Mr. Chris A. Kornkven  
The National Gulf War Resource Center, Inc.  
N6280 Highway P  
Helenville, WI 53137

Dear Mr. Kornkven:


The Office of the Special Assistant to the Secretary of Defense for Gulf War Illnesses has provided the enclosed briefing slides as responsive to your request. That office stated that no transcript was used in the briefing, and the briefing slides were the only documents used in the presentation.

There are no assessable fees for this response in this instance.

Sincerely,

A. H. Passarella  
Director

Enclosures:  
As stated

Ref: 98-F-1953
Review of the Department of Defense Investigation Into the Nature and Causes Of Gulf War Illnesses

Presentation for the Special Oversight Board
July 16-17, 1998
Why A Special Oversight Board?

The White House should develop a plan to ensure Gulf War veterans and the public have access to and can be represented in future deliberations about possible CBW agent exposures. To ensure full public accountability and reinforce the commitment to an independent review, an entity other than DoD should perform any oversight.

PAC - November 1997
Special Oversight Board Charter

Provide advice and recommendations based on its review of Department of Defense investigations into the possible detections of, and exposures to, chemical or biological weapons agents and environmental and other factors that may have contributed to Gulf War illnesses

Executive Order -
February 24, 1998
William J. Clinton
Overview of Presentations

- Introduction to Gulf War Illnesses
- Overview of the DoD's Investigations and the Office of the Special Assistant
- Organizing Theme: Review Critical Issues for Consideration by the Board
  - Methodology / bias / credibility
  - Declassification and dissemination of relevant Government Records
  - Medical Research and the Approval Process
  - Khamisiyah: modeling and notification
  - Depleted Uranium
  - MITRE Investigation
Overview of the DoD's Investigations and the Office of the Special Assistant
Deputy Secretary of Defense John White today informed Congressional leaders that the Department of Defense will redouble its efforts to investigate matters relevant to the illnesses of Persian Gulf War veterans. White's actions reflect President Clinton's direction to "leave no stone unturned" in the effort to determine the causes of the illnesses being experienced by veterans of the Gulf War.

September 25, 1996
DepSecDef Initiatives

- Reassess DoD programs
  - Dr. Rostker, ASN (M & RA) assigned
    » Action Team made of up of non-DOD experts
- Strengthen DoD clinical & medical research program
  - $5 million of new research for low-level chemical exposure
  - Institute of Medicine to re-evaluate DoD clinical protocols
- Review of Khamisiyah
  - DA(IG) review events
  - ATSD for Intel Oversight to review handling of intel information
  - IDA to review “plume” modeling (Nov. ’96)
- National Academy of Sciences
  - Oversight & advise on DoD efforts concerning force protection
DoD Action Team

White ordered the establishment of a DoD Action Team that will completely reassess all aspects of DoD's program. Reporting directly to White, the team will draw on additional outside analytical and management resources to help determine any necessary organizational, resource or personnel initiatives required. "New information recently gathered from a variety of sources, including veterans who served in the Gulf, demands new and different expertise," White said.

White's actions are designed to insure that DoD activities are well-coordinated and that a single focal point within the DoD exists for monitoring all actions related to Persian Gulf veterans illnesses.
Establishment of the Office of the Special Assistant

NEWS RELEASE
OFFICE OF ASSISTANT SECRETARY OF DEFENSE

Deputy Secretary of Defense John P. White today announced that he is increasing the size of the Persian Gulf Illnesses Investigative Team from 12 to 110 people. This expanded organization is designed to add significant additional resources into learning the causes of Gulf War illnesses. He has named Bernard Rostker as the Special Assistant for Gulf War Illnesses to direct these enhanced efforts. Rostker takes on this additional assignment while serving as the Assistant Secretary of the Navy (Manpower and Reserve Affairs). ... The Assistant Secretary for Health Affairs will continue to be responsible for all clinical programs.

November 12, 1996
Focus of the New Office of the Special Assistant

- Emphasis on the non-health issues and future force protection issues
  - emphasis on incidents in the Gulf, the exposure that may have occurred from those incidents, and the implications of such incidents
    » we did not have sufficient emphasis with respect to the operational aspects of the war and the implications of those operations
  - ensure communications programs to reach out to the veterans
    » we are asking veterans of their experiences in the Gulf, trying to learn from them what went on.

- Dr. Joseph continued in charge of all of our health-related programs
Mission of the Special Assistant for Gulf War Illnesses

- To ensure that
  - veterans of the Gulf War are appropriately cared for —
    » “people are our first concern”
  - DoD is doing everything possible to understand and explain Gulf War illnesses
    » “leave no stone unturned”
    » inform veterans and public of progress and findings
  - DoD puts into place all required military doctrine and personnel and medical policies and procedures to minimize any future problem from exposure to biological and chemical agents and other environmental hazards
    » “DoD is a proactive learning organization.”
The Committee is pained by the current atmosphere of government mistrust that now surrounds every aspect of Gulf War veterans' illnesses. It is regrettable—but also understandable. Our investigation of the Department of Defense's efforts related to chemical weapons led us to conclude these early efforts have strained public trust in our government. Hence, evidence of possible chemical warfare agent exposures during the Gulf War must be thoroughly evaluated by a group independent of DoD. This process must be conducted in an open manner and include veterans. The Committee recognizes that in November 1996 DoD announced it was expanding its efforts related to low-level CW agent exposure. These initiatives—combined with independent, vigorous oversight—could begin to restore public confidence in the government's investigations of possible incidents of CW agent exposure.

December 1996
**Significant Changes**

- Formal case management structure that involves Gulf War veterans in the investigation process
- Report to public and veterans by way of:
  - Information Papers
  - Case Narratives
  - Environmental Exposure Reports
- Outreach
  - Press Briefings / Editorial Boards / Interviews
  - Roundtable Meetings with VSO/MSOs
  - Speeches at Local and National VSO/MSO Meetings
  - GulfLINK and GulfNEWS
  - Town Hall Meetings and Base Visits
  - Annual Report
- Extending The Inquiry To "Other Causes" for Gulf War Illnesses
Formal Case Management Structure That Involves Gulf War Veterans in the Investigation Process

**Causes of Illnesses**

**Doctrine, Policies Procedures and Equipment**

**CASE MANAGERs**
- Incidents ↔ Issues ↔ Exposures

**OPS DATA**
**INTEL DATA**
**MEDICAL DATA**
**OBSERVATION DATA**

**Veterans Data Managers**

**Public**
**Veterans**

---

*In the Special Assistant to the Deputy Secretary for**
## Gulf War Veterans Assisting the Investigation Process

- **Correspondence**: 2,156
- **E-mails**: 4,125
- **Survey/Mailing**: 9,593
- **Telephone Contacts**: 5,089
- **Total**: 20,963
Case Narratives

