

## **Gulf War Review**

Information for Veterans Who Served in Desert Shield/Storm  
Vol. 9, No. 2 - January 2001

### **Gober: No Change in Gulf War Compensation Policy Justified by IOM Findings**

On January 17, 2001, in one of his final acts as Acting Secretary of Veterans Affairs, Hershel W. Gober announced that the recent findings of the National Academy of Sciences' Institute of Medicine (IOM) does not justify a change in departmental policy regarding disability compensation for ill Gulf War veterans.

In response to the IOM report released on September 7, 2001, and described in detail in the October 2000 issue of the Gulf War Review, the outgoing Acting Secretary declared, "The welfare of Gulf War veterans is one of the highest priorities for the Department of Veterans Affairs. Research continues, and VA will review all studies. If new scientific evidence reaches the threshold established by law, we'll act accordingly. But so far, we haven't reached that threshold."

The IOM reviewed more than 10,000 published scientific studies related to four potential causes of the illnesses reported by some Gulf War veterans. Based on the IOM report, a link could not be established between the health problems that some veterans are currently experiencing and these four exposures during the Gulf War. In this initial report, the IOM focused on the possible long-term health consequences of exposure to (1) depleted uranium, (2) sarin, (3) vaccinations, and (4) pyridostigmine bromide.

The IOM did find scientific evidence of a link between some medical problems and sarin, a nerve agent. Specifically, they reported that people who required medical treatment when exposed to high levels of sarin in industrial accidents and during terrorist incidents involving sarin may have ongoing health problems. However, there is no evidence that U.S. service members were exposed to such high sarin levels.

"This decision in no way changes VA's obligation to provide health care for veterans," Acting Secretary Gober reported. "Additionally, veterans may still use existing procedures to pursue benefits for health problems that can be directly connected to military service."

The Acting Secretary's decision involved a technical issue in the application process for veterans benefits. Generally, veterans must prove their current medical disabilities occurred in or are related to their military service. On the other hand, VA has the authority to assume certain health problems were associated with specific health threats during the Gulf War even if clear evidence is not available. Called a "presumptive service-connection," this change in the usual process is already being used by Vietnam

veterans exposed to Agent Orange and by some former service members exposed to certain kinds of radiation.

### **Additional Reviews**

The IOM will review the health effects of other important risk factors for Gulf War veterans in future reports. In their next report, which started on September 1, 2000, the IOM is reviewing possible health effects from exposure to pesticides and solvents used in the Gulf War.

The Gulf War Review will continue to provide updates about this process, IOM reports and VA action on the IOM reports.

### **Gulf War Veterans and Infectious Diseases**

This is one of a series of articles about various environmental hazards or risks encountered by military personnel deployed to Gulf War theater of operation. Previous articles have focused on chemical and biological warfare agents, pesticides, depleted uranium, and pyridostigmine bromide.

Based on high rates of infectious disease illness among Allied troops sent to the Persian Gulf during World War II, Gulf war troops were expected to be at increased risk of sandfly fever, malaria, diarrheal disease, viral hepatitis, and cutaneous leishmaniasis. To monitor for these diseases, the U.S. military established a state-of-the-art diagnostic laboratory in Saudi Arabia, which was involved in the collection of large amounts of surveillance (watching and monitoring) data during Operations Desert Shield and Desert Storm.

In the earliest stages of deployment when the weather was extremely hot, outbreaks of common traveler's diarrhea were frequent. However, there were no laboratory-confirmed cases of more severe diseases, including cholera, typhoid fever, amoebic dysentery, or giardiasis. Acute vomiting became a problem after the weather became cooler in late 1990. Acute upper respiratory illnesses (for example, colds) also were common during periods of crowding.

