PERSIAN GULF WAR VETERANS

JOINT HEARING

BEFORE THE

SUBCOMMITTEE ON HEALTH

AND

SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

OF THE

COMMITTEE ON VETERANS' AFFAIRS
HOUSE OF REPRESENTATIVES

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CONTENTS

Page

OPENING STATEMENTS

Chairman Stearns 1
Hon. Terry Everett, chairman, Subcomittee on Oversight and Investigations .. 2
Hon. James E. Clyburn 3
Hon. Luis V. Gutierrez 3
Prepared statement of Congressman Gutierrez 62
Hon. Lane Evans, ranking democratic member, Full Committee on Veterans' Affairs 5
Prepared statement of Congressman Evans 68
Hon. Spencer Bachus 21
Hon. Asa Hutchinson 35
Hon. Chris Smith 61
Hon. Joseph Kennedy 66
Hon. Mike Doyle 67
Hon. Jack Quinn, chairman, Subcommittee on Benefits 72

WITNESSES

Flowers, Robert B., Commanding General, Mississippi Valley Division, U.S. Army Corps of Engineers; President, Mississippi River Commission 46
Ford, Jeffrey S., Executive Director, National Gulf War Resource Center 51
Prepared statement of Mr. Ford, with attachment 261
Huber, Col. Joe, Office of the Deputy Chief of Staff of the Army for Operations 14
Leavitt, Col. Thomas P., Chief, Inspections Division, Department of the Army Inspector General 13
Prepared statement of Colonel Leavitt 247
Puglisi, Matthew, Assistant Director, National Veterans Affairs and Rehabilitation, The American Legion 50
Prepared statement of Mr. Puglisi 252
Rostker, Bernard, Special Assistant to the Deputy Secretary of Defense for Gulf War Illness, Department of Defense 6
Prepared statement of Dr. Rostker, with attachment 74
Walpole, Robert D., Chief of Persian Gulf War Illnesses Task Force, Central Intelligence Agency 8
Prepared statement of Mr. Walpole, with attachments 115

MATERIAL SUBMITTED FOR THE RECORD

Letter:
From Kristine A. Moffit, Director, Compensation and Pension Service, Veterans Benefits Administration, DVA to Carl F. Stout, Executive Direcgtor, Vietnam Veterans of America re monthly report of the number of PGW compensation claims processed at Area Processing Offices, February 21, 1997 269
Reports:
Interim report—"Case Narrative—Khamisiyah," submitted by Dr. Bernard Rostker, Department of Defense 82
Paper entitled "Khamisiyah: A Historical Perspective on Related Intelligence," April 9, 1997, submitted by Robert Walpole, Central Intelligence Agency 122
Statement:
Eleanor Hill, Inspector General, Department of Defense 249

Page

Written committee questions and their responses:
Congressman Gutierrez to Department of Defense 279
Congressman Evans to Department of Defense 279
Congressman Evans to Department of the Army 285
Congressman Evans to The American Legion 286

PERSIAN GULF WAR VETERANS

WEDNESDAY, APRIL 16, 1997

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON HEALTH, AND
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS,
COMMITTEE ON VETERANS' AFFAIRS,
Washington, DC.

The subcommittees met, pursuant to call, at 10 a.m., in room 334, Cannon House Office Building, Hon. Cliff Stearns (chairman of the Subcommittee on Health) presiding.

Present: Representatives Stearns, Smith, Bachus, Moran, Cooksey, Hutchinson, Chenoweth, Gutierrez, Kennedy, Brown, Doyle, Peterson, Everett, Stump, Buyer, Clyburn and Snyder.

OPENING STATEMENT OF CHAIRMAN STEARNS

Mr. STEARNS. Good morning, everybody.

Let me welcome everybody to a joint hearing of the Subcommittee on Health and Subcommittee on Oversight and Investigations. I will proceed with my opening statement, and then we will go to the Chairman on the Oversight Committee and then the Ranking Members.

Operation Desert Shield/Desert Storm was a brilliantly executed operation. We have celebrated the success of that encounter. We must also acknowledge that brief as it was, the war took a toll on a number of its combatants. The Veterans' Affairs Committee is all too familiar with the tragic human dimensions of war, through our efforts to restore, compensate and care for its wounded and disabled.

In this hearing room, which is devoted to veterans' affairs, certain phrases are uttered time and time again: Agent Orange, PTSD, service-connected disability. These words are the sad legacy of modern warfare. The obscure name of Khamisiyah now seems likely to enter that lexicon. It may be too early to make lasting judgments about it, but the word has already come to have meaning well beyond the coordinates on a map. It has come to represent a dark hour of our war effort.

Clearly the defense establishment has thrown extensive resources into understanding what happened. That effort started very late. Much has been learned. Yet there is much we still don't know.

While new information regarding this story emerges on what seems at times almost a daily basis, we must take account of certain perceptions. First, we must consider the perception some hold

that exposure to chemical warfare agents is the sole or primary cause of Gulf War veterans' illnesses.

Second, we must consider the perception that the government has been engaged in a cover-up regarding the entire story.

I believe this hearing will help us grapple with both of these perceptions. This is a most timely hearing, particularly in light of the disturbing revelations published by the CIA last week. The Agency's disclosures come very late, but it is important that its findings have been brought to light.

There are hard questions we need to ask our witnesses about the possibility that chemical weapons exposure may be implicated in some veterans' health problems. But we should avoid the mistakes of the Intelligence Community. We should guard against tunnel vision and remain open regarding the cause or causes of Persian Gulf war illnesses.

The one thing we do know is that thousands of our fighting men and women who have served with valor and dignity in the Gulf are suffering from chronic illnesses, and as our veterans who are testifying today remind us, we must and will, in a subsequent hearing, focus on the effectiveness of the VA treatment efforts.

As much as Persian Gulf War veterans want to understand the causes of their health problems, they are most concerned about getting better.

I want to thank my friend from the great State of Alabama, Terry Everett, the Chairman of our Subcommittee on Oversight and Investigations, for agreeing to cochair this hearing. There is a lot to be done on this subject, and I am pleased to have your assistance in this effort, Terry.

Let me turn to you for an opening statement and invite you to introduce the Ranking Member of your subcommittee. Then I will introduce the Ranking Member of the Subcommittee On Health, Mr. Gutierrez.

OPENING STATEMENT OF HON. TERRY EVERETT, CHAIRMAN, SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATION

Mr. EVERETT. Thank you very much, Cliff. I would like to strongly associate myself with your opening remarks. This hearing could not be more timely in light of the recent revelations of the Defense and Intelligence Communities. It is clearly evident that our government was aware of the presence of chemical weapons in Iraq since at least 1986.

The CIA's and the Defense Department's long denial of the possibility of chemical weapons exposure was a great disservice to thousands of Gulf War veterans whose tour of duty in the Persian Gulf has adversely affected their health.

Mr. Walpole has admitted that the CIA should have had better sharing of sensitive and yet vital information, and he said, I am thinking about sharing internally as well as externally.

I have to tell you, I find that very disturbing, since internal and external turf issues at the CIA and the Defense Department may have seriously put the VA behind the power curve in its ability to diagnose and develop effective treatment protocols and to compensate our suffering war veterans.

I welcome all of our witnesses today. I look forward to your testimony. There will be some hard questions. And at this point I would like to introduce my Ranking Member on Investigations and Oversight, Mr. Jim Clyburn.

OPENING STATEMENT OF HON. JAMES E. CLYBURN

Mr. CLYBURN. Thank you very much, Chairman Everett. I want to thank you and Chairman Stearns for calling this very timely hearing this morning.

I think all of us agree that the evidence is overwhelming that American troops were exposed to chemical agents during the Persian War.

I think that the revelations that are now coming out, some as recent as this morning, tend to underscore what many of us have been led to believe before, and that is that our efforts to get at the bottom of this very disturbing incident have so far been inadequate.

And so I think that the fact that we are here today hopefully will "help" to clear the air, if I might use that term, on something that's very, very important to the men and women who have made such significant sacrifices for all of us.

I am hopeful that by the time we are finished here today, we can all begin to make the kind of effort that is necessary to restore faith and confidence in the efforts of our great Nation. Thank you so much.

Mr. STEARNS. Thank you, Jim.

Let me also welcome my colleague and friend, Congressman Gutierrez, the Ranking Member of the Subcommittee on Health. I know he has worked hard on behalf of Persian Gulf veterans throughout his tenure on the committee, and I look forward to working closely with him on this and other subjects.

OPENING STATEMENT OF HON. LUIS V. GUTIERREZ

Mr. GUTIERREZ. Thank you. Thank you, Chairman Stearns, and Chairman Everett, for convening this important hearing to address new developments in the ongoing investigation of the illnesses afflicting our Persian Gulf veterans.

I am particularly encouraged that in my first health subcommittee hearing as the Ranking Democrat, we will be considering Gulf War issues. Persian Gulf illnesses have always been a priority for me on this committee, and they will continue to be so until they are resolved.

I am pleased that this committee has started to reassert its authority over issues related to Gulf War, and I am hopeful that our efforts will continue throughout this session.

This hearing comes at an opportune time. We now know that more than 20,000 Gulf War veterans, members of the 24th Army Infantry, were probably exposed to chemical nerve agents after they demolished the Khamisiyah arms depot in southern Iraq.

We also know that this devastating event may have been avoided had our intelligence services better reconciled their computer databases and disseminated their information in a more direct manner. The CIA has acknowledged its mistakes. However, while our government and this committee are now armed with more in-

formation, we are also beset by more pressing questions that must be addressed.

I believe that the Veterans of Foreign Wars Commander James Near said it best when he stated, quote, "I can't help but wonder, as these revelations and events continue to unfold, how many other Khamisiyahs are out there waiting to be uncovered."

Unfortunately, this remains a distinct possibility. Despite the thorough preparation of our military and our extensive intelligence capability, it remains feasible that during a massive deployment of the nature of Desert Storm, these worst-case scenarios did occur.

Do we know for sure that our allied carpet bombing campaign that precluded our ground attack did not similarly destroy Iraqi chemical storage facilities throughout?

As the CIA report demonstrates, analysts focused their efforts on S-shaped ammunition depots as their main repositories for Iraqi chemical armaments. This proved wrong in Khamisiyah. Was this concentration on S-shaped facilities wrong elsewhere? This remains conceivable until proven otherwise.

The onus is now on our government to demonstrate what really happened, to provide as many answers as possible, to do our best without holding back. That means disclosing all of the information needed to rectify the concerns of our Gulf War veterans and providing these American men and women with the health care and services that they require as a direct result.

We have started to acquire more details about what happened in the Gulf, and we have begun to commit adequate resources to this cause. The Department of Defense has allocated more than $25 million to Gulf War illness research for this year alone.

I do want to mention another concern I have: bureaucratic inefficiency. We have seen what this can do to the dispersement of information in the Intelligence Community. Khamisiyah is that example.

Today separate investigations into Persian Gulf illnesses are being conducted by the CIA, the Department of Defense, the four armed services, the Presidential Advisory Committee, both Houses of Congress and the General Accounting Office. And I am probably forgetting some government agency. I am also leaving out the many nongovernmental organizations that have conducted credible studies on this issue.

I believe that coordination is required. Cooperation is necessary, and the government agencies should work with their nongovernmental counterparts to get to the bottom of this.

In addition, let us not forget that we have at our disposal a resource that may provide our government with the best answers. That resource is the brave veterans that served our Nation during the Gulf War. Let's communicate with them clearly and succinctly.

