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Original Study Summary. Research on Gulf War (GW) illnesses leaves many questions unanswered about diagnostic syndromes of GW illnesses, dimensions of stressor exposures encountered by GW veterans, relations among stressor exposures and GW syndromes or symptoms, and factors that may mediate these relationships. The proposed study has five key aims intended to address these gaps and enhance understanding of illnesses reported by GW veterans:

- (1) to identify and examine dimensions of illnesses and health problems commonly reported by GW veterans;
- (2) to assess exposures to environmental toxins and psychosocial stressors comprehensively and to identify the dimensions of these exposures;
- (3) to examine the extent to which particular types of dimensions of exposure experienced during deployment and participation in Operation Desert Shield/Desert Storm (ODS/S) are associated with the commonly reported and undefined post-war health problems of GW veterans;
- (4) to clarify how premilitary and predeployment adversities, risk factors, and protective factors affect GW illness outcomes;
- (5) to examine the mediating role of post-ODS/S factors (e.g., instrumental and emotional social support, general psychological functioning, specific comorbid psychiatric disorders, such as posttraumatic stress disorder and depression) on GW illness outcomes.

These aims will be achieved by obtaining in-depth data from a national probability sample of GW veterans, including both men and women in active and reserve components.

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Tenth Anniversary Gulf War Veterans Health Study

Progress Report: 1 October 2000 - 30 September 2001

INTRODUCTION: Brief Narrative of Subject, Purpose, and Scope of the Research

Study Aims. Research on Gulf War (GW) illnesses leaves many questions unanswered about diagnostic syndromes of GW illnesses, dimensions of stressor exposures encountered by GW veterans, relations among stressor exposures and GW syndromes or symptoms, and factors that may mediate these relationships. The proposed study has five key aims intended to address these gaps and enhance understanding of illnesses reported by GW veterans:

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These aims will be achieved by obtaining in-depth data from a national probability sample of GW veterans, including both men and women in active and reserve components.

Original Scope of Work. These aims were to be achieved using a two-phase study design. Phase 1 of this study was a mail survey of a national probability sample of GW veterans, including both men and women in active and reserve components. The goal of this survey was to provide comprehensive probability-based data on issues about the dimensions of Gulf War illnesses, dimensions of exposure to environmental toxins and psychosocial stressors encountered by GW veterans, and relationships between these exposures and GW illness syndromes. These issues as well as factors that may mediate relationships between stressor exposures and GW illnesses were to be further examined in Phase 2 of the study, a computer-assisted telephone interview (CATI) conducted with a subsample of mail survey respondents with and without symptoms of GW illnesses.

Revised Scope of Work. A revised scope of work to achieve the five key study aims of the Tenth Anniversary Gulf War Veterans Health Study was fully executed in DAMD17-98-8662, Mod P0002 on 6/26/2001. The revised protocol involves changes to the study's incentive structure and procedures intended to improve response rates to the study. To increase response we included a \$5 incentive (i.e., a check for \$5) with the initial survey mailing for all sample members who are currently not on active duty. Additionally, we will enclose a check for \$20 with the third survey mailing as a nonresponse incentive for Non-active Duty sample members who have yet to return a survey by the time of this mailing. We also plan to send the third survey

mailing via Priority Mail since research indicates that invoking special delivery procedures can increase response rates to mail surveys. Finally, RTI's telephone survey unit will telephone approximately one-half this nonresponse sample to remind sample members to return the survey.

In the amended protocol (Mod P0002) the key aspects of the telephone interview (formerly referred to as Phase 2) are now incorporated into the mail survey rather than conducting a separate telephone interview. To address this goal we received approval for a survey that includes the following elements:

- A broad assessment of both pre-Gulf War and post-Gulf War stressor exposures;
- An assessment of putative stressors encountered during the Gulf War that includes evaluations of both low magnitude and high magnitude stressors;
- Further assessment of Gulf War stressors that addresses the objectivity-subjectivity dimension of the stressor construct by evaluating both the perceived stressfulness of Gulf War service as well as actual stressors encountered;
- Items assessing additional putative risk factors for Gulf War illnesses (e.g., how long the veteran had been assigned to unit with which he or she was deployed);
- A broader and more systematic assessment of current health problems and disease;
- An assessment of symptoms of Posttraumatic Stress Disorder (PTSD) designed to discriminate between PTSD occurring in response to Gulf War experiences and PTSD occurring in response to other stressful experiences from the veteran's past;
- A more systematic assessment of use of alcohol and tobacco; and
- A scale intended to evaluate cognitive factors influencing the perception of illness and illness behavior.

PROGRESS REPORT (BODY OF REPORT)

This section describes the research activities and accomplishments toward achieving the approved statement of work.

Clearances from USAMRMC

- 3/9/01- 5/31/01 - Submitted amendment to research protocol to USAMRMC Project Officer (Major John Stuart) for review and comments. Comments received 3/12/01 and incorporated into revised USAMMC Protocol for Research Involving Human Subjects (Human Subjects Protocol) that was then sent to USAMRMC HSRRB Human Subjects Protection Specialist (Chelsea Smartt) on 3/16/01. Dr. Fairbank participated in HSRRB teleconference review of Human Subjects Protocol amendment on 4/11/01 and submitted a revised protocol, revised study materials and related documentation on 4/19/01 to address comments and concerns raised in the minutes from the 4/11/01 meeting of the HSRRB. These revisions to the amendment were reviewed by the HSRRB on 5/21/2001 and Dr. Fairbank submitted a revised protocol that addressed HSSRB comments to Dr. Smartt on 5/31/01.
- 6/5/01– Received notification from Chelsea Smartt, Human Subjects Protection specialist, that the Tenth Anniversary Gulf War Veterans Health Survey was approved for implementation pending receipt of the letters from the Institutional Review Boards (IRBs) at Duke University Medical Center and the Research Triangle Institute approving the revised protocol and consent forms. Dr Smartt, in her correspondence, noted that final approval for implementation of the protocol amendment would have to come from the USAMRC Contracting Office.
- 6/7/01– Letters of approval from the IRBs at Duke University Medical Center and Research Triangle Institute were sent to Dr. Chelsea Smartt, Human Subjects Protection specialist
- 6/26/01– DUMC grants officer (Amy Barbee) received notification of approval for Amendment to Protocol – DAMD17-98-8662, Mod P0002 from Blossom Widder, USAMRMC contracts officer.

Sample File from DMDC

- 3/12/01– Submitted request for sample file to Defense Manpower Data Center (DMDC)
- 4/6/01– Received sample file from DMDC. Delivery of file delayed slightly because of other commitments of programmer at DMDC and some difficulties he experienced in compiling the file
- 5/31/01-6/6/01– *Problems identified with original sample file from DMDC.* On 5/25/01 we prepared for RTI's tracing unit a file of cases for which we did not have addresses from DMDC or NIOSH. (Because we did not yet have final Human Subjects approval for the study from the USAMRMC, the tracing unit was instructed to restrict their searching to use

of databases, that it, not to contact any sample members in their tracing efforts.) By 5/31, the tracing unit had identified over 100 cases in which the names the tracers had found associated with sample members' social security numbers (SSNs) did not match the names from DMDC. The RTI project director for the study immediately contacted the DMDC programmer who had prepared the file. On June 1, the programmer, indicated that he had made an error in creating the initial sample file with the result that the names and addresses provided for approximately 12% of the sample were incorrect. DMDC provided corrected files and information in correspondence occurring between 6/1 and 6/6.

- 6/7/01-6/19/01– Reviewed and created programs to edit corrected DMDC file in preparation for resubmitting to NIOSH cases that had not yielded address data in the previous NIOSH submission because the cases had been submitted with incorrect names. (This task required considerable effort because of discrepancies in the corrected sample file in names obtained from the DEERS and DSS databases.)

Obtaining Address Data for Sample for First Mailing

- 4/25/01– Received address file from initial submission to NIOSH
- 6/26/01– Submitted to RTI's tracing unit those cases with correct names in original sample file from DMDC, but no address data from initial submission to NIOSH
- 8/7/01– Received address file from second submission to NIOSH (i.e., submission of cases with incorrect names in initial submission)
- 8/13/01–Submitted to RTI's tracing unit cases with no address data from second NIOSH submission
- 8/17/01-8/20/01– Compiled address file for informational brochure and first survey mailing from address data provided by NIOSH, RTI's tracing unit, and the DEERS database.

Data Collection and Related Activities

- 10/01/00-present–Worked with project manager at National Computer Systems (NCS) to finalize study materials, develop study procedures, and implement data collection activities
- 8/1/01-8/31/01 – Developed procedures for responding to calls from Gulf Way veteran sample members and trained RTI Staff who would be taking these calls.
- 8/20/01-8/23/01– Provided NCS with address file and collateral materials (e.g., incentive checks) for mailing of study informational brochure and for first survey mailing
- 8/24/01– Informational brochure for study mailed by NCS
- 8/31/01– First survey mailed by NCS (included souvenir pencil and incentive checks for sample members not currently on Active Duty)

- 9/21/01– 10/23/01– Receipt from NCS of files identifying sample members with incorrect addresses in the initial address file (based on surveys returned to NCS as undeliverable). Tracing of sample members with undeliverable surveys by RTI's tracing unit.
- 10/24/01– Provided NCS with updated address file for sample members with previously incorrect address information that RTI's tracing unit was able to locate with approved level of effort
- 10/25-11/04– Preparation for second survey mailing scheduled to take place on 11/05/01. Note that we had originally had planned for NCS to do the second mailing of the Tenth Anniversary Gulf War Veterans Health Survey on 10/12/01. However, this mailing was delayed for two reasons. First, the delays in the U.S. mail associated with the September 11th terrorist attacks resulted in delays in the return, in turn, the tracing of surveys with incorrect addresses in the first survey mailing. Second, despite using addresses supplied by NIOSH, we had a much larger number of cases with incorrect address information (nearly 900) than we originally anticipated. Thus, it took longer for RTI's tracing unit to trace this larger volume of cases than the small volume initially anticipated. We also had drafted and had NCS print an additional informational sheet to include in the second survey mailing. The purpose of this informational sheet is to explain (a) why this is the first mailing that some sample members are receiving and (b) that and why the survey does not make reference to the September 11th terrorist attacks.

Procedures for Data Editing and Data Analyses.

