up in the form of a scenario, setting forth clearly and in detail the following information:

- (1) Purpose of demonstration.
- (2) Text references applicable to subject being demonstrated.
- (3) Preparation needed for demonstration.
 - (a) Troops or other personnel required.
 - (b) Uniforms and equipment for troops.
 - (c) Demonstration equipment.
 - (d) Instructor's equipment.
 - (e) Place where demonstration is to be held.
 - (f) Maps, if any are required.
 - (g) Arrangements for rehearsals.

(4) Procedure to be followed. This should be shown in detail, step by step, and in correct sequence.

f. In demonstrating to personnel unaccustomed to this form of instruction, the demonstration should not be too involved or executed too rapidly lest the various phases shown become simply a confusion of movement to the students. On the contrary the demonstration should be simple and executed slowly in order that all may obtain an exact and correct idea of the subject or procedure.

g. In basic military training it will be found that demonstrations can be used to advantage in giving instructions in subjects, such as—

- (1) Soldier dismounted.
- (2) Squad.
- (3) Individual equipment.
- (4) Shelter tent.
- (5) Interior guard duty.
- (6) Individual cooking.
- (7) Motor driver training.
- (8) First aid and bandaging.
- (9) Military courtesy.
- (10) Physical training.

h. In technical training the method of instruction by demonstration is highly important and if properly used will save much time in the training of individuals and small groups in their technical duties. The field of technical duties is so broad that it is impracticable to give illustrations of

the use of this method in teaching them, however, it may be applied to practically all technical subjects with profit and a saving of time.

i. In tactical training, demonstrations usually show the movement and functioning of groups of individuals or units in combat. Since most tactical exercises are intricate and complex, demonstrations for the instruction of enlisted men should be limited to those by the company and smaller units. Demonstrations of tactical exercises by units larger than the company generally have their application in the instruction of officers.

■ **75. GROUP PERFORMANCE.**—*a.* The group performance method of instruction may be used in the training of any group, regardless of size or organization. It provides careful, simultaneous learning under the direct supervision of an instructor, and centralizes control within the group for the purpose of teaching the mechanics of any subject. It is particularly valuable when there is a lack of well-trained instructors. Its disadvantage lies in the fact that personnel under instruction are frequently removed from the control of their normal commanders. It is an excellent method for use in introductory training and is especially well adapted to instruction in basic subjects. It consists of four distinct steps, as follows:

(1) Explanation of the subject or action by the instructor.

(2) Demonstration of the subject or action by the instructor or his assistant.

(3) Imitation (application) by all undergoing instruction.

(4) Correction of errors by the instructor and his assistants.

b. The group performance method is excellent for instruction in various technical operations by the slow-motion or step-by-step procedure. After explaining and demonstrating the action the instructor performs each step slowly, accompanying the action with a detailed explanation. Each student imitates every movement made by the instructor. Assistant instructors verify the correctness of the students' movements. When a large group is being instructed in this manner several assistant instructors are placed so that all students can see one instructor clearly. These assistants all go through the slow-motion action simultaneously.

■ **76. COACH-AND-PUPIL METHOD.**—*a.* The coach-and-pupil method logically follows the group performance method and should never be used as an introductory method of training. Its greatest usefulness will be found in instructing large groups of individuals that have passed through other methods of instruction and have mastered many of the subjects of basic military training. In this system individuals are paired off, and, acting alternately as coach and pupil, teach each other the procedure previously explained and demonstrated by the instructor. Properly applied and supervised, this teaches the individual to think as well as to do, stimulates his powers of observation, increases his alertness, teaches him how to give commands, and adds to his individual value by giving him a detailed knowledge of training matters. The procedure is as follows:

(1) The entire class is divided into as many groups as there are instructors available.

76. This approach lowers the ratio of student to instructor, which is generally a good thing; however, we should not be tempted to expand the number of instructors to the point that quality is lower for some groups.

Remember also that you will need to coordinate and prepare the instructor team together so they all teach the same thing!

(2) Groups are divided into pairs with an initial assignment of one of each pair as coach and the other as the pupil.

(3) The instructor first describes the subject or its first phase and then demonstrates it slowly and with precision.

(4) Next he gives the group an opportunity to clear up any uncertainties regarding the subject by asking if there are any questions. After assuring himself that all understand the work, he directs the coaches to proceed with the instruction.

(5) Thereupon each coach explains and demonstrates the work to his pupil.

(6) Coaches then have their pupils execute the work or movement and attempt to detect and correct all errors.

(7) The instructor regulates the progress of the instruction and corrects errors made by the coaches. Whenever he notices many faults in the coaching he stops the instruction and by explanation and demonstration corrects the errors he has detected.

(8) After a short period of instruction the relation is reversed; the pupils become the coaches, and the former coaches the new pupils.

(9) After proficiency has been attained by both members of all pairs in the first phase of a subject, or the entire subject, the instructor explains and demonstrates the next phase or the succeeding subject and the process of tutoring by pairs is continued as before.

b. The relationship of coach and pupil must be properly maintained; pupils should not criticize the work of the coaches. When the situation is reversed, the former pupil, then acting as a coach, can call attention to the errors in the instruction just given him.

c. Only one subject or part of a long subject should be taken up at a time. The presentation of too much will only result in confusion and failure to accomplish satisfactory results.

d. The *coach-and-pupil* method is applicable to instruction in many subjects of basic and technical training.

■ **77. AIDS TO INSTRUCTION.**—Devices and means which assist in focusing the student's attention on the subject or impart knowledge by use of more than one physical sense are great aids to instruction. Some of the more generally used aids are discussed below. Thought and ingenuity on the part of the instructor will find many more.

■ **78. TRAINING FILMS AND FILM STRIPS.**—Training films and film strips are among the most valuable and most modern aids to instruction. Their use should be a *planned* part of the instruction in all subjects for which they are available. They are not to be considered an emergency or substitute form of instruction. They are not designed to be the sole means of instruction in a subject but are to be used as instructional aids.

■ **79. TRAINING FILMS.**—*a.* Training films are motion pictures sound or silent, produced specifically for use as visual aids in expediting and standardizing instruction in all components of the Army. They are designed for use primarily in the explanation, demonstration, or illustration of subjects. They make use of the national habit of acquiring information

from motion pictures and hence are a highly valuable aid to military instruction. Training films are classified as—

(1) *Basic*.—To present factual knowledge of basic subjects of general instruction such as "Personal Hygiene," "Military Courtesy," etc.

(2) *Mechanical*.—To explain the mechanical functioning or operating characteristics of weapons, material, and equipment; to illustrate the organization or equipment of units; and to explain physical or chemical phenomena of military value.

(3) *Technical*.—To illustrate the use of weapons and equipment and the actions of an individual or of a group in performing an operation or series of operations.

(4) *Tactical*.—To illustrate the application of the basic doctrine of combat tactics of the different arms and services.

b. Training films are aids to all methods of instruction. In the lecture method they are the best available aids for instruction in many difficult basic subjects. In the conference method they may be used to present and explain the subject or to demonstrate correct procedure which should have been followed.

c. Their use permits the instructor to demonstrate the application of a doctrine or technique which would otherwise be impossible, due to limitations of terrain, personnel, facilities, time, or funds. Demonstrations by moving pictures focus the students' attention on the essential points and eliminate objects and action which are diverting.

d. Training films save time and clarify the first three steps in the group performance method of instruction and aid the instructor using the coach-and-pupil method in description, demonstration, and correction of errors.

■ **80. FILM STRIP.**—*a.* A film strip is a strip of standard motion picture film, the individual frames of which contain still photographs, diagrams, charts, detailed drawings, or similar representations which are projected on a screen or wall. Film strips are important aids to all methods of instruction, both in the presentation of new material and for review and refresher purposes.

b. Film strips usually are made from data contained in a Field Manual or Technical Manual and therefore are not accompanied by lecture notes or outlines. If various different sources were used in making the strip, notes or an outline may accompany it. The instructor should study the film strip in conjunction with the manual and make such notes as may be necessary for his explanation of the subject. He should know the strip so well that he will not have to study the screen while speaking. Since it is necessary to darken the room when using film strips, it is desirable to break the instruction into periods so that the lights are turned on and the instructor regains contact with his audience. There is a tendency in a darkened room to drowse, and it is necessary for the instructor to speak a little more loudly than usual, and to be particularly alert to keep the interest up to the highest pitch.

c. Film strips simplify and save considerable time in the preparation of charts. The requisite strip is projected on paper at the desired size and

79. Training films are useful in presenting suitable material—generally topics that are best carried visually rather than in unaccompanied words. Even the best training films, however, have undesirable side effects: they (a) allow the instructor to "unplug" for a while, step outside and have a smoke while (b) the class catches up on sleep. Soldiers in training are often ignorant (or they would not be in training), but they are generally cunning and observant enough to recognize a safe opportunity to disconnect and slack off.