Once again, I thank the Members of this committee and our distinguished witnesses for joining us today, and particularly thank the Chairman of this subcommittee Mr. Stearns.

I would just like to say that, Mr. Stearns, you look a year younger, not a year older today. I wish to wish you a happy birthday.

[The prepared statement of Congressman Gutierrez appears on p. 62.]

Mr. STEARNS. Thank you very much. I thank my colleague.

And if the Members will provide deference to me, I would like to make their opening statements part of the record so we can get right to this hearing that we have all been waiting for.

But I would like to give the Ranking Member of the full committee, Lane Evans, an opportunity to say a few words. Lane.

OPENING STATEMENT OF HON. LANE EVANS, RANKING DEMOCRATIC MEMBER, FULL COMMITTEE ON VETERANS' AFFAIRS

Mr. EVANS. Thank you, Mr. Chairman. I appreciate you holding this important hearing along with your Chairman of the subcommittee, my good friend Terry Everett, who has worked with this issue in the past. I want to associate myself with all the remarks made by my colleagues.

The major focus of this effort must be directed toward ensuring that our sick veterans are being cared for. We must also be doing all we can to ensure that our Gulf War veterans receive the benefits that they are rightly owed. We cannot fully accomplish these two objectives, however, unless we try to understand what happened during the war itself that may have led to the illnesses we collectively now call "Gulf War Syndrome."

Some of you have seen an article in the Washington Post over the weekend about the importance of understanding history. One only needs to remember how our country treated veterans exposed to Agent Orange in Vietnam to understand why an immediate and concerted effort needs to be undertaken now to attempt to unravel the mystery of Gulf War Syndrome.

It took years for our government to do as much as acknowledge the concerns of Vietnam veterans exposed to Agent Orange during the war. It was an even longer and more difficult journey before the Federal Government finally began to fulfill its obligations to Agent Orange victims.

As an enlisted Marine during the Vietnam War, I am proud to have fought in Congress for Agent Orange victims, but I am sorry that it took so long to provide any relief for long-suffering veterans. I am unwilling to let another generation pass before we find answers and give some assistance to our Gulf War veterans who now suffer or who may suffer in the future, for that matter, from Gulf War Syndrome.

Mr. Chairman, I appreciate your work. I look forward to working with you and your colleagues on this issue in the future.

Mr. STEARNS. Thank you very much, Lane.

[The prepared statement of Congressman Evans appears on p. 68.]

[The statements of Congressman Smith, Congressman Kennedy, and Congressman Doyle appear on pp. 61, 66, and 67.]

Mr. STEARNS. To the committee, I would like the staff to give each of you a Khamisiyah historical perspective of related intelligence. We received this report just recently. It was made public last week, but we want each of you to have this, and this is the important document that we wish we could have gotten it to you sooner, but this is the CIA report.

So we hope you will take this, study it. And this will be the report that we will be referring to during this hearing.

I think before we even start—and we are going to have the panel in order of their seniority, Dr. Rostker, Robert Walpole and Colonel Leavitt and Colonel Huber—but I would like to say personally to Dr. Rostker how much we appreciate him coming to the hearing today. All the Members should know that you had a prior commitment to go to Europe, but that you were kind enough to come here. And, as the Chairman and for the other folks here, I would like to say how much we appreciate your coming here.

As you know, we are going to put this in the perspective of putting you under oath. So if you will please all rise and raise your right hand.

[Witnesses sworn.]

Mr. STEARNS. Without further ado, Dr. Rostker, we will allow you to go first, and then we will proceed in order.

TESTIMONY OF BERNARD ROSTKER, SPECIAL ASSISTANT TO THE DEPUTY SECRETARY OF DEFENSE FOR GULF WAR ILLNESS, DEPARTMENT OF DEFENSE; ROBERT D. WALPOLE, CHIEF OF PERSIAN GULF WAR ILLNESSES TASK FORCE, CENTRAL INTELLIGENCE AGENCY; COL. THOMAS P. LEAVITT, CHIEF, INSPECTIONS DIVISION, DEPARTMENT OF THE ARMY INSPECTOR GENERAL; AND COL. JOE HUBER, OFFICE OF THE DEPUTY CHIEF OF STAFF OF THE ARMY FOR OPERATIONS

TESTIMONY OF BERNARD ROSTKER

Dr. ROSTKER. Thank you, Mr. Chairman. I appreciate the opportunity to appear before the subcommittees to report on the progress that the Department of Defense is making in terms of its investigation of Gulf War illnesses. In previous testimony presented before the full committee on February 11, I outlined the mission of my office and described the full extent of the commitment of the Department.

We are truly committed to finding out everything we can to determine the possible causes of illness while providing the best possible care for all those who are ill. We also have an eye towards the future as we learn from our Gulf experiences and make the necessary changes in policies, doctrine, technologies to protect our forces in the future.

Before reviewing the progress my office has made in our investigation, let me first highlight the recent Presidential decision to extend the presumptive period for compensation for Persian Gulf veterans with undiagnosed illnesses.

As you know, the government compensates for disabilities, not exposure. In the case of the symptoms that may be attributed to Gulf War veterans' illness, the benefit of the doubt regarding service connection would be in favor of the veterans.

We welcome this because it completely eliminates any argument that our actions are driven by concerns over government liability. Our inquiries never have been and never will be directed to such concerns. Our only interest is to support our veterans by vigorously searching for the cause of illness among Gulf War veterans.

Having said that, let me now review with you very quickly some of the significant progress we have made since I last appeared before the full committee.

We have embarked on a comprehensive medical research program that has resulted in many proposals being received to examine the consequences of possible exposure to low-level chemical agents. Those proposals are undergoing internal and external scientific review.

We have eliminated the backlog of calls from veterans who contacted our 1–800 Incident Reporting Line. Approximately 90 percent of the people who have called have been fully debriefed by trained investigators.

We have launched our outreach effort in January, mailing surveys to approximately 20,000 Gulf War veterans who have been within 50 kilometers of Khamisiyah. To date, more than 6,000 veterans have responded. Of that number, approximately 300 commented that they experienced illnesses, and approximately 300 provided information on their observations.

This latter group is receiving follow-up calls from our investigators for a full debriefing of their experience.

GulfLINK, our home page on the Internet, is now interactive. Veterans can now e-mail their concerns to DOD and get replies. We have strengthened our relationships with VSOs with monthly roundtable meetings. We have scheduled a series of nationwide town hall meetings in nine cities beginning next week so I can hear firsthand from our veterans and to discuss their concerns one on one.

The recent release of the Khamisiyah narrative, that is the narrative that the Defense Department released, is an interim report and does not represent closure of our investigative efforts. It describes the destruction of the Iraqi ammunition storage facility after the war, subsequent UNSCOM inspections of that facility and the later public inquiry into the incident.

Given the controversy—given the information that has been uncovered about the demolitions at Khamisiyah, it is prudent to rely on only the confirmed demolition that occurred on May 10. During that demolition operation, there were no reports of chemical munitions, nor were there reports of anyone experiencing symptoms consistent with exposure to chemical agents. Subsequent inspections by the U.N. in late 1991 and early 1992 and then again in May of 1996 suggest there were chemical munitions stored at Khamisiyah during the time in which U.S. forces destroyed the depot. It wasn't until 1995 that the evidence led the CIA and later DOD to begin investigating the possibility that U.S. forces could have destroyed these munitions and possibly been exposed to chemical agents. This was confirmed after a U.N. visit in May 1996 and announced by the Department of Defense in June of 1996.

Since then, DOD has expanded and intensified its investigation into these events. In addition to the extensive investigation my organization is undertaking, the DOD IG, the Army IG and the assistant to the Secretary of Defense for Intelligence Oversight are all reviewing various aspects of the Gulf War and Khamisiyah.

The effects of our investigations include continuing to search out and interviewing veterans who were in the Khamisiyah area at the

time of the demolitions; working with the CIA to estimate who may have been exposed to chemical agents and the extent of the exposure. This includes working to reduce the uncertainty associated with modeling the so-called pit area demolitions by conducting a series of small-scale tests that will help us in our efforts to determine possible exposure.

We are also conducting an analysis of participation rates from the combined CCEP and VA medical registry programs with regard to time and location of units relative to Khamisiyah. All of these efforts are directed towards the single purpose of determining what is our cause of Gulf illness. While doing what we can—by doing that, we are ensuring that the Gulf War veterans are receiving the best possible care.

Finally, we then must take—make certain to apply the lessons learned from the Gulf experience for future deployments. You have my commitment that no effort will be spared to determine the cause of these illnesses and to respond to the health needs of our veterans.

Thank you, Mr. Chairman.

[The prepared statement of Dr. Rostker, with attachment, appears on p. 74.]

Mr. STEARNS. Thank you, Doctor.

For the Members' benefit, we are under the 5-minute rule with the witnesses, but I have asked that Mr. Walpole be allowed 10 minutes because he is going to be explaining for us the Khamisiyah historical perspective, the CIA document which has been handed out to all Members, so at this point we will allow him 10 minutes to explain it. Mr. Walpole.

TESTIMONY OF ROBERT D. WALPOLE

Mr. WALPOLE. Thank you, Chairman Stearns, Chairman Everett, and Members of the subcommittees. I am truly pleased to be able to appear before you today to discuss CIA's and the Intelligence Community's efforts on the issue of Gulf War veterans' illnesses and the possible exposure of some of those veterans to chemical weapons agents.

To keep within the 10-minute guideline, I will summarize my remarks, but I ask that the full statement be included in the record.

Mr. STEARNS. So ordered.

Mr. WALPOLE. I would also ask that the Khamisiyah paper you passed out be included in the record along with the 41 documents that that paper was written to accompany.

Mr. STEARNS. So ordered.

[The attachments appear on p. 122.]

Mr. WALPOLE. Okay. We know how important this issue is to our veterans, and that our intelligence is essential to understanding some of the events that occurred during the war. In response to President Clinton's tasking to his advisory committee, and after determining that the issue required additional resources, George Tenet, the Acting Director for Central Intelligence, appointed me his special assistant on the 27th of February and asked that I have a task force up and running on the 3rd of March. Since that time we have made every effort to keep staff of these subcommittees, as

well as numerous other committees on the Hill, advised of our progress.

The focus of our efforts has been to help find answers as to why the veterans are sick. We are supporting numerous government efforts on this issue, and we are searching our files for any intelligence that can help.

Before I describe our mission, let me emphasize that one of my primary responsibilities is to set the record straight, and I must do that from the outset of today's hearing, regarding our public release last week about Khamisiyah.

In reporting the Intelligence Community's admission about missing some important intelligence prior to the Gulf War, some have missed a very important point of our story. It has been correctly reported that the Intelligence Community did not list Khamisiyah as a suspect chemical weapons storage site prior to the war, even though we had a report that identified it in 1986 as forward-deployed CW storage site during the Iran-Iraq war.

But some have missed a more important point, suggesting that our error in not listing it before the war equated to a failure to provide warning before U.S. demolition activities. On that point the record is clear. CIA and DIA provided multiple warnings to our military forces. I will go into more details later in my statement.

The mission of this task force is to provide intensive, aggressive intelligence support to the numerous U.S. Government efforts currently investigating Persian Gulf War illnesses issues. Fifty officers are serving on this task force, drawn from across the Intelligence Community, Central Intelligence Agency, the Defense Intelligence Agency, the National Security Agency and the National Imagery and Mapping Agency. In addition, we have officers from the Department of Defense's Offices of the Special Assistant for Gulf War Illnesses and the Assistant to the Secretary for Intelligence Oversight.