- Reviewed Survey with respect to layout, question wording, editing errors and response coding.
- Reviewed database specifications and layout for scanned data.
- Tested data flow processes from scanning to database transmission.
- Wrote SAS programs to read in ASCII datasets, convert it into SAS datasets, and calculate date variables and count variables from individual digit information.
- Wrote SAS programs to provide labels and variable formats for all survey variables.
- Wrote SAS programs to make frequency tables for all survey and derived variables.
- Created variable codebook that provides detailed specifications of all survey instructions, survey questions, survey variables, derived variables and control system variables.

Summary of Cases Prior to the Second Survey Mailing

- The following table provides information on response rates to the first of three survey mailings, prior to the mailing of the second survey on 10/26/01. The unadjusted response

rate to the first mailing (36.4%) suggests that the incentives may be having the intended positive effect. The available research data indicate that response rates to mail surveys of comparable length and size that have not used an incentive or have used minimal incentive procedures typically achieve final response rates of less than 40%. For example, the Department of Defense sponsored 1998 Total Forces Study, a 20-page mail survey of more than 45,000 Active Duty Military personnel, obtained a response rate of 38%. Similarly, the 1995 Perceptions of Wellness and Readiness (POWR) study, a 19 page mail survey of more than 40,000 Navy and Marine Corps personnel obtained a response rate of only 36%. We are encouraged that the incentive plans in place for the third survey mailing will substantially increase our final response rate beyond that achieved by other DoD-sponsored mail surveys of comparable length.

**GULF WAR VETERANS HEALTH STUDY:
SUMMARY OF CASES PRIOR TO SECOND SURVEY MAILING (10/26/01)**

SUMMARY OF ALL CASES

Description	N	% total
Total sample	10,301	100.0
Surveys received	3,478	36.4
Deceased	26	0.25
Not Gulf War Veteran	15	0.15
Refused	11	0.11
Unable to participate-incapacitated	1	0.01
Traced with new address	398	3.9
Traced and not located	394	3.8
Returned to NCS with new address	78	0.76
New cases for TOPS (10/26)	3	

Schedule Projections

As documented in the Year 2 Annual Report for DAMD17-98-1-8662, we encountered a series of delays in the first two years of the project. These delays primarily resulted (a) from stoppage by the National Institutes of Health Office of Protection from Research Risk of all IRB (Institutional Review Board) approved research at Duke University Medical Center involving human subjects and (b) from delays associated with efforts to obtain various Department of Defense (DoD) clearances for the study. However, considerable progress was achieved in Year 3. Below is the revised time line for completion of the project.

Projected Study Timeline

<u>Activity</u>	<u>Months</u>
Obtain study sample file from the Defense Manpower Data Center (DMDC; request for sample submitted on 12 March 20001).	30 completed
Apply for and obtain clearance for revisions to study incentive procedures and protocol from the USAMRMC Human Subjects Committee and Contract Specialist.	30-31 completed
Apply for and obtain clearances for revisions to study incentive procedures and protocol from the DUMC and RTI IRBs.	30-31 completed
Submit request for current addresses of study sample to National Institute of Occupational Safety and Health (NIOSH); obtain address file from NIOSH.	30-31 completed
Edit address file and send to National Computer Systems to format for mailing of survey and related materials.	32 completed
Conduct and complete survey data collection activities.	33-38 in progress
Plan and develop procedures for data editing and data analyses.	33-38 in progress
Edit survey data and develop analysis weights.	39-40
Construct analytic variables and conduct preliminary analyses.	40-43
Conduct main analyses of survey data.	44-48
Present study findings at scientific meetings and prepare article-length manuscripts.	48

KEY RESEARCH ACCOMPLISHMENTS

This section of the report focuses on “key research accomplishments emanating from the research.” This project is in the field at the end of Year 3 and does not yet have accomplishments emanating from the research to report.

REPORTABLE OUTCOMES

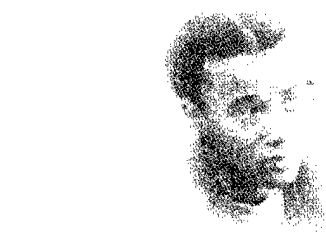
This section of the report summarizes the results of the completed research. There are not reportable outcomes given that this project is still in the implementation phase.

APPENDICES

The report includes three appendices — Appendix A: Tenth Anniversary Gulf War Veterans Health Survey and reminder postcard; Appendix B: Consent Forms, including Active Duty Version, first survey mailing; Civilian/ Non-Active Duty Version, first survey mailing; and Version for second survey mailing; and Appendix C: Informational Brochures for active duty and non-active duty respondents.

APPENDIX A

- Tenth Anniversary Gulf War Veterans Health Survey
- Reminder postcard



Tenth Anniversary Gulf War Veterans Health Survey

Conducted by:

*Duke University Medical Center
The Research Triangle Institute*



The purpose of this questionnaire is to find out more about the health of people who were deployed to the Persian Gulf Theater at any time from August 1990 through July 1991.

If you were not deployed to the Persian Gulf Theater at all during that time period, please use a pencil to darken the circle below and return the questionnaire now in the postage-paid return envelope provided. We do not need you to answer any of the questions, but it is very important that you return the questionnaire to us so that we will know that you were not deployed during that time.

I was not deployed to the Persian Gulf Theater at any time from August 1990 through July 1991.

If you were deployed to the Persian Gulf Theater at any time from August 1990 through July 1991, please complete the questionnaire.



1. **From August 1990 through July 1991, in which area(s) of the Persian Gulf Theater did you serve?** (Please choose "Yes" or "No" for each area.)

- A. Iraq Yes No
- B. Saudi Arabia Yes No
- C. Kuwait Yes No
- D. Turkey Yes No
- E. Oman Yes No
- F. Bahrain Yes No
- G. Qatar Yes No
- H. The United Arab Emirates Yes No
- I. The Red Sea Yes No
- J. The Gulf of Oman Yes No
- K. The Gulf of Aden Yes No
- L. The Arabian Sea Yes No
- M. Other Yes No

2. **During the 12 months from August 1990 through July 1991, about how much time did you spend in the Persian Gulf Theater?** (Please choose the best answer.)

- Less than 3 months
- 3 months but less than 6 months
- 6 months but less than 9 months
- More than 9 months

3. **From August 1990 through July 1991, in which area of the Persian Gulf Theater did you spend most of your time?** (Please choose the best answer.)

- Iraq
- Saudi Arabia
- Kuwait
- Turkey
- Oman
- Bahrain
- Qatar
- The United Arab Emirates
- The Red Sea
- The Gulf of Oman
- The Gulf of Aden
- The Arabian Sea
- Other

4. **From August 1990 through July 1991, about how long did you spend in the area you chose in Question #3?** (Please choose the best answer.)

- Less than 3 months
- 3 months but less than 6 months
- 6 months but less than 9 months
- More than 9 months

5. **During the entire time you have served on Active Duty, in the Reserves, or in the National Guard, about how much total time have you spent in the Persian Gulf Theater?** (Please choose the best answer.)

- Less than 3 months
- 3 months but less than 6 months
- 6 months but less than 9 months
- 9 months but less than 1 year
- 1 year but less than 2 years
- More than 2 years

6. **From August 1990 through July 1991, in which component of the Military did you serve?** (Please choose the best answer.)

- Active Army (USA)
- Army National Guard (ARNG)
- Army Reserve (USAR)
- Active Navy (USN)
- Naval Reserve (USNR)
- Active Air Force (USAF)
- Air National Guard (ANG)
- Air Force Reserve (USAFR)
- Active Marine Corps (USMC)
- Marine Corps Reserve (USMCR)

If you are asked to give numbers for your answer, please complete the grid as shown below:

EXAMPLE: Think about any illnesses you may have had in the past 12 months. How many days were you unable to perform your job because of an illness in the past 2 months?

- First, enter the number of days in the boxes. Use all three boxes. Write ONE number in each box.
- Always write the last number in the right-hand box. Fill in any unused boxes with zeros. For example, an answer of "5 days" would be written as "005."
- Then, blacken the matching circle below each box.

Days		
0	0	5
●	●	○
1	1	1
2	2	2
3	3	3
4	4	4
5	5	●
6	6	6
7	7	7
8	8	8
9	9	9

7. **What date did you first begin serving in the Persian Gulf Theater, even if it was before August 1990?**

Month		Year	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

8. What date did you stop serving in the Persian Gulf Theater, even if it was after July 1991, (that is, what was the end date of your last deployment to the Persian Gulf)?

Month		Year	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Think of the first time you were deployed to the Persian Gulf Theater during the time from August 1990 through July 1991. The next several questions refer to the time of that deployment, which will be called "the time of your first deployment." Please remember that if you were deployed to the Persian Gulf Theater prior to August 1990 or after July 1991, we do not want you to answer regarding that time period.

9. At the time of your first deployment (that is, during the period from August 1990 through July 1991), what was your pay grade? (Please choose the best answer.)

Enlisted

- E-1
- E-2
- E-3
- E-4
- E-5
- E-6
- E-7
- E-8
- E-9

Officer

- Trainee
- W1-W5
- O-1 or O-1E
- O-2 or O-2E
- O-3 or O-3E
- O-4
- O-5
- O-6
- O-7 to O-10

10. At the time of your first deployment (that is, during the period from August 1990 through July 1991), which of the following categories best describes the military responsibilities you had? (Please choose the best answer.)

Please refer to the double-sided handout labeled "Job Category Examples Handout" that came with this survey for examples of different job categories.

ENLISTED

- Infantry, Gun Crew, or Seamanship Specialist
- Electronic Equipment Repair Specialist

- Communications or Intelligence Specialist
- Health Care Specialist/Technician
- Other Technical or Allied Specialist
- Functional Support and Administration
- Electrical or Mechanical Equipment Repair Specialist
- Craftsman
- Service and Supply Handler
- Other (e.g., officer candidates, students, special duties)

OFFICER

- General Officer, Executive Officer, or Commanding Officer
- Tactical Operations Officer
- Intelligence Officer
- Engineering or Maintenance Officer
- Scientist, Professional, or Staff Support (not involved in health care)
- Health Care Provider
- Administrator or Operational Support
- Supply, Procurement, or Allied Officer
- Other (e.g., students, trainees, billet designators)

11. At the time of your first deployment, for how long had you been assigned to the unit with which you were deployed to the Persian Gulf Theater?

- Less than 3 months
- 3 months but less than 6 months
- 6 months but less than 1 year
- 1 year or longer

12. At the time of your first deployment, what was the highest level of education you had completed? (Please choose the best answer.)

