RETURNING PERSIAN GULF TROOPS:

FIRST YEAR FINDINGS

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CHAPTER 2

FORT DEVENS REUNION SURVEY: REPORT OF PHASE I

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A. Background

The Ft. Devens Reunion Survey represents one of the earliest efforts to collect empirical data on returning military personnel following the conclusion of Operation Desert Storm (ODS). To date, nearly all research in this country examining the behavioral and psychological impact of war-zone experiences has been conducted long after troops have returned to their predeployment settings (i.e., families and homes), a period of time that may be months or years after initial mobilization. As a result, efforts to gauge the effects of deployment and/or war-zone exposure to date are likely to have been influenced by a variety of intervening life events and the impact of retrospective reporting biases.

The survey described here - the Desert Storm Reunion Survey: Phase I (initial data collection) - was begun by members of the United States Army Chaplaincy based at Ft. Devens, Massachusetts. At the request of the Chaplaincy, design consultation and collaboration were provided by the National Center for PTSD, Behavioral Science Division, DVAMC Boston[1]. Ft. Devens processed upwards of 5,000 troops from throughout New England and the U. S. during Operations Desert Shield and Desert Storm. This report presents Phase I data from the Desert Storm Reunion Survey which was administered at the outset to 2,951 military personnel (representing 84 units). These personnel were surveyed in the course of processing activities during the first five days of troops' return to Ft. Devens following deployment. Consequently, the study affords a highly unique opportunity to investigate broad-based, systematically collected data related to self-reported features of the deployment experience and subsequent adaptational processes. The survey involves two additional phases: Phase II (followup survey data collection) is currently in progress and will provide data on changes associated with readjustment during the first year of return from the Gulf as well as information on a variety of other psychological and behavioral domains (e.g., family and interpersonal functioning; self-reported health status). Phase III, planned for 1993, involves more detailed, face-to-face evaluations of a subset specially selected from the larger sample.

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[1] Avron Spiro, Ph.D., Danny Kaloupek, Ph.D., Matthew Friedman, M.D., Robert Rosenheck, M.D., Paula Schnurr, Ph.D., and Terence Keane, Ph.D. provided invaluable assistance with this project.

Initial survey administration was conducted between mid-April and early July, 1991. Dates of administration for individual units were exclusively dependent on the unit's date of return to Ft. Devens; consequently, a highly uniform standard of administration exists for nearly all participants. Out of 84 units surveyed during Phase I, only two were sampled outside of the initial five day period due to unavoidable external constraints. Hence, because of possible confounds due to differences in administration format and/or chronology, data from these two units have been kept separately; they are referred to by name whenever they appear in this report (46th Combat Support Hospital and 10th Special Forces Group). Without these two units, the sample represents 2,345 individuals.

As noted in the initial Congressional report, the Reunion Survey consists of a self-report questionnaire involving a series of detailed questions and psychological instruments. Some of the instruments are previously validated measures of psychological distress and/or PTSD symptomatology and are in widespread use in the mental health field. Measures of general psychological distress were specifically included because of the likelihood that returnees would be experiencing a range of emotional and behavioral phenomena rather than the classically defined symptoms of PTSD which are often not evident until later in the course of readjustment. Other survey measures focused on relevant background and demographic characteristics (e.g., age, race, marital status, education, and occupation), distinctive deployment-related experiences, and the latter's potential relationship to subsequent patterns of readjustment. Because of the nature of the Persian Gulf conflict, there was an intentional emphasis on the identification of nontraditional (i.e., noncombat) deployment experiences, in particular, domestic stressors.

B. Results

Demographic Characteristics of the Sample

As noted, the larger sample was divided for preliminary analytic purposes to exclude two groups of returnees, the 10th Special Forces Group (SFG) and the 46th Combat Support Hospital (CSH). Data for these groups have been treated separately for two important reasons: survey administration of the 46th CSH was not conducted during the same time interval as all other units (i.e., within five days of return and before returning troops left the base) and the ODS experiences and prior background of the 10th SFG are sufficiently different from other units (i.e., two deployments during the war and/or participation in Operation Provide Comfort following ODS) to warrant separate consideration. These two units will be the subject of further, separate reports.