Case Narratives are reports of what we know today about specific events that took place during the Gulf War of 1990 and 1991. These reports are from the DoD's Office of the Special Assistant for Gulf War Illnesses and other government agencies. These reports are interim and will be updated pending further investigative efforts. We hope that you will read these and contact us with any information that would help us better understand the events reported. With your help, we will be able to report more accurately on the events surrounding each case. Please contact my office to report any new information by calling:

1-800-472-6719

Bernard Rostker
Special Assistant for Gulf War Illnesses
Department of Defense
Case Narratives and Information Papers

Medical Surveillance During Operations Desert Shield/Desert Storm
- DoD Information Paper - November 6, 1997

Mission Oriented Protective Posture (MOPP)
- DoD Information Paper - October 30, 1997

Possible Chemical Agent on SCUD Missile Sample
- DoD Narrative - August 13, 1997

Reported Mustard Agent Exposure Operation Desert Storm
- DoD Narrative - August 28, 1997

Tallil Air Base, Iraq
- DoD Narrative - November 13, 1997

The Fox NBC Reconnaissance Vehicle
- DoD Information Paper - July 29, 1997

US Marine Corps Minefield Breaching
- DoD Narrative - July 29, 1997

Al Jaber Air Base
- DoD Narrative - September 25, 1997

Al Jubayl, Saudi Arabia
- DoD Narrative - August 13, 1997

Camp Monterey
- DoD Narrative - May 22, 1997

Fox Detections in an ASP/Orchard
- DoD Narrative - September 25, 1997

Khamisiyah
- DoD Narrative - April 14, 1997
- CIA Report - April 9, 1997
- Information Summary

Kuwaiti Girls School
- DoD-UK Narrative - March 19, 1998

M8A1 Automatic Chemical Agent Alarm
- DoD Information Paper - October 30, 1997
Using the Internet to Provide All the Information

US Marine Corps Minefield Breaching

Case Narrative are reports of what we know today about specific events in 1991. This particular case narrative focuses on US Marine Corps Minefield Breaching. Here is a list of events reported by Task Force Ripper in the 1st Marine Division and by the 1st Marine Division. This is an interim report, not a final report. We hope that you will find it helpful to understand the events reported here. With your help, we can better understand the events surrounding US Marine Corps Minefield Breaching. Please contact 1-800-472-6711.

Operations of the 1st Marine Division

Combat Engineers of the 1st Marine Division worked in cold, overcast conditions. They opened four assault lines in the first minefield by 0715 hours and four more in the second minefield by 1215 hours. By 1420 hours, all 1st Division lines in both minefields had been opened. Fencers of the 1st Marine Division passed quickly through the breach (Figure 3), demonstrating their training and ability to respond to enemy fire. The 1st Marine Division then proceeded to the 1st Marine Division and overcame the enemy resistance in the first minefield and overcame the enemy resistance in the second minefield. They proceeded to Alabat Airfield base by evening. According to 7th Marine records, Task Force Ripper (the lead maneuver element) logged no potential or actual exposure to chemical warfare agents throughout all breaches.

Initial Report

After the war, Capt. George G. Garis, who was the commander of the Fox reconnaissance vehicle assigned to Task Force Ripper, testified to the Presidential Advisory Committee and to members of Congress that while he was crossing the first minefield breach, his vehicle detected small traces of nerve agent in the air. The computer system notified his vehicle to cease movement.

Declassified/Downgraded by CG MCC6C IAW AsstSecDef Mamo2May92

NATIONAL SECURITY

UNITED STATES MARINE CORPS

1st Battalion, 7th Marines

1st Marine Division (Marine, Far East)

Marine Corps Air Ground Combat Center

Twentynine Palms, California 92277-5512

TASK FORCE RIPPER

7750

HISTORY, AFT

VS FOR 81

From: Commanding Officer, 1st Battalion, 7th Marines

To: Commanding Officer, Marine Corps (j3)

Via: Commanding General, 1st Marine Division (Attn: Historical Office)

Commanding General, 1st Marine Division (Attn: Historical Office)

Commanding General, Fleet Marine Force, Pacific (Attn: Historical Office)

SUB: COMMAND CHRONOLOGY FOR PERIOD 1 JANUARY TO 26 FEBRUARY 1991

Signed, etc.

19
Message from the Special Assistant for Gulf War Illnesses:

On June 25th, I addressed our military leaders who were attending the United States Army Chemical Corps' annual Worldwide Chemical Conference held at Fort McClellan, Alabama. This conference was held in conjunction with the celebration of the 80th anniversary of the Chemical Corps. This was a unique opportunity to speak directly to the men and women responsible for protecting our forces in the future. I challenged them to implement the hard-won lessons learned from the Gulf War. My remarks are provided for your review.

Bernard Rostker
Special Assistant
brostker@gwllness.osd.mil

This service is brought to you by the Office of the Special Assistant for Gulf War Illnesses in cooperation with the Defense Technical Information Center.
Dr. Bernard D. Rosker  
Special Assistant for Gulf War Illnesses  
5113 Leawood Pike, Suite 901  
Falls Church, VA, 22041

Dear Dr. Rosker:

I was delighted to read the recent article in Government Executive on BEST FEDS ON THE WEB. Let me take this occasion to congratulate you for the excellent customer service you are providing through your web site. As you know, quality customer service is a top priority in the Clinton-Gore Administration.

Your organization continues to serve as an excellent model for other Federal agencies on how to provide an interesting and easy-to-use web site, providing consumers hassle-free access to government services. Your innovative website encourages consumers to contact your agency and to take advantage of the many services which you provide.

Again, please accept my heartfelt appreciation for your efforts to provide quality customer service. My personal commitment is to increase the trust that the American public has in our government. The only way we can achieve that goal is to restore their confidence by giving the public the best possible service. Your web site is an excellent example of why I believe that we can achieve “America at Our Best.”

Sincerely,

Al Gore

AGPkk
Town Hall Meetings, Conventions and Base Visits
INTRODUCTION
THE FIRST YEAR IN BRIEF
EVENTS LEADING UP TO THE ESTABLISHMENT OF THE OFFICE OF THE SPECIAL ASSISTANT
ESTABLISHING THE OFFICE OF THE SPECIAL ASSISTANT
First Change: Listening To Our Veterans
Second Change: Developing An Outreach Program
Third Change: Investigating And Reporting On Possible Chemical And Biological Agent
Exposures
Fourth Change: Extending The Inquiry To "Other Causes" for Gulf War Illnesses
CASE NARRATIVES AND INFORMATION PAPERS OF POSSIBLE CHEMICAL AND BIOLOGICAL AGENT
EXPOSURES
Khamisiyah
Operations in Kuwait
SIGNIFICANT ACTIVITIES WITH OTHER AGENCIES
Army IG's Investigation Of What Happened At Khamisiyah
Re-Creation Of The Events At The Khamisiyah "Pit"
DoD IG's Investigation Of The Missing CENTCOM Chemical Logs
Army's Declassification Of Important Health Related Documents
LESSONS LEARNED
How To Build Trust And Confidence in DoD
How To Better Account For What Happened On The Battlefield
How To Better Protect Our People On The Battlefield
PUTTING THE OFFICE OF THE SPECIAL ASSISTANT IN PERSPECTIVE
NEXT YEAR
Extending The Inquiry: Environmental Factors and Unique Occupational Risks

