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OBJECTIVE MEASUREMENT OF TRAINING READINESS

By

Lieutenant Colonel Ronald M. Robinson, Infantry

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The Army's training environment is hostile, and individual and collective training levels are not what they could and should be. Rather than debate the issue, the Army needs to develop and implement an objective training readiness measure (OTRM). If it doesn't, it may be forced to adopt one that does not properly meet its needs. An OTRM must be simple, not an excessive burden on trainers' time and address the impact of skill retention decay and personnel turbulence. To meet the data needs and apprehensions of commanders and key decisionmakers at all levels of the Army, an OTRM must reflect train-

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USAWC MILITARY STUDIES PROGRAM PAPER

OBJECTIVE MEASUREMENT OF TRAINING READINESS

INDIVIDUAL STUDY PROJECT

by

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GLOSSARY
OF
SELECTED TERMS AND ABBREVIATIONS

Army training terms and documents abound with acronyms and

abbreviations--some of which are not universally defined or used

throughout the Army. Further, I have taken the liberty of defining

certain concepts in very specific terms of reference, some of which are

unique to the author and this paper. A review of the terms, definitions,

abbreviations and concepts listed here facilitate reading and under-

standing the contents of this paper.

External Evaluation (EXTEV): A formal, external (higher headquarters)
evaluation of subordinate unit(s) Army Training and Evaluation Program (ARTEP)
mission training to Training and Evaluation (T&E), outline tasks, conditions
and standards. ARTEP EXTEVs are further divided into two types: unit
(company/team and battalion/task force) Field Training Exercises (FTXs),
and subunit (crew/squad/section and platoon) evaluation (SUEs). (Also see
FTX, EXTEV and SUE).

Field Training Exercise (FTX) EXTEV: A formal, external (higher head-
quarters) evaluation of unit (company/team and battalion/task force) mission
training to ARTEP T&E tasks, conditions and standards. (Also see EXTEV and SUE).

Force Readiness: A commander's evaluation of his unit's or subordinate
unit's personnel, equipment and training status with respect to specific
mission mobilization, deployment and sustainment. (Also see Unit Readiness).

Learning (Time) Decay: The measurable loss of learned skills over time.
The loss rate appears to vary between individuals and with the complexity and
number of subskills required. The length of time since training, and
retraining or redemonstration, has a negative impact, although data is
limited on the rate of decay and whether it is changing or constant.

Objective Training Readiness Measure (OTRM): Identifying individual
and collective training status in terms of total requirements and levels
achieved--based on a $\emptyset$ (totally untrained) to 100 (totally trained) percent
standard. That is, an objective, numerical measure of training readiness
to supplement or replace the current subjective evaluation used in reporting
unit training status under the provisions of Army Regulation (AR) 220-1.

Soldier's Individual Training Record (SITR): A proposed expanded and
upgraded version of the current Job Book that would make it a proper record
of the soldier's individual training status. (Also see Soldier's Collective
Training Record--SCTR)

Soldier's Collective Training Record (SCTR): A proposed record of the individual soldier's collective training status, similar in format to the current Job Book, but based on tracking ARTEP mission participation and performance instead of Soldier's Manual tasks (Also see Tracking, and Soldier's Individual Training Record--SITR).

Subunit Evaluation (SUE): A formal external(higher headquarters) evaluation of subunit (crew/squad/section and platoon) mission training to ARTEP T&E. (Also see EXTEV and FTX EXTEV).

Tracking: An idiomatic term meaning the monitoring of a soldier's individual and collective training status--"keeping track of" training received and skills demonstrated by formal record and periodic report.

Training Proficiency: The ability of a soldier or unit to demonstrate "GO/SAT" ability in a set or series of specific Soldier's Manual tasks and ARTEP missions--now, on demand, in a specific combat scenario. Training received, and when, are not considered. Only the ability to perform now is tested and measured. (Also see Training Status).

Training Status: The individual and collective Soldier's Manual task/ARTEP mission training requirements accomplished, a soldier, or a group of soldiers making up a unit within a given time period from past to present. Training status is measured in terms of training received, not ability to demonstrate "GO/SAT" performance now. If trained within the specified time period, it is assumed that the soldier(s) can perform to or sufficiently close to "GO/SAT" standards to be effective in any combat situation. (Also see Training Proficiency).

Turbulence: The constant gain and loss of assigned personnel with different individual and collective skills. The gain/loss may be caused both by PCS change or internal reassignment between subunits or even to different TO&E positions within the same unit.

Unit Readiness: A unit's status in terms of personnel, equipment, and commanders evaluation of training, as reported under the provisions of Army Regulation (AR) 220-1. Unit readiness is not tied to a mission, enemy situation, or geographical area. (Also see Force Readiness).

PREFACE

Almost a year-and-a-half has passed since I completed the most challenging and rewarding eighteen months of my military career, commanding a mechanized infantry battalion. It was my experiences as a commander that provided the genesis of this paper. Since then, I have supplemented my personal experiences, with additional documentary research and a series of unofficial interviews with training and readiness managers and staffs, Headquarters Department of the Army (HQDA), U.S. Army Force Command (FORSCOM), U.S. Army Training and Doctrine Command (TRADOC), and a CONUS division. This data was used to gain additional ideas and insight on the need, potential basis and minimum requirements for a more objective training readiness measure, as reported under the provisions of Army Regulation (AR) 220-1.[1]

For references to official documents and in a limited number of cases where concepts were drawn without personal interpretation from identifiable sources, specific footnote cites have been used. All other views are those of the author which, although they reflect my exposure to a variety of unofficial, training related documents and discussions, in no way reflect official Army views or positions.

I am especially indebted to COL Duke Watson, who volunteered to act as study advisor for this project, to Mrs. Beckey J. Shover, Mrs. Judy K. Lewis, Mrs. Debra L. Chaposky and particularly to Mrs. Wendy J. Campbell for the initial typing of some very rough draft material, and to Miss Carol A. Woods who typed the final version.

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[1] Headquarters, Department of the Army (HQDA) Army Regulation (AR) 220-1, Unit Status Report, Washington, D.C., 15 June 1978 (with change 1).

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CHAPTER I

INTRODUCTION

THE PROBLEM

Despite considerable rhetoric and the very good intentions of many
dedicated, competent and hardworking commanders and trainers, the training
environment in most Army units today is not good--in fact, it has been
characterized by some as "hostile" to good training. Here is an example:

> Commanders and their officers and noncommissioned officers
> complain of being besieged by a variety of inspections, VIP
> visits, demonstrations, and day-to-day degradation of "available
> for training' troop strength through a host of individual-
> centered activities. These include on-duty education,
> surveys and interviews, and medical and dental appointments.
> A sense of unit purpose is further vitiated by fatigue
> details and "borrowed military manpower" for support of
> the host installation. All of these elements detract from
> the obstensibly first priority of the unit, training for the
> potential battlefield. Even when the unit does find time
> and is able to bring together the bulk of its people for
> training, the officers and noncommissioned officers are
> all too often unprepared to conduct such training pro-
> ductively because of their time consuming involvement in
> a bewildering array of administration-laden "programs."[1]

My research included visits to HQDA, TRADOC, FORSCOM, and a CONUS
division. My opinion has not changed. The training environment is hostile
and the level of individual and collective training achieved is not what it
could and should be. Despite the admirable intent and effort of many
dedicated officers and noncommissioned officers involved in the training
of our soldiers and units, the results still leave much to be desired.

The problem is both large and systemic. No one individual--including
the Chief of Staff of the Army--can effect substantial improvement. Within
resource constraints and institutional demands--that is, within the latitude

actually available to our commanders and trainers--they are doing relatively well. But, "relatively well" is simply not enough in terms of a positive training environment and well-trained soldiers and units.

This situation is not new. A 1976 U.S. Army War College Strategic Studies Institute (SSI) study of the Army's readiness reporting system found, "there is a prevalent uneasy feeling that the Army is trying to do too much because it accepts too much to do."[2] More recently, the Army's chief trainer, General Donn Starry, stated that, "out there, training is something done after the priority tasks have been accomplished."[3] In my interviews, these same themes were repeated time and again. One senior officer stated that the business of units should be simply training and maintaining for unit readiness--but that is not where their time is spent and it just permeates the Army with frustration. I agree!

Given the above, the key questions are why--and what can be done about it?

A key problem is that the Army has not adequately identified the levels of training ordered by its soldiers and units. The Army has not established measurable, achievable objectives that support the accepted but ill-defined goal of having "well-trained" soldiers and units. Neither has it established where our soldiers and units are in relation to that goal. There is no requirement for commanders to report the training readiness of their men and units in specific objective terms.

WHAT CAN BE DONE

There are many opinions but little consensus on how to measure training, training effectiveness or, as we now formally report under the

provisions of AR 220-1, the training component of unit readiness. The current system has evolved incrementally, over time. Recommendations for major change require consensus prior to implementation. So far, that consensus has not been forthcoming. This paper does not attempt to develop a perfect replacement system—one that will immediately be accepted as an improvement. Rather, it assumes that there are problems with the current system, and that these problems apply both to high level "macro" decisionmakers and "rubber-meets-the-road" "micro" decision-makers.

The crucial, relatively well documented and continuing argument over whether the Army should or should not adopt a more objective measure of training readiness, and report it as part of our unit status report (USR) system is, therefore, not the main topic of this paper. Rather, it is assumed that the current training readiness measure and system of reporting need to be changed. The rationale underlying this assumption is explained in some detail in Chapter II, where problems with the current system and the needs and fears of commanders and training managers are summarized.

As early as 1976, the SSI study found a ground swell for change to a more objective reporting system:

> The operating elements of the Army desire much more tangible standards for measuring training readiness than now exist. . .
> A strong majority of those surveyed, while recognizing the difficulty, desire quantification in the form of hard and fast statistical standards of training readiness. Conclusion. A very strong body of opinion within the Army believe in the need for quantification of the training portion of the AURRS.[4]

The need is there. "You can't 'tell it like it is' and take corrective action unless you have data."[5] Or put a bit more graphically by a DA

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action officer: We paint a rosy picture up here because the system hides the impact of resource constraints—that information just doesn't come up the line.

Under scarce resource conditions, nothing can be increased without a reduction elsewhere. Telling subordinates to "do more with less" is just not the answer. Lack of a means of measuring the negative impact of reallocating resources from training to other areas has allowed the hostile training environment to develop and the level of individual and collective training to fall to where it is today.

ORGANIZATION OF THE PAPER

Having briefly reviewed whether or not the Army should change to a more objective training readiness measure (OTRM)—and assumed that it should—the paper discusses necessary attributes for such a measure and system, considers potentially useful programs and systems, and proposes a "Model-T" system that could be implemented with minimum development and refinement.

The Army cannot continue to wait for a perfect system. The costs in deferred and unacceptably low levels of training—costs that are not properly reflected in current reporting procedures—are too high. The system proposed in this paper is simple, exploits existing, accepted programs where possible and provides a means of measuring in specific, quantifiable terms, the impact of macro and micro resource allocation decisions on training readiness. I am convinced that implementation of a more objective measure of training readiness, as a part of the AR 220-1, Unit Status Report, can contribute to improve training readiness by highlighting with objective data the current low levels achieved and the previously ignored undesirable impact of resource reallocation decisions.

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CHAPTER I

FOOTNOTES

1. William L. Hauser, "A Smaller Army? Adapting to the All-Volunteer Situation." _Parameters_, Vol. IX, No. 3, September 1979, pp. 4-5.

2. Strategic Studies Institute (SSI), _U.S. Army Readiness Reporting_, Final Report, June 1976 (Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, 1976, p. 46.

3. Donn A. Stary, General, U.S. Army, "Training--Key to Success of Force Modernization." _Army_, October 1979, p. 30.

4. Irving Heymont, Colonel, U.S. Army, Retired, "A Total Force Training Strategy." _Military Review_, July-August 1979, pp. 14-21.

CHAPTER II

THE CURRENT SYSTEM--PROBLEMS WITH IT AND WITH CHANGE

THE CURRENT SYSTEM

The most consistent characteristic of the Army's readiness reporting

system has been change. There is certainly adequate precedent to support

the changes suggested in this paper:

> The US Army's system for the reporting of combat readiness
> data was first formalized in AR 220-1 dated 23 August 1963.
> This regulation superceded a long list of previous DA letters,
> messages, and circulars which in piecemeal fashion comprised
> the previous readiness reporting "system". . . a complete
> revision of AR 220-1 has been published on the average of
> every two years, after its inception.[1]

In 1971, after a series of, "tests, inspections and exercise results,

in an attempt to bring some degree of objectivity to the conclusions

reached,"[2] the Army changed its training readiness evaluation system to

the current commanders' estimate. Under current AR 220-1 procedures,

the USR contains relatively objective measures for personnel and logistics

readiness. This numeric data, expressed in raw and percentage terms,

are transformed into a numerical REDCON or "C" rating. Since 1971, the

subjective measure used for training readiness has been based on the

commander's evaluation of how many weeks of predeployment training is

required for the unit to, "operate effectively in the performance of the

mission for which organized and designed"[3] (i.e. to be fully combat ready).

The number of weeks identified are then equated after comparison with the

availability of specific resources (funds, equipment/material, leaders,

training, facilities, fuel, ammunition and time), to a numerical REDCON.

This mix of relatively objective, numerical and subjective, judgemental data

presents problems for the macro resource allocation decisionmakers at Department of Defense (DOD), and subsequent executive and congressional reviewers; for the processing and reviewing major Army commands (MACOMs); and, for reporting commanders who make the day-to-day and week-to-week micro allocation of their scarce training resources. Basically, hard statistical data drives the train. There is a strong bias towards allocating time and other resources in a manner that improves existing (non-training related) statistical data and objective measures of performance. Training and training readiness suffer accordingly. Also, at the MACOM level, the relative readiness of similar units, important for purposes of mobilization and deployment planning, is obscured.

