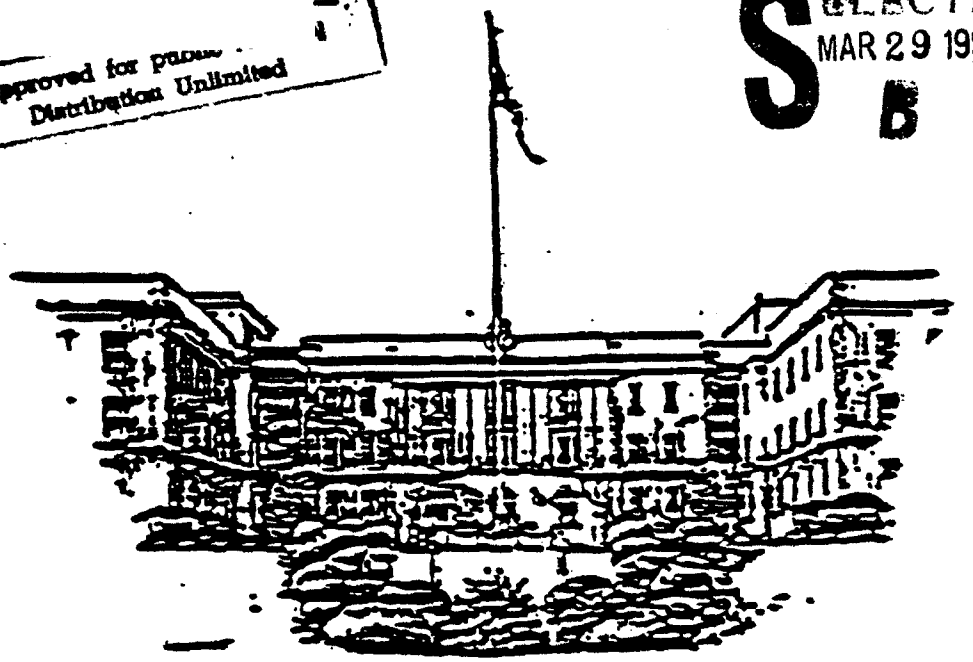
NEW MANNING SYSTEM FIELD EVALUATION

Technical Report No. 2



DEPARTMENT OF MILITARY PSYCHIATRY

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1 MARCH 1986

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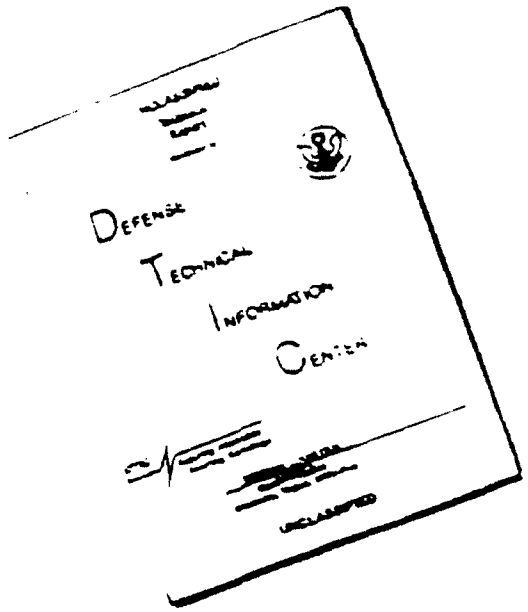

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1 March 1986

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EXECUTIVE SUMMARY

This is the second of 12 quarterly reports describing the programs and findings from participation by the Walter Reed Army Institute of Research (WRAIR) in the Headquarters, Department of the Army (HQDA) New Manning System (NMS) Field Evaluation. This report contains a detailed OVERVIEW of current research activities as well as associated research findings. It also includes APPENDICES that contain specific information about various aspects of WRAIR's NMS Human Dimensions Evaluation.

The following is a brief summary of the most important issues raised in this technical report.

1. Data collection for the first iteration of the "Soldier Will" questionnaire has been completed, and the initial analyses of these data will be finished by June 1986. With a few notable exceptions, the Soldier Will survey unit response rates are good. Continued command cooperation is needed to assure that high response rates are maintained in subsequent survey administrations.

2. The NMS evaluation is limited by meaningful collective performance measures. Such measures are critical for the comparison of COHORT and nonCOHORT units. This problem is inherent in the way the Army currently measures training performance and goes beyond the level of current TCATA and WRAIR data collection efforts.

3. Battalion rotation planning has not taken advantage of "lessons learned" from company rotation. While individual commands and communities have developed what appear to be viable rotation plans, there has been little sharing of ideas or information across these commands and communities. Consequently, each plan is in some way unique. One unfortunate similarity is the typical role of spouses as "recipients" of unit and community efforts and not as "participants" in the development and execution of these efforts.

4. There is confusion and a general lack of understanding, especially among NCOs, about the nature and purpose of the COHORT and Rotation initiatives. In addition, there is considerable misinformation about these initiatives. Many NCOs are worried about issues such as "lack of advancement opportunities in COHORT units" and what they perceive as other potential harmful career effects associated with a COHORT assignment.

Detailed information about this report or other WRAIR NMS research can be obtained by contacting LTC James A. Martin, Ph.D., WRAIR (SGRD-UWI-A), Washington, D.C. 20307-5100. Commercial telephone: (301) 427-5312/5360/5261/5210; Autovon 291-5312/5360/5261/5210).

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Note: Appendices C, F, G, and H, and annexes I and II of Appendix A are not included in "action officer" copies of this document. They are available from WRAIR upon request.

OVERVIEW

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OVERVIEW

1. Background

a. This is the second WRAIR quarterly report concerning research activities in support of the HQDA (ODCSPER-DAPE-PSB) New Manning System (NMS) Field Evaluation. It covers WRAIR research activities during the period 1 November 1985 through 15 January 1986.

b. This report is designed (1) to provide HQDA (and other participating agencies) with an update of WRAIR's current NMS research activities; (2) to raise issues that warrant discussion among the agencies involved in the overall evaluation; and (3) to forecast some of WRAIR's future NMS research activities.

2. Current Activities

a. Soldier survey (Appendix A)

(1) The most important finding of this study (as highlighted separately in Appendix A) is the continued need for meaningful, unit-based performance data to support the NMS Field Evaluation and in particular WRAIR's "Human Dimensions" Evaluation. Reliable, valid, and meaningful measures do not appear to be available at this time, and we do not see their developement in any of the current NMS Field Evaluation initiatives.

(2) Table 1 provides a summary of the units that have completed the first iteration of the Soldier Will questionnaire as well as projections for the second and third iterations of questionnaire administration. Of note is the fact that three of the original nineteen battalions will have to be eliminated from the first iteration analyses because the questionnaire was never administered or administered too late in time for incorporation into our analyses. The most important effect of this reduced sample is the loss of the OCONUS field artillery and airborne units from initial data analyses, and our subsequent inability to assess these types of units in the overseas setting. Table 2 provides a summary of the types of units and locations that are to be considered in our analyses of first iteration data (scheduled to be completed before June 1986).

(3) Tables 4 and 5 summarize the response rates for the first iteration questionnaire. These rates are generally adequate (reaching or approaching the criterion of 80%).

While it is important that the administration of these questionnaires does not interfere with unit training, WRAIR's experience suggests that with proper command interest, an 80% response rate is attainable in all units.

(4) Annexes to the Soldier Will survey status update (Appendix A) contain two recent analyses of Soldier Will data from a subsample (27 companies, N=2830) of first iteration data. The first analysis focuses on the relationship between soldier will, training and performance measures, and type of replacement. Soldier Will measures were found to be negatively related to both individual measures of soldier delinquency (e.g., AWOLs and nonjudicial punishments) and to manhours stated to be devoted to specific types of training at the company level. As expected, on individual-level measures of performance COHORT and nonCOHORT soldiers did not differ.

(5) Annex II in Appendix A looks at the relationship among types of housing (i.e., on-and off-post housing and barracks living), the Soldier Will measures, and COHORT status. A conglomerate soldier will measure was fairly successful (64-68%) in predicting a soldier's actual unit status. Soldier Will scales most important in distinguishing COHORT from nonCOHORT soldiers were: Company Combat Confidence, Sense of Pride, and Unit Teamwork; of least importance were Senior Command Confidence, and Concerned Leadership. In this study, COHORT soldiers residing in the barracks tended to score highest on the Soldier Will measures, while nonCOHORT soldiers in the barracks score lowest. COHORT and nonCOHORT soldiers not living in the barracks fell between. The cause of the latter effects of unit status on soldier will outside the barracks are not yet fully understood. More knowledge about the nature of social interactions away from the barracks, and the impact of issues like unit climate and family life should help to clarify these relationships.

(6) Annex II also reveals that characteristic differences in training and organizational features of COHORT and nonCOHORT units correspond to a predictable difference in "soldier will." Failure to achieve 100 percent accurate prediction of unit status was in part the result of nonstandard conditions among some COHORT units. High turnover rates within some companies, and the inclusion of headquarters companies within the sample--the personnel of which are more transient and frequently trained apart from the rest of the unit--are factors which detract from

the operational meaning of the COHORT label. Also, units were surveyed at early stages in their three-year life cycles, before eventual distinctions between COHORT and nonCOHORT units may be fully crystallized. The ability to predict unit status from soldier will with a fair degree of accuracy, despite these mitigating factors, suggests that predictive ability may be increased when these factors are controlled. The present results may therefore provide a conservative estimate of the actual impact of COHORT status upon soldier will.

b. Spouse survey

(1) Wives in the twelve CONUS NMS study battalions are being contacted by mail to participate in a spouse survey similar to the current soldier survey. To date, 1100 wives (approximately one-third of those contacted) have already agreed to participate and 450 initial questionnaires have been mailed. Efforts are underway to enhance the response rate with a goal of at least a 60 percent return.

(2) Resource limitations prevent surveying wives in the current OCONUS battalions. These wives are scheduled for inclusion after their husbands' units rotate to CONUS. Concurrently, the study will continue to survey CONUS wives after their husbands' units rotate to OCONUS.

(3) Initial efforts to contact the CONUS spouses involved the use of unit mailing rosters. Unfortunately, the many inaccuracies in these documents have hindered contact efforts. Assuming that these are the same mailing lists used by the units (and their spouse groups) to inform family members about unit activities, this experience suggests that many families may not be receiving important information.

c. Battalion rotation (Appendices B and C)

(1) WRAIR's assessment of the unit, family, and community aspects of battalion rotation in CONUS is well underway (Appendix B). Initial interview and observational data reveal the following:

(a) The unit and community level planners and managers of the rotational efforts have not received, or have been unable to use, "lessons learned" from previous unit rotations. In particular, information from the extensive company rotations that have been underway for the past three years as part of the COHORT unit movement program has not been utilized.

(b) Each of the units and communities involved in the battalion rotation effort have developed what appear to be viable plans for a smooth unit transition to the new location. Interestingly, there is very little sharing of plans across different commands and communities; each plan is in some way unique.

(c) While each of the CONUS battalions have spent considerable time and effort addressing issues for those families planning to rotate to the OCONUS location, little attention is being given to the potential needs of those spouses who (for whatever reason) have elected not to accompany their husband overseas. Based on previous research with company rotation (Martin, 1984), these spouses/families will be exposed to considerable stress and are at high risk for the development of medical, social, and behavioral problems. This research predicts that unit and community initiatives to prepare families for the rotation experience can have a positive impact on their well-being. Such initiatives can help to ensure that the soldier-husband will successfully complete his overseas tour without preventable family disruptions. Simply stated, many of these disruptions can be prevented or minimized by adequate prior planning.

(d) Despite unit efforts to ensure that spouses are well informed, many wives still are unclear or uninformed about important rotation matters. As the rotation draws closer, opportunities for spouse and family informational gatherings may improve this situation. WRAIR will continue to monitor the dissemination of information to wives, and its resultant impact on their knowledge.