- Had not yet graduated from high school
- GED or ABE certificate
- High school graduate
- Trade or technical school graduate
- Some college but not a 4-year degree
- 4-year college degree (BA, BS, or equivalent)
- Some graduate or professional study but no graduate degree
- Graduate or professional degree

13. At the time of your first deployment, what was your marital situation? (Please choose the best answer.)

- Not married, but living as married
- Married
- Separated and not living as married
- Divorced and not living as married
- Widowed and not living as married
- Single, never married, and not living as married

(continued in next column)

14. At the time of your first deployment (that is during the period from August 1990 through July 1991), how many children (biological or adopted) under age 17 did you have?

- Didn't have children under age 17 at time of first deployment
- 1 child
- 2 children
- 3 children
- 4 children
- 5 or more children

The next group of questions asks about a number of health problems a person might have. We would like to know whether or not you have experienced each of these problems during the past 6 months.

15. In the past 6 months, have you experienced any of these health problems? (Please choose "Yes" or "No" for each health problem.)

- | | | |
|--|-----------------------|-----------------------|
| | No | Yes |
| A. Severe arthritis, rheumatism, or other bone or joint diseases | <input type="radio"/> | <input type="radio"/> |
| B. Asthma | <input type="radio"/> | <input type="radio"/> |
| C. Bronchitis | <input type="radio"/> | <input type="radio"/> |
| D. Emphysema or other lung diseases | <input type="radio"/> | <input type="radio"/> |
| E. AIDS | <input type="radio"/> | <input type="radio"/> |
| F. Blindness or severe visual or hearing impairment | <input type="radio"/> | <input type="radio"/> |
| G. High blood pressure or hypertension | <input type="radio"/> | <input type="radio"/> |
| H. Diabetes or high blood sugar | <input type="radio"/> | <input type="radio"/> |
| I. Heart attack or other serious heart trouble | <input type="radio"/> | <input type="radio"/> |
| J. Severe hernia or rupture | <input type="radio"/> | <input type="radio"/> |
| K. Severe kidney or liver disease | <input type="radio"/> | <input type="radio"/> |
| L. Lupus, thyroid disease, or other autoimmune disorders | <input type="radio"/> | <input type="radio"/> |
| M. Multiple sclerosis, epilepsy, or other neurological disorders | <input type="radio"/> | <input type="radio"/> |
| N. Chronic stomach or gallbladder trouble | <input type="radio"/> | <input type="radio"/> |
| O. Stroke | <input type="radio"/> | <input type="radio"/> |
| P. Ulcer | <input type="radio"/> | <input type="radio"/> |
| Q. Leukemia | <input type="radio"/> | <input type="radio"/> |
| R. Other cancer or a malignant tumor of any kind | <input type="radio"/> | <input type="radio"/> |
| S. Aplastic anemia | <input type="radio"/> | <input type="radio"/> |
| T. Allergies or hayfever | <input type="radio"/> | <input type="radio"/> |
| U. Disease of the genital organs | <input type="radio"/> | <input type="radio"/> |
| V. Migraine headaches | <input type="radio"/> | <input type="radio"/> |
| W. Fibromyalgia, fibrositis or myofascial pain syndrome | <input type="radio"/> | <input type="radio"/> |
| X. Ear infections | <input type="radio"/> | <input type="radio"/> |
| Y. Eczema, psoriasis or dermatitis | <input type="radio"/> | <input type="radio"/> |
| Z. Other major health problems | <input type="radio"/> | <input type="radio"/> |

Next we would like to know whether or not you have had persistent or recurring difficulties with other health problems or concerns throughout the past 6 months or longer. If you have had a problem either every-day or off-and-on throughout the past 6 months or longer, choose 'Yes' as your response in the Column 1. Then in Column 2, indicate whether or not you ever had the problem before your first deployment to the Persian Gulf. If you have not had a problem throughout the past 6 months, choose 'No' as your response in Column 1 and go on to the next problem. That is, if you choose 'No' in Column 1, you do not need to complete Column 2 for that problem only.

16. Throughout the past 6 months or longer, have you had persistent or recurring problems with... (Please choose "Yes" or "No" for each health problem.)

- | | | | | |
|---|-----------------------------|-----------------------|---------------------------|-----------------------|
| | Had past 6 months or longer | | Had before 1st deployment | |
| | Yes | No | Yes | No |
| A. Hot or cold spells, fever, sweats at night, or shaking chills | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| B. Mouth sores | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C. Inflammation or redness of your eyes (pink eyes) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| D. Unexpected hair loss | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| E. Sore throat or irritation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| F. Pain or aches in more than one joint | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| G. Back pain | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| H. Joint stiffness | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I. Muscle tension, aches, soreness, or stiffness | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| J. Feeling weak in parts of your body | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| K. Tender, painful or swollen lymph glands under your arms or in your neck or groin | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| L. A feeling of bodily discomfort after exertion | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| M. Numbness or tingling in parts of your body | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| N. Loss of hearing or ringing in your ears | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| O. Tremors or shaking | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| P. Double vision, when you see 2 images, not correctable by glasses | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Q. Seizures or convulsions | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| R. Any headaches | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| S. Heart palpitations, pounding or racing | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| T. Pains in your heart or chest | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| U. Faintness, lightheadedness, dizziness or trouble maintaining balance | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| V. Trouble swallowing | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

(continued on next page)

	COLUMN 1		COLUMN 2	
	Had past 6 months or longer		Had before 1st deployment	
	No	Yes	No	Yes
W. Nausea or an upset stomach (other than during pregnancy) . . .	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
X. Reflux, heartburn, gas or indigestion (other than during pregnancy)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Y. Vomiting (other than during pregnancy)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Z. Frequent diarrhea (more than 3 watery stools per day)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
AA. Abdominal pain (other than when menstruating)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
BB. Constipation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
CC. Frequent or painful urination . . .	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
DD. Any tendency to bruise or bleed easily (including nose bleeding) .	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
EE. Skin redness or a skin rash	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
FF. Dryness or scaling of your skin . .	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
GG. Blisters, open sores, or skin ulcers	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
HH. Eruptions of hives or welts on your skin	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
II. Persistent sensations of itching on your skin	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
JJ. Wounds that are slow to heal . . .	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
KK. Swelling of both feet or both ankles	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
LL. Sinus problems/Rhinitis	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
MM. Unintended weight gain of 10 lbs or more	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
NN. Unintended weight loss of 10 lbs or more	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
OO. Feeling anxious or nervous	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
PP. Feeling depressed	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
QQ. Feeling moody or irritable	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
RR. Trouble finding words	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
SS. Feeling unrefreshed after sleep . .	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
TT. Cough	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
UU. Wheezing	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
VV. Shortness of breath	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
WW. Unusual physical discomfort in your genitals during or after intercourse	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. In the past 6 months, has your sexual partner(s) complained of unusual physical discomfort during or after sexual intercourse?
- Yes
 No
 Have not had intercourse in the past 6 months

18. In the past 6 months... (Please choose "Yes" or "No" for each question.)
- | | No | Yes |
|--|-----------------------|-----------------------|
| A. Have you had problems with feeling tired? | <input type="radio"/> | <input type="radio"/> |
| B. Have you needed to rest more? | <input type="radio"/> | <input type="radio"/> |
| C. Have you been feeling unusually sleepy or drowsy? | <input type="radio"/> | <input type="radio"/> |
| D. Have you had problems starting things? | <input type="radio"/> | <input type="radio"/> |
| E. Were you lacking in energy? | <input type="radio"/> | <input type="radio"/> |
| F. Have you had less strength in your muscles? | <input type="radio"/> | <input type="radio"/> |
| G. Have you been feeling weak? | <input type="radio"/> | <input type="radio"/> |
| H. Have you had problems thinking clearly? | <input type="radio"/> | <input type="radio"/> |
| I. Have you been making slips of the tongue when speaking? | <input type="radio"/> | <input type="radio"/> |
| J. Have you had problems with your memory? | <input type="radio"/> | <input type="radio"/> |
| K. Have you had problems with forgetfulness (like forgetting where you put things or forgetting appointments)? | <input type="radio"/> | <input type="radio"/> |
| L. Have you had any difficulty comprehending or understanding what others are saying to you? | <input type="radio"/> | <input type="radio"/> |
| M. Have you had problems with feeling confused or disoriented in place or time? (feeling confused about where you are, who is around, or not knowing what day it is) | <input type="radio"/> | <input type="radio"/> |
| N. Have you been having difficulty understanding what you read, even when you are paying attention to what you are reading? | <input type="radio"/> | <input type="radio"/> |

19. In the past 6 months, have you experienced extreme fatigue almost every day for 1 month or longer?

- A. No → Go to instructions before Question 20
 Yes
↳ In what month and year did this first begin, even if it began prior to the past 6 months?

B.

Month	Year
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

(continued on next page)

C. Did this fatigue begin with...

No Yes Don't know

1. A cold or flu-like illness?
2. Mononucleosis?
3. Another infection?
4. An emotionally stressful or other event?

D. We would like you to rate this fatigue. Think of a scale from 0 to 10. A 0 means your energy level was extremely low, and a 10 means it was extremely high. Think now of the worst part of your fatigue. What was the lowest that your energy level dropped?

- | | | |
|-------------------------------|-------------------------------|-------------------------------|
| <input type="radio"/> 0 Zero | <input type="radio"/> 4 Four | <input type="radio"/> 8 Eight |
| <input type="radio"/> 1 One | <input type="radio"/> 5 Five | <input type="radio"/> 9 Nine |
| <input type="radio"/> 2 Two | <input type="radio"/> 6 Six | <input type="radio"/> 10 Ten |
| <input type="radio"/> 3 Three | <input type="radio"/> 7 Seven | |

E. During the worst part of your fatigue, what percent of your usual daily activity were you able to maintain?

- Less than 25%
 25 up to 50%
 50 up to 75%
 75% or more

F. Did you see a doctor specifically for your fatigue?

- Yes
 No

G. Have you fully recovered from your fatigue?

- No → Go to instructions before Question 20
 Don't know → Go to instructions before Question 20
 Yes

↳ In what month and year did you recover?

H.

Month	Year
0 0	0 0
1 1	1 1
2 2	2 2
3 3	3 3
4 4	4 4
5 5	5 5
6 6	6 6
7 7	7 7
8 8	8 8
9 9	9 9

We would now like to know if some odors or substances bother you.