Some training films, however, made soldiers wish they could close their eyes and sleep. In particular, the films on cold weather injuries, which included horrible depictions of such scenes as frostbitten toes being pulled off living feet, and—worst of all—the VD film which almost stopped the baby boom before it started.

80. I've been tempted to procure a film strip projector (which is, or was, a sort of slide projector in which the slides are on a single strip. This system is similar in intent to a PowerPoint briefing, except that it is not possible to make quick corrections and the projector runs on 110V AC, which limits its use outside a building and generates enough heat to glaze porcelain.

the enlarged view is traced in the proper colors. Many charts may be made in this manner for outdoor instruction, where the film strips themselves could not be used.

d. Training films and film strips which have been released are listed in FM 21-6.

■ **81. BLACKBOARD.**—A blackboard will be found useful both indoors and outdoors for certain kinds of illustrations. Maps or sketches, drawn or developed on the blackboard aid in presenting a clear picture to the class. Bold heavy lines are used and the sketch or figure must be large enough to be clearly seen by all students. The instructor should draw rapidly, keep to the right of the work, and point with his right hand. If it is necessary to turn the head away from the audience the instructor should raise his voice. When not using material on the board he should step away from it and, as soon as it is no longer required, it should be covered or erased. Figures and illustrations that are not being used tend to divert attention.

■ **82. CHARTS.**—*a.* Drawings, made to represent a fact, a group of facts, or an idea, aid in all methods of instruction to focus the attention of the audience. Most charts consist of line drawings accompanied by explanatory words or figures. The drawing should express the thought so clearly that few words or figures are required. Many charts on technical subjects, particularly in the care and operation of weapons, materiel, and equipment have been prepared by the procuring services, or are available in the technical manuals.

b. Charts must be sufficiently large and clear to be distinct to all members of the class. They may be prepared by the use of film strips and lantern slides. (See par. 80.)

c. The instructor should stand to one side of a chart when discussing the material on it. He should not look at it except when pointing to a specific thing on it. Charts should be withdrawn or covered after use unless there is a definite reason for leaving them displayed to the class. Where sliding boards are not available, charts may be hung on an easel and folded over the top after use, or they may be built up and then uncovered successively.

■ **83. MAPS.**—*a.* Maps on which operations are indicated should be of large enough scale so that the symbols on them can be seen with ease by students in the back of the room. Terrain features, cities, and other items to which reference may be made, should be emphasized by special lines or lettering. A map scale of 3 inches to a mile is large enough for use in a room that will hold an audience of 100. A map scale of 6 inches to a mile covers too little ground to be used in presenting large operations, but more detail can be given on it in the operations of small units. Symbols and other indications to represent the opposing forces should be made with a broad-pointed pen and colored inks.

b. When successive operations are to be shown on the same terrain on maps, this may be done either by the use of movable symbols, or by a series of map cut-outs on which each phase of the operation is drawn and which are placed on the map with thumbtacks, one over the other, and stripped off as the changes take place. In using movable symbols it is

81. I use the blackboard a lot. Not just because it's authentic, but because it's low-tech and will not break down. You can make your own with supplies from Home Depot or Lowe's, including the spray paint made specifically for blackboards.



Tip: have a bucket of water nearby and some rags. There are some mechanical tricks to learn (like not blocking the board from view) and how to print legibly with a piece of chalk, almost a lost art.

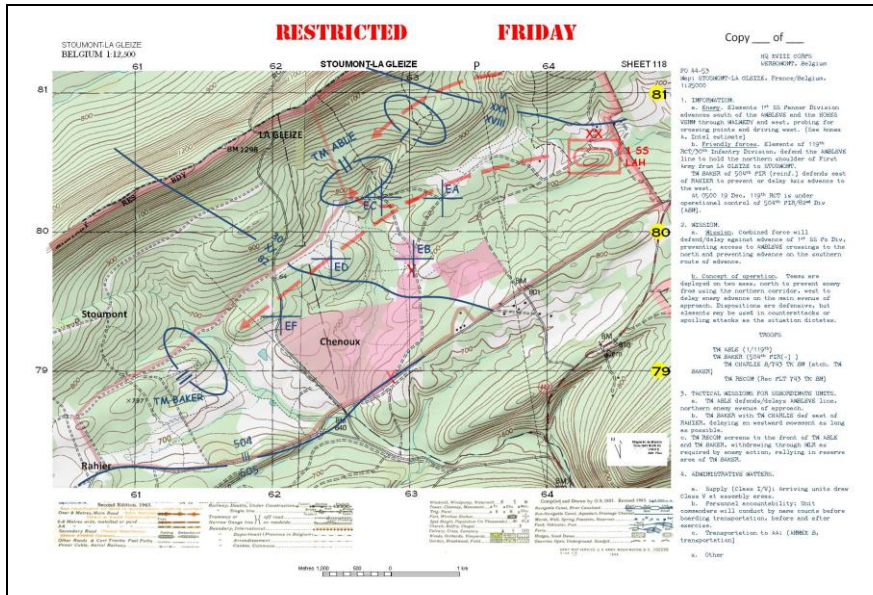
82. I make a lot of flip charts out of poster-size paper from Staples. These were ubiquitous in Army training. When I will be using the chart more than once, I prepare it in PowerPoint (with a title page emblazoned with the War Office seal, just like the real thing) and have Staples print it out poster size. To preserve the charts for future use, I roll them after use and stuff them into the cheap cardboard tubes from office supply stores and Fedex offices.

83. I also use a lot of maps, which, I remind you, are only useful once the soldiers have learned how to read them, so map reading should be a priority training program!

The Army used and uses topographic maps. They are easy to get now through Google or map sites like MyTopo, and you can choose your own scale and grid (use the military UTM (Universal Transverse Mercator) grid at 1:25000 for most reenactor applications.

desirable for the instructor to have an assistant to move the symbols as the instructor proceeds with his lecture.

■ **84. LANTERN SLIDES.**—*a.* Lantern slides are valuable visual aids. The audience should be prepared, by explanation, for the picture or slide to be shown. The same procedure should be followed in the use of slides as in the use of film strips. Lantern slides are suitable for illustrative pictures, for display of outline maps showing the progress of operations, or to emphasize, by display of the printed word, certain important points.



You can also download digital maps and crop them for reenactor use (we fight our little wars at such a small scale that a 1:50,000 or 1:25,000 map is nearly useless). Even the PowerPoint draw utilities can be used to create accurate maps (though not at standard scales)

At left, the map and overlay, with field order printed in the right margin, designed for Allied use at Gap 2017. This example was formatted and printed for issue on 13x19 paper. A lot of detail was added for authenticity (everybody appreciates a little eyewash now and then).

It cost me some money, but it was effective.

b. In preparing slides for historical illustrations of military operations it is advisable to prepare a basic map, containing only the detail that will be essential, for the series of slides prepared for the same ground. On this basic map the positions of the opposing forces can be drawn in for each phase and any additional place names needed may be added. The symbols indicating the opposing forces, and arrows indicating the direction of operations, should be drawn in outline and when the print has been transferred to the glass slide the outlines can be colored for the opposing forces. Too much detail on a slide is confusing and should be avoided. It is rarely desirable to use photographs of maps such as are found in books of military history since the audience cannot make a close examination of detail, as can the reader of a book. When it is desirable to show terrain features in connection with operations it is better to prepare a separate slide showing only the terrain.

■ **85. CLASSROOM.**—The effectiveness of instruction in a classroom is increased greatly by provision of suitable facilities. The room should be well lighted and well ventilated. Blackboards should be provided. If students are expected to take notes or to use maps, sufficient tables of suitable size should be provided. Wall boards are required for the display of maps and charts. A projector and a screen should be installed if lantern slides, film strips, and training films are to be shown. A stand with a manuscript light is a great aid to the instructor. The instructor must as-

b. Historical map used to guide tactical scenario at Indiantown Gap, 2017:



sure himself in advance that his voice will be audible and all visual aids clearly seen by the students in the back and at the sides of the room.

■ **86. OUTDOOR INSTRUCTION.**—The same care should be exercised in choice of ground for outside instruction as in choice and arrangement of classrooms. A small ravine or cup shaped area makes a good amphitheater for giving a lecture. If no such accidents of the ground are available, sloping ground may be used, the students being placed on ground above the instructor. By having rows of students sit, kneel, and stand, assurance may be had that all are able to see illustrations or demonstrations which are used. The voice must be raised to be sure that all hear the instructor's remarks. In the instruction of large groups it is well to have one or more assistants with the students farthest removed from the instructor to warn the instructor if his voice is not heard, and to aid in directing the students' attention on the instruction. Portable loud speakers, if available, are a great aid in outdoor instruction, particularly in demonstrations and in instructing large groups.

