# Final Chemical warfare agent 'definitely not' **Report:** present at Camp Monterey, Kuwait

By Lisa Gates & Todd Stevens
Public Affairs

ollowing the inclusion of additional eyewitness testimony and on the recommendation of the Presidential Special Oversight Board, the Office of the Special Assistant for Gulf War Illnesses reissued its Camp Monterey case narrative as a final report on Jan. 13. This completes the investigation into the reported detection of chemical warfare agents at Camp Monterey, Kuwait, a site previously occupied by Iraqi corps headquarters.

In May 1997, the office released an interim report on specific events that occurred Sept. 12-16, 1991. The Kuwaiti brigade head-quarters – dubbed "Camp Monterey" by American-service members – became the site of an in-depth investigation following reports of chemical warfare agent exposure. Canisters

removed from a storage site there and initially identified as containing CS, the riot-control agent known as tear gas, were the focal point of the investigation.

"The Camp Monterey detection was investigated based on information provided by a defense contractor employee responsible for maintaining the mobile mass spectrometer on Fox nuclear, biological and chemical reconnaissance vehicles under U.S. Central Command's control during Operations Desert Shield and Storm," said Lisa Stark, lead investigator. "Since this narrative's initial publication in 1997, new information has been presented that corrects and validates some of the original story."

On the morning of September 14, 1991, members of a chemical company platoon were moving wooden crates containing canisters identified as CS by an explosive ordnance dis-

posal team two days earlier. During that move, one canister broke and spilled its powdered contents, causing several soldiers to experience tearing and eye irritation, breathing difficulties and nausea. Though the substance had already been identified as tear gas by an explosive ordnance disposal team member, the chemical officer made a precautionary order, sending all soldiers present for medical examinations.

The exposed soldiers reported that they recovered from their symptoms within 30 minutes and did not report recurring symptoms, said Stark.

At the same time, the platoon leader had a sample of the contents of the canister tested by a Fox vehicle. The Fox alerted for cyclosarin, a colorless and odorless nerve agent. Following strict protocol procedures, a second Fox

(See CAMP MONTEREY, page 3)

## Depleted uranium expert shares knowledge

ByAustin Camacho Public Affairs

n the past year, many newspapers, magazines and Internet sites have featured information about the possible health effects of depleted uranium exposure. Recently, the CBS show "60 Minutes" covered this issue. Much of this information is conflicting, and reports seem to disagree on many important points. In an effort to clarify the facts, the office of the special assistant for Gulf War illnesses needed an independent scientist who was both highly qualified and able to explain scientific principles in layman's terms.

Naomi H. Harley is an authority on radiation physics. She earned her Ph.D. in radiological physics at New York University where she is currently a research professor at the University's School of Medicine, Department of Environmental Medicine. She has authored or coauthored more than 100 peer-reviewed journal articles on radiation exposure, measurement, and the risks of internal and external radiation exposure, with emphasis on natural background radiation.



A M-1A1 Abrams main battle tank lays a smoke screen during maneuvers during Operation Desert Storm.

Harley says people who talk about the dangers of depleted uranium often don't realize how little its use affects the environment.

"Well, to begin with, most people don't realize that they live with an enormous amount of uranium already," Harley says. "All soil contains uranium. In normal soil, it's not unusual to find a ton of natural uranium per square kilometer." She agrees that in a battle zone much of the depleted uranium ammunition, which strikes hard targets such as tanks, will be dispersed in fine aerosol particles and settle over the ground.

Harley thinks part of the cause of the confusion is that some people talk about the exposure to DU

as if people in the area are starting with a zero dose, which simply isn't so. She offers a useful comparison.

"If you're in a concentration of uranium in the air from an exploded weapon, the actual dose you'll receive from breathing this is on the order of one percent of what you receive every year from natural radiation."

Some people are skeptical about the degree of confidence

(See EXPERT, page 4)

Page 2

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



s many of you know, the office is well into its fourth year of existence. Today, even as some of our investigations are drawing to a close, we will continue to search for the possible causes of Gulf War illnesses and to ensure the lessons learned are addressed for future deployments. Additionally, we will look to the Presidential Special Oversight Board for guidance and to the continued feedback of Gulf War veterans and the American public.