20. In the past 6 months, has routine or normal exposure to substances like gasoline, hair spray, paint, household cleaners, perfume, or soap caused you to feel physically ill?

- A. No → Go to Question 21
 Yes

↳ In what month and year did this first begin, even if it began prior to the past 6 months?

B.

Month	Year
0 0	0 0
1 1	1 1
2 2	2 2
3 3	3 3
4 4	4 4
5 5	5 5
6 6	6 6
7 7	7 7
8 8	8 8
9 9	9 9

21. In the past 6 months, has exposure to the following substances caused you to be physically ill or to have difficulty thinking or functioning? (Please choose "Yes" or "No" for each substance.)

- | | <input type="checkbox"/> No | <input type="checkbox"/> Yes |
|---|-----------------------------|------------------------------|
| A. Smog or air pollution | <input type="radio"/> | <input type="radio"/> |
| B. Cigarette smoke | <input type="radio"/> | <input type="radio"/> |
| C. Vehicle exhaust or fumes | <input type="radio"/> | <input type="radio"/> |
| D. Copiers or laser printers | <input type="radio"/> | <input type="radio"/> |
| E. Newspapers, magazines, or other newsprint | <input type="radio"/> | <input type="radio"/> |
| F. Pesticides, herbicides, insecticides, or fertilizers | <input type="radio"/> | <input type="radio"/> |
| G. New office buildings or homes (e.g., sealed windows) | <input type="radio"/> | <input type="radio"/> |
| H. Carpeting or drapes | <input type="radio"/> | <input type="radio"/> |
| I. Organic chemicals, solvents, glues, paints, or fuel | <input type="radio"/> | <input type="radio"/> |
| J. Cosmetics, perfumes, hair spray, deodorants, nail polish, or soaps | <input type="radio"/> | <input type="radio"/> |
| K. Other | <input type="radio"/> | <input type="radio"/> |

22. In general, did you have reactions to any of these substances where you felt physically ill or had difficulty thinking or functioning before August 1990?

- Yes, had this type of reaction before August 1990
 No, only had this type of reaction since August 1990
 Never had this type of reaction

The next few questions ask for your views about your health, now and during the past 4 weeks.

23. In general, would you say your health is... (Please choose the best answer.)

- ① Excellent
- ② Very good
- ③ Good
- ④ Fair
- ⑤ Poor

24. Compared to 1 year ago, how would you rate your health in general now? Would you say it is... (Please choose the best answer.)

- ① Much better now than 1 year ago
- ② Somewhat better now
- ③ About the same
- ④ Somewhat worse now
- ⑤ Much worse now than 1 year ago

25. Now think about the year before the Gulf War began. That would be from August 1989 to July 1990. Would you say your general health at that time was... (Please choose the best answer.)

- ① Excellent
- ② Very good
- ③ Good
- ④ Fair
- ⑤ Poor

26. The following items are about activities you might do during a typical day. Does your health now limit you a lot, limit you a little, or not limit you at all in doing these activities?

My health limits me . . .

- A. Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports.
- B. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf.
- C. Lifting or carrying groceries.
- D. Climbing several flights of stairs.

	A lot	A little	Not at all
A.	①	②	③
B.	①	②	③
C.	①	②	③
D.	①	②	③

(continued in next column)

My health limits me . . .

- E. Climbing one flight of stairs.
- F. Bending, kneeling, or stooping.
- G. Walking more than a mile.
- H. Walking several blocks.
- I. Walking one block.
- J. Bathing or dressing yourself.

	A lot	A little	Not at all
E.	①	②	③
F.	①	②	③
G.	①	②	③
H.	①	②	③
I.	①	②	③
J.	①	②	③

27. During the past 4 weeks, have you had to cut down on the amount of time you spent on work or other activities as a result of your physical health?

- ① Yes
- ② No

28. During the past 4 weeks, have you accomplished less than you would like, as a result of your physical health?

- ① Yes
- ② No

29. During the past 4 weeks, were you limited in the kind of work or other regular daily activities you do, as a result of your physical health?

- ① Yes
- ② No

30. During the past 4 weeks, have you had difficulty performing the work or other regular daily activities you do as a result of your physical health, for example, it took extra effort?

- ① Yes
- ② No

31. During the past 4 weeks, have you cut down the amount of time you spent on work or other regular daily activities as a result of any emotional problems, such as feeling depressed or anxious?

- ① Yes
- ② No

32. During the past 4 weeks, have you accomplished less than you would like as a result of any emotional problems, such as feeling depressed or anxious?

- ① Yes
- ② No

33. During the **past 4 weeks**, did you not do work or other regular daily activities as carefully as usual, as a result of any emotional problems, such as feeling depressed or anxious?

- ① Yes
- ② No

34. During the **past 4 weeks**, to what extent has your physical health, or emotional problems, interfered with your normal social activities with family, friends, neighbors, or groups?

- ① Not at all
- ② A little bit
- ③ Moderately
- ④ Quite a bit
- ⑤ Extremely

35. How much **bodily pain** have you had during the **past 4 weeks**?

- ① None
- ② Very mild
- ③ Mild
- ④ Moderate
- ⑤ Severe
- ⑥ Very severe pain

36. During the **past 4 weeks**, how much did pain interfere with your normal work including both work outside the home and housework?

- ① Not at all
- ② A little bit
- ③ Moderately
- ④ Quite a bit
- ⑤ Extremely

37. The next group of questions is about how you feel and how things have been with you during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling.

Time during the past 4 weeks

How much time during the past 4 weeks...

- A. Did you feel full of pep?
- B. Have you been a very nervous person?
- C. Have you felt so down in the dumps that nothing could cheer you up?
- D. Have you felt calm and peaceful?
- E. Did you have a lot of energy?
- F. Have you felt downhearted and blue?
- G. Did you feel worn out?
- H. Have you been a happy person?
- I. Did you feel tired?

①	②	③	④	⑤	⑥
①	②	③	④	⑤	⑥
①	②	③	④	⑤	⑥
①	②	③	④	⑤	⑥
①	②	③	④	⑤	⑥
①	②	③	④	⑤	⑥
①	②	③	④	⑤	⑥
①	②	③	④	⑤	⑥
①	②	③	④	⑤	⑥

38. During the **past 4 weeks**, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)?

- ① All of the time
- ② Most of the time
- ③ Some of the time
- ④ A little of the time
- ⑤ None of the time

The next four questions are statements about health. Please tell us how true or false each of these statements is for you.

39. I seem to get sick a little easier than other people.

- ① Definitely true
- ② Mostly true
- ③ Don't know
- ④ Mostly false
- ⑤ Definitely false

40. I am as healthy as anybody I know.

- ① Definitely true
- ② Mostly true
- ③ Don't know
- ④ Mostly false
- ⑤ Definitely false

41. I expect my health to get worse.

- ① Definitely true
- ② Mostly true
- ③ Don't know
- ④ Mostly false
- ⑤ Definitely false

42. My health is excellent.

- ① Definitely true
- ② Mostly true
- ③ Don't know
- ④ Mostly false
- ⑤ Definitely false

43. Next, we would like you to indicate the degree to which each of the following statements is true of you in general.

In general. . .

- A. I can't stand smoke, smog, or pollutants in the air
- B. I am often aware of various things happening within my body
- C. When I bruise myself, it stays noticeable for a long time
- D. I sometimes can feel the blood flowing in my body
- E. Sudden loud noises really bother me
- F. I can sometimes hear my pulse or my heartbeat throbbing in my ear
- G. I hate to be too hot or too cold
- H. I am quick to sense the hunger contractions in my stomach
- I. Even something minor, like an insect bite or a splinter, really bothers me
- J. I can't stand pain

	Not at all true	A little bit true	Moderately true	Quite a bit true	Extremely true
A.	①	②	③	④	⑤
B.	①	②	③	④	⑤
C.	①	②	③	④	⑤
D.	①	②	③	④	⑤
E.	①	②	③	④	⑤
F.	①	②	③	④	⑤
G.	①	②	③	④	⑤
H.	①	②	③	④	⑤
I.	①	②	③	④	⑤
J.	①	②	③	④	⑤

These questions are about medical care you may have needed in the past 6 months.

44. During the past 6 months, how many times did you go to an outpatient facility (for example, a clinic or physician's office) to obtain medical care for a physical health problem (for example, illness or injury)? Do not include routine health care such as checkups.

- 0 times
- 1 time
- 2 or 3 times
- More than 3 times

45. During the past 6 months, how many times did you visit a hospital emergency room for a physical health problem (for example, illness or injury)?

- 0 times
- 1 time
- 2 or 3 times
- More than 3 times

46. During the past 6 months, how many different times were you an inpatient for a physical health problem; that is, you had an overnight stay in a hospital?

- 0 times
- 1 time
- 2 or 3 times
- More than 3 times

Below is a list of problems people sometimes have. Please read each one carefully and blacken the circle that best describes how much that problem has distressed or bothered you during the past 4 weeks.

47. During the past 4 weeks, how much were you bothered by:

- A. Headaches
- B. Nervousness or shakiness inside
- C. Faintness or dizziness
- D. Loss of sexual interest or pleasure
- E. Feeling low in energy or slowed down
- F. Thoughts of ending your life
- G. Trembling
- H. Poor appetite
- I. Crying easily
- J. A feeling of being trapped or caught
- K. Feeling suddenly scared for no reason
- L. Blaming yourself for things
- M. Feeling lonely
- N. Feeling blue
- O. Worrying or stewing about things
- P. Feeling no interest in things
- Q. Feeling fearful
- R. Your heart pounding or racing
- S. Difficulty in falling asleep or staying asleep
- T. Feeling hopeless about the future
- U. Feeling tense or keyed up
- V. Spells of terror or panic
- W. Feeling restless, like you can't keep still
- X. Feeling everything is an effort
- Y. Feelings of worthlessness

1	2	3	4	
1	2	3	4	
1	2	3	4	
1	2	3	4	
1	2	3	4	
1	2	3	4	
1	2	3	4	
1	2	3	4	
1	2	3	4	
1	2	3	4	
1	2	3	4	
1	2	3	4	
1	2	3	4	
1	2	3	4	
1	2	3	4	
1	2	3	4	
1	2	3	4	
1	2	3	4	
1	2	3	4	
1	2	3	4	
1	2	3	4	
1	2	3	4	

The next set of questions asks about other potentially stressful experiences you may have had while serving in the Military. Please record in Column 1 how frequently you had the experience during the time period from the date you first entered the Active Military, Reserves, or National Guard until August 1990. By "the date you first entered," we mean your earliest date of entry to military service. (For example, if you entered the Army in June 1970, then entered the Reserves in September 1980, you would answer regarding the time period from June 1970 until August 1990.)