Demographic characteristics of the sample and various

subsets are found in Tables 1A-2B. These findings are descriptive and do not necessarily reflect the gender and ethnic compositions of the larger Desert Storm force; for example, the Devens sample contains a higher proportion of total Reserve forces than were deployed to the Gulf. The majority of veterans in this study were Caucasian (84%) with at least a high school education. However, a considerable number of minority groups including women (9%), Blacks, Hispanics, Asians, and Native Americans are also represented. Members of these groups span a variety of units with diverse war-time experiences, and further attention to both deployment experiences and subsequent adaptation in these individuals will be important based on prior research suggesting the contribution of gender and ethnicity to post-trauma readjustment.

In terms of service status, the majority of the overall sample is comprised of National Guard members (64%), with a portion of Reserve (25%) and active duty participants (11%). Other background variables indicate that males overall were far more likely than females to be married at the time of deployment (48% vs. 24%). Over half the women were single during the time of service. In addition, women on average were younger (M = 28.3 years $\pm$ 7.3 vs. 30.4 $\pm$ 9.1), slightly better educated, and served at lower ranks during the conflict (see Tables 1A and 2A). Vocational status, measured by the Hollingshead-Redlich Index, showed that 21% of the overall sample would be classified at mid-range occupational levels (e.g., administrative/service specialties) or above, with 79% at the lower end of the scale.

Because of the interest in gender and service status as potential factors in adjustment, a series of two-way analyses of variance (ANOVAs) using gender (male/female) and status (Active, Reserve, Guard) as factors was carried out using age, level of education, and time in Gulf as dependent variables. No significant interaction effects were obtained for any of these variables. However, main effects were obtained for gender on age ($F(1,2242) = 8.6$, $p < .01$) and education ($F(1,2332) = 10.0$, $p < .01$) and for status on all three background variables (age: $F(2,2332) = 17.9$, $p < .001$; education: $F(2,2332) = 8.3$, $p < .001$; months deployed: $F(2,2312) = 93.9$, $p < .001$). Followup tests showed that women were younger and better educated. For status, Reserve and Guard personnel were slightly older and better educated. Finally, groups differed on time in Gulf with Reserve troops serving the longest followed by active duty personnel and Guard troops. Comparisons using race were conducted by dividing veterans into white, black, and all others. Using this classification, analyses revealed that race was not a consideration in the educational level of the sample; however, black respondents were younger than both whites and all other minorities (28.1 $\pm$ 7.1 vs 30.3 $\pm$ 9.0 and 31.0 $\pm$ 10.0) and served longer in the Gulf than other minorities (M = 4.2 months $\pm$ 1.4 vs. 3.9 $\pm$ 1.4) but not longer than whites (4.0 $\pm$ 1.3).

Attitudes Towards ODS Service

This section reports on a variety of questions tapping impressions and attitudes towards perceived impact of military and nonmilitary stressors, personal preparedness, unit cohesion, anticipated impact on personal growth, social and vocational functioning post-service, symptom effects, and expectations of the need for mental health assistance following deployment (see Table 3). These types of items were included because of research strongly suggesting the importance of personal attributions in the mediation and buffering of response to major life events.

Findings from this section showed that, at least at initial return, the majority (73%) of respondents reported feeling well-prepared for military activity although it is noteworthy that females reported a lower rate (61% vs. 74%). Similarly, most respondents (85%) stated considerable satisfaction with their personal performance during the war. Roughly consistent with more objective war-zone exposure findings described later, just over one-third of the total sample reported having experienced military-related life threat of a moderate degree or greater, a finding important to consider in light of potential development of stress-related symptoms. A slightly lesser number (33%) reported environmental or physical stress that was noteworthy.

Similar proportions of nonmilitary stressors were described by respondents: On these items, almost one-third of women participants indicated the presence of greater than moderate levels of nonmilitary stress during their deployment while 28% of men endorsed this phenomenon. Overall, less than 10% of the total overall sample reported currently experiencing stress symptoms related to their ODS experience at a level that was greater than moderate, with only 3% endorsing any observed need at the time for psychological intervention related to their service. Because of the very early (and subjective) nature of these observations, data from these questions should be viewed with considerable caution due to the possible impact of considerable positive publicity on returnees and the extent of ongoing "welcome home" festivities. Furthermore, at the time of this evaluation, no participants had actually returned home, limiting personal appraisal of actual reunification.

