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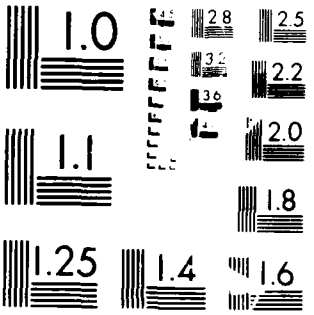

~~DRAFT REPORT OF THE STUDY GROUP~~ (never finalized)

ARMY TRAINING STUDY

The contents of this draft report are those of the study group and should not be construed as an official Dept of Army position unless so designated by other official documentation.

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The Army Training Study (ARTS Study) conducted a comprehensive review of Army training. The Army Training Study Group research encompassed a wide range of training issues as it sought a broad perspective of army training.

A conceptual training system, the ARTS Model, was based on the concepts developed by the study group concerning what army training is, ought to be and should do. This model was used to define the objectives of training.

The study group conducted field surveys and other data collection at numerous continental US Army posts and schools. The data obtained was analyzed using the Training Effectiveness Analysis (TEA). This analysis was used to determine the state of army training.

The study group also developed the Battalion Training Model (BTM). The BTM is a computer modeled analysis tool used to analyze training resources available and predict training levels attainable with those resources. (continued on reverse)

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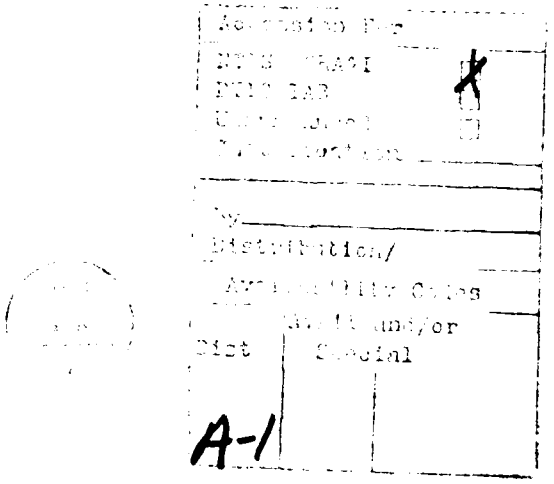
Block 19. Abstract (continued)

The Final Report Summary provides an overview of the guidance received by the study group, the study group's observations of army training and their recommendations for improvement of army training.



EXECUTIVE SUMMARY

The report of the Army Training Study is submitted to Commanding General, TRADOC, in accordance with guidance received in the Study Directive, dated 6 October 1978, and revised, 27 February 1978.

The initial mission of the study was to:

- determine functional relationships between training resources and combat effectiveness.

- determine training programs required to optimize the capabilities of major new weapons systems programmed for delivery to the force in the 1980's.

The following objectives were stated:

- determine functional relationships among resources for institutional and unit training, the individual and collective training programs of the Total Army training system, the resultant training readiness, and combat effectiveness.

- determine optimum mix of individual training programs conducted in the training base and in the force.

To accomplish the missions and objectives, the ARTS Study Advisory Group (SAG) approved the following seven major issues:

- develop resources and training programs required to achieve training proficiency within the current Total Army individual and collective training system.

- develop a common costing program for training which accurately addresses and interrelates both institutional and unit training costs, (dollars, people, and time).

- develop suitable measures of training proficiency and appropriate standards of training readiness applicable to a readiness reporting system.

- develop the optimum mix of individual training programs conducted in the training base and in the operating force.

• develop training programs required to facilitate the rapid, efficient, effective, transition of the current Total Army from peacetime through sustained wartime overseas combat operations in conjunction with allied forces (Europe, NE Asia).

• develop a methodology which establishes the relationship between training programs and proficiency and combat effectiveness for the current total Army.

• develop a policy/program "roadmap" to an effective, efficient and justifiable training system for the 1985 Total Army.

In addition to specifying these major issues, the SAG also indicated certain areas which were not required to be addressed. These were: medical/legal/chaplain training, flight training, special mission training (UW, Ranger, ABN), officer acquisition/professional development, mandatory administrative training (EO, safety, SAEDA, etc.), civilian training (civilians, civilian institutions), organizational effectiveness training (treated tangentially), environmental training (Arctic, jungle), and nuclear/CBR training.