■ **87. TRAINING EXPEDIENTS.**—Every effort should be made, in both indoor and outdoor exercises, to promote realism and increase interest by the employment of training expedients. These have a wide application to training in technical and tactical subjects. Some of the many expedients are mentioned below:

a. The development of airplanes, armored vehicles, and vehicular mounts demands the greatest ingenuity in instruction in combat gunnery. Accurate replicas of various weapons, employing an electric beam as ammunition, may be used for teaching the fundamentals of marksmanship and for preliminary service practice. These expedients may be mounted on movable platforms, stands, or wobble plates to simulate vehicular mounts. The beam may be so regulated as to allow for time of flight for various distances, thus teaching proper lead for the target.

b. Model tanks, of sizes appropriate for various ranges, may be used as moving targets both indoors and outdoors. They may be used in combination with landscape targets, sand tables, or miniature ranges.

c. Model airplanes may be used for instruction in identification and in anti-aircraft marksmanship. They may be suspended on wires or tracks and propelled by wires. Equipped with photoelectric cells and used with an electric beam weapon they stimulate interest and are a close approach to actual fire at airplanes.

d. Sand tables and miniature ranges are excellent for instruction in minor tactics. For construction of a sand table see FM 23-75. A piece of canvas or target cloth can be painted, and molded to represent the accidents of the terrain by stuffing paper underneath.

e. Landscape targets may be used for target designation and fire distribution on indoor and subcaliber ranges.

f. Terrain boards, sand tables, and miniature ranges are excellent for gunnery instruction.

g. Blank ammunition for all weapons should be used when practicable in field exercises and maneuver.

86. See TM 21-250 for a more complete and practical discussion.

d. Sand tables are easy and fun to make, and can enhance the experience for the reenactors and for the public. Below, a sand table briefing before a tactical assault demonstration, part of a formal living history program.



And here a detailed model used to teach terrain analysis at a leadership training session at the Gap.



h. Smoke puffs, pyrotechnics, and flags should be used to simulate artillery fire. Trained details, directed by radio; should be used to mark artillery and other supporting weapon fire.

i. Effort should be made to accustom troops to the noise and confusion of battle. Detonation of TNT blocks and firecrackers, the sound of klaxons, sirens, and other noise producing devices, the use of tear gas and smoke candles, all are of value in preparing troops for battle conditions. Sound track and phonograph records of battle sounds may be amplified through a portable public address system to give an excellent imitation of battle sounds. One airplane equipped with a sound track and amplifying device can imitate the sound of a large number of airplanes in air attack. Ingenuity, used with care to prevent accidents, should be exercised by all commanders in the effort to simulate battle conditions in training.

■ **88. LESSON PLANNING.**—The efficient use of available time requires a careful analysis of each lesson. Without careful lesson planning the value of the instruction received will never be commensurate with the time used.

■ **89. BASIS FOR LESSON.**—An instructor requires the following information before he may effectively complete his lesson plans.

- a.* Subject and scope of instruction to be given.
- b.* Training schedule or program of which the lesson is apart.
- c.* Duration of period of instruction.
- d.* Number of students to whom the lesson is to be given.
- e.* Place in which instruction is to be conducted.

■ **90. LESSON ANALYSIS.**—With the above information determined the instructor must make a general analysis of the lesson. This analysis includes consideration of each of the following:

a. What is the scope of the subject matter to be covered in the instructional period? What must be done in the period and what must the instructor know to do it?

b. How should the student be prepared for the lesson? Is a previously prepared text assignment desirable? Will a brief explanation or illustration be satisfactory? What will tie this lesson to those previously taught?

c. What method of instruction will be most effective in teaching the subject? (See par. 71.)

d. Does the subject matter lend itself to any particular means of arousing and maintaining the students' interest? What historical examples, illustrative stories, etc., are applicable?

e. What methods or means may be employed to require the student to apply the ideas and knowledge taught him or to gain skill in procedure?

f. What type of examination is most suitable for determining the effectiveness of the instruction and impressing the subject on the student? Should it be an oral or written examination or a performance test?

i. Realism: in the ATC/29th Ranger program, the morning obstacle course runs were enhanced by smoke, simulated fire, and (simulated) barbed wire to crawl under.



88. Now here's the catch. Training delivery is work—hard work and skull sweat. If you just pull a session out of your gazoo, everybody will know it and their precious time will be wasted.

Lesson analysis is absolutely essential. Follow these guidelines and it will start to fall into place.

g. What points are to be summarized in the discussion at the end of the period?

h. How shall the total time of the lesson period be proportioned to the various phases of instruction to accomplish the best results? This time allotment must be borne in mind during the whole analysis and a final time schedule should be made at the completion of the plan. If time estimates are too short it will generally be for one or all of the following reasons:

(1) Overenthusiasm on the part of the instructor, causing him to extend his remarks, illustrations, or questions beyond the allotted time.

(2) Lack of the necessary background on the part of the student or a failure on the part of the instructor to appreciate the difficulty of the lesson, which prevents the presenting of new ideas as rapidly as planned.

(3) Failure of the instructor to adhere closely to the subject, usually the result of questions which digress from the particular lesson.

i. What aids to instruction are necessary and available?

■ **91. LESSON PLAN.**—Having made the analysis the instructor should write out his lesson plan. This is essentially an outline of the lesson in the order and manner in which it is to be presented.

■ **92. REHEARSAL.**—*a.* When the lesson plan is completed the instructor should set up the necessary equipment, illustrations, and other aids to instruction and conduct a practice run on the presentation of the lesson. Such a rehearsal furnishes a check on the time allotment and assures the presentation in a smooth, natural manner.

b. Practice in lesson planning will develop facility and insure the attainment of training objectives in the allotted time. Failure to plan lessons will result in incomplete or sketchy instruction, loss of interest, and the waste of valuable time.

c. The value derived from the lesson is in direct proportion to the care and thought put into its preparation and to the enthusiasm with which it is conducted.

■ **93. COMMON ERRORS IN INSTRUCTION.**—When a group under instruction fails to reach the desired standard in the allotted time, the reason must be found without delay. Some of the more common errors of failure are—

a. Incorrect interpretation of training program by those conducting instruction.—Conferences, attended by all instructors, held prior to the commencement of the program as well as during the course of the program, will assure a complete understanding of the full intent of the training.

b. Insufficient time allotted to program.—The preparation of a good program of instruction requires practical experience in time and training values, and a thorough study of local conditions, qualifications of available instructors, facilities for carrying out the program, and the personnel to be trained.

c. Lack of knowledge or preparation.—There is no substitute for full knowledge of the subject to be taught; it is the first requirement of an

91. Contrary to rumors, the lesson plan (LP) is *not* your lesson notes designed to help you present the material. That's up to you, though your cheat sheet should conform to the general scope and structure of the LP. The LP itself is a matter of record, to be used by instructors who follow you so the material is presented in a uniform fashion.

c. There is no training principle equivalent to "wing it." If you're going to inflict training on reenactors, you have a duty to perform it in a practiced, professional manner.

LESSON TITLE: Basic battlefield communications: Radio
COURSE: BIQ. INSTRUCTOR: T/Sgt O'Neill
DATE: 28 April 1943

LESSON OBJECTIVE: To learn and demonstrate the prescribed procedures for tactical
VOX radio communication.

TRAINING AIDS: Flip chart and easel; reference cards; BC-611 radios.

REFERENCES: FM 24-6.

TIME REQUIRED: 30 minutes lecture, 20 minutes application.

This is an example of an Army lesson plan as specified in FM 21-5 and **TM 21-250**.

I. PRESENTATION.

INTRODUCTION: Lecture – 5 minutes.

1. Importance of field communication skills.
2. Statement of lesson objective.

EXPLANATION AND DEMONSTRATION: Lecture – 25 Minutes.

1. Description.
 - a. Wireless communications – offensive and defensive.
 - b. Types of communication
 - (1) AM and FM
 - (2) CW and VOX
 - c. Basic equipment overview.
 - (1) SCR-300
 - (2) SCR-536/BC-611
2. Explanation.
 - a. Phonetic alphabet – description and reasons for use.
 - b. Basic communications procedure – use of terms and responses.
3. Demonstration by Instructor.
 - a. Telephone procedure.
 - b. Radio procedure.
 - c. Rules of communication: short, clear, verified.

II. APPLICATION: Demonstration and practice by students – 15 minutes.

1. Divide student platoon into teams.
2. Operation to be performed.
 - a. Check into radio net; commo check.
 - b. Send prepared messages.
 - c. Receive prepared messages; fill out message form.
 - d. Close net.

III. EXAMINATION: Observation and oral questioning – 5 minutes.

- a. What are the basic elements of field communication?
- b. When are wire and wireless used??