Despite active surveillance, there was no documented case of sandfly fever or outbreaks of illness consistent with insect-transmitted infections during the war. There was one confirmed case of West Nile fever (a common infection in this region), seven cases of malaria among U.S. troops who went into southern Iraq, three possible cases of Q fever, and one death due to meningococcal meningitis. Brucellosis was not diagnosed among U.S. troops, and viral hepatitis was a rare problem.

A combination of factors was probably responsible for very low rates of serious infectious diseases during the Gulf War deployment. For one, rapid medical care and effective treatment were available for infectious diseases. In addition, extensive

preventive medicine efforts - vaccinations, immune globulin for hepatitis A prevention, use of insecticides and repellents, camp sanitation measures, and inspection of food and water supplies - reduced the risk of infectious diseases. Lastly, restricted contact with local populations lowered infectious disease transmission.

Two unplanned factors also may have played a major role in preventing infectious disease problems: the time of the year when most troops were deployed (the cooler winter months) and the location of deployment (the barren desert). Cold weather reduced insect activity at the height of the buildup in January 1991, and the risk of disease transmission was lowered by deploying most troops away from oases and rivers where insects and animals that host infectious diseases are more abundant.

### **Leishmaniasis**

Since the Gulf War, one chronic infectious disease - viscerotropic leishmaniasis - has been definitely linked to service in the Persian Gulf. This sandfly-transmitted infection has been diagnosed in just 12 U.S. veterans, but not in any of the other coalition troops. Viscerotropic leishmaniasis is a milder form of systemic leishmanial infection caused by a one-celled parasite *Leishmania tropica*. *L. tropica* infection is not thought to be a widespread cause of chronic symptoms among veterans because there have been no further cases in eight years and because all but one infected veteran had clear signs of disease that would be obvious on examination by a doctor, mainly a raised temperature and an enlarged liver or spleen.

Prior to the deployment of massive numbers of U.S. troops to this region of the world, viscerotropic leishmaniasis had not been identified in local inhabitants or in the large population of foreign guest workers. However, cutaneous leishmaniasis is a relatively frequent problem in this region. This infection of the skin, which causes a characteristic skin rash, has been diagnosed in 20 U.S. Gulf War veterans.

None of the other endemic infectious diseases that troops encountered during this wartime deployment are likely causes of chronic health problems in U.S. service-members after they returned home. Additionally, in over 100,000 clinical registry health examinations and an epidemiological study conducted by the CDC, no indication was found for any infectious disease as a cause of chronic symptoms. Moreover, a characteristic sign of an infectious process or immune dysfunction has not been identified in registry examinations conducted by VA and DoD.

### **Mycoplasma Infection**

In addition to chronic leishmaniasis, there have been two unconfirmed hypotheses that chronic bacterial infections are the cause of long-term health problems among Gulf War veterans. One hypothesis involves possible infection with the *Mycoplasma* bacterium, either as a natural infection (possibly facilitated by crowding during deployment) or as a genetically engineered biological warfare (BW) agent. This hypothesis was developed by a well-known cancer researcher whose stepdaughter developed an unexplained illness

after returning from the Gulf War. There also have been reports by individual veterans that their chronic symptoms improve with tetracycline and doxycycline antibiotic therapy. In one published study, however, no association was found between *Mycoplasma fermentans* infection and either deployment to the Gulf region or postwar symptoms.

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The other hypothesis involves the possibility of an ongoing (chronic) bacterial infection. This hypothesis originated from pre-Gulf war observations of a doctor who noted that patients with chronic unexplained illnesses, like chronic fatigue syndrome, seemed to respond to antibiotic therapy. Interestingly, this same hypothesis was first proposed in 1915 to explain chronic health problems among military personnel.

These two hypotheses of a chronic bacterial infection are being investigated in separate antibiotic treatment tests. In one study that will cost about twelve million dollars, a double-blind treatment trial has been instituted by the VA as a multi-site study at 30 VA and DoD clinical centers. Either the antibiotic doxycycline or placebo will be given over a 1-year period to approximately 450 veterans who test positive for *Mycoplasma*. Study participants will be followed for changes in their health and symptoms, including fatigue and neurocognitive problems. In the other treatment trial, which received three million dollars in funding from the U.S. Congress, various antibiotics are being administered to Gulf War veterans with unexplained symptoms.

