**Technical Report 817** 

## **Development of the Combat Platoon Cohesion Questionnaire**

Guy L. Siebold and Dennis R. Kelly

Leadership and Management Technical Area **Manpower and Personnel Research Laboratory** 





U.S. Army Research Institute for the Behavioral and Social Sciences

October 1988

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individual respondent level, to have high reliability coefficients and an underlying factor structure representative of the scales. At the platoon level, the data showed high intra-scale item correlations and moderate inter-scale correlations. The scales also correlated well with construct validity items and items representing constructs, such as soldier confidence and "will" from related research. While more work on validating the instrument with external measures and on refining item wording is desirable, the current version of the CPCQ appears to be a solid, serviceable, in-depth measure of cohesion at the platoon level.

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## **Development of the Combat Platoon Cohesion Questionnaire**

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Office, Deputy Chief of Staff for Personnel Department of the Army

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A primary mission of the Leadership and Management Technical Area of the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) is to enhance Army performance through research to improve small unit leadership, cohesion, and commitment. Of special interest is research on how these factors can be accurately measured so that research findings and products derived for the Army in these areas will be fundamentally sound.

This technical report describes the development of an indepth measure of cohesion at the platoon level. The psychometric properties of the instrument and its reliability and validity are discussed. The measure was generated as part of a wider project to develop procedures and technologies for small unit leaders to improve the leadership, cohesion, and commitment in their platoons and companies. It is sponsored by the U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, which has reviewed this report and supports its publication.

EDGAR M. JOHNSON

Technical Director

## EXECUTIVE SUMMARY

## Requirement:

Under a Memorandum of Agreement with the U.S. Army Command and General Staff College, the U.S. Army Research Institute is conducting research to develop products to help small unit leaders improve leadership, cohesion, and commitment in their squads, platoons, and companies. The future battlefield is expected to demand higher levels of these factors for combat success than in the past. A central requirement for carrying out this research is an in-depth, focused measure of cohesion at the lowest meaningful echelon. Prior instruments focused on related but different issues, such as command climate, soldier confidence, or will to fight, and tended to be at levels that were too high (company or battalion). This core measure of cohesion must be based on a sound conceptualization of cohesion and must be able to assess cohesion with a reasonable degree of precision. With such an instrument, the procedures, technologies, and abbreviated measures for small unit leaders can be developed and validated.

## Procedure:

Based on prior research, theory, and historical evidence, a questionnaire measure of combat platoon cohesion was developed. This 79-item instrument measured cohesion in terms of horizontal bonding among peers, vertical bonding between leaders and their subordinates, and organizational bonding between platoon members and their platoon and the Army. This questionnaire was given to over 1,000 soldiers from 70 platoons from 5 infantry battalions located at 4 different Army posts from January through May of 1987. The resulting data were analyzed to stermine the metric properties, reliability, and validity of the three horizontal bonding scales, the two vertical bonding scales, and the six organizational bonding scales.

## Findings:

Exploratory analyses at the individual respondent level indicated high intra-scale item and item-scale total correlations for the various scales, with the exception of the soldier Needs scale where there was little correlation between needs met. The analyses also indicated that the individual level responses were reliable, with alpha values generally of .8 or .9, and that they fit into a factor structure that generally paralleled that of the

cohesion scale structure. The factor analysis suggested that soldiers perceive their leaders in a unidimensional way, as good or bad, since the scales dealing with leaders only formed one factor. The appropriate analyses at the platoon level indicated even higher intra-scale item and item-scale total correlations, with typical values of .8 or .9, and again with the exception of the Needs scale. As expected, the cohesion scales were moderately correlated with one another but not so highly as to suggest multi-collinearity or the tapping of identical constructs. tions added to the questionnaire to assess construct and criterion validity established that the scales were acceptably valid. However, company commander and first sergeant ratings of their platoons were too inconsistent to provide evidence on external criterion validity. The cohesion scales were also correlated with the constructs of soldier confidence and will, indicating a linkage between the cohesion questionnaire and research investigating those constructs.

## Utilization of Findings:

The results obtained from this research establish that it is possible to measure platoon cohesion in a valid, reliable, and meaningful way. With an instrument such as the Combat Platoon Cohesion Questionnaire (CPCQ), the Army has a measure to assess cohesion in an in-depth manner and a base from which to develop an abbreviated version for direct use by small unit leaders. fact, a draft abbreviated version, the Platoon Cohesion Index (PCI) has already been developed and is being assessed. Further, the CPCQ is currently being used to measure the changes in cohesion in selected platoons over time. The information gained from this longitudinal investigation will form the foundation for programs for small unit leaders to build and maintain cohesion in their commands. These programs, to be built in conjunction with the Center for Army Leadership of the U.S. Army Command and General Staff College, will, when validated, be disseminated for general Army use.

## DEVELOPMENT OF THE COMBAT PLATOON COHESION QUESTIONNAIRE

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## OVERVIEW

The purpose of this report is to describe the issues considered, the development process, the contents, and the psychometric characteristics of a questionnaire to measure cohesion in Army combat platoons. This Combat Platoon Cohesion Questionnaire was developed, starting in fall of 1986, at the direction of the Department of the Army Deputy Chief of Staff for Personnel. Subsequent sponsorship of the project was taken up by the U.S. Army Command and General Staff College under a Memorandum of Agreement dated 4 May 1987, subject: Leadership and Cohesion Research Program. The goal was to create an instrument which measured cohesion clearly and in depth. This instrument would be used for research and special assessments for which a high resolution measure was needed as well as form the basis from which an abbreviated version could be derived for administration by Army small unit leaders. Prior instruments tended to be lengthy, focus on other concepts such as soldier confidence (e.g., Gal, 1986), soldier will (e.g., Marlowe et al., 1985), or unit climate (e.g., Army Pamphlet 600-69), and apply to the company level or above. Nonetheless, some of these earlier instruments from the Army Research Institute and other organizations contained useful component scales and constructs which were used as a starting point to build the Combat Platoon Cohesion Questionnaire (CPCQ).

This report is organized into several sections. section presents some of the fundamental issues considered before construction of the questionnaire began. These issues include what is the nature of cohesion, at what level should it be measured, whether measurement should be of individuals or groups, and what was the best type of instrument to use. The third section covers how the questionnaire was constructed and includes information on scales and a discussion of structures to assess validity. The fourth section describes the methodology and sample used to collect data to determine the characteristics of the questionnaire. Next, the results of the data collection are provided. These results include means, standard deviations, intra-scale and inter-scale correlations, factor analyses, and reliability and validity figures. Finally, the discussion section addresses how well the instrument approached its desired characteristics and how it might be modified.

## PRELIMINARY ISSUES

Fundamental to the design of the instrument was a judgment about how cohesion should be defined and conceptualized. The definition underlying the instrument was that cohesion is a unit or group state varying in the extent to which the mechanisms of social control maintain a structured pattern of positive social relationships (bonds) between unit members, individually and collectively, necessary to achieve the unit or group's purpose.

These mechanisms, from law to operant identities and norms, both constrain and channel soldiers. These mechanisms inform soldiers that there is a unit out there to participate in, support, or avoid. While each soldier participates in creating and sustaining some of these mechanisms, they are predominantly external to any given soldier. These mechanisms are active in the relationships between peers, with the chain of command, and between soldiers and the unit as a whole. These positive social relationships, or bonds, tie the unit together (Siebold, 1987a; Siebold & Kelly, 1987; Siebold, 1987b).

Specifically, three types of bonding were considered basic. These are horizontal bonding (relationships between peers), vertical bonding (relationships between leaders and subordinates), and organizational bonding (relationships between unit members and their unit as a whole). Each type of relationship was considered to have two aspects, an affective one and an instrumental one. The affective aspect is the feeling or emotional/reactive side. The instrumental is the action or task/proactive side. These two aspects feed into and support one another, either mutually reinforcing or negating one another. The conceptual structure is displayed in Figure 1 (Siebold & Kelly, 1987).

In practice, this theoretical conceptual structure can be expressed in terms of constructs more familiar to the military community. Horizontal bonding-affective is what many refer to as peer bonding, i.e., the extent to which peers trust and care about one another. In a platoon there is peer bonding among first term soldiers and peer bonding among the leaders. Horizontal bonding-instrumental is what is often referred to as teamwork, i.e., how well the peers work together to get the job Vertical bonding-affective includes what one typically sees labeled as leader caring, i.e., the degree to which leaders look out for and help their subordinates. However, theoretically, vertical bonding is a two way street. It includes the extent to which leaders and first termers trust and care about each other. Since leaders have more power, status, and authority, the major emphasis has been on the leader caring part of the relationship. Likewise, vertical bonding-instrumental is normally viewed in terms of leader competence, i.e., the extent to which the leaders have the skills and abilities to lead the first termers in training and in combat rather than the extent to which first termer teamwork enhances the skills and abilities of the leader.

Organizational bonding is a more abstract relationship. Out of the context of the theoretical conceptual structure of cohesion, some have referred to this as organizational commitment (e.g., Butler et al., 1987). However, focusing on the concept of commitment by itself misses the interactive effects of the three types of bonding in the group as a whole. Organizational bonding-affective refers to member identification with the unit and what it stands for and feeling good or bad about the unit. The identification with and feeling towards a unit are actualized through acceptance of being labeled as a unit member, support for unit values, and a sense of pride in unit

# CCHESION COMPONENTS

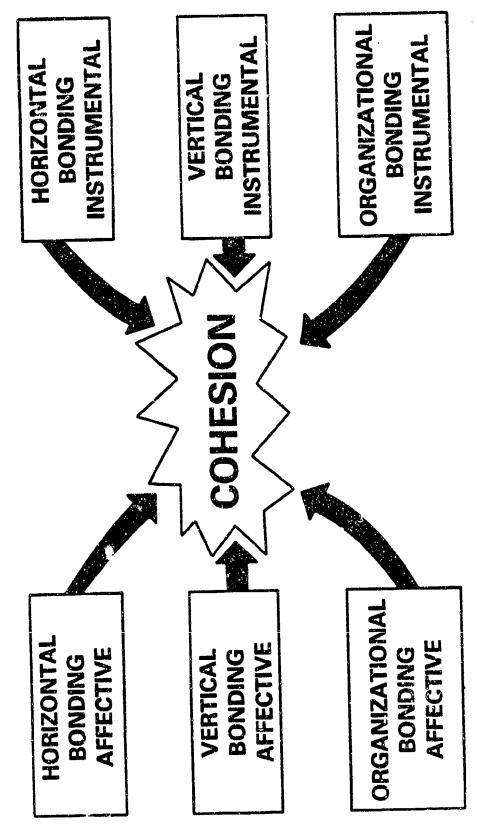


Figure 1. Cohesion Components

membership. On the other hard, organizational bondinginstrumental is an exchange relationship in which the members
work to achieve the organization's goals in exchange for the
organization facilitating the members' attainment of their needs
and goals. The soldier will do his best for the unit if the unit
and the Army will do their best for the soldier. The prize of
the full participation and commitment of members is the
organizations' creation of a rational environment of activities,
rules (do's and don'ts), and structures compatible with its
values, meeting the needs of unit members, and facilitating
member goal achievement. Figure 2 displays the areas covered by
the conceptual structure in terms familiar to the military
community (from Siebold & Kelly, 1987).

Another key issue was the appropriate echelon level at which to measure cohesion. Early research (e.g., Shils & Janowitz, 1948) implied that team/crew or squad level was where cohesion was most important. On the other hand, recent research (e.g., Marlowe et al., 1985) found the company level fruitful. To obtain more insight on this issue, a number of groups of soldiers at different echelon levels were interviewed from three battalions at Fort Ord in October 1986. Besides being asked about what cohesion was and how it was built, they were queried as to the best level to measure it. Most suggested to measure it at either the squad or platoon level (Siebold, 1987a). Later interview responses during questio naire data collection confirmed these levels. Soldiers pointed out, for example, that some platoons were cross-attached frequently and didn't often work together as a company. Further, several soldiers expressed that they didn't really know many other soldiers or groups outside their platoon well enough to assess their degree of cohesion. This was even more true outside their company.

