

Operation Desert Shield Desert Storm



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A Summary Report



OPERATION DESERT SHIELD DESERT STORM

A SUMMARY REPORT

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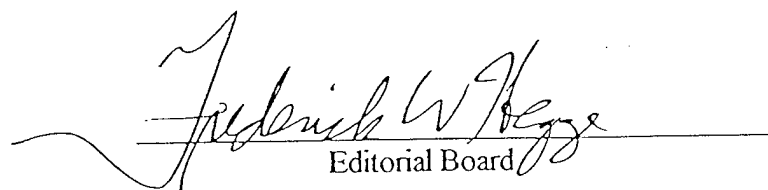
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OPERATION DESERT SHIELD: A SUMMARY REPORT

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EXECUTIVE SUMMARY

In August 1990, the U.S. Army 82nd Airborne Division deployed to Saudi Arabia in response to Iraq's invasion of Kuwait. Over the next twelve months more than 500,000 U.S. Army, Navy, and Air Force military and civilian personnel deployed to the Persian Gulf region and became instrument of a successful United Nation's effort to evict Iraqi forces from Kuwait.

This technical report describes the initial phases of the Walter Reed Army Institute of Research (WRAIR) effort to provide the Army's senior leadership with information on the stress associated with the human dimensions of this extremely demanding combat deployment to a region of the world that also presented numerous physical, psychological, and social challenges to the health and well-being of soldiers. The focus of this report is the initial deployment and the pre-combat phase of the Gulf-War, a period commonly referred to as "Operation Desert Shield." Subsequent WRAIR reports will address the combat and post combat phases of the Gulf War.

Based on extensive observations and field interviews, and limited survey data, WRAIR scientists demonstrated the success of Army-level policies through small unit leaders' efforts to ensure soldiers' rapid adaptation to a harsh and alien environment. These efforts took place under circumstances where the duration of the deployment was yet unknown and where there was an ever present possibility of Iraqi aggression against initially lightly-equipped Army units. The threat was compounded by the expected Iraqi use of chemical and biological weapons. Clearly, the excellent pre-deployment readiness status of these Active Component Army units, including their

excellent training and correspondingly high levels of unit cohesion, contributed to this initial success.

A critical factor was concerned and creative leadership at all levels, making decisions that resulted in actions that buffered some of the inherent stresses. Among the most important efforts were rapid initiatives to provide basic relief from the physical stresses in the desert environment. These included the extensive use of bottled water to promote hydration and the establishment of base camps that allowed the infusion of basic creature comforts like showers, locally purchased food items to supplement MREs, opportunities for athletics, and most importantly the establishment of mail service and the subsequent availability of limited phone service linking soldiers to their families and other loved-ones in the United States. These and other human factor leadership efforts were the core ingredients of the successful pre-combat adaptation and sustainment of the Army units in Saudi Arabia.

The WRAIR research teams were able to document the persistent physical, psychological, and social stress inherent in this deployment. These researchers also observed the extreme operational demands placed on support units responsible for the task of sustaining the rapid infusion of combat forces in the theater of operations. In a number of cases, those support units faced with the greatest demands were also the units least prepared to cope with these stresses. A number of active and reserve component support units had been rapidly mobilized, infused with larger numbers of new members, and provided very little opportunity for pre-deployment individual and/or unit-level training. Many of these units initially preformed poorly and unit members experienced considerable stress. Units that eventually became cohesive and operationally

effective did so as a result of the considerable time lag that occurred between deployment and the actual commencement of offensive ground combat, affording them the time necessary to overcome deficits in peacetime individual and small-unit training. Some of these units were never able to pull it together and remained only marginally effective.

To a much lesser extent, WRAIR researchers encountered a few combat arms units experiencing similar problems. For the most part the reasons were very similar to those observed in support units, including the introduction of large numbers of "filler" personnel just before deploying, attaching sub-units that had never trained together, and most importantly, bringing to the desert environment serious home-station leadership problems that only became worse during the demanding pre-combat period.

This report documents important deployment and pre-combat human factor stress issues and the many effective actions taken by the Army leaders that helped set the stage for the very successful combat phase of the Gulf War. Subsequent WRAIR reports will address human dimension stress issues that occurred during the combat and post-combat phases of the Gulf War, including the stress experienced by families in the United States, as well as, the families of personnel deployed to the Persian Gulf from Europe.

INTRODUCTION

When United States forces deployed to the Persian Gulf in August, 1990, many senior military leaders were appropriately concerned about the psychological stress that would be created by this high-threat deployment to a harsh operational environment. To learn more about the stress of the deployment and how soldiers were adapting, the Army Deputy Chief of Staff for Personnel, Lieutenant General William Reno, at the behest of General Gordon Sullivan then Vice Chief of Staff of the Army, requested that Dr. David H. Marlowe, Chief, Department of Military Psychiatry, Walter Reed Army Institute of Research (WRAIR), take a research team to Saudi Arabia to study the deployment first hand. The team conducted an initial assessment of stress and adaptation in the Persian Gulf theater from the 22nd of September through the 6th of October 1990. A second team returned for additional interviews and surveys of soldiers and their leaders from the 11th of November through the 13th of December 1990.

This was the beginning of a program of research that extended throughout the Desert Shield deployment, through the combat and post-combat period of Desert Storm, the redeployment home, and soldier and unit follow-up a year later. The objective of this research program was to determine the psychological consequences of deployment, combat, and redeployment to home station for soldiers and their families. This report describes two research team visits during the Desert Shield deployment and pre-combat phase of the Gulf War. Together, these visits resulted in interviews with approximately 1,000 soldiers and their leaders, and the collection of more than 2800 self-administered questionnaires from soldiers in these same combat and combat support units.

CHAPTER 1

INITIAL DEPLOYMENT

Method

In September, 1990, the initial phase of the Desert Shield research program began when a three-person team visited the Persian Gulf Theater. This first team conducted only interviews, deferring questionnaire administration until key issues were defined. More than 500 soldiers in divisional combat and combat support units took part in these initial semi-structured interviews (Gifford et al., 1991). Senior leaders were typically interviewed alone. Soldiers were usually interviewed in groups of less than ten, held in soldiers' work or living areas. Group interviews included soldiers of similar rank, without their supervisors being present. When possible, the interview strategy cut across organizational levels from a given unit. For example, within a battalion, the commander, command sergeant major, company commanders and first sergeants, platoon leaders, platoon sergeants, squad leaders, and squad members were interviewed separately. When operational or time constraints made it impossible to include all unit levels, enlisted soldiers and junior Non-commissioned Officers (NCOs) took priority rather than the senior leaders.

The units visited in September included maneuver battalions from each of the three divisions then in Saudi Arabia, as well as selected combat support and headquarters units in these divisions. Selection criteria for units were: the longest deployed; the most forward deployed; living under the most austere conditions; with missions judged particularly stressful by their higher

headquarters. While not a random sample, these selected units appeared to provide an adequate representation of the critical human dimension stress associated with this deployment.

Interviews took between 60 and 90 minutes and consisted of a chronological description of each stage of the deployment from the time of notification, up to the time of the interview. The focus concerned major stresses at each deployment stage, and individual resources, unit supports or leader actions that helped soldiers cope with these stresses. The interviews were open-ended and soldiers were encouraged to describe stresses and coping techniques they viewed as critical for their adaptation. These data provided the basis for the development of a subsequent study of the maturing theater, to include self-administered surveys as well as additional interviewing.

Findings

Adaptation to the Persian Gulf War Theater of Operations

Based on observations and interview data collected during the first team's visit to the Persian Gulf Theater of Operations (Gifford, et. al., 1991), it appeared that Army units had ensured their soldiers' rapid and successful adaptation to a physically, psychologically, and socially harsh and alien environment. Several expected problems either did not occur or were quickly controlled. For example, physical acclimatization went well, judging from the fact that units reported very few heat casualties and commanders did not cite this factor as a major problem. Units ensured adequate hydration of soldiers and devoted their first few days in Saudi Arabia to acclimatization, starting with moderate work schedules and increasing workload at reasonable rates. Soldiers reported that it took about a week to "really be able to take the heat."

The success of the hydration program was enhanced by the extensive use of Saudi Arabian bottled water. The convenience and wide availability of this water, combined with its pleasant (or at least neutral) taste made it popular with soldiers. Soldiers typically carried a bottle of this water and sipped from it as they went about their duties - the ideal way to achieve hydration.

Sleep discipline also contributed to successful adaptation. Most units had command policies to ensure that soldiers obtained adequate sleep. The major exceptions were selected unit leaders, higher headquarters staff, and certain members of support units. In these cases, extreme work demands were not matched by sleep discipline and many of these soldiers, including key leaders and staff, experienced chronic sleep deprivation. This appeared to have a self-feeding effect: as workload decreased, exhausted individuals were still putting in as many hours because it took them longer to complete cognitive tasks.

The absence of alcohol in the theater was not related to any obvious behavioral or medical problems. On the contrary, the absence of alcohol was cited by both leaders and soldiers as a major factor in the excellent safety record achieved by the Army during the initial deployment. There were no significant problems with "closet" alcoholics having adverse reactions to enforced abstinence. As of the beginning of October, medical evacuation records showed only two soldiers who had been evacuated from the theater because of overt symptoms of alcohol withdrawal.

Male-female work relationships were another example of successful adaptation. Females, especially those working in urban areas where there was a likelihood of contact with Saudi civilians, had to adjust to a number of cultural constraints that did not affect their male peers. While these were obviously upsetting experiences, women typically attempted to face the

constraints with good humor. More importantly, they received social support from the men in their units. For example, in one unit when women were required to keep their uniform blouses on in the work place despite oppressive heat and humidity, the men voluntarily followed suit. Normally, in these situations all soldiers would be able to remove their camouflage shirt and work in their uniform tee-shirt.

In a number of cases men and women in the same units lived together under extremely crowded conditions in tents or unairconditioned warehouses. Here, the distinction between the men in one's own unit and "outsiders" was important. The women interviewed did not report sexual harassment from the male members of their own unit. As one young woman said: "We know their wives and girlfriends, so we don't expect trouble." Most women believed that if sexual harassment did become a problem in the future, it would be from men in other units. There were reported instances of men congregating around female shower areas, but these seemed to be men from outside the primary work group, and often the solution was for the women to be escorted by the men from their own unit. Soldiers also devised simple solutions to issues of male-female privacy, for example, hanging blankets to create areas for changing clothes. Several women stated that they preferred living in the same quarters as the men in their units to the alternative of living in separate, all female, quarters with members of other units. While there were some divisional units that experienced episodes of male-female sexual activity, and subsequently chose to house their soldiers in separate-sex housing, this behavior appeared to be the exception rather than the rule.

Morale and Cohesion

At the time of the first team's visit to the theater in September, 1990, morale was generally good and small unit cohesion was high. Although soldiers found conditions stressful and had complaints about a variety of issues related to the deployment, they were successfully enduring the uncertain situation, primitive living conditions and separation from family and friends. Problems in either unit morale or cohesion generally could be traced to factors in the unit that existed before the deployment. Units with apparent deficiencies in trust or communication up and down the chain of command prior to this deployment in most cases did not improve as a result of being deployed. On the contrary, during the first months of the Gulf War (Operation Desert Shield) the stresses and close physical proximity in living conditions often exacerbated problems that had existed back home. Similarly, individual problems that existed at the home installation continued or became worse after deployment. While instances of poor individual morale or weak unit cohesion were distressing to the soldiers involved, it is important to note that, based on both interview and survey data, the majority of military units and individual soldiers in divisional units appeared to be coping well in a highly stressful and demanding environment.

Several factors worked to enhance unit cohesion. Among the most important were the potential threat of combat and the process of living and working together 24 hours a day in a hostile environment. Horizontal cohesion (the bonding that occurs between unit members) developed rapidly and powerfully. As one squad put it: "Our closeness to each other keeps us going. We share letters, share everything. We are 100% behind each other." This cohesion was reinforced by good vertical bonding (the bonding that develops between soldiers and their

leaders). As one squad noted: "Our platoon sergeant, he's really good, he's military in the best sense. He really cares, he gives us time, he talks to us, shows us consideration and treats us like adults"

The first team's observations concerning the development of cohesion in the initial deployed units were supported by survey data collected in December, 1990, by the second research team. (The details of the second team's work are described later in this report). At that time, approximately 1300 soldiers representing 32 companies from XVIIIth Airborne Corps rated cohesion in their units. Of these, 27 companies had vertical cohesion scale scores that averaged higher than the mean scores found in WRAIR studies conducted from 1985 through 1989, across approximately 90-110 active component combat arms companies (Marlowe, et.al., 1985; 1986a; 1986b; 1986c; 1987). Twenty-six of 32 companies assessed during Desert Shield were higher on the horizontal cohesion scale (See Figures 1 and 2).

Stress in the Gulf War Theater of Operations

The initial phase of the deployment was one of rapid transition. This force had deployed to deter an attack on Saudi Arabia, and they had succeeded in that so far. The announcements that the U.S. led United Nations' Coalition would consider offensive action to force Iraq out of Kuwait, that United States forces were there for the duration, and that the United Nations would authorize use of force after January 15, had not yet occurred. During this early period, U.S. Army combat forces were continuing to move into defensive positions in the desert, but for how long or to what end were not yet clear.

Under such circumstances, it was not surprising that the most commonly - and intensely - cited stress for soldiers of all ranks was the uncertainty of the tour length. As one soldier put it: "This is like a long pause on the VCR of life." In the absence of a Pentagon decision regarding tour length, soldiers developed a general expectation that the tour length should be six months. However, most stated that any definite tour length would be preferable to the uncertainty that ruled their lives at that point.

The uncertainty about rotation was compounded by the ambiguous demands placed on soldiers as commanders simultaneously prepared for possible combat, and for prolonged deployment without combat. These two tracks were sometimes in conflict, and frequently led to inconsistent or confusing policies. For example, soldiers in some units were required by their unit leaders to wear Kevlar helmets at all times - even to the latrine at night - in order to be combat ready. However, these same soldiers were not training for likely combat missions, and were not given ammunition when on guard, even though they were frequently warned by the same unit leaders about terrorist threats.

Soldiers also felt extremely isolated from the outside world. Mail service at this point in the deployment was slow and erratic (letters typically took 10 days to get to Saudi Arabia, but it was not uncommon for letters to take over 3 weeks to reach a soldier in a forward position).