If a favorable response is found in either of these treatment trials, further study will be necessary before antibiotic therapy can be recommended for the treatment of Gulf War veterans. First, the results will have to be independently verified. Secondly, the mechanism of action of antibiotic therapy will have to be determined; that is, whether the response is due to the elimination of a specific infectious agent or whether the effect is due to some other action of drug therapy. Lastly, further research will be necessary to determine the most effective treatment regimen.

A final hypothesis put forward to explain chronic health problems among Gulf War veterans involves possible undetected exposure to biological warfare (BW) agents. However, there was no evidence of biological agents in the Gulf War. A biologic agent was not isolated during the conflict, and most BW agents are designed to be deadly in very small quantities, but there was no cluster of combat casualties consistent with exposure to highly lethal biological weapons like anthrax spores or botulinum toxin.

## **Conclusion**

In conclusion, many health studies consistently show that Gulf War veterans are experiencing a wide range of health problems. Infectious diseases, however, have not been shown to be a major cause of chronic illnesses. After ten years of intense medical observation and study, it is increasingly unlikely that an infectious or immune process could cause serious health problems and yet remain undetected.

Although infectious diseases have not been a major problem, occult (hidden) leishmanial infection could show up over time among a few Gulf War veterans. Leishmaniasis should therefore be considered when suggested by a doctor for clear signs of infection.

Diagnosis may require repeated and painful tissue sampling of bone marrow or lymph nodes to identify the parasite because currently there is no accurate skin or blood test. Treatment for visceral leishmaniasis can be toxic and is not recommended unless the infection is causing chronic health problems.

*This article was adapted from a paper prepared by Capt. Kenneth Craig Hyams, M.D., M.P.H., Epidemiology Department, Naval Medical Research Center, for the soon to be published VA Continuing Medical Education program on Gulf War veterans' illnesses.*

## **Report to Congress on Federally Sponsored Gulf War Research to be Released Soon**

The Department of Veterans Affairs (VA) expects to send to Congress before the end of January 2001, the Annual Report to Congress - 1999 - Research on Gulf War Veterans' Illnesses. This report describes in detail 192 federally-sponsored projects related to Gulf War veterans' illnesses. The scope of federally-funded research is broad, from small pilot studies to large-scale epidemiology studies involving large numbers of people and major research and academic medical center programs using significantly large amounts of research dollars. According to the Annual Report, there has been a cumulative expenditures of about \$155 million for this research, Fiscal Years 1994-2000.

On August 31, 1993, President Clinton asked the Secretary of Veterans Affairs to coordinate research funded by the Executive Branch of the Federal Government into the health consequence of Gulf War service. VA carries out its research coordinating role through the auspices of the Research Working Group of the Military and Veterans Health Coordinating Board, chaired jointly by the Secretaries of Defense, Health and Human Services, and Veterans Affairs.

VA is required to submit an annual report to Congress on the research results, status, and priorities for each year. The recent document is the sixth report on such research. The report highlights and summarizes research progress since the last annual report by analyzing the Federal Government's research portfolio on Gulf War veterans' illnesses, highlighting significant research and research-related events and milestones, discussing the management of Federal Gulf War veterans' illnesses research programs, including research oversight, peer-review and coordination, and articulating priorities for future research.

The report also includes important and relevant background information not strictly research-related to help the reader to better understand the overall context related to Gulf War veterans' research issues.

The report will be available on line at <http://www.va.gov/resdev/pgrpt99.htm>. A very limited supply may also be available from the Environmental Agents Service (131), Attn: Annual Report, VA Central Office, 810 Vermont Avenue, N.W., Washington, DC 20420.