In February, it became evident that available training data as well as that which could be expected from the ongoing ARTS-sponsored Training Effectiveness Analysis (TEA) were insufficient to respond to the broad initial guidance--thus, new guidance directed the study to:

• maximize the integration of collective and individual training in units (to ARTEP and SM standards).

• specify the frequency of training in ARTEP tasks.

• relate training in ARTEP tasks (including enabling individual tasks) to resources and to readiness (a resource-related hierarchy of training, including frequency of such training, tied specifically to levels of readiness).

• if possible, attempt to describe plausible premobilization training strategies for Reserve Component units that will permit them to minimize the time between mobilization and deployment.

In analyzing the above, the study gathered and assessed data on the following tasks:

EXPRESSED TASKS

Define individual and collective training requirements.

Maximize integration of individual and collective tasks.

Specify frequency of training requirements.

Determine proficiency as function of frequency.

Determine proficiency as function of turbulence.

Develop a training hierarchy that relates resources, requirements, and frequency to levels of readiness.

IMPLIED TASKS

Tie readiness to Mission/ARTEP/SM tasks (requirements).

Determine time, dollars (parts, POL, and ammo), training areas/facilities and people (resources) for proficiency.

Factor in officer/NCO fill and time for nontraining activities to address training readiness.

The Executive Summary will describe how the Army Training Study has responded to the revised guidance; however, to fully appreciate the impact of the findings, the reader should appreciate the ARTS perspective of current training and the training environment.

Highlights of this perspective, based upon extended study of training in the Army are:

- training is not seen as the Army's actual primary peacetime mission. It is one of several competing missions.

- many units in the Army are not training today to the standards necessary to win outnumbered on the modern battlefield.

- training distractors have nurtured general tolerance of low training standards by many officers and noncommissioned officers.

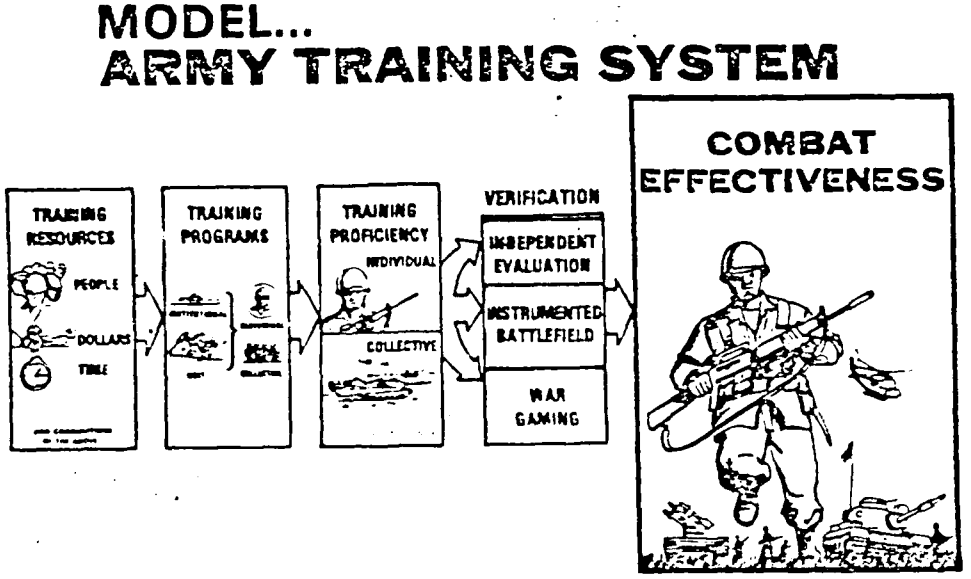
- many trainers (officer and noncommissioned officer) do not know current training philosophy--they do not know how to train.

- there is no coherent, overall training system known and practiced across the Army.

- high turnover, and in particular, internal turbulence mitigate against achieving the high training readiness required to execute our mission.