IV. DISCUSSION: Lecture – 5 minutes.

Summarize the principles of communications.

instructor. Lack of preparation is generally inexcusable. It may be prevented by supervision and, when discovered, appropriate action must be taken to prevent a recurrence. All instructors must be made to realize the importance of their responsibility in being prepared.

d. Wrong methods.—The use of wrong methods of instruction should be discovered by supervision and inspections, and correct methods must be adopted at once.

e. Poor personality of instructor.—When it is found that the personality of the instructor is objectionable, it is best to relieve him and detail another instructor.

f. Insufficient and ineffective supervision and inspections.—Such neglect of responsibility may be due to inexperience or indifference, both, usually, among junior commanders. Only by constant supervision and inspection can incorrect methods be discovered and full compliance with the training program assured. Administrative details and other duties not directly concerned with training must not be allowed to interfere with training supervision. Indifference is eliminated by instant remedial action.

■ **94. ADVICE TO INSTRUCTORS.**—*a.* Never bluff to cover lack of knowledge. While the instructor is expected to know his subject thoroughly, questions may arise which bring up unconsidered aspects of the subject. If the answer is not known, admit it, determine the correct answer, and give it to the class as soon as practicable.

b. Avoid use of profanity or obscenity. Frequent use of profanity and any use of obscenity result in a loss of dignity and of the respect of the class that cannot be regained.

c. Never use sarcasm or ridicule. Since the students are helpless to retort their resentment is aroused. When an individual is resentful his mind is closed to the acceptance of instruction.

d. Never talk down to a class. The instructor and the class must feel, not that the instructor is of higher intelligence, but that he has been fortunate in acquiring experience and knowledge which he wishes to share with fellow members of his profession.

e. Never decide that the student is stupid. The instructor's task is to teach the student, using the means suitable for transmitting the information. If the student doesn't learn, the instructor has failed.

f. Remember that the instruction is given to assure success in battle. Use every opportunity to *impress the student with the battle importance* of what he is learning.

Section VII

PUBLIC SPEAKING

■ **95. GENERAL.**—*a.* While many of the considerations which enter into successful public speaking do not apply to the military instructor, a knowledge of the theory and practice of this subject is of great value as a means to effective instruction. A comprehensive discussion of public speaking is not within the scope of this manual, but several generally accepted ideas on the subject are given below:

b. To make an effective speech, the speaker must be sure of what he says, sure of its soundness, and sure of its clearness and coherence. This

95. A block of several hours was set aside at the Armed Forces Staff College to polish mid-range officers in public speaking. It was taught by Toastmasters!

demands preparation of a most thorough kind. He must analyze the subject, determine the specific aim of his discourse, collect, evaluate, and select his material, and then decide upon what he has to say and how he is to say it. This process is usually simplified for the military speaker for the reason that higher authority assigns the subject and indicates the purpose. The military speaker is concerned chiefly with holding the interest of his audience and with transmitting his ideas clearly in simple words.

■ **96. FUNDAMENTAL QUALITIES.**—There are certain fundamental qualities of address which every speech should have: A sense of communication; physical vitality; enthusiasm; poise and control; genuineness and earnestness.

■ **97. SENSE OF COMMUNICATION.**—*a.* The purpose of the speech is to communicate ideas. Get rid of the idea that the speaker is "making a speech"—he is not talking at people; he is talking to people. There is no place on the platform for the impersonal attitude, the fishy eye, the colorless voice. Public speaking demands the personal touch, interest in the listeners, and a very strong sense of talking to them. The audience is made up of human beings and when this is kept in mind the speaker is apt to be conversationally direct and to get and keep his sense of communication with them. In order to achieve this sense of communication, the speaker must think as he progresses, not mechanically repeat words, but focus his attention on the ideas to be conveyed.

b. Speak slowly. Do not hurry. Give the audience time to understand and appreciate the weight of each idea as it comes along. Group the words so as to bring out the meaning most clearly. Pause between these groups of words and think.

c. Feel the idea as well as think it. Be enthusiastic. If the speaker does not believe in what he is saying, he will never get the audience to believe in it.

d. After thinking and feeling the idea, the speaker makes an effort to adapt himself to the audience. He reaches out after them—projects the voice to them. He focuses his eyes on the listeners and gives them his idea as though he really wanted them to get it. If they are not listening, are not interested, it is because he is not sufficiently interesting. Every art of conversation should be used to reach them and to hold their attention and interest. Only by taking a lively interest in conveying the idea can the speaker reach the people effectively.

■ **98. PHYSICAL VITALITY.**—Next to a sense of communication, the most important quality of a speaker is life, vigor, physical vitality, and animation. Strong and positive tone of speech, forceful enunciation, strong position, and vigorous gesture count for much. Common conversation requires little muscular effort because the listener is close by and easily reached, but when the audience is large and many of them are seated at a distance, the problem is different.

■ **99. ENTHUSIASM.**—The third quality is enthusiasm. In practicing delivery, the speaker tries to generate the same enthusiasm as for the final speech. This will result in life in the gesture and in the spoken words.

■ **100. POISE AND CONTROL.**—To the qualities physical vitality and enthusiasm, the effective speaker must add what at first glance may seem to be antagonistic qualities, namely poise and control. But poise and control do not mean that one must lessen his enthusiasm. It simply means that with all his force and enthusiasm, he must not fly off the handle; he must be master of himself; he must always keep himself in hand.

■ **101. GENUINENESS AND EARNESTNESS.**—In addition to the foregoing, the speaker must always be genuine and earnest; he must believe what he says. A sense of humor is one of the greatest assets to the speaker, and is evidenced by his manner as well as by his words. A sense of humor is never inconsistent with seriousness; it is essentially a mark of mental balance, for it is in reality an appreciation of relative values.

■ **102. SUMMARY.**—To summarize, there are five fundamental qualities without which no speech can succeed, no matter how good it may be as far as voice, enunciation, position, and gesture are concerned. These are a lively sense of communication, physical vitality, enthusiasm, poise, and earnestness. With these qualities, a speech may succeed in spite of poor voice, poor gesture, and poor English. On the other hand, crudities of style, such as an awkward appearance, a rasping voice, speech so soft that it can't be heard, eccentricities of manner, etc., may completely offset the sense of communication, vitality, enthusiasm, and earnestness of the speaker.

■ **103. AIDS TO DELIVERY.**—*a.* A speech should not be memorized. Nor should one read from a manuscript unless the subject is quite technical or exactness of statement is the first consideration, and misquoting is to be guarded against. Reading is not speaking and detracts more or less from the interest of the speech and impairs the relation between the speaker and the audience, as the "eye to eye" contact is largely lost. Moreover, it is impossible to attain those prime essentials in effective speaking, directness and spontaneity, when reading from a manuscript.

b. Regarding the use of notes, there is no universally accepted rule. Some authorities urge against all notes, others advise the use of the short outline, while others suggest the use of memoranda consisting of key phrases or key sentences. Some speakers use letter or foolscap size sheets of paper for their notes, and others use small cards. Some instructors underscore the headings throughout their manuscript and use it as a guide. No two speakers are alike, and the method that will prove effective in the case of one instructor, may not only be of no assistance, but may actually be a hindrance to another. Therefore, whatever method will best assist in effectively recalling your ideas should be used. Whatever form of notes is used, it should be possible to follow them at a glance, and to handle them in an inconspicuous manner. These remarks do not apply when the speaker is quoting authorities, citing statistics, or giving data of a technical nature, for here reliance upon the memory may result in failure to secure absolute accuracy. In such cases, the reading of such material is apt to make a more effective impression on the audience, because there is the feeling that expert testimony is being presented.

SECTION VIII

APPLICATORY TACTICAL EXERCISES

■ **104. GENERAL.**—The applicatory method of training to develop tactical proficiency consists of instruction in tactical doctrine, followed by its application under assumed, outlined, or represented situations which simulate, as closely as possible, conditions of actual war. The value derived from this training will vary directly with the realism with which battle conditions are simulated.

■ **105. DEFINITIONS.**—The various applicatory tactical exercises are defined as follows:

NOTE.—Where the term "map" is used below it should be understood as including all forms of map substitutes.

a. Map exercises are exercises in which a series of military situations are stated and solved on the map. All students solve the requirements individually, after which the solutions are discussed in a general conference.

b. Map problems are exercises in which a military situation is stated and solved in writing with the map as the only guide to the terrain. The solution is graded.

c. Map maneuvers are exercises in which military operations with opposing sides, are conducted on a map, the troops and military establishments being represented by markers, or crayon symbols, which are moved to represent the maneuvering of the troops on the ground. Map maneuvers may be either one-sided or two-sided. In the former case, the players are assigned to one side only and the enemy movements are controlled by the director. In minor tactics, sand tables or miniature ranges in which the terrain is represented to scale may be substituted for the map.

d. Tactical rides or walks are exercises in which a series of military operations are stated and solved on the ground, the troops being imaginary. Solutions are generally oral, but may be written, and are discussed in a general conference on the terrain.

e. Terrain exercises are exercises in which a military situation is stated and solved on the ground, the troops being imaginary and the solution being in writing. Usually, the solution is graded.

f. Staff rides or walks are exercises in which practical staff operations in definite strategical, tactical or logistical military operations are stated and solved on the ground. The troops are imaginary and the solutions generally are expressed in the form required under actual conditions of war.

g. Historical rides are exercises in which past military operations, such as a battle or a campaign, are studied on the ground on which the operations took place.

h. Field exercises are exercises conducted in the field under simulated war conditions in which troops and armament of one side are actually present in whole or in part, while those of the other side are imaginary or outlined. They are of general application in the training of all troops.