An example of our group's efforts was released several weeks ago in Salt Lake City. It is a one-page paper concerning the release of chemical warfare agent at Khamisiyah during March of 1991. The day after that meeting, the Department of Defense received 80 phone calls on the 1–800 number, some from veterans who recalled being at Khamisiyah. This is an important step forward in trying to determine exactly what happened at that place and to address veterans' concerns about possible exposure to chemical agent.

Let me mention briefly some of our modeling efforts. We are continuing to try to reduce uncertainties in order to move—to more accurately identify the extent of the release from the demolitions I just mentioned. We are helping the Department of Defense develop tests to destroy rockets containing CW agent simulants. We expect this to provide us invaluable data on how the agent would react in open-pit demolition. We had that information on what happens inside a building and were able to model events in that regard.

We are also working with the Department of Defense to talk to veterans who are providing some knowledge about the demolition activities at the pit. In Salt Lake City, we reiterated our uncertainties but indicated that we believed, on the basis of limited and often contradictory data, that two demolition events were more likely than one. These data included the military log entry for de-

struction on March 12, the contradictory stories of two different soldiers and an UNSCOM videotape. We also indicated that if we could find one more soldier who recalled being in the pit, we would increase our knowledge by 50 percent.

DOD has recently found other eyewitnesses, and we joined with them in interviewing these individuals. We had four of them together, including the two original soldiers. The interviews called into serious question the log entry. We learned that it was prepared after the fact and that we should not put credence in the March 12 date. Even with four soldiers together, we still obtained several contradictory statements.

Just this week DOD located another witness who might be able to shed light on some of these contradictions. Even so, with the log's entry—the credibility of the log's entry in question, the prudent approach would be, and will be, for us to model one event on March 10. This would be true from a modeling perspective, even if there were two events done at the same time.

We will proceed jointly with the Department of Defense to complete that modeling once the test data are obtained. If we receive further information on exactly what happened in the pit, of course, we will modify that approach.

I would mention something briefly about document searches. We are continuing to go over whatever material could have possible bearing on this. We have extended our searches from previous efforts to earlier time frames. But I need to mention today's Post article because that was raised earlier.

There are several errors in that article and I want to point some of those out. The analysts referred to have been working in the chemical weapon issue for many years. They were part of the review in 1995. They were part of the 1996 efforts. They have been interviewed by the IG; have been interviewed by numerous people.

Now, since my task force, as of last week, had been running for only 35 days, and that was the first time I got into this issue, of course I interviewed them 35 days ago. But they have been interviewed many times and have been involved in the process. And finally, many of those analysts are on my task force. We talk daily about what their thoughts were during the war.

Now, during the war, they decided that they wanted to have some time with their families and wanted to have some time to sleep and decided that 15-hour days wasn't working for them. They decided amongst themselves they would arrange their schedules so that they could have 24-hour coverage and still do the other outside activities. In order to keep each other apprised of what was happening while the others were off, they kept in a computer file informal working notes. They titled these "a log," but they really were informal working notes.

We reviewed those notes as part of our Khamisiyah effort, and, in fact, one of those notes was released. It happens to be document 11, I think, in the package. We will indeed review those notes for any other releases for declassifications that will have pertinence to the Gulf War illnesses, and we will also make all of those notes available, which are classified, to cleared government officials to review and see if there's any relevance in them. There's a lot of information, as you can imagine, in informal notes, that is completely

extraneous to this issue or any other issue of intelligence value, that's talking amongst themselves.

I would make one other point about that article. We are trying hard to get to the bottom of some of these questions, and whenever issues come up that divert our attention about whether analysts were talked to or not talked to, that it diverts our attention from what has caused the veterans to get sick, and we are trying to run that to ground.

Let me finally turn to the Khamisiyah paper you passed out. During our initial efforts on Khamisiyah, we determined that certain intelligence documents were critical to answering the questions, what did the intelligence community know when? What did we do with that information internally, and what did we do externally?

We began briefing those documents to the President's Advisory Committee and appropriate Congressional committees. We also began simultaneous efforts to declassify those documents and to search for any other information relevant to the questions.

We determined in the process of that effort that a paper, unclassified, that would walk through the historical perspective would help the recipients of these 41 documents understand the context of the documents. The paper, which was released on the 9th of April, provides details of the Intelligence Community's knowledge about Khamisiyah before, during and after the war.

Some highlights of the paper relevant to recent coverage include in 1986 the Intelligence Community knew Khamisiyah had been a chemical weapons storage site during the Iran-Iraq war, specifically during 1984 and 1985. Subsequent analytical assessments began to focus on S-shaped bunkers as future forward-deployed storage locations for chemical weapons. Since Khamisiyah didn't have one of those bunkers, it was not on our list. Nevertheless, the Intelligence Community warned that Iraq had forward-deployed weapons, and was likely to use them.

On February 1, the Defense Intelligence Agency warned that chemical weapons could be stored anywhere, even in the open.

I have just a couple more minutes, if you would like me to walk through these bullets on this paper.

Mr. STEARNS. Sure. Why don't you go ahead.

Mr. WALPOLE. Okay. On the 23rd of February, before the ground war and 9 days before the U.S. military performed demolition at Khamisiyah, CIA passed to CENTCOM information pointing to Khamisiyah as a potential chemical storage facility. While the information did not mention Khamisiyah by name, it included geographic coordinates indicating the area and noted a specific storage area on the military's Joint Operations Graphics map. I have copies of that map if we want to go into that later.

On the 25th of February, CENTCOM tasked National Technical Means to determine if Iraqi troops were present at several places of concern, including the coordinates we had passed. National Technical Means would have been able to provide information on Iraqi troop presence before anyone was sent to check on special weapons.

On the 28th of February, at least 4 days before demolition occurred, DIA had sent a message to CENTCOM indicating that bio-

logical and chemical weapons could be stored at Khamisiyah and other facilities.

Also on the 28th of February, CENTCOM requested the Army Central Command to determine by noon on the 4th of March whether chemical or biological weapons were present at Khamisiyah and 16 other sites. The response, which was not received until the 1st of April, indicated that no chemical weapons were found. The rockets in bunker 73 were destroyed after noon on the 4th of March, and those in the pit were destroyed on the 10th of March.

On the 6th of March, CIA passed to CENTCOM a reiteration of its warning that Iraq did not mark chemical munitions. While this warning was 2 days after the demolition in the bunker, it was 4 days before the demolition in the pit. Both demolitions were unknown to CIA at the time.

The 6th of March cable further advised CENTCOM that opportunities to identify chemically filled munitions could be missed, and that while caches of unmarked munitions were destroyed, there was a possibility that individuals could be exposed to chemical warfare agents.

The documents released and the Khamisiyah paper written to accompany them do not change our judgments that Iraq did not use chemical munitions before the war. They do show us that our support before the war could have been better.

That said, the Intelligence Community did not warrant charges that it did not provide warning before U.S. post-war demolitions. As already indicated, CIA and DIA provided multiple warnings. Recent coverage on this issue actually highlighted the difficulties inherent to dealing with intelligence. We who report intelligence indeed missed some important opportunities to draw accurate conclusions about Khamisiyah before the war. In focusing on that part of the story, however, some reporters who received our briefing and related information missed the opportunity to report other important details on the issue, especially that warnings were given before demolition activities were conducted.

The paper that you were passed out is also on GulfLINK, and if anyone needs that GulfLINK site, I have got that address. I won't read that here.

In conclusion, I want to reiterate George Tenet's and the Intelligence Community's commitment to the men and women who served this country in the Persian Gulf. We owe them a full and accurate accounting of what happened during the final days of Desert Storm and in the following days and weeks before their returning to the United States. To that end, the intelligence material we released on Khamisiyah, including the paper outlined in the related historical perspective, gives the veterans and the American citizens a clearer understanding of what we knew and how we used the material.

We stand behind our contributions to national security and are working to enhance our support for the future.

Thank you for the additional time.

[The prepared statement of Mr. Walpole, with attachments, appears on p. 115.]

Mr. STEARNS. Thank you, Mr. Walpole.

Our next witness is Colonel Thomas Leavitt. Colonel.

TESTIMONY OF COL. THOMAS P. LEAVITT

Colonel LEAVITT. Mr. Chairman, members of the committee, I thank you for this opportunity to update you on the Department of the Army inspector general's inquiry into the destruction of Iraqi ammunition at and around Khamisiyah by U.S. Army ground forces in March of 1991.

My comments today will address the focus of the inquiry as directed by the Secretary of the Army, a short review of the methodology, the current status of the inquiry, and a summary of our future plans.

On the 25th of September, 1996, the Secretary of Army directed the——

Mr. KENNEDY. Colonel, would you put that microphone a little closer to your mouth.

Colonel LEAVITT. Yes, sir.

Mr. KENNEDY. Thank you.

Colonel LEAVITT. Does that catch it?

Mr. KENNEDY. Yes.

Colonel LEAVITT. On the 25th of September, 1996, the Secretary of the Army directed the Department of the Army inspector general to determine the facts surrounding the demolitions at Khamisiyah. The inquiry was to focus on the following questions: Was the presence of chemicals detected when the ammunition was destroyed? Was its presence reported, and to what level? Were appropriate force protection measures taken during the ammunition demolition operation?

On the 18th of October, 1996, the Secretary issued a supplemental directive. The Department of the Army inspector general was also to address the weapons destroyed; the personnel who participated in the destruction; the potential exposure of these personnel; the potential exposure of other personnel who, taking into consideration the amount of agent possibly released and the applicable wind patterns, might have been exposed; any other significant factors about the incident; and any other sites where the same or similar operations were conducted.

Our inquiry team proceeded with a train-up by developing an action plan and methodology. We initially spent about 30 days screening classified and unclassified historical logs, reports, and records for records of demolition operations, reports and reconnaissance of expected chemical storage weapon sites, reports of activities around Khamisiyah. This effort is still ongoing.

The team also sought to determine the focus on chemical weapons before, during, and after the Gulf War, asking such questions as: Were chemical weapons designated as a priority intelligence requirement? What actions were taken by commanders and intelligence officers regarding the presence, use, or destruction of chemical weapons and munitions? Was anything found and reported?

Lastly, we planned to take sworn and recorded testimony from all locatable commanders, soldiers, veterans, and civilians involved in the destruction of the Khamisiyah facility.

The DA IG inquiry team has gathered information and documents from the Gulf War Declassification Project; the Investigation

and Analysis Division of the Office of the Special Assistant for Gulf War Illnesses; various Army commands and agencies; the CIA; the DIA; and individual soldiers, veterans, and civilians.

After screening thousands of historical files and records, we have collected over 2,000 documents, 300 photographs, 4 videotapes, and an audiotape. Some of these documents and the vast majority of the photographs and tapes came from soldiers and veterans actually involved in the demolition operation. Cooperation and assistance from all individuals and agencies across the spectrum has been superb.

To date, we have talked to over 350 soldiers, veterans, retirees, and civilians. This includes 23 chemical officers and NCOs at levels from company through CENTCOM; 10 operations officers and NCOs from battalion through CENTCOM; 14 intelligence officers and NCOs battalion through ARCENT, which is the Army portion of Central Command; five generals.

We have talked to approximately 150 soldiers, veterans, and civilians who actually participated in or were present at the destruction of the Khamisiyah ammunition facility. This includes the company commanders, operations officers, command sergeants major, battalion commanders of both the 37th and 307th Engineer Battalions, the units most directly involved in the operation.

Of the 350 interviews conducted to date, over one-half have involved sworn recorded testimony. The remainder were documented with memorandums of record.