(e) Initial contacts reveal that very few units have attempted to involve wives as PARTICIPANTS in the battalion rotation planning and implementation efforts. This has occurred despite the fact that many wives have skills and experiences that could be put to good use. For example, a number of wives are European; some have even lived in the gaining communities. Many are experienced in moving a family overseas or surviving an unaccompanied tour. They have knowledge, experience and abilities that could be useful to other unit families. At this point, most of these women are experiencing the unit preparations for rotation, but few have been sought out and encouraged to participate in planning or implementing these efforts.

(2) An assessment of the OCONUS rotation (Appendix C) has been initiated. The effort is focused primarily on the impact of the rotation on community agencies and community residents.

Initial information from this study will be available as part of the next quarterly report.

d. Unit interviews (Appendix D)

(1) As described in Appendix D, WRAIR has successfully initiated a series of observational and interview visits to COHORT and nonCOHORT study battalions. Most of these contacted units were in garrison. The visits did not appear to be either a burden to the unit cadre or to present a significant disruption to unit training activities. The comments that we have received from the cadre and soldiers who participated in these individual or group interviews have been very positive. Most individuals appreciate the opportunity to share some of their views on unit and Army related issues.

(2) A general lack of understanding and confusion about COHORT and Battalion Rotation emerged as a common theme observed in initial contacts with the rotating COHORT battalions (as well as with the nonCOHORT comparison units). A number of unit leaders, many NCOs, and most first-term soldiers do not clearly understand the meaning of either term. In particular, the NCOs feel that they have been forced into a program (COHORT) that will have an eventual negative impact on their career (e.g., that they are "locked into the unit forever" and that there will be no opportunities to "move up into a higher position" because "everything is just going to stack up in the unit as we all get promoted." Why so many individuals lack critical information and/or are misinformed is not clear. The commanders of the units that we have visited have made efforts to inform their soldiers, but unfortunately the results have not been as successful as unit leaders desired. Continued attention should be directed towards providing soldiers (especially those actually serving in COHORT and rotational units) with clear and specific explanations about the purpose, nature, and impacts of these various Army initiatives. The facts have to be told and retold apparently, using multiple methods of presentation. Unit leaders and project officers must elicit soldiers' questions and concerns and then provide them with understandable answers.

(3) Appendix D also describes the process by which the observational and interview data (e.g., information concerning relationships among and between unit members and perceptions about unit training) are being collected. The intended analysis strategy involves a comparison of line companies within like type COHORT and nonCOHORT battalions. The use of this information serves as one of a number of methods to provide convergent validity for the overall NMS "Human Dimension" Evaluation.

(4) Recently, a WRAIR scientist had the opportunity to visit one of the nonCOHORT study battalions during an extended field exercise. Appendix D highlights a number of observations from this site visit that focus on training issues (e.g., the discrepancies between what the leader thinks is occurring during training and soldiers' actual experiences). Of concern is the apparent difficulty of gaining valid training assessment information for the NMS evaluation. Training schedules and command reports fail to capture the actual training experience. These reports are intended as statements of what should occur under ideal circumstances. But lacking valid reports of events, leaders have no way of knowing whether or not training produces the outcomes they desire. Worse yet, leaders often do not know that this is occurring.

e. 7th Infantry Division (Light) (Appendix E)

(1) The WRAIR research team evaluating the 7th Infantry Division (Light) has adopted training performance and social climate as intermediate criteria for the evaluation of unit combat readiness, potential high performance and effectiveness, and resistance to battle stress. Training performance refers to individual and unit proficiency in performing mission-related tasks, and social climate refers to policies, customs, and behavior that strengthen horizontal and vertical cohesion.

(2) Preliminary analysis integrating observational data from units at Fort Ord, as well as from units in USAREUR, indicate that the COHORT system is the foundation for major improvements in training performance. Emerging evidence from the same sources suggests that the COHORT system can provide a context for development of a supportive unit social climate.

(3) COHORT units in USAREUR demonstrated resistance to typical problems in leadership (doctrinaire leaders, micro-managers, and those who emphasize non mission-related activities). In such units, junior enlisted personnel often devoted substantial energy to fulfilling their own norms, which were oriented toward combat proficiency. Like other COHORT soldiers, soldiers in the 7th Infantry Division (Light) were observed to be responsive to positive leadership (power down, mutual respect, caring, focussed on combat). They appear to have achieved exceptionally high levels of military proficiency in a relatively short time.

(4) Limited observations of interactions between leaders and subordinates in each of the 13 line battalions and of military knowledge and performance in seven of these battalions, suggest

that the level of training performance is correlated with positive leadership (as defined above). The research team has provisionally adopted the hypothesis that successful development of true high-performing units in the 7th Infantry Division will be the result of synergistic interaction involving the COHORT system, positive leadership, accretive training, and the light infantry mission with its emphasis on the autonomous small unit, all in a supportive command climate. The team will investigate these relationships with a view to assessing their bases and the dynamics of their interactions as well as relationship to peacetime performance outcomes.

(5) Family Support Groups (FSGs) attached to COHORT battalions in the 7th Infantry Division are exploring new ways to assist family members to handle military and societal stresses. FSGs use unit FTXs to practice for their roles during deployment. They are active during periods of garrison duty as well as unit TDY. Some company FSGs also have built support ties to unit soldiers living in barracks. Battalion FSGs are communicating with spouses that are geographically separated from their sponsors.

(6) The combination of unit-based, command-sponsored, and spouse-managed voluntary groups is unfamiliar to the Army. The most important problems facing Family Support Groups in the 7th ID(L) are lack of guidelines and conflicting role models. Delays in organization and outreach at the company level have occurred, and some commanders have expressed mixed feelings about the efficacy of a "voluntary" model for spousal participation in unit FSGs. The possibility of an installation FSG effort is being considered to alleviate uncertainty and unit-to-unit variability.

(7) FSGs promote active exchange of lessons learned across units and seek guidelines to minimize misunderstandings. Formal training at OSUT, NCO schools and officers' schools is needed to familiarize soldiers and leaders, and (indirectly) their wives, with the functions of Family Support Groups. Unit commanders and spouses of all ranks need better insight into their mutual responsibilities.

(8) Demographic trends for the first year in all-COHORT battalions have been ascertained from the WRAIR Soldier Will Survey and on-site observations. Upon arrival at Fort Ord, few first-term soldiers are married, and many delay bringing family members to the area. The number of junior enlisted families living at Fort Ord rose rapidly by the end of the first COHORT year with many new marriages, and subsequent household formation--mainly off-post. However, junior NCO families formed the

majority of resident households in a battalion during the first year of the COHORT life cycle. Enlisted men's family members have faced a broad array of family stresses during this transition period.

(9) WRAIR has begun the integration of observational and interview findings with the quantitative human elements data becoming available from the "Soldier Will" surveys of members of the 7th ID(L). Results of these analyses will be forthcoming in subsequent reports.

(10) WRAIR has established contact with representatives of the other current or planned Light Infantry Divisions for the purpose of sharing findings with these organizations.

f. WRAIR "research oversight panel"

(1) WRAIR has established a human dimensions research oversight panel. This group will meet for the first time during the period 26 through 28 March 1986.

(2) The purpose of this panel is to provide a continual review of WRAIR's human dimensions research efforts and to provide "expert" critique of these efforts.

(3) While WRAIR has very high expectations for the long term contributions of this panel, this first gathering is focused on the more limited objectives of establishing methods of operation, familiarizing members with the central human dimensions issues, and beginning the critical examination of WRAIR's NMS efforts. The process will be ongoing and information from the panel's efforts will be communicated in future WRAIR NMS technical reports.

3. Continuation of Previous NMS Research (Appendix F)

a. A preliminary study of a small representative group of spouses of soldiers assigned to COHORT companies (Martin, 1984) is continuing. The third iteration (pre-development) of survey data from spouses has been collected and these data are now being analyzed. Information on this phase will be available for the next technical report.

b. Based on data already available from this study, Appendix F contains an article on the impact of employment on the well-being of Army wives. While this article does not focus on a COHORT-specific topic, some of the findings are relevant. For

example, because of personnel stability, COHORT units should be able to accomplish a higher level of training proficiency with less of a demand on soldier time. If this occurs and results in a shortened garrison duty day and less frequent and/or less lengthy field exercises, COHORT soldiers should have more opportunities to participate in family activities. This should also allow husbands to assume some of the family responsibilities that now result in apparent stress for the working spouses of COHORT soldiers.

(Note: References are available upon request.)

APPENDIX A

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"SOLDIER WILL" SURVEY: STATUS REPORT

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[1]Special thanks are extended to Ms. Elizabeth Hoover, Mr. Rick Chooper, Ms. Doris Bitler, Ms. Denise Dickman, and Mr. Richard Oldakowski in the preparation of this technical paper.

"SOLDIER WILL" SURVEY. STATUS UPDATE

Introduction

In this quarterly report submission, information bearing on the progress of the administration and analyses of data collected from the "Soldier Will" Survey is summarized. Specifically, the following are presented: (1) a summary of units that have taken the first iteration questionnaire and will take further iterations; (2) units to be included in analyses of the first iteration questionnaire data; (3) a summary of response rates of units participating in the first iteration of the New Manning System (NMS) "Soldier Will" Survey; (4) abstracts of two recent analytic efforts using first iteration questionnaire data obtained from a subsample (27 companies) of units participating in the NMS evaluation; (5) the modified, second iteration questionnaire; and (5) discussion of the need for standardized, measurable, and most importantly, meaningful performance outcomes that can demonstrate unit combat readiness and effectiveness.

Summary of Units in Analyses of First Iteration Questionnaire Data

Table 1 summarizes first, second, and third iteration questionnaire projected, adjusted, and actual administration dates for battalions (N = 19) and independent companies (N = 38) included in the NMS Field Evaluation.

Insert Table 1 about here

Worth mentioning here is that for rotating battalions, third iteration dates are not scheduled approximately 12 months after unit formation (as specified in the Walter Reed Army Institute of Research (WRAIR) initial research proposal), but rather approximately 16 months after the unit has been formed (861001) in order to allow turbulence associated with battalion rotation to subside. Problems associated with battalion rotation will introduce additional confounding variables, and consequently, introduce many alternative, and in many instances, untestable interpretations of data analyses. Therefore, later third iteration dates were selected.

Units Included for First Iteration Analyses

Of the 19 battalions in the sampling frame, sixteen are included, and three are not (see the first two pages of Table 1). Questionnaires from these three omitted battalions have not yet been administered (received by WRAIR) or were given decidedly late (i.e., seven months from the survey date originally set by WRAIR).

Of the 38 independent companies, only 16 are included in analyses of the first iteration "Soldier Will" Survey questionnaire data (see last three pages of Table 1). The 22 companies not included in analyses had not received questionnaires (6 companies), or received questionnaires well outside (two to four months late) the initial guidance for slippage beyond the scheduled

survey date (plus or minus three weeks) (12 companies), or data obtained from these companies could not be timely processed and keypunched at WRAIR (4 companies).

Analyses of the first iteration "Soldier Will" Survey questionnaire data will be completed by the end of June, 1986. Collection of second iteration data has begun and will continue into Summer, 1986. Third iteration data collection begins in May, 1986 and continues into Fall, 1986.

Included Battalions and Companies:
Implications for First Iteration Analyses

Tables 2 and 3 respectively match battalions and companies on three criteria: COHORT-nonCOHORT status; combat arms type; and CONUS/OCONUS location.

Insert Tables 2 and 3 about here

The battalions (Table 2) are fairly well matched by COHORT-nonCOHORT status and by combat arms type; the only noted exception is in the Infantry category in which COHORT battalions outnumber nonCOHORT by 6:3. Aside from giving better estimates of population parameters for the Infantry COHORT battalions, this imbalance should not affect analyses.

What deserves attention in Table 2 is the Field Artillery-OCONUS category in which no units appear. Because of this lack of representation, differences in "soldier will" and in other related measures can be attributed not only to COHORT-nonCOHORT status but also to CONUS/OCONUS location.