## **DoD Sends Letters to Veterans Who Served Near Khamisiyah**

On December 5, 2000, the Department of Defense (DoD) - specifically the Office of the Special Assistant for Gulf War Illnesses -sent letters to about 140,000 Gulf War veterans who may have been exposed to chemical agents in March 1991 during or following the demolition of an Iraqi ammunition storage facility in an area known as Khamisiyah in southern Iraq.

In 1997, the DoD sent about 100,000 letters to Gulf War veterans notifying them about how they could have been exposed to traces of chemical warfare agents in a cloud or plume caused when U.S. forces blew up unmarked munitions containing chemical weapons in Iraq shortly after the hostilities concluded. Since 1997, the DoD has been producing new exposure modeling data. DoD officials now believe that about one third of those veterans notified in 1997 may not have been under the plume, and about the same number of veterans who were not thought to be under the plume now are. Thus, about 100,000 individuals are still thought to have been under the plume.

Based on this new information, DoD sent separate letters in December 2000 to five different categories of veterans affected by this news. Like the earlier letters, the new letters suggest that any veteran with health concerns should contact DoD or the nearest VA health care.

The bottom line conclusion is that scientific information suggests that it is unlikely that exposures to trace levels of chemical warfare agents that do not lead to severe immediate poisoning signs and symptoms will cause long term health problems.

For more information, see the article on chemical and biological warfare agent health effects in the October 2000 issue of the "Gulf War Review." That issue is also available online at <http://www.va.gov/health/environ/persgulf.htm>.

## **Study of Lou Gehrig's Disease Among Gulf War Veterans Update**

The following article was submitted by the Department of Veterans Affairs (VA) Office of Research and Development. Amyotrophic Lateral Sclerosis (ALS), also known as Lou Gehrig's disease, is an illness of insidious onset that is rarely found in individuals under the age of 45 years. There is no known cause, and effective treatments have not yet been identified.

Recently, Gulf War veterans have expressed their concerns about a possible association between ALS and service in the Gulf War. VA takes these concerns very seriously. The

March 2000 issue of the Gulf War Review, included a lengthy article about ALS and VA research on that illness. The below article provides an update on this subject.

VA and Department of Defense (DoD) researchers expect that by mid-2001 they will have a better understanding of the rate of occurrence of amyotrophic lateral sclerosis (ALS) among Gulf War veterans. A panel of neurological experts is reviewing records and, if necessary, arranging physical examinations to confirm or rule out ALS among study participants.

The full study, which began in March 2000, will determine if ALS (Lou Gehrig's disease) occurs at a higher-than-expected rate among Gulf War veterans. Some veterans have raised concerns about a possible association between ALS and service in the conflict. Initially, clinicians at VA and DoD identified 28 patients with possible ALS among the 697,000 who were deployed to the Gulf region during the year after the August 1990 Desert Shield mobilization. A preliminary review of those cases and a review of a national mortality study of death rates in all Gulf War veterans indicated no unusual increase in the rate of ALS among Gulf War veterans and no excess deaths from ALS. The ALS Association (ALSA) estimates the prevalence of ALS in the United States at between six and eight cases per 100,000 persons.

A panel of experts from VA, DoD, the Department of Health and Human Services (HHS), the Centers for Disease Control and Prevention (CDC), the ALSA and university representatives recommended that VA develop a national epidemiologic study of ALS among Gulf War veterans. The study, directed by the Epidemiologic Research and Information Center at the Durham (NC) VA Medical Center, is a collaboration involving VA, DoD, HHS and the CDC. ALSA is advising the study leaders.

The study was designed to identify as completely as possible the complete total number of cases of ALS among Gulf War veterans and determine whether there is any relationship between the disease and service in the war. Researchers recruited veterans who were diagnosed with a motor neuron disease and who were active duty during the Gulf War - regardless of whether they actually served in the Gulf theater.