It is interesting to note that while the Army tracks and reports training readiness primarily "to indicate the current capability of the unit to perform the functions/tasks/missions. . . expected of a unit (in combat),"[4] and only as a "secondary purpose. . . to indicate resource shortfall,"[5] actual use of the data at DA appears to reverse that order. USR data is not used to identify units for contingency planning. Rather, it is used to indicate readiness shortfalls and to guide resource reallocation decisions with respect to units already committed to the various contingency plans.

Finally, and this point needs to be kept in mind throughout this paper, the USR does not measure or report readiness. It measures something--and that something is explained under the general headings of logistics, personnel, and training in the AR. But, that somthing is not readiness, combat effectiveness or any of a number of other mistaken or assumed connotations attributed to the data by various users. The data reported represents only

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what the AR defines, or asks for. If training readiness is defined as a commander's subjective estimate of training weeks--terms that are not very specifically defined as to where, at what strength, with access to what facilities, for what level of combat, where and against what sort of energy force--that's all you are going to get, an ill-defined estimate. It will be the commander's estimate not only of weeks, but also of all those other intangibles. Is this bad? Not necessarily, particularly if you want to measure general combat effectiveness in a future environment where the above information is unknown--contingent. But, it does cause mobilization and deployment planners, and macro and micro resource allocation decisionmakers problems!

WHO NEEDS WHAT AND WHY

As discussed above, our current USR is an "A Priori" status report of "unit readiness"--readiness for any mission, any where, any time. Except for training, it's focus is clearly an objective tracking of unit status in terms of specific, objective logistic and personnel criteria. Training, however, is strictly a commander's subjective evaluation--although still in terms of any mission, in any place, for any time. A counter-concept, one that is most visible in FORSCOM, is that of "force readiness." Force readiness is defined as a commander's subjective evaluation of his units' readiness and on his knowledge of the mission, enemy, situation, theater of operations and etcetera. He can use his force readiness evaluation to tailor a force to a specific set of circumstances. This concept is not FORSCOM peculiar, and with the growing interest in a Rapid Deployment Force (RDF), it could well become the driving force in future USR changes. However,

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it is not the concept underlying the current USR system. The point of all this is to identify "force readiness" as a legitimate concept; but one that will not be considered in this paper.

A U.S. Army War College text states that "the central issue is, what is likely to be the most accurate measure for judging the combat readiness of a specific unit . . . a fixed system of rules and standardized criteria or the professional judgement of the responsible commander?"[6] This question implies a unit readiness concept. The text later finds that: "Readiness is relative and highly sensitive to standards selected. Therefore, it is imperative to establish fixed parameters against which to measure readiness."[7] I agree with this view.

Who needs training readiness data? Functionally, there are producers, processors, and users. First, there are the division level producers (separate companies and battalions) and initial processors and reviewers (brigades/groups, divisions, and posts, camps and stations). Next, are the MACOMs (and corps) which use the data for resource (usually in terms of personnel and equipment--but also budget dollars) allocation purposes, and to aid in contingency plan support and mobilization. Finally, there is HQDA and above, where the data is a key management tool for both operational and resource allocation decisionmaking.

Other needs have to do with the unit commander, his level of command, span of control and ability to personally evaluate the training status of his unit. There is a continuum here, from squad level to DA. At the lower end, the squad leader can personally evaluate the training status of his squad without the need for a lot of statistical data (although he needs a hard copy record to track individual training status). At HQDA,

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the Chief of Staff of the Army cannot personally check the training status of each battalion, division or MACOM in the Army. He does develop a personal feel for the status of the total Army by direct sampling. But, for any detailed evaluation or for a detailed look at a particular unit, he must use secondary sources. Because of this dependency on indirect data, he needs both objective and subjective information if he is to develop a realistic picture of the status of the Army and its various units.

At about the level of the division commander, the proportion of direct personnel data to indirect, interpreted and reported data reverses itself. It is at this point that the sampling problem becomes too great, and commanders must go to written, numerical and usually secondary data sources.

There is considerable published data to support that at HQDA and above, objective data is desired. A recently completed DOD study of Combat Effectiveness Training Management (CETRM), found that, "Quantifiable measures of the Army's direct combat skills are poorly defined in a peacetime environment;"[8] "there is no current method to formally track the individual's training progress development;"[9] and, "no one in the Army has a system to efficiently translate effectiveness and efficiency indicators into dollar requirements."[10] The CETRM Study also found:

> Army training managers and decisionmakers at MACOM and DA level do not have accurate and timely assessments of unit training from which to make decisions.

> The ARTEP is a method to assess training status of battalion-sized units. However, results are generally unavailable above division level.[11]

It recommended:

> The Army . . . develop a comprehensive training readiness evaluation and feedback system to provide decisionmakers at all levels with appropriate, realistic and timely information on training status.[12]

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In early 1979, HQ TRADOC completed an extensive Army Training Study (ARTS) for HQDA. Although the study itself is still undergoing review and has not been approved, HQDA did direct four follow-up actions—including, "development of objective training readiness measures for unit status reports."[13]

HQDA (and higher) desires for a more objective training readiness measure are not necessarily matched at the MACOM level and below. Although, the 1976 SSI study did find support for a more objective measure of training readiness at division level and below:

> The AR gives a commander quite general standards and instructions to use in determining the training REDCON of his units . . . these general yardsticks are considered by most battalion and company level commanders interviewed to be far too open ended. They indicated a preference for a more detailed, more objective training readiness measurement system which in their words would elevate the determination of training REDCON from a "gut feel," "can do," "arbitrary" or "wild guess" exercise.[14]

> The "men in the field" are asking for criteria, milestones, benchmarks, guidelines . . . whatever equates to performance oriented standards which they can use to properly portray their training situation.[15]

As discussed at the end of this chapter, some commanders have reservations.

Training readiness reporting implications are not surprising; data needs and perspectives are different at different levels of the Army hierarchy. An OTRM and supporting reporting system must at least meet the minimum needs of all levels to be useful and (important for a new system) accepted.

The problem, however, is not as simple as the preceding discussion would indicate. There is the need to "objectify the training portion of the USR"[16] in order "to be able to make decisions and answer questions

on how much training proficiency and readiness is being bought and

at what price."[17]   But, also, there is a fear of misinterpretation and

misuse of such data. This has effectively precluded change of the Army's

current subjective training readiness measure to a more objective measure

and reporting system—despite substantial recognition of need and HQDA's

commitment to change.

THE DANGERS—MISINTERPRETATION AND MISUSE

> Trafficing in statistics is a growth industry in the US Army
> today. The effect is depersonalizing, dispiriting, stultifying,
> misleading, and inefficient. It detracts from combat
> readiness. . .[18]

Commanders and training managers at all levels of the Army, particularly

at MACOMs and below, fear two things with respect to replacing the current

subjective judgement system with a more objective measure. One is

misinterpretation; the other is misuse.

During my interviews, misinterpretation fears were expressed in

terms as: (1) People that don't understand where it comes from and what

lies behind it will take the data reported out of context and misinterpret

it; (2) Once you get the data, who will look at it? An outsider, with

all the intangibles gone!; (3) People can and will isolate the data

generated. There is a danger in how it would be used and what it would

be used for; and, (4) The tie for training to combat effectiveness must

be a commander's subjective estimate—it's too complex to quantify

simplistically!

The misinterpretation issue is almost an outsider/insider fear. It

suggests that while military professionals can, because of their knowledge

and experience, replace the "intangibles" and properly interpret data on

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the basis of an acceptable understanding of its simplifications, hidden assumptions, etcetera, others won't be able to do so. Army experience with the press, DOD systems analysis, OMB budget review, senators, representatives and their staffs, and even the public, have verified this apprehension on more than one occasion.

The fear of misuse is qualitatively different, although some misuse is likely to result from misinterpretation. The fear here is that of inappropriate use of objective data by insiders--particularly chain of command superiors:

> My strong impression is that it is senior officers who are too busy, too insecure, too inept or too lazy to get out and evaluate their subordinates first hand, who are too often tempted to rely on safe statistical comparison . . . the neat and concrete documentation of statistics can be substituted for professional judgement.[19]

The preceding is an overstatement of a very real problem for senior commanders who are separated from large portions of their commands by physical and hierarchical distance, or whose span of responsibility is great. The basis for this fear was also expressed during my interviews by commanders and training managers at all levels of the Army--particularly with respect to any attempt to change the ARTEP from an internal diagnostic tool to an external proficiency evaluation measure: (1) Putting numbers on the ARTEP frightens me; (2) If you link the USR to the ARTEP, which is a training device, you destroy both; (3) Data will drive the train-- commanders will train only to and for the numbers; and (4) Someone will try to use the data in lieu of a commander's judgement on what he should or should not have done.

Both fears have a basis of legitimacy. The misinterpretation problem is the more serious one, because it is effectively out of the Army's control.

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"Outsiders" will have access to data. The Army must seek to provide it in a proper context, and to accept the fact that that will not always be possible and some external misinterpretation and misuse will occur. It's a cost that cannot be denied nor evaded.

One junior officer asked me whether we (the Army) are really afraid of out-of-context review--or just the surfacing of "bad" stats? That is:

> It is apparent that introduction of tentative criteria
> was viewed with some concern because it would result in
> reporting lower REDCON ratings in training. This in turn,
> it was feared, would result in undue pressure on the units.[20]

It's the "bad stats" syndrome that drives the fear of internal misuse. There is only one way to go on this one. The only "bad" objective data is that which does not measure what it is intended to measure. Any other good or bad connotation comes from interpretation and is, therefore, in the eye of the beholder. The Army has come a long way from the period when the integrity of the officer and noncommissioned officer corps was literally "on the line" in the eyes of our junior leaders and soldiers, because we made the wrong kinds of value judgements. Hopefully, the objective data parallel is obvious. I am satisfied that the Army is sufficiently mature, in whole and in part, to handle objective training readiness data in a positive and useful manner. Sure, there will be some aberrations-- but the Army can handle them. The current USR, with all of its objective logistic and personnel measures, is a positive system and useful instrument. It can absorb an objective measure of training readiness--one that meets the other needs described--without destruction of those attributes.

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CHAPTER II

FOOTNOTES

1. SSI, p. 1.

2. Ibid, pp. 3-5.

3. HQDA, AR 220-1, pp. 3-6.

4. Ibid.

5. Ibid.

6. U.S. Army War College, Army Command and Management, A Reference Text, (Carlisle Barracks, PA: U.S. Army War College, October 1979), p. 21-3.

7. Ibid, p. 21-14.

8. Department of Defense (DOD), Combat Effective Training Management Study (CETRM), (Washington, D.C.: Department of Defense, July 1979), p. 1-9.

9. Ibid, p. 2-36.

10. Ibid, p. C-20.

11. DOD, "Executive Summary," Combat Effective Training Management Study (CETRM), June 1979, (Washington, D.C.: Department of Defense, 1979), p. 10.

12. Ibid.

13. Headquarters, Department of Army (DA), Message, Date Time Group (DTG) 0213572 April 1979, Subject: Army Training Study (ARTS), Washington, D.C., April 1979, p. 1.

14. SSI, p. xviii.

15. Ibid, p. 47.

16. Ibid, p. xxvi

17. Irving Heymont, Colonel, U.S. Army, Retired, "What is the Army Getting for Its Training Dollar?" Army, June 1977 , p. 38.

18. Lewis Sorley, "Professional Evaluation and Combat Readiness," Military Review, Vol LIX, No. 10, October 1979, p. 42.

19. Ibid, p. 43.

20. Irving Heymont and Victor W. Hobson, Objective Training Status Criteria, Report to Headquarters, Department of the Army (DA), DAMU-ODR, Washington, D.C., May 1978, (McLean, VA: General Research Corporation, 1978), p. 67.

CHAPTER III

OBJECTIVE SYSTEM REQUIREMENTS

Characteristics of Training Status Criteria:[1]

-- Measure level of proficiency achieved and not solely training accomplished.

-- Measure proficiency in executing essential mission-related tasks.

-- Applicable to both Active and Reserve Component units.

-- Of utility for evaluating each organizational level within the battalion.

-- Will not drive unit training effort except where it is known that proficiency level in a unit or individual skill is a function of time since last training in that skill.

-- Simple and easy to understand and with minimum burden on unit commanders as regards training records and data collection.

-- Not dependent on experimental training measurement systems.

-- Lend themselves to relating proficiency level to resource requirements.

The preceding list was extracted from a 1978 HQDA civilian contract study. It is not exhaustive, but it does recognize many of the attributes, identified by my research that will be addressed in this chapter.

AT HQDA AND ABOVE, MACOMs AND DIVISION LEVEL AND BELOW

As discussed previously, OTRM requirements are viewed differently by various segments of the Army. For the current USR system, three different groups, with somewhat different data requirements, were identified:

-- DA and above: Data is needed for the resource allocation process

and as an indication of unit readiness.

-- MACOMs: Data is needed for force unit readiness purposes,

particularly mobilization and contingency mission planning. Some data is

also used for resource allocation purposes.

-- Division and below: Data is needed that supports resource

allocation decisions, particularly concerning training time, which help the

small unit commander do what he wants to do.

HQDA and higher resource allocation and unit readiness needs have been

adequately addressed previously--and as mentioned in Chapter II, HQDA

supports development of an OTRM. Below HQDA, commanders want a system that

meets their needs and alloys their fears concerning the possible misinter-

pretation and misuse of the data reported. One action officer found

commanders' acceptance to be the largest hurdle to implementing an OTRM.