The ARTS challenge was to respond to the guidance while addressing the implications of the difficult training environment. The first step was to

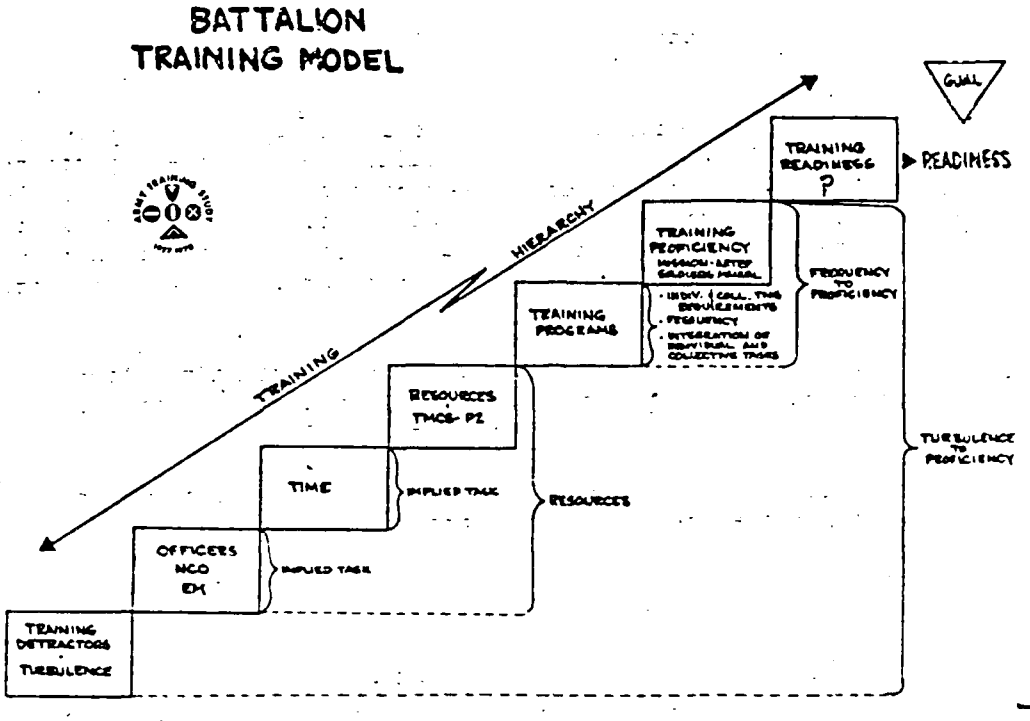
develop a framework--a methodology--to attack the problem. This was done with a general training model which depicts a close relationship among resources, training programs, training proficiency, verification and combat effectiveness.



BTM

The key to establishing those relationships which respond to the guidance is the Battalion Training Model (BTM). The basic problem to solve is "how much training is enough?" Can we afford to do the required amount of training? What are the resource impacts? What is the best way to train--the most efficient, certainly the most effective? The Battalion Training Model provides "first generation" answers. Closely paralleling the ARTS conceptual model, the BTM translates attitudinal and analytical data into training facts. In short, it simulates the environment of a typical unit by considering many of the variables and goals present and desirable in that environment.

Using goal programming, an advanced variant of linear programming, the BTM describes and analyzes the complex unit environment. This is what it accomplishes----



It works by relating:

- training distractors such as turbulence
- officer/NCO fill, capability of trainers to train and soldiers to accept training
- the availability of trainers and trainees for training
- allocation of unit training time, ammunition, repair parts, POL costs, and training areas
- length of time to train and frequency of retraining for various ARTEP/soldier's manual and mission tasks
- proficiency of individual and collective tasks
- training readiness as described in training days required for combat readiness.

Although accomplishment of a specific training program is currently considered attainment of training proficiency, this approximate formulation will be tightened up when additional verification methods such as the Multiple Integrated Laser Engagement System (MILES) and the National Training Center (NTC) are available.

Currently, the BTM can do a variety of analyses. It can, among other things.....

• describe the training readiness impact of different levels of dollars, turbulence, officer/NCO fill, present-for-duty strength and time. For example, it can be demonstrated that Mechanized Infantry battalions experiencing high levels of trainer grade substitution (on the order of 40 percent) will fall almost 20 percent short of completing the fully integrated training program required to be combat ready.

• describe optimal training programs (tasks, time, frequencies) for given conditions of turbulence, fill, present for training, and various levels of resources and readiness. Initial versions of optimally integrated programs, described in terms of the training events to be conducted and the distribution of unit time, have been developed for the present Army environment as well as high and low policy alternatives. For example, an optimally integrated training program can be executed in approximately 50 fewer training days at 20 percent turbulence than at 35 percent.

• outline a suitable training program (tasks, times, frequencies) and resource mix (dollars and time) to accomplish training required for various levels of readiness. Initial analyses have developed post-alert training packages for units with 1, 5, 10, 20 and 30 training days available after alert. In addition, packages describing the accompanying sustaining programs for normal peacetime training have been designed. As an example, there is an approximate $20K difference in annual P2 cost between training programs for a battalion allocated 5 days for post-alert training and a similar type battalion allocated 20 days for post-alert training.