Linked into the issue of at what level to measure cohesion is the basic issue of how to measure it. Success at obtaining company and above indications of cohesion depends on asking individual soldiers how they personally feel and then aggregating the responses up for each echelon. The mean score on an item or scale reflects the average feeling or perception of soldiers in the particular echelon group of interest. Bias can be introduced if a representative or full sample of the echelon group is not obtained, and consistently obtaining such a sample is notoriously difficult with Army combat units. An alternate approach, the one ultimately chosen for the CPCQ, is to ask soldiers how they think the members of the echelon group in question feel about an item. While this requires general knowledge about the group rather than self knowledge and adds the opportunity for another type of bias, it controls somewhat for sample deficiency as well as encourages more objectivity in the respondent.

Obviously, the more familiar a soldier is with a group the more accurately he can answer questions about its members. This would suggest measuring cohesion at the team or squad level. Yet as interviewees noted, the team or squad situation is heavily influenced by the platoon leader and platoon sergeant. Further, answering questions or making ratings of one's team or squad hits very close to home and reduces objectivity and perceptions of

## COMESION MEASURE SCALE AREAS

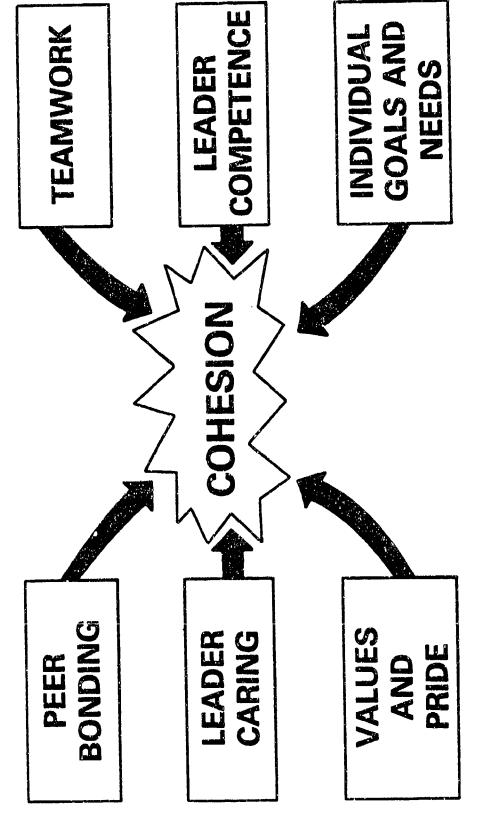


Figure 2. Cohesion Measure Scale Areas

anonymity. The platoon leader and platoon sergeant together have the relative experience, authority, and responsibility to be major factors in building and sustaining cohesion. Additionally, the platoon is the lowest echelon level with an officer, whose job is to maneuver the platoon and who furnishes the formal chain of command link with the company. Given the above considerations and the fact that members of a platoon are usually reasonably well known to each other, the platoon was chosen as the optimal level at which to measure cohesion.

The final preliminary issue to be discussed here concerns the question of how to measure cohesion at the platoon level, i.e., by what instrument. Obviously from the title of this report, a questionnaire was eventually chosen. But the logic for the choice deserves some documentation. If one conceives of cohesion in the manner described above, the object to be measured is the pattern of positive social relationships in a platoon. This could be measured by several means. For example, one could put the names of platoon members on cards and ask the members to sort the cards into piles based on whether their relationship with each member was positive, neutral, or negative. Or one could put dimensions of cohesion on the cards and ask the soldiers to sort them into piles based on whether a dimension was high, medium, or low for their platoon. However, the technique of sorting is very labor intensive for researchers and subjects; it may not address the range of subtleties needed; and sorting names sociometrically can provoke respondent resistance and adverse feelings.

Alternatively, one could produce a behavioral checklist for soldiers or leaders to use to indicate whether they have observed one or more instances of a given behavior. However, the same behavior may mean different things to different people and thus not necessarily relate to the appropriate construct. Further, there is differential opportunity to observe different types of behavior which may result in a measurement bias. For example, one behavior may indicate trust to one soldier but not to another soldier or the researcher. Likewise, a leader or researcher may not have the opportunity to observe the behavior.

While one can go on about the advantages and disadvantages of a number of techniques, the primary difficulty is that, in essence, cohesion and its dimensions are abstract. They represent summary feelings and judgments. For the sake of parsimony, it was considered best to directly ask soldiers what they thought was the state in their platoon of topics more abstract than behaviors but less abstract than the various dimensions of cohesion. Additionally, questionnaires are familiar to soldiers as well as psychometrically and mechanically efficient to use. Also, a questionnaire for Army use could be relatively easily derived from a higher resolution research one and maintain equivalent face validity.

## INSTRUMENT DEVELOPMENT

The existence of questionnaires from prior research also favored using a questionnaire as the measuring instrument. The

prior instruments provided both results for comparison and items and scales to start with. The most pertinent prior research questionnaires came from efforts to assess COHORT (Tremble et al., 1985; Marlowe et al., 1985) and to assess Army values (Siebold, 1986; Gilbert et al., 1986). These efforts, which shared many of the same constructs and items, furnished draft items to tap horizontal bonding (affective and instrumental), vertical bonding (affective and instrumental), and organizational bonding-affective. The latter consisted of scales to measure first term soldier values, leader values, and pride.

New scales were developed to measure horizontal (affective) peer bonding between leaders and organizational bonding-instrumental. The leader peer bonding scale was created to parallel first termer peer bonding. The organizational bonding-instrumental dimension was tapped by creating a scale measuring anomie (rule clarity) and constructing a hierarchy of needs set of items measuring attainment of basic needs, social needs, and personal goals. The goal items were derived from the top five reasons soldiers gave for enlisting in the Army (Pliske et al., 1986). In all, the Combat Platoon Cohesion Questionnaire developed was composed of seventy-nine basic items which were phrased to maintain a generally consistent style, designed to provide some format variety, and formed into eleven scales (reference Table 1 and Appendix A).

In addition to the basic items measuring cohesion, nineteen items were added to assess construct validity, estimate criterion validity, and provide a linkage with other constructs and questionnaires (reference Table 2 and Appendix A). The construct validity items speak for themselves as representative of their related scales. The criterion estimate items were included to represent criteria which should to some extent be related to platoon cohesion. Each platoon was to be raced on these criteria by company commanders and first sergeants during data collection. Thus the perspective of platoon members could be matched against their company level leaders to assess the general fit and external validation. The linkage items were included so that CPCQ scales could be tracked with other approaches to cohesion (Gal, 1986; Marlowe et al., 1985).

While not part of the CPCQ per se, other items have been added to the questionnaire at various times to assess turbulence in platoon membership and leader skills. Since the questionnaire was designed to have soldiers respond on a machine readable answer sheet, additional variables were picked up using the ARI standard machine readable answer sheet. These variables included administration date, social security number, unit codes, rank, sex, education level, and racial/ethnic group.

For most questionnaire scales, soldiers were to respond using a seven point Likert type rating scale. The seven point scale was chosen to give soldiers the opportunity to make more fine grained distinctions and provide more variance for the analysis. The values items (OB-A,FTV and ,LV; items 1-30) and associated rating scales were directly out of the Values Survey (Siebold, 1986). The horizontal bonding-instrumental items were derived from the Values Survey. These items (37-42) are the only

## Combat Platoon Cohesion Questionnaire Scales

## Horizontal Bonding (HB)

- HB-Affective (HB-A): (items 31-36); addresses the extent that first term soldiers in a platoon trust and care about one another.
- HB-Affective, Leaders (HB-A, L): (items 49-51); addresses the extent that leaders in a platoon trust and care about one another.
- HB-Instrumental (HB-I): (items 37-42); addresses how well the first term soldiers work together as a team.

## Vertical Bonding (VB)

- VB-Affective (VB-A): (items 43-48); addresses how much the first term soldiers and leaders care about each other.
- VB-Instrumental (VB-I): (items 52-58); addresses the technical expertise and training skills of the leaders in the platoon.

## Organizational Bonding (OB)

- OB-Affective, First Termer Values (OB-A,FTV): (items 1-15); addresses the importance of key Army values to first term soldiers.
- OB-Affective, Leader Values (OB-A,LV): (items 16-30); addresses the importance of the same values to leaders in the platoon.
- OB-Affective, Pride (OB-A,P): (items 64-68); addresses how proud first term soldiers are to be a platoon member.
- OB-Instrumental, Anomie (OB-I,A): (items 59-63); addresses the extent to which there is a rational environment for action by the platoon members.
- OB-Instrumental, Needs (OB-I,N): (items 69-74); addresses the extent to which first termer basic and social needs are being met.
- OB-Instrumental, Goals (OB-I,G): (items 75-79); addresses the extent to which first term soldier enlistment goals are being met.

Table 2

Construct Validity, Criterion Estimate, and Linkage Items
Added to the Combat Platoon Cohesion Questionnaire

## Construct Validity

Construct	Construct Validity Items
HB-A	82
HR-I	81
VB-A	83,87 <b>,</b> 88
VB-I	84 .
Cohesion	80

## Criterion Estimate

Criterion	Criterion	Estimate	Items
Stress Resistance Performance Morale Readiness		85 86 94	
Discipline		96	

## Linkage To Prior Research

Construct	<u>Linkage Items</u>
Confidence	89-93, 98
Soldier Will	97

ones in the CPCQ with five point rating scales. The five point scale was selected to maintain comparability with the Values Survey and provide some format variety for the respondents. The rating scales for the last half of the CPCQ (items 43-98) were all seven point scales with the high or "good" end being 1 (or A) and the low or "bad" end being 7 (or G). This high to low consistency was kept for the last half of the CPCQ to minimize respondent fatigue and consequent recording errors.

The reference point of the items shifted from first term soldiers, to leaders, and to the platoon as a whole at various parts of the CPCQ. Soldiers were alerted to this fact when given the administration instructions. As noted in the discussion above on preliminary issues, soldiers were asked to indicate how they thought the first term soldiers as a group or the leaders as a group felt on a particular issue/item. The purpose for this, again, was to encourage objectivity, provide some anonymity, and control for sampling problems.

## METHOD

The initial draft of the CPCQ was submitted to an in house "murder" board consisting of researchers on the Cohesion and Values Team. These researchers identified and helped correct potential problems of clarity, questionnaire structure, word choice, and efficiency. Next, the questionnaire was submitted to several Army officers assigned to ARI to insure it was sufficiently "green." Finally, it was administered to a small sample of soldiers from Fort Myer, VA to obtain an estimate of the time needed to complete the questionnaire, insure that the CPCQ was easy to read and understand, check on the administration instructions, and determine if any last minute changes were needed. The sample of soldiers saw no problems with the CPCQ, but it was determined that the administration instructions needed to be streamlined. As was found in later administrations of the survey, the CPCQ (items 1-98) took about 30 minutes for the first soldier to finish and up to 45 minutes for the last soldier to finish, plus the time needed for administration instructions and completion of the machine readable answer sheet coding and demographic items.