- Studies differ significantly from chemical incident reporting:
  - not designed to assess the likelihood that our troops were exposed to a specific agent at a specific place and time
  - a more general understanding of the hazards faced by our forces

- Now in progress:
  - depleted uranium
  - oil well fires
  - pesticides
Extending The Inquiry: Better Understand the State of Medical Science

- To complement our examination of what happened during the Gulf War, RAND was commissioned to prepare reviews of existing scientific literature
  - Peer-reviewed by independent scientists
  - Topics:
    » Chemical and biological warfare agents
    » Immunizations
    » Pesticides
    » Pyridostigmine bromide
    » Stress
    » Infectious disease
    » Fallout from oil well fires
    » Depleted Uranium
Organizing Theme

- Review Critical Issues for Consideration by the Board: Claims and Issues
  - Methodology / Bias / Credibility
  - Declassification and dissemination of relevant Government Records
  - Medical Research and the Approval Process
  - Khamisiyah: Modeling and Notification
  - Depleted Uranium
  - MITRE Investigation
Methodology / Bias / Credibility

- Methodology
  - Claims:
    
    » PAC claims that DoD has abandoned an objective standard... in favor of a subjective process, e.g. "Do the facts available lead a reasonable person to conclude that CW agents were or were not present?"

    » "Future investigations of possible chemical warfare agent exposures should adopt an objective standard against which all case investigations and all elements within a particular case-e.g., type(s) of detectors, eyewitness reports, secondary reference in an operational log; intelligence-are held to scrutiny. When evidence is indeterminate or ambiguous, the government's interpretation of, or decisionmaking related to, the element or investigation should weigh in favor of a presumption that ensures veterans' access to information and/or benefits."
Objective Standard

- PAC Recommendation
  - "Future investigations of possible chemical warfare agent exposures should adopt an objective standard against which all case investigations and all elements within a particular case—e.g., type(s) of detectors, eyewitness reports, secondary reference in an operational log; intelligence—are held to scrutiny."

- Application by PAC itself
  - "One of the reasons obviously at this point to move forward as the Committee has been charged with looking at several site-specific exposures, and we believe it prudent to start knocking some of these off the table as the staff becomes comfortable with the current level of analysis." (PAC Meeting, Charleston, South Carolina, May 7, 1997.)
Methodology / Bias / Credibility

- Methodology
  - Issue for the Board:
    » Is DoD's current methodology adequate to ensure that all evidence is “held to scrutiny”?
    » Does the current five point scale provide an adequate interim assessment?
    » Has the scale been consistently applied to all cases?
    » Should any element of the current methodology be changed, and if so, how?
Methodology / Bias / Credibility

• Bias
  • Claims:
    » PAC
      • DoD's current investigatory approach and reporting of specific incidents through case narratives have been less superficial than the many earlier attempts
      • Deficiencies in technology and doctrine create a built-in bias against viewing any detection as credible
      • Many individual OSAGWI analysts who follow elements of a case on a day-to-day basis do so without bias; we commend their efforts
      • At some point, however, the evaluations succumb to an institutional culture and pervasive inclination to reimpose DoD's longstanding position
Methodology / Bias / Credibility

- Bias
  
  » We (the PAC) note bias is not limited to analysis, but also can extend to fact finding. Lack of due diligence and objectivity mean only certain facts come to light.
  
  - DoD's predisposition to downplay information that contradicts existing views on CW agents and the Gulf War;
  
  - DoD's failure to present balancing, but conflicting, statements by its own CW detection experts; and
  
  - The OSAGWI failure to pursue, acknowledge, or account for information identified and analyzed by MITRE Corp., under a contract to the Assistant to the Secretary of Defense (Intelligence Oversight) (ATSD(IO)).

  » Dr. Arthur L. Caplan, Director, Center for Bioethics, University of Pennsylvania Health System

  - Pentagon officials "are inclined to see things from the point of view at which they started: deny that there were chemicals on the battlefield."
Methodology / Bias / Credibility

• Bias
  - Issue for the Board:
    » Are DoD reports biased?
Methodology / Bias / Credibility

- Credibility

- Claims:
  » We (the PAC) noted DoD's denials, delays, and actions had strained public trust and that, understandably, an atmosphere of government mistrust surrounded every aspect of Gulf War veterans' illnesses.
  » At the same time, the primary focus of the government's efforts needs to shift from investigations to the nth degree of individual incidents, to a process that will ensure that research data and clinical improvements with a direct impact on veterans' lives.
Methodology / Bias / Credibility

- Credibility

  Dr. Arthur L. Caplan, Director, Center for Bioethics,
  University of Pennsylvania Health System and member of
  the PAC

  » In NY Times Sept. 6, 1997: "The Pentagon is not credible to
    continue inquiries that veterans and the public do not find
    persuasive."

  » OSAGWI is "damaging to the credibility of the Defense
    Department" when it appears we are ganging up on those
    that reported chemical incidents by investigating their claims
    six years after the fact, and report that we cannot substantiate
    their claims.

  » Given the fact that the DoD did not adequately investigate at
    the time, and so much time has passed, we should accept
    their claims as stated.

  » A finding of "likely" or "unlikely" attacks the veracity of
    those making a claim when the burden of proof should be
    with the Government.
Methodology / Bias / Credibility

- Credibility
  - Issues for the Board:
    » Should DoD accept claims of chemical or biological detections as stated, as recommended by Dr. Caplan, or should it evaluate all evidence, report its findings, and as the PAC has insisted, make a summary judgment?
    » How can DoD improve its credibility?
Declassification and Dissemination of Relevant Documents

- Claims
  - Four years after President Clinton ordered the declassification of all Gulf War health related documents, we still have "inadequate or missing personal medical records, missing toxic detection logs, and unreleased classified documents." (Shays)
  - President should order an intensified effort to declassify Gulf War documents. (Shays)
  - Mr. Eddington testified under oath that he has in his possession hundreds of classified documents that deal with the presence of chemical or biological agents in the KTO and that the CIA continues to withhold some of the relevant documents.
Declassification and Dissemination of Relevant Documents

• Issues for the Board
  - Is the DoD doing all that is possible to find and declassify all Gulf War health related documents?
    » Review Service declassification programs.
    » Review OSAGWI 's GulfLINK posting and search procedures for public access and use of declassified documents.
    » Review OSAGWI’s special program to find and disseminate records of those hospitalized in the Gulf during the war.
Medical Research and the Approval Process

- Medical Research
  - Claims

  » Medical research program is too limited. It only looks at things VA and DOD want to investigate. It should be more expansive. (Shays, et al.)
  » The medical research program seems to be looking at everything without a clear focus. (J. Kennedy)
  » Veterans have no say in what should be investigated. (United Veterans of America)
  » Research with promising hypotheses can't get funding because their ideas differ from those doing the peer review. (Shays)
  » DOD and VA should not be in charge of the research program. (Shays)
Medical Research and the Approval Process