In this section we will examine the differences between what reenactors call a "tactical" and the Army's idea of an "applicatory tactical exercise."

c. I've been interested in setting up a map maneuver for interested reenactors for some years. The problem is finding the right reenactors. This exercise involves setting up three HQ tents: one for each side, and a "God cell" tent to determine combat outcomes. Ground communication is established, wire or radio or both, with dummy maneuver units provided by the GC.

g. Unlike map exercises, I have been able to set up a couple of historical rides at Gettysburg.

This involved carrying interested people in a convoy of 2-3 jeeps from point to point and discussing the tactical flow of the battle.

i. The *field maneuver* is the closest Army equivalent to a "tactical." It differs from the tactical by (a) requiring actual tac-

When the troops present consist only of command, staff, and communications personnel, they are termed "command post exercises." Command post exercises may be one-or two-sided exercises.

i. Field maneuvers are exercises in which a military operation is conducted on the ground, the troops and armament of both sides being actually present, either wholly or in part, and all the conditions of actual war being simulated.

j. Joint Army and Navy exercises are field maneuvers in which both Army and Navy forces take part. They are either—

(1) Grand joint exercises in which the United States fleet as a whole or one or more of its major subdivisions takes part; or

(2) Minor joint exercises which include all joint exercises other than grand joint exercises.

■ **106. PREPARATION OF APPLICATORY TACTICAL EXERCISES.**—The preparation of any tactical exercise must be careful and thorough. It involves the following considerations:

a. Sequence of instruction.—Tactical exercises should be introduced at an early stage in military instruction and continued throughout the training of individuals and units. When specific abstract doctrine has been taught, tactical exercises requiring the application of this doctrine should follow. These tactical exercises are designed not only to give practice in application of the doctrine to the solution of concrete problems, but also to test its soundness.

b. Decision and execution.—(1) Tactical problems are of two general classes: those of decision and those of execution. In a problem of decision, the solver must make a decision based upon a definite tactical situation. He must choose the type of action that the command is to adopt. In the problem of execution, the commander's main decision has already been made for him and his task is that of choosing the best method of doing what he is told to do.

(2) The problems of the commander of an element of a larger force are primarily problems of execution. The distinction between problems of decision and problems of execution is not hard and fast. Commanders of elements of a larger force have many decisions to make in carrying out missions assigned to them. Ability to make reasonable decisions, even minor ones, is developed through solving problems of decision. For that reason many of our problems are of this type. Units up to and including the division in war usually operate as part of a larger force, but in preparing problems to train the solver to make sound decisions he is frequently pictured as commanding a unit that is acting alone. Command of a subordinate unit in battle calls for full exercise of the power of decision. That power is developed by the command, under assumed battle conditions, of the unit acting alone.

c. Clarity.—The situation for every tactical exercise should be stated clearly. The author and all who review the problem should make a special effort to free it from ambiguous and contradictory statements. An author must exercise great care not to be influenced by a particular solu-

tion that he has in mind, as he prepares the problem. His statements, unless they are carefully tested, may mean one thing to him and another to solvers. He may have certain important items in mind regarding the enemy, or the situation in general, and neglect to include them in the situation. Though the author may do his best to view his draft of the problem critically and in a detached or objective way, this is not enough. Every problem should be reviewed by others in order to strengthen its weak points and insure clarity.

d. Brevity.—(1) The situation in a good tactical exercise is presented as briefly as possible. During operations in the field the situation is a continuing one and all concerned are familiar with it. Items of information, as they come in, are assimilated easily by minds that are prepared for them. In the tactical exercise, on the other hand, the solver must, at one sitting, grasp and adjust himself to the entirely new situation. Authors must make every effort to present their situations briefly and in a manner that the solver's mind can grasp easily and quickly. The situation should lead reasonably to the action contemplated. Unnecessary matter is avoided. Such items as international boundaries, concentration areas, war plans, detailed dispositions, action of reconnaissance agencies, are included only when they have a definite bearing upon the solution of the exercise. It is usually not desirable to introduce such matters as mobilization, politics, or national economics in order to set a brigade or division in motion. Every element of the situation that can be clearly and properly shown on an overlay or special map should be shown in this manner, in order to avoid laborious plotting by the solver.

(2) As finally prepared, the exercise should present a reasonable situation. That which is artificial or improbable should be avoided, otherwise the solver is hampered from the beginning by an unnecessary strain upon his imagination.

e. Form.—(1) *Purpose of formal arrangement.*—A standard form for the statement of the situation is an aid to brevity, clearness, and quick understanding of the situation. The form discussed below is applicable for the statement of the situation in all tactical problems and exercises. The statement of a tactical situation usually consists of a heading, a general situation, a special situation, and a requirement. In many exercises, particularly those involving small forces, the general and special situations may be combined and termed "situation." This combination should always be made when a separate statement of a general situation is not necessary to a clear understanding of the problem.

(2) *Heading.*—The heading includes such caption as may be necessary to identify the exercise; such as office of issue, nature of exercise, identifying number (if one of a series), and date.

(3) *General situation.*—The general situation follows the heading. It first states the map or maps required (including any special map or overlay issued with the problem). Then follows a brief statement of the facts known, or assumed to be known, to both belligerents. This is mainly for the purpose of general orientation, to assist the solver in reading himself into the situation. The general situation should be brief and should contain no unnecessary information.

(4) *Special situation.*—The special situation follows the general situation and is a statement of the assumptions and the real or imaginary facts which, taken in conjunction with the general situation, form the basis of judgment on which the problem is to be solved. The following are some of the essential features of a special situation:

(a) A definite statement of the force involved. In the absence of any statement to the contrary, the composition of the opposing forces is assumed to conform to authorized Tables of Organization,

(b) A statement of the location and disposition of the force, at a stated time, in sufficient detail for the purpose of the problem. Care should be taken to avoid the inclusion of nonessential data.

(c) A statement of the mission of the force in definite, unmistakable terms, or sufficient data from which to deduce the mission.

(d) Sufficient data on which to base an estimate of the enemy's situation. These data are such as to require analysis in order to arrive at reasonable conclusions as to the enemy's situation and capabilities. Part of the value of the exercise is lost when the enemy's situation and capabilities are made so obvious as to require no analysis.

(e) A statement of the date of the operation, in the event that the hour of sunrise or sunset, or season of the year, has a bearing on the problem.

(f) A statement of special climatic conditions, when it is desirable to indicate their effects on roads, fords, bridges, streams, visibility, and the like.

(g) Such assumptions as are essential (generally entitled "Notes").

(5) *Paragraphing.*—Arrangement of the subject matter in logical sequence and its division into *captioned paragraphs* are aids to quick understanding of the situation. Following is an outline of the form for general and special situation:

1. GENERAL SITUATION.—a. *Maps.* (List all maps used, including special maps and overlays.)

b. *Boundary.* (If necessary.)

c. *Main forces.* (A brief statement of the location of main forces, Blue and Red, including any departure of organization of each force from Tables of Organization.)

d. (Any additional subparagraph(s) added as called for by the particular problem under consideration.)

2. SPECIAL SITUATION (BLUE).—a. *I Corps* (or higher unit). (A brief statement when necessary as a background for the situation used.)

b. *1st Division* (or unit used.) (State commander, location if necessary, and indicate any attached units.)

c. *Mission of 1st Division.*

d. *Advance of 1st Division* (or brief summary of prior action of unit).

e. (Any additional subparagraph(s) added as required by the particular problem under consideration.)

f. *Situation at 8:00 AM, 1 June.* (1) *Enemy* (2) *Own forces.*

g. *Weather, roads, and visibility* (or miscellaneous).

3. REQUIREMENT. (Such as to bring out the fundamentals and methods it is desired to illustrate by the exercise or problem.)

NOTES

(State any assumptions made for the particular problem and any instructions necessary regarding the problem. Notes are numbered serially and reference made to same at appropriate places in body of problem.)