For the past three years, we have provided veterans, their families and the public with detailed information regarding a number of incidents that occurred during the Gulf War.

Phone calls, letters and e-mail have been great communication tools.

Nearly 12,000 veterans have picked up the telephone and talked to one of my team members, sharing with them personal experiences during the Gulf War. From these telephone conversations, we have been able to piece together valuable information that has aided our investigations. And we want to continue this process in the year ahead.

On Feb. 1, the incident reporting telephone number changed to (800) 497-6261. This new number will allow you to speak directly to my contact managers – all veterans – who for more than three years have provided a key link for Gulf War veterans. If you have information you believe would help us, or need information, we would like to talk to you. The office is open Monday through Friday from 7 a.m. to 11 p.m., Eastern Standard Time. If you have DSN access, the telephone number is 761-1071. The commercial number is (703) 845-3760.

## Hundreds visit over three-year period

By Ivory Graham Public Affairs

ince opening its doors more than three years ago, a steady stream of guests have visited the Office of the Special Assistant for Gulf War Illnesses in Falls Church, Va. Several hundred people – including Gulf War veterans, congressional staffers, veterans service organizations' representatives and concerned public citizens – have personally met with investigators and other team members.

"We instituted the 'open door policy' to build trust and foster open communication between us, Gulf War veterans and the public," said Bernard Rostker, the special assistant. "We want people to know that this is an open process and we are interested in sharing the results of our investigations. It also gives them a chance to speak directly with the physicians, investigators and other members of the staff."

"I believe it's a two-way street," said Army Sgt. 1st Class Jason Potter, a Gulf War veteran and a member of the chemical/ biological investigative team. "Veterans get to meet us [the investigators] and we, in turn, get to meet with some of the people who help us with our investigations. I think it gives the veteran a better idea of the research and investigations DoD is doing on their behalf."

Many of the Gulf War veterans who visit the Falls Church location are participants in the Comprehensive Clinical Evaluation Program's Specialized Care "Phase III" at Walter Reed Army Medical Center in Washington, D.C. As part of that program, veterans are briefed by the OSAGWI staff. Additionally, the CCEP visitors meet with the department heads for a brief overview of their respective divisions' operations. Following the visit, the participants also receive a follow-up call from one of the office's contact managers to ensure all their questions are answered.

More than 100 people from the evaluation program have visited the office as part of the collaborative effort between OSAGWI and Walter Reed in nearly two years.

"Our open door policy has been instrumental in bridging the gap between the investigators and Gulf War veterans," said Rostker. "It has helped foster a better understanding of what our mission is and what it is that we do here.

"The office is open to any Gulf War veteran and family members who would like to visit. They simply need to call the office and let us know when they would like to visit, so we can make sure the individuals they are interested in speaking with are available," he added.

#### DoD releases close-out reports

By Barbara Goodno Public Affairs

he Office of the Special Assistant for Gulf War Illnesses is releasing a series of case narrative close-out reports on investigations involving potential exposures of U.S. military and civilian personnel to chemical or biological warfare agents during the Gulf War. The Presidential Special Oversight Board reviewed the current findings and recommended terminating any further investigation.

A close-out report is a summary account of an investigation. It will be issued when there is a determination that continued investigation into an incident is not likely to lead to meaningful results in terms of explaining the causes of adverse health effects reported by some Gulf War veterans.

"A close-out report is a necessary document," said Bernard Rostker, the special assistant. "It tells people that we did look at an incident, what we looked at, and how we

looked at it. It also provides the reasons behind the decision to end the investigation."

Investigations may originate in response to any of several factors including congressional inquiries into alleged exposure incidents, official records of potential exposures, and self-reports by Gulf War veterans, Rostker said.

The decision to end the investigations was based on the advice and recommendation of the Presidential Special Oversight Board. The board, established in February 1998, oversees the activities of the special assistant's office.

Rostker noted that issuing a close-out report on an investigation does not necessarily mean it can't be reopened if new information is brought to the attention of his office. He also encourages anyone with new information to call the office's direct hotline at (800) 497-6261.