- Medical Research
  - Issue for the Board
    » "Mr. Rudman's board faces a tough challenge in wading into that stew and recommending ways to cure the ailing veterans." Sanford Gottlieb in the Christian Science Monitor, June 1, 1998
Medical Research and the Approval Process

- Approval Process
  - Claims
    » The PAC had "grave reservations about a significant degradation in DoD's overall funding mechanism for research related to Gulf War veterans' illnesses. (They) note with serious concern that a substantial amount of research-$6.5 million for three projects-recently has been funded without undergoing external competition and peer review; it is immaterial to us that these funds did not come from the allocation set aside for the most recent solicitations and awards."
Medical Research and the Approval Process

The PAC recommended that ... "All research on Gulf War veterans illnesses that is funded by the government should be subjected to external competition and independent peer review. ... If and when new funds can be identified as available for redirection to scientific and clinical research on Gulf War veterans' illnesses, such monies should be used to fund those projects identified as having been meritorious but that initially did not receive funding due to insufficient funds."

Issue before the Board:
- Should DoD be excluded from using additional funds to ensure that critical hypotheses are tested without applying accepted principals of peer review?
Khamisihya: Modeling and Notification

- Modeling
  - Claims:
    » The PAC expressed on multiple occasions its dissatisfaction with the time it took to complete modeling for the pit area.
    » The Senate believes that we rushed to publish under pressure from the PAC before the results were peer reviewed and that other DoD agencies should have been included on the analytical team.
  - Issue for the Board:
    » What models should be used to assess fallout from Khamisihya, and the bombing campaign?
Khamisiyah: Modeling and Notification

- Notification
  - Claims:
    » The PAC recommended that DoD should identify all individuals within a 300-mile radius from the Khamisiyah pit and notify them of possible exposure.
    » The Senate believes that we have overestimated the number of people under the plume and already unnecessarily notified too many people.
  - Issue for the Board:
    » What notification program should DoD undertake?
Depleted Uranium

- Claims:
  - Many charges by *Swords to Plowshares, National Gulf War Resource Center, Military Toxics Project*
    - Department of Defense has still not implemented a depleted uranium training program.
    - Departments of Defense and Veterans Affairs and the UK Ministry of Defense are incapable of honestly investigating the relationship between depleted uranium exposures and the health problems affecting more than 100,000 Gulf War veterans and their families.
    - US military commanders failed in their duty to protect US and coalition forces from exposures to depleted uranium before, during, and after Operation Desert Storm.
Depleted Uranium

- Many charges by *Swords to Plowshares, National Gulf War Resource Center, Military Toxics Project*

  » Based on the available information, at least 400,000 Gulf War veterans may have inhaled, ingested, or incurred wound contamination by depleted uranium.

  » Department of Defense has intentionally understated the number of veterans it knows were exposed to depleted uranium in friendly fire incidents, during recovery operations, as a result of the July, 1991 Doha, Kuwait munitions fire, and through contact with contaminated areas and equipment.

  » The presence of depleted uranium contamination in areas of Kuwait, Iraq, Saudi Arabia, Bosnia, and the United States poses a long term health threat.
Depleted Uranium

- Many charges by *Swords to Plowshares, National Gulf War Resource Center, Military Toxics Project*

  » Many Gulf War veterans and their families are currently exhibiting symptoms of depleted uranium poisoning, including kidney and liver problems, immune system dysfunction, and reproductive problems. The long-term health effects of depleted uranium, including cancers, may not have fully manifested in exposed veterans and civilians at this time.

  » The proliferation of depleted uranium weapons threatens to contaminate large areas of land in future conflicts and adversely impact the health of military personnel and civilian countries around the world.
Depleted Uranium

- Many charges by *Swords to Plowshares, National Gulf War Resource Center, Military Toxics Project*
  
  » Department of Defense has deliberately misled Gulf War veterans and their families, VA physicians, numerous federal investigations, and Congress about the health and environmental consequences of the use of depleted uranium weapons in Operation Desert Storm.

- Seymour Hersh
  
  » "Eager to maintain an effective weapon, they (DoD) have refused to reconsider their reliance on DU shells and bombs, despite reports of serious contamination among allied soldiers and civilians living in the war zone in southern Iraq."
Depleted Uranium

- Hottest current Press and Congressional Item
  » "Just Who Was the Enemy?" San Francisco Examiner, June 30, 1998
  » Congressional report and inquiries
  » "Against All Enemies, Gulf War Syndrome: The War Between America's Ailing Veterans and Their Government" by Seymour Hersh
  » UBN Talk Radio
Depleted Uranium

• Issue for the Board:
  - What is the appropriate role for the Board in reviewing DoD’s inquiry into DU as a factor that may have contributed to Gulf War illnesses?
    » Arguments against the Board making an independent judgment on DU
      • Executive order calls for the Board to “provide advice and recommendations” to the President through the Secretary of Defense.
      • Board shall not “conduct scientific research.”
    » Arguments in favor of the Board making an independent judgment on DU
      • Board cannot “provide advice and recommendations” without making its own determination of the veracity of charges.
      • The ultimate recommendation might reflect demand for the US to “lead an international effort to ban ... depleted uranium weapons.”
MITRE Investigation

- Background:
  - On Sept. 25, 1996 actions to "broadens DoD's investigative actions on Persian Gulf veterans illnesses."
    - Directing the Assistant to the Secretary of Defense for Intelligence Oversight to investigate intelligence information received by the U.S. government about activities that occurred at Khamisiyah in 1991 including how the information was handled. The ATSD for Intelligence Oversight will report directly to Secretary White on this matter.
    - ATSD contracted with MITRE
    - MITRE effort incomplete at this time
      - Delayed by controversy over focus of effort and new DoD administration
      - MITRE restarted its inquiry
MITRE Investigation

● Issue for the Board:

- Should the Board make a judgment on how OSAGWI "incorporated" MITRE’s earlier work into Case Narratives?
  » MITRE’s earlier work not related to Khamisiyah or related sites (which was the subject of the PAC’s allegation of bias) was declassified and publicly released in September 1997.