Record in Column 2 how frequently you had the experience from the time of your first deployment through July 1991. Please remember that "the time of your first deployment" refers to the first time that you were deployed to the Persian Gulf during the time period from August 1990 through July 1991.

	COLUMN 1					COLUMN 2					
	From time entered Military until August 1990					From time of first deployment through July 1991					
NUMBER OF TIMES:	0/Never	1-2	3-12	13-50	51 or More	0/Never	1-2	3-12	13-50	51 or More	
52. How often did you view a continual stream of casualties?	<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"/>	■
53. How often did you view casualties (Americans, enemy troops, other military personnel or civilians) who were severely wounded, disfigured or mutilated?	<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"/>	■
54. How many times were you involved in the post-mortem preparation and/or evacuation of bodies?	<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"/>	■
55. How often were you under (enemy) fire?	<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"/>	■
56. How many times did you see people critically injured or killed because of leadership errors, personnel shortages, or equipment malfunction?	<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"/>	■
57. How many times did you have to decide who would receive life saving care?	<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"/>	■
58. How often were you in actual danger of being injured or killed (i.e., received incoming rockets, mortars, or small arms fire; pinned down or overrun)?	<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"/>	■
59. How many times did you go on patrol or have other very dangerous duty (e.g., convoys, hazardous transport, guard duty with enemy in the vicinity)?	<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"/>	■
60. How many times were you placed on alert for any form of enemy attack (e.g., rocket, mortar, chemical, biological, etc.)?	<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 note that questions 61-70 are rated on a scale from "Never" to "4 or more" times (rather than from "Never" to "51 or more" times).

NUMBER OF TIMES:

	COLUMN 1					COLUMN 2				
	From time entered Military until August 1990					From time of first deployment through July 1991				
	0/Never	1	2	3	4 or More	0/Never	1	2	3	4 or More
61. How often did you sit with someone dying from military-related causes?	<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"/>
62. How many times did you make critical or life-threatening errors in your work because of excessive fatigue or work load (i.e., as compared to the average level of fatigue or work load in the military)?	<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"/>
63. How often were you responsible for making the decision to allow someone to die?	<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"/>
64. How often did you provide care or services to enemy personnel that was of lesser quality than you were actually able to give?	<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"/>
65. How many times did you lose communications or become cut-off from contact with your own unit or other units? ..	<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"/>
66. How many times was a woman or man you knew, or were close to, killed, wounded, or missing in action? (By how many times we mean how many people this happened to.)	<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"/>
67. How many times did you suffer injuries that required medical attention?	<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"/>
68. Outside of a combat situation, how many times did someone (e.g., dating partner, fellow soldier) threaten you with a weapon or physically assault you with enough force that they did or could have seriously injured you?	<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"/>
<i>The next two questions ask about unwanted sexual experiences occurring in the Military.</i>										
69. How often did anyone make you have oral, anal, or vaginal intercourse against your will by using <u>physical force</u> or <u>threatening</u> to harm you or someone close to you?	<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"/>
70. How often did you experience sexual harassment that did not involve oral, anal, or vaginal intercourse? Examples would include unwanted sexual touching, grabbing, or brushing against you.	<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"/>

Below is a list of problems and complaints that people sometimes have in response to stressful life experiences. Some of these questions ask about responses you may have had to a stressful Gulf War experience. By "stressful Gulf War experience" we mean an experience you had during your service in the Persian Gulf from the time of your first deployment through July 1991. Other questions ask about responses you may have had to another stressful experience from the past. Please read each question carefully, then blacken one circle to the right to indicate how much you have been bothered by that problem in the past 6 months.

In the past 6 months how much have you been bothered by:

	Not at all	A little bit	Moderately	Quite a bit	Extremely	
78. Repeated, disturbing <u>memories, thoughts, or images</u> of a stressful Gulf War experience?	1	2	3	4	5	■
79. Repeated, disturbing <u>memories, thoughts, or images</u> of another stressful experience from the past?.....	1	2	3	4	5	■
80. Repeated, disturbing <u>dreams</u> of a stressful Gulf War experience?	1	2	3	4	5	■
81. Repeated, disturbing <u>dreams</u> of another stressful experience from the past?	1	2	3	4	5	■
82. Suddenly <u>acting or feeling</u> as if a stressful Gulf War experience <u>were happening again</u> (as if you were reliving it)?.....	1	2	3	4	5	■
83. Suddenly <u>acting or feeling</u> as if another stressful experience from the past <u>were happening again</u> (as if you were reliving it)?	1	2	3	4	5	■
84. Feeling <u>very upset</u> when <u>something reminded you</u> of a stressful Gulf War experience?...	1	2	3	4	5	■
85. Feeling <u>very upset</u> when <u>something reminded you</u> of another stressful experience from the past?.....	1	2	3	4	5	■
86. Having <u>physical reactions</u> (e.g., heart pounding, trouble breathing, sweating) when <u>something reminded you</u> of a stressful Gulf War experience?.....	1	2	3	4	5	■
87. Having <u>physical reactions</u> (e.g., heart pounding, trouble breathing, sweating) when <u>something reminded you</u> of another stressful experience from the past?	1	2	3	4	5	■
88. Avoiding <u>thinking about or talking about</u> a stressful Gulf War experience or avoiding <u>having feelings</u> related to it?	1	2	3	4	5	■
89. Avoiding <u>thinking about or talking about</u> another stressful experience from the past or avoiding <u>having feelings</u> related to it?	1	2	3	4	5	■
90. Avoiding <u>activities or situations</u> because <u>they reminded you</u> of a stressful Gulf War experience?	1	2	3	4	5	■
91. Avoiding <u>activities or situations</u> because <u>they reminded you</u> of another stressful experience from the past?	1	2	3	4	5	■
92. Trouble <u>remembering important parts</u> of a stressful Gulf War experience?.....	1	2	3	4	5	■
93. Trouble <u>remembering important parts</u> of another stressful experience from the past? ...	1	2	3	4	5	■
94. <u>Loss of interest</u> in activities that you used to enjoy?.....	1	2	3	4	5	■
95. Feeling <u>distant or cut off</u> from other people?.....	1	2	3	4	5	■

Time during the past 6 months

Not at all	A little bit	Moderately	Quite a bit	Extremely
①	②	③	④	⑤
①	②	③	④	⑤
①	②	③	④	⑤
①	②	③	④	⑤
①	②	③	④	⑤
①	②	③	④	⑤
①	②	③	④	⑤

In the past 6 months how much have you been bothered by:

- 96. Feeling emotionally numb or being unable to have loving feelings for those close to you? ..
- 97. Feeling as if your future somehow will be cut short?
- 98. Trouble falling or staying asleep?
- 99. Feeling irritable or having angry outbursts?
- 100. Having difficulty concentrating?.....
- 101. Being "superalert" or watchful or on guard?
- 102. Feeling jumpy or easily startled?.....

Now, we would like to know about any pregnancies you have had or fathered since the time of your first deployment to the Persian Gulf Theater. Please think about pregnancies from all relationships you may have had. Include live births, stillbirths, tubal or ectopic pregnancies, miscarriages, as well as induced abortions.

- 103. Since the time of your first deployment, how many of the pregnancies you had or fathered resulted in induced abortions?
 - Have not had or fathered a pregnancy since that time
 - No pregnancies have had or fathered since that time have resulted in this
 - 1 pregnancy
 - 2 pregnancies
 - 3 pregnancies
 - 4 or more pregnancies
- 104. Since the time of your first deployment, how many of the pregnancies you had or fathered resulted in stillbirths, tubal or ectopic pregnancies, or something else like molar pregnancies (pregnancy resulting in a tumor of the placenta)?
 - Have not had or fathered a pregnancy since that time
 - No pregnancies have had or fathered since that time have resulted in this
 - 1 pregnancy
 - 2 pregnancies
 - 3 pregnancies
 - 4 or more pregnancies

- 105. Since the time of your first deployment, have any of your children been born prematurely, that is, before 36 weeks?
 - Yes
 - No
 - Have not had or fathered any children since that time
- 106. Since the time of your first deployment, have any of your children weighed less than 5 pounds at birth?
 - Yes
 - No
 - Have not had or fathered any children since that time
- 107. Have any of your children born since the time of your first deployment been diagnosed with any birth defect, congenital or hereditary condition, or developmental problem, such as slow or abnormal physical, intellectual, or mental growth?
 - Yes
 - No
 - Have not had or fathered any children since that time
- 108. How many children under age 17 currently live with you? Please include in your count adopted, step, and foster children who live with you, as well as your own biological children.
 - No children under 17 live with me
 - 1 child
 - 2 children
 - 3 children
 - 4 children
 - 5 or more children

The next three questions asks about tobacco use.

109. Would you consider yourself a former smoker, a current smoker, or someone who never smoked?

(Please choose the best answer)

- former smoker
- current smoker
- never smoked → Go to instructions before Question 112

110. On average, how many cigarettes do you smoke on a typical day? If you no longer smoke, please indicate the number of cigarettes you used to smoke on a typical day. (Please remember to enter "0" in the first column if your response is less than 10. Enter '0' in both columns if you typically smoke(d) less than 1 cigarette per day.)

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

111. For how many years have you been a regular smoker? If you no longer smoke, please indicate the number of years you were a regular smoker. Do not include any times you may have stopped smoking. (Please remember to enter "0" in the first column if your response is less than 10. Enter '0' in both columns if you smoked for less than 1 year.)

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

Next, we would like to know about your use of alcohol. Please answer ALL of the alcohol use questions even if you don't drink or are not a regular drinker. In answering these questions count as a drink a can or bottle of beer; a wine cooler or glass of wine, champagne, or sherry; a shot of liquor or a mixed drink or cocktail.

