



GulfNEWS

A bimonthly newsletter serving the interests of Gulf War veterans

Media Reports False

Air campaign modeling incomplete prior to war

By John Slepetz
Public Affairs

The latest in a series of information papers was released Feb. 24. The paper, *Planning the Gulf War Air Campaign—The Role of Modeling and Simulation in the Planning of Attacks on Iraq's Chemical and Biological Warfare Targets*, addresses the use of modeling and simulation as an assessment tool in planning attacks on Iraq's chemical and biological weapons sites in the Gulf War air campaign.

Investigators from the office for Gulf War illnesses found that planners used computer modeling to study aircraft survivability and the potential risk to civilians near non-chemical and non-biological targets in Baghdad. Planners used computer simulations to show the risks and potential effects of Iraqi chemical attacks against friendly forces, the report said. During the air campaign, Coalition aircraft flew 990 sorties against 23 suspected Iraqi chemi-

cal and biological weapons research, production and storage facilities.

Investigators also found, however, that air campaign planners did not have the benefit of modeling or simulation studies to assess the potential dispersion of chemical or biological agent resulting from air attacks.

For example, in preparation for the air campaign, U.S. Army engineers at the Waterways Experiment Station in Vicksburg, Miss., had constructed a one third-scale model of an Iraqi munitions storage bunker and used it to evaluate the effects of attacks with precision-guided, high-explosive weapons. At the same time, a scientist at the Wright Laboratory on Eglin Air Force Base, Fla., conducted experiments to measure the extent that contaminants from the exploded Waterways model would be dispersed

in the atmosphere. The results from these experiments were not completed before the Gulf War air campaign ended and consequently, were unavailable to planners.

In August 1997, *USA Today* carried news stories and editorials reporting that DoD modeling and simulations studies conducted prior to the war indicated that Coalition casualties could result from air attacks on Iraq's chemical and biological weapons manufacturing, storage and deployment sites. The press reports specifically cited an effort conducted by the Lawrence Livermore National Laboratory.

Investigators found that the Livermore Laboratory effort represented a demonstration of general modeling capability rather than an attempt to simulate actual or planned air
(See *AIR CAMPAIGN*, page 2)

No evidence of chemical warfare agent on Fox Tapes

By Ivory Graham and Lisa Gates
Public Affairs

A recently released case narrative focuses on eight possible alerts for chemical warfare agents captured Feb. 1-27, 1991, on tape printouts from an XM93 Fox Chemical Reconnaissance vehicle assigned to the 24th Infantry Division. Interviews with Fox crewmembers, commanders, medical and chemical warfare staff members and the analysis of the Fox tapes by spectrometry and chemical warfare experts, confirm that this Fox vehicle definitely did not detect the presence of chemical warfare agents.

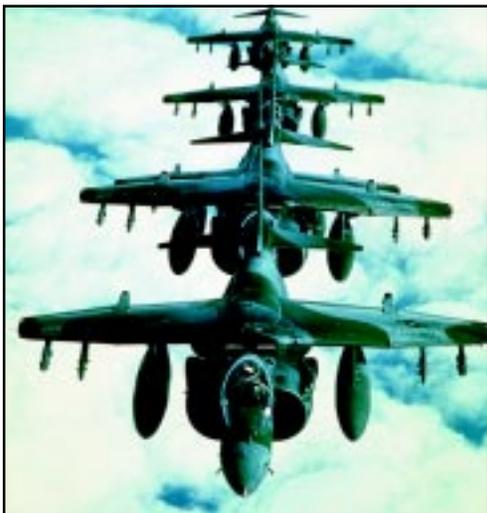
The investigation into the "Fox Tapes" began in 1993 when a soldier forwarded a copy of some printouts from a Fox vehicle's MM-1 mobile mass spectrometer. The soldier believed this would prove the presence of chemical warfare agents. After receiving the tapes, the Army's Forces Command forwarded them to technical experts who determined the alerts

were false.