- Should the Board oversee the current MITRE study?
  » MITRE’s work is "highly classified."
  » Represents an important DoD inquiry into "possible detections."
Organizing Theme

- Critical Issues for Consideration by the Board
  1. Methodology / Bias / Credibility
  2. Declassification and dissemination of relevant government records
  3. Medical Research and the Approval Process
  4. Khamisiyah: Modeling and Notification
  5. Depleted Uranium
  6. MITRE Investigation
Obtaining and Using Information
Information Philosophy

- Guidance: "Leave no stone unturned."
- Conduct an open operation subject to oversight.
- Declassify everything relevant to tell the story, but…
  - protect fielded forces and how we put intelligence together.
- Provide extensive review of results.
- Refine work but save and archive all earlier versions.
Sources of Information

- Service records
- Intelligence records
- Archives and historical centers
- Center for the Research of Unit Records
- Defense Manpower Data Center
- Veterans and interested public
  - CCEP and VA’s Registry
  - Surveys
- Gulf War coalition members
Gaps in Information

• Incomplete operational records
  – Expected 15-23M; only 6.4 M on hand.
  – Missing CENTCOM chemical logs
  – No intelligence logs

• Unit and individual location data problems

• Withheld by those who see release as threat to US

• Medical records not created
Filling the Information Gaps

- Interaction with veterans
- S3/G3 Conferences
- Work with CIA, DIA
- Physical searches
- Experimentation and modeling
- Inspector General investigations
Data Base

- All available to Oversight members and staff with proper clearances.
- Will request declass and release of any material you deem relevant.

- Used for:
  - Investigative research
  - Response to inquiries
  - Privacy Act and FOIA requests
  - Legal discovery
Finding Information: Building A Case

- Start with veteran’s report
- Preliminary analysis of alleged incident
  - Set the operational context
  - Identify relevant technological aspects
- Search the data base: Oracle and Pathfinder
- Broaden the search; interview other veterans
- Assess whether experimentation and modeling required
Search Engines

- **Oracle**
  - Powerful graphical user interface
  - Custom-built intranet search based on user requirements
  - Theme and gist capabilities
  - Retrieve both text and image
  - Interface with other GWI-unique Oracle applications

- **Pathfinder**
  - Intel community oriented
  - US-UK users
  - Excellent free-text search capability
  - Show linkages between multiple searches
  - Variety of analytical tools.
SAGWI's Open Operation

- Maximum declassification consistent with security.
  - Press Services for maximum declass of health and related documents.
  - Army created award-winning declass operation.
- Protection of privacy.
- Use GulfLINK to post all released documents.
  - Includes CIA reports, IG results, and released UNSCOM material.
  - Hyper-linking case narratives to source materials.
Information Security

• Accountability based on unique numbering system
  – what we have; when we had it; what actions we took.
• Declassification by Services
• Posting of intel releases, CIA, DIA
• Procedures reviewed by CIA and DIA
• The Privacy Act
Record of Denied Materials

- By case narrative.
- Withholding by CIA broken by formation of Walpole Task Force.
- Privacy issues abound concerning medical info.
- Bottom line: usually find other declass sources to cite.
Robust Outreach: "All we know we tell."

- GulfLINK with e-mail.
- 1-800 numbers and contact call-back.
- Letters.
- Gulf News.
- Use of media.
- Townhall meetings.
- Total Force visits.
- Work with VSOs and MSOs.
- Targeted notifications.
Archiving Our Materials

- Legal, historical and regulatory requirements
- File plan and disposition schedule approved by National Archives
- Originals
  - Placed into searchable and viewable electronic forms by Document Management Team (DMT)
  - Maintained for sign-out
- DMT is full service
  - OCR, video (VHS, Beta, 8mm), image, slides, classified, audio
Information: The Bottom Line

- Considering existing sources and gaps ...
- We are thorough and secure.
- We archive.
- All relevant information is released.
- There is no cover-up!
Tour of our Workspace

- Information nerve center: Case Management Action Team (CMAT)
- Interacting with veterans: Veterans Data Management (VDM)
- Archiving: Document Management Team (DMT)
- Investigating: Investigation and Analysis Directorate (IAD)
- Outreach: Public Affairs
Depleted Uranium (DU)

Intro: COL Daxson
Our investigation: LTG (Ret.) Vesser
Health effects: CAPT Kilpatrick
DU training: COL Lute
DU Basics

- Used as munition and armor.
- Two potential concerns:
  - heavy metal toxicity; kidney.
  - low-level radioactivity; 40% less than natural uranium.
- Simple protective measures are effective.
- **Bottom line:** exposure does not equal health effects.
Environmental Assessment

- DU expended during Gulf War: 301 tons
- 1991, CHPPM analysis: "well below US regulatory limits for general public"
- 1994, CHPPM survey: only penetration holes above background level
- Since 1994, CENTCOM collected over 7000 samples: well within US regulatory limits
- 1995, Kuwait University: "no substantial radiological hazard for Kuwaiti population"
- March 1998, Army lab dispatched for additional assessments; awaiting report.
Potentially exposed US troops
(based on dosage)

- Level I: those struck by friendly fire
- Level II: those who later worked on DU-struck vehicles
- Level III: those with fleeting exposure

Our focus: Levels I and II
Level I: friendly fire

- Those in or on US vehicles struck by US DU rounds and those who entered vehicles immediately afterward.
- Significance:
  - estimate 113 + (30-60) = perhaps 173 soldiers.
  - 16 soldiers had or have embedded DU fragments.
  - others may have internalized DU oxides.
Level II: those who later worked on vehicles

- BDA teams, EOD, recovery personnel
- those who cleaned up after Doha fire
- Significance:
  - perhaps 800 soldiers.
  - could have internalized DU oxides.
Level III: fleeting exposures

- Those near accidental M1A1 fires that burned DU ammo.
- Those who briefly entered DU-struck vehicles hours or days later.
- Significance:
  - unknown number of soldiers.
  - could have internalized DU oxides.
Health Effects

- **Heavy metal toxicity**: renal proximal tubular damage
- **Radioactivity**: uranium miners; no increased cancer due to uranium.
- **DoD/VA DU Medical Evaluation Program** (Baltimore VA)
  - 33 from those in vehicles hit by DU friendly fire
  - those with elevated urine uranium levels have DU fragments
  - to date no measurable adverse health effects due to DU
  - all babies fathered by this cohort are normal
Additional Health Evaluations

Four Phases of Notification Program:

- Phase I - Recontact troops involved in friendly fire incidents, advise them of new program (9 vets).

- Phase II - Initial contact of Level I vets (riding in vehicles) not yet contacted by OSAGWI. These vets will be interviewed, advised on medical options (est. 71).

- Phase III - Contact Level I vets (who entered friendly fire vehicles for combat rescue); then Level II vets (excluding Doha) (est. 145-243).