Eligible veterans who enroll in the study participate in an in-home interview about their experiences on active duty to help researchers identify possible factors in the development of their illness. Scientists are also examining possible genetic factors. Study participants also receive a medical examination by a doctor with expertise in diagnosing ALS and other motor neuron disorders.

If researchers find an elevated risk for developing ALS among Gulf War veterans, the study results will have major implications for veterans, VA, and DoD. Such a study among a relatively young group of veterans could also provide new knowledge about the epidemiology and possible causes of ALS.

ALS is a fatal neurodegenerative disease that destroys the brain and spinal cord nerve cells that control muscle movement. As the brain and spinal cord motor nerve cells die, muscles weaken and shrink, and rapid, severe paralysis occurs.

## **Presidential Special Oversight Board Issues Final Report**

In December 2000, the Special Oversight Board for Department of Defense Investigations of Gulf War Chemical and Biological Incidents released its final report.

The seven-member board, established by President Clinton and chaired by former Senator Warren B. Rudman, found that:

- The Department of Defense and its Office of Special Assistant for Gulf War Illnesses (OSAGWI), the primary Department of Defense (DoD) agency responsible for coordinating DoD's Gulf War investigations, have worked diligently to fulfill the President's directive to "leave no stone unturned" in investigating the possible cause of Gulf War illnesses.
- DoD has made no effort to deliberately withhold information from the general public or from veterans regarding its investigations or findings related to Gulf War illnesses. (The Board praised DoD for an "extraordinary effort" to publicize its findings).
- In each of its case narratives, OSAGWI made assessments regarding the presence of chemical and biological warfare agents that were consistent with available evidence.
- Similarly, in each of its environmental exposure reports, OSAGWI made assessments regarding environmental exposures that were consistent with available evidence.
- Following a recommendation of the Board in its Interim Report, OSAGWI revised its case narrative methodology statement to fully explain its procedures, resulting in an accurate method for assessing the likelihood of chemical warfare agent exposure during the Gulf War.
- DoD appropriately implemented the recommendations in the Special Report prepared by the Presidential Advisory Committee on Gulf War Veteran' Illnesses.

The Board also offered a number of recommendations and observations regarding DoD's program. The report, including its 9 chapters and 12 appendices, is available on-line at <http://www.oversight.ncr>.

One board member, Vinh Cam, Ph.D., disagreed with certain sections of the report. Her dissenting comments and the Chairman's response are included in the document. The Board was established in accordance with Executive Order 13075, issued on February 19, 1998.

## **Q's and A's**

The ".Review" occasionally includes a questions-and-answers section in which Department of Veterans Affairs (VA) officials respond to inquiries from readers regarding the Gulf War experience, problems experienced by Gulf War veterans and their families, and programs initiated by the VA and other federal departments and agencies to help these veterans and their families.

Questions should be sent to Mr. Donald J. Rosenblum, Deputy Director, Environmental Agents Service (131), Attn: GW Review - Q's & A's, 810 Vermont Avenue, N.W., Washington, DC 20420.

We recently received an inquiry from the VA outpatient clinic in Alaska regarding a request from a Gulf War veteran to remove the filling in her teeth because of suspected adverse health effects.

Dr. C. Richard Buchanan, Deputy Director for Dentistry in VA Central Office, responded that “[m]uch has been written in the literature about mercury in amalgam restorations and its possible link to multiple sclerosis and Alzheimer's. There is no evidence to support these suppositions, however. It is the standard of dental care in the United States not to remove amalgam fillings unless medical tests reveal abnormally high levels of mercury in a patient where no other cause can be established. This is also the VA position. Removal of amalgam fillings causes increased mercury release which theoretically could be more harmful than the very small amount that is released over time.”

Dr. Buchanan noted that a “dental board in Colorado recommended removal of a dentist's license for running 'so-called' mercury level tests and then convincing patients they should have their amalgams removed. He (the Colorado dentist) claimed numerous medical cures through this procedure, but was not able to substantiate his claim.” For additional information on this subject, see <http://www.ada.org> on the world wide web.