Consistent with early reports of substantial personal well-being, a large number of returnees stated that they anticipated clearcut positive impact of the ODS experience on a number of important life domains including: personal growth (72%), family relationships (69%), and work performance (48%). The seeming discrepancy between anticipated personal growth impact and anticipated effects on work performance require further study. Nearly one third of the sample anticipated that religion would serve as more than a moderate source of support during the

upcoming months (30%). Support by the Nation was almost uniformly endorsed as positive at this stage (93%). In general, the stability of these reports and their interaction with longer-range readjustment patterns merit extended examination.

Measurement of Stressor Exposure

Research on the development of longer-term adjustment problems, post-traumatic stress, and other forms of dysfunction and recovery have highlighted the significant contribution of typology and intensity of the stressor event. For example, higher levels of stressor exposure and exposure to events involving death or near-death experiences appear to substantially increase rates of pronounced psychological distress and PTSD. Consequently, accurate identification and measurement of stressor exposure is essential. Apart from questions relating to perceived stressor exposure, respondents provided more systematic information about deployment and war-zone exposure in three other ways: (a) using a fixed format, self-report checklist involving previously validated combat exposure questions (Gallops, Laufer, & Yager, 1981), (b) using a similar format checklist expanded to reflect post-Vietnam (and specifically ODS) war-zone experiences (e.g., frequency of exposure to SCUD alert; frequency of exposure to SCUD attack), and (c) using an open-ended format where troops described the single most distressing incident during their deployment period. The first two formats focused on more objective parameters of event exposure (e.g., did this event happen and how often) rather than assessment of individuals' feelings about the event, a variable likely to be influenced by a number of factors. Correlational analyses conducted using levels of traditional and expanded war-zone exposure and current symptomatology in fact showed a significant positive relationship between these variables for the overall sample as well as within subsets grouped by status and gender.

Using the first format, which employs a 5-level (0-4) combat exposure classification derived from Vietnam veteran populations (Gallops et al., 1981), 70.2% of the overall sample in the present survey scored in the lower ranges for traditional combat activity (i.e., categories 0-1; see Table 4). Examining gender, 70.5 % of men and 71.9% of women reported these more minimal levels of combat exposure, leaving 29.5% of men and 28.1% of women with presumably more moderate to heavy war-zone exposure. Ethnicity was not a variable contributing to level of combat/war-zone exposure in this analysis. A status X gender factorial ANOVA yielded a significant interaction ($F(2,2281) = 5.5$, $p < .01$) with a significant main effect only for status. Post-hoc comparisons indicated that active duty troops had significantly higher levels of exposure than Guard personnel, who in turn had greater combat exposure than Reservists. A comparable result was found using the more comprehensive (i.e., expanded) war-zone exposure checklist described earlier. Because these findings are

based on the overall sample, considerable variability is present at the level of individual units. Consequently, analyses involving individual units are being conducted to better ascertain differential effects of particular war-zone events (e.g., friendly fire) on readjustment.

Qualitative data from the 33 war-zone stressors listed in the extended war-zone checklist indicate that being on alert for possible SCUD attack was the most commonly endorsed stressor, while nearly 10% of the sample cited no major stressor as having occurred. Chi square analyses of these data yielded significant differences in distributions for both status and gender. These results are shown in Tables 5 and 6. Of note are the findings that more women than men reported a major combat-based stressor while fewer women than men cited domestic stress as the most pronounced event during deployment. In terms of status, although Reservists reported the lowest combat exposure on formal check-lists, considerably more Reservists than active duty or Guard personnel stated that combat-based stressors were most prominent for them during the conflict. Finally, for both the sample as a whole and for all subsets (excluding Special Forces), domestic stressors uniformly occupied second place in terms of prevalence, preceded only by the impact of full-fledged combat/mission-related activities.

Assessment of Stress Symptomatology and Adjustment

Research on the development of stress disorders suggests that the vast majority of individuals recover from exposure to traumatic stress and do not develop PTSD, at least the chronic form. However, research in veteran populations has repeatedly demonstrated the increased adverse effects of combat exposure, particularly when combat is prolonged or intense. Because most research on veterans has been conducted retrospectively, occur-ring decades after initial exposure, little is known about the evolutionary course of PTSD in deployed veterans or the patterns associated with subsequent readjustment. Furthermore, little is known about associated psychological problems or disorders that may develop in lieu of PTSD.