Figure 1. Horizontal Cohesion: Desert Shield

(Nov-Dec, 1990)

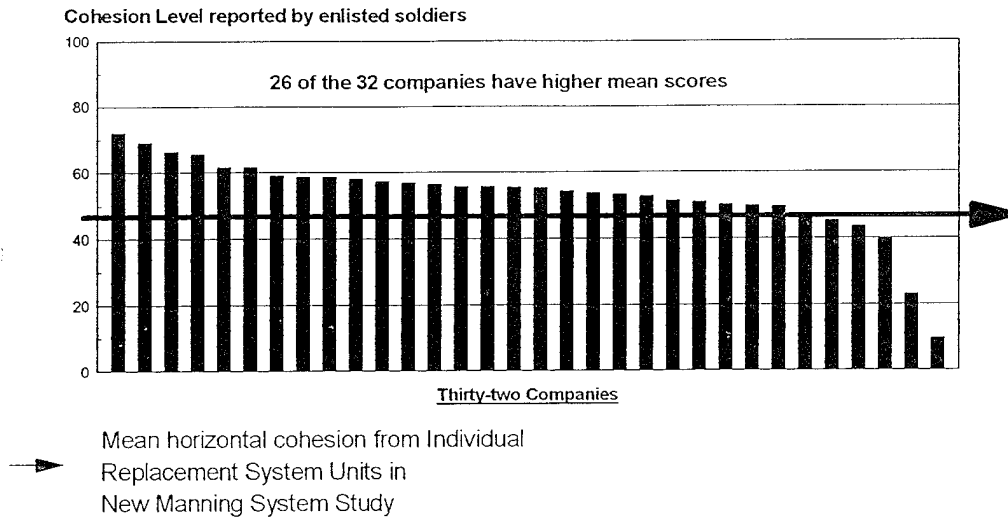
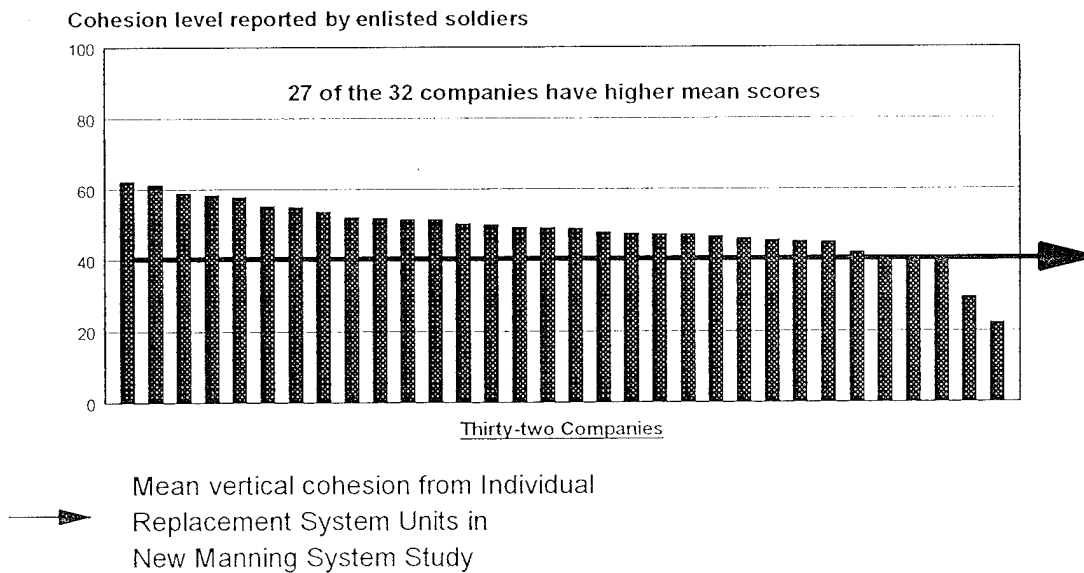


Figure 2. Vertical Cohesion: Desert Shield

(Nov-Dec, 1990)



Most soldiers, except those at senior headquarters units in urban areas, had no access to telephones and were able to call their families only if the unit received word of some type of family emergency that justified the time-consuming measures necessary to get a soldier to a telephone. While special programs to get easy telephone access to soldiers were appreciated by those few soldiers who could take advantage of them, the availability of telephones for the majority of soldiers was extremely limited during the early phase of the Gulf War.

The soldiers' sense of isolation also extended to news media access as well.

Soldiers in forward units received newspapers several days late, if at all, and could get current news only from BBC radio and Iraqi radio propaganda broadcasts. Lack of timely information about the current status of events in the Gulf, and about such mundane issues as sports news, was cited frequently as stressful. The members of one squad stated: "The only thing we know is that we are somewhere in Saudi Arabia and Iraq is North. We don't know where we are at or what is going on. We don't know who's in front of us, what Saddam is doing or what the President is doing. All we have are rumors." Many unit commanders recognized this problem, and a few were quite skilled at establishing mechanisms to get information to their soldiers. However, most unit commanders (battalion-level and below) did not have good access to news themselves. Unfortunately, the rumors that developed in the absence of factual information only served to increase the overall stress level.

The fact that soldiers were together, usually under conditions of either crowding at transition points and staging areas, or isolated in the desert, 24 hours a day, seven days a week, also contributed to tension. While most military units are accustomed to the demands associated

with deployments that last for periods of a few weeks, most of the soldiers interviewed had never before lived with no respite from the chain of command for so long, and with no end in sight. In the early days of the Desert Shield deployment, even if the mission allowed a day off (which in practice usually meant a few hours off and relatively light duty the rest of the day), there was no place for a soldier to go where he (or she) could be away from the chain of command, or relax without being under scrutiny. Both soldiers and leaders badly needed some private time when they could be away from role demands for even a few hours.

Conclusions

The preceding observations and interview data from the first team's visit to Saudi Arabia provides a snapshot of the early deployment and a rapidly evolving theater of combat operations. Overall, U.S. Army units coped remarkably well during this period despite the obvious stress of a difficult and complicated large scale operation in an extremely austere environment filled with tension and uncertainty. Some of the stresses noted on this initial visit were ameliorated later on, either by the normal maturation of the theater, as goods and services became more available, or by conscious corrective actions on the part of senior military leaders.

The data collected on the first team's visit resulted in a semi-structured interview guide (see Appendix A) and two survey questionnaires: one version for enlisted soldiers and one version for leaders (see Appendices B and C). A second team visited the theater in November-December, 1990, and used these instruments as part of a continued assessment of soldier and unit adaptation during the Gulf War.

CHAPTER 2

THE MATURING THEATER

Method

During the second team's visit to the Persian Gulf, approximately 1300 soldiers completed survey questionnaires and about 800 soldiers and leaders were interviewed in semi-structured individual or group sessions. Selected units represented a convenience sample of combat arms and support units from the four Army divisions then in the Persian Gulf theater.

Instruments

Interview Guide: The semi-structured interviews lasted between 60 and 90 minutes and followed a chronological description from the time soldiers were notified of the deployment, through their preparation and leave-taking, to their arrival in Saudi Arabia. The interviews re-examined issues raised in the earlier phase of the deployment, and determined changes and new influences on current status. Interview topic areas continued to address adaptation to the deployment, unit morale, and the development of cohesion, but also focused more extensively on leadership issues, family concerns and problems, and anticipation of combat (see Appendix A for Interview Guidelines).

Survey Data: The survey was administered at unit field sites and took about 45 minutes to complete. Items included: demographic and military background information; perceptions about Army family support efforts; measures of horizontal and vertical unit cohesion; soldiers'

perceptions of their leaders' effectiveness; sections in which soldiers rated the stressfulness of various aspects of the deployment, to include 13 items concerning anticipation of combat; the use and effectiveness of different coping techniques; and a measure of psychological distress, the Brief Symptom Inventory (Derogatis & Spencer, 1982). Almost 1200 soldiers with ranks of Staff Sergeant (SSG/E-6) and below, and 124 leaders with ranks of Sergeant First Class (SFC/E7) and above completed surveys (see Appendix B for Shield enlisted survey, and Appendix C for Shield leader survey). In this dispersed field environment it was not possible to keep an accurate count of who did or did not complete a survey. The team's impression was that most soldiers who were given the survey filled it out and that non-responders were primarily those whose duties precluded their receiving the survey.

In January, 1991 (after the start of the Air War), a shortened version of the questionnaire was administered in a VIIth Corps division. The abbreviated version included the demographic and military background information; items about family support and concerns; unit cohesion measures; a shortened symptom inventory; and anticipation of combat stress ratings (see Appendix D for Storm Short Survey). At that time, approximately 1500 surveys were collected from a convenience sample of soldiers with ranks of Staff Sergeant and below.

Sample Composition

Desert Shield Surveys: Soldiers in the Desert Shield enlisted sample (n=1167) were members of combat arms maneuver battalions (therefore all males). They completed the survey in November-December, 1990. Forty-six percent (46%) were married and 39% had at least one

child. Eighty-seven percent (87%) of the enlisted sample were under thirty years of age. Ninety-nine percent (99%) were high school graduates, and over 35% had some college. Sixty-seven percent (67%) were White, 19% were Black and approximately 13% were Hispanic or other. Approximately 96% ranked between Private First Class (PFC/E-3) and Staff Sergeant (SSG/E-6). Ninety-two percent (92%) of the sample had served in the Army for at least one year, and approximately two thirds had been in their squad/section for at least three months before the deployment occurred.

The 124 soldiers in the Desert Shield leader sample (SFC and above) were also all males, with 74% married and almost 60% having at least one child. Approximately 55% had at least some college. Sixty-nine percent (69%) were White, 22% were Black, and approximately ten percent were Hispanic or other. For the leader sample, almost 50% were Senior NCOs in the ranks of SFC (E7), MSG/1SG (E8), and SGM/CSM (E9); and approximately 47% were Junior grade Officers (2LT, 1LT, and CPT). Approximately 66% had been on active duty more than five years, with 54% having served more than ten years. The leader sample was an older group with more than half (56%) ranging from 30 to 40 years of age. Seventy-five percent (75%) of the leader sample had served with their units at least three months prior to the deployment.

Desert Storm Survey: 1544 soldiers completed the shortened version of the survey in January, 1991, prior to the start of the Air War. All were males and 85% of them were under the age of thirty. Forty-seven percent (47%) were married, with 44% having at least one child. Ninety-nine percent (99%) were high school graduates, and more than one third had some

college. Approximately 62% were White, 23% were Black and 14% were Hispanic or other. Soldiers in the Desert Storm sample were all enlisted with approximately 90% between the ranks of Private First Class (PFC/E-3) and Staff Sergeant (SSG/E-6). Eighty-seven percent (87%) of the Storm sample had served in the Army for at least one year, and almost two thirds (62%) of them had been in their squad/section for at least three months prior to deployment. Table 1 summarizes the demographics for the Desert Shield and Storm enlisted samples.

Findings

The rest of this section is organized into topic areas with discussion integrating both survey and interview data. Wherever possible, tables and figures summarize the quantitative findings discussed in the text. The interviews provide context for the survey data, with vignettes and soldiers' personal reflections and stories as illustrations. Where relevant, contrasts and changes from the observations and interview data collected by the first team are noted.

Table 1. Sample Demographics

		SHIELD N=1167	STORM N=1544
Age:	19-21	36.9	37.2
	22-25	33.2	28.4
	26-29	16.9	18.9
	30-33	8.0	10.0
	34-37	3.3	3.7
	38-41	1.3	0.6
	42-45	0.5	0.3
	46+	0.2	0.3
Ethnic Group:	White	67.4	62.5
	Black	19.2	23.3
	Hispanic	8.7	9.4
	Other	4.7	4.8
Marital Status:	Single	47.4	47.0
	Married	45.5	46.6
	Separated/Divorced	5.7	5.4
	Other	1.4	1.0
Number of Children:	None	60.9	56.0
	1 Child	18.3	19.1
	2 Children	13.3	15.5
	3 Children	5.6	6.9
	4 or more	2.0	2.5
Education:	Some High School	0.5	0.8
	High School	54.7	58.2
	Diploma		
	GED	6.9	7.7
	Some College	35.4	30.3
	College Graduate	2.3	2.8
	Graduate Training	0.2	0.3
Rank:	PV1	0.7	1.4
	PV2	3.0	9.4
	PFC	24.8	20.4
	SPC/CPL	40.0	35.8
	SGT	21.3	22.7
	SSG	10.3	11.4
Time on Active Duty:	Up to 1 year	8.0	12.9
	1 year +	92.0	87.1
Time with Squad:	0-3 months	33.6	37.9
	4-6 months	18.6	14.8
	7-12 months	28.8	18.1
	13-18 months	11.3	11.3
	19-24 months	5.3	8.1
	2 years +	2.5	9.8

Adaptation

The primary concern raised by soldiers during the first team's visit in September was their uncertainty about the duration of the deployment. In the November-December visit, the transition from an open-ended deployment to one with an end point became the critical factor affecting soldier adaptation and morale. Also during this time, a number of additional influences on soldier adjustment converged, some internal to the context of the theater, and others due to events happening outside the theater that affected its development. For example, several critical internal factors included: the rapid maturation of the logistical infrastructure required to meet the demands of an expanding force; the increase, as part of this maturation, of life support and stress-mediating structures (e.g., base camps, fundamental amenities, "down days," creature comforts, telephones, etc.); and the effects on many soldiers and units of extended, uninterrupted training and living together under continual conditions of physical, psychological, and social hardship.

These developments occurred within a context of external events, decisions made at higher levels outside the theater, but having significant impact on soldier adaptation. For example, critical decisions in the November-December time frame included: Secretary of Defense Cheney's announcement of the Desert Shield deployment "for the duration"; the imminent arrival in theater of VIIth Corps units from Germany; and the United Nations resolution sanctioning the use of force against Iraq. For soldiers, the rapid development of the theater, coupled with the evolution of external decisions, translated into a focused anticipation of combat. While this reality

was stressful, soldiers also perceived combat as an event that would mark the end point of the deployment and their return home.

Although the possibility of combat became increasingly certain during this time, soldiers still wanted to know how long they would be deployed if there were no war. There was general agreement among soldiers interviewed that if no war or rotation plan for units occurred by March, six months after initial deployment, then there would be massive morale problems.