Looking at independent companies (Table 3), COHORT companies outnumber nonCOHORT in each combat arms type, ranging from 4:3 to 4:1. Within CONUS/OCONUS breakdowns, units are fairly matched by combat arms type and COHORT-nonCOHORT. The only exceptions are the absence of OCONUS, nonCOHORT field artillery companies and OCONUS, nonCOHORT Infantry companies. Without these comparison units, any effects in the cells, Field Artillery-CONUS/OCONUS-COHORT and Infantry-CONUS/OCONUS-nonCOHORT, could be attributed to either COHORT or OCONUS status.

Excluded Battalions and Companies:
Implications for Future Analyses

Any battalions or companies not included in the first iteration "Soldier Will" Survey analyses should continue to be surveyed. In order to test causal relationships in our Analytic Model (see Chapter 5, New Manning System Field Evaluation, Technical Report No. 1, WRAIR, November 1985), the number of soldiers retaking or participating in successive waves of the "Soldier Will" Survey is imperative. Because personnel turnover is so great in traditional replacement units, nonCOHORT soldiers cannot be used in a repeated-measurements-over-time design. Instead, data obtained from COHORT soldiers must be used, as COHORT units have considerably less turnover over time, but nonetheless, COHORT units still have turnover. If COHORT units that we have temporarily deleted in present analyses do not receive second, third, fourth,

and fifth iteration questionnaires, then these units will fall out of the sampling frame and reduce the overall potential pool of respondents. This, coupled with a normal personnel attrition, could reduce the overall number of respondents so that planned analyses cannot be done. Too, there is no guarantee that COHORT units remaining in the study will continue to be surveyed in a timely manner, nor that their matched nonCOHORT units will continue to receive questionnaires on time. Therefore, although we have deleted units from analyses, this is only a temporary omission, and these units should be surveyed in the future in conformity with WRAIR's established survey dates.

A less critical area is maintaining in the sampling frame those nonCOHORT units that are temporarily deleted from first iteration analyses. However, if comparisons are to be made between COHORT and nonCOHORT units at one point-in-time (whether it be at the first, second, third, fourth, or fifth iteration), then obtaining data on both the COHORT unit and its matched nonCOHORT unit is necessary.

Response Rates of Units Participating in the First Iteration of the "Soldier Will" Survey

Table 4 and 5 summarize reponse rates of independent companies and battalions, respectively, that have taken the first iteration of the "Soldier Will" Survey.

Insert Tables 4 and 5 about here

The response rate was derived by dividing the number of soldiers in the company who had completed the questionnaire by the number of soldiers assigned to the company, and then, multiplying this quotient by 100. Of the 21 independent companies that reported response rates (not all units reported response rates), 13 had response rates equal to or better than the criterion requested by WRAIR, that being 80%. Four of the 21 independent companies had response rates lower than 70%, with one company having a 62.4% response rate.

Looking at the battalions (Table 5), of the 15 battalions that reported response rates, seven had rates at least equal to 80%. Five battalions had response rates lower than 70%. One battalion had a decidedly low response rate of 55.7%.

A breakdown of response rates of companies comprising the battalions is summarized at the bottom of Table 5. 33 of the 73 companies had rates 80% or higher. 14 had rates less than 70%, with five companies reporting rates below 55% and as low as 29.6%.

Abstracts of Recent Analyses of "Soldier Will" Survey Data

Preliminary analyses were performed to determine the utility of data obtained on the "Soldier Will" Survey questionnaire and training performance data collected by TRADOC Combined Arms Test Activity (TCATA), in addition to testing the viability of the analytic model described in WRAIR's New Manning System Field Evaluation. Technical Report No. 1 (WRAIR, November 1985, see

Chapter 5, "The Measurement of 'Soldier Will'," Introduction). Specifically, one study examined the relationship of "soldier will" scales to individual and collective training and performance data collected by TCATA. The other study developed an analytic model (discriminant analysis) that predicted whether a soldier was a COHORT or nonCOHORT soldier based solely on his "soldier will" scale scores. This paper also examined the relationship between living in the barracks and "soldier will," and too, how this relationship changed from nonCOHORT to COHORT units. These studies employed the same 27 companies used in the first technical report (one-fifth of the total sampling frame); therefore, results should not be construed as definitive, but rather descriptive and exploratory. Manuscripts describing the results of two investigations appear in Annex I of the Appendices. Brief abstracts of each research effort appear below.

Relationships between "Soldier Will," Training and Performance Measures, and Type of Replacement

The objectives of this study were: (1) compare COHORT and nonCOHORT units on the newly constructed "soldier will" scales; (2) compare COHORT and nonCOHORT units on available training and performance data collected by TCATA; (3) determine relationships between "soldier will" measures, and training and performance measures; and (4) examine whether the former relationships varied by unit status, either COHORT or nonCOHORT.

Albeit differences were small, COHORT soldiers consistently showed greater "soldier will" than did nonCOHORT soldiers, even when personal and unit characteristics were held constant. When examining reported manhours devoted to specific types of training, COHORT and nonCOHORT companies did not differ in time spent in training. In addition, the percent (number passed/number tested X 100) of soldiers who passed the APRT, qualified on the Weapons Qualification Test, and qualified as either "expert," "sharpshooter," or "marksman" did not differ between COHORT and nonCOHORT units.

Individual-level soldier "delinquency" measures, like AWOL status, number of AWOLs, and number of nonjudicial punishments were significantly and negatively related to "soldier will" measures. That is, soldiers who scored highest on "soldier will" had lowest delinquency rates.

Overall, negative relationships were observed between manhours devoted to particular types of training and "soldier will" measures. In other words, units who did more training scored lowest on "soldier will." These relationships typically became less negative, approached zero correlations, or became slightly positive going from nonCOHORT to COHORT units.

Although COHORT units displayed greater "soldier will," these differences might be attributable to pre-existing personal and/or unit differences, and not necessarily to the COHORT process. As data are collected on the same units of greater number across time, alternative explanations of results can be ruled out.

Greater "soldier will" was observed in units that spend fewer reported manhours in training; a possible interpretation is units that have higher "soldier will" (i.e., greater morale, sense of pride, confidence in themselves, their weaponry, and performance in combat) may spend less time in

training as they are probably better trained and more efficient in their training. The picture was less clear when these relationships were examined by COHORT and nonCOHORT status. The previously observed negative correlations between "soldier will" and training manhours became less negative, near zero, or became slightly positive in COHORT than in nonCOHORT units. The difficulty in interpreting results is, in part, attributable to the inherent limitations of the current training data.

Present analyses investigating relationships between "soldier will" and training performance data are severely limited due to shortcomings of the training data (e.g., greater than 85% of the variables currently have no values other than zeros; there is a lack of precision in measurements, etc.). This issue is discussed in greater detail in the next section.

Another inherent shortcoming of the current training data is that much of the manhours data are gathered from the battalion and company training rosters and often do not reflect actual activities. As a result, the validity of these data are questionable.

Predicting COHORT Status Based on "Soldier Will" Measures and the Relationships between Barracks Living, "Soldier Will," and COHORT Status

The objectives of this study were: (1) create a conglomerate "soldier will" scale score by employing a discriminant function; (2) predict a soldier's unit replacement status (either COHORT or nonCOHORT) based solely on this combined soldier will score while controlling for personal and unit characteristics; and (3) examine the relationship between "soldier will" and barracks living, and too, how this relationship changes from nonCOHORT to COHORT units.

With some degree of confidence (64% to 68% correct classification), a soldier's unit status (COHORT or nonCOHORT) was predicted based solely on "soldier will" scale scores while controlling for personal and unit characteristics. Of the "soldier will" measures, Company Combat Confidence, Sense of Pride, and Unit Teamwork contributed most to the prediction. Of lesser importance were Unit Social Climate and Small-Unit Confidence, and of little or no importance were the Senior Command Confidence and Concerned Leadership scales (see Tables 6-12 for scale items).

Insert Tables 6-12 about here

Results were as expected. The COHORT strategy was intended to build cohesive (units with more positive social climate, more unit teamwork, and more unit pride) and confident fighting units (greater confidence in small-unit leaders and their ability to do well in combat.)

Turning now to relationships between "soldier will" and where soldiers live, nonCOHORT soldiers living in the barracks had significantly less "soldier will" than did nonCOHORT soldiers living either in on-post or off-post housing. Differences between these same living arrangements were less apparent in COHORT units: NonCOHORTs housed outside the barracks were generally comparable in "soldier will" to COHORT groups. The group tending to

score highest across "soldier will" measures was the barracks-COHORT group. The tendency for COHORTs to do best in the barracks environment and nonCOHORTs in the barracks to do worse, in comparison to others of similar unit status, was probably related to the unique characteristics of the barracks. It would appear that COHORT status does enhance "soldier will," especially for soldiers living in the barracks. This makes intuitive and logical sense. Findings in social psychology also provide empirical validity to this explanation: Generally, people who have frequent exposure are more likely to do things together and become friends than are those people who have less frequent contact. The diminished effect of unit status upon "soldier will" outside the barracks would be better understood with more knowledge about the nature of social supports away from the barracks, and whether these tend to encourage, supplant, or neutralize the development of COHORT-like effects, such as bonding among unit members.

Second Iteration "Soldier Will" Questionnaire Instrument

Based on analyses of first iteration questionnaire data obtained from a subsample of units (27 companies) in the NMS Field Evaluation, scales believed to assess unit morale and cohesion were constructed (New Manning System Field Evaluation, Technical Report No. 1, WRAIR, 1985, Chapter 5, "The Measurement of 'Soldier Will'"). Results of these analyses in addition to soldier comments and feedback provided by BDM contractors were used to modify the first iteration questionnaire (see Annex II of the Appendix). Most noted changes were: the deletion of many items (considerably reducing the time to complete the questionnaire); and "stream-lining" the sequence of responding to items by color-coding sections that pertained to specific subgroups within the units (e.g., E4s and below, married personnel living w[illegible] their spouses, etc.).

The Need for Meaningful Performance Data

WRAIR's NMS Field Evaluation, "Soldier Will" Survey, current research efforts focus on: (1) differences in training and performance (on the individual-level, and more importantly, on the group-level) between COHORT and nonCOHORT soldiers; and (2) the relationship of our newly developed "soldier will" measures to training performance. We are also interested in how these latter relationships vary by COHORT-nonCOHORT status. Examining these relationships is an extension of an analytic model that is grounded in previous research (described in the Introduction of Chapter 5, of the New Manning System Field Evaluation Technical Report No. 1, WRAIR, November, 1985).

The first phase of analyses was aimed at developing reliable and valid measures of "soldier will." These analyses are described in the first technical report. The second phase of analyses was to ascertain relationships between these "soldier will" measures and training performance data (see manuscript in Appendix II). Training and performance data are crucial for WRAIR's analyses. Usable (that is, reliable, valid, and meaningful vis-a-vis some logical set of assumptions and hypotheses) training and performance data are necessary in examining relationships of "soldier will" to training performance. In working with the current training performance data base, both WRAIR and TCATA have noted problems which deserve further attention. These problems DO NOT reflect on TCATA's data collection efforts, rather these

problems are inherent in the nature and process of how the Army has viewed soldier and unit training performance.

The first concern is that many training performance variables have zero-entries. Looking at 27 companies (one-fifth of the entire sampling frame), only 15% of the 245 variables reported to WRAIR had any variance (values other than zero-entries). Because variables of conceptual interest (i.e., variables contained in hypotheses grounded in concept or theory) lacked variation, we were left correlating whatever variables had variation with others. The data then do our thinking for us, rather than thinking first and then, using data to test hypotheses. Because training performance data are part of our analytic plan, this lack of variation within the training performance data presents a major obstacle to our research effort. Potential solutions are: (1) to increase the precision with which data are collected; and (2) to ground data collection within some logical set of assumptions or theory.

Training and performance measures must be precise enough to detect differences between COHORT and nonCOHORT units. For example, scoring a battalion's performance on an ARTEP as either pass or fail may not allow meaningful comparisons between COHORT and nonCOHORT units. Similarly, recording the APRT score as either pass or fail may not show differences between COHORT and nonCOHORT units when most soldiers pass the test anyway. An analogy would be attempting to demonstrate differences in height between men and women using yard-stick measurements only. Surely, there is a difference in height between men and women, yet this difference lies between a three-foot interval. Any future performance measures must allow for greater variability and precision in measurement, i.e., have more than two values on a given variable.