112. How often do you have a drink containing alcohol?

- Never
- Monthly or less
- Two to four times a month
- Two to three times per week
- Four or more times a week

113. How many drinks containing alcohol do you have on a typical day when you are drinking?

- 1 or 2
- 3 or 4
- 5 or 6
- 7 or 9
- 10 or more
- Do not drink alcohol

114. How often do you have six or more drinks on one occasion?

Never	1-2 times a week	3-4 times a week	5-6 times a week	7-9 times a week	10 or more times a week
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

115. How often during the last year have you found that you were not able to stop drinking once you had started?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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116. How often during the last year have you failed to do what was normally expected of you because of drinking?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
-----------------------	-----------------------	-----------------------	-----------------------

117. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
-----------------------	-----------------------	-----------------------	-----------------------

118. How often during the last year have you had a feeling of guilt or remorse after drinking?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
-----------------------	-----------------------	-----------------------	-----------------------

119. How often during the last year have you been unable to remember what happened the night before because you had been drinking?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
-----------------------	-----------------------	-----------------------	-----------------------

120. Have you or someone else been injured as a result of your drinking?

- No
- Yes, but not in the last year
- Yes, during the last year

121. Has a relative or friend, or a doctor or other health worker been concerned about your drinking or suggested you cut down?

- No
- Yes, but not in the last year
- Yes, during the last year

The next few questions ask about your physical and mental health during the past 6 months, as well as during your entire life.

122. During the past 6 months, how many physical problems have you had that have not been adequately understood or explained by your doctor?

- 0/None
- 1
- 2
- 3 or more

123. In your entire life, have you ever seen a physician or other professional like a psychologist or social worker, for a psychiatric disorder, illness, or emotional or mental health problem, such as anxiety, depression, or alcohol or drug abuse?

- Yes
- No

124. During the past 6 months, how many times did you visit a mental health professional for a psychiatric disorder, illness, or emotional or mental health problem, such as anxiety, depression, or alcohol or drug abuse?

- 1 time
- 2 or 3 times
- More than 3 times
- Have not visited a mental health professional in the past 6 months
- Have never visited a mental health professional

125. Have you ever been hospitalized for an emotional or psychiatric problem?

- Yes, but not in the past 6 months
- Yes, during the past 6 months
- No

These next questions are about your work and your life in general.

126. In the past 30 days, how many days have you missed from your job for any reason? (Please do not include scheduled vacation time.)

- Have not worked for pay in the past 30 days
- 0 days
- 1-2 days
- 3-5 days
- 6-7 days
- 8-10 days
- 11 or more days

127. In the past 30 days, how many days have you missed a day from work, or were not able to carry out your usual activities because of emotional difficulties or physical health problems?

- 0 days
- 1-2 days
- 3-5 days
- 6-7 days
- 8-10 days
- 11 or more days

128. In the past 30 days, how many days were you able to work and carry out your normal activities, but had to cut down on what you did or did not get as much done as usual because of emotional difficulties or physical health problems?

- 0 days
- 1-2 days
- 3-5 days
- 6-7 days
- 8-10 days
- 11 or more days

129. Have you been unemployed for 3 months or longer since July 1991?

- Yes
- No

130. Was this unemployment due to emotional difficulties or physical health problems?

- Yes
- No
- Was not unemployed for 3 months or longer

131. Which of the following best describes your current work situation? (Please choose the best answer.)

- Working for pay (includes Active-Duty Military)
- Have a job, but not working (because of maternity leave, bad weather, strike, seasonal work, temporary layoff, etc.)
- Unemployed or permanently laid off and looking for work
- Unemployed or permanently laid off and not looking for work
- Keeping house full-time
- In school or training program
- Retired
- Disabled

132. In the past 3 months, how many hours per week did you usually work for pay? (Please choose the best answer.)

- Have not worked for pay during past 3 months
- 1-9 hours per week
- 10-14 hours per week
- 15-19 hours per week
- 20-24 hours per week
- 25-29 hours per week
- 30-34 hours per week
- 35-40 hours per week
- More than 40 hours per week

133. Do you have an emotional or physical disability that currently keeps you from working?

- Yes
- No

134. Currently, in which component of the Military do you serve? (Please choose the best answer.)

- I do not currently serve in the Military
- Active Army (USA)
- Army National Guard (ARNG)
- Army Reserve (USAR)
- Active Navy (USN)
- Naval Reserve (USNR)
- Active Air Force (USAF)
- Air National Guard (ANG)
- Air Force Reserve (USAFR)
- Active Marine Corps (USMC)
- Marine Corps Reserve (USMCR)

135. To which, if any, of the following armed conflicts were you deployed? (Please choose "Yes" or "No" for each conflict.)



- A. Armed conflict in Vietnam
- B. Armed conflict in Grenada
- C. Armed conflict in Panama
- D. Armed conflict in Somalia
- E. Armed conflict in Haiti
- F. Armed conflict in Bosnia

136. In your entire life, how many years have you served on Active Duty? Do not include Reserve/Guard years. (Please choose the best answer.)

- Have not served on Active Duty
- Less than 6 months
- At least 6 months, but less than 1 year
- At least 1 year, but less than 2 years
- At least 2 years, but less than 3 years
- At least 3 years, but less than 4 years
- At least 4 years, but less than 5 years
- At least 5 years, but less than 10 years
- At least 10 years, but less than 20 years
- 20 or more years

137. In your entire life, how many years have you served in the Guard or Reserves? Do not include Active-Duty years. (Please choose the best answer.)

- Have never served in the Guard or Reserves
- Less than 6 months
- At least 6 months, but less than 1 year
- At least 1 year, but less than 2 years
- At least 2 years, but less than 3 years
- At least 3 years, but less than 4 years
- At least 4 years, but less than 5 years
- At least 5 years, but less than 10 years
- At least 10 years, but less than 20 years
- 20 or more years

138. What is your current marital situation? (Please choose the best answer.)

- Not married, but living as married
- Married
- Separated and not living as married
- Divorced and not living as married
- Widowed and not living as married
- Single, never married, and not living as married

139. What is the month, day, and year of your birth?

Please be sure to blacken the circles under the boxes in which you write in the date.

Month	Day	Year
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

140. Are you male or female?

- Male
- Female

141. Are you of Spanish or Hispanic origin or descent?

(Please choose the best answer.)

- No (not Spanish or Hispanic)
- Yes, Puerto Rican
- Yes, Mexican or Mexican-American or Chicano
- Yes, Cuban
- Yes, Central or South American
- Yes, other Spanish or Hispanic origin

142. Which of these categories best describes you?

- American Indian/Eskimo/Aleut
- Black/African-American
- Asian/Chinese/Japanese/Korean/Filipino/Asian Indian/Pacific Islander
- White/Caucasian
- Other

143. What is your highest level of education now?

(Please choose the best answer.)

- Have not yet graduated from high school
- GED or ABE certificate
- High school graduate
- Trade or technical school graduate
- Some college but not a 4-year degree
- 4-year college degree (BA, BS, or equivalent)
- Graduate or professional study but no graduate degree
- Graduate or professional degree

144. During the past 12 months, approximately how much income before taxes and deductions did you personally earn from jobs or other employment (including self-employment)? Please, only include money from wages, salaries, tips, or bonuses that you received while working for pay. As with all information you provide on this survey, your answer to this question is kept confidential.

- 0 - \$4,999
- \$5,000 - \$9,999
- \$10,000 - \$14,999
- \$15,000 - \$19,999
- \$20,000 - \$29,999
- \$30,000 - \$39,999
- \$40,000 - \$49,999
- \$50,000 - \$74,999
- \$75,000 - \$99,999
- \$100,000 - \$149,999
- \$150,000 - \$200,000
- More than \$200,000

145. During the past 12 months, approximately how much income before taxes and deductions was received by all family members who live with you? Please include not only money from wages, tips, and bonuses, but also social security, retirement income, unemployment or disability payments, public assistance, etc. Also include income from interest, dividends, net income from business, farm, or rent, and any other money income your family received.

- 0 - \$4,999
- \$5,000 - \$9,999
- \$10,000 - \$14,999
- \$15,000 - \$19,999
- \$20,000 - \$29,999
- \$30,000 - \$39,999
- \$40,000 - \$49,999
- \$50,000 - \$74,999
- \$75,000 - \$99,999
- \$100,000 - \$149,999
- \$150,000 - \$200,000
- More than \$200,000

146. How many individuals, including yourself, are supported by the family income you reported in Question 145?

- 1 person
- 2 people
- 3 people
- 4 people
- 5 people
- 6 people
- 7 people
- 8 people
- 9 people
- 10 or more people

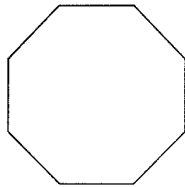
147.

A. Because we may wish to talk further with some of you at another time, we would like to obtain your home phone number. Please enter your phone number, including area code, in the grid below, remembering to blacken the circle under each number. If you are currently living outside the United States, but expect to be living in the U.S. within the next 6 months, please enter your permanent home phone number.

Area Code			Phone Number												
<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"/>	-	<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"/>	<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"/>	<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"/>

B. Please blacken the circle next to the description that best describes your current situation:

- I currently reside in the U.S. and expect to be residing in the U.S. for at least the next 6 months.
- I currently reside in the U.S. but do not expect to be residing in the U.S. for at least 6 months.
- I am currently residing outside the U.S. and do not expect to return to the U.S. within the next 6 months.
- I am currently residing outside the U.S. but expect to return to the U.S. within the next 6 months and have included my permanent home phone number.
- I am currently residing outside the U.S. but expect to return to the U.S. within the next 6 months and do not have a permanent home phone number.



The next section is for women only. If you are a woman, please complete this last section.

If you are a man, you may turn to the last page of the questionnaire for instructions regarding how to get more information on services available to Gulf War veterans.

Thank you for completing this questionnaire.

This section asks questions about women's health issues, including health care and medical conditions.

148. During the past 6 months, did you have any of these conditions? Include times you have had these conditions even if you didn't seek medical care.

- A. Have had a hysterectomy or am postmenopausal → Go to Question 149

In the past 6 months, I have had:

- B. Premenstrual symptoms or pain (PMS, premenstrual cramps)
- C. Cramps or pain during menstrual period requiring medication or time off from work
- D. Heavy periods (excessive menstrual flow)
- E. Light periods (hardly any menstrual flow)
- F. One missed period
- G. No menstrual periods for 2 or more months

(continued in next column)

- H. Too many periods (time between periods was too short)
- I. Bleeding between periods
- J. Endometriosis
- K. Problem with uterus (womb) other than endometriosis

149. During the past 6 months, did you have any of the following conditions? Include times you have had these conditions even if you didn't seek medical care.

In the past 6 months, I have had:

- A. Discharge from breast
- B. Lumps or cysts in breasts
- C. Yeast or vaginal infection
- D. Vaginal rash, discharge, or other disorder except yeast infection or sexually transmitted disease
- E. Abdominal pain (from known cysts)
- F. Abdominal pain (from unknown cause) ...