Morale

Morale is used here to refer to the soldiers' overall perception of and commitment to mission and unit, sense of well being, and general acceptance of the conditions of deployment and potential combat. It does not refer to fluctuating feelings, moods, or responses to momentary problems (Manning, 1994).

In most units, morale appeared to have improved since the first research team's assessment in September, 1990. In September, morale in active component combat and combat support units was generally high. In November, it was higher. Soldiers in almost all companies interviewed typically rated their morale at about 7 to 8 on a 0-10 point scale. Many pointed out that it was as high or higher than it had been at home station. These soldiers attributed their high morale to their belief that there was now an end to the mission, and that when they got the job done they would go home. The statement that they would be in Saudi Arabia "for the duration," while an initial blow, ended extensive and sometimes damaging speculation and rumors about rotation dates

home. This policy decision also reinforced a sense of purpose and made the deployment appear closed rather than open-ended.

As many of the initial differences between units and organizations in theater regarding the quality of life support, morale, welfare, and recreation amenities decreased, so did feelings of resentment and relative deprivation. Soldiers reported that the major contributors to their personal morale were mail, showers, tents, rest areas, hot food, cold drinks, being able to live as squads, crews or platoons in self-improved areas, entertainment, and some free time. Visits to the resort area at Half Moon Bay, home visits to civilian families who worked in Saudi Arabia for one of the major oil companies, and the special celebration at Thanksgiving all boosted morale. Wherever telephones were widely available, soldiers and leaders reported them a major morale contributor. The opportunity to call home sometimes resulted in rapid solutions of family problems and maintained critical emotional linkages and feelings of well being between the soldier and his family. For most soldiers, the initial burst of telephone calls home was followed by self-regulation in rate of calling. There were some occasions where phone calls precipitated a crisis for the soldier, bringing problems from the home front into the soldier's immediate world. These situations placed an unexpected challenge on unit leaders.

Soldiers viewed all contributions to morale as symbols of caring and respect for their needs on the part of their leaders. Even small changes and improvements assumed great symbolic value. During this time, almost all standard indirect measures of morale, such as Uniformed Code of Military Justice (UCMJ) actions, sick call visits, accidents, and intra-group conflicts, were extremely low in these combat arms units.

Many soldiers were concerned that the deployment would hurt their re-enlistment options and futures in the Army since they could not complete training or education requirements in the desert for the points necessary to be competitive for promotion. Many leaders were worried and angry about the possibility of downsizing and a mandatory reduction in force. A number of soldiers spontaneously brought up the fear that they would go to war, survive, and then "get a pink slip as I come off the plane at home." This issue had great potential to injure morale.

In November, relative deprivation had improved, but the perception that there were "double" standards continued to erode soldier mood at a different level. Letters and news articles from home implied that the entire theater shared the living conditions, food, and amenities of rear echelons or some Navy and Air Force units. Forward deployed soldiers knew and appreciated the fact that for operational reasons, they lived differently from those soldiers in urban area support units and personnel at air and naval bases in the Theater. However, these soldiers wanted people at home to know what they had achieved while living under tough conditions. Their perception of a "double" standard was also reflected in anger over reports of officers being sent home for school or to change command. Table 2 summarizes some of the most common (more than 15% of the sample) deployment stress ratings by soldiers and their leaders in the November-December, 1990 assessment period.

Table 2. Desert Shield * Deployment Stresses

Items Rated as Causing "Quite a bit" to "Extreme" Stress	%
Living Conditions:	
Flies	56.6
Eating MRE's most of the time	39.5
Maintaining equipment in desert	23.0
Crowding at base camp	20.9
Operating in the desert heat	20.7
Not getting enough sleep	20.5
Operating in the desert sand	17.0
Unit Factors:	
Not having private time	45.3
Having leaders around too much	36.6
Lack of adequate morale	33.3
Unusually long duty hours	27.1
Having to do extra details	26.9
Fights in squad or platoon	21.1
Deprivation:	
Not having opposite sex around	73.6
Not being able to act like Americans	41.9
Other units having things better	38.7
Lack of alcoholic beverages	35.9
Behavior restrictions	24.6
Family Separation:	
Lack of contact with family	48.4
Problems in family	33.2
Lack of understanding about deployment	28.2
Information on TV/radio about ODS	21.5
What family members write about ODS	17.9
Anticipation of combat:	
Being in MOPP for a long time	28.5
Eating T-rations a lot	28.0
Not being able to stay in shape	25.3
Lack of confidence MOPP gear	23.4
Not being able to do job in MOPP	17.4
Downsizing:	
Talk about reduction in my pay grade	18.0
Talk about projected cuts	17.6

*Deployment Stress Scale not included on shortened Storm Enlisted Survey

Cohesion

The primary factors in the management of deployment stress reported in soldier interviews were leader behavior and accessibility and squad and platoon cohesion and stability. The interview findings were reinforced by survey results indicating a moderate, statistically significant negative correlation between soldier ratings of deployment stress and their perceptions of horizontal and vertical cohesion in their units (Horizontal Cohesion: $r = -.2178$; $p < .001$; Vertical Cohesion: $r = -.2184$; $p < .01$). The higher the soldiers rated their unit cohesion, the lower they rated deployment stresses.

Horizontal Cohesion: For the most part, combat arms soldiers did an extraordinary job taking care of each other at the unit level. Research team observations and soldier interview data consistently noted the high cohesion of unit members and their strong bonding to their immediate small unit leaders. Cohesion above the squad and crew level was also relatively high and improving. Cohesion seemed to increase as a result of living, working, training and solving problems together in a challenging and isolated environment. This was in spite of the obvious individual-level stress associated with these conditions. Soldiers came to know and trust each other as professionals and to respect each others technical and combat skills. They also saw each other as primary friends and sources of support. Interviews with four-man tank crews revealed the importance to them of "integrity," or keeping the members of a crew together. Those

individuals who had been together the longest prior to the deployment demonstrated exceptional cohesion.

Many soldiers interviewed by the second team reported improvements across the board in cohesion, communication, morale and combat confidence at crew and squad levels since their arrival in Saudi Arabia. But they also continued to talk about privacy needs and a chance to get away from the ever present leadership demands. In interviews, soldiers described a series of informal rules and strategies for ensuring a minimum of interpersonal conflict under extremely crowded and stressful living conditions. Confrontations were turned into jokes and dealt with as funny rather than antagonistic, and soldiers reported a greater toleration of differences in themselves and in their groups. Aggression was often channeled into athletics or into wrestling matches. As one soldier said: "You do not want to fight with the man who will cover your back."

Cohesion continued to appear highest in those groups that had been stable and together for the longest periods of time. The members of an Armor platoon, in which almost all soldiers had served for at least a year, told the second research team:

Our platoon is the backbone of the company. We're confident in our leaders and in ourselves. We're friends and believe in and trust each other. We take care of each other and take it seriously. We're completely cross section trained, any of us can do any job in the platoon. We treat each other as family, we're like brothers, we share problems, we joke. And like a brother, when I get angry at him we wrestle in the sand pit.

Figures 1 and 2 illustrate the horizontal and vertical cohesion ratings by company collected in November-December, 1990, and Figures 3 and 4 summarize company ratings for horizontal

and vertical cohesion collected in January, 1991, prior to the start of the Air War. Both horizontal and vertical cohesion measured in a different set of units and at a different time during Desert Shield were on average markedly higher than the levels reported for equivalent units in the New Manning System Cohort Study (Marlowe, et.al. 1985; 1986a; 1986b; 1986c; 1987). As stated earlier, the scale used to measure cohesion ranges from zero to 100. The highest scores recorded over a ten-year period assessing some 50,000 soldiers in approximately 240 units were in the low to mid 70s. These scores were achieved only in Ranger companies and in several outstanding Cohort units.

Additional evidence for the high levels of cohesion in the Desert Shield units comes from a comparison of individual items on the survey cohesion scales. The status of Desert Shield units was much closer to the data collected from six battalions (Ranger, Airborne and Cohort) that participated in Operation Just Cause (Department of Military Psychiatry, WRAIR, 1990) than to conventional units in CONUS and USAREUR in 1987 (Figure 5). Interview data collected in Saudi Arabia during Desert Shield also indicated that soldiers attributed their high cohesion to the long period spent together living and training in the desert. Combat Arms soldiers spoke of each other as "family" and described how they had become like brothers. Frictions in the pre-combat period were described as arguments "between brothers." Soldiers and leaders spoke eloquently of how critical their bonding and knowledge of each other were to unit effectiveness,

Figure 1. Horizontal Cohesion: Desert Shield

(Nov-Dec, 1990)

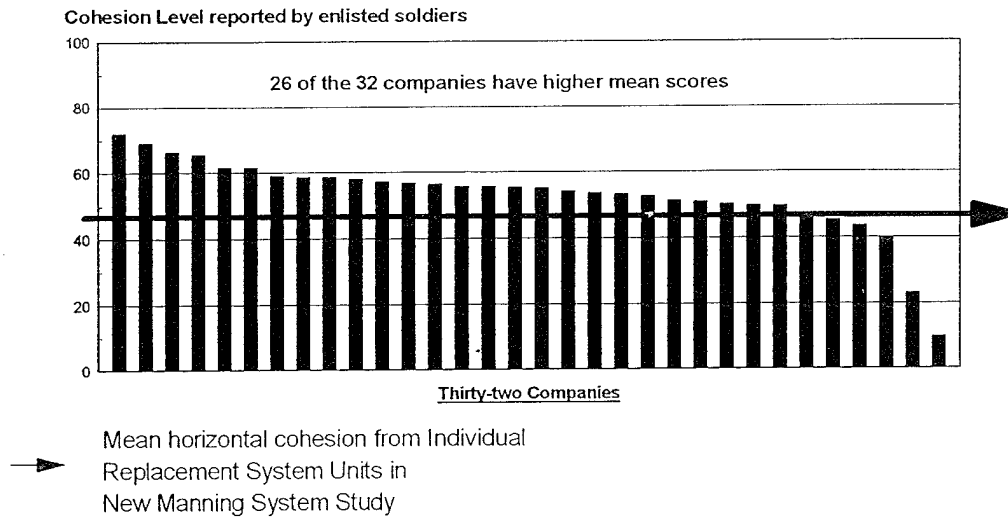


Figure 2. Vertical Cohesion: Desert Shield

(Nov-Dec, 1990)

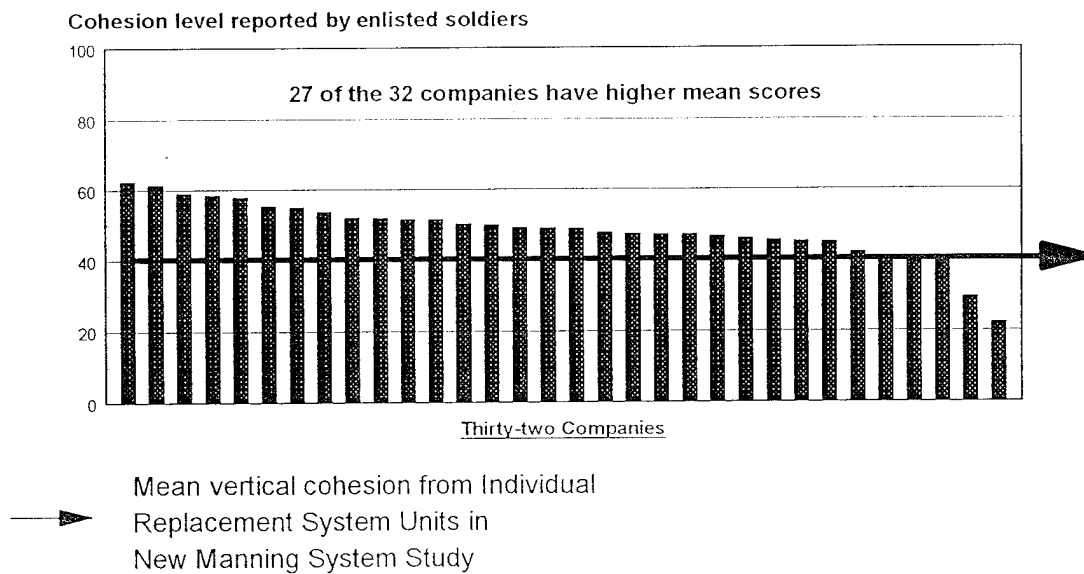


Figure 3. Horizontal Cohesion: Desert Storm
(Jan, 1991)

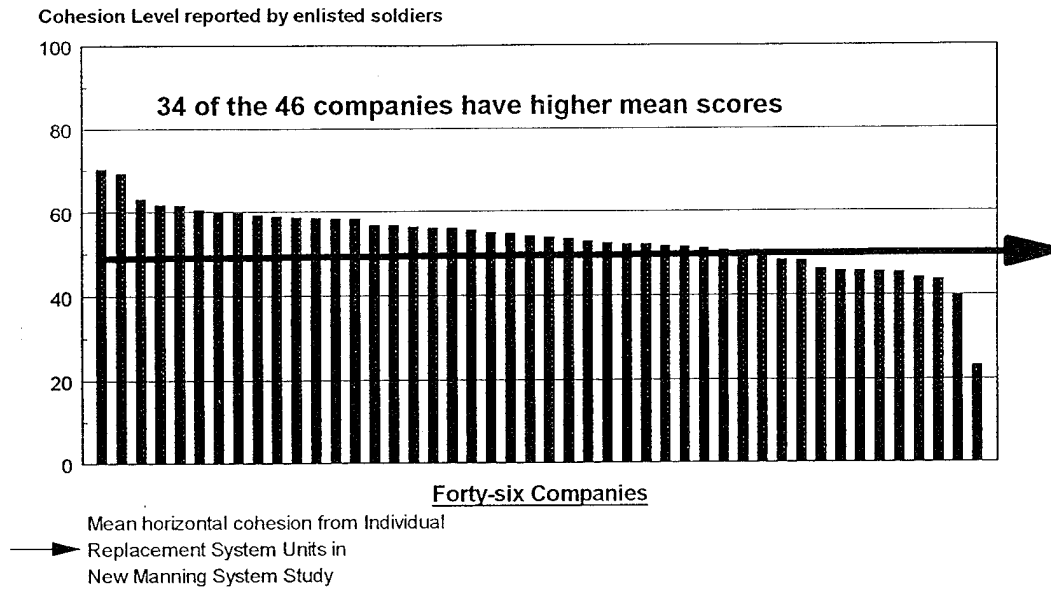


Figure 4. Vertical Cohesion: Desert Storm
(Jan, 1991)