Another solution to getting more meaningful training and performance data is to collect data on variables that have some relevance to an overarching theory or concept as to how COHORT is supposed to work on soldier morale and group cohesion, and in turn, on training and performance outcomes. Many training and performance data are being collected without being grounded in some set of logical expectations or theory.

Another problem with the current behavioral data being collected is that they are too "process-oriented," and too, are typically measurements taken on individual soldiers. Much of the current data being collected show how COHORT and nonCOHORT units differ in types of training. While these data may be useful in ascertaining the mechanisms of the COHORT process, we have little data of outcome nature, namely how COHORT and nonCOHORT units differ in individual (proficiency in combat skills) and group performance (like crew performance). The latter level of measurement is the most crucial, as the intended human effects of COHORT is to bolster unit cohesion--a group-level phenomenon--which in turn is to improve group performance and a unit's combat readiness. Groups of soldiers or units fight wars, not individual soldiers.

Both WRAIR and TCATA recognize the importance of these data limitations. Clearly though, the measurement problems described here are beyond WRAIR and TCATA's ability to remedy. They require a re-examination of the fundamental way in which the Army has viewed what is important in terms of training outcomes, and therefore, a discussion of what are the relevant issues of training performance is required at higher echelons, e.g., at the HQDA

level. Reliable, valid and meaningful performance measures are not only crucial to the WRAIR NMS Field Evaluation but also to the Army. To know which unit does better than another, and to be able to relate these performance differences to differences in personnel training, deployment, etc. or to some other "changeable" processes will identify those ingredients necessary for a combat-ready and combat effective force.

Table 1

Units in Analyses of First Iteration "Soldier Will" Questionnaire Survey

Battalions (N = 19)

	Included Battalions (N = 16)						
	1st Iter Admin Date	1st Iter Reached	Actual Admin	OCONUS Name	2nd Iter Admin Date	Actual Admin Date	3rd Iter Admin Date
Ft. Riley							
510 2-5 FA CHT	850501		850509	2-5	851101	851219	861001[1]
630 3-6 FA non	850501		850509	---	851101	851216	861001
500 1-5 FA non	Will replace 3-6 nonCHT on 860115 for 3rd and subsequent iterations.						
Ft. Hood							
540 2-5 AR CHT	850601		850715	2-5	851219	860108	861001
640 2-8 AR non	850601		850508	---	851201	860109	861001
550 1-41 IN CHT	850501		850509	1-41	851101	851219	861001
650 2-41 IN non	850501		850510	---	860214	860218	861001
Ft. Bragg							
560 3-325 IN CHT	850601		850820	3-325	851201	851227	861001
660 1-325 IN non	850601	850823	850906	---	860321		861001
Kirschgoene							
600 2-33 AR CHT	850601		850814	---	860301		861001
670 2-32 AR non	850601	850916	850906	---	860301		861001
Garlstedt							
610 3-41 IN CHT	850501		850724	---	860301	860128	861001
680 4-41 IN non	850501		851001	---	860301		861001
Ft. Ord							
520 7-15 FA CHT	850501		850715	---	860101	860114	861001
530 3-9 IN CHT	850601		850729	---	860228		861001
570 4-17 IN CHT	850701		850730	---	860228		861001
580 5-21 IN CHT	850801	850903	850903	---	860301		861001

Table 1 (continued)

Units in Analyses of First Iteration "Soldier Will" Questionnaire Survey

Battalions

Excluded Battalions (N = 3)

	1st Iter Admin Date	1st Iter Reached	Actual Admin	OCONUS Name	2nd Iter Admin Date	Actual Admin Date	3rd Iter Admin Date
Vincenza							
620 4-325-IN CHT	850601	851201		----	860201*	860131	861001
*Never received first iteration questionnaires. Second iteration was administered ASAP.							
New Ulm							
590 4-5 FA CHT	850501	850915	851206*	4-5	1st replaced 2nd iter*		861001
*Second iteration questionnaires used for first iteration administration. Because the rescheduled first iterati date was so close to the second iteration administration date, first iteration responses will be used for second iteration questionnaire responses.							
Baumholder							
690 4-29 FA non	850501	851031		--	860219*		861001
*First iteration administration dates have long since passed; therefore, no first iteration will be given.							

[1]Third iteration dates for all rotating battalions and matched comparison battalions have been changed to 861001 to allow unit turbulence associated with battalion rotation to subside prior to data collection.

Table 1 (continued)

Units in Analyses of First Iteration "Soldier Will" Questionnaire Survey

Independent Companies (N = 38)

Included (N = 16)

	1st Iter Admin Date	1st Iter Reached	Actual Admin	OCONUS Name	2nd Iter Admin Date	Actual Admin Date	3rd Iter Admin Date
Ft. Riley							
082 A/4-37 AR CMT	850601		850621	C/2-37	851201	860109	860601
084 D/2-16 IN CMT	850601		850610	A/4-16	851201	860110	860601
091 D/5-16 IN CMT	850601		850610	A/1-16	851201	851216	860601
092 A/1-5 FA CMT	850601		850605	---	851201	851213*	861001
116 B/1-5 FA non	850601		850521	---	851201	851204*	861001
*NMS Line No. 092 is now No. 502. No. 116 is now No. 503 and part of 1-5 FA at Ft. Riley.							
Ft. Hood							
117 C/1-5 IN non	850701		850719	---	860101	860114	860701
120 B/1-67 AR non	850701		850726	---	860101	860109	860701
Ft. Carson							
080 D/1-10 IN CMT	850501		850823	---	860201	860204	860601
101 B/4-68 AR CMT	850501		850528	D/2-68	851101*	------	860501
103 A/3-68 AR CMT	850801		850807	B/1-68	860301		860801
126 A/2-34 AR non	850501		850530	---	851101*	------	860501
*Second iteration administration dates have long since passed; therefore, no second iteration will be given.							
Carlstedt							
032 A/2-66 AR CMT	850501		850808	---	Disestablished, 851005		
033 B/4-3 FA CMT	850501		850808		Disestablished, 851005		
044 A/4-41 IN CMT*	850501		850924	---	Disestablished, 860223		
*A/4-41 IN nonCMT (NMS Line No. 682) replaces NMS Unit No. 044 effective 860223.							
128 B/2-66 AR non	850501	850819	850821	---	860201		860601
Baumholder							
028 B/2-29 FA CMT	850501		850517	Disestablished, 850720			

Table 1 (continued)

Units in Analyses of First Iteration "Soldier Will" Questionnaire Survey

Independent Companies

Companies Deleted (N = 22)

	1st Iter Admin Date	1st Iter Reached	Actual Admin	OCONUS Name	2nd Iter Admin Date	Actual Admin Date	3rd Iter Admin Date
Ft. Riley							
108 B/2-16 IN CMT	851028		851101*	A/4-16	860415		861001
110 A/2-16 IN CMT	851125		860117*	-----	860501		861101

*Second iteration questionnaires used for first iteration administration. Responses will be used for first iteration data.

Ft. Hood							
075 D/1-66 AR CMT	850701		850709	A/2-66	860101	860109	860701
105 D/1-66 AR CMT	851101		851121	------	860401		861101
Ft. Carson							
085 D/1-8 IN CMT	850501	850915	851018	A/4-8	860301*		860501
090 D/2-8 IN CMT	850501	850915	851018	---	860211		860601
109 D/1-12 IN CMT	851212		851226**	D/3-8	860401		861101

*Probably no second iteration administration, as this unit rotates OCONUS 860218.

**Second iteration questionnaires used for first iteration administration. Responses will be used for first iteration data.

Coeppingen							
045 D/4-16 IN CMT	850501	850909	851112	D/2-16	860210	860212	Disestablished, 860224
123 B/4-16 IN non	850601	850907		---	---*		860501

*First and second iteration administration dates have long since passed; therefore, no first and second iterations will be given.

Baumholder							
060 A/2-68 AR CMT	850501	850820	850830	---	860313		860601
062 C/6-29 FA CMT	850501	850906	851031	C/5-29	860219	860219	860601
000 C/2-29 FA non*	850501				851101		860501

*At the time of first and second iteration administration, WRAIR and TCATA had not received USAREUR clearance. Given clearance 860131.

Table 1 (continued)

Units in Analyses of First Iteration "Soldier Will" Questionnaire Survey

Independent Companies

Companies Deleted (continued)

	1st Iter Admin Date	1st Iter Reached	Actual Admin	OCONUS Name	2nd Iter Admin Date	Actual Admin Date	3rd Iter Admin Date
Boeblingen							
043 C/2-37 AR CMT	850501	850905	851031	A/4-37	860202		Disestablishes, 860224
047 A/1-16 IN CMT	850501	850905	850913	D/5-16	860205	860205	Disestablishes, 860224
124 C/1-16 IN non	850601	850908		---	860301*		860601
127 B/2-37 AR non	850601	850907		---	860301*		860601
*Because these second iteration administration dates are so close to the scheduled third iteration administration dates, no second iteration will be given.							
000 B/1-16 IN non*	850501			---	851101		860601
*At the time of first and second iteration administration, WRAIR and TCATA had not received USAREUR clearance. Clearance given 860131.							
Wildflecken							
026 D/1-68 AR CMT	850501			---	Disestablished, 850713.		
130 C/1-68 AR non	850601	850830	850830	---	860201	860212	860701
Garlstedt							
683 B/4-41 IN non (in 4-41 Bn)	850501		851001	---	860301		861001
					851101		860501
000 C/4-3 FA non*	850501						
*At the time of first and second iteration administration, WRAIR and TCATA had not received USAREUR clearance. Clearance given 860131.							
Sandhafen							
129 B/4-8 IN non	850601	850920	851031	---	860301		860701
Gonsenheim							
131 C/2-87 IN non	850601	850909	851031	---	860301		860701

Table 2

Crosstabulation of Battalions Included in First Iteration Analyses by Unit Status, Com Arms Type, and CONUS/OCONUS Location

Combat Arms Unit		COHORT	nonCOHORT	Row Totals
Infantry	CONUS	5	2	7
	OCONUS	1	1	2
Armor	CONUS	1	1	2
	OCONUS	1	1	2
Field Artillery	CONUS	2	1	3
	OCONUS	0	0	0
Column Totals		10	6	16

Table 3

Crosstabulation of Companies Included in First Iteration Analyses by Unit Status, Combat Arms Type, and CONUS/OCONUS Location

Combat Arms Unit		COHORT	nonCOHORT	Row Totals
Infantry	CONUS	3	1	4
	OCONUS	1		1
Armor	CONUS	3	2	5
	OCONUS	1	1	2
Field Artillery	CONUS	1	1	2
	OCONUS	2		2
Column Totals		11	5	16

Table 4

Summary of Response Rates for Units Participating in the First Iteration of the "Soldier Will" Survey

Independent Companies (N=29)

Response Rate	No. of Units
80.0% and greater	13
75.0% - 79.9%	3
70.0% - 74.9%	1
65.0% - 69.9%	3
55.0% - 64.9%	1
54.9% and less	0
Total	21

Note. Range = 62.4 to 93.4. Eight companies have not submitted data to calculate response rates.

Table 5

Summary of Response Rates for Units Participating in the First Iteration of the "Soldier Will" Survey

Battalions (N=16)

Response Rate	No. of Units
80.0% and greater	7
75.0% - 79.9%	2
70.0% - 74.9%	1
65.0% - 69.9%	3
55.0% - 64.9%	2
54.9% and less	0
Total	15

Note. Range = 55.7 to 93.7. One battalion has not submitted data to calculate response rates.

Companies Comprising Above Battalions (N=78)

Response Rate	No. of Units
80.0% and greater	33
75.0% - 79.9%	8
70.0% - 74.9%	18
65.0% - 69.9%	4
55.0% - 64.9%	5
54.9% and less	5
Total	73

Note. Range = 29.6 to 99.2. Five Companies have not submitted data to calculate response rates.