Members of the team, as we speak, are conducting interviews with soldiers stationed in Europe and are working on some other leads involving veterans in the United States.

This will largely conclude the interview portion of the inquiry. Our focus will then shift to analyzing and crosswalking the data that are available and coordinating the possible results and conclusions with the various agencies and individuals involved.

There is also work remaining regarding the technical aspects of the inquiry primarily involving the modeling efforts.

Mr. Chairman, this short synopsis provides a snapshot of where we are with regard to the SECARMY's directed inquiry into the demolition of Iraqi ammunition at Khamisiyah. We expect to brief the Secretary of the Army late this month or early next month on the results of this inquiry and anticipate that specific results will be released shortly thereafter.

Thank you, sir.

[The prepared statement of Colonel Leavitt appears on p. 247.]

Mr. STEARNS. Thank you, Colonel Leavitt.

Colonel Joe Huber, I understand, does not have an opening statement.

TESTIMONY OF COL. JOE HUBER

Colonel HUBER. That's correct, sir. I am here prepared to respond to your specific questions about NBC, defense training, as I assist Dr. Rostker.

Mr. STEARNS. So you are the designee from the Secretary of Army?

Colonel HUBER. Yes, sir.

Mr. STEARNS. Okay.

Well, let me open up with just a question, a simple question, a yes or no from each of you. I would like to ask each of you on the panel whether there are any unclassified documents which have not now been made public and available to Congress; just a yes or no.

Dr. ROSTKER. None that I know of, sir.

Mr. STEARNS. Okay. Mr. Walpole.

Mr. WALPOLE. None that I am aware of.

Mr. STEARNS. Colonel Leavitt.

Colonel LEAVITT. None that I am aware of, sir.

Colonel HUBER. Sir, I am not aware of any.

Mr. STEARNS. Mr. Walpole, Persian Gulf veterans have been alarmed by the possibility that they were exposed to deadly chemical warfare agents as a result of the detonations at Khamisiyah. You recently released a previously classified January 1991 Defense Intelligence Agency analysis which assessed Iraq's chemical weapon threat.

In that document, the DIA expressed the view that although Iraq is likely to have significant chemical weapons stockpiled, quote, its nerve agent stocks are being reduced by spoilage and probably will be militarily ineffective after the 31st of March. Iraq is not able to make good quality chemical agents. Technical problems have reduced their purity. This is a particular problem for the sarin type nerve gas, GB and GF. These both contain hydrofluoric acid, HF, and an impurity that causes nerve gas decomposition. Lower purity significantly reduces shelf life and reduces toxic effects. The nerve agent recently produced should have already begun to deteriorate, and decomposition should make most of the nerve agent weapons unserviceable by the end of March 1991.

Now, as we know, the Khamisiyah detonations took place in March of 1991.

Now, this information was interesting to us, and we would like your assessment. Was that assessment right or totally wrong? And how do you square it with the agency's model of the released sarin from Khamisiyah Storage Bunker Number 73 where you assumed 100 percent pure agent?

Mr. WALPOLE. There are actually several questions built into your question. I am trying to figure out what order to actually go in on these.

The UNSCOM sampled the rockets that they found there in October/November 1991 and elsewhere, and the samples indicated that the purity of agent ranged from 10 to 70 percent. There was only one example that was up at the 70 percent point.

So there is degradation in the agent, and that part of the DIA paper is accurate.

They left what we would consider to be material foreign to trying to develop a pure agent in, and that caused the degradation of the Iraqis'.

The fact that there was still purity in the agent as late as November raises the questions of what was meant by "militarily significant" on the 31st of March 1991 in the DIA statement, and we are going back to the analysts on that to discover how they had determined that relative to the new information.

On the point of modeling, we have attempted in our modeling efforts to develop releases that leaned more on the worst case side of the equation, simply because the data is not there to determine exactly what happened. And if we are trying to determine what the potential plume extension was, we want to err on the side of the worst case. That's why we used 100 percent agent for that, even though we knew that was high.

Mr. STEARNS. So can I say safely then you agree with the Defense Intelligence Agency in their assessment, or do you feel that in the Storage Bunker Number 73 there was 100 pure agent?

Mr. WALPOLE. We agree that the agent degraded. I think the samples show that it did not degrade completely by the 31st of March 1991, and we stand by using the higher values of purity in our modeling efforts for the purposes that they were generated.

Mr. STEARNS. You feel comfortable.

Mr. KENNEDY. Mr. Chairman.

Mr. STEARNS. We have called the supervisor on this.

Mr. KENNEDY. This is the CIA putting a——

Mr. STEARNS. We have called the supervisor about that, and we are assuming that they are looking into it.

But can I assume then that you are going to say that you stand by the 100 percent or 80 percent? Could you give for this committee what percent that you venture to guess? Is that putting you on the spot too much? Can you venture?

Mr. WALPOLE. I don't remember exactly what percent we ran through the model at Bunker 73. As I indicated earlier, I started the job 40 days ago. I will take, for the record, the question of what percent we ran through that model. It was published in the paper on Bunker 73. It is all unclassified. It is just that I do not know the answer.

I know that in our modeling efforts we have tried to lean on the upper end of the sample purity, just so that we don't minimize the plume without any evidence to do so.

Mr. STEARNS. Thank you.

My time is up. I will now call on the chairman of the oversight committee, Mr. Everett.

Mr. EVERETT. Thank you, Mr. Chairman.

Mr. Walpole, while the facts certainly haven't changed, the tone of your testimony differs markedly from that of your report last week, in my opinion. Your former report seemed a candid, critical, tough analysis. The admitted sharp reporting and commentary the agency received afterwards appears to have changed your report or your position.

I now understand you to say that while the intelligence community missed a few things, it fundamentally got solid intelligence to DOD which the military should have acted on with far greater caution. Is that an accurate statement?

Mr. WALPOLE. I won't judge what the military should and should not have done. The——

Mr. EVERETT. But is it an accurate statement that you got the information to the military?

Mr. WALPOLE. That is an accurate statement.

Mr. EVERETT. Okay.

Dr. Rostker, I wonder if you would please comment on the extent to which you agree with what Mr. Walpole has said in his testimony. Given the warnings that the intelligence community provided during February and early March 1991, shouldn't military commanders have assumed as a matter of prudent caution that all the rockets found at Khamisiyah were chemical ordnance and treat it accordingly rather than to assume the exact opposite?

Dr. ROSTKER. The history of the Gulf War and the documentation that has been published on GulfLINK and is in the public domain is replete with warnings, procedures for dealing with chemical sites. In every case, the commander stressed that safety was paramount, that the units were to lead with their Fox vehicles, their chemical reconnaissance vehicles, and to go in MOPP. It is very clear that is what happened at Khamisiyah. The unprotected troops only went in after they got it all clear from the chemical disposal folks.

One of the great mysteries of Khamisiyah still is why we have not seen acute exposure given the presence of chemical there; why we have pictures of Army personnel, trained demolition personnel, standing next to stacks of blown up Iraqi munitions 1 and 2 days after the munitions were blown up, unprotected troops that had never had any health impacts. Khamisiyah, in this regard, still is quite an enigma.

But it is quite clear that safety of the troops was paramount, that the troops were instructed to go in with the chemical vehicles and in MOPP gear, and that's exactly what they did do.

Mr. EVERETT. Help me understand something. You say that the troops only went in after they got the all-clear for those who had tested for chemical—I don't understand why they got the all-clear.

Dr. ROSTKER. We don't understand either. If you were to, for example, talk to the company commanders of the 37th Engineers that blew up Khamisiyah, they would tell you, as they did in the press conference just a number of weeks ago, that to this day they do not believe there were chemicals at Khamisiyah.

Mr. EVERETT. And yet we have all of this evidence that there were chemicals at Khamisiyah.

Dr. ROSTKER. What we have is the evidence of U.S. troops blowing up munitions at Khamisiyah, and we have the evidence of the United Nations finding chemicals at Khamisiyah the following October.

Mr. EVERETT. You are talking about the UNSCOM?

Dr. ROSTKER. The UNSCOM.

Mr. EVERETT. Let me ask you in that regard, or somebody in the Army, who was notified at Army Central Command by the CIA of the United Nations Inspector Command finding the presence of chemical munitions at Khamisiyah?

Why wasn't this information evaluated to the highest levels of Army Central Command? This is not information of a routine nature.

Dr. ROSTKER. The issue is covered in our—in the Khamisiyah narrative. The CIA contacted someone unknown at Central Command, who indicated that the 24th Division was in the vicinity of Khamisiyah, but it was the 82nd Division that actually blew up the depot.

We know the CIA contacted a captain at Fort Stewart and inquired whether they had been involved in the demolition at Khamisiyah. The captain has no recollection of ever receiving a phone call. The answer he could have only given was no, because the 24th Division was not engaged at Khamisiyah.

We do know the messages that Mr. Walpole talks about were received on the 28th of February and were passed to the 24th Division and the 101st Division, which were the lead divisions of the 18th Airborne Corps attacking Khamisiyah.

So we know that as the forces went into Khamisiyah, they had the warning of—and it is in their logs, quote, possible chemicals on objective gold, which was Khamisiyah.

We know that they went in with their protective gear and their vehicles, but they did not detect any chemicals, and in the days after the munitions were blown up in Khamisiyah, the U.S. troops on the ground did not detect any chemicals.

Let me say that this is also the inquiry that the Army IG is going through, so we are checking and double-checking with independent assessments as to what I am just telling you, but that is the facts from the people on the ground, sir.

Mr. EVERETT. In other words, the CIA contacted somebody, and we don't know who they contacted.

Mr. Chairman, I recognize my time is up, but the same question—could I ask just the Army to respond to the same question: Why wasn't this passed up the Army command to high levels?

Colonel HUBER. Sir, I am not prepared to answer that question. That would be an operational question that would have to be addressed from Central Command.

Mr. EVERETT. Could you get us an answer?

Dr. ROSTKER. If I might, that is exactly what the Army IG is charged with, to get an answer to that question, sir.

Mr. EVERETT. Thank you.

Mr. STEARNS. Colonel Huber, I just suggest if you could give a written answer to Mr. Everett for the record.

Colonel HUBER. Yes, sir, we will.

Mr. EVERETT. Thank you, Mr. Chairman.

Mr. STEARNS. Mr. Gutierrez.

Mr. GUTIERREZ. Thank you very much, Mr. Chairman.

Doctor, as you know, the Defense Department has been called before this committee in the past. The Department of Defense stated before this committee in 1993 that there was no evidence of chemical weapon exposure to our veterans in the Gulf War. As we know today, that was not true.

In addition, this committee was informed by the Department of Defense that the medical conditions afflicting our Gulf War veterans, in their opinion, were not connected to chemical agents that they may have encountered during the Gulf War.

Given the information that we have to date and the knowledge that you have to date, do you still believe that the illnesses afflicting our Gulf War veterans have no relationship to any chemical agent exposure during intervention in the Gulf War?

Dr. ROSTKER. I would first refer you to the President's advisory committee on that point, because that is a conclusion that they

drew, that they could not find a connection between chemical exposure——

Mr. GUTIERREZ. Doctor, but I would like you to answer the question.

Dr. ROSTKER. We are holding that as an open question. I removed from GulfLINK a paper that had drawn a conclusion because it was not a conclusion that I had drawn in my efforts, and so that is an open question.

We have review research and we have put out RFPs to encourage additional new research because the research base is thin. So we at this point have not drawn that conclusion.

Mr. GUTIERREZ. So would it be fair then to say that you are not as solid as you were in 1993 and 1994 when the Department of Defense came before this committee and said that there was no relationship between exposure in the Gulf War and their illnesses, that is just not your position today, though?