The Combat Platoon Cohesion Questionnaire was then given to 70 infantry combat platoons at four posts during the January to May time period of 1987 (Table 3). Particular questionnaire administration sites varied from company day rooms to classrooms to a gymnasium. Group size per administration varied from one platoon to two companies. Instructions to respondents were given by ARI researchers and followed a standard written format. The soldiers read the questions from a booklet and responded by pencilling their answers on a standardized machine readable answer sheet. When soldiers finished, they brought their materials to the ARI researchers who checked over the codes and pattern of responses. Soldiers were allowed to leave the survey site, under guidance from their supervisors, after their materials were accepted. Most soldiers were done (from start of the administration instructions to walking out the door) within

Table 3

Data Collection Locations and Sample Size

Location		Platoons	Soldiers
Fort Ord (2 BNs, Light Infantry; JAN 87)		23	369
<pre>Fort Benning (1 BN, Light Infantry; FEB 87)</pre>		15	249
Fort Polk (1 BN, Mechanized Infantry; MAR 87)		16	207
Fort Stewart (1 BN, Mechanized Infantry; MAY 87)		16	190
	'Total	70	1015

Note. The Fort Ord platoons were in 2 headquarters companies and 5 line companies. The Fort Benning platoons were in 1 headquarters company and 3 line companies. The Fort Polk platoons were in 4 line companies as were the Fort Stewart platoons. Platoons in the headquarters companies were the Mortar, Anti-tank, and Scout Platoons. Platoons in the line companies were the Headquarters, First, Second, and Third Platoons.

fifty minutes. Occasionally a few stragglers took over an hour to complete everything.

If time permitted, soldiers were asked for comments about the ease and clarity of the questionnaire as they finished. had no problems. They typically responded to the question of whether they enjoyed taking the questionnaire with comments to the extent that they thought it was either fun, interesting, all right, or OK. Occasionally, a soldier would state that he would have preferred to give his personal opinion rather than assess what he thought was the general view in the platoon. soldiers also said that they would have liked to rate leaders individually because they had problems with one or another. soldiers were unhappy with their squad leader; others were unhappy with the platoon leader or the platoon sergeant. standard response to these kinds of soldier comments was that we were asking about the patterns of cohesion rather than trying to evaluate any specific individuals. Some soldiers who were in their second enlistment but who were not squad or team leaders complained that they were ignored in the questionnaire. explained that we understood their concern but that they had a unique viewpoint to contribute; they were in between the leaders and first termers and hence could be more objective. Also their longer Army experience meant their opinions would be based on a greater perspective than those of first termers. However, in all, no major problems occurred. The only limitation was that, as is typical of surveys of this kind, higher level NCOs and platoon leaders were underrepresented in number.

During the time that the platoons were being given the CPCQ, their respective company commanders and first sergeants (actual or acting) were interviewed, individually and usually in their own office. Each was asked to rate the platoons in their company on several dimensions using a 1 (lowest) to 10 (highest) scale, with 5 being average. These dimensions were platoon "performance in the field", "performance in garrison", "ability to withstand stress", "platoon cohesiveness", and "current readiness for These raters were also asked to provide the criteria or indicators they used to make their ratings of their platoons. (Sample criteria from one of the light infantry installations are at Appendix B.) In general, there was only modest agreement between the ratings of the commanders and first sergeants and even less agreement between them and the average rating of the platoon members on the same issue (Siebold, 1987c). In some cases, the company commander gave very high ratings on all his platoons while the first sergeant provided lower ratings which differed among the platoons. In other cases, the first sergeant gave very high ratings on all dimensions for all the platoons while the company commander gave lower ratings which varied between the platoons. In order to compensate for very high undifferentiated ratings, the lower rating of either the company commander or the first sergeant on each dimension for each platoon was used in analysis of the data.

## RESULTS

Because the main purpose of this report is to document the psychometric characteristics of the CPCQ, the results are given in detail. Table 4 provides the mean and standard deviation of each item at the individual respondent level and at the platoon level. The means are typically near the midpoints of their respective scales. The standard deviations at the individual level are typically about twice as large as those at the platoon level, as one would expect since the platoon level represents grouped responses.

Table 5 presents the means, standard deviations, and alpha (scale reliability) coefficients of the component cohesion scales, again at both the individual and platoon levels. The Horizontal Bonding-Instrumental (teamwork) scale, being based on only a 5 point rating scale, had the lowest mean and standard deviation. The OB-I, Needs and OB-I, Goals scales had the lowest means for those components based on a 7 point rating scale. The

OB-A, Leader Values scale had the highest mean.

The next set of tables (Tables 6-16) describes the internal characteristics of each component cohesion scale. The tables provide the scale questionnaire items, the correlation of each item with the other scale items, and the correlation of each item with the total scale score. Correlations are given at both the individual and platoon levels. Overall, the component scales have good psychometric characteristics, including high intrascale correlations, especially at the critical platoon level, and high alpha coefficients. The only cohesion scale which didn't hold together strongly was the Needs scale (Table 15). The Goals scale (Table 16) similarly had some low intra-item correlations. This was to be expected since the various items represented in these scales are not based on a single underlying dimension. Rather, the Needs and Goals scales are composed of a "basket" of needs and of goals which form an index of whether needs are being met and an index of whether soldiers are making progress in attaining their goals.

A structural overview of the CPCQ is given in Table 17. There the correlations between the component cohesion scales are shown. Given that the scales all deal with some aspect of cohesion, it is to be expected that they correlate with one another to some degree. Fortunately, these correlations are not so high as to suggest serious identity or collinearity problems. However, some of the correlation levels do imply some degree of redundancy in the ratings by the soldiers. Looking down the columns, one can see that the highest correlations typically occur with the leadership related scales (HB-A,L; VB-A; VB-I). This suggests that one underlying construct influencing the ratings by the soldiers is their general assessment of the platoon leadership.

Since there are 79 CPCQ items and only 70 platoons in the sample, it is not appropriate to do a factor analysis at the platoon level to investigate underlying constructs. Nevertheless a factor analysis can be done at the individual level to explore for underlying constructs. The results of such an individual

Table 4

Means and Standard Deviations of CPCQ Items

	/ Tun =	level)	/ m) +	level)	··	/ T to -3	100011	/ 13.7 4	lovely
	(Ind. Mean	SD	Mean	SD		(Ind. Mean	level) SD	(Plt. Mean	level) SD
1	3.97	1.73	4.01	.71	41*	2.66	.89	2.65	.35
					41"				
2	3.45	1.90	3.47	.97		2.41	1.09	2.40	.38
3	3.58	1.68	3.63	.66	<b>43</b> *	3.70	1.78	3.66	.91
4	3.92	1.65	3.98	.64	44*	3.71	1.81	3.63	.92
5	2.96	1.89	3.03	.79	45*	3.19	1.70	3.14	.82
6	3.75	1.89	3.79	.84	46*	3.04	1.74	2.97	.81
7	3.63	1.74	3.70	.77	47*	3,91	1.74	3.85	.87
8	3.88	1.66	3.88	.72	48*	3.97	1.63	3.90	.76
9	3.95	1.66	3.97	.72	49*	2.96	1.87	2.92	.91
10	3.63	1.75	3.68	.79	50*	3.89	1.60	3.96	.69
11	3.46	1.84	3.55	.79	51*	3.72	1.52	3.71	.68
12	3.54	1.72	3,58	.71	<u>52</u> *	3.28	1.94	3.17	1.06
13	3.87	1.78	3.90	.69	53*	3.96	1.65	3.88	.81
14	4.41	1.66	4.43	.62	54*	3.21	1.98	3.16	1.04
15	3.98	1.59	4.05	.69	55*	3.16	1.97	3.04	1.06
16	4.62	1.38	4.60	.58	56*	3.83	1.58	3.74	.76
17	4.19	1.67	4.18	.74	57*	3.67	1.69	3.57	.87
18	4.33	1.64	4.31	.69	58*	3.77	1.97	3.63	1.02
19	4.53	1.43	4,51	.61	<del>5</del> 9*	4.46	1.36	4.44	.55
20	3.87	1.82	3.81	.87	60*	4.12	1.62	4.63	.75
21	4.25	1.62	4.21	.78	61*	3.73	1.82	3.69	.82
22	4.33	1.52	4.30	.68	62*	4.60	1.45	4.51	.54
23	4.30	1.59	4.25	.79	63*	3.80	1.84	3.72	.91
24	4.50	1.47	4.46	.69	64*	3.94	1.68	3.87	.83
25	4.64	1.45	4.62	.54	65*	2.81	2.05	2.73	1.19
26	3.85	1.87	3.83	.84	66*	3.25	1.95	3.16	1.08
27	4.45	1.51	4.39	.63	67*	3.20			
28	4.45	1.63					1.75	3.19	.73
28 29		1.03	4.25	.74	68*	4.09	1.63	4.05	.63
	4.32		4.31	.73	<del>69</del> *	2.46	1.85	2.48	1.00
30	4.22	1.68	4.20	.71	70*	2.63	1.90	2.73	1.12
31*	3.60	1.66	3.59	.77	71*	2.39	1.74	2.38	.61
32*	3.06	1.74	3.08	.72	72*	3.17	1.86	3.09	.89
33*	3.42	1.67	3.43	.73	73*	2.43	1.90	2.39	.82
34*	1.99	2.02	1.92	1.02	74*	2.44	1.86	2.40	.82
35*	2.95	1.61	2.96	.65	75*	2.93	1.79	2,85	.87
36 ×	3.79	1.42	3.79	.58	76*	3.60	1.76	3.61	.81
37*	1.98	1.13	1.98	.53	77*	2.79	2.00	2.79	.97
38*	2.83	.86	2.81	.38	78*	2.27	1.81	2.23	.71
39	2.27	.96	2.26	.39	79*	3.04	1.75	3.09	.75
40	2.60	1.12	2.60	.48					

Note. The CPCQ utilized a 7-point scale (coded in this table as  $\overline{0-6}$ ), except for the HB-I scale (items 37-42), which utilized a 5-point scale (coded 0-4). Individual N=1015; platoon N=70. Underline of item number indicates the end of a scale. \*= responses were reverse scored for these items. Higher values indicate greater cohesion.

Table 5

Means, Standard Deviations, and Alphas of CPCQ

Scales at the Individual and Platoon Level

	Indi	vidual	level	P]	atoon	level
Scale	Mean	SD	Alpha	Mean	SD	Alpha
нв-А	3.15	1.30	.86	3.14	.64	.91
HB-A,L	3.53	1.42	.82	3.50	.71	.91
HB-I	2.46	.74	.83	2.44	.35	.91
VB-A	3.58	1.45	.91	3.52	.80	.97
VB-I	3.56	1.47	.91	3.46	.85	.96
OB-A, FTV	3.75	1.36	.95	3.79	,63	.97
OB-A,LV	4.33	1.26	.95	4.30	.61	.98
OB-A,P	3.47	1.45	.86	3.40	.78	.91
OB-1,A	4.15	1.24	.82	4.08	.62	.90
OB-I,N	2.58	1.18	.73	2.57	.57	.70
OB-I,G	2.92	1.40	.83	2.91	, 66	.86

Note. The CPCQ utilized a 7-point scale (coded 0-6), except for the HB I scale (items 37-42), which utilized a 5-point scale (coded 0-4). Individual N=1015; platoon N=70. Higher mean scale values indicate more cohesion.

Table 6

Horizontal Bonding-Affective (HB-A)

Items and Intra-Scale Correlations

at the Individual and Platoon Level

	Indiv	ridua	ıl le	vel	item	ıs
	31	32	33	34	35	36
36 T1	.60 .36 .56 .49 .76	.45 .56 .54 .80	.60 .61 .81	.37 .69 .51	.81 .72	.75
	31	32	33	34	35	36
32 33 34 35 36 T1 T2	.81 .47 .77 .75	.56 .70 .75 .87	.72 .75	.51 .74	.82 .89	.86

Note. All correlations are significant at the .0001 level or greater.

Individual level N=1015; platoon level N=70.

31=In this unit the first-termers really care about what happens to each other.

32=Soldiers here can trust one another.

33=First-termers in this unit feel very close to each other.

34-Soldiers like being in this unit.

35=First-termers in this unit really respect one another.

36=Soldiers in this unit like one another.

T1=The mean of all scale items.

T2=The mean of all scale items minus the item which is being correlated with the scale.