The BTM is new--a first generation research tool. Additionally, as in any "bread board" program, it requires a large computer and a high degree of expertise to use. To realize the full potential, extended developmental effort is required. Follow on should.....

• firm-up softer areas such as training areas/facilities, equipment availability and ammuntion costs.

• further validate individual and collective task integration factors.

• validate time and frequency of repetition. Confirm proficiency as a function of frequency.

In short, data, particularly that derived through survey should be validated by rigorous analytical testing. Additionally, the BTM must be ...

- simplified
- miniaturized
- made compatible with ADP support available to units

TEA

The primary supporting arm of ARTS has been the Training Effectiveness Analysis (TEA) program. The process, developed by TRADOC, was adopted by ARTS to analyze both institutional and unit training. It did three things....

- provided some of the data necessary for the BTM
- provided information as to current deficiencies in the TEA process and needed corrective actions.
- provided valuable insights as to the general state of training in the Army.

Three distinct TEA programs were developed by ARTS....

- TEA 78 - tests across a range of combat, combat support and combat service support systems/skills (M60A1/11E; Redeye/16P; TOW/11H; FO/13F; mechanic/63C/H and radio operator/05C; supplemented by research into such completed tests as CAMMS, REALTRAIN and Chaparral).
- TEA 85 - develop data to ensure effective, efficient training to support weapons systems in the 1978-85 timeframe.
- TEA 79 - bridge from TEA 78 to 85 through a wrap-up of ongoing and limited follow-on tests to validate and refine ARTS findings.

As with any group of tests, some were very good and some were poor, (conduct and results). Findings, however, indicate that the general level of training proficiency in many test samples is not good. Although the demonstrated performance of soldiers in institutional training was generally high and rapid train-up of tank crewmen demonstrated performance potential, many tests indicate low performance standards. For example:

- a majority of tank crewmen in a sample of 1288 express a need for more and better training in units.

• basic tank crew gunnery knowledge by key personnel is uniformly low. 21/28 percent of the gunners surveyed in USAREUR/CONUS respectively did not know where to aim when engaging a target with bat sights (17/21 percent of surveyed tank commanders had the same problem

• category IV personnel are unable to learn the Redeye range ring profile.

• experienced maintenance personnel in units (E-4 to E-7) performed at a low level of proficiency (equivalent to or below the skill level 1 AIT graduate).

The above are presented merely as disturbing indicators. Additional test results and analysis can be found in chapter VI of this volume and in the Data Book--a book of data from field tests, results of surveys, and opinions of military observers consolidated and categorized under one cove so that the data can be used conveniently by several echelons of training management personnel.

The Army Training Study has conducted a comprehensive overview of training. In responding to the very broad initial guidance, our research probed across a wide range of training issues as we sought broad perspectives of Army training. When the guidance was revised in February, we had already assimilated a great deal of information, which provided vital insights to the understanding of a training system. While the new emphasi was on gathering hard, analytical data and developing the Battalion Training Model, it has been impossible to avoid observations as to these even broader issues. The following observations are issue-oriented extensions of the conceptual objective training system--the ARTS Model--outlined in the Concepts volume. They serve to reinforce and expand on Training Effectiveness Analysis tests and the results of Battalion Training Model analyses. Additionally, they serve as a frame for further analysis and study as described in the Issue Index appended to Chapter VII, Conclusions and Recommendations, of this volume. A brief synopsis of each major topic area follows.

The Training System

• The Army does not have a unified, coherent training system.

• Training cannot improve significantly until we have a total training system.

--Central to any review of training is a basic understanding of where the Army is now with regard to training and how we see it "fitting" as a major Army management system with its own unique resource demands.

Although there are many positive training trends and the training

community has accomplished a great deal, the fact is--much of the Army isn't conducting good training--certainly not to the extent that it must to win outnumbered. The reasons are many--some are understandable, but many seem not. A major contributing factor may well be the lack of a real training system--one that cuts across not only tactics, administration and management, but also across the development, readiness and resource systems. Just as the maintenance system receives emphasis through objective measurement criteria, performance roadmaps (lube orders and services), specialist personnel (TAMMS, PLL) and command inspections (COMET, CLRTX, etc), so should the training system. Without the same total systems approach, disturbing indicators observed in some Army training will be very difficult to overcome.