150. A Pap smear is when a health care provider inserts a swab into your vagina to scrape cells from the cervix. Since the time of your first deployment, have you had a Pap smear where the result was NOT normal?

- A. Never had a Pap smear → Go to Question 151
- No → Go to Question 151
- Don't know → Go to Question 151
- Yes

↳ Before your first deployment, had you ever had a Pap smear where the result was NOT normal?

- B. No
- Yes

151. Since the time of your first deployment, have you or a health care provider ever found a lump or other abnormality in your breast?

- A. No
- Yes

↳ Before your first deployment, had you ever had a lump or other abnormality in your breast?

- B. No
- Yes



Sometimes when people have participated in a study like the Gulf War Veterans Health Survey, they are interested in following up on some of the issues that they have been asked about in the study with someone who is professionally trained to deal with these kinds of issues. There are many resources available to military personnel who served during the Persian Gulf War. Below, we have provided two toll-free numbers and two Internet addresses for resources that provide a wide variety of information about Persian Gulf War veteran programs and services. Information available through these sources ranges from providing answers to veterans' frequently asked questions, to information on the treatment services (including mental health and physical health services) that are available in your area. These numbers and Internet addresses are also provided in the introductory letter that came with this questionnaire.

Toll-Free Numbers

For current active-duty military personnel—Department of Defense Persian Gulf Veterans Hotline:
1-800-796-9699

For other Gulf War veterans—VA Persian Gulf Information Helpline:
1-800-PGW-VETS (or 1-800-749-8387)

Internet Addresses for Informational Sites on the World Wide Web

<http://www.va.gov/health/envIRON/persgulf.htm>
<http://www.gulflink.osd.mil/medical/#cbid>



*Thank you for completing
this questionnaire.*

APPENDIX B

Consent Forms

- Active Duty Version, first survey mailing
- Civilian/ Non-Active Duty Version, first survey mailing
- Version for second survey mailing



DUKE UNIVERSITY MEDICAL CENTER
Tenth Anniversary Gulf War Veterans Health Survey

Dear Gulf War Veteran:

This year marks the Tenth Anniversary of the Persian Gulf War. Duke University Medical Center and the Research Triangle Institute of North Carolina, a nonprofit research organization, are conducting a research study funded by the U.S. Army to learn more about Gulf War illnesses and health problems experienced by Gulf War veterans at the time of this important anniversary.

You are one of approximately 10,000 men and women who have been contacted about participating in this study because you served in the Persian Gulf between August 1990 and July 1991. Because it is impossible for us to survey all Gulf War veterans, we have selected individuals for this research so that their responses can represent many other veterans who are similar in gender and other characteristics. You have been selected as one of those individuals and therefore your participation in this Tenth Anniversary survey is very important to insure that we can accurately represent the views of all Gulf War veterans. However, your participation is completely voluntary. Your decision on whether or not to participate will in no way affect health care or other benefits that you or your family receive or are entitled to. You only need to complete the enclosed survey if you wish to be enrolled in this research study.

The survey asks questions about your military history, your Persian Gulf experiences, stressful experiences you may have had in your life, your physical health and your emotional functioning. Some of these questions may make you feel somewhat uncomfortable or stimulate other feelings such as sadness. You may skip any questions you do not want to answer. There are no direct benefits to you from participating in the Tenth Anniversary Gulf War Veterans Health Study but results from the study could help improve treatment of Gulf War veterans and prevent health problems in future deployments. We have included toll-free numbers that you can call if you would like to discuss any questions or concerns about your experiences as a Gulf War veteran.

Please complete the questionnaire in private and do not show your answers to anyone. Please read the instructions in the questionnaire carefully. **USE ONLY A SOFT LEAD (NO. 2) PENCIL.** We have included a study souvenir pencil that can be used to complete the questionnaire. We expect the questionnaire will take approximately one hour to complete. When you have finished, seal the questionnaire in the enclosed envelope and put it into the U.S. mail. No postage is required.

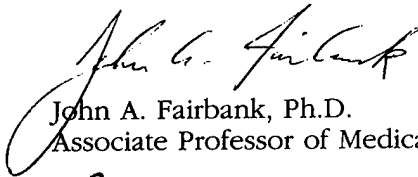
In order to assure complete confidentiality you will mail your completed questionnaire directly to National Computer Systems, a civilian scoring contractor. No military personnel will see your answers or even know whether or not you participated in the study. Only research staff at the Research Triangle Institute, Duke University Medical Center, National Computer Systems and their research collaborators will have access to data files containing responses to the survey. Names, phone numbers or other identifying information will not be included in these files. You should not write your name or social security number on your questionnaire. The page of the questionnaire where you are asked to provide your phone number will be separated from the rest of your answers as

soon as your questionnaire arrives and is scanned (read into the computer) at National Computer Systems. Any identifying information that would link you to your answers, including your telephone number, will be kept separate from your answers and stored in a secure location at the Research Triangle Institute or Duke University Medical Center. Any results that are reported from this study will refer to group data only. Your name will never be associated with the responses you give. Any files or documents that include your name, telephone number or address will be destroyed one year after the end of this study.

Some veterans who complete this survey may be contacted in the future and asked to participate in other related studies. If you are contacted, you can decide at that time if you want to take part in another study. Completing this mail survey does not mean that you agree to participate in any other related studies that may be conducted in the future.


If you have any questions about this survey or would prefer not to participate, you may call the Research Triangle Institute Project Manager for this survey, Kim Watts, at 1-800-334-8571, x7438. If you have any questions about your rights as a research participant, you may call Dr. Wendy Visscher at 1-800-334-8571, x6028.

Sincerely,



John A. Fairbank, Ph.D.

Associate Professor of Medical Psychology, Duke University Medical Center



Robert M. Bray, Ph.D.

Senior Research Psychologist, Research Triangle Institute

GULF WAR INFORMATION SOURCES

Toll-free information lines:

1-800-796-9699 (for current active duty military personnel)

1-800-749-8387 (for other Gulf War veterans)

Informational sites on the World Wide Web:

<http://www.va.gov/health/envIRON/persgulf.htm>



DUKE UNIVERSITY MEDICAL CENTER
Tenth Anniversary Gulf War Veterans Health Survey

Dear Gulf War Veteran:

This year marks the Tenth Anniversary of the Persian Gulf War. Duke University Medical Center and the Research Triangle Institute of North Carolina, a nonprofit research organization, are conducting a research study funded by the U.S. Army to learn more about Gulf War illnesses and health problems experienced by Gulf War veterans at the time of this important anniversary.

You are one of approximately 10,000 men and women who have been contacted about participating in this study because you served in the Persian Gulf between August 1990 and July 1991. Because it is impossible for us to survey all Gulf War veterans, we have selected individuals for this research so that their responses can represent many other veterans who are similar in gender and other characteristics. You have been selected as one of those individuals and therefore your participation in this Tenth Anniversary survey is very important to insure that we can accurately represent the views of all Gulf War veterans. However, your participation is completely voluntary. Your decision on whether or not to participate will in no way affect health care or other benefits that you or your family receive or are entitled to. You only need to complete the enclosed survey if you wish to be enrolled in this research study.

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Please complete the questionnaire in private and do not show your answers to anyone. Please read the instructions in the questionnaire carefully. **USE ONLY A SOFT LEAD (NO. 2) PENCIL.** We have included a study souvenir pencil that can be used to complete the questionnaire. We expect the questionnaire will take approximately one hour to complete. When you have finished, seal the questionnaire in the enclosed envelope and put it into the U.S. mail. No postage is required.

In order to assure complete confidentiality you will mail your completed questionnaire directly to National Computer Systems, a civilian scoring contractor. No military personnel will see your answers or even know whether or not you participated in the study. Only research staff at the Research Triangle Institute, Duke University Medical Center, National Computer Systems and their research collaborators will have access to data files containing responses to the survey. Names, phone numbers or other identifying information will not be included in these files. You should not write your name or social security number on your questionnaire. The page of the questionnaire where you are asked to provide your phone number will be separated from the rest of your answers as

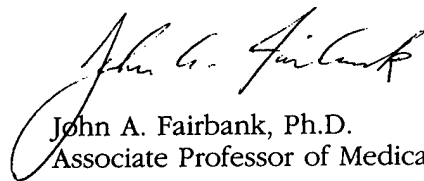
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Some veterans who complete this survey may be contacted in the future and asked to participate in other related studies. If you are contacted, you can decide at that time if you want to take part in another study. Completing this mail survey does not mean that you agree to participate in any other related studies that may be conducted in the future.

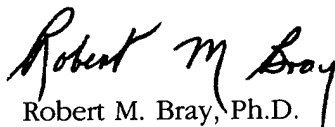
We have enclosed a small token of appreciation as a way of saying thanks for your help with this important research.

If you have any questions about this survey or would prefer not to participate, you may call the Research Triangle Institute Project Manager for this survey, Kim Watts, at 1-800-334-8571, x7438. If you have any questions about your rights as a research participant, you may call Dr. Wendy Visscher at 1-800-334-8571, x6028.

Sincerely,



John A. Fairbank, Ph.D.
Associate Professor of Medical Psychology, Duke University Medical Center



Robert M. Bray, Ph.D.
Senior Research Psychologist, Research Triangle Institute

GULF WAR INFORMATION SOURCES

Toll-free information lines:

1-800-796-9699 (for current active duty military personnel)

1-800-749-8387 (for other Gulf War veterans)

Informational sites on the World Wide Web:

<http://www.va.gov/health/enviro/persgulf.htm>



DUKE UNIVERSITY MEDICAL CENTER
Tenth Anniversary Gulf War Veterans Health Survey

Dear Gulf War Veteran:

Approximately one month ago you were sent a copy of the Tenth Anniversary Gulf War Veterans Health Survey. Duke University Medical Center and the Research Triangle Institute of North Carolina, a nonprofit research organization, are conducting this U.S. Army funded study to learn more about Gulf War illnesses and health problems experienced by Gulf War veterans at the time of this important anniversary. To the best of our knowledge we have not yet received your completed survey. If you already completed and returned the questionnaire, please accept our sincere thanks. If not, please complete the enclosed copy of the survey at your earliest convenience.