FORSCOM Circular 350-8, dated 26 April 1977, provides a representative

list of MACOM data needs.[2] It was drafted to provide more objective training

readiness information. Prior to implementation, it was changed from a

mandatory reporting requirement to "a guide for the evaluation and management

of mission-related training," and commanders were only responsible for

"monitoring these events."[3] Its appendixes list minimum individual, crew and

collective unit training events, minimum participation (strength %) require-

ments and desired frequencies.[4] Minimum guidelines include: (1) individual

weapons qualification/familiarization, nuclear, biological and chemical (NBC),

and physical combat proficiency test (PCPT) completion; (2) crew/section 7.62

and 50 caliber machine gun (MG) qualification/familiarization, vehicle

preventive maintenance (PM) service performance and maintenance personnel

MOS duty times; and, (3) unit field training exercises (FTXs) and emergency

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deployment readiness exercises (EDREs). Participation guidelines were 90% of operating strength for individual tasks and 80% for crew and section. Except for PM services and maintenance personnel MOS duty times, frequency requirements varied from quarterly (FTXs), to semi-annually (NBC and MG) and annually (individual weapon, PCPT and EDREs). Actual reporting of all this data, had it been required, would have been a considerable administrative burden. The circular, as it stands does emphasize MACOM interests--especially in its focus on individual, crew and collective training, and its specific personnel strength and event frequency requirements.

At division level and below, my research indicates that requirements are driven by commanders who are looking for a system that is not an administrative burden and which does provide information that they can use to improve their training and readiness. They want a system that will encourage their superiors to protect them from training detractors and provide the necessary resources for them to be able to do what they want. As with MACOMs, they want to track individual, crew and collective training status, but are still apprehensive of misuse of the data. There is, however, universal agreement on the value of Soldier's Manuals (SMs) as a source for individual soldier skill requirements, and for the ARTEP as a similar source for collective (crew, squad, platoon, company, and battalion).

The current AR 220-1, commander's subjective evaluation of the number of weeks required for a unit to be fully trained, implies two separate evaluations. One is of the unit's individual soldier's skills status. The other is of the soldiers collectively, from crew/squad to battalion. An

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OTRM, therefore, must address both individual and collective training status—and how to combine these two different aspects into a single measure of training readiness.

The question of balance is critical at division level and below. There is growing feeling that the Skill Qualification Test (SQT), which covers only a small portion of the SM tasks, is given undue emphasis in individual soldier training. That is, the system rewards and sanctions only SQT task individual training. One training manager felt that the SQT was, in addition, biasing individual-collective trade-offs, again, in favor of individual SQT task training (it should be noted that he was a collective training manager).

There is strong sentiment, at all levels, not to sacrifice the ARTEP as an internal diagnostic tool in order to generate externally reported data on training proficiency. There is recognition also, of the close relationship between individual SM and collective ARTEP tasks. An acceptable OTRM must allow commanders the latitude to establish a balanced and integrated individual-collective training program.

There is diversity, however, on where the focus on OTRM data should be. The current USR orients on battalions and separate companies. However, in a recent unofficial cover letter to a proposed DA DCSOPS article on "Training the Force," the Chief of Staff of the Army emphasized that "divisions are composed of good crews, squads and platoons." This view was echoed by a MACOM action officer who stated that if the squads and platoons are good, so are the larger units. An ex-battalion commander, on the other hand, equated the need to be able to handle turmoil, in both peace and war, with a company level orientation. He felt that the base should be the company.

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If we have trained and experienced company cadre, we can integrate soldiers, even in combat, into an effective team.

The obvious conclusion from all this is that any OTRM system must include and balance a broad spectrum of individual and collective skills.

TRAINING STATUS OR TRAINING PROFICIENCY?

As suggested previously, there are two very different approaches to measuring training readiness. One addresses "training status"; the other, "training proficiency." In general, the current USR is a training status report rather than a training proficiency measure. When a commander estimates the number of weeks of training it would take to achieve a fully trained status, he is <u>not</u> attempting to project a specific combat scenario and estimate his units' proficiency when operating in it. Rather, he is estimating the training status of his unit in terms of the individual and collective training it has received, and the additional training that is needed before it should be committed to <u>any</u> combat situation.

A training status approach holds that if you can't realistically test proficiency because you can't create a realistic combat environment, don't try. Instead, measure something you can get a handle on—mainly, how well trained is the soldier. This assumes that if he is well trained in the critical combat skills, he should (not necessarily will) do well in any future combat situation. This approach recognizes, as one senior training manager put it, that the process of training is more important than results. The process trains for an unknown battle, in unknown terrain. Proficiency evaluations, on the other hand, are based on a specific concept of what we think all that may be like.

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Training status measurement also focuses on repeat training. There is a general assumption that more repetitions mean better trained. It also recognized that skills decay over time. Thus, repetition also generally means more recent. The current Job Book (JB) approach to individual and crew training, ARTEP approach to collective training and TRADOC efforts to facilitate individual and collective training integration, all discussed in Chapter IV, reflect this philosophy. Commanders, trainers, and training managers, at all levels of the Army, do not want to lose this focus when developing an OTRM.

Concurrently, however, commanders still want to know, "how proficient are my units, which is the most proficient and which is the least proficient?" That is, they want to know, who is good, who is bad and, most importantly, why? One senior commander indicated that anything the chain of command participates in is a test. His point was that, if the chain of command actively participates in individual and collective training evaluations, they automatically become (at least in the eyes of those evaluated) a test--a comparative exercise. The SQT, for example, is clearly a proficiency test. Currently, unannounced Emergency Deployment Readiness Exercises (EDREs), probably come closest to meeting the proficiency test need for collective training.

Surprisingly, at the battalion level and below, training proficiency tests are looked on favorably. That's a healthy sign. It means that commanders are treating proficiency test results in a positive, supportive manner. During my interviews, one junior officer asked me what's wrong with a test? Commanders need pressure to perform. Tests get attention-- and resources. Soldiers need a chance to strive and do well--and, to strive

and not do well. This view was supported by an ex-battalion commander, who felt that ARTEP external evaluations (EXTEV) were good opportunities to show the soldier that his training paid off, that he could do his combat missions well. These comments recognize a key advantage of the proficiency test approach (and this has been verified in several studies): students who know that they will be tested learn more than those who know that they won't. Testing reinforces learning, both by success and by failure.

Obviously, the positive aspects of proficiency testing require certain prerequisites. First, the standards must be realistic--that is, attainable within time and other resource constraints. Second, the results must be used in a positive manner by higher headquarters. That is, to identify and correct problems, not simply to put pressure on the subordinate chain of command. One junior officer felt that the problem with a "do or die" evaluation was that the evaluators rapidly recognized this and didn't call it like it was.

With respect to an OTRM, the approach taken in this paper is to stick to a training status rather than a training proficiency approach. The positive aspects of periodic proficiency testing, however, need to be retained and reinforced. The SQT is an important means of accomplishing this for individual training. EDREs and recent HQDA level organizational recognition of training evaluation as an Inspector General (IG) function, offer possibilities for future collective training.

ON TIME AND TURBULENCE

In addition to balancing individual and collective training, an OTRM must specifically address two other critical training readiness problems.

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The first is personnel turbulence in terms of gains and losses of personnel with different individual and collective training experience. The second is the impact of time decay on individual and collective training.

I doubt that any OTRM will ever be able to deal with the impact of personnel turbulence on squad, crew, or section cohesion. This will have to remain an area of subjective evaluation.

An acceptable OTRM, however, must address the impact of turbulence on training. What trainers often overlook is that the underlying problem is not rotation of personnel in and out of, or between different skill positions. The important problem is the rotation of skill, experience, and training.

As mentioned earlier, the Army is not doing a very good job of tracking the soldier's SM (not SQT, but SM) and ARTEP task/mission training. The Job Book is a big first step in the right direction. But, it usually is not transferred with the soldier. The same is true for his initial entry training (IET) record. It is filed in the soldier's personnel records; but, it rarely gets to his squad leader. Also, no record is kept of a soldier's participation. Personnel turbulence will continue, probably at present levels, for the foreseeable future. Until commanders and other training managers know what they are losing and what they are gaining in terms of individual and collective skills, the impact of turbulence on training readiness is not only unknown, but unknowable.

There may, in fact, be positive impact. For example, suppose a mechanized infantry unit loses an E3 rifleman who has never participated in any capacity on an ARTEP EXTEV and who has only demonstrated a "GO" level in 50% of his common and job-related SM skills. It gains, however, an E4 with two years experience in a mechanized infantry unit in Europe. There,

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he recently participated, as an APC driver, in a comprehensive ARTEP subunit and FTX evaluation. Further, his Job Book shows "GO's" in 90% of his common and APC drive-related SM skills. Is that squad, platoon, company, and battalion better or worse off? Clearly, training status has improved (although cohesion and other factors have not).

The above example introduces the other capitol "T" problem--time. While it is recognized that some tasks require more repetitions to attain acceptable standards, current SMs and ARTEPs only provide GO-NO GO standards. Even Job Books and recorded ARTEP results deal with time in an indirect manner, recording only the date of the last formally evaluated demonstration of the task. An OTRM, however, must deal more directly with the negative impact of time on training--the decay problem. Figure 3-1 is useful in demonstrating several aspects of this problem.

Intuition tells us that soldiers may be able to demonstrate some skill proficiency without any formal training, but not much and probably not enough. That level is represented on the vertical axis by point A. After initial training, the soldier is able to perform to, and possibly above, mimimum acceptable, "GO" standards. The shape of the vertical line between points A-B (and C-D and E-D) depends on how much time is devoted to each training period. Experience indicates that it is a sharp upward slope, that is probably not linear (despite Figure 3) and that it may include some plateaus (as all racquetball players can vouch for!). The B-C lines (in red) represent learning decay.

There is little data available on the shape of the decay function. It may be linear, as shown in red between B-C, or concave or convex, as between D-E. Some empirical studies have been done by the U.S. Army Research Institute for the Behavioral and Social Services (ARI).[6] Their findings are discussed in Chapter V.

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FIGURE 3-1[5]

Impact of Time on Training Proficiency
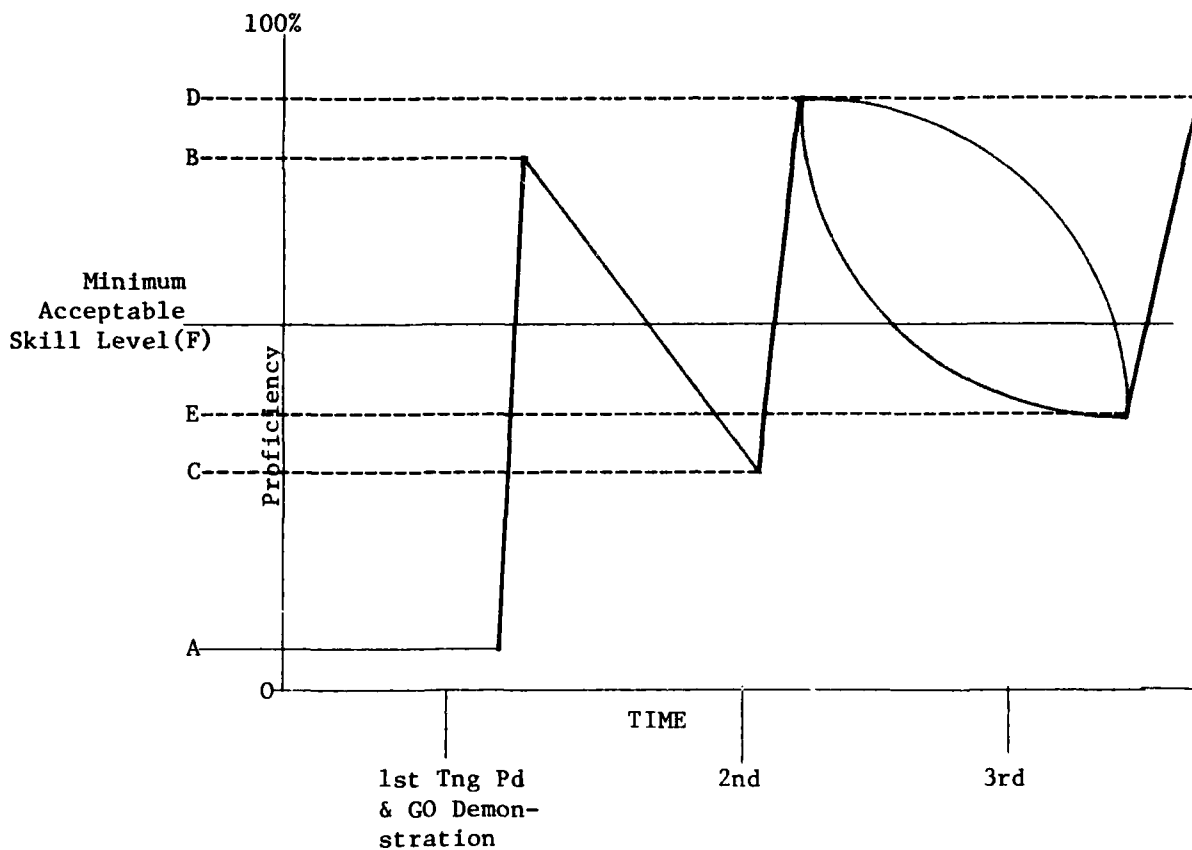
The verticle C-E and B-D differences represent a "ratchet" effect. That is, repetitive training will generally achieve, at least initially, a higher skill level after each iteration. Finally, the difference between vertical points B-D indicates that repeat training also has a cumulative effect. That is, by building on an existing, or especially, an increasing base, higher skill levels can be achieved--at least up to a point.