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Reinforce Success-Soldier's Manual/ARTEP

• Soldier's manuals and ARTEPs are basically good but incomplete.

• Training will not be sufficient until we assist the small unit commander with "how to train" support material.

--The soldier's manual/ARTEP concepts are valid and constitute a significant step forward in the organization of training. Training decentralized to unit NCOs and targeted on job performance and MOS qualification of each soldier is the key to individual proficiency, while unit effectiveness is built on training specific tasks under a prescribed set of conditions and standards. Although neither soldier's manuals nor ARTEPs should be substantially altered, since they reflect a model appropriate for training the Total Army, some expansion is in order. Specifically, trainers want and need more guidance on "how to train"--suggestions on how best to integrate training, how to get the most from limited resources, and how frequently training is required to maintain proficiency as measured against operational requirements and wartime standards. The Army also needs to look again at objective verification--in short, it must set up a standard against which proficiency can be measured. Specifically, the question should be answered, at what level is it appropriate to test individuals and how can the verification of training be implemented in units so as not to degrade the diagnostic nature of the ARTEP?

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Standards to Win on the Modern Battlefield

• There is only one standard--combat ready--fight and win tomorrow--outnumbered.

--The standards required to accomplish successfully the Army's mission

in NATO are best expressd by the concept of the 95% battlefield. That i the standards reflect 95% of the design capability, be it for weapons or the specific tasks, conditions and standards of individual, collective, a mission proficiency which are prescribed in the soldier's manual, the ARTEP, or unique mission training requirements of Operating Commands. There is one dominant objective for training programs; that is, to produ a unit which is combat ready to accomplish assigned missions to prescribed standards. Any measurement system for training readiness should relate the continuing proficiency of the unit to this single objective.

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Readiness Through Standardized "Battle Drills"

• Standardized training and battle drills--multiechelon integrated training--are the way to achieve and maintain high training readiness.

--Training has improved and will continue to improve as the soldier's manual and ARTEP are further refined and as more leaders understand the training system. This, however, is not sufficient to develop the proficiency required on the battlefield for which the Army must be prepared. Units must adopt decentralized, multiechelon training, taking maximum advantage of the flexible integration of individual and collective tasks, i they are to gain and maintain the required levels of proficiency. Provision of standardized crew and unit "training drills" and "battle drills", extensions of the ARTEP, designed by TRADOC to achieve maximum integratio with recommended frequencies of sustainment training, is the best way to encourage integrated unit training. These drills provide the added benef to soldiers of learning individual skills in a scenario in which they wil fight, thus retarding learning decay. Furthermore, extended use of training support materials (Training Extension Courses (TEC), REALTRAI , MILES) presents the most probable method for the Army to enhance levels o training readiness despite reduced resources, in that each encourages a more resource efficient training environment.

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Independent Verification Essential

• Verification of individual and collective proficiency (TAC EVAL) is a prerequisite to a tough, trained Army.

--The training system will not be a rigorous, fully effective system until there are independent evaluation techniques established. The SQT measures individual proficiency as prescribed in the soldier's manual. ARTEP is a valuable assist to the development of collective task proficiency, but it should not be tied to an independent evaluation system lest its diagnostic value be lost in a confusion of roles. Independent measu

of collective proficiency and mission readiness should be implemented by verification which is separate and distinct from ARTEP, such as an operational readiness test or tactical evaluation (TAC EVAL). However, collective proficiency will be extremely difficult to measure until the Army possesses hit/kill simulation devices tied to an instrumented battlefield. For this reason, the development of an instrumented NTC and the subsequent establishment of standards for the measurement of collective proficiency are high priority tasks facing the Army today.

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Units "Drive" the Training Base

• Combat ready units require combat ready soldiers from the training base.

--Unit training proficiency is the baseline and ultimate arbiter of requirements for the training system. Resources (people, dollars, and time) are required based upon the proficiency and readiness requirements of the various units in accordance with their assigned missions. Similarly, the responsibilities of the training base for entry level training are determined by what individual training can be conducted by units while maintaining the level of training proficiency required for mission readiness, not by the capability or the cost-effectiveness of the training base. In short, the capability of the unit, governed essentially by the quality of the noncommissioned officer corps and the availability of resources, not the capability of the training base, determines training base requirements. If the unit must be combat ready within a matter of hours, the training base must produce a combat ready soldier.