Table 7 Horizontal Bonding-Affective, Leaders (HB-A,L) Items and Intra-Scale Correlations at the Individual and Platoon Level

	49	50	51	
	.52			
	.51		0.0	
	.82 .56			
Pla	toon	leve	el it	.ems
Pla		1eve	<del></del>	ems
50	49	50	51	ems
50 51	49	50	51	ems

Note. All correlations are significant at the .0001 level or greater. Individual level N=1015; platoon level N=70.

49=Leaders like being in this unit.

50=Leaders in this unit respect each other.

51=Leaders in this unit care about one another as individuals.

T1=The mean of all scale items.

T2-The mean of all scale items minus the item which is being correlated with the scale.

Table 8

Horizontal Bonding-Instrumental (HB-I)

Items and Intra-Scale Correlations at
the Individual and Platoon Level

	THUL	Tuu	7 T.	2 A 62 T	I CGI	u &
	37	38	39	40	41	42
38 39 40		.51	.49			
41 42 T1 T2	.48	.48 .43 .74	.42 .48 .77	. 44	.69	
	Plat	toon	leve	el it	ems	
	37	38	39	40	41	42
38 39 40 41 42 T1 T2	.67 .68	.47 .67 .85	.76	.65 .86		
	• , ,	, , ,	.01	• , ,	, 0 3	.,,

Individual level items

Note. All correlations are significant at the .0001 level or greater. Individual level N=1015; platoon level N=70.

37-Do the soldiers in your unit make each other feel like doing a good job?

38-How well do the soldiers in your unit work together? 39-To what extent do members of your unit help each

other to get the job done?

40-To what extent do members of your unit encourage each other to succeed when in the field or at competitions?

41=Do the members of your unit work hard to get things done?

42=To what extent do members of your unit pull together and share the load while in the field?

T1=The mean of all scale items.

T2=The mean of all scale items minus the item which is being correlated with the scale.

Table 9 Vertical Bonding-Affective (VB-A) Items and Intra-Scale Correlations at the Individual and Platoon Level

	Indiv	vidu	al le	evel	iter	ns
	43	44	45	46	47	48
	.63	e =				
46	.59	.69		.68		
48	. 19	.72	.56	.61		.82
т2	.67	.84	.73	.78	.79	.74
	Plat	toon	leve	el i	tems	
	43	44	45	46	47	48
	.85	0.0				
45	.82 .86		.86			
47	.85 .75		.82		67	
T1			. 74			
Т2	.88	.95	.88	.91	.93	.85

Note. All correlations are significant at the .0001 level or greater. Individual level N=1015; platoon level N=70.

43=First-term soldiers respect the leaders in this unit.

44-When a soldier in this unit goes for help, his

leaders listen well and care about what the soldier says.

45-Leaders trust the first-term soldiers in this unit.

46-Leaders really understand the soldiers in this unit. 47-When asked for help in solving a personal problem,

leaders in this unit do their best to help out.

48-When a soldier wants to talk, his leaders make themselves available.

T1=The mean of all scale items.

T2=The mean of all scale items minus the item which is being correlated with the scale.

Table 10

Vertical Bonding-Instrumental (VB-I) Items and Intra-Scale

Correlations at the Individual and Platoon Level

	Inc	livi	iual	leve	el it	ems	
	52	53	54	55	56	57	58
53	.68						
54							
55	.60	.50					
56			.58				
57		.66		.60			
58			.49		.54		
T1	.84	.78					.77
T2	.78	.71	.70	.71	.74	.78	.67
	P	Lato	on 16	evel	iter	ns	
	52	53	54	55	56	57	58
53	.86						
54		.73					
55		.61	7.8				
56		.79		- 80			
57	.88	.84			. 88		
58	.80	.71		.67		.75	
Tl	.93	.86					.85
T2	.92	.83	.84	.80	.89	.90	.79
	. , .	.03	.04		.03	• • •	• , ,

Note. All correlations are significant at the .0001 level or greater. Individual level N=1015; platoon level N=70.

52=The leaders in this unit are the kind that soldiers want to serve under in combat.

53=The leaders in this unit can really apply their knowledge to solve problems in the field.

54=The chain of command works well around here.

55=The leaders keep their soldiers well informed

55=The leaders keep their soldiers well informed about what is going on.

56=Leaders keep themselves informed about the progress soldiers are making in their training.

57-The leaders in this unit are experts and can show the soldiers how best to perform a task.

58=The leaders work right along with their soldiers under the same hardships in the field.

T1=The mean of all scale items.

T2=The mean of all scale items minus the item which is being correlated with the scale.

Table 11

Organizational Bonding-Affective, First Termer Values (OB-A,FTV)

Items and Intra-Scale Correlations

					]	Indiv	/idua	1 10	evel	iter	ns				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2345678910112 13415 T1	.69 .53 .56 .55 .51 .53 .53 .53 .53 .53	.60 .61 .56 .52 .56 .56 .54 .36 .48 .74	.67 .62 .55 .57 .61 .52 .53 .61 .71	.67 .58 .66 .67 .71 .59 .69 .55 .44 .81	.61 .60 .64 .54 .58 .69 .57 .41	.55 .58 .58 .50 .62 .45 .71	.68 .69 .63 .60 .58 .48 .58	.79 .61 .63 .72 .60 .49 .55 .83	.67 .65 .74 .63 .50 .59	.57 .65 .56 .41 .53	.70 .55 .50 .56 .77	.69 .53 .62 .86	.51 .56 .77	.52 .63 .58	.72
						Pla	toon	leve	el it	tems					
	1	2	3	4	5	6	7	8	9	1.0	11	12	13	14	15
234567891011213415T1	.78 .68 .67 .73 .74 .73 .65 .70 .67 .78 .54 .59	.73 .74 .76 .58 .75 .78 .77 .85 .77 .83 .76 .52 .64 .88	.80 .77 .70 .76 .72 .74 .71 .68 .75 .52 .60 .85	.77 .67 .85 .81 .76 .78 .83 .74 .64	.74 .75 .77 .61 .66	.67 .65 .58 .55 .54 .70 .49 .48	.80 .85 .81 .77 .56 .74	.71 .76 .71 .67 .64	.77 .79 .84 .76 .70 .78	.74 .77 .75 .47 .69	.86 .73 .54 .74 .86	.79 .54 .73 .90	.63 .70 .88	.61 .70	.80

## Table 11 (Cont.)

correlated with the scale.

Note. All correlations are significant at the .0001 level or greater. Individual level N=1015; platoon level N=70. 1-Loyalty to the United States Army. 2-Loyalty to the unit or organization. 3-Taking responsibility for their actions and decisions. 4-Accomplishing all assigned tasks to the best of their ability. 5-Putting what is good for their fellow soldiers and mission accomplishment ahead of personal desires. 6-Dedication to serving the United States, even to risking their lives in its defense. 7-Having high moral and personal standards. 8-Commitment to working as members of a team. 9-Dedication to learning their job and doing it well. 10-Personal drive to succeed in the Army and advance. 11-Being honest, open, and truthful. 12-Taking responsibility to ensure that the job gets done. 13=Being disciplined and courageous in batcle. 14-Standing up for what they firmly believe is right. ?5=Building and maintaining physical fitness and stamina. TlaThe mean of all scale items. T2-The mean of all scale items minus the item which is being

Table 12

Organizational Bonding-Affective, Leader Values (OB-A,LV) Items

and Intra-Scale Correlations at the Individual and Platoon Level

and	Int	a-Sc	ale	Corr	elat	ions	at	the	Indi	vidu	al	and	Plato	on	Level
	· · · · · · · · · · · · · · · · · · ·				Indi	vidu	al l	.eve]	ite	ms				·	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
17 18 19 20 21 22 23 24 25 26 27 28 29 30 T1	.67 .57 .55 .49 .63 .55 .57 .46 .55 .55 .44	.60 .557 .60 .58 .58 .546 .549 .74	.70 .658 .59 .63 .59 .52 .59 .562 .59	.64 .58 .62 .63 .70 .55 .57 .60 .57		.62 .59 .68 .49 .57 .59 .76	.69 .70 .54 .65 .67 .60 .59	.76 .55 .66 .69 .61 .57	.64 .64 .71 .72 .64 .86	.44 .61 .53 .45 .48 .68	.67 .65 .65 .79	.68 .63 .60 .83	.64 .60 .83	.58 .78 .74	
					I	Plato	on l	Level	l ite	ems					
	16	17	18	1.9	20	21	22	23	24	25	26	27	28	29	30
17 18 19 20 21 22 23 24 25 26 27 28 29 30 T1	.73 .71 .68 .78 .77 .78 .77 .78 .77 .63 .68 .83	.72 .73 .68 .79 .69 .72 .77 .70 .65 .80	.87 .84 .70 .81 .85 .87 .72 .86 .78 .80 .74 .88	.79 .66 .77 .77 .82 .73 .76 .84 .76 .80 .70	.83 .79 .83 .85 .73 .85 .71 .79	.79 .77 .80 .73 .75 .86 .67	.85 .85 .72 .84 .80 .88 .77 .74 .88	.87 .74 .85 .84 .86 .78 .76	.80 .83 .80 .86 .80 .79	.70 .77 .72 .71 .68 .83	.81 .82 .77 .75 .89	.82 .76 .75 .88	.80 .79 .89	.73 .86	.86

## Table 12 (Cont.)

Note. All correlations are significant at the .0001

level or greater. Individual level N=1015; platoon level N=15.

16=Loyalty to the United States Army.

17=Loyalty to the unit or organization.

18-Taking responsibility for their actions and decisions.

19-Accomplishing all assigned tasks to the best of their ability.

20=Putting what is good for their fellow soldiers and mission accomplishment ahead of personal desires.

21-Dedication to serving the United States, even to risking their lives in its defense.

22-Having high moral and personal standards.

23-Commitment to serving as members of a team.

24-Dedication to learning their job and doing it well.

25-Personal drive to succeed in the Army and advance.

26-Being honest, open, and truthful.

27-Taking responsibility to ensure that the job gets done.

28-Being disciplined and courageous in battle.

29-Standing up for what they firmly believe is right.

30-Building and maintaining physical fitness and stamina.

T1=The mean of all scale items.

T2=The mean of all scale items minus the item which is being correlated with the scale.

Table 13

Organizational Bonding-Affective, Pride (OB-A,P)

Items and Intra-Scale Correlations at the

Individual and Platoon Level

Individual			level items			
	64	65	66	67	68	
68	.57 .46 .44	. 41	.50	.80		
P	lato	on le	evel	iter	ns	
· · · · · · · · · · · · · · · · · · ·	64	65	66	67	68	
66 67	.67 .58 .89	.87 .70 .62 .95	.53 .89	.79 .81 .74		

Note. All correlations are significant at the .0001 level or greater.

Individual level N=1015; platoon level N=70.

64-The soldiers in this unit feel they play an important part in accomplishing the unit's mission.

65=Soldiers here are proud to be in this unit.

66-First-term soldiers feel this unit's wartime mission is very important.

67-The soldiers in this unit are proud to be in the Army.

68=First-term soldiers feel the Army has an important job to do in defending the United States in today's world.

T1-The mean of all scale items.

T2-The mean of all scale items minus the item which is being correlated with the scale.

Table 14

Organizational Bonding-Instrumental, Anomie (OB-I,A)

Items and Intra-Scale Correlations at the

Individual and Platoon Level

Individual level items

	59	60	61	62	63
60 61 62 63 T1 T2	.43 .52 .72	.46 .43 .57 .77	.54 .77	.71	
P	lato	on le	evel	iter	ns
	59	60	61	62	63
62	.77	.64	.69		.91

Note. All correlations are significant at the .0001

and the same of the same with the same with the same of the same with the same of the same

level or greater.
Individual level N=1015; platoon level N=70.

<sup>59-</sup>The people in this unit know what is expected of them.

<sup>60-</sup>Rules are consistently enforced.

<sup>61=</sup>The reasons for being rewarded or promoted are well known.

<sup>62=</sup>The behaviors that will get you in trouble or punished are well known.