Dr. ROSTKER. Our position today is that this is an open question, and that is why we are encouraging and funding additional research on that point.

Mr. GUTIERREZ. Well, I am happy to hear that it has changed, because I remember sitting here sharing this panel with other members here when I joined Congress in 1993, and I remember the hearings in 1993. I remember the hearings in 1994. I remember that the information that we were receiving was—I mean, there were people who suggested that, you know, veterans were just kind of making this stuff up, that this was psychological, that there was no evidence that there were any medical determining factors to their illnesses.

And they said, well, you know, there are always malingerers trying to get a free government handout. Well, at least today we don't have the same kind of evidence being presented before this committee. So I think that that is certainly a step in the right direction, because it always seems that the veterans have to fight—after they have fought, have to fight for their credibility when they raise issues before our Government for due compensation for their service to the Nation.

I would like to ask, Mr. Walpole, to thank you for joining us here today. I want to commend you on your efforts to deal candidly with the issues surrounding Khamisiyah, and I am hopeful that the intelligence community will continue to work in such a forthright manner.

To date, our Government, and particularly the CIA and the Defense Department, have stated that there is no evidence, no evidence suggesting further chemical agent exposures from sites in the Gulf War, excluding Khamisiyah.

I certainly want to believe that, but of course they told us nothing had happened a couple of years ago at all. And so I have been assured by the Department of Defense, while sitting here on this dais, that there was no chemical exposure of our troops at all. Now we know that is not the case.

So, Mr. Walpole, in your opinion, are there other Khamisiyahs that Congress, this committee, and the American people, and, most importantly, our troops, have not been informed of? And can you answer that question for me this morning?

Mr. WALPOLE. To date, we have not discovered any other facility like Khamisiyah, another Khamisiyah. We have learned a lot in our investigation, our review of the information on Khamisiyah, and we have expanded our search to see if any other documents would come forward that would suggest any other sites.

And since I focused most of my remarks on Khamisiyah, it ignores that I have a large volume of people doing this document search, and we have extended much of that search back to 1980, so we uncover the 1986-like documents that we may have missed before. But to date we have not found anything.

If and when we find anything else, that information will be made publicly available to help on this question.

Mr. GUTIERREZ. So you do not exclude or suggest that there won't be any other Khamisiyahs? They are possible?

Mr. WALPOLE. We have seen no other indication of that, but I am not going to exclude that possibility.

Mr. GUTIERREZ. You are not going to exclude it. And you are studying and reviewing and looking at documents to find any others?

Mr. WALPOLE. Absolutely. We have to address this with an open mind.

Mr. GUTIERREZ. Thank you so much. Thank you to all the members of the panel.

Mr. STEARNS. I thank my colleague.

Since this is a joint committee hearing between the oversight and us, the next gentlemen will be James Clyburn, who is the ranking member on the oversight committee.

Mr. CLYBURN. Thank you, Mr. Chairman.

I don't know who I should address this question to, but I think that we are a little limited here in our knowledge of exactly how a CIA analyst operates. So I want someone to explain to me, provide me sort of an outline, as to how you evaluate the work of analysts?

Mr. WALPOLE. That obviously would come to me. In terms of—are you talking about day-to-day evaluation of analysts' work?

Mr. CLYBURN. Yes.

Mr. WALPOLE. Okay. I want to first point out that the paper that you all received, some day when the heat is off this issue, people will be able to look at that document and get a very critical insight into how analysis works at CIA and elsewhere, because you see as you walk through that document the type of information that is received and how analysts view it and then might later review it.

But in answer to your question, documents are written, and let's refer in this particular Khamisiyah paper to a document in 1986, November 1986, that cited the May 1986 information and said that we conclude that chemical munitions would be stored at Tall al-Lahm, which was another name for Khamisiyah.

That document also pointed out that S-shaped bunkers appeared to be the indication for where forward deployed storage would be for chemical munitions in the future. That was analysts' judgments. Managers reviewed that. It was at the time viewed as a sound, logical judgment.

In hindsight now, we know that that misdirected some attention. But it was a review. It wasn't some analysts getting together with-

out any review, peer review or management review, and writing that paper. It was experts looking at that and evaluating that on the information they then had.

And we could walk through any case of how that works, but there is a general review, both a peer review and a management review.

Mr. CLYBURN. I think that is where my real problem is. The S-shaped bunkers—I mean what led to that conclusion, only S-shaped bunkers? It would seem to me, with my limited ability, that is a dead giveaway. I mean, who would—it is so easy for any amateur to look at that if it is only S-shaped and say, if it is a Z shape, we don't have to worry about it. I don't see anybody making it that easy for us.

Mr. WALPOLE. Intelligence is not easy, and, in fact——

Mr. CLYBURN. Well, I mean, coming to the conclusion that only S-shaped bunkers would have chemicals, that is easy.

Mr. WALPOLE. The correct answer for that question is truly classified. I would have to walk through all of the indicators that analysts obtained, what we call signatures that they obtained, that led them to that conclusion.

That would reveal—and I certainly wouldn't mind revealing it to you, but it would reveal to all of the other countries that we are trying to monitor what signatures we look for, and they would hide those signatures, and then we would have other problems.

Mr. CLYBURN. Well, if that is—if that is classified, I would ask you to give that to one of the chairs here. I don't want it, because I represent a Congressional District is number 16 in the Nation as far as the number of veterans receiving benefits, and I am an advocate for those people, and I don't want to have any information that I cannot use to advocate for them.

So I would love to have that information given to one of the chairs here, but keep it away from me.

Mr. WALPOLE. We can provide that.

Mr. CLYBURN. I think we may need that, really.

Mr. WALPOLE. Yeah. It was based on sound analytical thinking, but we have since learned that there were other things that we should look for.

You know, I would point out in our paper—you mentioned candidness—in the paper that we released, and a much quoted phrase was my statement about tunnel vision. That was not a management statement. In fact, the paragraph in the paper wasn't in the original draft of the paper until an analyst came to me and said: We need a paragraph in this paper about tunnel vision. The analysts are being very candid about this issue.

Mr. CLYBURN. Well, thank you, Mr. Chairman. My time is up.

Mr. STEARNS. I thank my colleague.

We will now proceed in the order of their arriving, and we start with Spencer Bachus. Spencer.

OPENING STATEMENT OF HON. SPENCER BACHUS

Mr. BACHUS. Thank you.

Gentlemen, I know the CIA has said that it has over 50 investigators working on this issue of exposure to chemical weapons and Gulf War illnesses, and I read there is some testimony about the

Department of Defense that said that dozens of agencies are involved in this investigation, millions of dollars are being spent, literally hundreds of researchers are actively seeking answers.

Knowing that you have that many people in the field looking for answers, how about these missing headquarters chemical logs. First of all, do you agree that those are essential and critical to any investigation?

Dr. ROSTKER. Let me, if I may address those?

Mr. BACHUS. Yes.

Dr. ROSTKER. At this moment, the inquiry on the CENTCOM chemical logs has been turned over to the DOD IG. My office had taken the investigation to a point where it was clear that, to make sure that we had followed every possible lead, some additional resources would be needed.

We have traced the surviving logs to the preparation of testimony for the Defense Science Board in 1994. The 30-some-odd pages that survive were those pages that were pulled out because they were the most significant pages and used to prepare the briefings for the Defense Science Board.

Almost every major chemical event that we know of, from the Czech detections to the marine breaching operation to the ammunition supply point identified by the Marines in Kuwait, all of those events are entered into the logs.

The main question——

Mr. BACHUS. Let me ask you this: You are talking about 224 days.

Dr. ROSTKER. Yes.

Mr. BACHUS. Essentially. And you have—of those, 24 you have?

Dr. ROSTKER. And my point is, as best we can tell, those particular pages that have survived did so because they were the most significant pages.

Mr. BACHUS. Let me just interrupt you. You are saying there are 224 days where there ought to be a log. Of those—and we may be off.

Dr. ROSTKER. Sure.

Mr. BACHUS. 24 logs we have. There are 200 missing logs. But you are saying that the 24 we have are the pertinent dates.

Do we have March the 4th, Khamisiyah?

Dr. ROSTKER. We don't have Khamisiyah, but we do have, if I might——

Mr. BACHUS. Do we have—let me just ask you, do we have March the 10th, where another——

Dr. ROSTKER. We do not.

Mr. BACHUS. Are those critical dates?

Dr. ROSTKER. May I finish my answer, sir?

Mr. BACHUS. Let me just ask you if those are critical dates.

Dr. ROSTKER. If I may, we have the subordinate logs from the 18th Airborne Corps, and those logs as well as the testimony of the people who would have initiated the log entry because they were the officers on the ground at Khamisiyah, they did not view it as a chemical event. The intermediate logs do not point up the explosions at Khamisiyah.

Mr. BACHUS. Let me ask you this because I only have limited time and I am not interrupting, but when you tell me there is 224

days and you only have 24 of those and among the days you don't have are the 10th and 4th of March, it is hard for me to accept the fact that you are saying that we have all the logs from the critical days. I mean, is that what I am hearing you say?

Dr. ROSTKER. I am trying to explain that the log dates we have capture the critical events. But that is why we have asked the DOD——

Mr. BACHUS. That is all I want to ask.

Dr. ROSTKER. That is why we have asked the DOD IG to take a further look into this.

Mr. BACHUS. Legally, how long are these records supposed to be maintained?

Dr. ROSTKER. I don't know the answer to that question. These were war records, and they should have been maintained. In fact, they should have been archived on several earlier archival exercises.

Mr. BACHUS. Let me ask you one final question, if I could. And really, to try to get as much information out, that is why I would like some succinct answers. You all commissioned before the Gulf War a study by the Livermore Labs on the possible effect of bombing chemical weapons sites?

Dr. ROSTKER. I don't know that, sir.

Mr. BACHUS. Are any of you all aware of that? Any of you gentlemen?

Mr. WALPOLE. No.

Mr. BACHUS. I am told that you did, and that—but that these studies didn't—they were supposed to—they were studies of geographical distribution that would result from a bombing of a chemical weapons site. And that those—and what I have been told is that they are of not much use here because the studies didn't ask that they study particular types of chemicals or particular quantities, and that seems to me to be totally preposterous, that you could commit—I would like to know how much that study costs and maybe what it concluded.

Dr. ROSTKER. We will provide that for the record.

(The information follows):

On October 5, 1990, the Lawrence Livermore Laboratory, Atmospheric and Geophysical Sciences Division, responded to an Air Force (Tactical Air Command, Intelligence) request for some generic atmospheric release advisory capability calculations.

No specific document has been identified that tasks the Lawrence Livermore Laboratory to perform this study. It is entirely feasible that, in the post-invasion and pre-war atmosphere of late 1990, the laboratory was responding to a verbal request for general information.

Indeed, the memorandum for record which transmitted the study to the Air Force stresses the fact that several assumptions had to be made during the calculations because of the "paucity of data regarding source terms." For example, some of the assumptions pertained to source material and particle size distribution.

The final product was a series of calculations which led analysts to a conclusion as to what would be the optimum strike time from a dispersion viewpoint. This report is currently classified at the secret level and has been passed to the Department of Energy for security review. Based on that review, additional coordination with the Central Intelligence Agency and the Department of Defense may be appropriate. The exact cost of the study cannot be determined but a review of the modeling tools used in its preparation and the graphics produced lead to an estimated cost of approximately eight thousand dollars.

Mr. BACHUS. And why it didn't—why it didn't examine specific types of chemicals. It seems to me like from the explanation I have received from the Department of Defense, it would have been a totally useless study.