## **Where to Get Help**

Active duty military personnel with questions or concerns about their service in the Persian Gulf region -contact your commanding officer or call the Department of Defense (DoD) Gulf War Veterans' Hotline (1-800-796-9699) for an examination.

Gulf War veterans with concerns about their health -contact the nearest VA medical center. The telephone number can be found in the local telephone directory under Department of Veterans Affairs in the “U.S. Government” listings. A Gulf War Registry examination will be offered. Treatment will be provided to eligible veterans. The VA Gulf War Information Helpline can also provide the latest information and assistance. The toll-free telephone number is 1-800-PGW-VETS (1-800-749-8387).

Gulf War veterans in need of marital/family counseling - contact the nearest VA medical center or VA vet center. For additional information, call the Gulf War Information Helpline at 1-800-PGW-VETS (1-800-749-8387).

Gulf War veterans seeking disability compensation for illnesses incurred in or aggravated by military service -contact a Veterans Benefits Counselor at the nearest VA regional office or health care facility at 1-800-827-1000, or call the VA Gulf War Information Helpline at 1-800-PGW-VETS (1-800-749-8387).

Gulf War veterans seeking participation for their spouses or children in the VA-funded health examination program for spouses and children - call the VA Gulf War Information Helpline at 1-800-PGW-VETS (1-800-749-8387). Veterans interested in the alternative self-funded examination for spouses or children -contact the Gulf War Registry Coordinator at the nearest VA medical center for forms and information.

Gulf War veterans interested in learning about the wide range of benefit programs administered by VA - contact a Veterans Benefits Counselor at the nearest VA regional office or health care facility at 1-800-827-1000, or call the VA Gulf War Information Helpline at 1-800-PGW-VETS (1-800-749-8387).

Anyone with first-hand information about "incidents" that occurred in the Southwest Asia theater of operations during the Gulf War that may be related to health problems experienced by military personnel who served in the War -call the DoD "Incidents" Hotline at 1-800-472-6719.

Veterans who have been diagnosed with a motor neuron disease (including amyotrophic lateral sclerosis or Lou Gehrig's disease) and who were on active duty between August 2, 1990, and July 31, 1991, regardless of whether they actually served in the Gulf War theater of operations (or family/friends of veterans who are deceased or otherwise unable to contact VA) - call 1-877-DIAL-ALS (1-877-342-5257) to participate in a national survey.

For additional information about VA's program initiatives, see VA's Gulf War veterans' illnesses home page at <http://www.va.gov/gulf.htm>.

Gulf War veterans who encounter difficulties at a VA medical facility can contact the "patient advocate" at that facility for assistance in resolving the problem. The medical center telephone operator should have the telephone number.

Representatives of veterans service organizations, including the American Legion (1-800-433-3318), Disabled American Veterans (1-877-426-2838), Veterans of Foreign Wars of the United States (1-800-VFW-1899), etc., may also be very helpful to Gulf War veterans, especially veterans who are seeking disability compensation.

## **Gulf War Program Official Named No. 2 in Veterans Health Administration**

On October 3, 2000, Frances M. Murphy, M.D., M.P.H., officially assumed the title of Deputy Under Secretary for Health, the second highest position in the Veterans Health Administration (VHA). That organization manages the largest integrated healthcare system in the nation, treating nearly 750,000 veterans on an inpatient basis and almost 37 million outpatient visits per year, and includes a staff of 14,000 physicians, 800 dentists, and 35,000 professional nurses, plus tens of thousands of other health care professionals and support personnel.