<sup>63=</sup>The priorities in this unit are clear.

T1=The mean of all scale items.

T2=The mean of all scale items minus the item which is being correlated with the scale.

Organizational Bonding-Instrumental, Needs (OB-I,N)

Items and Intra-Scale Correlations at the

Individual and Platoon Level

	Indiv	ridus	al 1e	evel	item	ns
	69	70	71	72	73	74
70 71 72 73 74 T1 T2	.12 .20 .19 .57	.21	.28	.35 .66	.44 .72 .55	
	Plat	toon	leve	el it	tems	
•	69	70	71	72	73	74
73	.23 04- .17 .25	.09 .22 .57	.30 .33 .52		.71 .74	

Note. All individual level correlations are significant at the .0001 level or greater. All platoon level correlations of .23 or larger are significant at the .05 level or greater. Individual level N=1015; latoon level N=70; 69=The food served in the unit dining facility. 70=The quality of the barracks or other on-post housing. 71=The availability of good off-post housing. 72=The time available for personal needs like going to the PX, cleaners, bank, or barber shop. 73=The time available to spend with friends or family. 74=The quality and frequency of unit parties and social gatherings. T1=The mean of all scale items. T2=The mean of all scale items minus the item which is

being correlated with the scale.

Table 16

Organizational Bonding-Instrumental, Goals (OB-I,G)

Items and Intra-Scale Correlations at the

Individual and Platoon Level

In	divid	dual	leve	el it	ems
	75	76	77	78	79
79	.54 .38 .73	.41	.40	.83	
P	lato	on le	evel	iter	ns
	75	76	77	78	79
		.89	.33		.61

Note. All correlations are significant at the .004 level or greater.

Individual level N=1015; platoon level N=70.

75-All in all, the duties soldiers perform in this unit make them feel they are serving their country.

76-Soldiers in this unit have opportunities to better themselves.

77-Soldiers in this unit can make progress toward achieving their educational goals.

78-Around here you get the skills and training you want.

79=Soldiers assigned to this unit can maintain a good standard of living.

T1=The mean of all scale items.

T2=The mean of all scale items minus the item which is being correlated with the scale.

Table 17

Inter-scale Correlations

	CPCQ scales										
	HB- A	HB- A, L	HB-	VB- A	VB-	A,	OB- A, LV	A,	OB I, A	OB- I, N	
HB-A,L	.73										
H8-I	.62	.62									
VB-A	.69	.85	.70								
VB-I	.72	.83	.72	.92							
OB-A, FTV	.28	. 57	.54	.53	.45						
OB-A, LV	.46	.72	.58	.69	.66	.71					
OB-A,P	.72	.81	.79	.83	.88	.58	.72				
OB-I,A	.57	.80	.60	.82	.82	.50	.63	.75			
OB-I,N	.34	.62	.31	.58	.56	.37	.53	.51	.51		
OB-I,G	.50	.81	.62	.82	.79	.57	.74	.82	.72	.67	

Note. N=70 platoons.

level factor analysis are presented in Table 18. The table shows that most of the component cohesion scales tap relatively independent factors. However, as Table 17 foreshadowed, one strong underlying construct is represented by the leadership This first and strongest factor includes the three leadership related scales noted above as well as some loadings on items belonging to the Anomie and Pride scales. Interestingly, the basic, social, and goal levels of the Maslow hierarchy of needs items all separated out into discrete factors, with the exception of the goal to maintain a good standard of living (item 79) which came under the basic needs factor. Another interesting break was in the Pride scale which split into several factors, including pride in the platoon and pride in the Army. It appears that pride may be a rather complex phenomenon. In summary, the individual level factor structure supports the relative independence of the cohesion component scales, with the exception of the leadership scales (HB-A,L; VB-A; VB-I) which appeared to be conceptualized by the soldiers in terms of one underlying leadership "quality" dimension.

While the foregoing indicates that the scales generally held together well and most tapped a single construct/dimension in a reliable way, it is important to determine whether these scales were measuring the constructs they were supposed to be. To establish this construct validity, the scale scores were matched with responses to their construct validity items (Table 2) at the end of the questionnaire. The resulting correlations are given in Table 19. Each key horizontal and vertical bonding scale correlated with the general cohesion construct (item 80) to a moderate degree and with their specific constructs to a much higher degree. In other words, within the confines of the questionnaire itself, the scale-construct correlations

demonstrated good construct validity.

The questionnaire contained items relating to other platoon characteristics with which cohesion should be associated. were the ability of the platoon to perform under stress, whether a platoon was a high performing one, platoon morale, readiness, and the state of discipline in the platoon. The cohesion scales should have the power and validity to predict responses to items estimating these platoon characteristics. This predictive validity is demonstrated in Table 20. Again the correlations well high enough to show predictive power without being so high as to indicate problems with identity of constructs or multicollinearity. The low correlations between the Needs scale and the criteria items suggest independence of constructs between the Its highest correlation was with predictors and the criteria. platoon morale (.53) which makes sense conceptually. scale appeared to be the strongest predictor of the criteria. the other hand, the cohesion scales were least correlated with the readiness criterion, which represents wider and more complex factors. Of special interest is the correlation pattern of the cohesion scales with Morale, a concept with which cohesion is frequently confused. The cohesion scales with which Morale was most highly correlated were the scales found in the leadership factor in Table 18. This implies that morale may be primarily a

Table 18
Factor Loadings of CPCQ Items after Varimax Rotation

Item		Factors										
	1	2	3	4	5	6	7	8	9	10	11	
1		.63									.51	
2 3		.66 .71										
4		.77										
5		.74					F	actor	Label	S		
6 7		.66 .79				1	τ.	eaders	hin			
8		.75				1		eauers	mrp			
9		.79				2	. s	oldier	. Valu	es		
10		.71				_	_					
11 12		.74 .82				3	. L.	eader	value	5		
13		.68				4	. s	oldier	Peer	Bond	ing	
14		.57					<b>4</b> 3					
15 16		.69	.64			5	. 5	oldier	ream	WOIK		
17			.62			6	. A	nomie				
18			.74			_	_	-				
19 20			.75 .68			7	. G	oals				
21			.71			8	. s	ocial	Needs	i		
22			.70									
23 24			.70 .79			9	. В	asic N	leeds			
25			.66			1	0. P	ride i	n Pla	toon		
26			.65									
27			.75			1	1. P	ride i	n Arm	īλ		
28 29			.71 .67			L						
30			.65									
31				.75					<u>-</u>			
32 33				.70 .79								
34				.40						.42		
35				.40 .73 .72								
36 37				.72	.39				·····	· <del></del>		
3 <i>1</i> 38					.58							
39					.70							
40 41					.62							
41 42					.46 .70							

Table 18 (Cont.)

j Š

 $^{\circ}$ 

<u>item</u>	_1	2	3	4	5	6		8	9	10	11
. 43	.64										
14	.81										
5	.68										
6	.77										
7	.78										
8	.74										
9	.44									.57	
0	. 49										
5 <u>1</u>	.55 .72										
2	.72										
3	.63										
4	.63										
5	.69 .65 .66										
6	.65										
57	.66										
8	.59_										
9			-	<del></del>		.57	- <del></del>				
0	.45					.58 .46					
1						.46					
1 2	.51					.65					
3						.47					
4						.39					******
5 5 6	.50									. 43	
6							.41				
7											. 41
8 9											. 47
9									.72		
0									.79		
1								.52			
2								.74			
3								.71 .52			
4								.52			
5							.43				
16							.58 .62 .63				
17							.62				
78							.63				
9									.49		
<del></del> ,		······································	······································				<del></del>	***************************************		<del></del>	
/aria:		1	2	3	4	5	6	7	8	9	10

Variance 1 2 3 4 5 6 7 8 9 10 11 explained by each 11.3 10.1 9.6 4.2 3.0 2.9 2.7 2.3 2.2 1.7 1.5 factor

Final communality estimates: Total = 51.46

Note. Before rotation these factors accounted for a total of 65.2 percent of the variance. Only factor loadings of .39 or greater are shown. N=1015 individuals.

Table 19

Construct Validity Items and Correlations with

Corresponding Cohesion Scales

Cohesion scales		Construct r validity items		
нв-а	80 82	.55		
HB-I	80 81	.76 .86		
VB-A	80 83 87 88	.73 .90 .85		
VB-I	80 84	.68 .91		

Note. All correlations are significant at the .0001 level or greater. N=70 platoons. r=correlation.

80=This platoon is very cohesive.

81-There is a very high degree of teamwork and cooperation amon first-term soldiers in this platoen.

82=The first-term soldiers in this platoon get along very well with each other.

83=In this platoon the leaders really care about what happens to the first-term soldiers.

84-Overall the leaders in this platoon are very good.

87=The leaders in this platoon appreciate the contributions of the first-term soldiers.

88=The first-term soldiers appreciate the contributions of the leaders in the platoon.

Table 20
Criterion Estimate Items and
Correlations with the CPCQ Scales

	С	Criteria estimate items								
CPCQ scales	85	86	94	95	96					
нв-а	.€0	.55	.66	.60	.80					
HB-A,L	.76	.74	.83	.67	.71					
HB-I	.80	.74	.65	.62	.70					
VB-A	.79	.78	.83	.59	.79					
VB-I	.80	.75	.83	.63	.81					
OB-A, FTV	.65	.59	.64	.50	. 49					
OB-A,LV	.71	.64	.67	.55	.64					
OB-A,P	.86	.82	.84	.71	.77					
OB-I,A	.74	.70	.74	.53	.73					
OB-I,N	.35	.28	.53	.21	. 37					
OB-I,G	.75	.80	.80	.58	.64					

Note. The correlations of items 85, 86, and 95 with OB-I,G are significant at the .002, .01, and .08 levels, respectively. All remaining correlations are significant at the .001 level or greater.
N=70 platoons.

85-Even if this platoon were under a great deal of stress or difficulty, it would pull together to get the job done.

86=This is a very high performing platoon.
94=How high is the morale in your platoon?
95=Describe the state of your platoon's readiness.

96-Describe the state of discipline in your platoon.

function of good leadership. In summary, within the questionnaire, the CPCQ component cohesion scales demonstrated reasonable predictive validity with items estimating various other relevant platoon characteristics.

Since the questionnaire was derived, in part, from other questionnaires using the same or related constructs, it is appropriate that the CPCQ scales be linked with constructs central to those other questionnaires. In particular, the CPCQ component cohesion scales should be linked to the degree that soldiers have confidence that they would do well in combat and to their determination or will to win in combat. The linkage of the cohesion scales to constructs used in other research is shown in Table 21. The Pride scale appears to provide the strongest link to these related constructs, although other cohesion scales are also reasonably correlated enough to suggest a solid linkage. The fact that confidence in weapons and equipment (item 93) has the lowest correlations with the cohesion scales indicates that the soldiers were discriminating in their responses to these linkage items. In summary, if desired, the CPCQ could be crosswalked with prior research instruments and their constructs to merge or compare findings.

One last set of results needs presentation, that of the company commander and first sergeant ratings. These ratings were important because they permitted the CPCQ scales to be related to criteria external to the questionnaire. Unfortunately, these ratings did not come out too well. Neither the company commander ratings, the first sergeant ratings, nor the lower rating of the two was correlated to any degree with the CPCQ scales. As noted above, the company commanders and first sergeants did not agree much in their ratings with each other. They also did not agree with the questionnaire ratings of their platoon leaders, platoon sergeants, or the soldiers in their platoons on comparable topics (Siebold, 1987c). The only ratings that even came close were the lower of the company commander or first sergeant rating on "platoon cohesiveness" compared to the questionnaire item (80) "This platoon is very cohesive." Those two were only correlated at a magnitude of r=.24. Put succinctly, company level ratings proved to be inadequate psychometrically. Nonetheless, it is desirable that the CPCQ cohesion scales be related to appropriate criteria external to the questionnaire at some time to further establish their validity.