In 1996, the Defense Department began to investigate Fox vehicle alerts that occurred during Operations Desert Shield and Desert Storm, including the incidents reported by the soldier. In 1997, the Presidential Advisory Committee on Gulf War Veterans' Illnesses began its own investigation into these incidents. During their investigation, the committee obtained another copy of the tapes directly from the soldier. This copy contained some additional information not contained on the original 1993 Fox tapes, including another alert incident, some additional test information and spectra results.

"We really do not know why the information included on the second set of tapes was excluded from the tapes in the first place," said Jim Curren, one of the investigators looking into the incident. "However, we are very sure that both sets are from the same [Fox] vehicle."

Based on the two sets of tapes, investigators identified eight alert incidents. In each inci-
(See *FOX TAPES*, page 3)



DoD file photo

U.S. Marine Corps AV-8B Harrier II attack aircraft from Marine Attack Squadron 513 (VMA-513), Yuma Marine Corps Air Base, Ariz., fly in formation during Operation Desert Shield.

*From the desk of
Bernard D. Rostker
Special Assistant for
Gulf War Illnesses*



As you may know, our office is scheduled to close within the footprint of the Clinton administration. However, I believe that many of the lessons learned over the past few years will live on. One such lesson is that the Department of Defense is not well structured to deal with the non-traditional issues that arise after every deployment.

For the past four years, we have been committed to doing everything possible to understand what happened during the Gulf War and to respond to the questions and concerns of veterans. As we move forward, I believe it is imperative that the lessons we have learned are used to address the needs and concerns of our servicemembers associated with deployment.

In the past few months, I have spoken with representatives of the Veterans and Military Service Organizations about the need for a successor organization to OSAGWI.

A charter for this follow-on organization is currently being developed and coordinated within the Department of Defense. As part of the development process, I presented a proposal to the Presidential Special Oversight Board in April. My concept of a new organization within the DoD will be a strong voice for service members and ensure lessons learned from past operations are applied today and in the future.

We are reminded daily of the challenges faced by the men and women in uniform deployed worldwide protecting our national interests in peacekeeping and humanitarian missions. DoD has a responsibility and obligation to protect the health and welfare of those whose lives we routinely put in harm's way.

Gulf War air campaign paper released

(AIR CAMPAIGN from Page 1)

campaign missions. In fact, the simplistic demonstration did not use any actual target data, such as target location, types of chemical or biological agents or weather.

According to Livermore Laboratory scientists, the demonstration resulted from only a few days' work and demonstrated how their computer program – designed to model nuclear fall-out patterns – could be adapted to possibly predict the resulting effects of air attacks on chemical and biological weapons sites if given specific data. The generic exposure demonstration did not represent any actual situation.

Additionally, investigators discovered that instead of the generic model from the Livermore chemical modeling demonstration, potential nuclear fall-out hazard area graphs developed for the Department of Energy were mistakenly provided in response to information requests. Both were the products of Livermore efforts and the wrong information was initially matched with the requests. The nuclear fall-out graphs predicted a far larger hazard area than the generic chemical model.

Although no computer modeling or simulations to predict the hazards of bombing Iraq's chemical facilities were conducted, investiga-

tors found DoD planners did study the possibility of chemical or biological agent release resulting from Coalition air attacks by consulting chemical and biological weapons experts. These chemical and biological experts agreed that chemical contaminants would likely be constrained to the immediate target area and would mostly be incinerated in the fires from high explosive weapons used to destroy the sites.

The reports stated further that exposures to the atmosphere, including heat and light, would trigger the natural decay of any escaping biological contaminants and minimize the risk to Coalition forces. These experts also informed decision-makers of their conclusion that the distances from most of the target sites to Coalition positions were large enough to prevent any potential release of chemical or biological agents from reaching friendly forces.