Table 6

Company Combat Confidence Scale Items

Scale Item	M	SD	Item-Total Correlation
P1. This company is one of the best in the Army.a	2.80	1.10	.66
P3. The officers in this company really seem to know their stuff.a	2.87	1.03	.56
P4. I think this company would do a better job in combat than most other Army units.a	3.08	.98	.70
P19. I have real confidence in our company's ability to use our weapons.a	3.35	.97	.67
P20. I think the level of training in this company is very high.a	3.23	1.08	.61
P32. I think we are better trained than most other companies in the Army.a	3.05	1.03	.67
P33. The officers in this company would lead well in combat.a	2.85	1.00	.66
P34. The NCOs in this company would lead well in combat.a	3.23	1.02	.58
P35. Soldiers in this company have enough skills that I would trust them with my life in combat.a	2.75	1.13	.63
P18. I have a lot of confidence in our weapons.a	3.29	1.05	.54
P21. If I have to go into combat, I have a lot of confidence in myself.a	3.98	.89	.33

Table 6 (continued)

Company Combat Confidence Scale Items

Scale Item	M	SD	Item-Total Correlation
U2. How would you describe your company's readiness for combat?[b]	3.05	.97	.62
U3. How would you describe your fellow soldier's readiness to fight if and when it is necessary?[b]	3.10	.97	.54
U13. How much confidence do you have in your unit's major weapons systems (tanks, APCs, and so on)?[b]	3.13	1.14	.57
U14. How would you rate your own skills and abilities as a soldier (using your weapons, operating and maintaining your equipment, and so on)?[b]	3.90	.77	.28
U17. How would you describe the condition of your unit's major weapons systems (tanks, APCs, and so on)? In other words, what kind of shape are they in?[c]	3.29	.97	.52
U5. In the event of combat, how would you describe your confidence in your Company Commander?[b]	3.34	1.14	.53

Note. Listwise deletion was employed, N = 2537; Total N possible = 2809 (% of missing cases = 9.7). Cronbach's alpha coefficient for the scale = .91.

[a]Responses ranged from "strongly disagree" (1) to "strongly agree" (5).

[b]Responses ranged from "very low" (1) to "very high" (5).

[c]Responses ranged from "very bad" (1) to "very good" (5).

Table 7

Senior Command Confidence Scale Items

Scale Item	M	SD	Item-Total Correlation
How would you describe your confidence in the tactical decisions of the following:			
U8. your Battalion Commander?[a]	3.64	1.07	.73
U9. your Brigade Commander?	3.69	.96	.88
U10. your Division Commander?	3.69	.95	.91
U11. your Corps Commander?	3.63	.97	.89
U12. the Army General Staff?	3.62	1.02	.82

Note. Listwise deletion was employed, N = 2660; Total N possible = 2830 (% of missing cases = 6.1). Cronbach's alpha coefficient for the scale = .94.
[a]Responses to all items ranged from "very low" (1) to "very high" (5).

Table 8

Small-Unit Command Confidence Scale Items

Scale Item	M	SD	Item-Total Correlation
S18. My squad leader knows his (her) stuff.[a]	3.46	1.10	.54
S19. My platoon sergeant knows his(her) stuff.[a]	3.47	1.11	.59
S20. My platoon leader knows his(her) stuff.[a]	3.30	1.11	.60
S21. If we went to war tomorrow, I would feel good with my squad.[a]	3.11	1.14	.65
S22. If we went to war tomorrow, I would feel good with my platoon.[a]	3.02	1.13	.68
S25. NCOs in my company are the kind I would want to serve under in combat.[a]	2.99	1.08	.65
S24. Officers in my company are the kind I would want to serve under in combat.[a]	2.76	1.03	.57
In the event of combat, how would you describe your confidence in the following:			
U4. your platoon leader?[b]	3.25	1.22	.59
U5. your Company Commander?[b]	3.31	1.15	.47
U6. your crew/squad members?[b]	3.37	1.04	.54
U7. yourself?[b]	3.86	.94	.36

Note. Listwise deletion was employed, N = 1771; Total N possible = 1922 (% of missing cases = 7.9). Cronbach's alpha coefficient for the scale = .87.
[a]Responses ranged from "strongly disagree" (1) to "strongly agree" (5).
[b]Responses ranged from "very low" (1) to "very high" (5).

Table 9

Concerned Leadership Scale Items

Scale Item	M	SD	Item-Total Correlation
S11. My platoon sergeant talks to me personally outside normal duties.[a]	2.73	1.18	.57
S12. My platoon leader talks to me personally outside normal duties.	2.59	1.16	.60
S13. The company commander talks to me personally outside normal duties.	2.23	1.03	.55
S14. My officers are interested in my personal welfare.	2.69	1.08	.67
S15. My NCOs are interested in my personal welfare.	2.98	1.15	.68
S16. My officers are interested in what I think and how I feel about things.	2.61	1.06	.70
S17. My NCOs are interested in what I think and how I feel about things.	2.85	1.11	.69
S23. My chain-of-command works well.	2.83	1.12	.58
P26. My superiors make a real attempt to treat me as a person.	2.81	1.21	.60

Note. Listwise deletion was employed, N = 1799; Total N possible = 1922 (% of missing cases = 6.4). Cronbach's alpha coefficient for the scale = .88.
[a]Responses to all items ranged from "strongly disagree" (1) to "strongly agree" (5).

Table 10

Sense of Pride Scale Items

Scale Item	M	SD	Item-Total Correlation
F1. I am proud to be in the Army.[a]	3.86	1.07	.55
F2. I am proud of my company.	3.23	1.14	.70
F3. I really feel that I belong in my company.	2.95	1.23	.67
F4. I am an important part of my company.	3.45	1.19	.58
F10. What I do in the Army is worthwhile.	3.41	1.22	.63
F13. On the whole, the Army gives me a chance to "be all I can be."	2.50	1.26	.54
F14. The equipment of the American Army is better than that of the Russian Army.	3.38	1.04	.38
F15. My company will play a part in winning future conflicts.	3.49	.97	.56

Note. Listwise deletion was employed, N = 2701; Total N possible = 2809 (% of missing cases = 3.9). Cronbach's alpha coefficient for the scale = .84.
[a]Responses to all items ranged from "strongly disagree" (1) to "strongly agree" (5).

Table 11

Unit Social Climate Scale Items

Scale Item	M	SD	Item-Total Correlation
P24. Most of the people in this company can be trusted.a	2.77	1.04	.55
P25. I want to spend my entire enlistment in this company.a	2.08	1.21	.48
P2. People in this company feel very close to each other.a	2.70	.97	.60
P29. I like being in this company.a	2.53	1.25	.60
P30. In this company, you don't have to watch your belongings.a	2.12	1.09	.40
P31. In this company, people really look out for each other.a	2.63	1.05	.65
S7. I can go to most people in my squad for help when I have a personal problem, like being in debt.a	2.91	1.11	.56
S8. I can go to most people in my platoon for help when I have a personal problem, like being in debt.a	2.84	1.06	.60
S9. Most people in my squad would lend me money in an emergency.a	3.36	1.06	.51

Table 11 (continued)

Unit Social Climate Scale Items

Scale Item	M	SD	Item-Total Correlation
S10. Most people in my platoon would lend me money in an emergency.[a]	3.17	1.03	.53
P9. I spend my after-duty hours with people in this company.[a]	3.16	1.21	.36
P10. My closest friendships are with the people I work with.[a]	3.10	1.25	.42
P17. I would go for help with a personal problem to people in the company chain.[a]	2.69	1.23	.42
U15. How would you describe your unit's togetherness, or how "tight" are members of your unit?[b]	3.01	1.00	.55
U18. How would you describe the relationships between officers and the enlisted in your unit?[c]	3.23	.97	.40

Note. Listwise deletion was employed; N = 1705; Total N possible = 1922 (% of missing cases = 11.3). Cronbach's alpha coefficient for the scale = .86.
[a]Responses ranged from "strongly disagree" (1) to "strongly agree" (5).
[b]Responses ranged from "very low" (1) to "very high" (5).
[c]Responses ranged from "very bad" (1) to "very good" (5).

Table 12

Unit Teamwork Scale Items

Scale Item	M	SD	Item-Total Correlation
F5. There is a lot of teamwork and cooperation among soldiers in my company.a	3.06	1.14	.56
F6. Officers most always get willing and whole-hearted cooperation from soldiers.	3.15	1.08	.64
F7. NCOs most always get willing and whole-hearted cooperation from soldiers.	3.17	1.12	.66
F8. Outside normal company duties, soldiers in my company would do most anything for their officers.	2.63	1.09	.64
F9. Outside normal company duties, soldiers in my company would do most anything for their NCOs.	2.92	1.10	.61

Note. Listwise deletion was employed, N = 2760; Total N possible = 2809 (% of missing cases = 1.7). Cronbach's alpha coefficient for the scale = .83.

[a]Responses to all items ranged from "strongly disagree" (1) to "strongly agree" (5).

APPENDIX B

BATTALION ROTATION AND THE COMMUNITY
PRELIMINARY FINDINGS

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Introduction

The newest aspect of the New Manning System (NMS) is the rotation of intact battalions to a new post. Currently, this involves rotating eight battalions; four CONUS based battalions will exchange places with four OCONUS battalions. These units will rotate both soldiers and their families. In the past several years, the Army has gained considerable experience in rotating company-sized units with family members. Although deploying large units is relatively commonplace for the Army, moving battalion-sized units with their families is not. The only recent experience any post has was the rotation of the 2nd Battalion 67th Field Artillery (2-67 FA) from Europe to Ft Riley. Further "lessons learned" from the company rotations have not been generally disseminated to the staff personnel (community or unit) responsible for planning battalion rotation. In discussions with a considerable number of staff personnel, these prior rotations were rarely mentioned as a source of information or guidance. There has apparently been no distribution of any after action report from the 2-67 FA battalion rotation. The movement of such a large number of people has the potential to overload and disrupt vital community support services for those who deploy and those who remain behind in the community. Also, the integration and adaptation of the arriving soldiers and families could be adversely affected. On the other hand, moving intact units with their families might offer the opportunity for less stressful moves and a more successful transition into a new environment.

The present study was initiated to help assess the impact of battalion rotation on the soldier, his family and the military community. This report focuses only on the four battalions which are rotating to OCONUS and on the four non-rotating battalions selected for comparison from the same posts. Subsequent reports will discuss the OCONUS battalions. The primary data source is open-ended interviews asking general questions about battalion rotation. Respondents were free to present and discuss issues of importance to them. The interviews were conducted with various groups of volunteers, including wives from rotating battalions, wives from non-rotating battalions and unit leaders. I also interviewed individuals representing the major community support and resource agencies in the affected communities. The active duty soldiers from four battalions (two rotating and two comparison) were also included. All of the participants in this study also participated in other parts of the NMS field evaluation. They are completing questionnaires dealing with morale, adjustment, and community issues. Data from these questionnaires will be available to compare with and help in the interpretation of interview responses.

Progress

Initial interviews of community support and resource agency personnel, selected unit leaders, as well as the initial group

interviews of spouses in rotating and non-rotating battalions have been completed. The second phase of the project will include a final pre-deployment interview of unit and community personnel at each post. Individual family interviews (of the soldier and his spouse) will be conducted in two rotating CONUS battalions and their two comparison battalions prior to the rotation date. These interviews will be completed during the period 15 March- 5 May 1986.

Preliminary Findings:

The data reported below are based on a comparatively small number of interviews (less than 30), and should be considered preliminary in nature. These data were collected about six months prior to the battalion rotation date.

a) Community Issues. Each of the CONUS military communities has evolved a reasonable plan to handle the rotation of battalions in and out of the community. Each has prepared for the extra requirements which will impact on its support agencies. In general, the community staffs and agencies believe that the processing and settling of the new arrivals will proceed without great disruption of community services for many citizens. There are frequently a number of "special privileges" accorded to the arriving battalion, such as reserving a limited number of base housing units, painting billets, provision of free child care, and moving battalion members up on the waiting list for housing.