### DISCUSSION

The first question which must be asked at this stage is how good an instrument is the CPCQ for measuring combat platoon cohesion? The answer depends on what one would ask of such a measure. The CPCQ has a theoretical base (Siebold, 1987a; Siebold & Kelly, 1987a; Siebold, 1987b). Its scales are correlated with one another conceptually and statistically yet, based on the factor analysis and moderate inter-scale correlations, semi-independent of one another. Each scale represents a clear meaningful construct, and items within each scale are strongly intercorrelated, except for the Maslow need

Table 21
Linkage Items and Correlations with the CPCQ Scales

	Linkage items									
CPCQ scales	89	90	91	92	93	97	98			
нв-а	.65	.71	.65	.62	.33	.69	.64			
HB-A,L	.45	.76	.62	.77	.42	.67	.67			
HB-I	.74	.76	.73	.69	.44	.70	.80			
VB-A	.61	.85	.69	.80	.41	.75	.74			
VB-I	.60	.87	.69	.80	.39	.75	.73			
OB-A, FTV	.45	.58	.54	. 57	.34	.48	.50			
OB-A,LV	.50	.70	.68	.69	.51	.66	.66			
OB-A,P	.66	.83	.72	.82	.51	.79	.83			
OB-I,A	. 48	.72	.62	.72	.25	.68	.65			
OB-I,N	.19	.41	.41	.38	.42	.36	. 37			
OB-I,G	.46	.68	.61	.72	.56	.71	.72			

Note. All correlations are significant at the .003 level or greater with the exception of the correlations between OB-I,A and 93; and OB-I,N and 89. Those correlations are significant at the .03 and .10 levels respectively. N-70 platoons.

89-In the event of combat, describe the confidence first-term soldiers would have in each other.

90-In the event of combat, describe the confidence first-term soldiers would have in their platoon leaders.

91-In the event of combat, describe the confidence platoon leaders would have in their soldiers.

92=In the event of combat, describe the confidence platoon leaders would have in each other.

93=Describe the confidence first-term soldiers in your platoon have in their weapons and equipment.

97-How high is the determination or "will" to win in combat in your platoon?

98-Describe the degree of confidence members of this platoon have that it would perform well in combat.

hierarchy scales which were not designed to be unidimensional. Reliabilty and validity, at least within the questionnaire, appear to be high. The CPCQ is long enough to treat cohesion at an in depth level yet short enough to be a fast and efficient measure. The CPCQ can be useful to assess cohesion in depth or to form the basis for briefer questionnaires. In general, it covers what it is meant to and appears to do what it is supposed to well.

The second question to be asked is does it need to be improved or modified? The answer to this second question depends on time and priority. The CPCQ appears to be a good, solid instrument as it now stands. However, it could be improved. Each questionnaire item could be reviewed by panels of soldiers to verify further that they understand the item and to help sharpen the precise wording, but there is no indication that item meaning or clarity is a problem. Likewise, some questionnaire items contain a compound or dual focus concept. These items are thus more complex than might be desirable, but soldiers have not complained that they were too difficult to interpret, and such items reduce the number of questions that must be asked. More platoons could be added to the data base to enable a platoon level factor analysis, but that would require an extensive research effort requiring as a minimum data from 800 platoons. Nonetheless, it would be desirable to expand the sample to include platoons from branches other than the infantry to confirm the generalizability of the instrument. The component conesion scales could be correlated with criteria external to the questionnaire, and that is desirable; but it is very difficult to get quality, pertinent criteria data. Data collected for other purposes usually turn out to be either not directly relevant or of poor quality or both. Research to collect such data would be intrusive and require a great deal of effort. Perhaps the best way to obtain external criteria data is to get it in conjunction with an effort which requires the use of the CPCQ anyway to meet the objectives. On the other hand, since the CPCQ was developed in part to form a base for generating an abbreviated version for use by small unit leaders, improvements and modifications are probably best made in conjunction with developing the abbreviated version.

The last question to be asked is whether the CPCQ is better than existing measures of cohesion? The answer to this question depends on the purpose of comparable instruments and is a matter of judgment. It seems better to the authors to measure cohesion at the platcon level than at the squad or company level; it seems better to measure a less volatile construct like cohesion than a more volatile construct like combat confidence; it seems better to measure the more concrete constructs represented by the component cohesion scales than more ambiguous constructs such as soldier will; and it seems better to cover all three types of bonding (and their affective and instrumental aspects) than to cover, for example, just horizontal (peer) bonding. Ultimately, as behavioral science progresses and the Army changes, the CPCQ will be seen as primitive or obsolete. Nevertheless, for now, it

is a good instrument and probably the most appropriate for measuring cohesion in depth at the small combat unit level.

#### REFERENCES

- Butler, John Sibley, John D. Blair, Robert L. Phillips, and Neal Schmitt. 1987. "Framework for Research on Leadership, Cohesion, and VAlues." Technical Report 770. Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences (November). ADA 192 070.
- Gal, Reuven. 1986. "Unit Morale: From a Theoretical Puzzle to an Empirical Illustration-An Israeli Example." <u>Journal of Applied Social Psychology</u>, 16: 6, pp. 549-564.
- Gilbert, Arthur C. F., Trueman R. Tremble, Jr., Gary M. Brosvic, and Guy L. Siebold. 1986. "Military Values: Structure and Measurement." Paper presented at the 28th Annual Conference of the Military Testing Association, Mystic, CT (3-7 November).
- Marlowe, David H., Theodore P. Furukawa, James E. Griffith, Larry H. Ingraham, Faris R. Kirkland, James A. Martin, Robert J. Schneider, and Joel M. Teitelbaum. 1985. "New Manning System Field Evaluation." Technical Report No. 1. Washington, DC: Department of Military Psychiatry, Walter Reed Army Institute of Research (1 November).
- Pliske, Rebecca M., Timothy W. Elig, and Richard M. Johnson. 1986. "Towards an Understanding of Army Enlistment Motivation Patterns." Technical Report 702. Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences (January). ADA 173 817.
- Shils, Edward A. and Morris Janowitz. 1948. "Cohesion and Disintegration in the Wehrmacht in World War II." <u>Public Opinion Quarterly</u>, 12: 280-315.
- Siebold, Guy L. 1986. "Army Values: Results of Theme Year Research." Conference Report, Leadership Conference 1986, 9-11 December 1986, pp. 21-66, Fort Leavenworth, KS: U.S. Command and General Staff College, Center for Army Leadership.
- Siebold, Guy L. 1987a. "Bonding in Army Combat Units." Paper presented at the Southern Sociological Society Annual Meeting, Atlanta, GA (9-12 April).

Siebold, Guy L. 1987b. "Conceptualization and Definitions of Military Unit Cohesiveness." Paper presented at the 9th Annual Convention of the American Psychological Association, New York, NY (28 August-1 September).

- Siebold, Guy L. 1987c. "Patterns in Cross-Echelon Criterion Ratings of Platoon Cohesion and Performance." Paper presented at the 29th Annual Conference of the Military Testing Association, Ottawa, Ontario, Canada (19-23 October).
- Siebold, Guy L. and Dennis Kelly. 1987. "Cohesion as an Indicator of Command Climate." Proceedings of the Third Annual Leadership Research Conference, Kansas City, MO, 5-7 May 1987, 1: 19-46. Fort Leavenworth, KS: U.S. Command and General Staff College, Center for Army Leadership.
- Tremble, Trueman R., Jr., Gary M. Brosvic, and Anthony R.
  Mangiardi. 1986. "Attitudes Toward the New Manning System
  (NMS) and NMS System Characteristics." ARI Research Note
  86-84. Alexandria, VA: U.S. Army Research Institute for the
  Behavioral and Social Sciences (July). ADA 171 420.

SURVEY

OF

ARMY PERSONNEL:

COMBAT PLATOON COHESION

U.S. ARMY RESEARCH INSTITUTE
FOR THE BEHAVIORAL AND SOCIAL SCIENCES

1988

# DATA REQUIRED BY THE PRIVACY ACT OF 1974 (8 U.E.C. \$82a) PRESCRIBING DIRECTIVE AR 70-1

10 USC Sec 4503

2. PRINCIPAL PURPOSE(S)

The data collected with the attached form are to be used for research purposes only.

#### J. ROUTINE USES

This is an experimental personnel data collection form developed by the U.S. Army Research Institute for the Behavioral and Social Sciences pursuant to its research mission as prescribed in AR 70-1. When identifiers (name or Social Security Number) are requested they are to be used for administrative and statistical control purposes only. Full confidentiality of the responses will be maintained in the processing of these data.

4. MANDATORY OR VOLUNTARY DISCLOSURE AND EFFECT ON INDIVIDUAL NOT PROVIDING INFORMATION

Your participation in this research is strictly voluntary. Individuals are encouraged to provide complete and accurate information in the interests of the research, but there will be no effect on individuals for not providing all or any part of the information. This notice may be detached from the rest of the form and retained by the individual if so desired.

FORM Privacy Act Statement - 26 Sep 75

DA Form 4368-R, 1 May 75

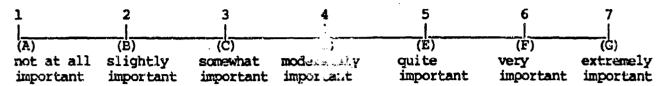
#### GENERAL INSTRUCTIONS

- 1. Do not put your name anywhere on the answer sheet or the questionnaire.
- 2. This survey has two parts: an Answer Sheet and a Survey Booklet. The section that you are now reading is the Survey Booklet. Check to see that you have an answer sheet.
  - 3. Wait for instructions from the survey administer before going any further.
  - 4. USE ONLY A NO. 2 PENCIL to fill out the answer sheet.
  - 5. Mark all of your responses on a separate answer sheet.
  - 6. Answer all the questions. Read each question and all of it's responses carefully before selecting your answer.
  - 7. Choose only one answer to each question.
  - 8. Mark your answer on the <u>answer sheet only</u>. Do not write on the questionnaire booklet.
  - 9. The answer sheet is numbered from top to bottom. Check your answers once in a while to be sure that you are marking in the right place.
  - 10. Fill in the circle with a heavy mark, but do not go outside the lines of the circle. Look at the examples below.

	Ϋ́F		T F
RIGHT WAY	1 & DE O O O	WRONG WAY	1000 <b>X</b> 00000
KIGUI AVI	T F		<b>7</b> F
TO MARK	<b>2</b> ⓒ ◉ ⓒ ◉ ◉ ◉ 镊 镊 ⊙ ❷	TO HARK	<b>20000000</b> 0000
ANSVER	Y F	ANSVER	TF
WHOMPK	$1 \overset{\bullet}{\otimes} \overset{\bullet}{\otimes} 0 \overset{\bullet}{\otimes} \overset{\bullet}$	WASAEW	<b>3 &amp; 9 9 9 9 9 9 9</b> 9 9
SHEET	T F	SHEET	ΤĴF
	4 🏟 🐧 C. O. E. E. Q. Q. W. W. W		4000000000

Do not go on. Wait for instructions.

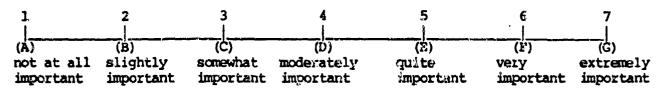
Based on your observations, HOW IMPORTANT IS EACH OF THE FOLLOWING TO THE FIRST-TERM SOLDIERS IN YOUR PLATOON? Use the scale below to make your ratings.



NOTE: On the answer sheet, darken the space with the letter corresponding to your rating.