The importance of all this is that there is a period of time when training takes place and when learning decays (the red line) drops the level of proficiency below a minimum acceptable level (line F). During this

time "window", an acceptable (although diminishing) level of proficiency is maintained. If, as between the 2nd and 3rd iteration of training depicted in Figure 3-1, the line is convex rather than concave, or its linear slope is relatively flat, a longer time can be allowed to elapse between retraining or reperforming the task to "GO" and standards condition. As discussed in Chapter V, an OTRM must specify such windows for both individuals' (SM) tasks and collective (ARTEP) missions—either on the basis of best professional judgement, or from available empirical data. "More training is better than less; and, recent is better than remote!"[7]

RECORDING AND REPORTING

The current USR system is firmly embedded in the normal activities of the battalions and separate companies that must report, and the higher level organizations that process and forward, their data. The training readiness portion is certainly the least burdensome. Currently, it requires virtually no data recording or manipulation. Some intermediate HQs are requesting local supplemental reports and special briefings, but by-and-large, the administrative burden on commanders and training managers is minimal. Replacing or supplementing the subjective commander's estimate with objective data will require additional records and the collection, processing and reporting of data. The manhours required must be minimal. There are several ways to do this. First, existing records and reports should be used where possible (i.e. Job Books and ARTEP EXTEV results). If additional data records, or special reports, are required, the data should be useful to the unit recording, initially processing and reporting it. Once initial data is recorded, processed, and reported, it should not

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be reprocessed--only changed. ADP hard and software can ease the burden; existing and future systems should be exploited. Finally, the system must be simple--especially for implementing the initial change. The Army needs to try a "Model-T" system first, use it to get feedback; and then analyze the data and its process overtime and content.

RESERVE COMPONENT (RC) CONSIDERATIONS

In terms of total training days available, RC units are clearly in a less favorable situation than active components (AC), despite the hostile environment and numerous detractors that impact on the latter's capabilities. Most RC units are limited to a 38-day training year. Their ability to close the IET--fully trained individual soldier gap is literally an impossible mission. Even with level 3 ARTEP EXTEVs limited to CPXs at battalion level, and FTXs for companies and below, OTRM standards will have to be adapted to meet these special RC needs and capabilities. One step, that would also simplify RC reporting, would be to integrate their current external active duty training (ADT) evaluations by AC personnel into the normal USR system. There is no AC equivalent to this annual evaluation--despite general equality in treatment in other training, tests and evaluations.

THE BOTTOM LINE--INCREMENTAL CHANGE

Simplicity, exploiting existing, accepted recording and reporting systems, and incremental change are all characteristics that will facilitate acceptance of an OTRM system. As an initial step, more (both in quantitative and qualitative terms) objective data should be recorded, reported, and considered by commanders in determining their training readiness. A bare

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bones, prototype approach, with limited initial application, is absolutely

necessary. For every commander that is in favor of change, there is

one that is apprehensive. Many commanders and training managers reflect

a mixture of both attitudes. Dramatic change in any system is traumatic;

incremental change is not. In fact, incremental change, as indicated in

Chapter I, is the most constant factor in the Army's USR system to date.

As discussed in the next chapter, current and near term future systems

and programs offer unique opportunities for a "Model-T" objective

training readiness measure and reporting system.

CHAPTER III

FOOTNOTES

1. Heymont and Hobson, pp. 4-5.

2. Headquarters, U.S. Army Forces Command (FORSCOM). FORSCOM Circular No. 350-8, FORSCOM Training Readiness Program. Ft. McPherson, GA. 26 April 1977.

3. Ibid, p. 1.

4. Ibid, Appendix A.

5. This graphic portrayal was first sketched out by Colonel Craig Hagen, US Army Training and Doctrine Command (TRADOC), at Ft. Monroe, VA, during an interview with the author on 18 March 1980.

6. See Joyce L. Shields, Ried P. Joyce and James R. VanWest. Chaparral Skill Retention, Research Report 1205, US Army Research Institute for the Behavioral and Social Sciences, March 1979. (Alexandria, VA: US Army Institute for the Behavioral and Social Services, 1979) and Joyce L. Shields, Steven L. Goldbery and Douglas J. Dressel, Retention of Basic Soldiering Skills, Research Report 1225, US Army Research Institute for the Behavioral and Social Sciences, September 1977. (Alexandria, VA: U.S. Army Institute for the Behavioral and Social Sciences, 1979).

7. Paraphrase of a comment made in an unofficial 1979 SOFTECH Corporation proposal briefing studying Army readiness measurement.

CHAPTER IV

EXPLOITING CURRENT AND FUTURE PROGRAMS AND SYSTEMS

CURRENT

Only recently, since the advent of Soldier's Manuals and Army Training

and Evaluation Programs, has there been a field tested and generally

accepted basis--specific tasks, conditions, and standards--for evaluation

of individual and collective training:

> Training objectives at the company and battalion level
> are expressed in terms of proficiency in individual
> training tasks from the Soldier's Manual and unit
> training tasks from the ARTEP.[1]

These two documents, along with Job Books and recent efforts to

integrate SM and ARTEP tasks, offer great potential for exploitation as the

basis for a more objective training readiness measure. The first part of

this chapter looks at each of these more closely, in terms of their current

status, future development and OTRM potential.

Soldier's Manual (SMs) and Skill Qualification Tests (SQTs)

All specific examples will be in terms of my frame of reference--

a mechanized infantry battalion. In this case, Soldier's Manual references

will be to FM 7-11B1/2.[2] This will also apply for any discussions related

to higher skill level SMs, Commander's Manuals (CMs), Job Books (JBs),

IET records and SQTs.

When the U.S. Army Infantry School (USAIS) first tried to define the

specific tasks that could be expected of skill level 1 and 2 infantrymen,

they came up with 699 for skill level 1 and an additional 61 for skill

level 2.[3] According to USAIS current count, netting out duplication and double counting between common tasks (performed by every soldier) and duty position related (such as a tracked-vehicle driver), there are 171 skill level 1 and 37 skill level 2 tasks. The next editions of the 11B 10/20 SM, JB, and CM will reflect this. Of the 171 level 1 tasks, 85 are common and 86 pertain to specific duty positions. The 11B SM defines a critical task as one "needed to accomplish a mission or do a job and survive on the battlefield."[4] At this time, all 208 (171 skill level 1 and 37 level 2) 11B 10/20 SM tasks are doctrinally considered to be of equal priority--"critical." Presumably, this is because all of the non-critical tasks were dropped in arriving at the current number.

Field commanders and training managers have been forced by limited training resources and soldiers' time to emphasize only those SM tasks identified for annual SQT testing. In some cases, this emphasis has resulted in the exclusion of most if not all of the "less critical" non-SQT tasks from individual soldier training. Further, because of their growing proportional importance to the final SQT score, ready identification and ease of training, Hands-on-Component (HOC) tasks receive the lion's share of attention and training effort. Unfortunately, "SQT" is beginning to be used in lieu of "SM" as a general reference for individual training requirements. This is a serious mistake. In 1977, when 11B's underwent their first SQT, they were tested on 47 SM tasks. Only six were HOC. In 1981, the total will drop to 28 for skill level 1 and 30 for level 2. HOCs have been expanded to 15. These 15 are less than 10% of the total SM task requirement for skill levels 1 and 2--and the total SQT now represents only about 15% of the total number of SM tasks listed in the SM and JB.

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The SM itself, is absolutely the best document on which to base an OTRM for individual soldier skills. It is a field tested, accepted instrument. It covers a wide range of doctrinally defined, critical common and position specific skills. It has a known, generally understood and, in many cases, very objective set of standards and conditions for evaluation. For MOS 11B, there are seventeen general groups of tasks, including individual fitness (appropriate PCPT), NBC, and individual weapon and light machine gun (LMG) qualification / familiarization. Specific duty position tasks include Dragon and TOW crew weapons qualification and, for the mechanized infantry fire team leader, 50 caliber MG maintenance and firing. Effectively then, a soldier who has demonstrated "GO" proficiency in all 11B skill level 1 tasks would be a very well trained soldier. He would have met minimum qualification standards for physical fitness, nuclear, biological and chemical skills, individual weapon qualification/familiarization. During my interviews and research, these four areas were mentioned most often as being the minimum skills that need to be covered by an OTRM. It should be noted, however, that while qualification/familiarization is clearly the intent for individual and crew weapons, SM task wording needs to be more specific.

Job Books (JBs) and Individual Training Records

The relatively recent publication and distribution of Job Books (JBs), based on SM tasks, conditions and standards, also provides an existing, field tested system that can readily fulfill initial OTRM data recording requirements. Distribution (admittedly not yet achieved for many MOSs and in many units) for 11B Job Books is "to each NCO supervisor . . . for each MOS

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skill level 1 or 2 soldier that he supervises."[5] When initially issued,
the book was mistakenly limited to only NCO supervisor access. That has
now been turned around, and it can and should be used as a permanent record
of the individual soldiers' current training status.

Note, I said status, not proficiency. The Job Book simply provides
a place for entry of the date of the last SM task performance that was in
accordance with SM standards and conditions, and whether it was "GO" or "NO-GO".
It indicates a level of past proficiency attained--that is, of training
status. That does not necessarily indicate current proficiency. With
respect to an OTRM system, the JB provides a permanent record of the
soldiers status with respect to skill demonstration, by SM task, which can
easily be tied to an acceptable performance window for individual training
readiness credit. Key to this use, however, is an expanded role for the
Job Book. It must be initiated during IET or, as discussed below, at
least at the soldier's initial duty station. It must change hands when
his supervisors change; and it must go with him when he changes units.
This will allow his chain of command to know and report--to track--his
individual training status in SM task terms.

There is an existing, though little understood and currently
ineffective, documentation system that should/could provide a soldiers'
first unit and supervisor with the data necessary to initiate his Job Book.
This is the IET qualification record, completed by all TRADOC IET units.
It's forwarded with the soldier when he graduates, as part of his accompanying
records. Normally, the document used is a TRADOC Form 578R. For 11B/Cs,
now being trained under the One Station Unit Training (OSUT) concept at
Fort Benning, a special form, Fort Benning Form 56, is used. The form is

included in the soldier's personnel records and often gets pulled out during his initial in-processing, before he gets to his final unit and initial first line supervisor. When available, this form will allow reporting units to initiate an accurate Job Book and begin tracking and reporting the training status of initially assigned soldiers--just as if he came with his own Job Book, which should be the case for soldiers who are on other than their initial assignment.

Before I address current collective training documentation, it's worth taking a quick look at the individual 11B soldier's training status upon his initial assignment. How much must the unit, or succeeding units do to get him completely qualified in all 171 possible SM tasks/skills? According to OSUT trainers at Fort Benning, soldiers receiving 11B/C IET are now exposed to a total of 118 SM tasks. However, because of limited time and other resources, only familiarization training is possible for most subject areas. To graduate, students must receive a "GO" (SM conditions and standards) in 16 or 20 core SM tasks and 24 (80% of the 30 core and additional "roundout" tasks tested. Although 20 roundout SM tasks are taught, only a random sample of 10 are tested. So, it is possible for an 11B IET graduate to arrive at his unit qualified in as few as 24 of the 171 possible skill level 1 tasks. OSUT trainers are clearly doing the best they can under conditions of very limited time and other, mostly dollar/budget related, resources. The bottom line, however, is that unit individual training requirements, for 11Bs at least, are enormous--and focusing on SQT HOC tasks, or even the total SQT does not reduce the gap!

Army Training and Evaluation Programs (ARTEPs)

> ARTEPs will continue to set the standards for the conduct and evaluation of unit and combined arms training readiness.[6]

In one sense, ARTEPs are to collective training what SMs are to individual training. Like the SMs, they have been developed by TRADOC school proponents. They define, in a task, conditions and standards format, the collective unit skills required to be effective on the modern battle-field--from individual tank crew and infantry squad, to combined arms task forces and pure battalions. Again, all of the tasks listed are critical-- "only critical tasks . . . will be used tasks that contribute to the survival of a unit and the accomplishment of a specific mission in combat."[7]

Also, like the SM, the ARTEP provides a means of evaluating training status at a specific point in time; it is not intended to be used as a proficiency test:

> THE ARTEP IS NOT A TEST such as an ATT, ORF, or ORTT. The purpose of those tests are to quantify the state of readiness for reporting purposes . . . This ARTEP on the other hand, is a diagnostic tool for the continuous training and evaluation of a unit without a test.[8]

At this point, however, the comparison begins to break down. SMs define tasks in terms of different skill levels, with soldiers at each higher skill level responsible for knowledge of and the ability to perform all of the tasks listed, not only for subordinate levels, but also for his own. ARTEPs, however, define tasks in somewhat different terms. That is, the missions are different for different size units (i.e. in ARTEP 71-2, "Forced March/Live Fire" applies only to squads, while "Movement to Contact and Hasty Attack" is listed for platoons).[9] Also, multiple and somewhat different tasks, conditions and standards are listed for units of the same

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type and size that are in different readiness categories (see, for example,

Chapters 6-8, ARTEP 71-2).[10] In general, the ARTEP's collective tasks,

conditions and standards are as objective with respect to collective

training as the SMs are for individual training. In fact, some have very

objective "GO/NO-GO" standards.[11]

The key difference, however, and one which impacts directly on the

potential for ARTEP use in support of an OTRM system, is that they are

used to evaluate only the unit's training status, rather than the ability

of the individual soldiers in that unit to collectively perform the tasks.

"The ARTEP is a unit's collective training program."[12] Despite this,

ARTEP 71-2 also stresses that:

> complimentary to our collective training program (ARTEP)
> is the individual program based upon Soldier Manuals and
> the Skill Qualification Tests.
>
> The successful performance of these individual Soldiers
> Manual based tasks is essential to the successful accomplish-
> ment of the units' tasks (missions).[13]

The result of this unit bias is, that the ARTEP is not able to deal

directly with the impact of personnel turbulence on collective training.

The unit that was evaluated "X" days ago is not the same unit today. Thus,

while ARTEP EXTEV results are recorded and can be assessed for learning

decay by tracking the time between, like a JB, the last EXTEV and the

present period, personnel turbulence assessment must come separately--from

personnel data. As proposed in the next chapter, tracking ARTEP status

in terms of individual soldier participation in his proper TO&E position

is an answer--and, for an OTRM, probably the best answer.

Overall, the ARTEP program is alive and well. At the first of this

year, TRADOC was monitoring 270 separate ARTEPs, with 219 developed and

fielded and only 51 still in the development stage. Although the 1976 SSI

study of Army readiness reporting found that the ARTEP was "mentioned . . .

frequently. . . as the source of eventual for (unit) readiness reporting,"[14]

my research found more apprehension than support for changing the ARTEP

EXTEV from an internal or external evaluation to a proficiency test.