Sharing of community support plans across military communities has been almost non-existent. Plans were not effectively circulated until all major aspects had been discussed and decided by each community. Each community faced essentially the same problems to help the departing battalions, and to integrate the rotating battalions which arrive. Since the coordinating staff of the DPCA from at least one major post had not received FSG guidelines, it appears that HQ DA policy guidance was not effectively distributed. The source of this "shortfall" is unknown. In spite of this, each community has developed comprehensive plans and seems to this observer well prepared to handle the large influx and departure of soldiers and families.

b) Unit Issues. Each division headquarters has independently developed a plan to rotate its (arriving and departing) battalions. There are many commonalities in these plans, although each is handling military leave, shipment of vehicles, port call, etc., according to its own design. There was relatively little early coordination across divisions, and no attempt to develop a workable plan that all could contribute to and follow. While this may be a higher command level issue, it resulted in a considerable duplication of effort by staff in each division.

Selection of NCOs to remain in or join the battalion (and rotate OCONUS) was also handled differently among the battalions.

Most battalions required all eligible NCOs to accompany the battalion or sign a bar to reenlistment. One battalion sought volunteers from throughout the division. This battalion reported having no difficulty filling its slots, and also had none of the anger seen among the NCOs in other units who felt coerced into remaining with or joining the battalion. NCOs who felt coerced were angry even if they stated that they otherwise wanted to move OCONUS in the first place.

Considerable efforts are being expended by each rotating battalion to provide family members with information about the move and its implications for the family. Each of the four rotating battalions has organized soldiers' wives, either through formal "Family Support Groups" or through active solicitations, mailings, and meetings. These efforts are generally run by officers' wives with the active encouragement and support of the battalion commanders. Although these officer wives have been encouraging support and involvement of enlisted and NCO wives, they have been relatively unsuccessful in recruiting those wives.

No battalion (or military community) has established provisions to assist or maintain contact with spouses who choose not to rotate with the battalion. However, those units that participated in a recent REFORGER exercise did use the family support networks which will also be available to support the summertime battalion rotations. In two non-rotating (comparison) battalions family support groups are seen as competing with the commanders for power and control. This has not occurred in other battalions.

c) Family Issues. Family members from the non-rotating battalions are familiar with the plans to rotate battalions, but do not foresee any negative implications for themselves or other community residents at this time. There is much concern among wives of the rotating battalions about issues like housing, finding facts about the rotation, and any negative impact of battalion rotation on their husband's careers (the latter is actually a COHORT issue). Most are enthusiastic about the move, and in cases where a particular wife expresses doubt about it, other wives frequently try to convince her of the merits of going overseas as a group. The idea that "We will do this together, by helping each other" is often expressed. A few spouses have expressed concern about possible negative reactions from other community residents directed at members of the rotating battalions. This concern arose from those women who had had negative experiences as part of COHORT company rotation (e.g., they describe how family members of some COHORT units were ostracised by other residents due to the special privileges they received).

Many wives lack knowledge and understanding of the battalion rotation program. This is a persistent problem that continues to occur in spite of comprehensive efforts on the part of each battalion to provide information to these spouses. Efforts include multiple newsletters, using soldiers as messengers,

personal mailings to the wives, battalion-wide meetings with time off for soldiers who bring their wives, some mandatory processing for specific topics (like applying for passports and driver's license), use of wives to assist in administrative tasks associated with rotation personnel actions, and the personal involvement of battalion commanders in the information program.

Organization of spouses in a battalion is generally from the top down, i.e., a small group of dedicated officers' wives serves as a catalyst for meetings, letters, etc. A relatively small proportion of enlisted wives participate in these activities, and this limited participation seems to represent reticence or discomfort on the part of enlisted wives. The rank differences of their husbands appear to serve as powerful barriers to cooperation and communication. These are often reinforced in the everyday conversation of the soldiers, as well as in negative beliefs about "fraternization" on the part of the spouses. In any case, the efforts to provide information to spouses have not included visible attempts to incorporate wives into the battalion rotation planning process. Each of the wives' groups has developed a newsletter of some sort for all battalion wives. But there have been few attempts to bring wives of the various rotating battalions together to allow sharing of common information or ideas. Most programs to organize wives have been at the battalion level; there have been few attempts to organize wives within company sized units.

There remains a small proportion (apparently less than ten percent) of wives (and possibly soldiers) who want the military to have nothing to do with families. Intensive efforts to involve these people continue to fail.

Future Plans

Individual and group interviews will be continued, both prior to and shortly after battalion rotation. A concerted effort to refine the observations reported here will be made. The next technical report will include results of additional group interviews, as well as individual interviews of a randomly selected sample of soldiers and wives.

APPENDIX D

Unit Interviews

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Unit Interviews in COHORT and NONCOHORT Battalions

Background

Based on a model developed during WRAIR's earlier assessment of COHORT and nonCOHORT company-sized units in USAREUR (Marlowe, 1985), WRAIR scientists have conducted interviews in four USAREUR battalions: two COHORT units and their matched nonCOHORT units as well as one CONUS based battalion. All of these interviews occurred in garrison, in either an office or a classroom setting.

Individual interviews were held with each battalion commander and with his executive officer, command sergeant major, and chaplain. A group interview was held with the battalion staff officers. In addition, in depth interviews were conducted among the cadre and soldiers in two randomly chosen line companies/batteries and in the headquarters company/battery.

At the company/battery level, individual interviews were held with the commander, his first sergeant, and with at least two groups of 4 to 6 senior non-commissioned officers. In each unit, group interviews were also conducted with four to six groups of soldiers (6 to 8 corporals and below in each group). While no claim can be made that the soldiers interviewed represent a random selection of unit personnel, they did present a broad spectrum of background characteristics and personal attitudes.

In addition to these garrison-based unit interviews, a WRAIR scientist recently spent a week with a CONUS-based nonCOHORT study battalion while that unit was engaged in an extended field training exercise. Observations and interviews were conducted at the company, platoon, squad and individual soldier level. The platoons, squads, and personnel of two line companies and selected sections of the headquarters unit were the focus of the researcher's attention. Contact was on a 24-hour a day basis and the researcher participated in and/or observed all unit/soldier activities.

Some staff officers have raised the concern that WRAIR garrison and field interviews and observations might prove to be a burden on study units and disrupt unit activities. Based on these recent experiences, it is clear that neither the garrison interview schedule nor the field contacts are significant training distracters. Because of the advanced coordination with these units, the flexibility of the WRAIR staff, and the nature of both garrison and field training schedules, sufficient time can be found for the WRAIR interviews without burdening a unit and its personnel. Only individuals or small groups are impacted by the WRAIR researchers at any one time and each for only an hour to an hour and a half of total time in any given interview cycle within a unit. When interviewing takes place during field exercises and deployments it essentially occurs as part of the ongoing conversations and discussions that occur during

periods of lower activity. In fact, rather than being a burden, most officers, NCOs, and soldiers interpreted these contacts as an example of the Army's interest in knowing what they think. Across the ranks, these soldiers were candid in their assessment of themselves and their unit.

General Issues

The material discussed in this section relates to an assortment of issues generated during the garrison observations of and interviews with COHORT soldiers.

Newness: The COHORT units that we visited had been organized under the COHORT Unit Movement System for less than six months. In fact, a major concern of both COHORT battalion commanders was the fact that they were still receiving new unit members and/or that they were still missing individuals in key positions. Based on observations in both of these units, it is important to remember that the "newness" of these units will (or at least should) be reflected in the Soldier Will survey data. Many of the soldiers in these units were just getting to know one another and they were just beginning to develop both work and personal relationships. At that point in time, the nonCOHORT comparison units had a greater overall degree of stability and unit members had experienced a longer duration of unit membership than the corresponding COHORT soldiers. In the CONUS battalion the OSUT packages spoke in terms of the same basic pattern of horizontal bonding that has characterized all company COHORT units. However, at this earlier point in the unit life cycle they did not exhibit the confidence in training, skill and unit competence that marks the mature COHORT company.

Nominal COHORT: It is important to recognize that OCONUS COHORT units were not created by organizing OSUT trained (first-term) COHORT companies/batteries into a COHORT battalion (as was the case in most of the CONUS COHORT battalions including those in the 7th ID(L)). What has been created is a "stabilized" battalion bearing the COHORT label. The sets of common experiences that are requisite for unit bonding have not been available to the unit members, particularly those major and critical field exercises that appear to play important roles in the expansion of interpersonal knowledge, trust and confidence. There has been, as well an exceptional amount of turbulence, at all levels in USAREUR and at mid-term and career soldier levels in CONUS, associated with the formation of the COHORT and nominal COHORT battalions. In November of 1985, for example, a large number of USAREUR soldiers were still unsure as to whether or not they were rotating with their units. Based on these unit life histories, it is appropriate to expect that we will see differences in the Soldier Will survey data between these "nominal" COHORT units and those COHORT units formed with groups of first-term soldiers coming from a common OSUT training experience.

Rotational units: Both of these USAREUR COHORT units are scheduled to rotate to CONUS during the summer of 1986. Interestingly, many of the officers, most of the NCOs and almost all of the enlisted soldiers interviewed equated the

term COHORT with the rotation. The focus of their attention was not on staying together (i.e., personnel stability), rather the focus was on rotating back to the United States as a group. For many of these individuals the whole purpose of this effort is for "the Army to try to save money by moving the whole unit at once, and we are their guinea pigs."

The majority of their complaints about COHORT reflect their concerns about the rotation and/or their new installation, and do not reflect their attitude toward their unit. In most cases, when asked if they would prefer to rotate back to CONUS (the same location) as an individual, as a member of their current unit, or as a member of another unit, almost all of these soldiers expressed the desire to stay with their current unit. Most of the cadre members interviewed had received little if any education, training or indoctrination about COHORT, the rationale for its existence, the ends to be worked towards or the special advantages and problems that characterize the COHORT unit.

The importance of the rotation as an event and its symbolic blurring with the COHORT concept is understandable but unfortunate. For the Soldier Will survey, this may present a serious difficulty in the interpretation of soldier responses to COHORT-related attitudinal questions.

COHORT and personnel stability: Many COHORT soldiers (and almost all nonCOHORT soldiers) had the mistaken perception that "once in a COHORT unit, you are stuck there forever." This view was especially prevalent among NCOs, and was the source of a great deal of animosity toward the term COHORT. While there have been some command efforts to educate our soldiers about the nature and process of COHORT, it is clear that the message has not gotten across. The result is a generally negative attitude based on a lack of information and/or actual misinformation. As we have seen with company level COHORT the term itself can become the symbolic cover for all negative happenings in the military environment and membership in a COHORT unit is seen as carrying special disabilities and liabilities by many soldiers for whom local folklore and rumor are far more readily available than guidance or regulations promulgated at Headquarters, Department of the Army.

Unit location: Based on the contacts with these OCONUS units, it appears that installation location makes an important contribution to soldiers' overall personal and military life satisfaction. There are significant differences between military communities (and major commands e.g., divisions) in their installation facilities, the attractiveness of the local community, and the command policies that govern soldiers' duties and their personal lives (e.g., length of garrison work day). These location differences present serious research problems when the units being compared are in distinctly different locations as is the case for the two field artillery battalions in USAREUR. (One community is considered by almost all soldiers in the unit to have the best quality of life OCONUS and the other considered to have a poor quality of life). Statistical methods can be used in the human dimension survey to control for some of

these differences but the problem cannot be completely resolved. Any interpretation of data comparing these two units must consider this threat to validity.In the final analysis it may become necessary to use the case study method for the most adequate interpretation of the data. All data from the battalions will of necessity have to be qualified in terms of environmental and contextual variables.

Headquarters companies and batteries: This series of unit interviews has made it clear that company/battery headquarters formed under the Division 86 J-Series model must be treated separately in WRAIR's NMS human factors evaluation. These units are so large, and are structured and operated in such a way that they are best thought of as a "confederation" of sections and not a unit. In these units, soldier relationships and unit identification typically do not develop above the level of section.