- 1. Loyalty to the United States Army.
- 2. Loyalty to the unit or organization.
- 3. Taking responsibility for their actions and decisions.
- 4. Accomplishing all assigned tasks to the best of their ability.
- 5. Putting what is good for their fellow soldiers and mission accomplishment ahead of personal desires.
- 6. Dedication to serving the United States, even to risking their lives in its defense.
- 7. Having high moral and personal standards.
- 8. Commitment to working as members of a team.
- 9. Dedication to learning their job and doing it well.
- 10. Personal drive to succeed in the Army and advance.
- 11. Being honest, open, and truthful.
- 12. Taking responsibility to ensure the job gets done.
- 13. Being disciplined and courageous in battle.
- 14. Standing up for what they firmly believe is right.
- 15. Building and maintaining physical fitness and stamina.

Based on your observations, HCW IMPORTANT IS EACH OF THE FOLLOWING TO THE LEADERS (NCO AND OFFICER) IN LOUR PLATOON? Use the scale below to make your ratings.

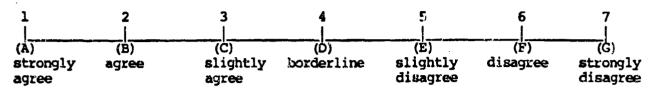


NOTE: On the answer sheet, darken the space with the letter corresponding to your rating.

- 16. Loyalty to the United States Army.
- 17. Loyalty to the unit or organization.
- 18. Taking responsibility for their actions and decisions.
- 19. Accomplishing all assigned tasks to the best of their ability.
- 20. Putting what is good for their fellow soldiers and mission accomplishment ahead of personal desires.
- 21. Dedication to serving the United States, even to risking their lives in its defense.
- 22. Having high moral and personal standards.
- 23. Commitment to working as members of a team.
- 24. Dedication to learning their job and doing it well.
- 25. Personal drive to succeed in the Army and advance.
- 26. Being honest, open, and truthful.
- 27. Taking responsibility to ensure the job gets done.
- 28. Being disciplined and courageous in battle.
- 29. Standing up for what they firmly believe is right.
- 30. Building and maintaining physical fitness and stamina.

# NOTE: THE RESPONSE SCALE BELOW IS DIFFERENT FROM THE PREVIOUS SCALE.

These statements are all about the FIRST-TERM SOLDIERS IN YOUR PLATOON. Use the scale printed below to select your response to each statement.



NOTE: On the answer sheet, darken the circle with the letter corresponding to your choice.

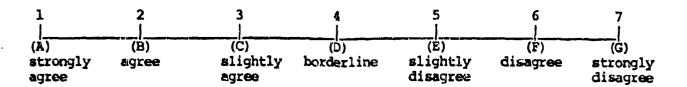
- 31. In this platoon the first-termers really care about what happens to each other.
- 32. Soldiers here can trust one another.
- 33. First-termers in this platoon feel very close to each other.
- 34. Soldiers like being in this platoon.
- 35. First-termers in this platoon really respect one another.
- 36. Soldiers in this platoon like one another.

These statements are about the FIRST TERM-SOLDIERS IN YOUR PLATOON.

For each statement, select the response that best describes your opinion.

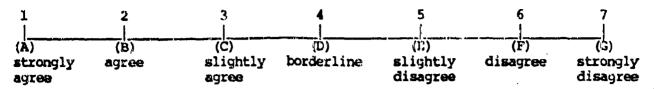
- 37. Do the soldiers in your platoon make each other feel like doing a good job?
  - a. wary much
  - b. pretty much
  - c. somewhat
  - d. a little
  - e. very little or not at all
- 38. How well do the soldiers in your platoon work together?
  - a. very well
  - b. well
  - c. borderline
  - d. poorly
  - e. very poorly
- 39. To what extent do members of your platoon help each other to get the job done?
  - a. very little
  - b. a little
  - c. to some extent
  - d. to a large extent
  - e. to a great extent
- 40. To what extent do members of your platoon encourage each other to succeed when in the field or at competitions?
  - a. very little
  - b. a little
  - c. to some extent
  - d. to a large extent
  - e. to a great extent
- 41. Do the members of your platoon work hard to get things done?
  - a. always
  - b. most of the time
  - c. sometimes
  - d. seldom
  - e. never
- 42. To what extent do the members of your platoon pull together and share the load while in the field?
  - a. very little
  - b. a little
  - c. to some extent
  - d. to a large extent
  - e. to a great extent

These items concern the LEADERS IN YOUR PLATOON (NCO AND OFFICER). Use the scale printed below to select your response to each item.



- 43. First-term soldiers respect the leaders in this platoon.
- 44. When a soldier in this platoon goes for help, his leaders listen well and care about what the soldier says.
- 45. Leaders trust the first-term soldiers in this platoon.
- 46. Leaders really understand the soldiers in this platoon.
- 47. When asked for help in solving a personal problem, leaders in this platoon do their best to help out.
- 48. When a soldier wants to talk, his leaders make themselves available.
- 49. Leaders like being in this platoon.
- 50. Leaders in this platoon respect each other.
- 51. Leaders in this platoon care about one another as individuals.
- 52. The leaders in this platoon are the kind that soldiers want to serve under in combat.
- 53. The leaders in this platoon can really apply their knowledge to solve problems in the field.
- 54. The chain of command works well around here.
- 55. The leaders keep their soldiers well informed about what is going on.
- 56. Leaders keep themselves informed about the progress soldiers are making in their training.
- 57. The leaders in this platoon are experts and can show the soldiers how best to perform a task.
- 58. The leaders work right along with their soldiers under the same hardships in the field.

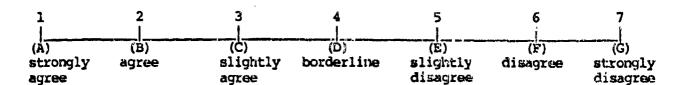
These are statements about the environment in your platoon. Use the scale printed below to select your response to each statement.



NOTE: On the answer sheet, darken the circle with the letter corresponding to your choice.

- 59. The people in this platoon know what is expected of them.
- 60. Rules are consistently enforced.
- 61. The reasons for being rewarded or promoted are well known.
- 62. The behaviors that will get you in trouble or punished are well known.
- 63. The priorities in this platoon are clear.

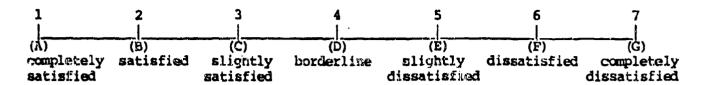
These statements about the FIRST-TERM SOLDIERS IN YOUR PLATOON. Use the scale printed below to select your response to each statement.



NOTE: On the answer sheet, darken the circle with the letter corresponding to your choice.

- 64. The soldiers in this platoom feel they play an important part in accomplishing the platoon's mission.
- 65. Soldiers here are proud to be in this platoon.
- 66. First-term soldiers feel this platoon's wartime mission is very important.
- 67. The soldiers in this platoon are proud to be in the Army.
- 68. First-term soldiers feel the Army has an important job to do in defending the United States in today's world.

How satisfied are the FIRST-TERM SOLDIERS IN YOUR PLATOON with the following aspects of platoon life?



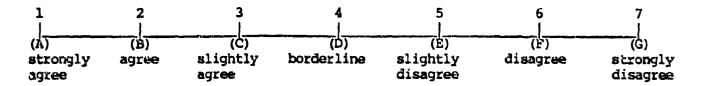
NOTE: On the answer sheet, darken the circle with the letter corresponding to your choice.

- 69. The food served in the platoon dining facility.
- 70. The quality of the barracks or other on-post housing.
- 71. The availability of good off-post housing.

. . .

- 72. The time available for personal needs like going to the PX, cleaners, bank or barber shop.
- 73. The time available to spend with friends or family.
- 74. The quality and frequency of platoon parties and social gatherings.

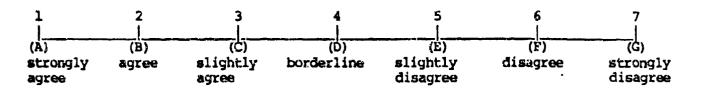
Next are some more statements about THE FIRST-TERM SOLDIERS IN YOUR PLATOON. Use the scale printed below to select your response to each statement.



NOTE: On the answer sheet, darken the circle with the letter corresponding to your choice.

- 75. All in all, the duties soldiers perform in this platoon make them feel like they are serving their country.
- 76. Soldiers in this platoon have opportunities to better themselves.
- 77. Soldiers in this platoon can make progress toward achieving their educational goals.
- 78. Around here you can get the skills and training you want.
- 79. Soldiers assigned to this platoon can maintain a good standard of living.

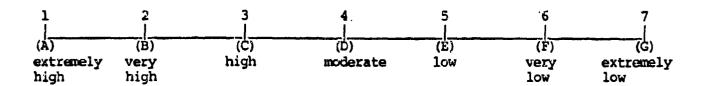
For these general statements about your platoon, use the the scale below to select your response to each statement.



NOTE: On the answer sheet, darken the circle with the letter corresponding to your choice.

- 80. This platoon is very cohesive.
- 81. There is a very high degree of teamwork and cooperation among first-term soldiers in this platoon.
- 82. The first-term soldiers in this platoon get along very well with one another.
- 83. In this platoon, the leaders really care about what happens to the first-term soldiers.
- 34. Overall the leaders in this platoon are very good.
- 85. Even if this platoon was under a great deal of stress or difficulty, it would pull together to get the job done.
- 86. This is a very high performing platoon.
- 87. The leaders in this platoon appreciate the contributions of the first-term soldiers.
- 88. The first-term soldiers appreciate the contributions of the leaders in the platoon.

For each of the next statements, ABOUT YOUR PLATOON, use the scale printed below to select your response to each statement.



- 89. In the event of combat, describe the confidence first-term soldiers would have in each other.
- 90. In the event of combat, describe the confidence first-term soldiers would have in their platoon leaders.
- 91. In the event of combat, describe the confidence platoon leaders would have in their soldiers.
- 92. In the event of combat, describe the confidence platoon leaders would have in each other.
- 93. Describe the confidence first-term soldiers in your platoon have in their weapons and equipment.
- 94. How high is the morale in your platoon?
- 95. Describe the state of your platoon's readiness.
- 96. Describe the state of discipline in your platoon.
- 97. How high is the determination or "will" to win in combat in your platoon?
- 98. Describe the degree of confidence members of this platoon have that it would perform well in combat.

#### APPENDIX B

# COMPANY COMMANDER AND FIRST SERGEANT CRITERIA USED TO ASSESS THEIR PLATOONS

1. CRITERIA USED TO ASSESS PLATOON PERFORMANCE IN THE FIELD:

## COMPANY COMMANDERS

--Whether platoon training plans and goals were met or exceeded. Whether the attitude and morale of the troops were high, e.g., on a 25 mile march. Whether (external to the company) obervers said the platoon did well on an exercise. The general appearance and conduct of training. How well the platoon recovered from the field, e.g., how fast and thorough was the equipment check in. --How well a platoon met the objective standards in FC's. How much the platoon members trained themselves toward objectives in training. Platoon discipline, e.g., handling trash, studying at night, any falling out or lagging on marches. How the members asked about or cared about each other, e.g., treatment of asthmatic soldiers. Whether during live fire exercises troops were willing to move close to the live fire.

--How well the soldiers and leaders responded to their missions. Whether the soldiers exhibit a high level of enthusiasm and get into their training. Whether the leaders make the best of what they have to do. Positive thinking is the biggest thing. In the field, the unit is in a "fishbowl"--all actions are visible. How well a platoon has performed in organized evaluations such as ARTEPs and live fire operations.

--How well a platoon did at special training exercises or "courses." How well squads in a platoon did in squad operations and live fire. The best platoons organized their own training. Whether a platoon was combat ready by the required time. Quality of the NCO leadership.

--Whether a platoon was physically strong, knew its tasks, and had strong leaders. Whether the chain of command was in control; the ability of the squad and platoon leaders to control their units. The initiative demonstrated by soldiers (as opposed to waiting aroung to be told what to do). Noise discipline and self-discipline to perform to standard.

--Whether the platoon leadership is strong. Whether NCOs can manage to work around training detractors. How well NCOs work with their troops, set standards, and focus training.