Representative comments included:

-- The worst thing would be to grade and record ARTEP EXTEV results.

-- The ARTEP is a training experience; that must not be lost.

-- You don't want to turn the ARTEP into an external test--leave it

alone, as a battalion commanders' tool.

As one ex-battalion commander pointed out that on any given day, a unit

can get a NAT (needs additional training) on an ARTEP mission. It's really

best as a way to measure what has been accomplished and what needs to be

accomplished. The latter comment highlights field commanders' fears of

losing what is now recognized as the most fundamental value of the ARTEP

at division level and below. In terms of the earlier discussion of USR

data needs, any effort to exploit the ARTEP in support of an OTRM must not

be to the detriment of low level unit commanders. Current ARTEP guidance

is clearly intended to preserve its value to field commanders"

> It (an ARTEP) does not quantify readiness for reporting purposes,
> is not   restricted to time (e.g., annual, semiannual), and
> cannot be used numerically to compare units.[15]

Despite this disclaimer, TRADOC is trying, institutionally, to track

ARTEP results for unidentified but similar TO&E units. Unit HQs (usually

Brigade and above) which conduct EXTEVs, are requested by the ARTEP to

forward sanitized results to the appropriate TRADOC proponent.[16] The

purpose of this report (which is not always accomplished) is to provide

DA and MACOM levels with information on "problems with tasks, conditions,

and standards for particular ARTEPs and performance of units on external evaluations; while maintaining the ARTEP as a diagnostic tool."[17]

At this point, however, the approach that offers the best opportunity both to exploit ARTEP OTRM potential and still not sacrifice its recognized value as an internal diagnostic tool, is to track unit collective training status in terms of individual soldiers' ARTEP EXTEV participation. This approach would require the recording and reporting of each soldiers "GO/NO-GO" status as to time, unit (squad, platoon, company, or battalion) and mission--but not, the proficiency of the unit. This not only provides a method of exploiting the ARTEPs' value in collective training evaluation, it tracks the impact of personnel turbulence at the same time! A platoon that has only five of twenty soldiers who performed in three collective ARTEP missions to "GO/SAT" standards during its last EXTEV "X" months ago is at a different state of training readiness than one that has all twenty soldiers (100%) so qualified. And, if the first platoon's fifteen odd replacements have had no ARTEP EXTEV experience at all, it's at a different state of training readiness than a similar platoon that received ARTEP EXTEV experienced soldiers, even though they received that training experience in another unit.

Other Things

Two other programs offer some value in developing an OTRM. The first is TRADOC's effort to interface individual (SM) and collective (ARTEP) soldier skills.

The importance of relating individual soldiering skills to ARTEP tasks has already been mentioned. Also, given the scarcity of training resources--especially soldiers' time--and the need to train individual

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and collective skills concurrently, knowledge of which SM tasks support what ARTEP tasks and missions is critical. Besides indicating when and how to integrate SM/ARTEP training, it provides at least one more criteria (in addition to SQT/HOC) with which to differentiate the more important SM tasks (i.e., SM tasks that support a broad spectrum of ARTEP tasks and missions). TRADOC has asked all ARTEP schools to, "develop an IC (individual/ collective) integration matrix or similar procedure for (the) proponents Soldiers Manual."[18] For 11B/ARTEP 71-2 integration at the company level and below, the U.S. Army Infantry School at Fort Benning has provided two excellent texts.[19]

The second program is the recent creation of a training division in the DAIG. Currently, DAIG training inspectors are visiting units throughout the Army and evaluating their training management. This provides a potential proponent for the development of a system of Army-wide proficiency standards and training quality checks. These (1) would not be tied to the ARTEP; and (2) could cut the current conceptual tie between training proficiency and training readiness.

Cutting the proficiency test-readiness report tie would make a training status approach to training readiness reporting more acceptable Army-wide. Yes, the Army needs unit training proficiency data. But, data collection and reporting does not have to be tied to the USR. Rather, a more objective training readiness measure--one that ties individual and collective training together, and deals explicitly with training decay over time and the impact of personnel turmoil--should be developed for USR purposes.

The Battalion Training Management System (BTMS)

The Battalion Training Management System (not to be confused with BTM) is an approved DA program, currently being implemented Army wide. BTMS has been characterized by the Chief of Staff of the Army as "an effective vehicle to train officers and NCOs on the planning, conduct and evaluation of training."[23] The FORSCOM Commander strongly supports that view: "a massive and comprehensive program . . . to train unit levels to conduct better training in their units . . . is the battalion training management system (BTMS)."[24] Basically, BTMS is simply a series of trainer and training manager (from squad leader to battalion commander) work shops that focus on key aspects of the Army's current training and training management system (outlined in Field Manual (FM) 21-6[25] and Training Circular (TC) 21-5-7).[26] BTMS now provides the basic system for FORSCOM and, when implemented, Army wide training management. Although BTMS has no direct implications for an OTRM system, it is important that any OTRM system being developed for implementation in the near future be compatible with and supportive of both BTMS and current Army training management doctrine.

The Army Training Management Control System (TMCS)

On 5 September 1975, the Chief of Staff of the Army approved the Army Training Management Control System for Army-wide implementation. TMCS is a computer hard/software system that will provide commanders and training managers at division, brigade and battalion levels an estimate of the resources needed to support their training programs. It does this in specific, qualitative terms, making the trade-offs necessary for

commanders to develop their most desirable training program within resource limits.[20] To do this, TMCS develops standard cost factors from local funds expenditure data and applies these against different types of training, and their requirements for the limited resources available. The computer system is a key component. Its employment concept differs from current automated data processing (ADP) systems, in that commanders and other training managers can run the computer themselves. To support TMCS, the Army is in the process of identifying and procuring a high speed, disc storage mini-computer system, with capabilities equal to those of an IBM 5120.

Concurrently, twenty-two software packages are being developed for field testing and initial implementation. FORSCOM's Evaluation Report identified both unit status report compilation and USR tracking of the operational status of equipment--by line number and item price--as possible TMCS applications.[21]

More importantly, TMCS design and procurement includes the capability for interface between it and optical scanners that are currently in the Army's inventory and available at most posts, camps, and stations. The optical scanner capability has been provided to enable divisions, and even brigades and battalions, to score their own SQT skill component (mark sense form required) results.

With respect to an OTRM recording and reporting system, all of this offers exploitable potential for squad, platoon and company level mark sense form recording of individual and collective training data, and battalion-level automated processing and report generation. Based on current computer formats, particularly those used in publishing SQT results,

a soldier's individual and collective training status could be recorded

and processed upon assignment to the reporting unit, and then updated only

once a month thereafter. The results could then be printed out, in a

variety of useful formats, for each squad, platoon, company in the battalion.

Information extracted from such reports (or even some of the reports

themselves) could then be included in the USR as an OTRM--and be used by

commanders in determining their training readiness.

The Battalion Training Model (BTM)

The TRADOC Army Training Study (ARTS), referenced earlier, included

development of a computer model for evaluation of battalion-level training.

Named the Battalion Training Model, it facilitates analysis of current

training and training management. Since then, HQDA has approved BTM

development, and it is now undergoing additional TRADOC development as a

possible supplement to TMCS.[22] As discussed above, TMCS focuses on

optimally scheduling training activities within a battalions' available

resources. BTM on the other hand focuses more directly on such aspects as

individual and collective (SM-ARTEP) training integration, training

repetition and frequency, personnel (both trainer and trainee) turbulence

and even trainer-trainee quality. If and when fully developed and fielded

in a TMCS or follow-on hardware compatible package, BTM will offer many

areas for the future development of OTRM capabilities.

The National Training Center (NTC) and Multiple Integrated Laser Engagement System (MILES)

The National Training Center offers a unique method for periodic

evaluation of Army combat maneuver unit training proficiency. Overtime,

without specific unit identification, the NTC will develop a valuable base of data on various types of units. It will focus on their ability to meet operational mission requirements in terms of a specific set of tasks and standards, under controlled and generally similar conditions. Under current plans, the data will be fed back into the Army training management and evaluation system at several points, including TRADOC and its various individual and collective training proponents, FORSCOM and DA. Knowing the shape of the "proficiency curve" for similar units, doing similar things, under similar conditions, can help identify doctrinal strengths and weaknesses, realistic standards of performance for like type units and the level and spread of training proficiency for the units evaluated. All of this offers excellent potential for future development of a system for tracking readiness in proficiency test terms--by means of a system that is completely separate from the monthly USR, annual SQT and periodic internal ARTEP EXTEVs.

The Multiple Integrated Laser Engagement System is a fundamental component of the NTC's evaluation of individual and collective proficiency. By means of MILES' laser designators and receptors, target engagements, hits and casualties can be measured for both "friendly" and "enemy" forces during realistic combat exercises. The data generated is objective and quantifiable, and provides a useful measure of combat effectiveness in terms of equipment destroyed and casualties. With further development and refinement by the NTC, MILES offers unique potential for the eventual integration of collective and individual training proficiency measurement with the training status tracking systems proposed in this paper.

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CHAPTER IV

FOOTNOTES

1. Headquarters, U.S. Army Forces Command (FORSCOM), Letter, Subject: Training Guidelines, Fort McPherson, GA, 16 May 1978, p. 2.

2. Headquarters, Department of the Army (DA), Field Manual (FM) 7-11B1/2, Soldier's Manual, 1/B10-Infantryman - 11B20, Washington, D.C., 7 July 1978.

3. Headquarters, Department of the Army (DA), Field Manual (FM) 7-11B/C/CM, Commander's Manual, 11B/11C Infantrymen, Washington, D.C., 31 June 1977, p. 1-3.

4. Headquarters, Department of the Army (DA), FM 7-11B1/2, Soldier's Manual, p. 1-I-A-4.

5. Headquarters, Department of the Army (DA), Training Circular (TC) 7-11B1/2 (JB), Infantryman Job Book, MOS 11B10/20, Washington, D.C., 18 August 1977, p. 1.

6. Headquarters, Department of the Army (DA), Deputy Chief of Staff for Operations (DCSOPS), Unpublished Article, "Training the Force," Washington, D.C., undated, p. 34.

7. Headquarters, U.S. Army Training and Doctrine Command (TRADOC), TRADOC Regulation 310-2, Development, Preparation and Management of Army Training and Evaluation Program (ARTEP), Fort Monroe, VA, 10 December 1979, p. 14.

8. Headquarters, Department of the Army (DA), Army Training and Evaluation Program (ARTEP) 8-123, Combat Support Hospital/Evacuation Hospital, Washington, D.C., 21 July 1979.

9. Headquarters, Department of the Army (DA), Army Training and Evaluation Program (ARTEP) 71-2, Army Training and Evaluation Program for Mechanized Infantry/Tank Task Force, Washington, D.C., 17 June 1977, with change 1, 29 September 1974.

10. Ibid.

11. Ibid. (See the Training and Evaluation outline for Forced March/ Live Fire, p. 8-32-3 and General Conditions, Tank Platoon Battle Run (Day and Night), p. 8-29-1.)

12. Ibid, p. 1-1.

13. Ibid, p. 42.

14. SSI, p. 47.

15. HQDA, ARTEP 8-123, p. E-1.

16. As examples, see HQDA ARTEP 71-1, pp. 13-1 and 13-9, and ARTEP 8-123, Appendix I.

17. HQDA, ARTEP 8-123, p. E-1.

18. TRADOC Reg 310-2, pp. 15-16.

19. Headquarters, U.S. Army Infantry School (USAIS), School Text (ST) 21-G-188-1, The Platoon Leader's Training Management Planning Book, Fort Benning, GA, undated and Headquarters, U.S. Army Infantry School (USAIS), School Text (ST) 21-6-188-2, The Company Commander's Training Management Planning Book, Fort Benning, GA, undated.

20. Information on the Division Training Management Control System (TMCS) was drawn primarily from U.S. Army Forces Command (FORSCOM), DCSOPS/DCSCOMPT, Evaluation Report for Training Management Control System (TMCS), Fort McPherson, GA, August 1975.

21. Ibid, pp. 130-131.

22. HQDA message, p.1.

23. General E. C. Meyer, Chief of Staff, U.S. Army, White Paper--The Army of the 80's, undated, p. 10.

24. General Robert M. Shoemaker, U.S. Army, "With Clear Missions; Definite Objectives," Army, October 1979, p. 40.

25. Headquarters, Department of the Army (DA), Field Manual (FM) 21-6, How to Prepare and Conduct Military Training, Washington, D.C., November 1975.

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CHAPTER V

A "MODEL-T" SYSTEM

THE GOAL AND OBJECTIVES

In an epoch, the difference between a reliable and effective
professional Army is training. No task is more important than
training as we face this decade.[1]

Having a well-trained force is often stated as an Army goal. Achieving

this requires definition of more precisely stated supporting objectives--

and the development of systems for measuring success in their attainment.

Having a well-trained force, and having one that is proficient in combat

are clearly compatible and mutually supporting goals. However, they are

not the same, and their supporting objectives and attainment measures

must be kept separate. Failure to separate these two goals, and attempts

to combine their achievement measurement into one system--the Unit Status

Report--has confused and delayed development and implementation of an

objective training readiness measure and system. In this chapter, I propose

two goal supporting objectives for training, and an initial "Model-T"

system for measuring and reporting their attainment. The proposed objectives

and measurement system proposed are intended to meet training status

data needs within and without the Army; handle personnel turbulence and the

impact of learning decay over time; exploit existing or soon to be implemented

programs and systems; and, reflect a zero (currently untrained) to one-hundred

percent (currently trained) unit training status.

The broad goal, then, is to have a well-trained Army.

The two supporting objectives are to have soldiers trained to "GO"/"SAT"

standards and conditions individually, in their appropriate soldier's manual

tasks, and collectively, in their unit's appropriate Army Training
and Evaluation Program missions.

The remainder of this chapter proposes a system which will measure
training readiness and record and report data on how well the Army is
doing in achieving the individual and collective objectives and the
well-trained force goal.