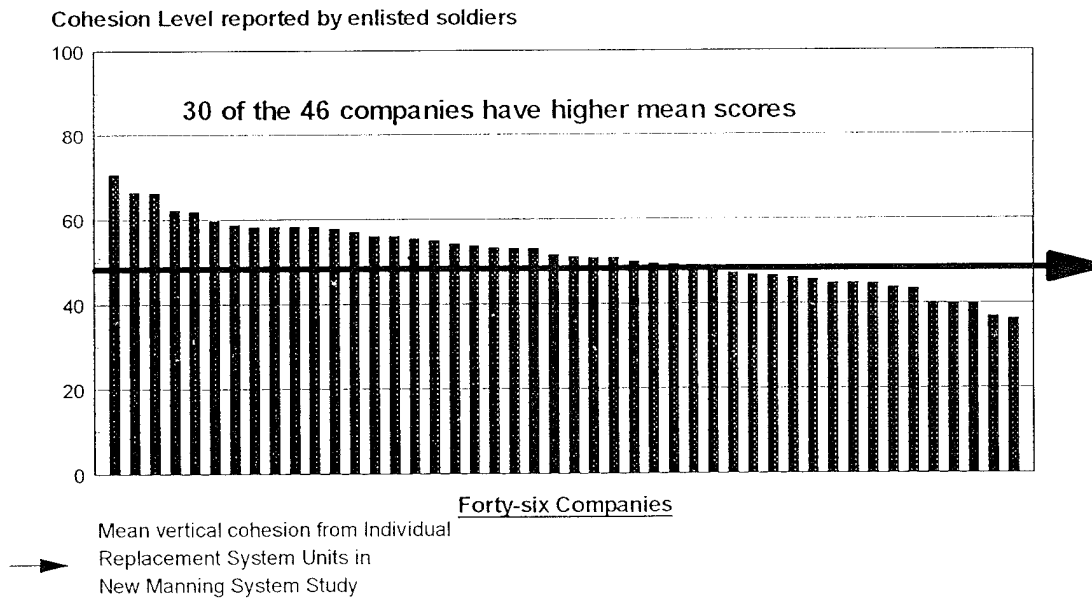
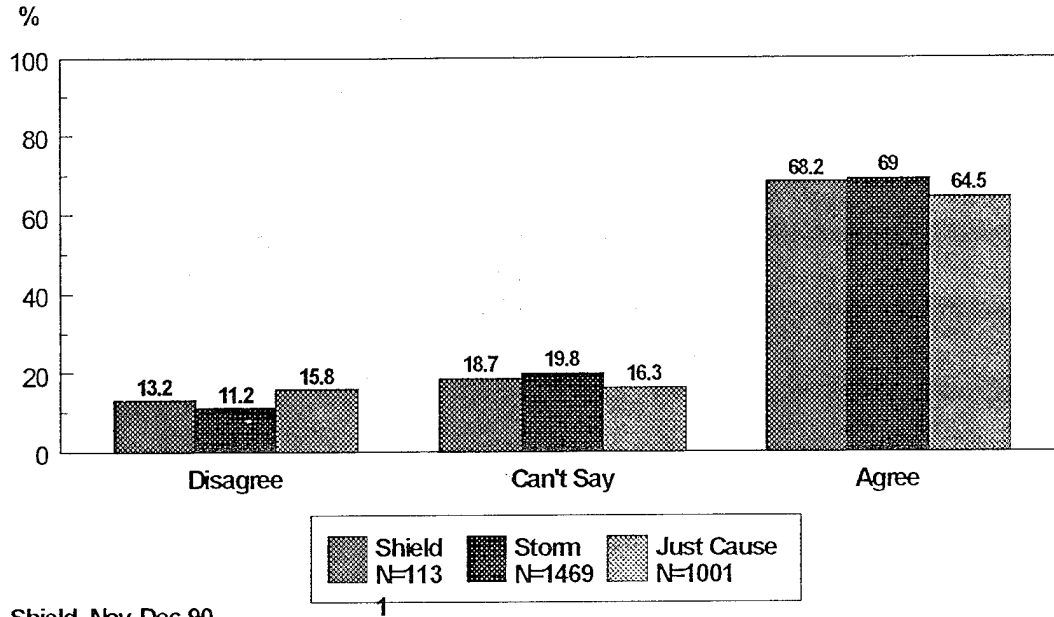


Figure 5. Response to:

"If we went to war tomorrow, I would feel good about going with my squad."



Shield Nov-Dec 90

Storm Jan 91

Just Cause 90

Vertical Cohesion: This was of great importance in soldier stress management. The more positively the soldier perceived his leaders, the more helpful they were viewed as resources to manage stress. Interviews indicated that providing information, personal interest, and shared burdens were critical leader behaviors facilitating the development of vertical cohesion.

Soldiers also reported bonding most strongly to those leaders who participated and led by doing, shared available news and intelligence with them regularly, and treated them with the

moderate informality, intimacy and care seen as appropriate in a potentially dangerous pre-combat situation. Common determinants of cohesion that emerged from interview and survey data were specific leader behaviors and corresponding soldier perceptions of leaders' concern for their well-being. For example, leaders who provided information, showed personal interest in the welfare of their soldiers, and shared deprivations with them, appeared to obtain higher levels of cohesion in their units. These sets of behaviors interacted; for example, one way for leaders to show their interest in the welfare of soldiers was to ensure that information - including news as well as operational plans - was passed to soldiers. Soldiers, when asked what made them believe their leaders cared for them, often cited the fact that their chain of command did what it could to keep them informed. Similarly, leaders who shared burdens with soldiers, such as austere living conditions or physically-demanding tasks, were seen as interested in the welfare of their soldiers. Actions taken by leaders to provide basic amenities for soldiers acquired an important symbolic value. In the eyes of the soldiers, facilities such as showers or better tents represented the willingness of their leaders to support them.

Problems in bonding noted during the second team's visit were most marked in units that received large numbers of mid level Non-commissioned Officers (NCOs) as fillers and attachments immediately prior to deployment, or as replacements in theater. In units that experienced such turnover and turbulence, soldiers invariably said that they wanted a tough, all-out training exercise to test new and untried unit leaders. Soldiers' perceptions of the effectiveness of their leaders correlated strongly with unit scores for both horizontal and vertical cohesion (Figures 6 and 7). In general, company level NCOs tended to be somewhat more

positively perceived than company level officers. However, interviews also indicated that at platoon level, when the NCO was devalued, the platoon leader became the integrating focus of the organization. If both were devalued the platoon tended to have low combat confidence, poor morale, and low cohesion.

An issue that surfaced in the interview data concerned reports that those soldiers showing the greatest strain, and those most likely to get into arguments, were the mid-level sergeants. Whether this resulted from tension associated with their combat leadership responsibilities, or was caused by their inability to escape, even for a moment, from their duties and their soldiers, or by fears about their own personal futures, was unclear. In all probability, each of these reasons played a role.

By November, 1990, most soldiers no longer perceived the deployment as a field training exercise. Life in Saudi Arabia became normal routine, "the regular daily way we live." Soldiers referred to bases and field sites as "home." They often used the word "here" to cover both Saudi

Figure 6. Correlation of Perceived Leader
Effectiveness with Horizontal Cohesion

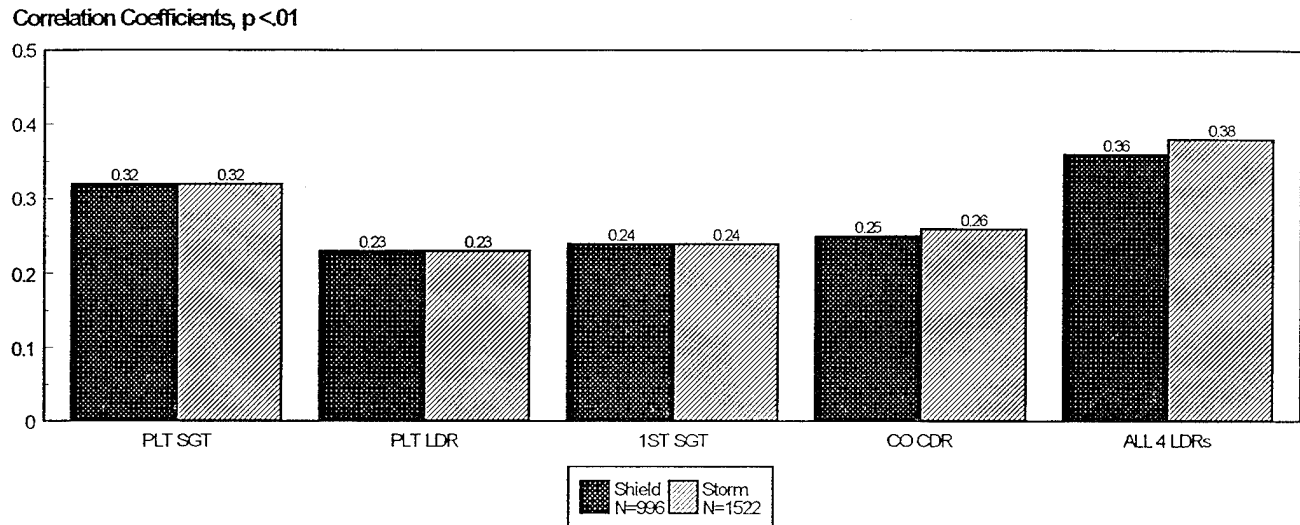
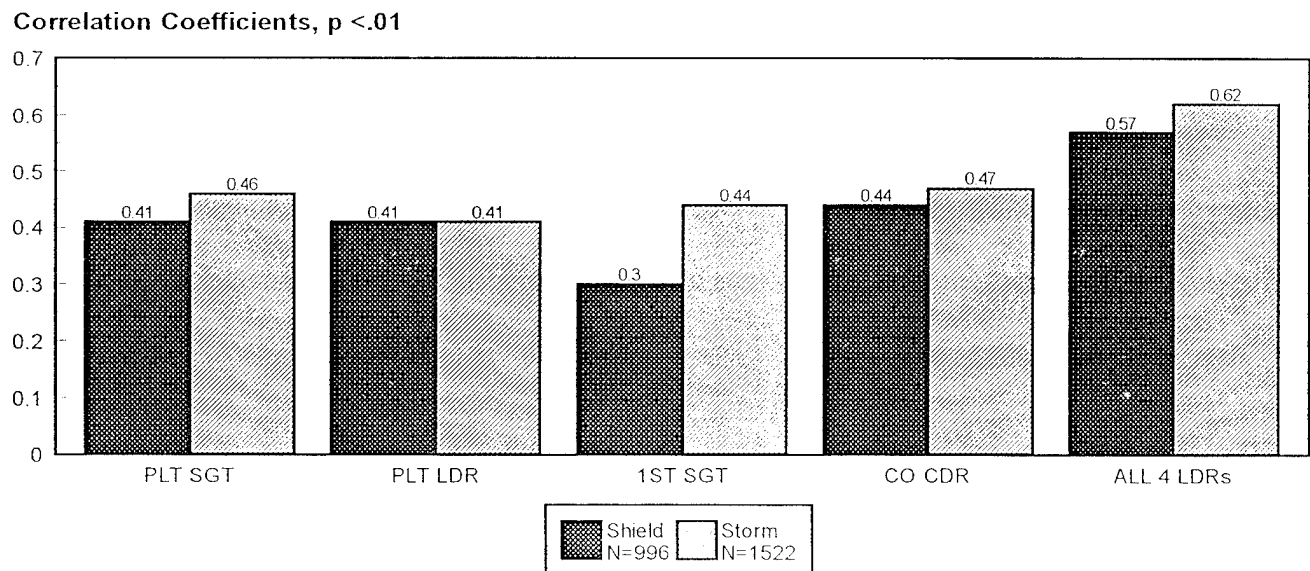


Figure 7. Correlation of Perceived Leader
Effectiveness with Vertical Cohesion



Arabia and their home post in the United States. With the transition in focus to anticipation of combat, field exercises away from the large fixed camp areas became more valued. The unit field sites were viewed as embodying more freedom and encouraging positive relationships between soldiers and leaders. In addition, while at their field sites, many soldiers had ingeniously solved a number of living problems, as well as a number of equipment and field maintenance problems. While many soldiers expressed the hope that these solutions were being captured and transferred to others in theater and to incoming units, some felt that if it was not their idea, then the solution had no value.

Based upon pre-combat interviews and later supported by post-combat data (Department of Military Psychiatry, Walter Reed Army Institute of Research, 1993), soldiers and their leaders agreed that their capacity to do their tasks was markedly enhanced by the long period of cohesion building and collective training in the desert. Many said "it was like a six month NTC" (training at the National Training Center at Fort Irwin, CA). In post-combat debriefings soldiers noted that both casualty levels and confusion would have been much higher without the long build up period.

In a real sense, the stability and corresponding emotional bonds of a "cohort" Army developed during the pre-combat period. Both soldiers and leaders saw this time as creating a powerful intimacy, a sense of interdependence, increased responsiveness to each other, and mutual respect.

While a few soldiers felt that the closeness between leaders and led was detrimental, most saw it as a source of strength and discipline.

Family and Personal Relationships

During the November-December time frame, many of the problems surfacing in this deployed force seemed to be family related. Chaplains, as well as soldiers, believed those most at risk were young, recently married soldiers either with young pregnant wives or those married just before the deployment, and soldiers in relationships that were troubled prior to deployment. Rumors of wide-spread marital breakup and perceptions of increased incidence of "Dear John" letters had negative effects on morale, with concerns persisting even when the rumors proved to be untrue. Some soldiers were tormented by rumors reportedly spread by new arrivals from the same CONUS installation who described increasing crime in their former communities, and caused apprehension about the safety and security of their homes and families. In a number of cases, soldiers worried about their children's or younger siblings' reactions to the threat of war and loss. Long-term child care arrangements for deployed single parents or dual career couples, and custody issues for divorces parents, while relatively infrequent, were extremely distressing problems. Soldier ratings of survey items regarding family related concerns, beliefs about family problems at home, and their confidence in family's safety and availability of support are summarized in Table 3. These results indicate a substantial number of soldiers who reported moderate to major family problems prior to deployment.