Because data were gathered at a uniform point very early in these veterans' return from war, this study affords one of the first opportunities to track veterans' reactions in a prospective fashion. Consequently, accurate assessment of any stress-related symptoms was essential. The possible presence of stress-related symptoms addressed along two dimensions in Phase I: symptoms suggestive of post-traumatic stress (PTSD) and symptoms sugges-tive of more general psychological distress. These symptoms were measured by two empirically validated scales - the Mississippi Scale for Combat-related PTSD (Keane, Caddell, & Taylor, 1988) and the Brief Symptom Inventory (BSI; Derogatis, 1983). In addition, other symptom indicators were derived using a checklist

format oriented towards the cardinal DSM-III-R symptoms of PTSD.

Mean scores on the Mississippi Scale for various sample subsets are shown in Table 7. Although an expanded version of the Mississippi Scale was administered, reported scores are based on the original 35-item Mississippi Scale in order to provide comparability with existing data bases. Generally, Mississippi scores during this survey fell considerably below previously determined clinical cutoffs (i.e., 89) that have been used in community veteran populations. However, 9.1% of women and 3.9% of men scored above the clinical cutoff and the difference between these two groups is statistically significantly (X^2 = 12.5, df = 1, $p < .001$). Percentages exceeding clinical cutoffs for active, Reserve, and Guard components are also shown in Table 5; these indicate that active duty personnel had significantly higher levels of presumptive PTSD than other troops during this time period.

Scores reflecting more generalized psychological distress are reported here based on the General Severity Index (GSI) of the BSI (see Table 8). Using that single index, nearly 32% of women and 28% of men scored above previously established cutoffs for the identification of clinically significant cases. The proportions for men and women are comparable to those obtained for active, Reserve, and Guard personnel, and generally point to elevated levels of overall emotional distress. Thus, while the prevalence of PTSD-specific symptoms appears to be low compared to more general psychological distress at this point, two factors should be borne in mind: (a) Respondents were very early in the return process and (b) more detailed analysis of PTSD symptoms and comprehensive evaluation of diagnostic status is likely to influence these findings.

Examination of a behavioral checklist of stress-related symptoms showed that when individual, rather than total, measures of PTSD symptoms were obtained, the presence of single PTSD symptoms occurred at a considerable rate. For example, on a checklist of eight items reflecting cardinal symptoms of the disorder, most subsets indicated the presence of at least one major symptom (see Table 10a-10b). Startle response was reported by 34% of the sample, with considerably more women endorsing this problem (52%). Nightmares were described by approximately 13% of respondents, with sleep following return adversely affected to some degree for almost half the group (44%). Irritability, another commonly endorsed symptom, was noted by over 36% of the sample. Thus, certain symptoms typically associated with PTSD are present in some substantial portion of the samples described here although levels of formal PTSD appear low. These findings are not surprising considering the levels of endorsement of positive effects of the deployment experience noted earlier. Future changes in either symptom reporting and/or perceptions of positive adjustment clearly warrant monitoring and reevaluation

over time.

Behavioral Adaptation: Uses of Coping

Percentages of approach-based coping, widely shown in civilian populations to be associated with better psychological adjustment, were calculated for the subsets described earlier using the Moos Coping Responses Inventory. Consistent with prior research, greater symtomatology was found to be inversely related to the amount of approach-based coping reported in conjunction with a major stressor. A gender X status factorial ANOVA failed to show an interaction. For main effects, there were no significant differences based on status of respondents. However, a significant main effect for gender indicated that men reported greater use of approach-based coping in dealing with a significant deployment stressor than women ($F(1,2163) = 4.7$ $p < .05$). Further analyses involving a wide variety of individual coping subscales are underway and additional examination of the contribution of demographic factors is needed.

Characteristics of High/Low War-Zone Exposure

In order to examine the effects of combat/war-zone exposure more closely, total sample participants were divided into high and low exposure subsets using a median split based on combat exposure total scores. Based on frequency distributions, a cutoff of six or higher was used to classify subjects as high ($M = 10.3 \pm 4.1$) or low ($M = 3.1 \pm 1.6$) exposed. T-tests conducted on these data showed a number of significant differences between these groups on various demographic and readjustment measures (see Table 11); for example, more highly exposed individuals were younger, spent more time in the Gulf, and had somewhat more education prior to deployment than troops with lower ODS war-zone exposure. As might be expected, personnel with greater war-zone exposure were significantly more symptomatic on all symptom measures described in this survey (see Table 11).