Comparability of Resource Value

• Resource allocations must balance the tradeoff among people, dollars, and time to ensure the greatest training benefit is derived from each resource--separately and in combination.

--Training to meet tough demanding standards is expensive. The focus of attention tends to be on the dollar cost of the training, since training costs aggregate over the lifetime of the system. People have become an increasingly significant cost factor, particularly as complex equipment demands highly skilled operators. After both dollars and people have been provided, both the skill of the trainer and the amount of time available to train at the "cutting edge," the small unit echelon, will determine the use of resources. To gain full value from scarce resources, the Army should allocate them such that there is comparability of resource value. That is, the marginal utility of each of the resources (people, dollars, and time) should be approximately equal at each echelon of the command. A common resource costing methodology applied across the Army will permit the analysis of comparability of resource value.

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More Resources for Training

• Trainers need additional resources to train the required combat ready soldiers and to provide quality training support material.

--Insufficient training resources are a problem prevalant at every level, from the major institutional trainer--TRADOC--to the crew and squad in the field. Past resource cuts which have been absorbed by the training base have not in many cases been offset by new techniques or training developments which will permit the field to assume the additional training responsibility. Specifically, much of the training base lacks the necessary personnel to permit rapid development and fielding of quality training support material consistent with new equipment and doctrine. At the fighting level where people and time dominate, other priorities mitigate against achieving individual and collective training readiness in the time available. Therefore, the wherewithal to produce the fully combat ready soldier required by the time-constrained unit should be provided to the institution. Additionally, some units lack enough quality NCOs to execute their individual training responsibilities and do not have the support of training "experts" comparable to that provided in the logistics and personnel systems. The Army should review measures to assist all commands in overcoming these problems by minimizing training distractors and by providing additional expertise to TRADOC through such measures as increased use of Reserve Component personnel during additional training assemblies or temporary hire of qualified retired personnel.

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Endemic Instability

• Turbulence and turnover are "facts of life." The best counter is to stabilize trained leaders.

--Turbulence and turnover pose serious problems for the commander attempting to maintain high levels of training readiness. The crux of the problem, however, is not total personnel turbulence, but rather turbulence of leaders at the E-6 level and above. Personnel and training management should focus on the development of leader skills and stabilized leadership. The instability of individual soldiers is and will remain common both in peace and war. The trainer should be conditioned to develop ready units in the face of personnel instability.

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Equip the Man and Man the Equipmnt

• We must equip the man and man the equipment--train generalists.

--The Army has no choice between equipping the man and manning the equipment. It must do both. By the same token, the battlefield for which the Army is training requires mastery of complex weapons as well as sufficient redundancy of skills such that high losses could be taken and substantial fighting capability would be retained. This means that the individual soldier must remain a generalist rather than a narrowly trained specialist. This will be difficult as equipment becomes more complex and as less capable personnel may be brought into the Service. The key, however, lies in a dramatically more efficient training process which is offered to the Army by performance-oriented, multiechelon, integrated training. The challenge is to design our support systems such that "equipping the man" and "manning the equipment" are not mutually exclusive objectives. This presents a significant challenge to TRADOC in establishing a training base producing trained combat ready operators and maintenance personnel. The trainer must also provide to the materiel developer, normally DARCOM, the "what and how" of training needs relating to a specific materiel requirement. Subsequently, the materiel developer must ensure that the training requirements developed by TRADOC are fullfilled by the ensuing developmental and production effort. The easy finesse of the issue is to say "equip the man" or "man the equipment." The answer must be to do both.

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Flexibility Essential

• We must build a flexible training system--as capable for war as for peace.

--There is not just one Active Army. There are, in fact, at least three--CONUS, USAREUR, and Korea. This is caused primarily by significantly different personnel policies and by the varied levels of training readiness dictated by assorted warning times prior to commitment. The resource requirement impact caused by reductions in warning time is generally misunderstood. This needs to be made explicit, particularly as it can affect the resources required for the CONUS Army if it is to be maintained ready for virtually immediate overseas reinforcement. Since the same training standards are desirable, the same resource standards are required for certain CONUS units as well as those overseas. Some immediately reinforcing CONUS units will receive virtually no train-up time prior to deployment; they must always be ready. The training system should be sufficiently flexible to accommodate the very different situations within the Active and Reserve Components as each prepares for the diverse requirements of the forward deployed, the early deploying and the follow-up forces for NATO reinforcement, as well as the training demands of unanticipated yet certain deployments to other contingency areas. Flexibility should also stimulate innovation by unit trainers.