Table 3. Soldiers Reporting Family Problems*

Survey Item:	SHIELD N= 530 (% Yes)	STORM N= 709 (% Yes)
Moderate / Major family problems prior to deployment	25.4	24.3
Family problems require to be at home	20.6	14.4
Requested to be home because of family problems	6.7	3.6

*Note: Married respondents only

A tightly bonded four man tank crew discussed the potential implications of such concerns and how to cope with them: People (e.g., crew) depend on you. We may have problems, but when its time to do our job ... I may have some tears in my eyes before I go to sleep, but that's alright. I have the right to do that. Leave home problems at home, prepare yourself for what is coming. One man in a crew can get a whole crew killed, that's a 'no go.' If we go to war, leave family problems behind you. Talk to other crew members about it. If you are the type to dwell on problems, you're a risk to the people over here. We have a couple of loners in the platoon. Sitting by themselves in the dark. Other crew members keep an eye out and try to interact ... We're not complainers. We're not suffering here. We're just anxious to do what we have to do. We live better than any other Army in the field.

Some soldiers were concerned about leaving families at a new post just prior to deployment, with little knowledge of the area or community. Soldiers most comfortable with arrangements at home either had spouses with established support systems, or spouses who returned to their own families of origin.

On the whole, contact with spouses by mail or telephone remained a primary source of support and was critical for morale for the overwhelming majority of married soldiers. Letters provided tangible contact with home, and the telephone provided the opportunity for more

intimate contact and reassurance, as well as in some circumstances immediate problem solution. The disadvantage was that slow mail and lack of access to telephones were made all the more frustrating.

Confidence in Family Support Groups: Those family support groups established back at the home posts, received conflicting reviews from soldiers across units. Some soldiers seemed to know little about the group or their spouses' participation in it, whereas others perceived the family support group as working well and could explain their spouses' role and responsibilities. On the other hand, a number of unit leaders described their spouses as severely stressed by the demands, responsibilities and continuous work in sustaining family support group efforts.

Soldier perception of and confidence in Army orientation to families and family support were potential problem areas. While there were divisional (and in some cases brigade and even battalion) differences in attitudes, there was also a significant level of negative feeling across units about capacity to respond to family needs. Table 4 summarizes soldiers' ratings of confidence in unit based family support efforts. Soldier confidence in rear detachments was lowest, but confidence in Family Support Groups and in the Army's ability to care for families in the event of death or wounding of the active duty member were also on the low side with 44% of the Desert

Table 4. Soldiers' Confidence in Unit Family Support.*

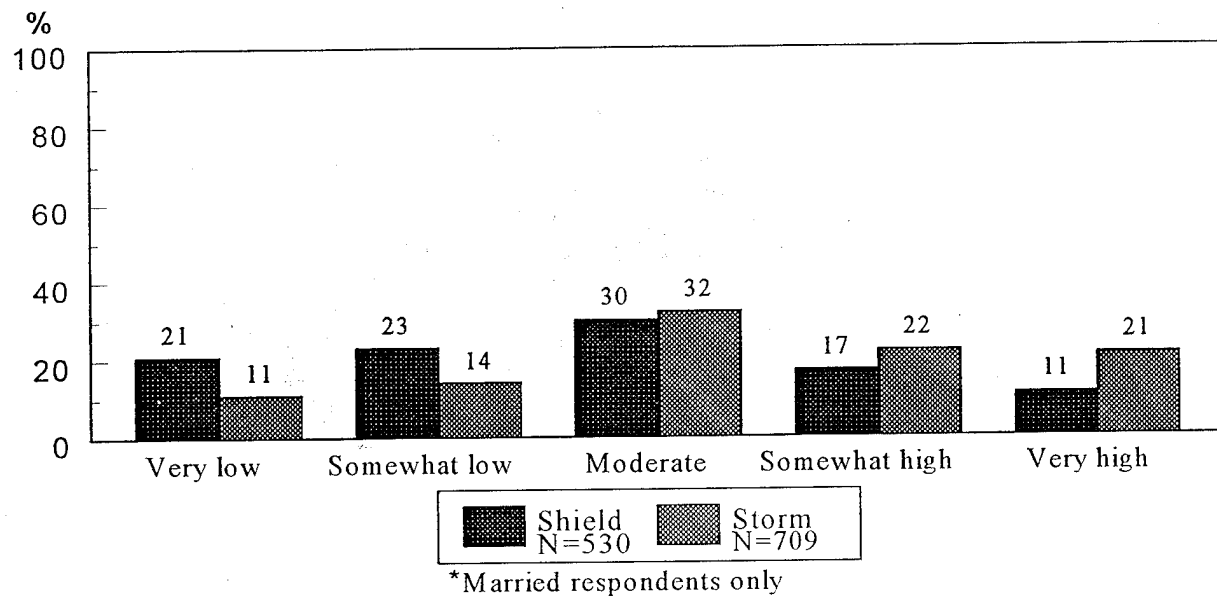
Survey Items	SHIELD N= 530	STORM N= 709
Family Support Groups would help if family needed:	%	%
somewhat low or very low confidence	44	32
moderate confidence	37	41
somewhat high or very high confidence	19	27
Effectiveness of Unit Family Support Group	%	%
somewhat low or very low confidence	43	36
moderate confidence	40	42
somewhat high or very high confidence	17	22
Rear detachment would help if family needed:	%	%
somewhat low or very low confidence	56	44
moderate confidence	32	36
somewhat high or very high confidence	12	20

* Note: Married respondents only

Shield and 25% of the Desert Storm samples expressing somewhat low or very low confidence that their family would be taken care of if they were killed or wounded (Figure 8).

In part, soldier interviews indicated that lack of information about family programs played a role in low confidence ratings. However, their perceptions of family support and supportive institutions also reflected the cohesiveness of the units surveyed. The higher a soldier's assessment of unit cohesion, the more positively a soldier viewed support institutions. Soldiers in

Figure 8. Confidence family will be taken care of if killed or injured *



the most cohesive units reported more confidence that the family support systems at their home posts would care for their families if needed. In both survey samples the correlation between soldiers' vertical and horizontal cohesion scores and their responses to each of three survey questions rating soldier confidence in different family support functions, was notable (Figures 9 and 10).

Figure 9. Correlation of Family Support Confidence with Horizontal Cohesion*

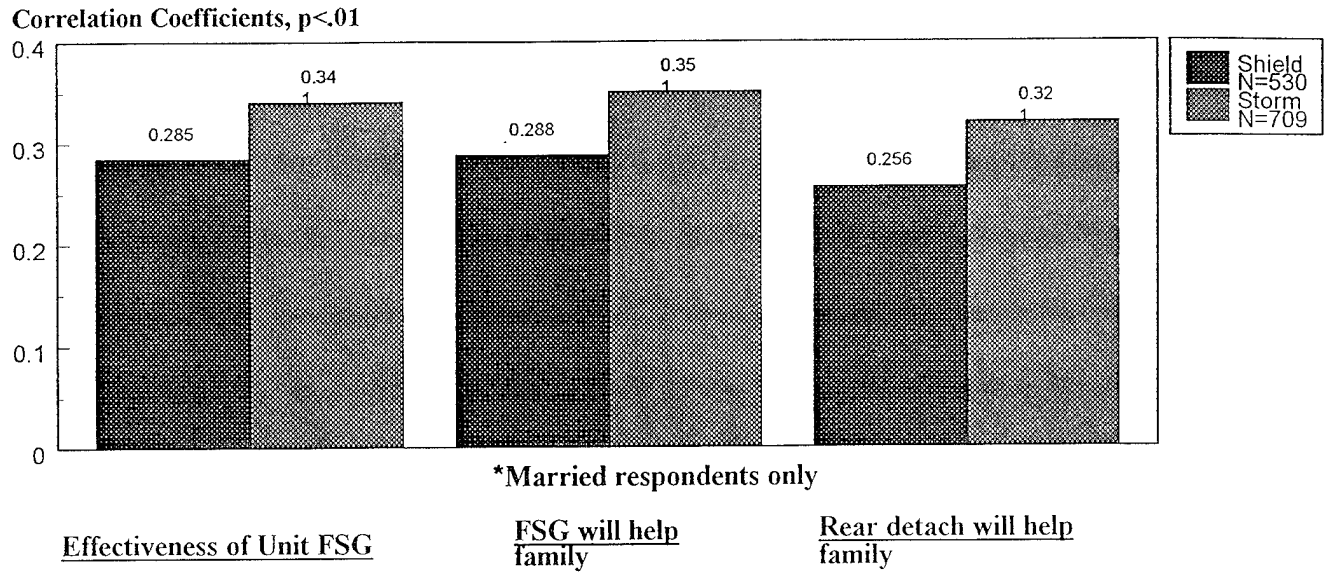
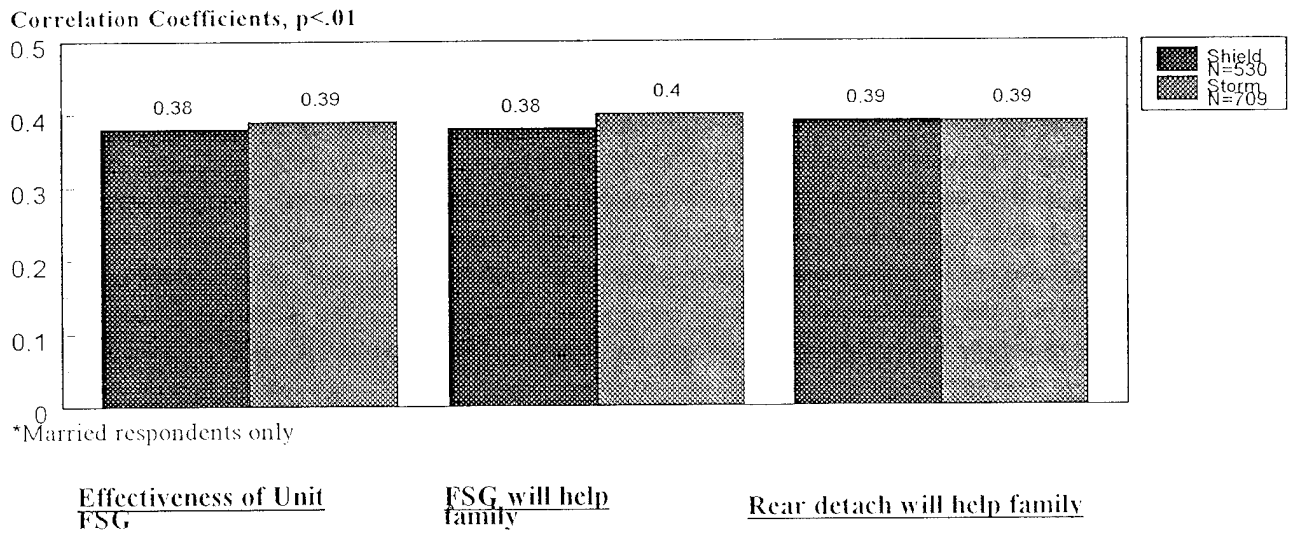


Figure 10. Correlation of Family Support Confidence with Vertical Cohesion*



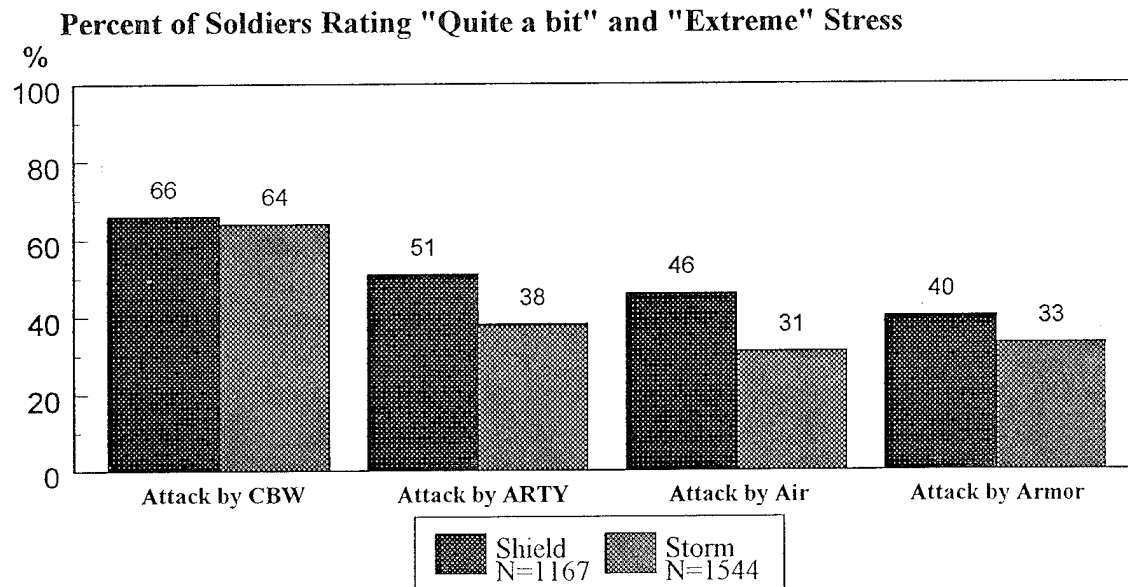
Leader vs Soldier Perceptions of Family Issues

There were differences between leader (E7-05) and soldier (E1-E6) perceptions of Army orientation to families. Leaders tended to be much more satisfied with and more favorable in their assessment of the Army's concern and orientation towards families than were their soldiers. Leader families also seemed generally more skilled in adapting to and coping with the stresses that often come with Army life, possibly receiving more positive responses from unit and post leadership and institutions. Overall, leaders reported more positive views on surveys than did their soldiers, perhaps believing it was "expected of them." Critically, however, these differences in perception may encourage leaders to assume that their own satisfaction with the Army's response to families is fully shared by their soldiers. This can have negative effects on vertical cohesion and the soldiers' view of leaders' concern for and commitment to families.

Anticipation of Combat

Soldiers anticipated their future commitment to combat. The items on the Combat Anticipation Stress Rating Scale were divided into two categories: those concerning enemy assets (e.g., weapons, equipment, systems); and those relating to casualties and combat losses (e.g., buddy or leader wounded or killed in action). For the category of enemy assets, soldiers were concerned, in rank order, with the possibility of chemical/ biological attack, followed by artillery, air and armor (Figure 11).