You are one of approximately 10,000 men and women who have been contacted about participating in this study because you served in Operation Desert Shield/Desert Storm. Because it is impossible for us to survey all Gulf War veterans, we have selected individuals for this research so that their responses can represent many other veterans who are similar in branch of service and other characteristics. You have been selected as one of those individuals and therefore your participation in this Tenth Anniversary survey is very important to insure that we accurately represent the views of all Gulf War veterans. However, your participation is completely voluntary. Your decision on whether or not to participate will in no way affect health care or other benefits that you or your family receive or are entitled to. You only need to complete the enclosed survey if you wish to be enrolled in this research study.

The survey asks questions about your military history, your Persian Gulf experiences, stressful experiences you may have had in your life, your physical health and your emotional functioning. Some of these questions may make you feel somewhat uncomfortable or stimulate other feelings such as sadness. You may skip any questions you do not want to answer. There are no direct benefits to you from answering these questions. However, the information you and your fellow veterans provide could help improve treatment of individuals who have been adversely affected by their service in the Gulf War and prevent health problems in future deployments. We have included toll-free numbers that you can call if you would like to discuss any questions or concerns about your own experiences as a Gulf War veteran.

Please complete the questionnaire in private and do not show your answers to anyone. Please read the instructions in the questionnaire carefully. **USE ONLY A SOFT LEAD (NO. 2) PENCIL.** We expect the questionnaire will take approximately one hour to complete. When you have finished, seal the questionnaire in the enclosed envelope and put it into the U.S. mail. No postage is required.

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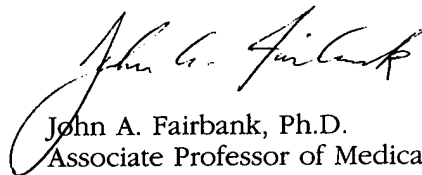
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Some veterans who complete this survey may be contacted in the future and asked to participate in other related studies. If you are contacted, you can decide at that time if you want to take part in another study. Completing this mail survey does not mean that you agree to participate in any other related studies that may be conducted in the future.

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Thank you for help with this very important study. We look forward to receiving your survey.

Sincerely,



John A. Fairbank, Ph.D.
Associate Professor of Medical Psychology, Duke University Medical Center



Robert M. Bray, Ph.D.
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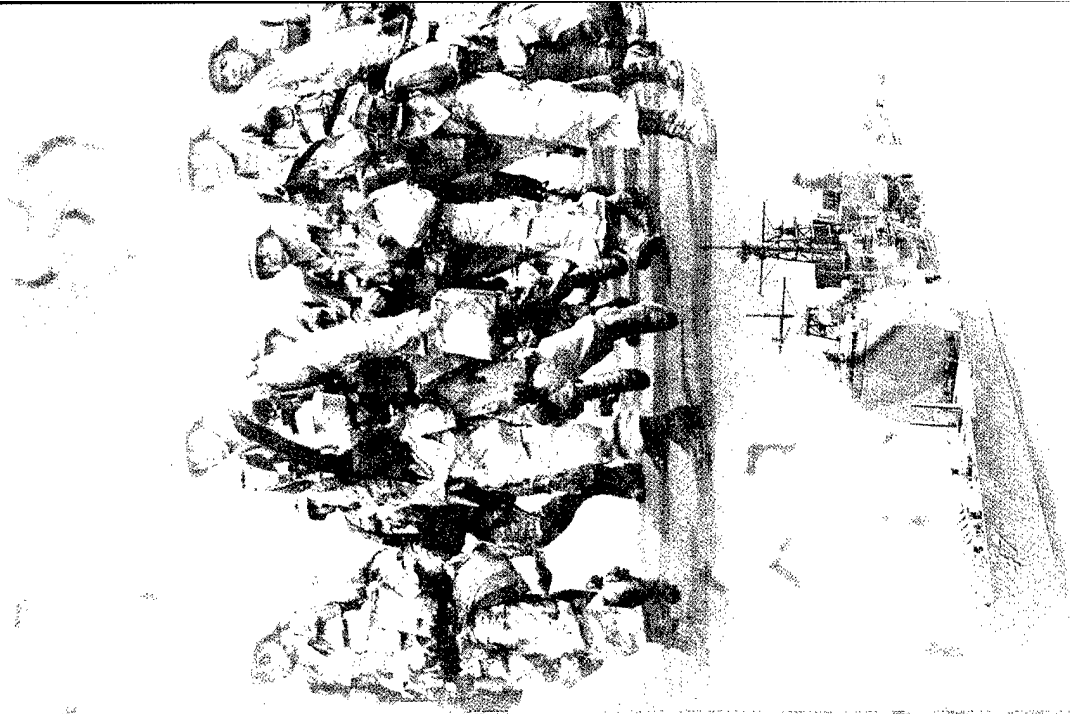
APPENDIX C

Informational Brochures

- Active Duty Version
- Civilian/Non-Active Duty Version

Tenth Anniversary Gulf War Veterans Health Survey

Informational Brochure



The Department of Health and Human Services, through the Gulf War Veterans Health Initiative, offers a health survey to Gulf War veterans. The survey is designed to help identify health problems and provide information on health care services available to you. If you have any questions, please call the toll-free number (800) 458-5231.

Gulf War Veterans Health Initiative
 (800) 458-5231
 If you are unable to call, please contact your local VA office.
 (800) 458-5231

What is the Tenth Anniversary Gulf War Veterans Health Survey?

This year marks the Tenth Anniversary of the Persian Gulf War. Duke University Medical Center and the Research Triangle Institute (RTI) of North Carolina, a not-for-profit research organization, are conducting a research study to learn more about Gulf War illnesses and the overall health of Gulf War veterans at the time of this important anniversary. You are one of approximately 10,000 men and women being contacted about participating in the study because you served in the Persian Gulf during Operation Desert Shield/Desert Storm. This study will gather information from Gulf War veterans about their military experiences, Persian Gulf experiences, and their physical and emotional health ten years after deployment to the Persian Gulf.

Why is this study important?

Of the nearly 700,000 military personnel who served in Operation Desert Shield/Desert Storm, over 100,000 have reported health concerns to the Department of Veterans Affairs or the Department of Defense. The causes of many of these health problems are not currently known. Recent research has begun to better document, describe, and identify potential causes for these health problems, but much remains to be learned.

This study builds upon these previous studies in two important ways: (1) we examine a broader range of factors that might have affected the health of Gulf War veterans and (2) we have selected individuals for the study to represent all military personnel who served in the Gulf War. We have chosen this approach to insure, to the best of our ability, that the information gathered will provide medical professionals, scientists, the Veterans Affairs, military officials, and veterans with a representation of the experiences and health concerns of *all* veterans that served in Operation Desert Shield/Desert Storm.

Why is your participation important?

Because we are trying to represent the experiences of *all* Gulf War veterans, *your participation is especially important*. Your responses will represent not only your experiences, but also the experiences of many other Gulf War Veterans who are similar to you in some way such as gender or branch of service.

What does participating involve?

In about one week you will receive a questionnaire in the mail to complete along with necessary instructions. The questionnaire should take approximately one hour to complete. Although we hope that you will

complete the survey, your participation in this study is completely voluntary. You will incur no penalties should you decide not to participate.

What will you gain by participating?

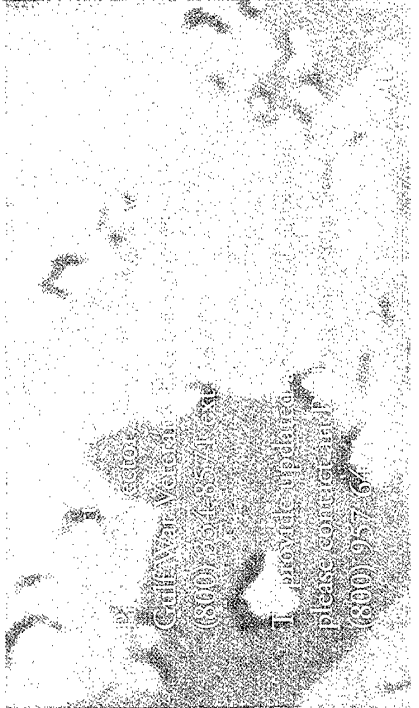
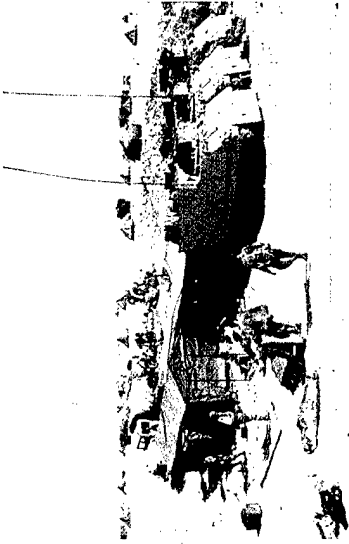
By completing the questionnaire, you will be helping us to better understand the health concerns of Gulf War Veterans. It is our hope that findings from this study will ultimately lead to the development of better treatments and services for Gulf War veterans and will help prevent similar health problems in future deployments. Additionally, we will be enclosing a small token of appreciation with the questionnaire as a way of saying thanks for your help.

Will your answers be kept confidential?

All information collected from you in this study will be kept strictly confidential. Your name, address, or other identifying information will never be associated directly with the answers that you give. Any results that are reported from the study will refer to group information only. Only staff conducting the study and their research collaborators will have access to your answers. No military or VA personnel will see your answers or even know whether or not you participated in the study.

Tenth Anniversary Gulf War Veterans Health Survey

Informational Brochure



Information on the survey is available to all participants. No one will be able to identify you or your answers. The survey is confidential. If you have any questions, please contact us at (800) 957-6767.

For more information on the survey, contact us at (800) 957-6767. If you have any questions, please contact us at (800) 957-6767.

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be learned. This study builds upon these previous studies in two important ways:

(1) we examine a broader range of factors that might have affected the health of Gulf War veterans and (2) we have selected individuals for the study to represent *all* military personnel who served in the Gulf War. We have chosen this approach to insure, to the best of our ability, that the information gathered will provide medical professionals, scientists, the Veterans Affairs, military officials, and veterans with a representation of the experiences and health concerns of *all* veterans that served in Operation Desert Shield/Desert Storm.

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complete the survey, your participation in this study is completely voluntary. You will incur no penalties should you decide not to participate.

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By completing the questionnaire, you will be helping us to better understand the health concerns of Gulf War Veterans. It is our hope that findings from this study will ultimately lead to the development of better treatments and services for Gulf War veterans and will help prevent similar health problems in future deployments.

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