“The bottom line was the protection of human health and the environment,” said Special Assistant Bernard Rostker. “Post-war inspections have turned up no evidence of biological agent contamination and only very limited evidence that chemical agents were possibly released from four of 23 sites targeted.”

VA extends benefits through 2003

By Diana Berardocco
Public Affairs

There's still time for family members of Gulf War veterans to participate in the Veterans Affairs' Persian Gulf Registry medical evaluation program. The VA-funded health examination program established in 1994 for the spouses and children of Gulf War veterans has been extended to Dec. 31, 2003. The law authorizes the VA to continue to provide examinations to the spouse or child of a Gulf War veteran who is experiencing illness and is registered in the VA Persian Gulf Registry medical evaluation program.

The provision to extend the program was included in the Veterans Millennium Health Care and Benefits Act, Public Law 106-117, signed by President Clinton Nov. 30, 1999. The law ensures the continuation of vital healthcare services for the nation's veterans into the next century as well as the timeliness and quality of the Veterans Administration health care system. Authority for the program was established by Public Law 103-446. It

was first extended by Public Law 104-262 in 1996, and again in 1998 by Public Law 105-368.

To be eligible for participation in the program, an individual must be the spouse or child of a veteran who is listed in the VA's Persian Gulf War Veterans Registry and has – or previously had – an illness or disorder, including a birth defect, miscarriage or stillbirth, that can't be disassociated from the veteran's service in the Southwest Asia theater of operations. Participants must also grant the VA permission to include relevant medical data from the evaluation in the Registry.

As of February, more than 4,000 family members of Gulf War veterans have requested a Persian Gulf Registry exam. To facilitate access to the benefit, the program now allows for individuals to receive the exam through their private physician, after a request has been submitted to the VA's helpline.

Individuals interested in registering for the program should call the VA's toll-free Registry at (800) 749-8387.

Study examines hospitalizations of Gulf War veterans

By Austin Camacho
Public Affairs

The latest scientific look at Gulf War veterans' hospitalization histories offers positive news. This study, although limited, found that Gulf War veterans who may have been exposed to low levels of nerve agents have not experienced increased levels of hospitalization when compared with other Gulf War veterans.

American troops may have experienced such an exposure in 1991, when U.S. forces unknowingly destroyed chemical agent munitions near Khamisiyah, Iraq. The Department of Defense and the Central Intelligence Agency used weather data and their knowledge of the munitions destroyed to estimate how far, and in what directions, the nerve agent may have spread after detonation. In 1997, the Defense Department notified approximately 100,000 veterans that they may have been exposed to extremely low levels of chemical warfare agent, but no health effects were expected.

Some have speculated that this low-level exposure could be the cause of the illnesses reported by many Gulf War veterans. A team of scientists at the Naval Health Research Center in San Diego, Calif., investigated that

theory by analyzing the hospitalizations of people who may have been exposed between the date of the demolitions and September 1995.

Their research paper, entitled "The Postwar Hospitalization Experience of Gulf War Veterans Exposed to Chemical Destruction at Khamisiyah, Iraq," was recently published in *The American Journal of Epidemiology*.

"The majority medical opinion is that exposure to low levels of nerve agent are not expected to have any serious long-term effect," Dr. Michael Kilpatrick, of the medical outreach and issues directorate of DoD's office for Gulf War illnesses, said. "This study looked at postwar hospitalizations for additional clues."

The researchers compared the hospitalization records of 100,000 Gulf War veterans who may have been exposed to nerve agent with the records of 224,800 Gulf War veterans who were not exposed. Those who may have been exposed were divided into four groups based on the estimated dose of nerve agent exposure. The study results show that soldiers who were not exposed to

nerve agent were hospitalized as often as those who may have been exposed. The researchers also checked hospitalization rates for 15 specific health problems that might be caused by nerve agent exposure as determined by a scientific panel of experts. Again, they found no significant difference between soldiers who may have been exposed and those who were not.