From 1992 to 1994, Dr. Murphy served as Director of the Gulf War Referral Center, VA Medical Center, Washington, DC. In March 1994, she left the Medical Center to manage the VHA Gulf War program nationwide as Director, Environmental Agents Service. In 1997, she assumed additional responsibilities when she was appointed Chief Consultant, Occupational and Environmental Health Strategic Healthcare Group. In 1999, Thomas L. Garthwaite, M.D., then Acting Under Secretary for Health, asked Secretary Togo D. West, Jr. that she be detailed as Acting Deputy Under Secretary for Health. Secretary West approved, calling her an "excellent choice."

Dr. Garthwaite was Deputy Under Secretary but moved up to the Acting Under Secretary position when Dr. Kenneth Kizer left VA earlier that year. Dr. Garthwaite was recently confirmed by the Senate, clearing the way for Dr. Murphy's appointment.

Dr. Garthwaite noted that Dr. Murphy has been very actively involved in advising on and combating the illnesses and diseases associated with the Gulf War as well as other environmental and occupational health issues. "She has been totally committed to the task of seeking, identifying and treating the diseases, illnesses and afflictions associated with the Gulf War." He also commented that "her broad knowledge of VA healthcare management and operations makes her experience unique and very valuable." He added that she has "earned praise for her sound clinical and healthcare knowledge, strong work ethic, impressive record of leadership, and dedication to VA and the veterans we serve."

*Murphy is a board-certified neurologist. She has been with VA for about 14 years and is an Air Force veteran.*

## **Readers Survey**

In the October 2000 issue of the Gulf War Review, we included this survey of our readers. If you have already completed the survey, we thank you. If you have not completed and returned the survey, please take a few minutes to do so. We appreciate your input.

In early 2000, the leadership of VA's Environmental Agents Service, the office that prepares this newsletter held a series of meetings with representatives from veterans

service organizations to discuss VA outreach efforts on behalf of Gulf War veterans and of Vietnam veterans, who may have been exposed to Agent Orange. Discussions focused on our national newsletters, the "Gulf War Review" and the "Agent Orange Review." A number of suggestions for improvement were offered; some were approved and implemented.

We are also seeking advice and recommendations from all readers. In a future issue of the "Review," we will report to you regarding the comments we receive. Please send your comments and ideas to Mr. Donald J. Rosenblum, Deputy Director, Environmental Agents Service, ATTN: Gulf War Review, VA Central Office, 810 Vermont Avenue, NW, Washington, DC 20420. You can use this paper or write on your own.

### **About the "Review"**

The "Gulf War Review" is written by VA's Environmental Agents Service (EAS). The "Review" is published to provide information about the concerns of Gulf War veterans, their families, and others interested in possible long-term health consequences of military service in the Gulf War. The "Review" describes actions by VA and others to respond to these concerns. For past and current issues of the "Review" and additional information, see our web site at <http://www.va.gov/health/enviro/oersgulf.htm>.

The most recent, prior to this, issue of the newsletter is dated October 2000. Additional issues will be prepared when warranted by significant developments. EAS anticipates publication of the "Review" three or four times annually. Three were issued in Calendar Year 2000. This issue was completed in mid-January 2001 and does not include developments that occurred after that time.

Comments or questions concerning the content of the "Review" are encouraged. Suggestions and ideas for future issues of the newsletter should be sent to Donald J. Rosenblum, Deputy Director, Environmental Agents Service (131), VA Central Office, 810 Vermont Avenue, N.W., Washington, DC 20420.

Requests for additional copies of this and/or future issues should also be sent to Mr. Rosenblum. A limited supply of the prior issues is available. Please specify the quantity and issue date requested.

*VA facilities should order additional copies from the VA Service and Distribution Center. Each station has a Publications Control Officer (PCO). VA facilities should place any orders through their PCO using the LOG system.*

Questions about the Registry examination should be directed to the Registry Coordinator or Registry Physician at the nearest VA medical facility. The telephone number can be found in the local telephone directory under the "U.S. Government" listings. Assistance is also available from the toll-free VA Gulf War Helpline: 1-800-749-8387.