■ 107. TACTICAL ELEMENTS OF AN APPLICATORY EXERCISE.—

a. Situations are prepared by arranging the various elements that enter into military operations so as to require a definite decision or to provide a situation of execution. The more common factors used to vary situations are—

- (1) Relative strength of opposing forces.
- (2) Their composition.
- (3) Their dispositions.
- (4) Terrain.
- (5) Distance.
- (6) Mission.
- (7) Reinforcements.
- (8) Time of day.
- (9) Climatic conditions.

b. Terrain can be selected that is suitable for different types of operations, but it should be remembered that in war the terrain cannot always be selected as it can be in tactical exercises, hence the suitability of terrain for different types of operations should not be overemphasized. The factors entering into any military situation can be varied almost infinitely, a minor change in time, distance, or mission completely changes the problem. The mission should be clearly stated. The use of different missions in connection with other factors enables the officer preparing an exercise to produce almost any situation he desires. Orders and instructions contained in the statement of the situation should be carefully prepared and correct in every detail, in view of their instructional value. A problem of decision should not be so simple that only one possible solution need be considered, but should require those under instruction to weigh the merits of alternative solutions.

■ 108. CONDUCT OF AN EXERCISE.—The more closely an exercise is made to resemble war conditions the greater its value. Clear-cut problems do not present themselves in war; uncertainty, lack of information, friction, obscure the issues. Information should be supplied in the forms in which it would be received in war. Officers should be required to make their decisions in a limited time and should be trained and practiced in issuing oral orders. Except in the most elementary exercises the effect of air and armored operations on the strategical, tactical, logistical

problems should be provided for. Students' solutions should be discussed, the doctrine emphasized, and errors pointed out.

■ **109. SAND TABLE EXERCISES.**—A sand table has the advantage that it can be used anywhere. Any suitable scale, depending on the size of the unit involved, can be selected. Suitable tokens to represent different types of troops should be provided. For elementary instruction simple and definite situations should be created and definite answers required. In addition to elementary tactical instruction, a sand table can be used to illustrate combat formations, to teach reconnaissance and occupation of positions by artillery or machine guns, to illustrate defensive organization, or instruction in map reading, and for preparation for field exercises and field maneuvers.

■ **110. MAP EXERCISES.**—In a map exercise a series of related situations are solved and discussed. A typical map exercise may have as the first requirement to be solved by the student the decision, or the plan of the unit commander. After the decision and plan have been discussed the plans and orders of subordinate units of the different arms may be required. Thus, in a single situation, instruction is given in the operation of combined arms. The situation may be carried forward in time so that a series of tactical operations are solved. Map exercises also are suitable for instruction in staff functioning and troop leading. Each exercise should give a clear conception of the normal distribution of the unit concerned, together with the normal frontages and depths. The importance of the terrain should always be brought out. This can best be done by emphasizing the effect of the terrain on each operation such as attack, defense, etc. Before and after each exercise students should be required to study the paragraphs of Field Service Regulations and the other appropriate texts relating to the technical operation with which the exercise deals. By such study they will learn how the tactics and technique contained in the regulations should be applied to concrete problems.

■ **111. TACTICAL RISES OR WALKS.**—Tactical rides or walk are conducted on the ground in a manner similar to that of a map exercise. When large units are being used maps or aerial mosaics are necessary. It often is beneficial to provide only outline maps which do not show the ground forms so as to require the students to develop their own eye for the terrain and not to depend exclusively on the map.

■ **112. Map Maneuvers.**—Map maneuvers may be either one-sided or two-sided.

a. In the one-sided maneuver, players are assigned to one side only, the enemy movements being controlled by the director. Its principal value lies in practice in the technique of orders, staff procedure, and troop leading. The director can, through his control of the action of the enemy, conduct the progress of the play so as to bring out the application of the tactical fundamentals which he wishes to illustrate. By means of prepared messages, staff work and teamwork may be emphasized. In the sequence of instruction the one-sided map maneuver usually precedes the two-sided.

b. In the two-sided map maneuver, players are assigned to both sides, the development of the maneuver is much more free and therefore more

interesting to students. The control of a two-sided map maneuver may be quite close or can be completely free. This type of maneuver gives opportunity for instruction in the formulation of decisions and orders, in the application of tactical fundamentals, and in the exercise of command and staff teamwork. Map maneuvers should not be employed as a means of instruction until the student is well grounded in tactical doctrine.

■ **113. COMMAND POST EXERCISES.**—Command post exercises can vary in nature from an exercise that closely resembles a map maneuver to exercises in which all command posts and communications actually are installed on the ground. In the first type, command posts are grouped in one location, no special communications are available, and all communications are by messenger service supplemented by local wire lines. Air service is not used and the enemy is not outlined on the ground. In this case umpires should impose normal time for the transmission of messages. At the other extreme is the exercise where the command posts are separated by normal distances, signal and headquarters troop units are employed, all means of communications are used, air service participates in its normal role, and the enemy is outlined on the ground. A scenario is prepared to serve as a guide for the progress of the play. The scenario is usually supplemented by a general control map which governs the more detailed control maps of the umpires. All extensive command post exercises should first be played out as map maneuvers by the directing personnel.

■ **114. FIELD EXERCISES AND MANEUVERS.**—These tactical exercises are the acme of all training since they are the closest approach to actual combat. Their success is dependent on the thoroughness of their preparation, the intelligence exercised in their direction and control, and the imagination and ingenuity used in making them realistic.

■ **115. REALISM.**—One of the greatest obstacles to good tactical training is the difficulty of representing accurately the conditions of the battlefield. In war, amid the general noise and confusion of battle, nerves will be strained, time will be pressing, the situation will usually be vague, orders may arrive late, messages may be ambiguous, physical discomfort and fatigue will be general. Officers and men must be trained to expect such conditions and ingenuity used to create, as nearly as possible, the physical phenomena of battle.

■ **116. IMAGINATION.**—All officers and noncommissioned officers conducting or participating in field exercises must prevent the deliberate disregard of war conditions. Action and movement must be considered from the enemy's point of view, and every individual must habitually conduct himself as if he were actually opposed by an intelligent enemy. Troops must be required always to take advantage of cover and concealment, antitank and antiaircraft weapons must always be manned, armored vehicles must operate with doors and turrets closed, when the situation so demands, in short, individuals and groups must conduct themselves as they would under the threat of hostile fire. All must be made to realize that, in war, the punishment for negligence in these matters may be death by enemy action. The excuse that such things would not be neglected in time of war can, not be accepted. Imagination must be aroused

116. A basic principle of military training (which applies to most trades) is "train the way you fight—fight the way you train." This is essential in actual combat, where lax or unrealistic training can get people killed and lose a battle. In reenacting, not so much. The reference in this paragraph suggests soldiers in training should make proper use of cover and concealment makes sense because we will be demonstrating this to the public. Operating armored vehicles "but-toned up", however, can create a serious safety hazard. We use discretion, and if we must err, err on the side of "authentic."

117. Year after year I've ranted about this at the Gap: *people in the field one or two steps below the top frequently have no idea what the mission is, much less the plan.* This is plain wrong, and it's a disservice to the soldiers. If you are in a leader position, you have a **responsibility** to demand a brief on the mission and plan, and you have a **duty** to pass it on to your guys. You will be amazed at how much easier it is to control an operation when the troops already know what they're supposed to do.

If a soldier in the field does not know the intent or the goal, it is evidence of a bad leader, not a dumb soldier.

so that habits will be formed in training which will bring success in battle.

■ **117. KNOWLEDGE OF THE EXERCISE.**—*a.* **The interest and cooperation of intelligent men cannot be secured if they are ignorant of the operation in which they are taking part.** If they are moved from place to place without knowing the reason they will soon lose interest and become careless. Few activities are more conducive to boredom than, for example, maintaining an imaginary road block in complete ignorance of how the block is supposed to be constructed, what it is intended to stop, the direction from which the enemy is likely to approach, or the importance of holding that block to the operation as a whole.

b. **It is the duty of all commanders to insure that every scheme of maneuver, every change in the situation, and every operation are explained to all those being trained. Senior officers and umpires should check up from time to time whether or not individual men know the situation and the intention of their commander.**

■ **118. PREPARATION OF FIELD EXERCISES AND FIELD MANEUVERS.**—*a.* The procedure for preparation of the tactical situation will be the same as that outlined for other tactical exercises above. However, since the available terrain will usually be limited, care must be exercised in drawing up situations so that contact with the imaginary or outlined enemy will take place on appropriate terrain. The officer conducting the exercise must determine what definite phase of combat is to be covered and review the tactical doctrine pertaining to it. He should make a personal reconnaissance and tentatively outline on the ground the situation or situations that will emphasize the type of combat to be covered.

b. It must always be borne in mind that the exercise is to train units, not just commanders and staffs. The exercise must be planned to insure that each unit has a definite part to play. Map exercises, map maneuvers, or command post exercises should be played by the commanders and staffs prior to the participation of the troops in an exercise or maneuver. This will make certain that the exercise will benefit all who participate, not just a few officers. No matter how much preliminary work is done, new problems will be presented to all commands and staffs when the exercise is held on the ground.

c. The position, probable strength, and probable action of the enemy is planned so as to bring out the action desired in the exercise. The method of representation of the enemy and the scheme for control of the exercise must be planned; these will vary depending upon the size of the units involved. A time table or schedule should be prepared and a place for the critique selected. The problem may then be written briefly and simply; in small units it is not always necessary to write it.

d. Administrative arrangements such as equipment to be carried, details or flags to represent the enemy, water and food if necessary, use of ranges, targets, safety precautions, and ammunition should be carefully planned. When necessary to procure land for large exercises, ample time must be allowed for the business of locating suitable tracts of land and obtaining leases thereon.