Dr. ROSTKER. We will provide it for the record, sir.

Mr. STEARNS. Thank you, Doctor. Just provide it for him.

Next is Mr. Lane Evans.

Mr. EVANS. Thank you. Thank you, Mr. Chairman.

Mr. Walpole, obviously *The Washington Post* story today raises disturbing questions as to whether the CIA is doing a thorough job or is dedicated to seeking the truth coming out of our Government's handling of this incident.

Reports that the CIA has only recently interviewed analysts handling Gulf chemical weapons intelligence and that a desk log of their activities existed are problems that this committee must thoroughly review.

Can you tell us when the desk log will be declassified and the status of your interviews of the analysts assigned to the mission?

Mr. WALPOLE. Yes. I mentioned some of this in my opening remarks, but I will hit the major points again.

There are several errors in that article, and my biggest concern is, erroneous articles like this divert our attention from getting down to the real questions of what has made the veterans sick.

The analysts in question got together during the war, when it became very clear to them that they were working too many hours, and determined they needed to rotate their schedules so that they would be able to have some time at home and time to sleep.

When they did that, they determined they needed to keep notes for each other so when somebody else came on they could know what happened. They did this partially during the air war and then during the ground war which, of course, was short.

Mr. EVANS. That was done in a spiral notebook?

Mr. WALPOLE. No. No. That was done on a computer file. It was very informal, chitchat type stuff and mentioned, you know, information that—a lot of it was completely irrelevant to the war effort. It was just talking to each other. But some of the elements were helpful, and, in fact, one of those entries—two of those entries were released last week because it pertained—even though the word "Khamisiyah" wasn't in that particular entry, it pertained to the Khamisiyah issue. So we released it.

Now, as to the analysts and our discussions with the analysts, first off, they have been working the issue since the late 1980s and many people have talked with them, but particularly on this investigation effort, they were part of the 1995 review. They not only were talking to each other, they were part of the review. They were part of efforts in 1996. They were interviewed by the IG. They are part of my task force.

So when somebody from my public affairs component asked me, when did you talk to the people that kept these notes? I said, well, I guess the answer to that is 35 days ago; they are part of my task force and we started 35 days ago.

Mr. EVANS. How many people were involved throughout the course of the war, before and after the war actually, in analyzing

Iraqi chemical weapons programs? How many analysts were involved in that, and how many have been interviewed at this time?

Mr. WALPOLE. Well, I will have to take that for the record. You are talking about interviewed just—by any task force, and IG included, everything that we have done up to this point?

Mr. EVANS. Well, I——

Mr. WALPOLE. I will have to take that for the record.

Mr. EVANS. I am trying to get at if all the analysts presently in the employ of the CIA or those that have left, all of them that were involved in the so-called informal working group, they have all been interviewed at this point, both past and former?

Mr. WALPOLE. To my understanding, that is correct; by someone they have been talked to.

Mr. EVANS. Can you check that and get back to me?

Mr. WALPOLE. I will check that and confirm that.

Mr. EVANS. Can you briefly describe the role that these analysts play? I think some of the committee members are unfamiliar with the role they have. And what was your evaluation of their work during the war?

Mr. WALPOLE. You are talking about the specific analysts mentioned in the article today?

Mr. EVANS. The informal working group.

Mr. WALPOLE. Yes. Page 1 of the paper that you just got describes what they did in brief. These were analysts that were working at the time, before the war, the chemical and biological warfare programs throughout the world. It is on the bottom of the left-hand column of page 1. We mention their 24-hour effort.

They wanted to ensure that senior officials at the agency and policy officials that called and asked questions would have the answers to their questions in a timely manner. That's one of the things that we have to do at the agency.

So these were experts in the chemical, biological warfare field that were trying to analyze whatever information they had coming in at the time and determine if they had anything that could be helpful in the process.

Mr. EVANS. Do you know exactly when we can expect the remainder of these—of this log to be released—to be declassified and released?

Mr. WALPOLE. Yes. What I said in the opening remarks is the—again, I would refer to them as working notes. Really, it wasn't a log as we normally think of. But we released the one that related to Khamisiyah last week. Others that have information that pertain to this issue will indeed be released, and the entire package of these notes will be made available to cleared government officials to review and see if there is something in there that helps them in their efforts.

Mr. EVANS. Finally, how would you assess the quality of the information that the analysts were provided? Was it adequate for them to do their job?

Mr. WALPOLE. Intelligence analysts would always like to have more information. I would always like to have more information.

The comment was made earlier that we had shifted our story from last week. I think anyone that reads the paper you have passed out will find that we haven't. It is all in there. Everything

I said today is also in the paper. Some of that important information was missed.

You will see there that there were gaps in our knowledge, and it would also be nice to fill those gaps. But intelligence analysts will never get 100 percent information on any question and we know that when we go into the job.

Mr. EVANS. Mr. Chairman, I know a number of members would like to submit follow-up questions, myself included, to the witnesses, and we would ask that those answers and questions be printed in the formal hearing record.

Mr. STEARNS. So ordered.

Mr. EVANS. Thank you, Mr. Chairman.

(See p. 279.]

Mr. STEARNS. I would like to point out to the members, and particularly Mr. Bachus, we received just today testimony from Eleanor Hill, inspector general of DOD, with regard to the missing chemical warfare logs.

Now, we had requested that they come forward so that we could ask them questions. This testimony was embargoed. We received it yesterday. It will be made available to all the members of the committee.

Essentially, she has indicated that they are pursuing criminal investigations, and you are welcome, each member is welcome, to see this testimony. I think it is important that this be made a part of the record, and it shall be.

Mr. KENNEDY. A criminal investigation of what?

Mr. STEARNS. Of the missing logs over at Khamisiyah.

Mr. BACHUS. CENTCOM chemical logs, headquarter logs.

Mr. STEARNS. In fact, I was told by staff that each member has this as part of your packet. So you can look for it.

[The statement of Eleanor Hill appears on p. 249.]

Mr. STEARNS. Mr. Snyder is next.

Mr. SNYDER. Thank you, Mr. Chairman.

Mr. Walpole, if I understood you correctly, just repetition, you stated very clearly that you feel that adequate notification was given to the military prior to—when there was some indication that there might be chemical weapons at Khamisiyah. Is that a fair statement of what you said?

Mr. WALPOLE. I said that notification was given. I would leave to others to determine adequacy. I have copies of the joint operations graphic map, two copies for each of the subcommittee.

When I reviewed the cable from the 23rd of February 1991—and it does not mention the name Khamisiyah, but when I reviewed that cable, that cable provides two pieces of information. One is a set of coordinates that were obtained from someone in the Iranian Air Force or Iranian Air Force industry. And I plot those coordinates on the joint operations graphics map, which is a military map. Those coordinates are very, very near the town of Tall al-Lahm, which was the official U.S. Government name for that site.

The other thing that 23 February cable mentions is that there is a storage site near those coordinates east of Juwarin on that map. I look at that map and there, indeed, is a storage site east of Juwarin. The storage site is not named, but the storage site we know to be Khamisiyah, and halfway across—let me phrase it this

way: The name of Khamisiyah appears on the map noting the town, and half of that name appears across the storage site.

So there is information in that cable to point to Khamisiyah as the storage site being identified.

Mr. SNYDER. So put that in perspective for me. Are you saying—so that information is transferred. In the course of however many days this was going on, the several months, I guess, the troop buildup and I suppose prior to that—how many times—how many similar type notifications might a unit have gotten?

I mean, would that have been a rare event to have gotten that kind of notification from the intelligence community? Or could we anticipate that, well, it's time for our twice-a-day transfer of intelligence information as things have changed?

If I was the person that answered the phone and you called me, would I look at that and say this is a big deal, or would I put it in my other stack of intelligence information?

Mr. WALPOLE. Having not followed intelligence support during a war effort before, I don't know rare or not. We had a very short—very short ground war.

Mr. SNYDER. Sure.

Mr. WALPOLE. And I went through several warnings that had been provided during that period of time, numerous warnings from different directions. I mentioned the 23 February 1991 from CIA. The Defense Intelligence Agency in the month of February had looked at the issue of nonrefrigerated 12-frame bunkers—they were thought to be for biological warfare storage—and determined that, you know, they might use these for chemical warfare storage as well.

They sent a cable to CENTCOM saying just what I said and said one of these is—they listed six sites where these were found. One of those was at Tall al-Lahm.

So we had a cable on the 23rd from CIA and a cable on the 28th from DIA pointing, for different reasons, to this site. Now, I honestly don't know how rare that is in a war effort, to get that kind of information.

Mr. SNYDER. I wanted—shifting gears now to the whole issue of post-war declassifications—you know, the old thing about, I can keep a secret; it is the people I share it with that I worry about—it seems to me I remember having some discussions with some atomic veterans a few years ago that had been exposed, and I guess, Dr. Rostker, I will direct this to you. They were apprehensive, 45 years later, after having been at Alamogordo, about going into VA doctors and saying, "I think I may have been exposed," because they had top secret clearances. This is the same time when you could find out how to make a nuclear bomb out of a washing machine in magazines.

Are we satisfied that our effort to protect old secrets is—declassify old secrets is adequate, or is that still an obstruction?

And Colonel Leavitt, if I could ask you a question: You mentioned 2,000 documents. How many of those are classified versus unclassified?

Dr. ROSTKER. Well, at this point, I know of no classified document that is being withheld because of classification. I mean, we get a lot of documents. As soon as we see it as a relevant document

pertaining in any way to health or the operations that we are investigating, we ask it to be declassified and posted on GulfLINK.

And I think, as the CIA has said in their press conference last week, one of the reasons for standing up this committee—their committee, their working group, was that we had come across the warning, "possible chemicals on objective gold." It had been researched back by the analysts, both our analysts and CIA, to the 23 February cable, and we asked CIA to declassify it. The CIA looked at that cable, has declassified it, and has declassified many other documents also relevant to the inquiry.

So I know of no document that we are holding because of classification that is relevant. Again, any document that we find that is relevant we immediately declassify. We ask that it to be declassified and we share it with the President's advisory committee in classified form immediately.

Literally, the sun doesn't set before I bring those documents to the pack and we start the process of declassification.

Colonel LEAVITT. Sir, I would say that about one-third of the documents are classified, about two-thirds unclassified, and I believe a significant percentage of those that were classified when we got them have been declassified since.

Mr. SNYDER. Thank you, Mr. Chairman.

Mr. STEARNS. Thank you. Mr. Mascara.

Mr. MASCARA. Thank you very much, Mr. Chairman.

While most of what we are dealing with here today seems to surround Khamisiyah, people from my District were killed in the Gulf War. In fact, one young lady named Mary Rhodes, from my District, was in the barracks that was hit by a SCUD missile. I think you will—I can't recall the name of the town that that occurred in, but I believe it was in Saudi Arabia. She was given 100 percent disability.

That's beside the point that I am trying to make here today, that these people are really sick. In fact, I was able to help another young lady from Congresswoman Karen Thurman's District in Florida to obtain a disability. I appeared with them in front of the President's Commission on the Gulf War Syndrome to give testimony to that commission. And we lost several soldiers in that war. So I am very concerned about where we are going with all of this information.

But, Dr. Rostker, could you please outline your efforts to identify and contact those service personnel who may have been exposed to chemical munitions because of the demolition activities at Khamisiyah?

And while you did make some statements earlier and stated some numbers, do you know how many service personnel you believe might have been exposed to chemical weapons and how many you have contacted and how many have provided information?