THE MEASURE

Individual Training Status

With minimum improvements, the Soldier's Manual could offer an
acceptable array of "critical" individual tasks, conditions and
standards. Further, SMs have already been developed, fielded and, more
importantly, accepted by commanders and other training managers throughout
the Army. One area, however, needs to be improved before they can fulfill
their potential as the basic measure of the soldier's individual training
status. This is to state clearly physical fitness and individual and crew
weapons tasks, conditions and standards--as the PCPT and, for appropriate
TO&E positions, individual and crew weapons qualification/familiarization.
SMs can then provide a standard against which to measure individual
training status.

But, should this be for all soldiers, in all units? No, at least not
initially. The initial system needs to be simple and limited. This is
necessary to identify problems--and to obtain feedback for further
development and improvement. Initially, therefore, an OTRM should be
limited to three types of combat units: infantry, armor and field
artillery. Follow-on expansion would include those combat support (CS)

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units which require peacetime training in addition to their day-to-day
operations, to prepare their soldiers for combat. Eventually,
combat service support (CSS) units should also be included.

Within these three types of units, individual training status measure-
ment would, again initially, be limited to the following MOS series:
11, 13, 16, and 19.

How high up the grade/rank structure should an OTRM be applied?
Since there are no SMs for officers and warrant officers, the measure can
only be applied to enlisted soldiers. If recording and reporting are to
be kept simple and based on existing systems (below), then only skill
levels 1 and 2 should be tracked. Collective (ARTEP) evaluations will
provide an adequate measure for skill level 3 and higher positions.

What about the impact of time--learning decay? As discussed previously
(See figure 3-1, Chapter III), it appears acceptable to assume that demonstrated
"GO" proficiency is a valid measure of the individual's training status
for only a limited period of time. The question is, how much time should
pass before that "GO" demonstration is no longer valid. That is, how
often or within what time window should the soldier be retrained--or at
least be required to redemonstrate "GO" task performance? Also, should
this be a single window, applied equally to all tasks? Or, should it
vary with task complexity or other variables?

Clearly, if they could be established accurately, separate windows
for each task would provide a more accurate measure of training status.
However, with 11B soldiers needing to learn 208 skill level 1 and 2 SM
tasks, for example, that would be neither feasible nor simple. What then,
is the appropriate window (or windows) for SM tasks?

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"Professional judgment" is one approach to answering the above question—the traditional one. However, professional judgment is very subjective, especially as the basis of an objective measure! During my interviews, one ex-battalion commander stated that you could spend four hours training a soldier on a SM task, come back in four weeks and ask him to do it again, and he wouldn't remember that he had ever been trained in the first place—let alone be able to do it again!

Carefully developed professional judgment guides exist in FORSCOM Circular 350-8 and Regulation 350-1. Both agree that individual weapons and physical fitness testing qualification should be done annually.[2] 350-8 recommends semi-annual nuclear, biological and chemical (NBC) and machine gun qualifications;[3] while 350-1 suggests annual.[4] Given the enormous "gap" between individual soldier training requirements and realistically available training resources, and the preceding professional judgment guidelines, a 6 to 12 month window appears to be "in the ball park" for SM tasks.

Little empirical data is available to supplement professional judgment of SM task learning decay. The paucity of data was verified by Shields, Goldberg, and Dressel, in their pioneer 1979 research report, Retention of Basic Soldiering Skills: "The adage 'once trained, always trained' is a recognized myth . . . however, little is known about skill deterioration or retention for specific Army jobs."[5] Their report was based on a study of twenty skill level 1 SM tasks taught in field artillery basic and OSUT training.

They found (See Figure 5-1) that training decay varied considerably for different tasks. The single best predictor of the decrease in percent

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"GO" over time, was the number of steps required to successfully perform the task (Figure 5-1). They also found that most "NO GO" results were not caused by a wholesale inability to accomplish the task. Rather, it was failure in just one or two of the steps required. So, tasks requiring more steps had more rapid deterioration in performance. When the criteria (vertical axis) was changed from "GO/NO GO" to "percent performance steps passed," the picture improved considerably--even after a year had passed since training (See Figure 5-2).

A separate study of six Chaparral crewmen SM tasks supported that the window for complex position tasks should be no more than 6 months--and less, if feasible.[8] Figure 5-1 indicates that while some common skills are not necessarily simple and some "GO" ability is lost completely in less than 12 months (M203-disassembly/assembly), for most common tasks, soldiers can still pass nearly 70% of required performance steps a year after being trained.

From the results portrayed in Figures 5-1 and 5-2, the Chaparral crewmen study and the professional judgment available in FORSCOM Regulation 350-1 and Circular 350-2, no more than a six-month window should be used for complex skills, and no more than twelve months for simpler ones.

This is clearly an area where more work is needed. For one thing, the more complex SM tasks need to be simplified. Here, task complexity differences have been simplified by assuming that common tasks can be treated as "simple" and position tasks, per the limited Chaparral study, can be treated as "complex."
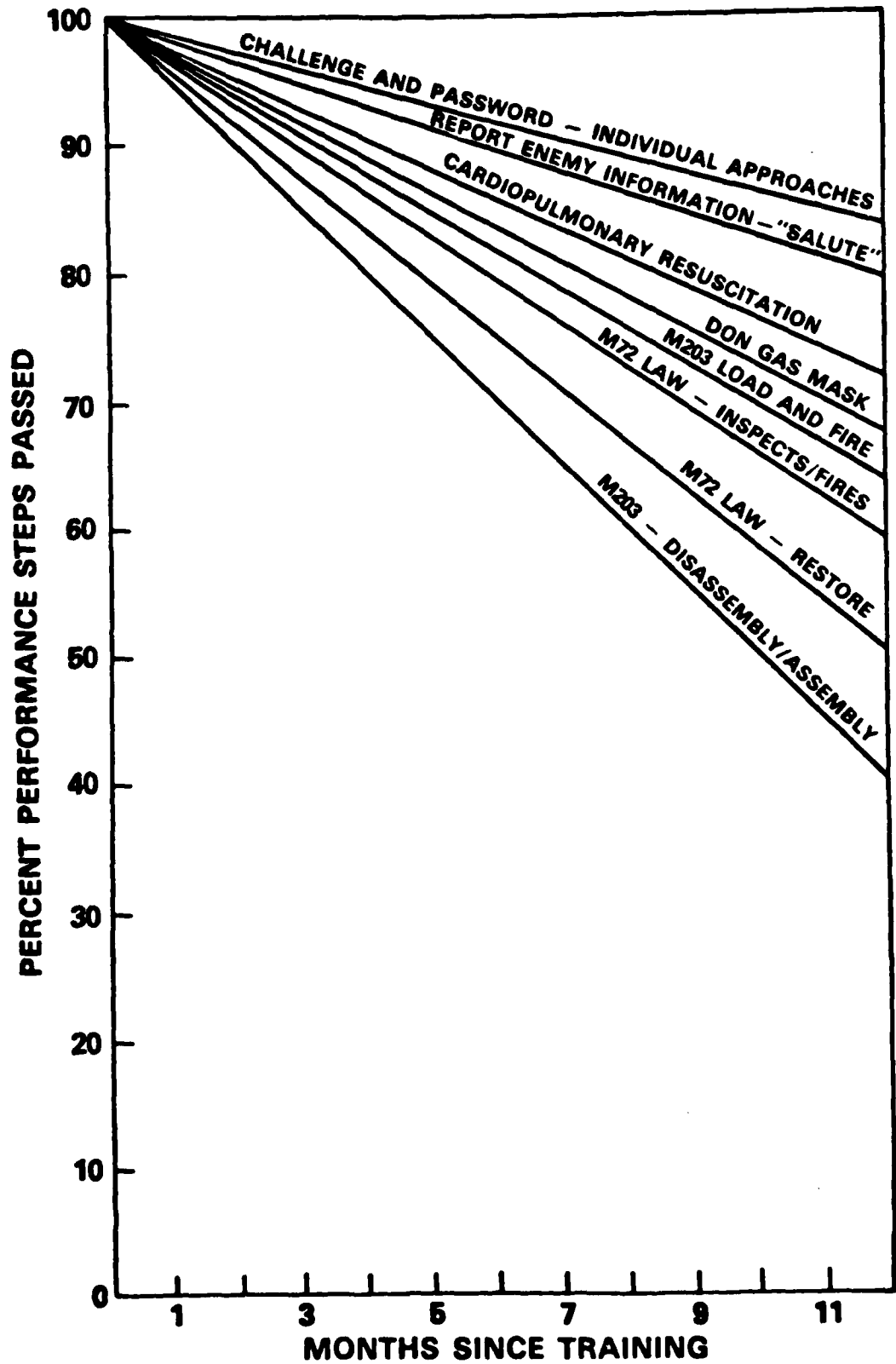
Another approach to differentiating SM tasks would be to look at their importance to combat effectiveness. Besides providing another criteria

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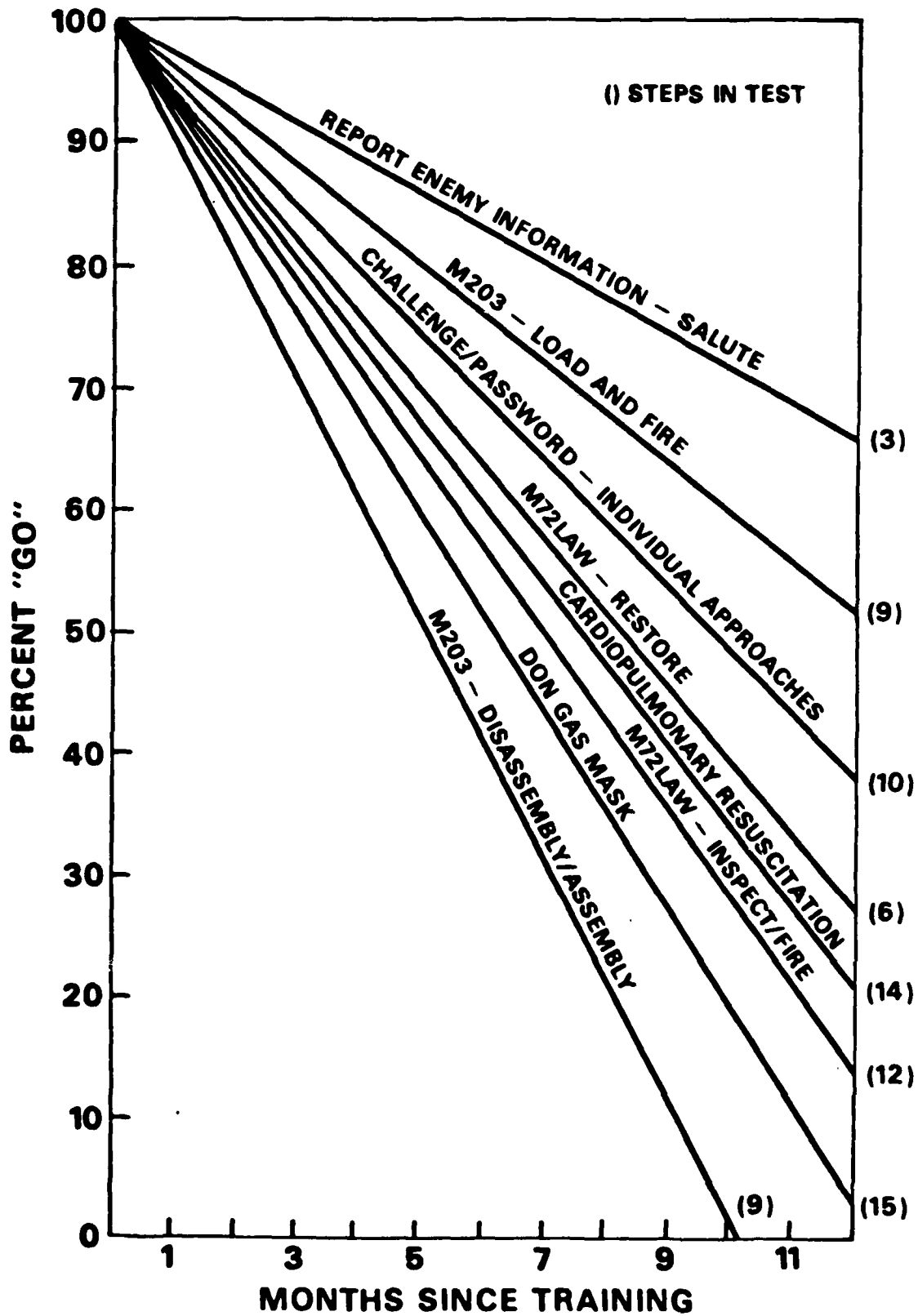
Figure 5-1[5]

Changes in percent "GO" over time since training.

Figure 5-2[6]

Changes in percent of performance steps passed over time since training.

for determining an acceptable task decay window, identifying combat effectiveness differences would be a real help to line commanders. As stated earlier, the SQT now controls soldier training time and other key resource allocation decisions--at least with respect to individual training.

An approach that merits more study than this paper can devote, would be:

1/3 (30% or so): Must know--limited to soldier survival and combat effectiveness.

1/3 (30% or so): Need to know--focused on the above, plus a high degree of ARTEP interface.

1/3 (30%-40%): Nice to know--what's left.

So, now it's decision time. Recognizing the concurrent needs for more empirical research in this area and simplicity, I propose: (1) a twelve-month window for tasks designated as common in the MOS series SMs listed previously and, (2) a six-month window for all other (i.e., position) tasks. The current training environment makes it difficult enough for most commanders to meet these standards--even if they exploit individual-collective training integration where possible.

To summarize then:

-- To meet fully trained criteria in individual skills, a soldier (serving in reporting units, MOS series and skill levels only) would have to have demonstrated "GO" proficiency in all common SM tasks within the last twelve months and in all TO&E positions related tasks within the last six months.