Responsiveness to diverse challenges must be the preeminent characteristic of the training system and the Army it supports.

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Application of Training Technology to Operational Problems

• Training must be keyed to our operational problems--our missions.

--A number of remarkable advances in training technology have occurred since 1973. Most of these changes are being assimilated by the Army, albeit slowly. The focus of Training and Doctrine Command has been to continue to develop the fundamental training doctrine and to stimulate the assimilation of new training techniques such as instructional systems development. However, the application of this new training knowledge to specific operational problems of the Total Force has not been emphasized sufficiently. An example is rapid upgrade training of units about to deploy on contingency operations or replacement training for equipment-sensitive units. A concerted effort needs to be made to apply systems-engineered training advances in the form of training packages, mobile training teams/organizations and simulation to pressing readiness problems.

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The "People Problem" is Satisfying Training

• Good training is the key to satisfied soldiers.

--The morale and welfare of individual soldiers must remain a serious concern of the chain-of-command. Genuine concern about individual problems and a satisfactory work environment are important; however, the most significant "people problem" is to provide the job satisfaction which can be significantly enhanced by quality training to a standard of excellence. Job satisfaction, realized through good, demanding training is a multiplier of morale for an army--volunteer or conscript.

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Subjectivity of Combat Effectiveness

• Training proficiency and training readiness can be measured objectively but overall combat effectiveness is subjective.

--As soldier's manuals and ARTEPs proliferate, and as objective verification procedures are established, training readiness becomes more susceptible to objective measurement. However, the objectivity of

measuring training readiness must be counter-balanced by subjective formulations of overall combat effectiveness. The subjectivity could be described by the combination of tactical readiness (the capability of a commander and his staff to integrate battlefield systems) and leadership. The overall formulation of tactical readiness and combat effectiveness must remain subjective.

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Central to justification of the current system and evolution of one which is more structured is the requirement for the Army to train its forces to a level of proficiency that will ensure defeat of any enemy. To train less capable soldiers to these high levels of proficiency on new, sophisticated equipment in a cost constrained environment, the Army's training programs must accommodate the properly integrated mix of critical tasks in the institution and in the units.

Once it is assured that proficiency has been reached, continuing validation through training readiness evaluations should occur. This verification will justify the differential between actual performance levels and desired capability, and will provide feedback to generate new resources, new programs, and higher proficiency. Once this closed loop network is established, Army training will have evolved into a more rigorous, "total" system. By continuing to rely on a refined Training Effectiveness Analysis program to test and validate soldier and equipment capabilities, and the Battalion Training Model to justify and describe efficient and effective training, the Army can be better assured of achieving and maintaining the combat effectiveness which will lead to victory on the modern battlefield.

Having reflected on the results of the Battalion Training Model sensitivity analysis, Training Effectiveness Analysis tests, surveys, field visits, and interviews with a number of senior active and retired officers, the Army Training Study Group concludes that training should be viewed as a total system comprised of simple and complex relationships among trainers, trainees, weapons, equipment, environment, resources, distractors, incentives, and various other elements. The system "whole" is much greater than the sum of the "parts"; there is danger in focusing overly on the separate "parts."

What is needed is the implementation of an Army Readiness Training System designed to raise the standards of training such that soldiers are trained to a state of combat readiness needed to win on the 95% battlefield. A conceptual framework for a workable and justifiable training system is provided by the ARTS training model which depicts the close relationship among resources, training programs, training proficiency, training readiness , verification and combat effectiveness. To apply this concept to operational problems requires the development of a system designed to deal with the myriad of training problems. The training system developed by the Army Training Study lays out, in

varying degrees of detail, such a system. The recommended Army Readiness Training System described conceptually in the ARTS model, consists of:

• Standards of Excellence. There can be but one standard--95% combat ready--as measured by external test. A fully operational and respecte external verification system will provide both the measure and substantiation of the proficiency output which results from the allocation of train resources.

• Training Effectiveness Analysis (TEA). The ARTS TEA program, designed to support the ARTS model, provides the objective information necessary to ensure system efficiency and effectiveness.