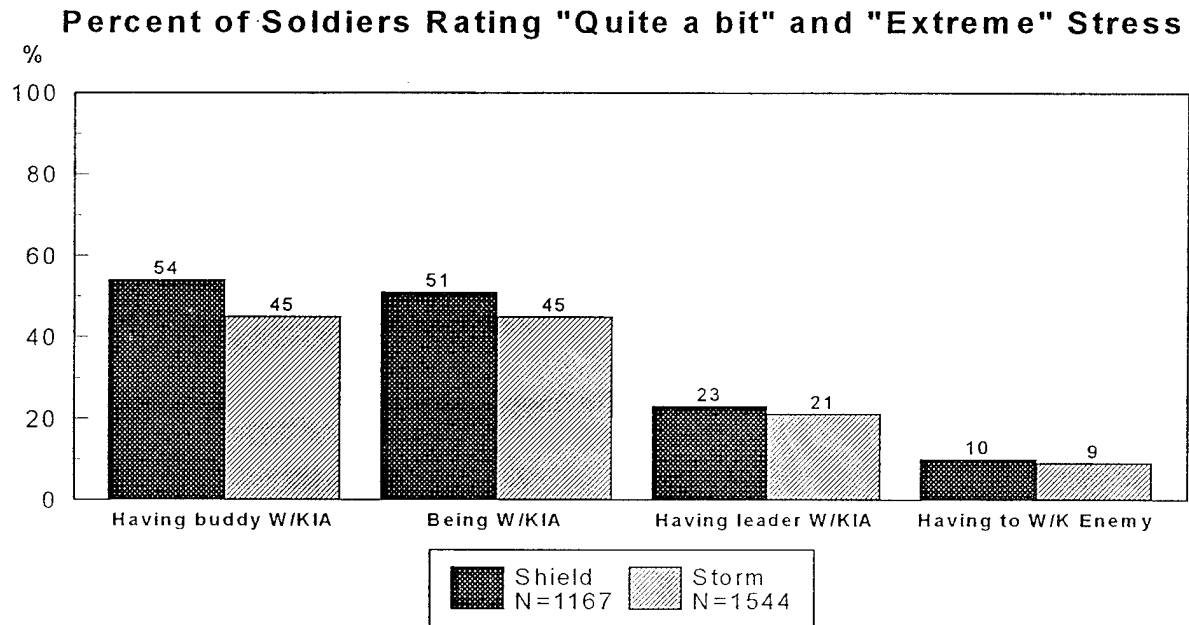
Figure 11. Anticipated Enemy Assets



For the category of anticipated combat losses, soldiers were most concerned by the possibility of a buddy being wounded or killed in action, followed by self being wounded or killed, and losing a leader. Rated lowest of all as a source of stress was the anticipation of wounding or killing the enemy (Figure 12). In contrast to these pre-combat estimates of stress, data collected following Operation Just Cause (Department of Military Psychiatry, WRAIR, 1990) and the follow-up of units after Operation Desert Storm (Department of Military

Psychiatry, WRAIR, 1993) indicated that in only two cases was anticipated stress lower than post-combat findings: losing a leader, and having to kill the enemy.

Figure 12. Anticipated Combat Losses

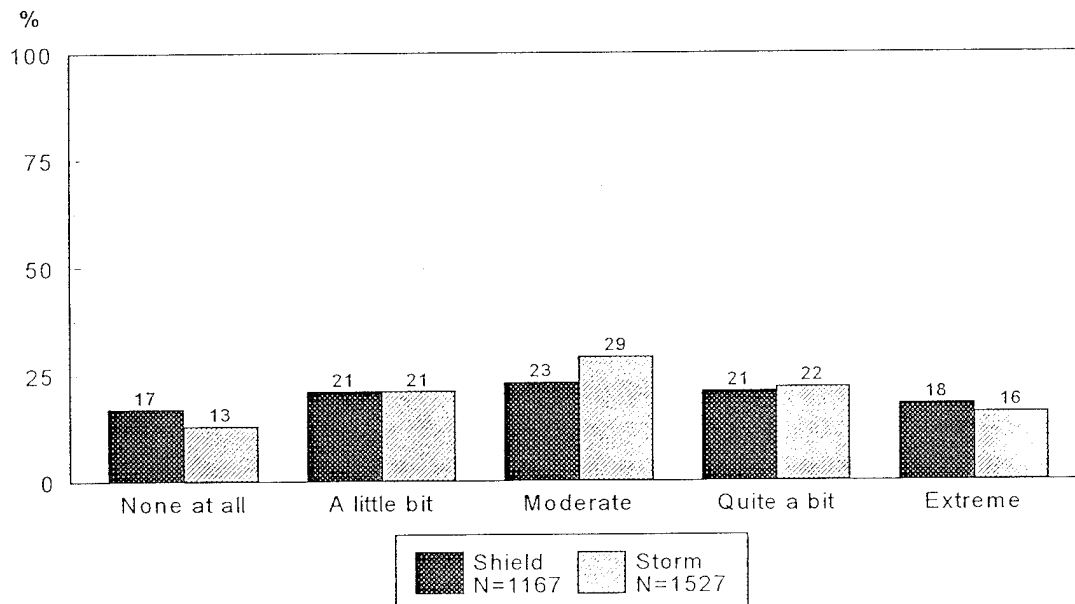


Of particular note were soldiers' ratings on the anticipated stress of receiving adequate medical care if wounded in action. For both samples, almost two-thirds of the soldiers' - 67% in Shield and 62% in Storm - rated this concern as causing them "moderate" to "extreme" stress (Figure 13).

Pre-Combat Preparation

In late November, 1990, units that appeared to have the highest confidence also seemed to be those units with the most extensive knowledge about Iraqi field combat capacity and techniques, and corresponding knowledge about the best ways to deal with them. An exaggerated image of Iraqi strength operated against combat confidence, whereas casually dismissing Iraqi military potential led to complacency. In November, these combat arms soldiers appeared to be pacing themselves. They reported that they did not want "to peak too soon," and some expressed fears about growing stale with over-training, or losing their edge as a result of constant "over-alertness." As one soldier put it: "My edge requires time to be laid back before I go all out."

Figure 13. Anticipated Stress about Receiving Adequate Medical Care if Wounded



A few leaders seemed to have a counter-productive effect in their attempts to prepare their soldiers psychologically for combat. For example, some soldiers were deeply shaken by leaders who talked to them about the large number of soldiers who would be killed in combat, rather than emphasizing that while there would be casualties, leaders would try to bring everyone home alive. Many soldiers interviewed in November and December were negatively affected by projected casualty estimates in the media. They did not understand the nature of such projections, and believed that the 20-50 thousand casualty figures used in the press referred to soldiers killed in action, rather than to battle injuries of any sort.

One Battalion Commander's method for preparing his soldiers is worth mentioning since it was perceived by soldiers interviewed by the second team as extremely helpful. Circulating around the areas where his soldiers lived and worked, he was constantly visible. He would tell them:

We have a great plan and excellent chain of command ... I emphasized we were so far ahead of the Iraqis in terms of equipment and training They trusted me. I was trying to encourage healthy self-confidence. Healthy respect. Relationships are based on mutual respect ... I would tell them: You are American heroes. You're the point of the spear. Each of us is counting on one another. Interdependence. You'll write history, as warriors. Don't do anything to diminish what you have already accomplished. I knew they were ready ... I kept card files on each soldier and their families for details about their lives. It is astonishingly important to them. Showing them they would not be put at undue risk. It shows: This leader really cares about me.

The Beginning of Desert Storm

In interviews conducted both pre and post Operation Desert Storm , soldiers reported that in the two months prior to the beginning of the Air War in January, their strongest feeling was "that the road home led through Kuwait and Iraq." Morale was described as fluctuating up and down throughout this period, and following the first week of the Air War, each perceived delay in movement forward lowered morale, each anticipation of "starting the job" raised it. Most senior leaders considered down time and rest periods important to the maintenance of morale and the soldiers' "edge." Post combat interviews revealed that these short-term fluctuations in morale had no long-term or erosive effects. Morale re-ascended to an extremely high level as soon as there was firm knowledge that the Ground War was to begin (Department of Military Psychiatry, Walter Reed Army Institute of Research, 1993).

As they moved forward, soldiers recalled their initial orientation to battle as an expectable combination of excitement, apprehension, fear and anxiety. Most soldiers interviewed described the beginning of the Ground War as the greatest stress reliever of the months of deployment. Confidence in training was extremely high. The major underlying fear during the initial assault appeared to be the threat of chemical and biological warfare. This was compounded for many by concerns about the effective life of MOPP gear and conflicting beliefs about anti-chemical and biological agents (drugs and vaccines). Some soldiers worried as much or more about the potential harmful effects of these protective measures as they did about the enemy's chemical and biological weapons. Clearly, training in this aspect of combat preparations was inadequate.

Summary

Findings from the Operation Desert Shield phase of the Gulf War research conducted in November-December, 1990, included a theater context that had matured considerably since the initial deployment in September. Table 5 summarize some of these changes: Theater infrastructures continued to develop in November, but much had been accomplished in a very short period of time. With the upcoming arrival of VIIth Corps, combat and support units already established were eager to share what they had learned. Despite the ever present cultural constraints and severe austerity of their physical environment, most soldiers communicated a sense of pride in the creative solutions they had discovered. As the theater developed and amenities improved, even small changes assumed symbolic significance. Improvements made by soldiers at the unit level transformed field sites in the desert into "home," and externally directed improvements demonstrated leader and chain of command caring and concern.

Most critical for soldiers during this time period was the fact that the stress of uncertainty about the duration of the deployment and the ambiguity surrounding their eventual mission were resolved. Focusing events and times provided closure. Secretary of Defense Richard Cheney's announcement of "for the duration," and the January 15th deadline given to Iraq by the United Nations clarified soldiers' uncertainty about their role and purpose. When they became convinced that "the road home led through Kuwait," their energy became more and more focused on their units and on their training. As unit members lived and worked together under conditions of hardship, their cohesion, confidence and morale improved, providing the backdrop for their

adaptation. Most combat arms soldiers deployed to the Persian Gulf as members of relatively intact units. They left their families within a structure of community support represented by unit level family support groups and the rear detachment command, a cadre of unit members, who would be the interface between the deployed soldiers and their families at home. Although some spouses returned to their families of origin, most remained at the military installations. These communities provided a source of social support and units provided primary sources of information that would sustain them in the months to come as the Gulf War deployment moved into the combat phase of Operation Desert Storm.

Table 5. The Maturing Theater of Operation Desert Shield.

Adaptation:

- * Ambiguity about deployment ended
 - * Emerging sense of purpose
 - * Developing infrastructure of theater and improving amenities
-

Morale:

- * Feelings of relative deprivation decreased
 - * Improved communications with home
 - * Symbols of leader caring
-

Cohesion:

- * Unit member bonding very high
 - * Emerging rules and strategies to moderate conflict
 - * Bases and camps become home
-

Family Relationships:

- * Importance of mail and telephone contact
 - * Worries about family safety
 - * Family transitions prior to deployment a concern
-

Concerns/Potential Problems:

- * Unrealistic views of Iraqi military potential/either positive or negative
 - * Concerns about 'losing their edge over time'
 - * Confusion about casualty rates
 - * Rationale for the deployment and combat
 - * Concerns about the future careers in the Army
-

CHAPTER 3

CONCLUSIONS

Cohesion and Leader Behaviors

The Desert Shield deployment phase of the Gulf War research program established the critical importance of unit cohesion in managing deployment stress - both horizontal cohesion at the squad/crew level and vertical cohesion between soldiers and their leaders. Critical leader behaviors facilitating the development of vertical cohesion included: providing information, personal interest by leaders, and shared deprivations. Vertical and horizontal cohesion were also positively related to soldiers' ratings of their leaders' effectiveness.

Deployment Stresses

Adjusting to the deployment may have been more stressful for most soldiers than the actual combat, since those individuals involved in actual combat were relatively few and even for those individuals, only a few actually engaged the enemy with live fire. The Gulf War included the stresses of readying units and equipment for a rapid deployment; leaving families suddenly and unexpectedly, sometimes with little personal time to prepare and say good-bye; a prolonged period of adapting to a new environment initially characterized by uncertain tour length, ambiguous demands, lack of communication with home, isolated and austere living conditions; and the anticipation of combat. Added to these significant stresses were career concerns about

their futures in the Army given the plans for downsizing, which for many soldiers became a reality after they returned home.

Family Separation

Separation from family received some of the highest stress ratings from deployed soldiers. Concerns about families back home, due to either real or imagined problems was an issue throughout the deployment. Letters from home and telephone contact with families were critical events helping soldiers cope with stress, yet also produced stress. However, initial theater concerns about telephone access leading to a serious increase in problems for soldiers were unfounded. Overall, telephones had a positive effect on morale and contact with families often resulted in quick resolution of problems and maintained critical emotional linkages.

Ongoing Gulf War Research

This report has summarized one phase of an extensive research program being conducted by the Department of Military Psychiatry of the Walter Reed Army Institute of Research, assessing the consequences of the Gulf War for service members (Martin, 1992; Martin et al., 1992; Stuart & Halverson, 1995). In addition to data collected from soldiers during and after the Gulf War, this research extends to military families with interviews and survey questionnaires designed to examine stresses, life events and coping during the deployment, and readjustment issues after soldiers returned home (Rosen et al., 1993a, 1993b, 1994). A study of children of deployed parents, (Teitelbaum, 1991; Martin et al., 1993) and an evaluation of community and

installation-based family support services and programs represent other projects within the program (Teitelbaum, 1991).

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Appendix A

Operation Desert Shield Interview Guide

Appendix_ WRAIR Department of Military Psychiatry Interview
Guidelines for Operation Desert Shield

General Approach:

1. Conduct interviews in the soldiers' natural settings - i.e., in their tents, by their foxholes, in the shade of their vehicles, etc. Avoid having soldiers brought to a special location for interviews.
2. Start with the unit commander and, as much as the situation permits, schedule your interviews in descending sequence down the chain of command, i.e., senior NCO's before junior NCO's, before enlisted soldiers.
3. Encourage a casual atmosphere. Have them seated comfortably, and in positions where you can make eye-contact with them. Drinking water, eating, etc. are allowed and encouraged.
4. Explain the purpose of the interview, which is to examine soldier adaptation in Operation Desert Shield. Point out that we are neither inspectors nor evaluators. Rather, we are here to find out what is going on, and to use this information to help policy makers. Emphasize that these interviews are confidential and that no unit or individual will be identified, and you want them to tell you what they really think (as you convey this, do not set a negative tone by implying that you are here to find problems or engage in Army bashing).
5. Explain that you will be taking notes, but that this in no way compromises your promise of anonymity for them.
6. Go around the group and ask the soldier to tell you his/her name, duty position, and how long they have been with the unit. Ask whether they are married or single, and whether they have children. This is to establish rapport and to help you focus your questions - you do not need notes on this point.