Dr. ROSTKER. Yes, sir. First of all, let me say that we invite any service member who has any concern for their health to register with either the Department of Veterans Affairs or the Department of Defense. That's our primary concern, and we have repeated that at every public opportunity, and notices have been sent out.

We have notified some 20,000 veterans that were within a 50-kilometer range of Khamisiyah. The notification is, frankly, not more

than, "You may have been exposed," and reiterating the availability of the health—the availability of health services.

At this point the analysis that we and the CIA are undertaking, in terms of who may have been exposed, at this point has so much uncertainty to it that we are not inclined to extend that direct notification any further. We really don't know who might have been exposed beyond that range or the dosage of those exposures.

When that analysis is completed, we will follow through again with a more direct mailing and contact people who may have been exposed. But the information that we have at this point is very uncertain.

Of the 20,000 questionnaires that we have sent out, we have received back 6,000 questionnaires, and only 300 of the 6,000 have indicated particular health concerns.

Mr. MASCARA. Given the concentration of resources from your office to deal with the issue at Khamisiyah, do you have sufficient funding to continue to pursue all other avenues regarding the Gulf War illness?

Dr. ROSTKER. And that's why it's important to stress the support we get from the DOD IG on the chemlogs, the Army IG on Khamisiyah in terms of the operational aspects of it, and looking further at the intelligence issue by the assistant for intelligence oversight.

We are structured to look at not only other possible chemical events but also environmental contamination and possible medical issues. So we are covering a full range of things and not letting ourselves be bogged down with Khamisiyah.

Mr. MASCARA. I have more questions than I have time. I would like to propose some of those questions in writing and then later on get a response from some of these gentlemen.

Mr. STEARNS. That would be fine. I am thinking that if the members want, we could do a second round at 3 minutes apiece, if people want to wait it out before the next panel. But are you finished?

Mr. MASCARA. Well, I have one quick question for Mr. Walpole, picking up on my colleague, Mr. Snyder's question about the information that you provided in 1986 in the Iran-Iraq war to the military. And while I don't suggest that you say that it is the military's fault, who is culpable?

I mean, the information was provided to the military. Did the military somehow ignore that or overlook it?

Mr. WALPOLE. The 1986—we are talking about 1991, the information provided.

Mr. MASCARA. But at that time you suggested in certain coordinates——

Mr. WALPOLE. Yes.

Mr. MASCARA (continuing). You talked about Tall al-Lahm that ended up being Khamisiyah and so on and so forth.

Mr. WALPOLE. Yes.

Mr. MASCARA. But they had that information. I mean, they had the coordinates.

Mr. WALPOLE. They had that information. And in working with Dr. Rostker, as we put together the paper you have, there are some releases in that and there is some discussion in that paper about——

Mr. MASCARA. You are talking about this paper?

Mr. WALPOLE. I am talking about that paper.

Mr. MASCARA. I just received that.

Mr. WALPOLE. And the 41 documents I mentioned at the beginning of the hearing that I would like to be part of the record include cable traffic, the 23rd February 1991 CIA traffic, but also some CENTCOM taskings that may be related; one of them in particular that used exactly the same coordinates our 23 February cable had used in their tasking. That was all declassified as part of this package, on the part of the Department of Defense, to illumitate this story.

Mr. STEARNS. That will be part of the record. We will make that part of the record.

(See p. 122.)

Dr. ROSTKER. May I—Mr. Chairman, may I just quickly?

Mr. STEARNS. Sure.

Dr. ROSTKER. We know of very specific things that CENTCOM did. They tasked national assets to investigate the site. They—the warning of possible chemicals were sent to the corps involved and the two divisions that were engaged at that site, and a general inquiry to the 18th Airborne Corps to investigate a number of sites. So that the military did not sit on this information. It was an active part of several follow-on actions.

Mr. STEARNS. Okay.

Your time has expired.

Mr. MASCARA. Yes.

Mr. STEARNS. Dr. Cooksey.

Mr. COOKSEY. Thank you, Mr. Chairman.

Colonel Leavitt, Colonel Huber, were either of you ever in the proximity of Tall al-Lahm during the Gulf War?

Colonel LEAVITT. No, sir.

Colonel HUBER. Sir, I was with the First Cavalry Division but not close to Tall al-Lahm. We were part of the 7th Corps, so we were in the area but not within that zone.

Mr. COOKSEY. Do either of you know of anyone that waded into this crater after the bunker was destroyed or was there——

Colonel HUBER. No, sir.

Colonel LEAVITT. We have interviewed soldiers that were there, sir.

Mr. COOKSEY. Did they have symptoms of Gulf War illness?

Colonel LEAVITT. Not that I can recall, sir.

Mr. COOKSEY. Let me ask you another question to the two colonels. Has anyone been there to try to determine if there is any type of residual chemical in this area?

Dr. Rostker?

Dr. ROSTKER. Yes. The United Nations has been there three times.

Mr. COOKSEY. Have they identified any residual?

And my second question is: What is the half-life of the chemicals that are reported to have been involved there?

Dr. ROSTKER. Their evidence is the physical evidence of roped-in canisters. To the best of my recollection, they did not get readings at the bunkers.

Mr. COOKSEY. How soon after the detonation of these weapons did this occur?

Dr. ROSTKER. It was blown up in March, and the U.N. was there in October.

Mr. COOKSEY. Okay. The question, as a physician, I still have is what is the cause, what is the ideology, of Gulf War illness? What has been the cause—I feel like we can, as physicians, come up with a treatment. I have the feeling that, you know, we are spending a lot of time maybe even not really finding the cause when we need to know the cause, and until we find the cause, we can't find the treatment.

I was in the military in the late 1960s, and some of you were. Colonel Leavitt, your hair is darker than mine but you are not but about 4 months different from me in age. I was in a combat situation in late 1992 in East Africa, but things are hectic in a combat situation. For those that have been lucky enough to avoid those situations, they don't realize that a lot of times you don't know anything that's going on, and there are a lot of things that are a higher priority on your mind other than keeping this up.

I still feel that we need to find the cause of Gulf War illness, and then once we find the cause of Gulf War illness, then we can do the treatment, because I am more concerned about the welfare, the health of the veterans, being a veteran myself, than whatever else we are trying to find out. That's the issue, as I see it.

I have been in the military, and I was in the military longer than I have been in the Congress. I have the feeling that the military was more focused, more efficient, and more effective in getting its job done than this current body, with all due respect to my colleagues. And I feel that probably you could find the solution quicker than we can; not that I don't have undying faith in politicians, now that I am one.

But anyway, those are my sentiments, Mr. Chairman. Thank you.

Mr. STEARNS. Thank you, Dr. Cooksey.

Ms. Brown, my colleague from Florida.

Ms. BROWN. Thank you, Mr. Chairman.

Question, and I am not sure to whom: The CIA and military have produced weather models to determine how many troops were exposed. When will we get a solid answer how many troops were exposed?

I know the doctor mentioned something about 20,000. Is that the number?

Dr. ROSTKER. 20,000 of those that were within 50 kilometers. We do not know whether they were or were not exposed., We do not know, if they were exposed, to what extent they were exposed.

Ms. BROWN. What is the status of the weather model and that investigation?

Dr. ROSTKER. If I could ask my colleague from the CIA to respond?

Ms. BROWN. Yes.

Mr. WALPOLE. Yes. We had modeled the bunker, and the main reason we were able to model the bunker was we had had testing—we, the United States Government, had had testing in the 1960s that showed us what happened to a chemical agent that's destroyed

inside a building, how rapidly it degrades with the heat buildup and things like that.

We have nothing like that with an open pit demolition. So we don't know what happens to the agent. So on top of the uncertainty of the purity of the agent that we discussed earlier, we didn't have a clue on what the agent would do in an open pit demolition.

On top of that, we had contradictory statements from soldiers on which stacks they worked through, and I have got a photograph here if we need to go through all the details. But the bottom line is, they seem to be claiming they were there at the same time but working on different stacks but didn't see each other and didn't see each other's work. You can imagine that didn't track.

In the interview last week, it became very clear that the log entry from March 12 was wrong, so we decided the only prudent thing to do was model everything at one point on March 10, unless we get any other information otherwise.

The individual that was found just this week, we had a telephonic discussion long enough to determine that he thinks these two may not remember seeing each other but that they were all doing it at the same time. That seems to focus us on March 10.

So we are getting a better understanding of the events that transpired in the pit.

We will model all 13 stacks being detonated in the pit, using what information we can gather from some test simulations that we will do some time in the near term at Dugway that would give us an indication, if you place detonation charges on the wooden crates—the rockets were all in crates—in the manner the soldiers say they did it, what happens? Does the chemical cylinder crack? Does it burst? Does the internal fuse burst and throw the chemical agent all over the place, or does it drip and then slowly disperse? These are questions we have to know the answer to before we can model.

Once that testing is completed, we will be able to run that information through several different models, including models that are—that focus heavily on the source, the agent, and models that focus heavily on the weather and the changes in the weather, so that we will be able to come up with information, as good as possible, of what the exposure limits would have been.

Since we will not ever be able to replicate all 13 stacks going at the same time and in exactly the same manner that the soldiers placed the charges with exactly the same age of agent in each rocket, we will never be able to show exactly what happened. But we will model this to the best of our ability to give some semblance of what might have happened.

Ms. BROWN. And do you have any time certain when these experiments will be complete?

Mr. WALPOLE. We would be able to complete that probably within 10 days to 2 weeks of getting the data from the ground tests. And I don't think we have a date for ground tests yet.

Ms. BROWN. I just have one other question, because it seems to be two sides to this, and the other side is, what is the status of those Gulf War veterans who you say we have contacted, the 20,000, only 6,000 have followed up? I mean, how are we handling their claims, the treatment?

Dr. ROSTKER. This is a screening questionnaire. We asked them for help in understanding what went on in Khamisiyah. So it's completely independent from those who have made claims or not made claims. We are doing a second mailing to the 20,000 to see if we can gain more information.

We do not believe that this is a definitive list of who may have been around Khamisiyah. That's part of the problem. So we would view this much more as a very large sample of those who were around Khamisiyah and try to use this to gain intelligence rather than a definitive account of who may have been there or the health consequences for who may have been there.

Ms. BROWN. I guess the last thing I want to say is, how can Congress be more responsive to the Gulf War veterans? And you can put that in writing.

Dr. ROSTKER. Okay.

Mr. STEARNS. I thank the gentlewoman. Mr. Buyer.

Mr. BUYER. Thank you, Mr. Chairman. My compliments to you and to the ranking members for holding the hearing.

I am trying to put this one together. One question I would like to know is, what coordinations, if any, are we having in our investigations with the British?

Dr. ROSTKER. I have a counterpart in Great Britain. We talk frequently. They were scheduled to be here about 3 weeks ago and had to cancel, and we are in the process of standing up a team to visit them. We have very close cooperation with the Brits.

Mr. BUYER. I would pass a recommendation on to you, and perhaps—I don't know if—you explained the methodology, Colonel. I noted in one of the readings that I had that *Time Magazine* reported in the March 4, 1991, issue that Iraqi soldiers captured by British units stated that before the start of the air war, substantial numbers of chemical weapons were distributed along the front lines to be used in the event of an allied ground invasion of Kuwait. That was a long time ago.

At both of the prisoners-of-war camp, our own, we had our JIF, the Joint Interrogation Facilities, many of those reports were sent to the intelligence community. Are those part of your record of analysis?

Dr. ROSTKER. Yes, they are. They are currently being assessed by the special assistant for intelligence oversight.