• Descriptive Training Programs. BTM-designed, TEA-supported training programs are implemented through the use of training and battle drills which are multiechelon, integrated training exercises. These programs are structured such that, if properly executed, the using unit will attain the 95% ARTEP/SM standard of combat ready.

• Prescriptive Training Resource Model-Battalion Training Model. Through goal programming, the BTM can use TEA data to prescribe time, people and dollar resources required to develop combat readiness on descriptive training programs.

• Prescriptive Costing Methodology. The prototype ARTS common costing methodology was designed to provide a uniform approach and data trail to ensure comparability of resource value across the entire Army Readiness Training System.

Both the BTM and TEA efforts yielded further conclusions and recommendations. These are in chapter III, BTM, and chapter IV, TEA, and are summarized in chapter VII, Conclusions and Recommendations.

Due to the ARTS exploration of the broad framework of a training system, a number of issues arose which should be reviewed for further study by appropriate agencies. These issues which relate to the formulation of an Army Readiness Training System, appear in the Issue Index at Annex A to chapter VII. Each is referenced to its appropriate place in a study volume.

In summary, the Army Training Study has responded to Army guidance in the following manner:

GUIDANCE	RESPONSE
1. How can the Army maximize integration of collective and individual training in units? (to ARTEP and SM standards)	Battle drill/training drill concept; see chapter II and annex E to BTM Summary volume.

2. How can the Army specify the frequency of training in ARTEP tasks?	Battle drill/training drill concept; see chapter II and annex E to BTM Summary volume, and Battalion Training Survey.
3. How can the Army relate training in ARTEP tasks (including enabling individual tasks) to resources and readiness? (Resource related heirarchy of training, including frequency of such training, tied specifically to levels of readiness)	The BTM: Bn-1, Bn-5, Bn-10, & Bn-20; Training Programs: see chapters III and IV to the BTM Summary volume.
4. In analyzing the above:	
a. Determine the relationships between training frequency and training proficiency.	Battalion Training Survey responses tie frequency of repetition to proficiency & outline relationships for various conditions. See part III of Battalion Training Survey, Volumes I & II.
b. Determine the effect of personnel turbulence on training proficiency.	See part III of Battalion Training Survey, chapter III of the Final Report, chapters IV and V of the BTM Summary volume, and Data Book.
5. The following critical issues resulted:	
a. Determine the resources and training programs required to achieve proficiency within the current Army individual and collective training system.	See descriptive programs and prescriptive training resources model, chapter III of the Final Report Summary and chapter IV of the BTM Summary volume.
b. Develop a common costing program for training which accurately addresses and interrelates unit training costs ($/people/time).	See Common Costing Program, chapters II & V and annex O to BTM Summary volume.

c. Identify suitable measures of training proficiency and appropriate standards of training readiness applicable to a readiness reporting system	See discussion on read in chapter II to BTM Summary volume (i.e., 1, Bn-20, Bn-30).
6. Finally, attempt to describe premobilization training strategies for RC units to permit minimization of time between mobilization and deployment.	Reserve Component Trai Concept Paper; the BTM Bn-5, Bn-10, Bn-20 and Bn-30.

PRODUCTS OF THE ARMY TRAINING STUDY

* • Final Report Summary

* • Data Book

* • Concepts of the Army Training System

  • Survey Data

* • Battalion Training Model Summary

  •• Battalion Training Survey VOL I

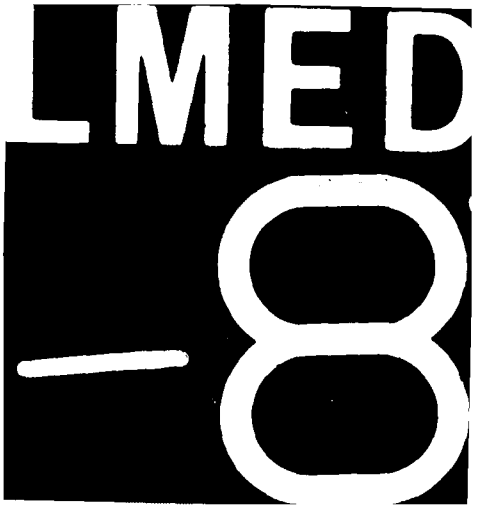
  •• Battalion Training Survey VOL II

* • Training Effectiveness Analysis (TEA) Summary

  •• TEA '78 Test Reports (Approx 5 vols)

  • Administration

* Distributed to SAG/Consultant Groups 7-8 August 1978.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