7. Use open-ended questions to get the soldiers talking. Although we have specific topics to look for, it is better to let them come out in the natural course of conversation than to try to follow a set pattern.

There may be issues we have not yet encountered, and we will learn of them only if we let soldiers say what is on their minds, rather than molding their responses.

Topics to Cover:

1. Start by finding out how long they have been in SWA, how they were notified of impending deployment, and what they did (both as individuals and as a unit) to prepare. Look for adequacy of time to get personal affairs in order and to prepare families, and for unresolved issues they brought to SWA. Pursue how the latter have affected them in SWA and whether command has been helpful in resolving them.

2. Ask how they felt about deployment, and how spouses, children, girl/boyfriends felt, and what was done to ease apprehension.

3. Ask what actual deployment was like, and what they did on arrival.

NOTE: For units that we have interviewed previously, the above topics can be treated more briefly.

4. The above should lead to a description of what they have been doing from their arrival until the present.

5. Much of what we want to know will come out naturally during the course of this chronological description, and how it comes out will tell you what the salient issues are from the perspective of the soldiers. Some specific questions you should ask if they do not come out spontaneously:

1. What information are you getting about world events and your unit's mission? Probe specifically for the Stars and Stripes, other newspapers, command publications, AFN, BBC. Do your unit leaders (Commanders and NCO's) talk with you about what is going on in the world and what your unit is doing? (Look for both information put out in formation and for informal conversation).

2. Do you communicate with friends/family in the U. S.? Mail? Phones? If your family has a problem back home, will the Army give them the help they need? Will you be able to contact them?

3. Are your leaders competent? Do you trust them? (Use this as a basis of a general discussion of vertical cohesion with the unit. You will have to look at each level of officer and NCO leadership).

4. Are the people in this unit close to each other? Back in CONUS, did you do things together off duty? What sorts of things? What has coming to Saudi Arabia done to the way you get along? (Ask about both positive and negative changes).

5. What helps morale? What does your unit need to create/sustain high morale? (You will probably know this before the point at which you ask, but putting it as a direct question will yield some further insights). Do not stop with a one word answer (high, low, medium) that describes the overall state of morale as they see it - "morale" - is shorthand for a complex of different factors, many of which vary through the course of the day.

6. Do you get private/personal time? What do you do for recreation? Describe your recent training activities. What training is planned for the near future?

7. What do you think will happen in the months ahead? (Use as an introduction for discussion of anticipation of combat: Their concerns; confidence in selves, leaders, unit; what helps them cope).

8. What would you want to tell Senior Army leaders? (This makes a good closing question).

Appendix B

Operation Desert Shield Enlisted Survey

OPERATION DESERT SHIELD

ERL/DEMO

Survey Approval Authority: US Army Personnel Integration Command
Survey Control Number: ANTC - AO - 91 - 12A

PLEASE USE THE PENCIL WE PROVIDED. FILL IN THE BUBBLE WHICH CORRESPONDS TO YOUR ANSWER. PLEASE BE SURE TO FILL IN THE MIDDLE OF THE BUBBLE LIKE THE EXAMPLE BELOW. YOU DO NOT NEED TO FILL IN THE WHOLE BUBBLE!

PROPER MARK



IMPROPER MARKS



LAST NAME: (Please Print)

TODAY'S DATE:

THE COMPLETE NAME OF
THE UNIT/COMPANY THAT
YOU ARE IN TODAY:

Please write the last four digits
of your social security number
and fill in the corresponding
bubble below.

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1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
0	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If applicable, please enter your
battalion and regiment number in the
boxes and fill in the corresponding
bubble below.

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1	<input type="radio"/>	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="radio"/>	3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	<input type="radio"/>	4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	<input type="radio"/>	5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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7	<input type="radio"/>	7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	<input type="radio"/>	8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	<input type="radio"/>	9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
0	<input type="radio"/>	0	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What is your company?

- ☐ A Co. ☐ D Co.
☐ B Co. ☐ E Co.
☐ C Co. ☐ HHC
☐ Other (use the line provided).

What is your platoon?

- ☐ First ☐ Mortar
☐ Second ☐ Scout
☐ Third
☐ Other (use the line provided).

How long had you been in your company at the time you were deployed?

- ☐ 0 - 3 months ☐ 13 - 18 months
☐ 4 - 6 months ☐ 19 - 24 months
☐ 7 - 12 months ☐ More than 2 years

How long had you been in your platoon at the time you were deployed?

- ☐ 0 - 3 months ☐ 13 - 18 months
☐ 4 - 6 months ☐ 19 - 24 months
☐ 7 - 12 months ☐ More than 2 years

How long had you been in your squad/section at the time you were deployed?

- ☐ 0 - 3 months ☐ 13 - 18 months
☐ 4 - 6 months ☐ 19 - 24 months
☐ 7 - 12 months ☐ More than 2 years

Please rate the level of morale for each of the following items.

SINCE YOU ARRIVED IN SAUDI ARABIA:

Average state of morale in your platoon?

Your general personal morale?

Your morale when you get mail?

Your morale on your last rest day?

Your morale when relaxing off-duty?

Your morale on your *most recent* field exercise?

ENL/MOR ☐

Very Low	Somewhat Low	Moderate	Somewhat High	Very High	Does not Apply
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Think about your unit as it is today.

HOW EFFECTIVE A LEADER IS:

Your *Platoon Sergeant*?

Your *Platoon Leader*?

Your *First Sergeant*?

Your *Company Commander*?

LOW

1

2

AVERAGE

3

4

HIGH

5

Does Not Apply

☐
☐
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☐
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☐
☐
☐
☐

Use the scale to indicate how **SATISFIED** or **DISSATISFIED** you are with:
(Please answer even if you are **NOT** married.)

- The respect the Army shows spouses.
- The concern your company has for families.
- How your spouse would feel if you were to make the Army a career.
- The kind of family life you can have in the Army.
- The Army as a way of life.
- The effectiveness of the Rear Detachment in taking care of the needs of the *single soldier*.

KRL/YAW

Very Dissatisfied	Dissatisfied	Not Sure	Satisfied	Very Satisfied
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

PLEASE ANSWER THE FOLLOWING QUESTIONS ABOUT YOUR SPOUSE OR CHILDREN ONLY IF YOU ARE MARRIED OR A SINGLE PARENT.

IF YOU ARE SINGLE, PLEASE GO TO THE NEXT PAGE.

- | | YES | NO |
|--|-----------------------|-----------------------|
| Are there currently any problems in your family that require you to be home? | <input type="radio"/> | <input type="radio"/> |
| Have you requested to return home due to a family problem? | <input type="radio"/> | <input type="radio"/> |
| At the time you deployed, were you or your spouse pregnant? | <input type="radio"/> | <input type="radio"/> |
| Have you or your spouse had a baby in the past 4 months? | <input type="radio"/> | <input type="radio"/> |
- Were there any problems in your family **BEFORE** you deployed?
- | | |
|-----------------------------|--------------------------------|
| <input type="radio"/> None | <input type="radio"/> Moderate |
| <input type="radio"/> Minor | <input type="radio"/> Major |

What is your level of confidence in each of the following?

- The effectiveness of your unit Family Support Group.
- That your family will be taken care of if you are killed or injured.
- That Family Support Groups will help your family if needed.
- That the Rear Detachment will help your family if needed.
- That your family is safe back home.

VERY LOW	SOMEWHAT LOW	MODERATE	SOMEWHAT HIGH	VERY HIGH
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

PLEASE GO ON TO THE NEXT PAGE.

ENL/DEP:

Operating in the desert sand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having to train at night.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Terrorist attack(s).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Desert storms.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not getting enough sleep.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Maintaining your equipment in desert operations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Terrorist threat.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Operating in the desert heat.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eating MREs a lot of the time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of confidence that MOPP gear will protect you.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talk about projected cuts in Army strength.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Severe change in temperature from day to night.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Crowding in base camps.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flies.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not having the time or place to practice your religion.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of alcoholic beverages.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shift work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having to do extra details.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not being allowed to act like Americans (dress, behavior, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not having enough physical energy to perform your job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being at MOPP level 3 or 4 for a long period of time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
What you see or hear on TV or radio about Operation Desert Shield.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Behavior restrictions in the presence of Saudis.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fights or quarrels among soldiers in your <u>squad/section</u> or <u>platoon</u> .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unusually long duty days.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scorpions, snakes and spiders.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not being allowed to practice your religion due to the Host Nation's restraints.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not having private time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of understanding about why you were deployed to the Middle East.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talk about Reduction in Force in my pay grade.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
What your family members write to you about Operation Desert Shield.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of adequate morale, welfare and recreation equipment (books, sporting equipment, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

None at all

A little bit

Moderate

Quite a bit

Extreme

DOES NOT APPLY

A Likert scale diagram with five levels: None at all, A little bit, Moderate, Quite a bit, and Extreme. Each level has a vertical column of 10 circles for marking responses.

ENL/HAND



SCALE 1

SCALE 2

[illegible]

C

- EXTREME
- QUITE A BIT
- MODERATE
- A LITTLE BIT
- NONE
-
- The chart consists of five vertical columns of circles, each corresponding to a level of response. From left to right, the levels are: NONE (10 circles), A LITTLE BIT (10 circles), MODERATE (10 circles), QUITE A BIT (10 circles), and EXTREME (10 circles). The columns are arranged in a descending staircase pattern from right to left.

ch
WEEK.

EXTREME
QUITE A BIT
MODERATE
A LITTLE BIT
NONE

in you.

31. Feeling that you are watched or talked about by others.
32. Trouble falling asleep.
33. Having to check and double-check what you do.
34. Difficulty making decisions.
35. Feeling afraid to travel.
36. Trouble getting your breath.
37. Hot or cold spells.
38. Having to avoid certain things, places or activities because they frighten you.
39. Your mind going blank.
40. Numbness or tingling in parts of your body.
41. The idea that you should be punished for your sins.
42. Feeling hopeless about the future.
43. Trouble concentrating.
44. Feeling weak in parts of your body.
45. Feeling tense or keyed up.
46. Thoughts of death or dying.
47. Having urges to beat, injure or harm someone.
48. Sleep that is restless or disturbed.
49. Having urges to break or smash things.
50. Feeling very self-conscious with others.
51. Feeling uneasy in crowds.
52. Never feeling close to another person.
53. Spells of terror or panic.
54. Getting into frequent arguments.
55. Feeling nervous when you are alone.
56. Others not giving you proper credit for your achievements.
57. Feeling so restless you couldn't sit still.
58. Feelings of worthlessness.
59. Feeling that people will take advantage of you if you let them.
60. Thoughts and images of frightening nature.
61. Feelings of guilt.
62. The idea that something is wrong with your mind.
63. Spending less time with peers and friends.

Appendix C

Operation Desert Shield Leader Survey

OPERATION DESERT SHIELD

OFF/DEMO

Survey Approval Authority: US Army Personnel Intergration Command
Survey Control Number: ANTC - AO - 91 - 12B

PLEASE USE THE PENCIL WE PROVIDED. FILL IN THE BUBBLE WHICH CORRESPONDS TO YOUR ANSWER. PLEASE BE SURE TO FILL IN THE MIDDLE OF THE BUBBLE LIKE THE EXAMPLE BELOW. YOU DO NOT NEED TO FILL IN THE WHOLE BUBBLE!

PROPER MARK



IMPROPER MARKS



LAST NAME: (Please Print)

TODAY'S DATE:

THE COMPLETE NAME OF
THE UNIT/COMPANY THAT
YOU ARE IN TODAY:

Please write the last four digits
of your social security number
and fill in the corresponding
bubble below.

--	--	--	--	--

1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
0	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If applicable, please enter your
battalion and regiment number in the
boxes and fill in the corresponding
bubble below.

--	--	--	--	--

1	<input type="radio"/>	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="radio"/>	3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	<input type="radio"/>	4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	<input type="radio"/>	5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	<input type="radio"/>	6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	<input type="radio"/>	7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	<input type="radio"/>	8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	<input type="radio"/>	9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
0	<input type="radio"/>	0	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What is your company?

- ☐ A Co.
☐ B Co.
☐ C Co.
☐ D Co.
☐ E Co.
☐ HHC
☐ Other (use the line provided)

How long had you been in your unit *at the time you were deployed?*

- ☐ 0 - 3 months
☐ 4 - 6 months
☐ 7 - 12 months
☐ 13 - 18 months
☐ 19 - 24 months
☐ More than 2 years

OFF/DEMOP2

THE FOLLOWING QUESTIONS HAVE TO DO WITH YOUR EXPERIENCES IN OPERATION DESERT SHIELD

☐ *Army Reserve* who VOLUNTEERED for the Operation in Saudi Arabia.
☐ *Army Reserve* whose unit was DEPLOYED for the Operation in Saudi Arabia.
☐ *National Guard* who VOLUNTEERED for the Operation in Saudi Arabia.
☐ *National Guard* whose unit was DEPLOYED for the Operation in Saudi Arabia.
☐ *Active Army* who VOLUNTEERED for the Operation in Saudi Arabia.
☐ *Active Army* whose unit was DEPLOYED for the Operation in Saudi Arabia.
☐ Other _____

Please rate the level of morale for each of the following items.

Average state of morale in your unit?
 Your general personal morale?
 Your morale when you get mail?
 Your morale on your last rest day?
 Your morale when relaxing off-duty?
 Your morale on your *most recent* field exercise?

[illegible]

Use the scale to indicate how **SATISFIED** or **DISSATISFIED** you are with:
(Please answer even if you are **NOT** married.)

- The respect the Army shows spouses.
- The concern your company has for families.
- How your spouse would feel if you were to make the Army a career.
- The kind of family life you can have in the Army.
- The Army as a way of life.
- The effectiveness of the Rear Detachment in taking care of the needs of the *single soldier*.