Observations of Unit Field Training

Background

Recently a WRAIR scientist spent five days in a field environment with a combat task-force which included three companies from one of the NMS Field Evaluation nonCOHORT battalions. During his visit, this scientist was able to observe and interview soldiers at the company, platoon, squad and individual level. The scientist remained with the units (various platoons) on a 24-hour basis.

Observations:

1. While field training may seem very rational and specific at the level of battalion, company, and even platoon, most of the soldiers who were observed in small-unit training activities had very little understanding of their actual learning objectives. The reason was that the NCOs conducting the training did not know or could not identify the learning objectives themselves or, when they were aware of the training objectives, they did not take the time to explain them to their soldiers.

2. A platoon of soldiers was practicing its skills assaulting an armored vehicle with Vipers (an individually operated anti-armor weapon). In order to simulate reality, MILES equipment was being used. Unfortunately, during the four hours devoted to this training, the platoon was never able to get the equipment to operate effectively. Either there was something wrong with the equipment itself or the cadre did not know how to properly operate it. In either case the soldiers experienced a very boring and generally unproductive afternoon. The cadre had lost sight of the original training objective. Instead of spending the entire afternoon attempting to "fix" the MILES equipment, they might have shifted their focus to a "pretend" method and centered the training on issues like identifying target areas on the vehicle or positioning the weapon from concealed sites. What occurred was a situation where the soldiers totally lost sight of the process and their focus then centered on an outcome that only involved getting a light (the MILES equipment) to go on.

3. The field training exercise that these soldiers were participating in was a division-wide effort to test the ability of the division's support elements to perform their combat functions (i.e., supporting the line units). The soldiers in the line units had heard this objective but the unit cadre had never given them an explanation of what they were supposed to be learning during this exercise other than "the stuff we always do." This was an important issue because these soldiers saw themselves spending a month in the field doing many things that could be done in garrison or in a series of brief (even one day) field training exercises. Without a sense that there was an outcome relevant to them, this whole exercise became "a waste of time" and detracted from some of the soldier-and unit-specific training that was taking place.

4. A first sergeant observed that some of the support types (e.g., the company clerk, medic, driver etc,.) had little if anything to do during a particular evening. He was also aware from their comments that they were bored. Placing the clerk in charge, he had him organize a raiding party and plan a night assault on a nearby element of the same battalion. As part of the planning meeting the first sergeant helped the leader and group members identify their objectives. He then accompanied these soldiers on the assault, assuming a unit member role assigned by the patrol leader. After the attack, the first sergeant sat with an excited and happy bunch of soldiers to evaluate their efforts. In the two hours spent in this spontaneous training effort, these young soldiers were not only exposed to some exciting training, they also had a chance to evaluate their own performance and soldier skills.

5. On another occasion a company commander received a requirement to have his unit put on a demonstration for the press. This provided an unplanned opportunity for the commander to take his platoon leaders on an air reconnaissance of the demonstration site. The commander could only locate one of his platoon leaders in time and he left the area seemingly oblivious to the fact that the two platoon sergeants were readily available and interested in going. One of the sergeants was brand new to the unit and the area. It would have been a potentially significant learning experience for him.

6. Some units have a climate where superiors and subordinates are not candid with one another. There are also unit leaders who do not have or do not spend time actually observing individual and unit level training. At each level, what the commander believes to be the case was seen to be far from the reality. For example, during the platoon Viper training described earlier, the company commander appeared at the site. His visit was brief and consisted of his asking the platoon sergeant "How is it going?" and the sergeant saluting and enthusiastically saying that "Sir, it's great. These guys are getting lots of hits." The commander left the area believing what he had heard. Later the same evening this enthusiastic captain told his battalion commander about the Viper training one of his platoons had conducted and how great

the MILES equipment was and how it provided realism to the training. This company commander and his boss had no idea how disastrous the training had been or how bored their soldiers were from this frustrating experience.

7. The field training observations are critically important to the WRAIR Human Dimensions evaluation because they provide a necessary perspective on the difference between "reported" training and "actual" training experiences. Along with the issue of unit relationships or "bonding," training activities are a primary source of the NMS outcome measures that WRAIR will use in the overall data analyses. It is critically important that the research community find reliable and valid training measures. At the present time such measures do not exist in other data sources.

Summary

The WRAIR "soldier-unit" observations and interviews are providing a unique and important opportunity to evaluate a number of COHORT related issues (e.g., interpersonal relationships among and between ranks, relationships among unit families, and the process and outcomes of individual and unit training). This is being accomplished without burdening unit personnel and their families or disrupting unit training activities.

Based on the observations and interviews cited in this report, the following issues are noted:

1. The COHORT units observed were still in the process of forming a group identity. Unit stability was being achieved, and unit rotation should provide the kind of "shared experience" that will facilitate an even further development of group identity.

2. It is clear that the newly formed COHORT units have had only limited success in educating their personnel, especially career NCOs, about the nature and purpose of the COHORT program and the reasons for battalion rotation. Many soldiers confuse COHORT and Battalion Rotation as being one and the same. They also do not understand or have misinformation concerning the various policies that govern these programs. Many individuals believe that these initiatives will ultimately have some type of harmful impact on their careers.

3. More effective and efficient training are primary goals of the NMS efforts. It is clear from WRAIR's recent field visits that on the ground observation of actual small unit training activities is necessary in order to assess the impacts of COHORT stability on training activities, particularly the ability of leaders to capitalize on the opportunities of the COHORT system. At the present time there is no other source of this type of unit training data.

APPENDIX E

Study of The Human Dimensions of The 7th Light Infantry Division

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Appendix E

STUDY OF THE HUMAN DIMENSIONS OF THE 7TH LIGHT INFANTRY DIVISION
1 October 1985 - 15 January 1986

1. OVERVIEW

This report covers a period dedicated to data analysis and preparation of findings from the reconnaissance phase of the study. (See New Manning System Field Evaluation, Technical Report No. 1, 1 Nov 85, Chapter VII, "New Manning System Light Infantry Issues"). Findings from the first NMS technical report were communicated to the senior leadership of the 7th Infantry Division (Light) and Fort Ord. Fewer site visits to Fort Ord were conducted than in previous (and projected) quarters. However, regular contact with units and respondents was maintained by correspondence and by telephone.

Salient activities studied this quarter were: the evolution of the 7th ID(L)/Fort Ord and WRAIR study advisory process; the expansion of family issues and development of family support efforts within battalions and across the installation community; and the growth of combat unit military proficiency and cohesion during the first year of COHORT life cycle. In addition, the research team established contact with other Light Infantry Division (LID) organizations (25th LID in Hawaii, 10th Mountain LID at Fort Drum and Fort Benning) and initiated working contacts with other Army and DOD research organizations.

During this quarter an initial set of quantitative data from the first wave of the WRAIR "Soldier Will" surveys was obtained on four battalions in the 7th ID(L) and processed for analysis. Preliminary analyses of responses at the battalion level were performed by the research team by comparing these results to qualitative reconnaissance observations. The section below on COHORT unit family demographics demonstrates the initial incorporation of survey information with observations. The results of additional uses will appear in future reports.

2. EVALUATION CRITERIA

The ultimate criteria for evaluating the NMS are unit combat readiness, potential high performance, and resistance to battle stress. Since these cannot be assessed in peacetime, the WRAIR research team has adopted intermediate criteria: training performance and social climate. Training performance comprises the proficiency of individuals or teams in performing mission-related tasks. Social climate comprises policies, customs, and behaviors that affect horizontal and vertical bonding.

Training performance can, in principle, be assessed using indicators of individual military proficiency and of unit performance. Indicators of individual proficiency (SQT scores, APRT scores, weapons qualification scores) are being collected by TCATA only as pass-fail in the case of SQT and APRT, or categorically in the case of weapons qualifications. These measures do not offer sufficient variance to permit comparative assessment of the efficacy of training programs. It is of the utmost importance that numerical scores on the SQT, APRT and weapons qualification be collected.

Measures of unit training performance--ARTEPs--show no variability. In order to obtain approximate comparative measures in units of the 7th ID(L), WRAIR has used technically qualified on-site observers to obtain comparison data on unit training performance.

3. COHORT AND TRAINING PERFORMANCE

Observational data from COHORT companies/batteries in non-COHORT battalions in USAREUR indicate that the junior enlisted members of the COHORT packages develop norms of their own. In the units observed those norms emphasized proficiency in mission-related activities. If company or battalion command did not share these norms, the junior enlisted men complied nominally with command objectives, but persisted in following their own norms. The results often were that COHORT companies were perceived by commanders as being the best in combat skills, but the worst in administration and garrison activities.

Observational data from the 7th ID(L) reflected training performance of COHORT units in favorable command environments. One observer interviewed commanders and some staff officers in all of the thirteen infantry and field artillery battalions, and conducted detailed observations in twelve company/battery-sized units. He interviewed all of the members of 24 squads/sections, and watched them during work or training. The limited scope of those observations makes them suggestive rather than conclusive.

In two brigade-level commands, intra-brigade competitions made it possible to assess the relative training performance of sub-units in all-COHORT as compared to company-COHORT battalions:

- In one brigade-level command, the all-COHORT battalion placed two of its squads in the top three in a brigade-wide Best Squad Competition. The same battalion qualified 145 men for the Expert Infantry Badge within seven months of its activation.

- In another brigade-level command, a company of the ten month-old all-COHORT battalion won the award for best company in the brigade.

Observations and questioning of cannoneers in six artillery batteries revealed that most of them possessed the requisite knowledge to function as gunners, and that many of those in the all-COHORT battalion also demonstrated the ability to function as section chiefs. (These data will be reanalyzed controlling for education and GT scores across the four battalions.)

One battery in the all-COHORT artillery battalion completed its ARTEP within 90 days of activation; all three companies in an all-COHORT infantry battalion completed ARTEPS within 90 days of activation.

These findings suggest that all-COHORT battalions achieve higher levels of individual and unit training proficiency in shorter times than do the company-COHORT battalions. There were no non-COHORT units with which to compare these achievements. However, according to over a dozen senior NCOs and officers queried, no other battalion in the Army qualified a third of its men for the Expert Infantry Badge (EIB) in a single year, and the speed with which companies/batteries reach full operational capability has not been achieved elsewhere.

COHORT units have broken the often observed cycle of a decline of morale and commitment following completion of basic and advanced training. Soldiers in COHORT units have remained highly motivated through the first year in all units observed. Some officers and NCOs reported let-downs at about the halfway point, but said these were moderate in amplitude. Further, one unit in its 35th month was observed as it assumed Rapid Deployment Force status one. In spite of being within two weeks of deactivation, the men were as careful, competent, enthusiastic, and dedicated as soldiers in a newly formed unit. That a high state of discipline was achieved and preserved to the very end of a three-year period reflects an additional dimension of the potential of the COHORT system.

4. COHORT AND SOCIAL CLIMATE

Career officers and NCOs interviewed in the 7th Infantry Division (Light) uniformly attributed the rapid achievement of unusually high levels of military proficiency to the intelligence, interest, and cooperativeness of the soldiers in the COHORT packages. However, other commands have received individual replacements or COHORT packages composed of soldiers with comparable qualities. The evidence available to date suggests that battalions of the 7th Infantry Division, and in particular the all-COHORT battalions, are most fully realizing the potential of their first-term soldiers.