Characteristics of Previously Exposed Veterans

An additional analysis of the total sample indicated that 8.6% of Reunion Survey respondents (all male; $n = 202$) were theater veterans of prior wars. Preliminary examination showed no significant differences between these veterans and the remaining overall sample on any measures excluding age, that is, deployment length, level of ODS war-zone exposure, and total psychological symptom scores. As noted, age was the only variable on which previously exposed veterans differed: The latter were significantly older during ODS deployment ($M = 41.7 \pm 7.3$) compared to other troops ($M = 29.1 \pm 8.3$). Further analyses examining race and the nature of prior war-zone exposure are clearly required to more fully examine the exact impact of previous war-zone service on current readjustment.

Male/Female Comparisons: Preliminary Implications of Gender

To more directly examine effects of gender on post-return functioning, a matched sample of male and female veterans was derived using a number of variables as the criteria for inclusion. Using the variables of combat exposure, age, education, marital status, rank at deployment, race, and military status, 208 men were matched to the sample of women. These variables were chosen because of their presumed influence on adjustment to severe life stress. A series of comparisons between the groups revealed that women scored significantly higher on all symptom measures used during Phase 1, that is, the Mississippi Scale, the Brief Symptom Inventory, and the modified PTSD Checklist (see Table 12). These findings require additional analysis and eventually the use of more comprehensive evaluation procedures. In any case, one important caveat is the finding that women in general are more likely to report symptoms of distress than are men.

C. Conclusion and Future Directions

While the overall rate of traditional combat exposure is relatively low in this sample, respondents during Phase I indicated a wide range of both traditional and nontraditional stressors during deployment including the anticipation of lethal biochemical attack as well as a series of other highly stressful war-zone events. In addition, there was considerable emphasis by respondents on the effects of domestic stresses. Consistent with exposure measures, psychological and stress-related symptoms based on the Phase I results are generally at a low level, with presumptive PTSD found in only approximately 4% of the total sample. This number is subject to the methodologic and assessment constraints noted earlier. An appreciable segment of the sample reported anticipating many positive effects of their wartime service. Nonetheless, other measures appear to reflect substantially higher levels of more generalized psychological distress including the presence of specific or discrete, "stress-or-consonant" phenomena (e.g., startle, hypervigilance, irritability) with a prevalence of 30-40% in the sample.

Completion of Phase II will provide critical data on the course and possible persistence of these patterns. Similarly, the followup data will elucidate conditions under which delayed symptom onset may occur. Since these assessments are being conducted after troops have returned to their predeployment settings, the opportunity exists to assess effects on family and vocational adjustment as well as the possible influence of social support and treatment networks on readjusment. Furthermore, Phase II will offer novel data on the longitudinal course of readjusment in important subsets of the veteran population. Phase III, involving a selected subset of returnees, is detailed in a separate report.

Table 1a
Demographic Characteristics (percentage) by Gender

Demographic Characteristic	Total (n=2345)	Males (n=2137)	Females (n=208)
Race			
White	84.2	85.2	74.5
Black	7.5	6.9	13.9
Hispanic	3.6	3.6	3.4
Other	4.7	4.3	8.2
Marital Status			
Married	45.8	47.9	23.6
Single	38.5	36.8	55.8
Divorced	5.5	5.1	9.1
Other	10.2	10.2	11.5
Military Status			
Active Duty	11.3	11.0	13.9
Reserve	25.0	24.3	32.2
National Guard	63.7	64.7	53.8
Rank			
Enlisted	41.9	41.0	40.6
NCO	51.5	52.5	40.6
Officer	6.6	6.5	7.7
Occupation			
Professional	6.4	6.1	8.4
Admin./Svc.	14.6	13.2	28.9
Manual	79.0	80.7	62.7
Prior War-Zone Exposure	9.2	10.0	2.0