While these results don't prove that Gulf War veterans were not harmed by extremely low level exposure to nerve agents, Kilpatrick says it is a step in that direction. However, he says it is significant that this study only looked at people whose medical conditions were serious enough to require hospitalization.

"Most of our Gulf War veterans' symptoms fall short of the level of seriousness that requires hospitalization," Kilpatrick says.

Additionally, any study of active duty hospitalizations is limited because it only takes military hospitals into account, according to Kilpatrick.

(See *HOSPITALIZATIONS*, page 4)

"This study looked at postwar hospitalizations for additional clues."

- Michael Kilpatrick, M.D.
Medical Issues Team

Fox tapes reveal no chemical warfare agent present

(FOX TAPES, from page 1)

dent, the Fox vehicle issued preliminary alerts for a variety of chemical warfare agents and other chemicals, including those used to test the MM-1 mobile mass spectrometer's detection capability.

Of the eight incidents identified, four occurred during the air war when the Fox vehicle was conducting training missions near the Saudi Arabia-Iraq border and prior to the ground campaign. The remaining four alerts occurred during the ground war when the Fox vehicle was operating as a component of the 24th Infantry Division in Iraq.

Except for these tapes, there is no supporting evidence from other chemical warfare agent detectors and no confirmations from any full spectra analyses produced by the MM-1 mobile mass spectrometer to confirm the presence of chemical warfare agents.

Since the end of the Gulf War, the United Nations Special Committee has inspected, inventoried and destroyed Iraqi weapons of mass destruction, including chemical warfare agents and munitions. Several of the eight alerts could

not be positive alarms based on current knowledge of Iraq's chemical agent inventory and other factors. The substances noted on the alerts were generally not weaponized by Iraq or were stimulants used to check the operation of the MM-1.

The belief that the Fox alerts detected were false was supported by the 1993 assessment by experts at the Army's Chemical and Biological Defense Command in Edgewood, Md. At that time, Fox vehicle experts concluded that proper procedures were not followed in operating the Fox MM-1 and for verifying the initial alerts. Although they could not say so with absolute certainty, the Fox vehicle experts believed that all reported detections were false alarms.

In 1998, investigators conducted a second analysis of the tapes. With more precise knowledge of the Fox's detection capabilities and interviews with key personnel, investigators confirmed that this Fox vehicle definitely did not detect chemical warfare agents.

"In the nine years since the Gulf War, training, as well as the equipment, has been greatly improved," said Curren. "Fox crews are much



DoD file photo

Front view of a Fox vehicle from the 51st Chemical in support of the 82nd Airborne rotation at the Joint Readiness Training Center.

more familiar with the equipment and aware of its capabilities. Training is much more intense and the crews much more knowledgeable in deploying the vehicle in the field."

Resources for Veterans

Your ticket to the information highway — visit our GulfLINK web site at:
<http://www.gulfink.osd.mil>

Are you a Gulf War veteran (or know of one) with health concerns? Call the CCEP at:
1-800-796-9699

Anyone with information on Gulf War incidents should call the Direct Hotline at:
1-800-497-6261

Gulf War veterans seeking information on VA benefits of all types should call the Persian Gulf Helpline at:
1-800-749-8387

Researchers study effects of long-term exposure to nerve agent

(HOSPITALIZATIONS, from page 3)

“If people who have left the military are hospitalized in a VA hospital or a civilian hospital,” he continued. “We would not be able to obtain the data on them.”

Very little is known about the long-term effects of nerve agents, or of the effects of low level exposure. Such exposures do not occur naturally, and scientists have no way of examining such effects in a laboratory.

The only way to examine the effects of nerve agents is to look at known incidents where nerve agent was released and study the effects of exposure. For instance, one verified nerve agent exposure took place on March 19, 1995, when terrorists released sarin gas in a Tokyo subway station. Twelve people died in that incident, and hundreds were hospitalized. Survivors of that catastrophe have been monitored for long-term effects.