- Phase IV - Prepare to contact vets who cleaned up at Doha (est. 600).
DU Medical Examination

- Purpose: identify veterans with unrecognized imbedded DU fragments.
- CCEP or VA Registry examination
- DU exposure questionnaire
- 24-hour urine collection for uranium level
DU Training

- Inadequate training led to unnecessary potential exposures during Gulf War.
  - First battlefield use of DU.
  - Little to no pre-war training; most troops unaware.
- Today DU munitions are proliferating.
- Status:
  - Mar 98: Services submitted training plans to DepSecDef.
    - Apr-Jun 98: training materials developed or refined.
    - Jul-Aug 98: training begins.
  - SAGWI continues to monitor progress and report to DepSecDef; next report Sep 98.
DU Protection

- Current NRC guidelines are oriented on peacetime accidents, extremely restrictive, poorly suited to battlefield hazards.
- MOPP 4 is overkill, disproportionate to actual hazard.
- **Status:**
  - ✔ Training programs offer more suitable, field-expedient protection measures.
  - ✔ DoD must amend regulations.
Khamisiyah Survey Population

Under Plume

10,633 Khamisiyah Surveys Mailed
214 Saw/Experienced Symptoms
176 Saw/Experienced Symptoms

Not Under Plume

10,247 Khamisiyah Surveys Mailed
390 Saw/Experienced Symptoms

Deployed Force 696,531
13 March 1991

Participation Rates

Lowest  Highest
Medical Topics & Research
Who Served in the Gulf War

697,000 U.S. service members

<table>
<thead>
<tr>
<th>Service</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARMY</td>
<td>50%</td>
</tr>
<tr>
<td>NAVY</td>
<td>23%</td>
</tr>
<tr>
<td>MARINE</td>
<td>15%</td>
</tr>
<tr>
<td>AIR FORCE</td>
<td>12%</td>
</tr>
</tbody>
</table>

259,000 Coalition Forces

Source: Presidential Advisory Committee on Veterans Illnesses, Final Report
Who Served in the Gulf War

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALE</td>
<td>93%</td>
</tr>
<tr>
<td>FEMALE</td>
<td>7%</td>
</tr>
<tr>
<td>ACTIVE</td>
<td>83%</td>
</tr>
<tr>
<td>RESERVE/NATIONAL GUARD</td>
<td>17%</td>
</tr>
<tr>
<td>OFFICER</td>
<td>10%</td>
</tr>
<tr>
<td>ENLISTED</td>
<td>90%</td>
</tr>
</tbody>
</table>

Average soldier 28 yr. old, married, 1.5 children
U. S. Deaths

DNBI

224 148

Battle injuries
Symptoms

- Tiredness
- Rashes
- Headaches
- Muscle aches
- Joint pains
- Abdominal pain
- Diarrhea
- Hair loss
- Memory loss
- Sleep disturbance
- Depression
- Concentration problems
Possible Causes

- chemical warfare
- oil well fires
- depleted uranium
- infectious diseases
- pyridostigmine bromide
# Diagnosis Distribution

<table>
<thead>
<tr>
<th>Categories</th>
<th>CCEP (%)</th>
<th>VA Registry (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>35,000 (18,598)</td>
<td>68,000 (52,216)</td>
</tr>
</tbody>
</table>

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Symptomatic</td>
<td>90</td>
<td>88</td>
</tr>
<tr>
<td>Medically Unexplained</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Medically Explained</td>
<td>80</td>
<td>80</td>
</tr>
</tbody>
</table>
Confounding Issues

- no clustering
- variable onset
- no symptom consistency
- no longitudinal evaluation
Limitations of CCEP/VA Registry Data

- Self-selected
- Self-reported
- No comparison cohort
- Examinations done by multiple providers

Utility of CCEP

- Spectrum and frequency of diagnoses
- Background for answering participants questions
- Only computerized medical information
## Epidemiology Studies

<table>
<thead>
<tr>
<th></th>
<th>Deployed (%)</th>
<th>Non-Deployed (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical separation</td>
<td>2.20</td>
<td>2.56</td>
</tr>
<tr>
<td>(Aug 91 - Dec 93)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospitalizations</td>
<td>21.6</td>
<td>21.6</td>
</tr>
<tr>
<td>(Aug 91 - Sep 93)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birth Defects</td>
<td>7.45</td>
<td>7.59</td>
</tr>
<tr>
<td>(Aug 1991 - Sep 1993)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortality</td>
<td>.025</td>
<td>.023</td>
</tr>
<tr>
<td>(Aug 91 - Sep 93)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Veterans’ Concerns

• We don’t care why we’re sick, we just want to be treated and cured?

• Why isn’t DoD believing Dr. Nicolson that this illness is due to *Mycoplasma fermentans incognitus*?

• DoD is stating there is nothing wrong with us. Our symptoms are just due to stress. Stress not the cause.

• Why isn’t DoD believing Dr. Haley that this illness is due to brain damage from toxic exposures in the Gulf?

• The CCEP is just a program to medically separate sick Gulf War veterans. The CCEP doesn’t treat us.
Research

I. Responsibility
   A. Through the Persian Gulf Veterans Coordinating Board  
      [DoD, VA, HHS]
   B. By the Research Working Group (RWG)  
      [VA lead, DoD, HHS]

II. Request for research proposals
   A. Initiated by RWG
      - Recommendations by the Defense Science Board, National Institute of  
        Health, Institute of Medicine, Presidential Advisory Committee
   B. Received and Processed by the U.S Army Medical Research  
      Acquisition Activity (USAMRAA)
   C. Scientific peer review by the American Institute of Biological Sciences
   D. Relevance approval by Research Working Group
   E. Administered by USAMRAA

III. Research product
   A. Publications
   B. Research Proposals
As of March 1998, there are 121 ongoing or completed research projects funded by the Departments of Defense, Veterans Affairs or Health and Human Services. $115 million.
Responding to Concerns

- No longitudinal studies
  - Survey’s of health status
  - VA’s National Survey of Persian Gulf veterans

- No treatment protocols
  - DoD/VA treatment trial for chronic fatigue/fibromyalgia
  - Development of DoD/VA antibiotic treatment trial

- “Outside Investigators” cannot get inside system for funding.
Garth Nicolson, Ph.D

- Highly credible research career in tumor cell biology (M. D. Anderson)
- Switched research efforts to *Mycoplasma fermentans incognitus*
  - Developed nucleoprotein gene-tracking and forensic polymerase chain reaction experimental tests
  - Recommends 6-12 months of doxycycline
- DoD contracted with him to: teach his technique, perform quality control, participate in replicability testing
- Scientific questions remaining:
  - Does *Mycoplasma fermentans incognitus* cause symptoms?
  - Is *Mycoplasma fermentans incognitus* contagious?
  - Specificity of experimental tests?
Robert Haley, MD

- Hypothesis: toxic exposures have caused subtle mid-brain/brainstem damage
  - Used factor analysis to cluster symptoms
  - Initially toxin was nerve agent exposure
  - Now anything that was toxic

- Submitted multiphased research proposal for $13 million. Not approved.
  - Responded outside of system
  - $3M funded directly for clinical testing studies

- Latest research proposal not funded
Briefing to the Special Oversight Board on Gulf War Veterans' Illnesses

Investigations and Analysis
Methodology
Assessments
Priorities

July 16-17, 1998

Anne Rathmell Davis
LTC Dee Dodson Morris
Introduction

- Background
- IAD Products
- Why We Investigate
- Two Investigation Methodologies
  - Chemical/Biological Warfare Agent Incidents
  - Environmental/Occupational Exposures
- Investigation Observations
- Prioritization
- Case Status
Background