However, the primary purpose of the NMS is to provide an opportunity for personnel stability that leaders can use for accretive training and for fostering greater unit cohesion to strengthen resistance to battle stress casualties. Training performance/military proficiency is a desirable by-product of the

NMS; it may also be one element contributing to resistance to battle stress. Other elements of the social climate observed in battalions of the Division that appear to foster resistance to battle stress are the following:

o Discipline. The Commanding General defines the objective of discipline in the 7th Division as the creation of a state of mind that enables each soldier to perform in accordance with correct professional and moral values in the absence of orders or supervision , whether on or off duty. Most soldiers, down to privates, behave as if they share this challenging and personally empowering view.

o The Light Infantry Mission. The light infantry mission emphasizes independent action by small units. Most commanders in the 7th Infantry Division showed willingness, to varying degrees, to develop the capability for independent action by empowering their subordinates. To the extent that commanders were able to do this trust developed in both directions, and subordinates experienced a sense of owning the mission.

o Caring. Most of the leaders observed interacting with their subordinates, beginning with those at squad/section level, took an active, searching interest in the personal/familial welfare and professional development of their subordinates. The sample on which this finding is based is small because it depended on the observer being on the spot at the time an interaction occurred. It comprised one battalion commander, two company/battery commanders, three senior NCOs, and two squad/section leaders.

o Competence. Interviews of officers and NCOs in the 7th Infantry Division indicate that most have a profound interest in and knowledge of the details and substance of their professions. This interest was observed to be contagious, and leaders demonstrated eagerness to impart their knowledge to their subordinates.

o Authority. In observations of more than 60 relevant interactions between soldiers of differing ranks, the soldiers involved demonstrated mutual respect. The authority of superiors appears to be moral--derived from the subordinates' recognition of their leaders' competence and integrity. Superiors treated subordinates as colleagues, but there was no question of who was in charge. Neither was there necessity for ritualized gestures of subordination. The salute appeared to be a greeting between members of a common brotherhood rather than an acknowledgement of inferior status.

There is indirect evidence that these elements of the social climate in the 7th Division strengthen the ability of its members to cope with stress. Units of the Division have frequently demonstrated sustained superior performance under prolonged and arduous conditions. For example, during a ten-month period one battalion spent fifty percent of its time in the

field. Another spent five weeks out of six on FTXs. The first three months of a third included Rites of Passage, Light Fighter Course, squad, platoon, and company ARTEPs, and the division-wide FTX. These experiences were less intense than war, but their relative severity, their length compared to the training environments of most units, and the persistence in outstanding performance suggest the presence of a powerfully supportive social climate.

The efficacy of the COHORT system as the foundation of an order of magnitude improvement in military proficiency has been demonstrated under unfavorable conditions (COHORT companies in non-COHORT battalions) and favorable ones (all-COHORT battalions in a predominantly COHORT division). Evidence of the potential for the COHORT system to strengthen resistance to psychiatric battle casualties is beginning to appear in the 7th Infantry Division (Light). The apparent success of the Division in training and building a strong social climate appears to be a result of synergistic interaction between the COHORT system, the light infantry mission, and positive leadership. The junior enlisted soldiers bring intense interest in doing well and in helping each other. The light infantry mission gives them a sense of self-direction and dignity. Positive leadership supports leaders at all levels in the psychologically dangerous processes of empowering subordinates, tolerating uncertainty, and accepting responsibility. The result is that soldiers of all ranks commit not only their time and energy but also their ideas and interest to supporting each other in carrying out the mission.

There are, however, costs associated with these achievements. The outlines are just beginning to emerge in data from surveys of all-COHORT battalions and participant observation by enlisted data collectors. Preliminary results indicate that the levels of morale and confidence among the junior enlisted soldiers do not approach the levels that senior NCOs and officers perceived for themselves and their units. The dimensions of these feelings, and factors associated with them, will be discussed in subsequent reports.

This preliminary appreciation of the implementation of the NMS in the 7th Division is based on limited observation, and the precise processes of interaction have yet to be identified, but the essential relationships have appeared repeatedly. There does not seem to be any reason why the lessons learned in the 7th Infantry Division (Light) cannot be useful to other divisions in which the mission emphasizes decentralized operations (Airland Battle as well as low-intensity operations).

5. FAMILY SUPPORT GROUPS AND UNITS

Interviews with Family Support Group (FSG) volunteers in COHORT combat battalions at Fort Ord indicate that active members share an ethos of common identity as Army wives and family members. Participation in FSG volunteer work enables spouses to

feel closely attached to their husbands' units and to associate more freely with one another across (husband's) rank. However, relatively few junior enlisted and first term soldiers' spouses are active volunteers during the early COHORT period. Efforts expended by FSG volunteers usually coincide with, but may sometimes differ from, the expectations of the military chain of command. Some ways in which FSGs and units interact are:

o As the division entered into Rapid Deployment Force readiness status, company and battalion FSGs organized pre-deployment unit briefings for family members to assist in raising their awareness of mission needs. Attendance at briefings of this sort was substantial by the families of junior enlisted men as well as the families of cadre. These briefings encouraged individual and mutual coping during the anticipated TDY absences. Family Support Groups used FTXs to practice deployment coping procedures and approaches. This process of "getting ready for alerts" also inspired greater cohesion and social exchange among spouses and soldiers within their units.

o A Family Support Group Handbook on COHORT, Light Infantry and Community Resources for family member needs at Fort Ord was prepared by one battalion's FSG leader. This handbook also contained guidelines on FSG activities. It was distributed by the installation commander's wife to all battalion commanders' wives for "customizing" and adaptation to the needs of each unit.

o Recognition of the importance of family members to each unit and to the division has been incorporated into 7th ID(L) military ceremonies. For example, guest seating was set aside for family members of all ranks at the parade ground and at other official occasions. Also, awards to active FSG volunteers made at unit ceremonies helped provide recognition and further incentive to volunteering in some units.

o Family Support Groups took on functions that provided continuity during unit garrison duty as well as TDY. Soldiers living in the barracks were incorporated into unit-family social events and all soldiers were welcomed home from unit TDY by the support group serving bakery goods. Single soldiers provided services to their units' FSG meetings such as child care, meeting space preparation and clean-up, and printing of notices. Non-resident wives, and family members of single soldiers, were mailed FSG newsletters by units.

o Spouses interviewed, including FSG volunteers from different units, expressed a need for preparatory skills or advance training about functional roles of Family Support Groups organized by companies and battalions. Delays in full-fledged Family Support Group development were experienced in all units interviewed to some degree. This was partly a result of inadequate understanding or misconceptions about the FSG role in unit-family relationships. Information and guidance is needed by unit leaders and their wives, and by soldiers and their wives to

promote successful adoption of the FSG mutual assistance approach.

The concept of a unit-based, command-sponsored, and spouse-managed voluntary organization is unfamiliar to the Army; it involves much learning by doing. Natural group leaders among unit spouses need encouragement to be active regardless of their husbands' ranks. In the future, commanders and their wives could benefit from instructional seminars at pre-command school, and from written materials prepared for distribution. NCOs and their wives should also receive advance instruction on the nature of the unit-based Family Support Group and how to work with it to assist family members. First term soldiers would benefit from a module on the usefulness of Family Support Groups during their OSUT training. Their wives and families would also be well-served by receiving written materials describing Family Support Group activities and welcoming information through the mail; FSGs could provide new family members with personal introductions upon their arrival at Fort Ord.

Finally, the Army should issue a notice summarizing the generic functions of Family Support Groups. It should define the roles of the volunteer and specify relevant Army regulations covering volunteers and their relationship to units. This compilation of basics would help alleviate uncertainties and allow more rapid and thorough integration of Support Groups in COHORT and other Army units.

6. COHORT UNIT FAMILY DEMOGRAPHICS

Based on observations in the field and preliminary findings from WRAIR "Soldier Will" surveys on combat units in the 7th ID(L), the families attached to COHORT units demonstrate a distinctive set of household characteristics that develop during the first year of their three year life cycle. Data from the first year show:

o Relatively few first term soldiers are married when they join their unit at Fort Ord. On average, 18% of a COHORT battalion package have wives, and only two-thirds (two or three dozen) bring their family members to live with them in the Monterey area. Nearly all junior enlisted families live in off-post housing during the first year. A few COHORT families reside in on-post sub-standard housing or the new mobile home court.

o The junior enlisted marriage rate increases dramatically during the first COHORT year; the number of married men in a battalion may double by the midpoint of the COHORT life cycle. Although family size is small at first, by the end of the first year nearly half the junior enlisted resident households have, or expect to have, children. A small percentage of married first term soldiers are able to move on post by the end of the first COHORT year. Their young families experience a variety of stressful military pressures and societal adjustments

during this portion of the COHORT life cycle.

o Junior NCO (E5-E6) families form the majority of resident family members in COHORT units at the outset of the life cycle. NCOs account for approximately two-thirds of the spouses and three-quarters of the family members in the Fort Ord area. Three-quarters of junior NCO families live off post initially, but many obtain installation sponsored housing on or off post within the first COHORT year. Junior NCO families may experience serious cumulative stress during the first year in a COHORT unit.

Both first term soldiers' and junior NCOs' family situations require further study to determine the manner in which family members respond to military stress. It appears that family problems can become serious detractors to soldier and unit readiness. The unique contribution of married soldiers to unit cohesion and "soldier will" needs further study.

7. PROJECTED AREAS FOR INVESTIGATION

The research team's investigatory foci and areas of field evaluation activity with the 7th ID(L) are projected for the remainder of 1986 as follows:

o Comparative studies of military cohesion and command climate in combat, combat support, and combat service support units will continue.

o A study will begin on the relationships between psychological-behavioral characteristics of combat unit commanders, command climate, interpersonal dynamics within the unit, and military proficiency (as the best available analog of combat effectiveness).

o The detailed case-study by participant-observation and interview of cohesion, interpersonal rapport, and command climate in individual battalions will continue and be expanded. Research attention will be paid to (1) unusual or unpredicted events and the ways soldiers and leaders respond to and cope with these events; (2) the ways soldiers balance and fulfill obligations of time and commitment to their unit and their immediate families; (3) the training uses made by unit leaders of target events relative to the total unit life cycle; and (4) leadership transitions.

o A comparative interview study of family-unit bonding and the influence of unit-based Family Support Groups on stress reduction among family members and soldiers will continue. It will be followed by an investigation of family identification with, and spousal participation within, unit Family Support Groups. A second element to be studied is the social structure and community organization of Family Support Groups as innovative mutual assistance institutions at Fort Ord.

o A detailed study will be performed on the effects of military worktime, including TDY and deployment separations, on family stability and household functioning among soldiers in COHORT combat units. Research will focus on: (1) identification of sources and impacts of military stress in families; (2) family coping adjustments and attitudes toward the military way of life; and (3) daily-life adaptations to the Light Infantry mission and living conditions at Fort Ord.

Data will be collected by means of case-study interviews over the course of the COHORT life cycle with households at different stages of family development and domestic organization. Comparative information will be recorded from focused group interviews and participant observation of family stress issues.

8. CONCLUSION

The major objective of these studies is to describe and assess problem areas and identify the nexus of causality that connects the New Manning System personnel stabilization initiatives to successful unit cohesion, combat proficiency, and resistance to battle stress. Major elements for investigation are unit cohesion within and across ranks, leadership processes, and Fort Ord family well-being initiatives. The qualitative methodologies applied through interview and observation techniques will be linked to findings from the series of survey questionnaire administrations (two additional waves of the WRAIR "Soldier Will" Survey and the Spouse Survey during 1986). Analysis will be integrated through a data-comparison process among researchers at WRAIR. Feedback and advisory interaction with 7th ID(L) and Fort Ord commanders and research users will proceed as the data are analyzed and concept papers are produced.

Survey and observation-interview efforts will be expanded to cover DISCOM units and special troop units as additional research resources become available in 1986. Intended investigation of cohesion and effectiveness among combat service support units and garrison agencies awaits determination of the availability of extra-departmental collaboration and resources.

(For comment, contact the following WRAIR research team members: LTC Theodore P. Furukawa, Ph.D., social work officer who serves as Principal Investigator for the In-depth Combat Battalion Study component of the Human Dimensions Field Evaluation of the 7th ID(L); SGT Gary Killiebrew, behavioral science specialist who serves as research assistant for the In-depth Combat Battalion Study component; Faris R. Kirkland, Ph.D., military research historian and National Research Council Fellow who serves as Principal Investigator for the Leadership and Unit Climate Study component; Nancy Loring, military sociologist who serves as Principal Investigator for the Combat Support Unit Study component; and Joel M. Teitelbaum, Ph.D., M.S.P.H., public health

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