The red type face (not in the original) indicates the importance the editor bestows on such basic soldier skills as map reading.

■ **119. CONTROL.**—*a.* Intelligent control is necessary to the success of any field exercise or field maneuver. A major reason for failure of such exercises is inadequate or unimaginative control. The plan and preparations for control must be made in advance. Control may be very simple, as, for example, by means of signals made by the officer conducting the problem, or it may be elaborate and include a telephone and radio net, signal rockets, airplanes, and an umpire system. The provisions for control will depend upon the kind of exercise and the size of the unit. The simplest method that will provide adequate control should be used.

b. All officers and noncommissioned officers should be trained to act as umpires in tactical exercises. Umpires should be used in the control of field exercises for even the smaller units.

c. Good umpiring is difficult. A good umpire, by his decisions and signals, must supply those elements of operations which are lacking under peacetime conditions—especially the effect of fire. He must be able to draw up the picture of battle to those under training. Keeness, enthusiasm, imagination are essential to effective performance of this duty.

■ **120. CONDUCT OF FIELD EXERCISES AND FIELD MANEUVERS.**— *a.* Play of the exercise is begun pursuant to the orders given to comply with the initial requirements. The first requirement of all commanders for further operations will be information of the enemy. It should be understood that this can be obtained only through the regular channels, that is, through the various reconnaissance agencies, from subordinate units, or by personal reconnaissance. It is a function of the umpire to furnish the information that properly could have been obtained by the means used. The use of methods of obtaining information, which could not be used in time of war, is forbidden.

b. Realism and the closest possible approach to war conditions must govern the planning and conduct of field exercises and maneuvers. Soldiers act in war as they are trained in peace, and the fighting spirit, the determination to win, will lack development if maneuvers are formal and unreal. This is best corrected by allowing initiative, maneuver, and surprise to reap their legitimate rewards. Lessons thus learned by commanders and troops will be driven home and operations will gain in interest and training value.

c. Where it is necessary to limit the progress of the maneuver, this should be done by decisions made by local umpires based on logical assumptions and not be penalizing well conducted operations by palpably artificial decisions.

■ **121. CRITIQUE.**—The discussion or critique should be held immediately following the exercise or maneuver and, for small units, preferably at a location where the terrain can be seen. The critique should consist of a *brief* review of the tactical doctrine involved and its application to the problem. Notes should be kept during the progress of the exercise or maneuver for this purpose. The tactical significance of the exercise and the doctrine involved must be kept foremost in the discussion; a mere recital of what has taken place is a waste of time. It is the duty of the director or instructor to call attention to errors and incorrect methods and to point

119c. This is a BFO—a *blinding flash of the obvious*. Or it would be if we took umpiring seriously.

Theoretically, the umpire should know more about combat operations than the commander he shadows. Unfortunately, not many reenactors want to be umpires. This means we have to take anybody who is willing, and we refuse to help them prepare in any systematic way. There also seems, for reasons unknown, a tendency for umpires to cancel at the last minute.

Bottom line: for large field exercises, effective umpiring yields great rewards, but requires quite a lot of effort.

121. The critique (or after-action report—AAR) is almost always recognized as a great idea, and almost never actually done. Why?

(1) It actually involves work and submissions by multiple persons, over half of whom will inevitably tank and produce nothing. Without complete reports, the lucky soul assembling the AAR will not have enough information to do a useful job.

(2) A useful critique will include discussion of mistakes and fouls; this requires a critic/writer who (a) knows what a mistake looks like based on knowledge of how it should have been done, and (b) an audience that will not flip out if criticized.

Either way, it requires knowledge, skills, tact, and honesty.

out a way to correct them. Adverse comments should treat of doctrine and not of individuals.

SECTION IX

COMPANY TRAINING PROGRAMS AND SCHEDULES

■ **122. COMPANY TRAINING PROGRAM.**—*a.* A company (troop or battery) training program is a statement or description, usually in tabular form, of the training plan for the company over a period of time. It is prepared to cover the time allotted by higher authority for company training. The program is intended to estimate the time factor and form a logical and economical basis for the use of training time. It must, however, be regarded as flexible, and not be followed blindly.

b. Appendix III shows a War Department Mobilization Training Program for an infantry rifle company, based on 13 training weeks of 44 hours each; each week comprising five 8-hour and one 4-hour training days.

■ **123. PREPARATION OF THE COMPANY PROGRAM.**—The preparation of the company training program is the last item in the process of planning the company's training, and can only be undertaken after necessary directives from higher authority have been received and studied, and the estimate of the training situation completed. The successive steps involved in its preparation are discussed in detail below.

■ **124. TRAINING LOSSES.**—So far as the unit itself is concerned, any allocation of time within the training period to any activity, or for any purpose other than unit training, constitutes a training loss. The principal training losses are—

a. Holidays.

b. Guard duty (when performed by company).

c. Fatigue (when performed by company).

d. Periods reserved for battalion, regimental, or higher unit training.

e. Unusual missions which necessitate interruptions in the training of the unit.

f. Time required going to and returning from training areas.

■ **125. ALLOCATION OF HOURS OF INSTRUCTION TO SPECIFIC SUBJECTS.**—*a.* By subtracting the training losses from the total number of training hours in the prescribed period, the unit commander arrives at the total number of hours available for unit training, and may then undertake the task of allocating hours of instruction to training subjects. This allocation is perhaps the most difficult single task in the entire process.

b. Training situations in different commands of the various arms and services vary so widely that no rule of thumb can possibly be offered for the solution of this problem. The mission of the command, the total training time available, facilities, means, climate and terrain, and the existing state of training are the chief factors that govern.

122. This is a basic problem in reenacting. The Army may operate as battalions, it may maneuver as divisions, but *the Army lives as companies*. There are reasons for this that the Romans understood quite well. The basic administrative unit of the legion was the maniple, which means a "handful." It was about 120 grunts at full strength, and it was the highest level of military organization at which the leaders could know the names and capabilities of every soldier.

Companies live together, train together, and fight together. But very few hobby units even approach company strength (though they may actually call themselves companies, and even have a captain commanding seven people. It's not possible even to approximate the soldier experience with fragments this small.

But things get even more incoherent when these fragments go to a big field event like the Gap and find themselves amalgamated into 60-100 man "battalions" not knowing how to maneuver or fight as a larger unit. This is the biggest obstacle to staging a realistic field maneuver, even if the organizers care about realism.

Interestingly, the Civil War hobby confronted this problem successfully long ago, by (a) studying the manuals, which produced a remarkable unity of training standards, and (b) forming larger coalitions of units (affiliations) that could, in the heyday of big anniversary reenactments, field huge maneuver units.

The WWII hobby has not evolved to this level. Our knuckles still drag the ground because we care more about turf than the purpose of the hobby.

c. An analysis, however, of the training requirements of different units, and an inspection of training programs prepared for their specific purposes, will show that within reasonable limits there are certain fairly constant factors that may be accepted as guides. For example, in the War Department 13-week Mobilization Training Program for Infantry at unit training centers, the following percentages are found to obtain (open time disregarded):

	<i>Total time (percent)</i>
Basic subjects.....	20
Technical subjects.....	32
Tactical subjects.....	48

d. Basic subjects, in which the recruit will generally receive his earlier training, are shown in appendix III. Adequate instruction in many of these subjects can be accomplished within a few training hours. Others—notably marches and bivouacs, close-order and extended-order drills, physical training, and inspections—require a greater number of hours and are continued practically throughout the company training period.

e. The allocation of training time to technical or mechanical subjects depends largely upon the type of unit concerned and the existing state of training. The subject of marksmanship—or the technique of the primary weapon with which an organization is equipped—is given greatest emphasis. Here again no specific rules are applicable to all cases, and the officer who plans the training of a unit must be guided generally by two factors—the total training time available and the proficiency of the unit in that particular subject at the time. Manifestly, an organization in which there are many recruits or unqualified men will require far more training time in marksmanship than will an organization composed mainly of experienced soldiers. In the War Department 13-week Mobilization Training Programs for Infantry the time allotted to rifle marksmanship in the rifle company is 60 hours. This may be taken as the irreducible minimum of time for this subject, employing a carefully planned and intensive course of instruction. Strict economy of time and the adoption of abbreviated courses of training in all subjects demand such a low figure. In a peacetime organization the allotment of hours to such subjects will be considerably higher. Economy of time may be effected by planning other training concurrently with marksmanship, such as pistol or other appropriate instruction, which can be carried on concurrently without loss of training time.

f. In heavy weapons companies and in artillery batteries, mechanical instruction and technique of fire are the technical subjects which should be given the largest allotments of training time. In these organizations the total time devoted to these subjects is relatively greater than the allocation of time to marksmanship in the rifle company. For example, the War Department 13-week Mobilization Training Program for Field Artillery shows the following percentages (open time not included):

	<i>Total time (percent)</i>
Basic subjects.....	16.9
Technical subjects.....	64.6
Tactical subjects.....	18.4

125d. In WWII, "close-order drill" was what we now call drill and ceremonies; extended-order drill" is tactical training.