- Khamisiyah -- a watershed event
  - IAD Mission: To identify what happened before, during, and after the Gulf War as it relates to various potential causes of illnesses and to potential future force impacts
- Lack of understanding of investigative approach led to documenting methodology
- Concern over what was DoD’s evaluation led to 5-level assessment criteria
- Concern became standards of proof, subjectivity vs. objectivity
IAD Products

- **Case Narratives**
  - Investigations of suspected chemical or biological warfare agent incidents

- **Information Papers**
  - Subjects of general interest not involving specific incidents of possible exposure

- **Environmental Exposure Reports**
  - Investigations of who was exposed, to what, and how much
Why We Investigate

- Find out what happened to answer veterans’ questions and concerns
- Establish the facts concerning a given incident
- Establish if exposure resulted from incident
- Establish when/where/how much exposure
- Establish the affected population
- Identify lessons to learn
<table>
<thead>
<tr>
<th>Extent of Exposure</th>
<th>Presence of Agent</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialized No</td>
<td>No</td>
<td>Expertise</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Known</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chem/Bio Environmental Exposure</th>
<th>Discrete Events</th>
<th>Hostile Activity</th>
<th>Unique to Cult War</th>
</tr>
</thead>
<tbody>
<tr>
<td>TBD</td>
<td></td>
<td>Usually</td>
<td></td>
</tr>
</tbody>
</table>

**Two Investigation Methodologies**
Derived from Chemical Weapons Convention Verification Protocols

Chem/Bio Methodology
External cooperation/coordination

Medical aspects

Reports of eyewitnesses

Document the incident/find evidence

Key Elements

Investigations, veterans' reports, testimony

Proactive search of records, logs, previous

Structured and in-depth

Chem/Bio Methodology
Importance of Veterans' Interviews

Use Subject Matter Experts

Find Evidence/Identify "Missing" Evidence

Memories fade, so find multiple witnesses

Search for primary sources, even hand-written

Blank slate

Assume Nothing about Validity of the Incident

Find Evidence

Document the Incident
Evidence -- Fox Tapes

- Cement Factory -- Xylene not CWA
- Edgewood Tapes -- no confirmations
- Camp Monterey -- CS not CWA
- False positive
- Marine Breaching (shown) -- probable
- Provide details of detection

**Evidence**
Gun camera video showed actual bombing missions

Air Campaign

SCUD and Patriot databases identify intercepts

Aircraft Kill Report verifies time and location of shootdown

Aircraft identities aircraft

AWACS surveillance activity was recorded

Al Jubiyyat
Samples contained no material of chemical warfare interest

Assessment: Tank contents consistent with nitric acid

Evidence -- Samples

- Kuwaiti Girls School
- Samples of material in tank analyzed by CBDE Porton Down, UK
Evidence -- Maps, Logs, Souvenirs

Marine Breaching

Personal tape recorder documents "Gas" call

Fox Tape was a souvenir

Maps, Logs, Souvenirs
No samples taken
Marine Breaching
- Question about clothing chain of custody
- Urinalysis results not available
Mustard Injury
- Czech NBC officers took samples; US can't confirm
Czech-French
- Tapes believed to have been destroyed
- AI Jaber & ASP Orchard

„Missing Evidence“
Subject Matter Experts

- Review of Fox Tapes
- Non-DOD expert
- National Institute of Standards and Technology
- Review of Fox Tapes
- Non-DOD expert, MIM-1 mass spectrometer manufacturer
- Bruker
- Review of Fox Tapes
- Technical experts on alarm and detection equipment
- CBDCOM
- Necessary to interpret technical evidence
EOD members

- Initial EOD interviews for Khamisiyah led to other 60th

- Provide additional leads

- First-hand observations of Marine minefield breaching

- Day-to-day events at Khamisiyah

- Add information not in official records

- Details of survey of the ASP Orchard

- Khamisiyah bunkers and stack of rockets in Pit

- Validate data critical to the investigation

- Conducted by VDM and Case Investigators

Veterans' Interviews
Reports of Eyewitnesses

- Provided details of breaching -- weather, ground
- Provided details of breaching, enemy contact, order of battle
- Source of theory of chemical mines
- Fox Vehicle Commander, trained NBC NCO
- Led to other witnesses, one who had Fox Tape
- Marine Breaching
  -Demonstrating (IAD, CIA, DIA/G)
  -Special trip to Indiana to interview second principal in pit
- Two Group Interviews
  -Operations officers, NBC personnel, medical personnel
- Key players interviewed (commanders, engineers, EOD,

Khamis Yahab
Rest of EOD team agrees with his account

CENTCOM logs contain initial report and a follow-up

Sent unsolicited letter to Rep. Shays that denies chemical

Reports of Eyewitnesses

»»
Doctor's observations pivotal, provided photographs provided.

- Mustard Injury

Following day and fit to return to duty

Mustard Injury – Medical report indicates patient was fully recovered the

Injury not consistent with CWVA of the alert

Kuwaiti Girls School

- Reports of incidents flow through them

- Knowledgeable about condition of troops in unit

Indicators of presence of CWVA

Observations of Medical Personnel are Important

Medical Aspects
Single injury claim

Troops in MOPP2

2nd MARDIV

No injuries

Troops in MOPP2 (face and hands exposed)

1st MARDIV

Testimony to Congress and PAC

Marine Breaching

The major demolition

EDD member picture taken in the Pit on the day following
demolition team -- all in MOPP

No noticeable or reported effects among any member of

Chemistry

Medical Aspects
Intelligence Community -- Coordination
Joint Staff

VA, Rand, Bruker, NIST, Independent Modeling experts

ANALYSES AND PLUME LAYDOWN VS. CRUR DATABASE

CHPPM

S3/G3 CONFERENCES

DATABASE OF LOCATIONS OF UNITS

CRUR

CCEP DATABASE

MAILING OF KHANISHYAH SURVEY AND INITIAL RESPONSES

DATABASE OF GULF WAR VETERANS

DOD INCIDENT HOT LINE

DMDC

COORDINATION -- OTHER AGENCIES
Definitely Not -- CWA/BWA not present

Not Likely -- CWA/BWA probably not present; some unanswered questions.