-- For the reporting (IN, AR and ARTY) unit to meet individual soldier status criteria, 100% of its assigned, reported MOS series and skill level 1 and 2 personnel would have to meet the same criteria.

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Collective Training Status

ARTEPs are to collective training what SMs are to individual training. They provide a set of doctrinally accepted missions, tasks, conditions and standards for training and evaluating at crew/squad, platoon, company/ team, and battalion/task force levels. They have been widely distributed, and are now the accepted standard for evaluation of unit (company and battalion task force) and subunit (platoon and below) training status.

To avoid a unit proficiency test approach, with all the problems and fears previously discussed, I propose that the individual soldier's participation in formal unit FTX EXTEVs and subunit evaluations (SUEs) be used to measure collective training status. This allows the collective measure to deal directly with both learning decay over time and training skills turbulence. Collective training status would be tracked for the same MOS series (11, 13, 16, and 19), skill levels (1 and 2) and type units (AR, IN, and ARTY) as proposed for the individual training measure.

ARTEPs, however, are not as directly applicable to training status evaluation as are SMs. ARTEP 71-2, for example, lists level 1 fifty primary missions "for squad/team through battalion task force (BNTF) echelons": thirteen more supplemental missions "applicable to all training and evaluation (T&E) outline for battalion level command groups and staffs.[9] It also provides minimum unit EXTEV and SUE mission/task guidance as follows (summary extract, level 1):[10]

BNTF and Comd Gp/Stf --	6 of 9 primary missions; 7 of 11 supplemental missions and Ch. 10, App. 1, tasks.
Company Teams --	6 of 10 primary and 7 of 11 supplemental missions.

Platoons --	1/3 of the units (or 1/2 of the subunits of specialized platoons) evaluated on 1/3 to 3/5 of primary and one or more supplemental missions.
Squads --	1/3 of the units (or 1/2 of the teams of specialized sections) evaluated on 3/5 of primary and one or more supplemental missions.

The problem then becomes one of simplifying the complex mission/task--unit/subunit relationships to something that can be tracked for collective training as easily as SM tasks can be for individual. Simplicity and flexibility are key here. They can be achieved by reducing ARTEP mission participation requirements, and by allowing MACOM and Division commanders to determine which of the range of ARTEP missions will be designated for OTRM credit for each level unit or subunit.

A simple formula for armored and mechanized infantry battalions (ARTEP 71-2), for example, would be: "2 x 6 + 8" for company and battalion FTX EXTEVs; and "2 x 4 + Special" for SUEs.

Now what does that mean? The 2 x 6 + 8 breaks down as for $\underline{2}$ echelons (BNTF and Co TM) proper MOS series, skill level and TO&E position soldier participation is credited for $\underline{6}$ designated primary and $\underline{8}$ designated supplemental missions. "Which 6" and "what 8", would be at the discretion of the MACOM commander--or lower if he so designates. This approach has the added advantage of allowing MACOM or lower commanders to key the mission-unit mix to their geographical area or to operational contingency plan requirements. For credit, the soldier's unit(s) would have to have received a "SAT" rating for each evaluated mission.

The 2 x 4 + Special SUE breakdown for sections/squads and platoons is similar to the above. Proper MOS series, skill level and TO&E position soldier participation is credited for external SUEs for $\underline{2}$ subunit echelons

(section/squad and platoon) in 4 primary missions at each level, and Special
unit missions as follows: mortar platoons (1)--indirect fire support;
scout platoons (3) and squads (1)--tow antitank fire support or real train.[11]
"Which 4" would be at the discretion of the division commander--or lower if
he so designates. Thus, he can also key the mission-unit mix to operational
requirements, contingency plans or facility limitations.

Since this OTRM system is based on soldier participation, skill
turbulence can now be addressed directly. As long as the soldier is still
in his evaluated TO&E position and unit, and within an acceptable training
decay window, he is counted as part of the units collectively trained base--
just as he did for its individually trained base. When his assignment
status changes (usually TO&E position change or PCS loss to the unit), or
he falls out of the training decay window, he will no longer be credited
as collectively trained.

How often (within what time period) should the soldier participate
in an ARTEP unit EXTEV or SUE for the adequately trained assumption to
remain valid? That is, what is an acceptable training decay window? Here,
professional judgment provides the only guidance available:

> There is little or no data available of degradation of
> collective training proficiency of battalions or their
> subordinate elements.[12]

Again, FORSCOM is representative. FORSCOM Circular 350-8 guidelines
listed semi-annual subunit (platoon or below) training (not necessarily
externally evaluated) to appropriate AC and RC ARTEP standards, for armor
and infantry units--and quarterly for field artillery units.[13] For all
units, the FTX (not EXTEV and not to ARTEP standards) frequency guide
was quarterly. FORSCOM Regulation 350-1, states that: "External evaluation

should be administered at least once every 18 months."[14] It doesn't

differentiate between unit FTX EXTEVs and SUEs. Army Regulation 350-1,

HQDA's primary training document, states: "Unit evaluation of battalion

or separate company sized units should be conducted annually."[15] In a

civilian contract report to HQDA titled Objective Training Status Criteria,

Irving Heymont and Victor Hobson proposed that: "Generally, a C1 company

or smaller unit should demonstrate successful performance of all or almost

all of the essential training missions every six months."[16] They also

proposed that: "At battalion level, the time period for the C2 rating

can generally be extended to 12 months."[17] They made no direct reference

to a C1 battalion, but inferred a six-month interval.[18] So, professional

judgment (in-house and contract) varies between 6 and 18 months, with a

tie between the shorter time interval and smaller units or subunits.

The final determinate has to be the impact of the measure on training.

The lower figures are not realistic. Soldier training time and other

resource limits make a six-month window for SUEs and 12-month window for

FTX EXTEVs, even if limited to company level, unrealistic--at least in the

current training environment. Therefore, I propose a 12-month window for

platoon and squad/section SUEs and 18-months for company/team and battalion/

task force FTX EXTEVs. This is in line with the individual window and is

attainable.

To summarize then:

-- To meet fully collective trained criteria, a soldier (in a reporting

unit, MOS career series, etc.) would have to have participated in formal

unit FTX EXTEVs (company and battalion level credit) and SUEs (platoon level

and below) in the requisite mission mix (4 x 6 + 8 and 2 x 4 + Special--

with specific missions as designated by the MACOM/division commander),
to ARTEP standards and within the last 12 (SUE) and 18 (FTX EXTEV)
months—in his currently assigned TO&E position.

-- For a unit/subunit (IN, AR or ARTY) to meet fully trained status
in collective skills, 100% of its assigned personnel would have to meet
that same criteria. NOTE: The collective report is additive at higher
echelons. That is, platoon level 100% credit requires both 100% squad level
participation (4 specified missions) and platoon (another 4 specified missions).
Anything less begins to subtract from the units collective fully trained
status. Confusing? Yes. But, as discussed in the next section all these
calculations can be handled by a computer.

Now before I turn to recording and reporting, what about combined
(individual and collective) status? Should it be additive? I believe it
should. If so, equal or proportional? And, proportional, in what
proportion? We're back to the good soldier, good squads/platoons or good
company cadres make good units argument. My research indicated that there
were as many views on this as interviews. Rather than spend time on
restating all of those, and whether individual or collective training
is currently "driving the train," I'll take the obvious and easy way out.
Initially, 100% trained = 100% individually trained plus 100% collectively
trained—in equal proportions. That is definitely a "Model-T" approach.
More information must be obtained and studied. Maybe 60-40 is better—
or 40-60. It will really depend on how changeover to an OTRM USR impacts
on commanders and their allocation of training resources.

RECORDING AND PROCESSING

An expanded and upgraded Job Book (JB) provides the means for initially recording and continuously tracking a soldier's individual and collective training status at squad/section level. In terms of quality upgrade, the JB must reflect the SM changes proposed earlier in this chapter. In addition, a significantly expanded role is necessary. The JB must become the soldier's total training record.

It should be initiated in Initial Entry Training (IET), replacing or supplementing current Fort Benning Form 56 and TRADOC Form 578R records. When the IET graduate reports to his first duty station, his JB should come with him. On arrival, it should be turned over to his initial first line supervisor--who is then charged with its safekeeping and updating. The new JB training record must, like a shot record, follow the soldier throughout his skill level 1 and 2 career, being controlled, constantly updated, and renewed if necessary by each of his succeeding supervisors. If his supervisor changes, so does control of his JB. When he permanently changes station (PCSs), his JB should go with him.

The JB also needs to be expanded to serve as both an individual and collective training record.[19] This means initially, that for the proposed MOS series (11, 13, 16, and 19), appropriate ARTEP[20] missions must also be listed. The format should be similar to that now used for SM tasks. For 11 MOS series JBs, for example, additional ARTEP mission entries(from 7-15[21] and 71-2[22]) would be as follows:

LINE #	ARTEP	CH – APP/SECT	DESCRIPTION	SAT	NAT	DATE
209	7-15	6 – Sect. 6-1	Movement to Contact			

or

| 259 | 71-2 | 9 – App 3 | Breaching a Minefield | | | |

Line numbered entries would be required for all primary and supplemental ARTEP missions. The line numbers are necessary for later transfer of the raw JB data to a machine acceptable (mark sense) format.

Recording individual and collective results in a single JB would be virtually impossible when multiple MOS series records are being kept in several types of battalions. The best approach is to just add line numbers to current SM based JBs and rename them (properly) as Soldiers Individual Training Records (SITRs). A separate set of Soldiers Collective Training Records (SCTRS-format as above) would then be published for each ARTEP.

The cost of this approach is to have two different records for each soldier monitored. The benefits, however, are worth it. The printing problem is simplified and it provides flexibility in handling the considerable variety of potential individual – collective and AC-RC (Level 1, 2, or 3) collective record mixes. Thus, for each different ARTEP, the various mission level requirements (1, 2, or 3) can be listed in the same SCTR, while still retaining current JB pocket size and thickness. In addition, when an 11B is transferred from an infantry battalion (ARTEP 7-15) to a mechanized infantry battalion (ARTEP 71-2), his 7-15 SCTR can be retired and a 71-2 SCTR initiated. This will also simplify record keeping for the 16 and 19 MOS series Special platoon soldiers. A mechanized infantry scout, for example, would be tracked by a 19D SITR and 71-2 SCTR.

With a little thought and ingenuity a pocket-sized cover could be developed that could hold both records--something like a mini "soldier's log-book" binder. Could a squad leader carry up to ten of these around with him in the field? Not easily, but probably as well as he can now carry ten different JBs. How about 5 or 6, for the skill level 1 and 2 soldier he realistically might be able to get out to field training at one time? Sure, again, at least as well as he can currently handle five or six different JBs.

As suggested earlier, further processing of the supervisor recorded data requires computer hard and software capabilities. The Training Management Control System (TMCS) hardware package appears to be a feasible system that will be readily accessible by battalion S-3 personnel. To get the data into a TMCS computer, it must be transferred from the SITR/SCTR record to a machine acceptable format. Several Army agencies are capable of producing a single or double-sided mark sense form that can be used to convert the raw data into machine acceptable form. The form, an instruction book and a #2 soft lead pencil are all that the squad leader would require to transfer his SITR/SCTR record data to machine acceptable format. Forms would include the soldier's name, rank, and social security number; TO&E position line number and a squad through battalion unit identification code; date of the initial or updated report; and, data entries by SITR/SCTR identification code and task/mission line number (see above format).

While initial data entry for an experienced PCS soldier might be time consuming, the squad leader would be required thereafter to complete a GO/NO GO or SAT/NAT entry only for each line that changed status. All

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other spaces would be left blank--unchanged. After the first few times, the forms and process would be familiar and for even a ten or eleven-man squad, transfer should take no more than an hour or so a month.

Data recording should be cut-off as of the fifteenth of each month. Mark sense forms could then be completed and turned into the battalion S-3 by the 20th, and entered in the TMAC computer, via a mark sense form reader, by the 25th. A computer printout of the status of each individual soldier and unit/subunit form squad through battalion, would be available for the commander in time to record it on his USR.

A data display format and the necessary software packages to achieve it need to be developed. Current SQT result formats provide a guide. I envision a wrap-up that would start with the individual soldier's record of his possible and currently demonstrated SM task and ARTEP unit/subunit mission performance--in absolute and percentage terms. Separate reports could be designed to break out training status by individual and unit, or by individual task and collective mission aggregations. Thus, for example, a commander would be able to ask for, and get:

-- the ten least trained SM tasks and/or ARTEP missions in his squad(s), platoon(s), company(ies) or the battalion.

-- the number and percent of his (squads', platoons', etc.) soldiers qualified in any SM task/ARTEP mission--either individually or in sets.

-- the impact of his unit's individual and collective training status if, given no change in personnel, he delayed his ARTEP EXTEV for two months and oriented instead on individual training of specified SM skills.

Basically, how the data base could be manipulated and displayed is just a matter of determining what commanders and training managers need

to know--and then developing the software programs for data needs that are worth the cost. The potential for providing commanders and training managers objective data on individual and collective training status--their training readiness and other useful planning and resource managing information, is tremendous!

REPORTING

The final step is to tie this OTRM to the USR. Initially, the reporting unit's individual and collective training status would only be recorded on the USR as one of several factors to be considered by the battalion or separate company commander in determining his subjective rating. Later, criteria could be developed that would convert the combined individual and collective training status percentage figure to a training REDCON and C-rating.