Very Dissatisfied	Dissatisfied	Not Sure	Satisfied	Very Satisfied
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

PLEASE ANSWER THE FOLLOWING QUESTIONS ABOUT YOUR SPOUSE
OR CHILDREN ONLY IF YOU ARE MARRIED OR A SINGLE PARENT.

IF YOU ARE SINGLE, PLEASE GO TO THE NEXT PAGE.

- | | YES | NO |
|--|-----------------------|-----------------------|
| Are there currently any problems in your family that require you to be home? | <input type="radio"/> | <input type="radio"/> |
| Have you requested to return home due to a family problem? | <input type="radio"/> | <input type="radio"/> |
| At the time you deployed, were you or your spouse pregnant? | <input type="radio"/> | <input type="radio"/> |
| Have you or your spouse had a baby in the past 4 months? | <input type="radio"/> | <input type="radio"/> |

Were there any problems in your family **BEFORE** you deployed?

- | | |
|-----------------------------|--------------------------------|
| <input type="radio"/> None | <input type="radio"/> Moderate |
| <input type="radio"/> Minor | <input type="radio"/> Major |

What is your level of confidence in each of the following?

- The effectiveness of your unit Family Support Group.
- That your family will be taken care of if you are killed or injured.
- That Family Support Groups will help your family if needed.
- That the Rear Detachment will help your family if needed.
- That your family is safe back home.

VERY LOW	SOMEWHAT LOW	MODERATE	SOMEWHAT HIGH	VERY HIGH
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

PLEASE GO ON TO THE NEXT PAGE.

OFF/CONF

[illegible]

ENL/DEF:

**DOES
NOT
APPLY**

- [illegible]



SCALE 2

CAUSED ME STRESS:

Quite a bit
Moderately
A little bit
Does not apply

-
- EXTREME
- QUITE A BIT
- MODERATE
- A LITTLE BIT
- NONE
- 10 circles per column

each
WEEK.

EXTREME

QUITE A BIT

MODERATE

A LITTLE BIT

NONE

on you.

31. Feeling that you are watched or talked about by others.
32. Trouble falling asleep.
33. Having to check and double-check what you do.
34. Difficulty making decisions.
35. Feeling afraid to travel.
36. Trouble getting your breath.
37. Hot or cold spells.
38. Having to avoid certain things, places or activities because they frighten you.
39. Your mind going blank.
40. Numbness or tingling in parts of your body.
41. The idea that you should be punished for your sins.
42. Feeling hopeless about the future.
43. Trouble concentrating.
44. Feeling weak in parts of your body.
45. Feeling tense or keyed up.
46. Thoughts of death or dying.
47. Having urges to beat, injure or harm someone.
48. Sleep that is restless or disturbed.
49. Having urges to break or smash things.
50. Feeling very self-conscious with others.
51. Feeling uneasy in crowds.
52. Never feeling close to another person.
53. Spells of terror or panic.
54. Getting into frequent arguments.
55. Feeling nervous when you are alone.
56. Others not giving you proper credit for your achievements.
57. Feeling so restless you couldn't sit still.
58. Feelings of worthlessness.
59. Feeling that people will take advantage of you if you let them.
60. Thoughts and images of frightening nature.
61. Feelings of guilt.
62. The idea that something is wrong with your mind.
63. Spending less time with peers and friends.

Appendix D

Operation Desert Storm Short Survey

OPERATION DESERT SHIELD/STORM

Survey Approval Authority: US Army Personnel Integration Command
Survey Control Number: ANTC - AO - 91 - 12A

PLEASE USE THE PENCIL WE PROVIDED. FILL IN THE BUBBLE WHICH CORRESPONDS TO YOUR ANSWER. PLEASE BE SURE TO FILL IN THE MIDDLE OF THE BUBBLE LIKE THE EXAMPLE BELOW. YOU DO NOT NEED TO FILL IN THE WHOLE BUBBLE!

PROPER MARK



IMPROPER MARKS



LAST NAME: (Please Print)

TODAY'S DATE:

THE COMPLETE NAME OF
THE UNIT/COMPANY THAT
YOU ARE IN TODAY:

Please write the last four digits
of your social security number
and fill in the corresponding
bubble below.

--	--	--	--

1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
0	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If applicable, please enter your
battalion and regiment number in the
boxes and fill in the corresponding
bubble below.

--	--	--	--	--

1	<input type="radio"/>	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="radio"/>	3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	<input type="radio"/>	4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	<input type="radio"/>	5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	<input type="radio"/>	6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	<input type="radio"/>	7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	<input type="radio"/>	8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	<input type="radio"/>	9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
0	<input type="radio"/>	0	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What is your company?

- | | |
|--|-----------------------------|
| <input type="radio"/> A Co. | <input type="radio"/> D Co. |
| <input type="radio"/> B Co. | <input type="radio"/> E Co. |
| <input type="radio"/> C Co. | <input type="radio"/> HHHC |
| <input type="radio"/> Other (use the line provided). | |

What is your platoon?

- | | |
|--|------------------------------|
| <input type="radio"/> First | <input type="radio"/> Mortar |
| <input type="radio"/> Second | <input type="radio"/> Scout |
| <input type="radio"/> Third | |
| <input type="radio"/> Other (use the line provided). | |

How long had you been in your company at the time you were deployed?

- | | |
|-------------------------------------|---|
| <input type="radio"/> 0 - 3 months | <input type="radio"/> 13 - 18 months |
| <input type="radio"/> 4 - 6 months | <input type="radio"/> 19 - 24 months |
| <input type="radio"/> 7 - 12 months | <input type="radio"/> More than 2 years |

How long had you been in your platoon at the time you were deployed?

- | | |
|-------------------------------------|---|
| <input type="radio"/> 0 - 3 months | <input type="radio"/> 13 - 18 months |
| <input type="radio"/> 4 - 6 months | <input type="radio"/> 19 - 24 months |
| <input type="radio"/> 7 - 12 months | <input type="radio"/> More than 2 years |

How long had you been in your squad/section at the time you were deployed?

- | | |
|-------------------------------------|---|
| <input type="radio"/> 0 - 3 months | <input type="radio"/> 13 - 18 months |
| <input type="radio"/> 4 - 6 months | <input type="radio"/> 19 - 24 months |
| <input type="radio"/> 7 - 12 months | <input type="radio"/> More than 2 years |

WE WOULD LIKE SOME INFORMATION ABOUT YOU.

Age on last birthday: <div style="border: 1px solid black; width: 40px; height: 20px; margin: 5px auto;"></div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9 <input type="radio"/> 0 <input type="radio"/> </div> <div style="width: 45%;"> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9 <input type="radio"/> 0 <input type="radio"/> </div> </div>	What is your race/ethnic group? <input type="radio"/> White <input type="radio"/> Black <input type="radio"/> Other <input type="radio"/> Hispanic	What is your current marital status? <input type="radio"/> Single <input type="radio"/> Married <input type="radio"/> Other <input type="radio"/> Separated or divorced
	What is your rank? <input type="radio"/> PVT <input type="radio"/> SPC/CPL <input type="radio"/> PV2 <input type="radio"/> SGT <input type="radio"/> PFC <input type="radio"/> SSG	Are you: <input type="radio"/> Male <input type="radio"/> Female
	How many children do you have? <input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 or more	What is the highest level of education that you have completed? <input type="radio"/> Some high school <input type="radio"/> Some college <input type="radio"/> High School diploma <input type="radio"/> College graduate <input type="radio"/> GED <input type="radio"/> Graduate training

THE FOLLOWING QUESTIONS HAVE TO DO WITH YOUR EXPERIENCES IN OPERATION DESERT SHIELD

Before coming to Saudi Arabia,
I was a member of the:
(Please fill in only one bubble.)

☐ *Army Reserve* who VOLUNTEERED for the Operation in Saudi Arabia.
☐ *Army Reserve* whose unit was DEPLOYED for the Operation in Saudi Arabia.
☐ *National Guard* who VOLUNTEERED for the Operation in Saudi Arabia.
☐ *National Guard* whose unit was DEPLOYED for the Operation in Saudi Arabia.
☐ *Active Army* who VOLUNTEERED for the Operation in Saudi Arabia.
☐ *Active Army* whose unit was DEPLOYED for the Operation in Saudi Arabia.
☐ Other

How long have you been on *Active Duty*?

- ☐ up to one year
☐ 1-3 years
☐ more than 3 years

At the time you were deployed, you had worked with most (more than half) of the members of your squad/section:

- ☐ 0 - 3 months ☐ 13 - 18 months
☐ 4 - 6 months ☐ 19 - 24 months
☐ 7 - 12 months ☐ more than 2 years

Think about your unit as it is today.

HOW EFFECTIVE A LEADER IS:

Your *Platoon Sergeant*?

Your *Platoon Leader*?

Your *First Sergeant*?

Your *Company Commander*?

Your *Squad Leader/Section Leader/Tank Commander*?

LOW

AVERAGE

HIGH

Does Not Apply

1
☐
☐
☐
☐
☐

2
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3
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☐

4
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5
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☐

☐
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☐
☐
☐

**PLEASE ANSWER EACH OF THE FOLLOWING QUESTIONS ABOUT YOUR SPOUSE
OR CHILDREN ONLY IF YOU ARE MARRIED OR A SINGLE PARENT.**

	YES	NO
Are there currently any problems in your family that require you to be home?	<input type="radio"/>	<input type="radio"/>
Have you requested to return home due to a family problem?	<input type="radio"/>	<input type="radio"/>
At the time you deployed, were you or your spouse pregnant?	<input type="radio"/>	<input type="radio"/>
Have you or your spouse had a baby in the past 4 months?	<input type="radio"/>	<input type="radio"/>

Were there any problems in your family **BEFORE** you deployed?

<input type="radio"/> None	<input type="radio"/> Moderate
<input type="radio"/> Minor	<input type="radio"/> Major

What is your level of confidence in each of the following?

The effectiveness of your unit Family support Group.
 That your family will be taken care of if you are killed or injured.
 That Family Support Groups will help your family if needed.
 That the Rear Detachment will help your family if needed.
 That your family is safe back home.

	Very Low	Somewhat low	Moderate	Somewhat High	Very High
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate how much worry or stress the following events might cause you **SHOULD COMBAT OCCUR:**

Having a buddy wounded or killed in action.
 Attack by enemy aircraft.
 Reliability of your personal weapon in the desert.
 Being wounded or killed in action yourself.
 Having a leader in your company wounded or killed in action.

Having to kill or wound the enemy.
 Attack by enemy tanks.
 Receiving adequate medical care if you are wounded.
 Attack by enemy artillery.
 Chemical or biological attack by the enemy.

	None at all	A little bit	Moderate	Quite a bit	Extreme
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

1= STRONGLY DISAGREE 2= DISAGREE 3= CAN'T SAY 4= AGREE 5= STRONGLY AGREE

AS YOUR UNIT IS TODAY:

There is a lot of teamwork and cooperation among soldiers in my company.
Officers most always get willing and whole-hearted cooperation
from soldiers in this company.

NCO's most always get willing and whole-hearted cooperation from soldiers in this company.

My leaders are better than the leaders of other units.

People in this company feel very close to each other.

I spend my time when not on duty with people in this company.

My closest relationships are with the people I work with.

I am impressed by the quality of leadership in this company.

I would go for help with a personal problem to people in the company chain-of -command.

Most of the people in this company can be trusted.

My superiors make a real attempt to treat me as a person.

In this company, people really look out for each other.

The officers in this company would lead well in combat.

The NCO's in this company would lead well in combat.

Soldiers in this company have enough skills that I would trust them with my life in combat.

I spend a lot of time with members of my platoon when not on duty.

I can go to most people in my squad for help when I have a personal problem.

Most people in my squad would lend me money in an emergency.

My *Platoon Sergeant* talks to me personally outside normal duties.

My *Platoon Leader* talks to me personally outside normal duties.

My *First Sergeant* talks to me personally outside normal duties.

My officers are interested in my personal welfare.

The *Company Commander* talks to me personally outside normal duties.

My NCO's are interested in my personal welfare.

My officers are interested in what I think and how I feel about things.

My NCO's are interested in what I think and how I feel about things.

If we went to war tomorrow, I would feel good about going with my squad.

If we went to war tomorrow, I would feel good about going with my platoon.

My chain of command works well.

I have a lot of confidence in my *Company Commander's* ability to lead the unit in combat.

I can go to most people in my platoon for help when I have a personal problem.

I am well trained to go into combat.

My squad is well trained to go into combat.

[illegible]

Below is a list of problems and complaints that people sometimes have. Read each one carefully, and select the bubble that best describes how much DISCOMFORT that problem has caused you DURING THE PAST WEEK.

	NONE	A LITTLE BIT	MODERATE	QUITE A BIT	EXTREME
1. Nervousness or shakiness inside.					
2. Repeated unpleasant thoughts.					
3. Faintness or dizziness.					
4. Loss of sexual interest or pleasure.					
5. Trouble falling asleep.					
6. Feeling afraid to travel.					
7. Trouble getting your breath.					
8. Trouble remembering things.					
9. Feeling easily annoyed or irritated.					
10. Pains in heart or chest.					
11. Feeling afraid in open spaces.					
12. Feeling low in energy or slowed down.					
13. Thoughts of ending your life.					
14. Hot or cold spells.					
15. Having to avoid certain things, places or activities because they frighten you.					
16. Crying easily.					
17. Suddenly scared for no reason.					
18. Numbness or tingling in parts of your body.					
19. Feeling lonely even when you are with people.					
20. Feeling hopeless about the future.					
21. Feeling lonely.					
22. Feeling blue.					
23. Worrying too much about things.					
24. Feeling no interest in things.					
25. Feeling fearful.					
26. Trouble concentrating.					
27. Feeling others do not understand you or are unsympathetic.					
28. Feeling weak in parts of your body.					
29. Feeling tense or keyed up.					
30. Nausea or upset stomach.					
31. Thoughts of death or dying.					
32. Sleep that is restless or disturbed.					
33. Feeling uneasy in crowds.					
34. Spells of terror or panic.					
35. Feeling so restless that you couldn't sit still.					
36. Feelings of worthlessness.					
37. Thoughts and images of frightening nature.					
38. Feelings of guilt.					

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