Close-out reports are posted with all other office publications on GulfLINK at www.gulflink.osd.mil.

# Final An Nasiriyah case narrative published

By Barbara Goodno Public Affairs

he final report of events at the An Nasiriyah Southwest Ammunition Storage Point was released Jan. 13. The final report, first published in July 1998, found it "unlikely" that chemical agents were released during the aerial bombardment and subsequent ground demolition activities at An Nasiriyah, Iraq. Since that time, the office of the special assistant for Gulf War illnesses has received no new information which contradicts the material presented and no new leads that might change the narrative's assessment. In addition, the Presidential Special Oversight Board reviewed the narrative and recommended republication as a final report.

"Our reports were interim – that is, we published what we knew about an issue or event with the intent to update or correct our findings if new information was brought forward. Veterans' eyewitness accounts have been an important component of our investigation. In this case, however, after more than 18 months, we have no new information that would lead us to another conclusion," said Bernard Rostker, the special assistant. "We still want veterans to look at and comment on this narrative. If there is new information that will

change our findings, we would like veterans to contact us."

In August 1998, the Defense Department reported that during the 1980-88 Iran - Iraq War, Iraq's An Nasiriyah Southwest Ammunition Storage Point was a major Iraqi munitions depot. During the 1990-1991 period, the national intelligence community associated the storage of chemical or biological munitions with the types of bunkers found at An Nasiriyah: specifically, S-shaped bunkers. Five of these were struck by air-delivered ordnance and, by February 3, 1991, had been either heavily damaged or destroyed. The intelligence community now believes that the prewar assessments of which bunker types were used to store chemical or biological munitions were inaccurate, and that during Desert Storm, the bunkers at the An Nasiriyah Southwest ASP probably did not contain chemical or biological munitions.

However, another type of bunker at An Nasiriyah may have contained mustard-filled artillery rounds at the time of the aerial bombing. In 1996, in accordance with United Nations Resolution 687, Iraq declared that more than 6,000 155mm mustard-filled artillery rounds had been stored in bunker number eight at An Nasiriyah from approximately January 15, 1991, to February 15, 1991. This bunker

was not struck during the air campaign. Iraq stated that they moved the rounds to Khamisiyah, where they were recovered by the United Nations Special Committee on Iraq – UNSCOM –in October 1991. They were subsequently destroyed by UNSCOM.

Bunker number eight was searched by U.S. ground forces during the cease-fire and destroyed by demolition charges prior to the withdrawal of U.S. troops. Explosive ordnance disposal experts, chemical technicians and engineers involved in demolition operations at this ammunition storage point told the Defense Department that they found neither chemical nor biological munitions.

"Our assessment remains unchanged," Rostker said. "While Iraq declared that Bunker 8 contained mustard-filled artillery munitions, this bunker was not struck during the air campaign. The release of chemical warfare agents due to bombing remains unlikely."

UNSCOM also visited the An Nasiriyah ASP and reported they did not find any chemical or biological weapons.

Based on Iraq's disclosure, the results of the inspection by UNSCOM and U.S. forces of the An Nasiriyah ammunition storage point, the Special Assistant's review of theater operational reports, and the reports of the U.S. Intelligence Community, it is likely that chemical warfare agents were present in this ammunition storage point prior to U.S. occupation. But, unlikely that chemical warfare agents were present in the complex while it was occupied by U.S. forces.

#### Chemical warfare agent not present at Camp Monterey

(CAMP MONTEREY from page 1) vehicle was then called to conduct the same test

The second Fox's MM-1 mobile mass spectrometer had just been fully calibrated and fol-



A Marine sets up an M-224 60mm mortar during Operation Desert Storm.

lowing a full spectrum analysis, identified the substance as CS – tear gas. The first vehicle then ran a full spectrum analysis, which confirmed CS.

Because the soldier's symptoms were consistent with tear gas exposure and the two Fox tests were consistent, the platoon leader was

convinced the substance was, in fact, CS. Even so, he delivered tape printouts of the analyses to his executive officer.