--Whether the platoons are setting and maintaining standards.
Whether the platoons demonstrate initiative, e.g., doing things prior to being asked, know what to do in the commander's absence.
The quality of supervision by leaders. Attention to detail; how many times the platoon has to be told to do something. Use of good judgment at the appropriate time.

# FIRST SERGEANTS

-- How strong the NCO leadership is, e.g., they know how to do

something if challenged by their troops or they use hip pocket training guides in slack periods. NCOs aren't complaining or wining all the time.

--Quality of the leadership, especially the NCOs. The maturity and expertise of the leaders.

-- The ability of the platoon to be where they are supposed to be when they are supposed to be there. How well the leaders understand the operations order and disseminate the information. The ability of the platoon to maintain equipment. The attitudes displayed at various times throughout the field problem, e.g., not complaining about training late or not fizzling out. -- How well the squads perform in battle drills and tasks in the field. Whether the troops are working as a team, including whether they make sure others are performing as a team and take corrective action if they are not. Whether the soldiers work well together in the field, watch out for one another, and take initiative. Performance in squad tests. Whether people in a squad teach each other skills and how well and fast they learned. --Whether the platoon can operate in the field with minimal guidance. How well platoons perform, e.g., in an ARTEP. -- The tactical and technical knowledge demonstrated by a platoon. How well they perform assigned missions. The amount of morale and discipline in the field. -- Task performance in the field to standard; go or no go mission

# 2. CRITERIA USED TO ASSESS PLATOON PERFORMANCE IN GARRISON:

accomplishment. What the soldiers actually get out of going to

# COMPANY COMMANDERS

the field.

-- The maintenance of barracks rooms and common areas. ability of a platoon to meet taskings. Whether the training in garrison is organized, worthwhile, and made fun. The level of equipment maintenance. Whether the platoon is taking care of its soldiers, with NCOs as the starting point, -- The ability of the platoon to meet suspenses, e.g., the training schedule. The appearance of soldiers is neat. readiness is maintained; caring to make sure those having problems are hel, ad. People hang together off duty. -- The response of the platoon to the mission, e.g., meeting deadlines, developing a training plan. How much chain of command harping is needed to get soldiers to perform to the norm without much supervision. AWOL rates. How well a platoon performs in an organized evaluation, e.g., develops and executes a training (Barracks maintenance and off duty performance are not included because they are individual things. -- The way daily duties are performed. Whether there is any trouble in the barracks or reports from outside agencies. Whether there is good communication in the unit; everyone gets the word. -- The discipline, initiative, and chain of command control

demonstrated in the unit. The ability to accomplish mundane

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tasks such as equipment maintenance or details with enthusiasm and putting out their best level of performance.
--Condition of uniforms and barracks. Instances of AWOL or DWI.
--Whether standards are set and maintained. Whether initiative is demonstrated, e.g., things are done before someone has to tell the platoon to do something. Weapons are kept clean.

### FIRST SERGEANTS

--Barracks maintenance.

complaints or incidents.

- --Barracks appearance. Task performance on such things as details to supply, police call, and showing up for meetings on time. Soldier appearance and aliveness (snap to attention, vibrancy). --Platoon attitude. Performance just below peak at all times. Accountability of personnel, billets, and equipment. Whether people are in trouble; blotter report incidents. --Soldiers are given feasible tasks to accomplish and at the lowest level capable of doing them. Whether the buddy system is used. Rates of drug and alcohol abuse. How well the platoon does on inspections, e.g., personal appearance, rooms, and boots. Area beautification and whether someone is in charge of it. Whether soldiers are on time for formations or appointments. How well soldiers respond to training; are they motivated? How well they relate to female soldiers who live nearby, e.g., no
- --Military bearing of soldiers. How well NCOs supervise. Whether the soldiers pay attention to details. How well the platoon adjusts to new leaders.
- --The general level of morale and discipline. The level of maintenance of equipment and barracks. The state of physical training in the platoon.
- --The quality of individual training, e.g., for physical training or skill qualification tests. How the day is started, e.g., with PT. The attitude of the soldiers, the condition of their barracks, and whether they are grasping the concepts being taught. Whether they can perform tasks correctly.
- 3. CRITERIA USED TO ASSESS THE ABILITY TO WITHSTAND STRESS:

# COMPANY COMMANDERS

- --Compared to my experience in past units, how does a platoon handle stressful situations? Especially, how does the chain of command handle stress?
- --Using standards from "Cope with Stress" material, what behaviors can be observed from the platoon leadership? Observe how the platoon reacts to an NCO being court martialed, on road marches, and handling safety during live fires, particularly at night.
- --In training, the primary indicator is the ability to maintain a sense of humor. Degree to which objections to doing things are vocalized (especially by leaders). Whether leaders are able to maintain their objectivity. Whether soldiers keep a positive

attitude and sense of humor. AWOL rates. The maturity of the members of a platoon because it is a factor in dealing with stress.

--How well the platoon handles those lots of last minute things to do. Whether the platoon can handle the physical stress and their tiredness. Whether the platoon handles emotional stress such as being away from their families.

--Whether the troops turn attention from their unit to themselves or become introverted. Willingness to take risks to accomplish the mission.

--How the unit handles itself in the field, e.g., throws in a change to platoon operations such as pretending the platoon leader or squad leader is killed and see how the troops handle this. Observe how they react to little sleep or food.
--Observe performance in a number of stressful situations; take the level of experience and maturity into consideration. What's stressful now shouldn't necessarily be later.

# LIRST SERGEANTS

--Whether everything that can be done at the platoon level has been done before a problem is brought to the company level. What is the level of maturity of the leadership and their "people skills."

-- It's a function of the leadership.

--During performance, does the platoon get in trouble? Does the platoon know how to cope with stress? Is there a fair and equitable distribution of free time, e.g., to take care of personal needs? Are leaders able to identify people affected by stress and what's causing it? Look at how and if counseling is being done. It's the responsibility of the NCO leaders. --Observe tests in the field. Do soldiers take care of themselves and their equipment? Observe the appearance of the platoon; do they look good and move when told? Can the soldiers handle external stress, e.g., being behind on the rent or when their wife is pregnant? Are the soldiers proud of themselves and their unit? Espirit, morale, and discipline are indicators of an ability to manage stress.

--Do the soldiers see their mission as essential, e.g., go for 72 hours without sleep and not give up or walk for miles and not give up?

--Observe if discipline is maintained and the mission performed, whether mental or physical.

--Note the attitude of the soldiers; are their feelings steady, e.g., not in the dumps one day and elated the next? Note how soldiers respond when you ask them how they are feeling or adjusting to the platoon or situation.

4. CRITERIA USED TO ASSESS PLATOON COHESIVENESS:

# COMPANY COMPANDERS

-- How soldiers work together in the field, e.g., whether squads

race to see who can set things up the fastest. Does a platoon play job related games to make training more fun? Do soldiers hang around together off duty, e.g., during holiday breaks? How well the training is going and whether there is competition on everything. For organized athletics, watch how units do things together, work together, and challenge other platoons. --Whether soldiers in a platoon hang together on weekends and off Good cadence calling on company runs. AWOL rates. Platoon celebrations, e.g., men with NCOs made a squad leader a birthday cake; platoon made and bought Christmas decorations and were having fun putting them up (without alcohol); and wetdowns after promotions of either soldiers or leaders in the plateon. -- The level of the platoon spirit, e.g., indicated by platoon nicknames, soldiers comparing their platoon positively to other platoons, or platoons doing anything that locks beyond the individual soldier himself.

--How the soldiers work together. Whether soldiers pulled each other along, encouraged their buddies. Whether there is good communication; soldiers ask NCOs questions and rely on the NCOs. Whether there is trust, respect, and caring for one another, even the problem people.

--Whether there are common experiences which are shared and talked about. Whether there is identification with the unit as opposed to with individuals. Observe who soldiers associate with after duty hours, going to chow, going to work, at PT, and on weekends. Whether new guys learn from older guys in the unit. --Protectiveness by troops of each other, including when they screw up. Troops work with each other and help each other learn. Troops go out together off duty.

--How quick the word goes through the chain of command. How well the platoon leader and NCOs interact and disseminate information. A good platoon does more talking. Observe things soldiers do in their off-time, e.g., whether they go downtown, eat, and play sports such as basketball together. Whether the soldiers support the chain of command.

### FIRST SERGEANTS

--Togetherness off duty. Extent of depending on others in the platoon, especially in voluntary situations, e.g., pick up others to ride to work. Soldiers take responsibility on themselves to fix up their area, anticipate and deal with problems, and look after each other voluntarily.

--Full platoon participation, e.g., for blood donations. --Squads being able to accomplish a mission without bad attitudes surfacing. Soldiers get along with each other. Mutual respect between soldiers and NCOs. How leaders talk to soldiers.

Getting the job done without internal problems.
--Observe the accomplishment of platoon tasks, PT, marches, organized athletics, and squad competitions. Squad members check

each other in terms of appearance and equipment maintenance.
--Platoon performs mission tasks to standard and are prepared for command inspections. During PT, soldiers stay as a unit and motivate their fellow soldiers through peer pressure.

- --Personalities fit, through working together. Soldiers do instead of bitch about doing it.
  --If one man screws up, the rest of the platoon wants to find out who did it. How well the soldiers work together in the field, with the same goal.
- 5. CRITERIA USED TO ASSESS CURRENT READINESS FOR COMBAT:

# COMPANY COMMANDERS

--Quality of NCO leadership, and how many NCOs the platoon is lacking (unfilled positions). Maintenance and care of equipment and vehicles. Platoon cohesiveness, their working together. The performance in exercises in the field. How platoon members do things in garrison, e.g., clean rooms, discipline, and task performance.

--The NCOs and officers in the platoon, e.g., their quality, number, training, and how much they try to improve. Performance of turning in lists from the field, e.g., good news reports.

Observed performance.

F. ...

- --Physical conditioning; it speeds the process of adaptation. Technical competence within their scope of both leaders and followers. Organizational ability and thought. The mental processes are the most important; leaders must see the situation clearly and trust in their subordinate leaders. Organizational ability includes ability to maintain flexibility and be organized no matter what factors are thrown in and ability to go beyond 70% success, have a winning attitude. Organizational ability means a platoon can keep things in order regardless of the situation; it will find a way to solve the problem. Whether platoon leaders can organize chaos; then they will make the right decisions. --Whether a platoon is experienced. Performance in group training courses. When soldiers do things without having to be told what and when to do it.
- --Platoon training and experience. Whether platoon knows what to do and how to do it.
- --Soldiers' ability to hit what they shoot at. NCOs' ability to maneuver from point A to B. Performance during live fire.
  --Compare platoon to other platoons outside the company. How well the platoon does PT, e.g., whether it is scheduled for PT tests ahead of other units. Performance it the field. Experience of platoon leaders, and whether they focus heavily on preparation for combat.

# FIRST SERGEANTS

--Past platoon performance in the field. Whether the platoon is packed and ready to go ahead of other platoons. Whether NCOs have been to NCO schools, and whether NCOs self-initiate that they are ready to go to school.

--Performance of squads in group training courses. Whether platoon members know what they're doing and do what they were taught. Platoon motivation.

- -- Results of squad evaluations and ARTEPs. How well squad battle drills are incorporated into missions.
- --Platoon reaction when put in stressful situation, e.g., soldier throws rucksack down in disgust versus does the best he can. Ability of the platoon to move whenever the order comes, without always asking why. Quality of troops and NCO leadership. If an NCO is a little below standard and his troops make him look good. Whether troops ask questions of their NCOs to learn skills. Whether troops are interested in what the seigeant does, e.g., how does he talk on the radio?
- -- Amount of training time; progress in training.
- --Current PT level. Marksmanship qualifications. Squad and Platoon ARTEPs.
- --Observation of performance in field exercises, e.g., deliberate attacks and movement from point A to point B.