“What those studies are showing is that the people [who] were severely injured at the time of initial exposure are having some serious neurological effects,” said Kilpatrick.

However, the evidence also indicates that only those people who had symptoms from the initial exposure are having any long-term problems. That information seems to support the Navy researchers’ conclusions, but more research is needed, said Kilpatrick.

Another approach is to turn to broader databases that go beyond those who have been hospitalized. For example, the Department of Defense maintains a comprehensive outpatient database. Kilpatrick says that could yield more useful information.

“These people wouldn’t be as seriously ill, but may have a grouping of symptoms that would come out through this analysis. A further good step would be to combine the VA’s outpatient and inpatient database, and researchers are working on that now. The optimum would be to consult a national database, but unfortunately that doesn’t exist.”

Two attempts to gather medical information about Gulf War veterans are the Persian Gulf War Registry maintained by the Department of Veterans Affairs and the DoD’s Comprehensive Clinical Evaluation Program. Both offer complete physical examination free of charge to Gulf War veterans, but so far only about 20 percent of the roughly 697,000 who served in theater have registered for an exam. Kilpatrick said one of his office’s primary functions is to inform veterans of this benefit, which is available to them.

“We are finding that many people don’t know that these programs have been there since 1992 for the VA, and 1994 for DoD,” said Kilpatrick.

Until more information is available, this

study by Navy researchers is one more piece of evidence that low level exposure to nerve agents released at Khamisiyah is unlikely to be the cause of Gulf War veterans’ illnesses.

NEWS FLASH!

Minnesota extends filing deadline for Gulf War vets to June 30, 2001.
For details, go to

<http://www.mdva.state.mn.us>



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GulfNEWS is produced by the Office of the Special Assistant for Gulf War Illnesses, 5113 Leesburg Pike, Suite 901, Falls Church, VA 22041. Send your comments on this newsletter to Lisa Gates at the above mailing address, or by email to: brostker@gwillness.osd.mil

Agencies assisting Gulf War veterans:

<http://www.afa.org/>
Air Force Association
1501 Lee Highway
Arlington, VA 22209-1198

<http://www.legion.org/building.htm>
American Legion
1608 K St., NW
Washington, DC 20006

<http://www.amvets.org/>
AMVETS
4647 Forbes Blvd.
Lanham, MD 20706

<http://www.ausa.org/>
Association of the U.S. Army
2425 Wilson Blvd.
Arlington, VA 22201

<http://www.dav.org/index.html>
Disabled American Veterans
807 Maine St., SW
Washington, DC

<http://www.eangus.org/>
Enlisted Association of the National Guard
1219 Prince St.
Alexandria, VA 22314

<http://www.fra.org/>
Fleet Reserve Association
125 N. West St.
Alexandria, VA 22314-2754

<http://www.mcleague.org/>
Marine Corps League
8626 Lee Highway, #201
Merrifield, VA 22031

<http://www.ngaus.org/>
National Guard Assn of the US
1 Massachusetts Ave., NW
Washington, DC 20001

<http://www.navy-reserve.org/index.html>
Naval Reserve Association
1619 King St.
Alexandria, VA 22314-2793

<http://www.navyleague.org/>
Navy League
2300 Wilson Blvd.
Arlington, VA 22201

<http://www.ncoausa.org/>
Non Commissioned Officers Association
225 N. Washington St.
Alexandria, VA 22314

<http://www.roa.org/>
Reserve Officers Association
1 Constitution Ave., NE
Washington, DC 20002

<http://www.troa.org/>
Retired Officers Association
201 N. Washington St.
Alexandria, VA 22314

<http://www.vfw.org/>
Veterans of Foreign Wars
200 Maryland Ave., NE
Washington, DC 20002

<http://www.vva.org/>
Vietnam Veterans of America
1224 M St., NW
Washington, DC 20005