The executive officer agreed that the substance posed no threat to soldiers, Stark said, but decided that the headquarters should be notified of the trace cyclosarin detection. After the headquarters was informed, the incident essentially was closed.

Further confirmation of CS, rather than chemical warfare agent presence, came the same day the tape printouts arrived at task force headquarters. Again, during Fox vehicle training, crew members and a civilian contractor conducted additional tests with the same CS container sample.

"Unlike two days earlier, however, the Fox vehicles alerted for sarin instead of cyclosarin," said Stark. "Sarin, like cyclosarin, is an extremely lethal nerve agent. When the Fox crews performed the full spectrum analysis, though, they were sure the substance was CS."

In 1996, the Department of Defense received copies of Fox tapes and sent them to three independent mass spectrometry experts to obtain conclusive and objective analyses. Experts at the U.S. Army Chemical and Biological Defense Command, Bruker Analytical Systems, Inc., and the National Institute of Standards and Technology each confirmed the substance as CS and not a chemical warfare agent.

According to Stark, multiple full-spectrum analyses, medical evaluations of the soldiers exposed to the tear gas powder, and independent evaluations all point to the same conclusion.

"Interviews with the individuals present and their chain of command all verify that CS was in the metal container," said Stark. "Based on first hand accounts, Fox tape printouts, and independent expert reviews, we've assessed that chemical warfare agent was 'definitely not' present [during this incident] at Camp Monterey, Kuwait."

#### **Resources for Veterans**

Your ticket to the information highway — visit our GulfLINK web site at: http://www.gulflink.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

## Harley shares expert knowledge on depleted uranium

(EXPERT from page 1)

scientists can have in their understanding of depleted uranium's effects because little research has been done on it. Harley says scientists can be so sure because there's been a great deal of research on natural uranium.

"Depleted uranium is mostly the isotope called uranium 238," Harley says. "This is the same substance that's in natural uranium. Natural uranium has three isotopes in different ratios. Uranium 238 is by far the majority. Then you have a little uranium 235 and a little uranium 234. These are the fissionable isotopes, and U235 is what you use to make fuel for nuclear reactors and weapons. They take out this very small mass and vou're left with U238, which is depleted uranium. So natural uranium is actually more radioactive than depleted uranium about 60 percent more. But otherwise you're actually talking about the exact same material. And this is a well-studied substance. There's much literature on how much you take in every day in diet and water and breathing air. People have measured the contents in body organs. From these data, we can really understand the biology of uranium."

When discussing depleted uranium left on the battlefield, critics have pointed out its long half-life, implying it will poison the environment for hundreds of years. But Harley says the longer the half-life, the less danger exists.

"Again, you already have this enormous amount of uranium present in all soil, all rock, and it's doing the same thing. And because it has a very long half-life, even if you get a few milligrams in your body, it exposes you to a very small amount of radioactivity because it's decaying so slowly. That's why the radiation dose is very low."

Still, none of this makes it easy to dismiss the fact that concerned people around the world have called depleted uranium a dangerous radioactive waste material that might contaminate the water and food wherever it's used. Harley attributes these alarmist cries to a basic fear of radioactivity in general. And despite the many symptoms some people want to blame on exposure to depleted uranium, cancer is the only illness known to be caused by radiation. And even then, Harley says, the ore – uranium – is not the culprit.

Harley says she's heard people project that the use of depleted uranium will cause tens of thousands of new cancers in Gulf War veterans and Iraqi citizens, but she says such projections frighten veterans unnecessarily because there is no scientific support for such claims. "There is no way you can get enough uranium into the body to cause even one cancer," she says. "You can't inhale it, you can't ingest it. You would choke to death before you could inhale that much material."

Though the causes of some Gulf War illnesses are still unknown, there is no scientific evidence to date that depleted uranium is one of them. Much of that scientific evidence can be found on GufLINK at www.gulflink.osd.mil.

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#### 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.

http://www.fra.org/

Alexandria, VA 22314

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

Alexandria, VA 22314

http://www.ncoausa.org/ Non Commissioned Officers Association 225 N. Washington St. 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