Table 1b
Demographic Characteristics (percentages) by Military Status

	Active (n=265)	Reserve (n=586)	Guard (n=1494)	Special Forces (n=449)
Females	10.9	11.4	7.5	0.0
Race				
White	57.4	83.3	89.4	82.6
Black	28.3	8.5	3.5	9.6
Hispanic	6.8	3.8	3.0	3.3
Other	7.5	4.4	4.1	4.5
Marital Status				
Married	46.8	44.9	45.9	69.8
Single	35.4	40.9	38.1	18.3
Divorced	4.9	4.6	5.9	5.6
Other	12.9	9.6	10.1	6.3
Rank				
Enlisted	64.2	43.0	37.6	13.1
NCO	32.4	48.0	56.2	73.2
Officer	3.4	9.0	6.2	13.7
Occupation				
Professional	2.4	9.6	5.7	1.6
Admin./Svc.	3.6	20.0	14.5	1.1
Manual	95.0	70.4	79.8	97.3
Prior War-Zone Exposure	4.6	9.4	10.0	11.5

Table 2a

Sample Demographic Characteristics (mean, standard deviation, and range)

Demographic Measure	Total (n=2345) M	SD	Range	Males (n=2137) M	SD	Range	Females (n=208) M	SD	Range
Age	30.2	9.0	19-65	30.4	9.1	19-65	28.3	7.3	19-55
Education	13.1	1.8	7-24	13.1	1.8	7-24	13.6	1.8	12-20
Months In Gulf	4.0	1.3	1-8	4.0	1.3	1-8	4.1	1.4	1-8

Table 2b
Demographic Characteristics

	Active (n=265)			Reserve (n=586)			Guard (n=1494)			Special Forces (n=449)		
	M	SD	Range	M	SD	Range	M	SD	Range	M	SD	Range
Age	27.0	7.7	19-54	30.2	8.8	19-65	30.7	9.2	19-61	30.3	5.9	19-48
Education	12.8	1.4	10-21	13.4	2.1	8-24	13.2	1.8	7-21	13.2	1.6	8-22
Months in Gulf	4.2	1.6	1-8	4.6	1.4	1-8	3.8	1.8	1-8	2.6	1.5	1-10

Table 3
Attitudes and Recollections of Persian Gulf Service (percentages)

Attitude	All Veterans (N=2345)	Males (N=2137)	Females (N=208)
	Quite a bit or extremely		
Preparedness for ODS duties	72.7	73.9	61.1
Sense of unit cohesion	43.6	44.5	34.7
Perceived life threat from combat	34.3	33.6	41.5
Performance satisfaction	84.7	85.3	77.9
Stress from non-military events	28.1	27.7	32.2
Stress from military events	9.2	9.0	10.6
Anticipated degree of help needed to overcome stress symptoms	2.7	2.6	2.9
Anticipated degree of need for religious support	30.0	29.6	33.8
Stress from environmental conditions	33.4	32.5	41.8
Degree mail affected feelings/thoughts	73.4	73.3	74.0
Degree of perceived national support	92.9	93.2	89.9
	Better or much better		
Degree of perceived change since ODS	72.3	72.1	75.2
Anticipated degree of change in rels. with family members	69.1	69.3	67.5
Anticipated degree of change in work	48.3	48.7	43.8

Table 4
Laufer Exposure Categories (percentages)

Laufer Category	Total (n=2345)	Males (n=2137)	Females (n=208)
Category 0 (Score=0)	11.5	11.2	14.6
Category 1 (Score=1-3)	58.9	59.3	57.3
Category 2 (Score=4-6)	24.3	24.6	22.1
Category 3 (Score=7-9)	4.6	4.6	5.0
Category 4 (Score=10-14)	0.7	0.3	1.0

Table 5
Stressor Categories by Total Sample and by Gender (percentages)

Stressor	Total (n=2345)	Males (n=2137)	Females (n=208)
Combat War-Zone Stressor	29.0	28.3	35.6
Non-Combat War-Zone Stressor	5.3	5.6	2.4
Domestic	24.5	24.9	20.2
Anticipation of War	9.6	9.4	12.5
Attributes of War-Zone	5.9	6.0	4.3
Intra-Unit Hassles	16.5	16.5	17.3
No Stress	9.2	9.3	7.7

Note. X^2 is for gender
$X^2 = 45.3$, df = 12, $p < .001$

Table 6
Stressor Categories by Status (percentages)