Likely -- CWA/BWA probably present; issues remain

Indeterminate -- Insufficient data to draw conclusion

Unansweredprevening "Definitely"

withstanding

Definitely -- CWA/BWA present; minor discrepancies not

The conclusion based on common sense

Establish the facts such that an unbiased reader would arrive at

Chem/Bio Assessments
SCUD Impact

Unprotected Eyewitness Video of SCUD Recovery
SCUD Recovered

Experts evaluated CS Appearance consistent w/ CS
Fox Tapes showed CS Symptoms temporary

"Unlikely"
"Why not"

"Definitely Not"

Chem/Bio Assessments
## Chem/Bio Assessments

<table>
<thead>
<tr>
<th>Location</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Al Jubayl</strong></td>
<td>Symptoms temporary</td>
</tr>
<tr>
<td><strong>Purple T-shirt</strong></td>
<td>No acute sick calls, no hostile attack, known reaction of material</td>
</tr>
<tr>
<td><strong>Kuwaiti Girls School</strong></td>
<td>Agent dissolved material, inconclusive Fox tapes, sample tested, injury inconsistent with CWA</td>
</tr>
</tbody>
</table>
No samples
No samples
No samples
No samples

No Fox spectrum

"Definitely Not"

"Unlikely"

"Indeterminate"

Chem/Bio Assessments

Marine Breaching 1st MARDIV

Marine Breaching 2nd MARDIV

Marine Breaching

No Fox alarm

No warning to troops

Troops passed unprotected

No CWA injuries

 Logs, records, eyewitnesses

Fox alarmed for CWA
Fox tapes available

No chemical mines or source

No Fox spectrum

No Fox spectrum

No Fox spectrum
Chem/Bio Assessments

Unexplained source
Unk MMI procedures
No Fox spectrum

No chain of custody
No known source
Can't confirm SCUD
"Definitely Not"
Why not

"Unlikely"
"Unlikely"
Loud Noise
AI Juba

No CWA injuries
No CWA on sample
Neg CWA

Logs, records, eyewitnesses
Alleged aircraft tracks

Metalurgy analyses
Fox alarmed
ED inspection

ASP Orchard
SCUD Piece

"Indeterminate"
Why not
Chem/Bio Assessments

Incomplete reports

No samples

Inspections

No documentation of

NO CWA Injuries

Logs, records, eyewitnesses

UNSCOM reports

Injuries

Logs, records, eyewitnesses

No CWA Injuries

Troops unprotected

Extended

"Indeterminate"

Why not "Unlikely"

Definitely Not

"Unlikely"

Why not"
Assessing the Fisher Case

"Definitely" Why not

"Likely" Why not

"Indeterminate" Why not

Results of urinalysis

Clothing

Exposure

Agent

Mustard

Reported

Specialist observed and

Medical CWAC injury

Fox alarmed to mustard

Awarded Purple Heart

Blisters seen by soldiers

Logs reflected

Soldiers reported
<table>
<thead>
<tr>
<th>Assessment</th>
<th>Expertise</th>
<th>Investigation Methodologies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence of Agent</td>
<td>Operational</td>
<td>Chem/Bio</td>
</tr>
<tr>
<td>Extent of Exposure</td>
<td>Specialized</td>
<td>Environmental</td>
</tr>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>TBD</td>
</tr>
<tr>
<td>No</td>
<td>Usually</td>
<td>Hostile Activity</td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>Discrete Events</td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>Exposuere</td>
</tr>
<tr>
<td>Known</td>
<td></td>
<td>Unique to Cult War</td>
</tr>
</tbody>
</table>

Two Investigation Methodologies
Environmental Methodology
Risk Characterization - OSAGWI

- Relationship between health effects and exposure
- Dose estimates, duration, exposed populations
- Exposure Assessment - CHPM
- Toxicity Assessment - RAND
- What happened, types of exposures, exposed populations
- Data Collection & Evaluation - OSAGWI

Key Elements
- Environmental Methodology
Being revised by editor
In peer review
External review

External review

Other Papers

History of Stress
Analytical Activities
CW/BW non-Approved Drugs

Other Papers

Pesticides
Oil Well Fires
DU
Stress
Immunitization
PB
Infectious Disease
CW/BW

Literature Reviews

Status of RAND Papers
DoD, VA

Comprehensive literature search

RAND

Developed exposure scenarios

Dosage assessments and risk characterization, based on OSAW's

CHPPM

Investigation of DU use and development of exposure scenarios

Data collection, review of documents and interviews of 200+ veterans

OSAGW

Depleted Uranium
Oil Well Fires

- Comprehensive literature review to describe health effects
- Health risk assessment using locations of units within smoke plumes
- Modeling concentrations of pollutants within the smoke plume for 272 days
- Conditions of exposure (200+ veterans)
- Data collection, review of documents to establish chronology of events

RAND

CHPPM

OSACWI
Comprehensive literature review –
Prevalence
Survey of 2,000 veterans to validate scenarios and determine

RAND

Analysis of Mybait samples from Saudi Arabia: Ship and Shimkii

CHPPM

Dose assessments and risk characterization
Modeling of airborne concentrations and subsequent doses
Information (430 completed interviews)
Development of exposure scenarios from interviews and operational

OSAGV

Pesticides
Don't sacrifice accuracy or completeness to hurry a conclusion.

First explanation isn't necessarily the only explanation.

One person's experience doesn't constitute the whole story.

Investigation Observations
One person's experience doesn't constitute the whole story.
EOD's assessment -- "Unlikely"
- EOD Team's assessment -- "Definitely Not"
- Fox Vehicle Commander's assessment -- "Definitely"

Different account of events
- EOD team interviewed by IAD
- Detailed, believable, subject-matter expert
detail
- Fox Vehicle Commander testified to Congress and PAC

Necessary the Only Explanation
First Explanation isn't
reason for tank presence and contents - Did not possess key evidence - E.g., reason for tank presence and contents - Key aspects not addressed - UK witnesses had never been interviewed - UK witnesses

Conclusion relied primarily on the testimony of one
Announced publicly despite Special Assistant Protests - PAC: chemical warfare agent exposure

Kuwaiti Girls School

completeness to hurry a conclusion
Don't sacrifice accuracy or
Veterans' concerns and questions still powerful drivers

Potential cases

Completed review of 66 major studies, reports, and books to identity

Modeling, more external coordination

Environmental incidents involve more witnesses, more scenarios, more

"Low hanging fruit" gone

Now -- dealing with more complex issues

Veterans' concerns and questions

Presidential direction leave no stone unturned

Marine cases, Kuwaiti Girls School

Congressional or PAC testimony (Czech-French, Mustard Injury,

High visibility, e.g., Khamisjah

Initially -- focus on possible chemical warfare exposures

Prioritization
Medical Recordkeeping, Vaccine Administration, Medical Surveillance, Jubayl, Possible Post-War Chemical Weapon Use, Ukhaydir, Pesticides, Marine, M256A1 Miscellaneous Incidents, Possible Terrorist Attack on Al-Muthanna, Biological Warfare, Cement Factory, Edgewood Tapes, Injured - 18 Cases under active investigation

- An Nasiriyah, Czech/French, Depleted Uranium, Oil Wells, 11th Marines

- 5 Cases about to be published

- Fox Vehicle, M8A1 Alarms, MOPP, Medical Surveillance (Navy Fwd Lab)
- Mustard Exposure, ASP/Orchard, Al Jaber, Talil AB, Kuwaiti Girls School
- Khamiyric, Camp Monterey, Marine Breaching, Al Jubayl, Scud Piece

Published 10 Case Narratives, 4 Information Papers

Case Status
Case Status

- 28 cases in data compilation stage
- Them over to cognizant Division
- 18 Cases undergoing preliminary analysis before turning
  Munitions Markings, RFNA, SCUD
  - Air Campaign, Chemical Weapons Sites, MZ561
- 6 Information Papers in preparation
How do we know when we are finished?