■ **126. CONTINUITY.**—Certain subjects should be practically continuous throughout the training period. These include physical training, close-order drill, extended-order drill (mounted drill or motor vehicle operation in mounted or motorized organizations), and inspections. Wherever facilities permit, training hours in marksmanship or service practice, marches and bivouacs, and bayonet practice (infantry) should be distributed in a similar manner. The qualification of the soldier in the essential subjects of disciplinary and physical training, of marching, and of the expert use of his weapons or technical equipment is maintained by continuity of training throughout the year.

■ **127. PROGRESSIVE TRAINING.**—*a.* In all military training, instruction in every subject begins with the basic elementary phases and advances to the more difficult or involved phases. This rule must also be observed in blocking out the chronological sequence of subjects within the training period. Purely basic subjects, intended largely to orient the recruit in his new way of living, should be given priority in the cycle. These subjects are, in general, the Articles of War, Army Regulations, Citizenship, Customs of the Service, Military Courtesy, Sex Hygiene, Hygiene and Sanitation, Defense Against Chemical Attack, Defense Against Air and Mechanized Attack, First Aid, Care and Maintenance of Equipment, and Interior Guard Duty. Inasmuch as the primary requirements of the soldier are that he be able to march and to shoot (or to use his technical equipment), instruction in marches, bivouacs, and marksmanship should logically follow the recruit's earliest "orientation" training. A short but thorough course of instruction in nomenclature, functioning, and safety rules should precede any phase of marksmanship that involves the firing of weapons.

b. In mounted organizations the subjects of stable management and care of animals, care and adjustment of horse equipment, and transportation should be taught early. Fundamental instruction in such subjects should precede or be coincident with any drill or instruction involving the use of animals or animal-drawn vehicles. Similarly, in motorized units, early instruction is given in motor maintenance and motor vehicle operation.

■ **128. TRAINING COMBINATIONS.**—In order to avoid excessive fatigue and also to provide variety and promote interest in training, instruction in several subjects that require great physical effort should not be conducted concurrently.

■ **129. PERIODS OF INSTRUCTION FOR SPECIFIC SUBJECTS.**— Although the training program is not prepared with the attention to detail that is incorporated in the weekly schedule, yet the length of periods of instruction for particular subjects must be considered in planning the program. A few generally accepted ideas on the length of instruction in various subjects are given below:

a. Physical training (calisthenics and mass games) has as its principal objects the development of coordination, muscular control, and bodily strength. Best results are obtained from periods of 15 to 30 minutes.

b. Close-order drill or drills of a formal nature should not exceed 1 hour, even in the recruit stage of training. Longer periods make the drill

128. Pacing physical demands in training—particularly in unpleasant weather (is there another kind?)—is an important consideration. If you are doing three or more training "evolutions" in sequence, alternate the level of physical stress. After doing battle drills in the sun, have them sit in the shade for a chalk talk.

Below, from 29th Division Ranger training (a five-weekend volunteer training opportunity):

—Unarmed combat



—Map reading



tedious and uninteresting and without value. After an organization has become proficient, daily periods of 1/2 hour or less, in which an exact, energetic execution of drill movements is insisted upon, will generally prove ample to maintain precision and coordination.

c. Subjects which must be taught by means of lectures or conferences should be scheduled in periods not exceeding 50 minutes in length. Longer periods result in loss of interest and a waste of time. Shorter periods are desirable.

d. Mounted drill or driving has the dual function of familiarizing the soldier with basic mounted formations and of exercising and conditioning animals. Therefore, periods of at least an hour are allotted, ordinarily, to this subject, (exclusive of the time devoted to saddling or harnessing and grooming).

e. Subjects for which considerable preparation is necessary in assembling property and equipment, or requiring the movement of troops to a distant part of the reservation, can most economically be planned in blocks of 3 or 4 hours. Thus, for marksmanship or range practice and for field exercises in general, entire training days or half days should be allocated.

f. Night operations should be computed, for the purpose of the training program, in units of 4 or 8 hours. Adjustment is made in the training schedule of the following day to compensate for the time so used.

■ **130. OPEN TIME.**—Certain periods should be designated as open time on the training program and reserved for the company commander to use as he sees fit. This may be for additional instruction in subjects in which the command as a whole has not reached the desired state of proficiency; for the repetition of instruction previously completed, but for which some immediate need has arisen (refresher or review work); for the additional instruction of recruits or delinquents; for the advanced training of selected privates and noncommissioned officers; or to make up training losses which could not be foreseen.

■ **131. COMPANY TRAINING SCHEDULES.**—*a.* Training schedules are issued by a company commander for the training of his unit which is to be done directly under his own command. They are based upon the programs and orders of higher commanders and upon the present stage of training of his unit. They are generally in tabular form and outline what is to be done; how, when, and where it is to be done; and the uniform and equipment required. If complete, no additional information is required for training during the period covered by the schedule. Only short training periods should be covered, such as a week, or a short encampment, because many interruptions will occur if the training is scheduled for a long period.

b. The form shown in appendix IV is applicable to a company training schedule.

■ **132. PREPARATION OF A COMPANY SCHEDULE.**—Much of the discussion contained in paragraph 130 is also pertinent to the task of arranging the sequence of instruction in various subjects within the training day. In order to avoid undue fatigue, to provide variety, and to sustain the

—Tactical movement



interest of the men, weekly schedules should be carefully prepared. The following points are furnished as a guide:

a. When weather permits, the best time for calisthenics is the first drill period in the morning.

b. Instruction requiring physical activity should be alternated with less strenuous instruction for the sake of variety and maintenance of interest.

c. When any subject is to be presented by the lecture method, the early morning periods, when minds are alert, are by far the best. The first period in-the afternoons is the poorest time for such instruction.

d. In general, morning hours of instruction are much more valuable than those of the afternoon. The training subjects demanding the most application or concentration on the part of the soldier should be presented during the morning periods, reserving afternoon hours for subjects involving action and movement in which individual interest can be maintained without great effort.

APPENDIX I

TRAINING MISSIONS

■ **12. REGULAR ARMY.**—*a.* To maintain every Regular Army unit in condition to function effectively, at existing strength, in; its assigned role, under war conditions, without further training.

b. To provide a corps of efficient instructors for peacetime training requirements of the National Guard, Organized Reserves, Reserve Officers' Training Corps, and Citizens' Military Training Camps.

c. To provide as many trained officers, noncommissioned officers, and specialists as possible for use in reconstituting inactive units, or otherwise assisting in carrying out a complete and immediate mobilization in an emergency.

d. To develop the art and science of war with a view to modifying the tactics and technique of the various arms and services as may be necessary in order to utilize the latest developments in science and invention.

■ **2. NATIONAL GUARD.**—*a.* To maintain every National Guard unit in condition to function effectively, at existing strength and without further training, when employed in emergencies by the State or Federal authorities.

b. To provide a trained force for employment in time of war as a component of the Army of the United States.

NOTE.—For other regulations governing National Guard training, see National Guard Regulations No. 45.

■ **3. ORGANIZED RESERVES.**—*a.* To qualify each Reserve officer for the duties of his war assignment.

b. For other regulations governing Reserve training see AR 140-5 and annual War Department "Reserve Training Policies."

■ **4. RESERVE OFFICERS' TRAINING CORPS.**—To provide systematic military training at civil educational institutions for the purpose of

a. Qualifying certain selected students for appointment as second lieutenants in the Officers' Reserve Corps.

b. Developing initiative, leadership, discipline, and high physical, mental, and moral standards in the individual.

c. Providing for national defense purposes a potential reserve of partially trained civilians.

NOTE.—For other regulations governing the training of the Reserve Officers' Training Corps, see AR 145-10 and 145-30 and courses of instruction issued by the War Department.

■ **5. CITIZENS' MILITARY TRAINING CAMPS.**—To provide a means whereby young men may be given basic military training and instruction in the privileges, duties, and responsibilities of American citizenship to qualify them for more effective service as American citizens in time of peace or during a national emergency.

NOTE.—For regulations governing the training in Citizens' Military Training Camps, see AR 350-2200 and training programs issued by the War Department.