How would this be accomplished? Data would be provided by computer printout, for the commander's consideration and USR reporting, in terms of the percent of his battalion-qualified in each of ten percentile categories of the individual SM-required tasks and ARTEP collective missions validated. The computer program would multiply the percent in each ten percentile category times that percentile's mid point and provide a battalion profile of both training and collective training status. For individual status, the printout format might include:

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% of Tasks Trained		X	% of Pers. Trained	=	BN Status
%	(%tile)		%		%
95+	(100)		0		0
85-95	(90)		0		0
76-85	(80)		.05		4
66-75	(70)		.10		7
56-65	(60)		.20		12
46-55	(50)		.10		5
36-45	(40)		.25		10
26-35	(30)		.10		3
16-25	(20)		.10		2
6-15	(10)		.10		1
0- 5	(0)		0		0
					44%

The battalion is "44%" trained in individual soldier skills. That is, where all 11, 13, 16, and 19 MOS series skill level 1 and 2 TO&E position soldiers have a "GO" proficiency in all common appropriate position tasks within the last 12/6 months, the battalion's status will be 100%. If its Ø and Ø, it's status will be Ø%. In the above example, the battalion's status is 44% trained. The collective format might include:

COLLECTIVE

* % of Total Possible Unit Missions Trained		X	% of Personnel Trained	=	BN Status
%	(%tile)		%		%
96+	(100)		0		0
86-95	(90)		0		0
76-85	(80)		0		0
66-75	(70)		0		0
56-65	(60)		.10		6
46-55	(50)		.20		10
36-45	(40)		.25		10
26-35	(30)		.20		6
16-25	(20)		.10		2
6-15	(10)		.10		1
0- 5	(0)		.05		0
					35%

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*For a soldier to be trained in 100% of possible unit missions, he would have to have participated within the last 12 (subunit) or 18 (unit) months, in the 4 designated squad, 4 designated platoon, 6 designated company and 6 designated battalion primary missions, the 8 designated company and battalion supplemental missions, plus, if in a special platoon, the appropriate special missions and all to SAT standards.

Confused again? Probably, and that's why a computer program will sort all this out, printing out the above profile which indicates a "35%" collective training status for the battalion. This same profile could be printed out for each unit and subunit in the battalion--from squad through company.

What's left? Add both the individual and collective results, divide by two and you get an equally proportioned total training readiness status of:

$$\frac{45 + 35}{2} \quad = \quad \frac{80}{2} \quad = \quad 40\%$$

Is that good or bad? Neither, it just is, given the OTRM defined above. At least, a commander can compare his status to a 0 to 100% scale, and with the status of other, similar battalions. Then he can allocate or reallocate training resources and see which way that figure moves--and how far. The OTRM system proposed in this chapter is certainly no "Cadillac"; maybe it's not even a "Model-T." It is, however, a solid step in the right direction!

CHAPTER V

FOOTNOTES

1. Meyer, p. 11.

2. See FORSCOM Circular 350-8, p. A-1, and FORSCOM Regulation 350-1, p. 3-2.

3. FORSCOM Circular 350-8, p. A-1.

4. FORSCOM Regulation 350-1, pp. 3-5 and 3-7.

5. Shields, Goldberg and Dressel, p. 1.

6. Ibid, p. 3.

7. Ibid, p. 5.

8. Shields, Joyce and VanWest, pp. 4-8.

9. HQDA, ARTEP 71-2, pp. 8-1, 8-2, 9-1, and 10-1-1.

10. Ibid, p. 5-10.

11. Ibid, pp. 8-1 and 8-2.

12. Heymont and Hobson, p. 10.

13. FORSCOM Circular 350-8, pp. A-2 and A-6.

14. FORSCOM Regulation 350-1, p. 3-3.

15. Headquarters, Department of the Army (DA), Army Regulation (AR) 350-1, Army Training, Washington, D.C., 25 April 1975 (with change 1, 1 May 1978).

16. Heymont and Hobson, p. 9.

17. Ibid.

18. Ibid.

19. Specific Job Books are: HQDA, TC 7-11 B 1/2 (JB); Headquarters, Department of the Army (DA) Training Circular (TC) 7-11C1/2 (JB), Indirect Fire Infantryman Job Book, 11C (Skill Level 1/2), Washington, D.C., 18 August 1977; Headquarters, Department of the Army (DA) Training Circular (TC) 17-11D 1/2 (JB), Armor Reconnaissance Specialist Job Book, 11D (Skill Level 1/2), Washington, D.C., 21 July 1977; Headquarters, Department of the Army (DA), Training Circular (TC) 17-11E 1/2 (JB), Armor Crewman

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20. Specific ARTEPs are: Headquarters, Department of the Army (DA), ARTEP 7-15, Army Training on Evaluation Program for Infantry Battalions (Infantry, Airborne, Air Assault and Ranger), Washington, D.C., 18 June 1979; HQDA ARTEP 71-2, and HQDA, ARTEP 6-365, Army Training and Evaluation Program, Field Artillery Battalion, Direct Support Units, Washington, D.C., 18 February 1977.

21. HQDA ARTEP 7-15.

22. HQDA ARTEP 71-2.

CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

GENERAL

Training is one of the most difficult and challenging responsibilities commanders face. The environment is hostile; it is characterized by constrained resources, limited soldier availability and a constant stream of higher priority requirements and other detractors. As a result, commanders, trainers, and many of our soldiers are frustrated and ready for a change.

One fundamental problem is that the Army has yet to adopt a method of objectively determining the status of individual and collective training--an objective training readiness measure (OTRM). Therefore, commanders must judge and report their training status in subjective terms. This does not meet the information needs of high level planners and resource allocators; neither does it meet the needs of lower level commanders who want to know in specific terms just where they are, where they should be and how well they are doing in closing the gap--and how all that compares with similar units throughout the Army. Despite continuing OTRM arguments, pro and con, the need is there. It must be met.

Fortunately, recent developments in computer hard and software systems, and how we define and document individual and collective training requirements and accomplishment, have provided a basis for development and implementation of a "Model-T" OTRM system. The Army can no longer afford to wait for a perfect measure and system.

This paper proposes one approach to a first step OTRM system that tracks and reports the individual and collective training status of a limited number of combat soldiers and units. It should be seriously considered for further development and implementation, Army wide. It meets internal and external Army needs for an OTRM system and data. It also provides a means for diminishing training detractors and for getting commanders more of the resources they need to improve their overall training status.

The Army must act now, on its own, or face enforced compliance with a system developed externally--one that does not meet Army needs and apprehensions.

SPECIFIC

1. Conclusion:

The USR evaluates unit readiness, but is used by processing and receiving decisionmakers more as an aid in resource allocation than as a measure of combat effectiveness. The impact of resource allocation decisions are easily identified by changes in USR personnel and logistic data, and in other areas where objective, statistical measures are used. This is not true for training, however, where the impact is subjectively assessed at best. In many cases, the impact is impossible even to estimate, and therefore is not considered by decisionmakers.

Recommendation:

Provide an OTRM for USR training readiness evaluation--initially to supplement and aid the commander in developing his subjective estimate; later to be used as the sole determinant.

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2. Conclusion:

Training readiness data is needed by unit commanders and other trainers and training managers at at least three different organizational levels: DA and above; MACOM/corps; and division and below. Each level has different objective information needs, depending on hierarchial and physical distance, and vertical and horizontal span of control. Resource allocation needs predominate at the top; comparative criteria and priorities/resource input needs predominate at the bottom. An acceptable OTRM must meet the entire spectrum of interests and needs.

Recommendation:

Develop a simple OTRM that meets the spectrum of needs identified in Chapter II.

3. Conclusion:

OTRM data is subject to misinterpretation, particularly by "outsiders" who are not or cannot fill in the underlying intangibles and assumptions. It may also be misused, by both "insiders" and "outsiders." These are valid concerns that apply to all objective measures and statistical data.

Recommendation:

Keep the measure simple and ensure that users understand what the data means--and does not mean. Clearly define the measure and its limitations.

4. Conclusion:

An OTRM must identify requirements and measure achievement. Also it must address both individual and collective training. Balance is key. If individual and collective measures are not weighed properly, resource allocation and training emphasis will favor one over the other.

Recommendation:

Initially, weigh them equally. Change only if indicated by subsequent feedback.

5. Conclusion:

There is confusion between a training status measure, which measures the training a soldier has received and a training proficiency measure, which measures what he can do now. The Army needs both, but proficiency measurement is much more difficult. Collectively, proficiency deteriorates rapidly over time due to personnel turbulence and inadequate reinforcement training. Further, a proficiency measure is useful only to the extent that test conditions equate to the future environment. That is, proficiency tends to be scenario specific--and the future isn't. The National Training Center (NTC), Multiple Integrated Laser Engagement System (MILES), Emergency Deployment Readiness Exercises (EDREs) and the Department of the Army Inspector General's new Training Division, offer varying potential for developing a comprehensive combat proficiency test system--one that is separate and distinct from the USR OTRM system proposed in this paper. Proficiency test development is a valid Army needs; but, it must be kept separate from objective training readiness measurement.

Recommendation:

Separate the two concepts. Proficiency test development should be pursued by the agencies and means listed above. The OTRM and recording, processing and reporting system proposed in this paper should be implemented for training readiness reporting under the provisions of AR 220-1.

6. Conclusion:

An OTRM must address learning decay over time and personnel turbulence. This is necessary for both individual and collective training.

Recommendation:

Use a measure that applies to the soldier's training status, rather than the unit's--even for collective status evaluation. This approach

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can assess the impact of both time decay and personnel turbulence on a units individual and collective training status.

7. Conclusion:

Recording and reporting must be simple, using existing documents where possible and minimizing additional time requirements for trainers and training managers.

Recommendation:

Use SMs and ARTEPs to define individual and collective training requirements. Expand JBs to individual and collective training record status. Limit application initially to combat units, battalion and lower, and combat MOS series skill level 1 and 2 TO&E position assigned personnel only. Exploit current and near term future computer hard and software capabilities. Manually record and process only initial status and changes thereto.

8. Conclusion:

Reserve Component (RC) units have the special problem of severely limited training time. They simply cannot meet individual training requirements or active component (AC) levels of collective training.

Recommendation:

Use the same OTRM system for both RC and AC units. Special AC evaluations of RC ADT should be discontinued--normal USRs, under the provisions of AR 220-1, are adequate. RC units will reflect a bigger "gap"--but it must be measured the same way for both AC and RC units.

9. Conclusion:

The individual training requirements mentioned most often during my research were physical fitness, nuclear, biological and chemical, and individual and crew served weapon qualification/familiarization. These

plus virtually all other critical combat tasks are listed in the appropriate SMs for each career MOS series--although physical fitness and individual and crew weapon position tasks, conditions and standards need to identify more specifically that PCPT and weapons qualification are the "GO" criteria.

Recommendation:

Upgraded SMs should provide the task, conditions and standards requirements against which individual training achievement should be measured.

10. Conclusion:

ARTEPs offer an equally useful set of skill requirements for measuring collective training status. However, this should not be done by making ARTEP EXTEVs and SUEs into proficiency tests. Rather they should be used to provide a means for measuring collective training status in terms of the soldier's demonstrated SAT performance, in externally evaluated ARTEP missions, at squad/section through battalion levels.

Recommendation:

ARTEPs should provide various unit level missions. tasks, conditions, and standards against which collective training status should be measured.

11. Conclusion:

Both individual and collective training status should be tracked in terms of demonstrated "GO"/"SAT" performance. For individual training requirements. IET records and Job Books offer an existing system for recording and reporting the last date of demonstrated performance, and whether "GO" standards were met. Collective training should be similarly tracked. That is, the date a soldier last participated in an appropriate set of unit/mission FTX EXTEVs and SUEs to "SAT" ARTEP training and evaluation (T&E) conditions and standards, should be recorded and reported.

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This will require publication of a collective training record similar in format to current JBs, but focused on ARTEP unit and subunit missions rather than SM tasks.

Recommendation:

Upgrade and expand JBs as outlined in Chapter V; convert them into a formal soldier's individual/collective training record (SITR/SCTR) and use for initial recording of training status.

12. Conclusion:

The Army's new Training Management Control System (TMCS) offers potential for developing an OTRM data recording and processing system. It's decentralized computer, with optical scanner interface capability, will accept mark sense form input. A software package that will be able to produce hard copy data in a variety of formats, similar to the package being developed for battalion level SQT grading is needed.

Recommendation:

That Computer Systems Command (CSC) develop a software package to support the processing of SITR/SCTR recorded individual and collective training status data, using squad leader prepared mark sense forms for initial data input and periodic update. The software program required and output formats are discussed in Chapter V.

13. Conclusion:

Under conditions of scarce training resources--both in terms of budget
$\cdots$ and soldier's time--the "gap" between individual and collective
$\cdots$ requirements and realistic achievement levels will be large. For
$\cdots$ well thought-out criteria are needed to help commanders
$\cdots$ SM tasks listed are most important and merit

commitment of their soldier's time and valuable training resources. This is particularly important for RC units. For collective training, the OTRM system proposed in Chapter V meets this need by reducing the required unit/mission spectrum--and allowing MACOM or subordinate commanders to choose the missions to be tracked. Again, however, criteria for mission selection are lacking. Regardless of corrective efforts, RC units will continue to have problems in meeting individual and collective training requirements within their limited available training time.

Recommendation:

ARTEP and SM proponents should provide commanders a doctrinally developed and justified criteria for better identifying the most critical/important SM tasks and ARTEP unit missions. Current SM-ARTEP interface efforts, operational requirements and war-time contingency plans all offer some indication--but, more work needs to be done.

14. Final Conclusion:

Chapter V presents a series of specific recommendations for establishing a "Model-T" objective training readiness measure and recording and reporting system. Its purpose is both to provide a basis for further discussion, refinement and evolution--in a direction that I am convinced the Army must eventually move--and to propose a system for immediate developmental implementation. If the Army does not take the initiative and meet its needs now, the Department of Defense (DOD), Office of Management and Budget (OMB) and Congress, will eventually direct adoption of a measure and system that satisfies their, but not necessarily the Army's needs. This paper is intended to aid the Army in ensuring that future changes to training readiness reporting satisfies its internal needs as well as its external requirements.

Final Recommendation:

The Army should refine and implement the OTRM system proposed in
Chapter V or devise one that better meets Army needs and leaders'
apprehensions. Either way, it is time to act. An initial, trial system
is necessary to generate the problems discussion and feedback required
for finally development testing and fielding of a workable OTRM--one
that is accepted, supported and useful, Army wide!

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