Stressor	Active (n=265)	Reserve (n=586)	Guard (n=1494)	Spcl. Frc. (n=449)
Combat War-Zone Stressor	27.2	36.5	26.3	18.9
Non-Combat War-Zone Stressor	4.9	2.2	6.6	2.4
Domestic	23.0	20.8	26.2	18.3
Anticipation of War	10.9	11.3	8.8	5.8
Attributes of War-Zone	4.5	4.8	6.6	19.2
Intra-Unit Hassles	20.4	15.7	16.2	21.4
No Stress	9.1	8.7	9.4	14.0

$X^2 = 176.4$, df = 18, $p < .001$

Table 7
Scores on Mississippi Scale

Category	n	M	SD	% Above Cutoff	X^2	df
Gender					12.5***	1
Male	2136	61.8	13.1	3.9		
Female	208	67.7	15.8	9.1		
Status					30.2***	3
Active	385	65.2	15.8	7.7		
Reserve	586	62.6	13.7	4.3		
Guard	1494	61.7	12.8	3.7		
Special Forces	447	55.7	10.4	0.45		

*$p < .05$ ** $p < .01$ *** $p < .001$
Note. Cutoff > 89

Table 8
Scores on BSI/GSI

Category	n	M	SD	% Above Cutoff	X^2	df
Gender					1.1	1
Male	2131	0.45	0.45	28.2		
Female	208	0.66	0.62	31.7		
Status					93.8***	3
Active	382	0.50	0.50	30.4		
Reserve	586	0.48	0.49	29.2		
Guard	1490	0.46	0.46	27.9		
Special Forces	449	0.17	0.30	7.1		

*$p < .05$ ** $p < .01$ *** $p < .001$
Note. Cutoff > 0.58 for males and > 0.78 for females

Table 9
Scores on PTSD Checklist

Category	n	M	SD	% Above Cutoff	X^2	df
Gender					19.0***	1
Male	2135	1.3	1.5	18.3		
Female	208	1.9	1.7	30.8		
Status					67.8***	3
Active	387	1.6	1.5	22.7		
Reserve	587	1.4	1.5	19.8		
Guard	1492	1.3	1.5	18.3		
Special Forces	449	0.41	0.79	4.0		

*$p < .05$ ** $p < .01$ *** $p < .001$
Note. Cutoff > 1 SD above M

Table 10a
PTSD Symptoms (percentages)

Symptoms	Total (n=2345)	Males (n=2137)	Females (n=208)
PTSD Symptoms			
Nightmares	12.9	12.2	20.7
Startle	34.0	32.2	51.9
Irritablity	35.6	34.5	47.1
Sleep:			
No change	42.1	42.4	38.7
Improved	14.4	14.4	14.2
Worse	43.5	43.2	47.1

Table 10b
PTSD Symptoms (percentages)

PTSD Symptoms	Active (n=265)	Reserve (n=586)	Guard (n=1494)	Special Forces (n=449)
Nightmares	15.8	11.9	12.8	3.6
Startle	30.2	41.6	31.6	10.7
Irritablity	44.2	34.3	34.7	14.5
Sleep:				
No Change	47.3	40.5	41.7	76.6
Improved	11.4	14.2	15.0	5.3
Worse	41.3	45.3	43.3	18.1

Table 11
Comparisons Between High and Low Combat Exposure Groups

	High		Low		
	M	SD	M	SD	t
Mississippi	64.5	14.4	59.5	11.6	-9.1***
BSI/GSI	0.56	0.51	0.36	0.40	-10.6***
PTSD Checklist	1.7	1.6	0.94	1.2	-12.8***
Age	29.4	8.4	31.1	9.6	4.6***
Education	13.3	1.9	12.9	1.8	-5.3***
Total Months in Gulf	4.1	1.2	3.9	1.4	-3.6***

***$p < .001$

Table 12
Comparison of Matched Sample of Males and Females

	Males (n=208)		Females (n=208)		
	M	SD	M	SD	t
Mississippi	63.6	14.0	67.7	15.8	-2.81**
BSI/GSI	0.50	0.49	0.66	0.62	-3.00**
PTSD Checklist	1.33	1.48	1.90	1.65	-3.68***

**$p < .01$ ***$p < .001$