Mr. BUYER. I would ask of you to gain access also to the British records from their joint interrogation facilities.

Dr. ROSTKER. Yes, sir.

Mr. BUYER. I would also—there are so many disconnects, it just boggles my mind. One of the disconnects deals with the actual markings.

I take it, Colonel, you are our expert? Are you a chemical corps?

Colonel HUBER. I am in the chemical corps, yes, sir.

Mr. BUYER. In the chemical corps. Were you in the Gulf War?

Colonel HUBER. I was in the Gulf War, yes, sir.

Mr. BUYER. What was your job there?

Colonel HUBER. I was the chemical officer for the First Cavalry Division, sir.

Mr. BUYER. You are a First Cav?

Colonel HUBER. Yes, sir.

Mr. BUYER. So you went into Iraq?

Colonel HUBER. We were in Iraq, sir.

Mr. BUYER. When you deployed with your troops into Iraq, did you have knowledge at the time that the Iraqis had chemical munitions that were weaponized, that were not marked? Did you have that knowledge?

Colonel HUBER. Sir, we had knowledge that the Iraqis did have a chemical capability. The exact markings of chemical munitions are really the expertise of explosive ordnance detachments, teams of specialists who identify chemical munitions.

The average—what I am saying is, the average chemical soldier would not be an expert in recognizing all types of chemical munitions.

Mr. BUYER. Right. Apparently you would not have—I would think that you would be one of the experts in chemical munitions. The question is: Did you know at the time that the Iraqis had chemical munitions that were not marked?

Colonel HUBER. Sir, I personally do not recall being aware of that.

Mr. BUYER. Right. And a lot of different reports then, when they are placed in logs or subordinate commands, you know, the Department of Defense is always quick to dispel the credibility of subordinate command, yet if CIA or upper levels of echelons never get the word to you that there are, in fact, such munitions that are unmarked, how in the hell are you supposed to know?

I mean, that's part of the difficulty in the intelligence community. And I am not going to come to the defense of the Army here, but I can also know and recollect that in the intelligence community you are spewing thousands of things into the theater of operations.

Now, there are a lot of people that have got a lot of work to do and a lot of jobs, but I just wanted to make that note.

One of the things that I also would like to know, and ask of you, Dr. Rostker, for you to look into, was the Air Force decisions of targeting when they did their bombing. I know that An Nasiriya is where they also dropped some bombs, and there were detections of mustard agents at An Nasiriya.

I also recall some testimony that Iraqis were fearful because we had bombed An Nasiriya and there were chemical munitions at An Nasiriya, that perhaps they needed to start moving chemical munitions out of Khamisiyah. So obviously, we have got to be watching some of this stuff happening.

I would like for you to make some comment on that about the Air Force and their targeting.

Dr. ROSTKER. The——

Mr. BUYER. My time is about up, and then I am going to allow you to finish, if that's all right, Mr. Chairman.

The other is on the detection equipment. There is the other disconnect. All right? If our soldiers don't know that the munitions aren't marked, they go in and they are going to then use the detection equipment, and then they say, "But our detection equipment didn't detect chemical munitions."

The CIA is testifying here today that the chemical agents were deteriorating. Well, if they are deteriorating, why didn't our detection equipment pick it up? What a tremendous disconnect.

Dr. ROSTKER. Okay.

Mr. BUYER. Let me turn it over to you for a moment for your comments.

Dr. ROSTKER. Okay. The first question is on the bombing.

Mr. BUYER. The Air Force targeting decisions.

Dr. ROSTKER. Yes, sir. The destruction of chemical and biological warfare sites, plants, storage areas, was a high priority and the decisions were made with full understanding that there could be leakage. The targeteers had access to the Defense Nuclear Agency which did studies for them on possible fallout. But with the full knowledge of those effects, obviously decisions were made to carry out a bombing campaign.

I am sorry, the second one was, sir? The second question was, were the detection?

Mr. BUYER. Yes.

Dr. ROSTKER. Again, one of the confusions about Khamisiyah is that when the UNSCOM got to Khamisiyah the first time, they were told that the munitions were removed from Bunker 73 and placed in the pit because they were leaking.

Now, if they were leaking, the gear we had should have detected it leaking, and there were no such detections.

We have a number of—in the 20,000 questionnaire response, we have a number of people who said that they had or saw a Fox vehicle detection or 256 kits. These are the means of detecting it. Every single one of those claims are being researched. We are debriefing the people who have made that to see if we can find some additional information.

At this point, I can only go to the company commanders who were there and the demolition people who were there, who were trained to do this, and they did not come up with chemical detections.

Mr. STEARNS. The gentleman's time has expired. Mr. Hutchinson.

Mr. WALPOLE. Can I add just one thing briefly, please, on that?

My comment about deterioration earlier was not about leakage, it was about internal deterioration inside the tube. I will make sure in my answer for the record on purity that I cover anything about deterioration. I am not an agent expert.

Mr. BUYER. Mr. Chairman, the only reason I made the point on the unmarkings is that never in discussion in the last 4 years have I ever heard discussion about inadvertent deployment nor of firing. So I just wanted to make that statement.

Mr. STEARNS. Mr. Hutchinson.

OPENING STATEMENT OF HON. ASA HUTCHINSON

Mr. HUTCHINSON. Thank you, Mr. Chairman.

First of all, I want to express my appreciation to the gentlemen for their testimony today and the frankness in which they have presented their testimony. I know this is a very difficult issue for all of you, as you review this matter in the best interest of the veterans.

I also particularly want to say, Mr. Walpole, I appreciate the CIA, in which they frankly admitted that they could have done a better job, and that's the way I understand your testimony. And I think that what is so important here is credibility, and I hope all of you—I think you do understand that with the veterans, with the American people, you are overcoming a credibility problem. Because of the slowness of disclosures, the—what appears to be clear misrepresentations that have been—have come forward in regard to what was known, and the lack of information, there is a serious credibility problem, and so it is critically important that what you do is thorough, what you do is straightforward and honest, and if a mistake was made, to acknowledge it, and that's the way I take your testimony today.

In regard to the credibility issue, I want to follow up on what Mr. Snyder was asking about the classified and unclassified documents. From what I understand is that all of the unclassified—excuse me. All of the classified documents that relate to chemical weapons exposure that might shed light on this have been unclassified. Is that correct?

Dr. ROSTKER. Are in the process of being. We still are uncovering documents, but they go through the declass process, and that is our policy, and we push it. Nothing is being held back.

Mr. HUTCHINSON. All right. So there are still some that are in the process of being declassified that will be furnished to Congress in the near future, I trust?

Dr. ROSTKER. That's correct, sir.

Mr. HUTCHINSON. How long of a process is this before we are going to get all the documents that are going to be declassified?

Dr. ROSTKER. We are literally still discovering new documents. The Army has put a field team and is again going back to bases overseas and in the CONUS, and literally thousands of documents which have not come up in previous searches are now coming up, and they are going through the process of being scanned and the whole physical process.

Mr. HUTCHINSON. What percent of the relevant documents in this inquiry are still classified at this point, if you can put a percent on it?

Dr. ROSTKER. I would have no idea how to do that. Let me give it some thought and see if we can provide you an answer.

Mr. HUTCHINSON. Mr. Walpole, do you have anything to add to that?

Mr. WALPOLE. Yes. First, I wanted to comment that I appreciate your comment on candor, and it would not be possible if I did not have the complete backing of George Tenet in this. And, equally, many of the analysts that were part of the analysis in the 1980s, the ones that were not included on the list before, are on the task force. They are being extremely candid: Well, this is what we were thinking, and we have changed our thinking now. They are being very forthcoming. I think that's very important.

On the declassification issue, in putting the Khamisiyah story together, we declassified a significant amount of information to address this question. Every bit of information that tells part of the story on Khamisiyah has been declassified. Does that mean there are documents on the Iraq war that are still classified? Yes, there

are. I don't know what those percentages are, and all of those are being looked at relevant to addressing these questions for declassification.

Mr. HUTCHINSON. Well, I would urge you and your superiors that you have a standard which allows maximum disclosure to the public and to Congress for these documents. It is very important.

Mr. WALPOLE. That is the standard, and every document that cannot be declassified for sources and methods concerns, including the discussion that I had earlier about indications, will be provided or has been provided to the committee.

Mr. HUTCHINSON. I am going to run out of time here in just a second. Mr. Walpole, in reference to the CIA there was some acknowledgment that better information could have been provided concerning Khamisiyah and the chemical weapons there. I mean, some information was provided by the CIA, but you could have done a better job is the way I understand your testimony.

Has there been any disciplinary action on any analyst or employees who have been held responsible?

Mr. WALPOLE. No. The issues that we were discussing about it should have been better are analytical judgments. It was not an issue of disciplinary action.

Now, in terms of following up to change some of our procedures—and the paper that you have walks through some of the issues. Harmonization of databases and issues like that, sharing of information, those changes will be made so that this doesn't occur in the future.

Mr. HUTCHINSON. I think that is the critical issue that we ought to be focusing on, what can be changed to prevent this from happening in the future.

I see that my time has expired, Mr. Chairman.

Mr. STEARNS. The gentleman's time has expired. Mr. Kennedy.

Mr. KENNEDY. Thank you very much, Mr. Chairman.

Mr. Walpole, I wonder, how long have you been working for the Central Intelligence Agency?

Mr. WALPOLE. I began for CIA in 1978 but I left in 1984 to go to the State Department and then came back on rotation and was rehired by CIA in September 1996. I don't know how much that adds up to.

Mr. KENNEDY. I appreciate that. But I guess the truth is that we have been looking into this issue in terms of the linkage between the potential of chemical or biological exposures and the veterans that served in the Gulf War, I think 1992 was the first hearing that this committee had.

At that time, we had people from the military come and tell us directly that this really was just a deficiency in individual soldiers and that this was as a result of what was referred to at the time as malingerers. It was done by the same guy that did the study on Agent Orange, saying that there was no direct linkage between chemical exposures in the Vietnam war and the illnesses that many of those veterans had since suffered.

Since then, I have attended dozens of hearings like this. I have attended top secret briefings, but I learned much more about what was going on in the newspapers either before or after the briefings than I did in the briefings themselves.

But over and over again, our intelligence agencies, including the CIA, as well as the NSA, assured us that there was no chemical or biological exposure by the Iraqis to the United States soldiers.

Now you are coming in and telling us at this point that that may not have been true; that there may have been—just hang on here—that there may, in fact, have been exposures that took place.

There was a case of two Agency officers that worked with you—the Edingtons—that alleged that there was more information at the Agency than had been published. Do you feel at this point that their coming forward was the proper thing to do, or is now justified by the fact that there is this new information?

Mr. WALPOLE. First let me go back to——

Mr. KENNEDY. I don't want to take a lot of time because I noticed you take a long time in your answers.

Mr. WALPOLE. I understand that. But I am not saying that we are changing our judgment that the Iraqis did not use chemical weapons.

Mr. KENNEDY. No, but you are saying—I didn't say that. I said that there were exposures. And so—I am not here to play a game with you.

Mr. WALPOLE. Okay.

Mr. KENNEDY. I am here to recognize whether or not they shot the bullets off or the chemical weapons off or whether or not we were exposed. I would like to shift. I want to hear what your answer is on the Edingtons, please.

Mr. WALPOLE. On the Edingtons, of course, their initial allegations were that the Iraqis had used chemical weapons and there was evidence to that fact. We have found no evidence to that fact. Now, the allegations the Edingtons have made are being investigated by the CIA's Inspector General, and that is really where that is. I have not looked into it.

Mr. KENNEDY. I talked to the Edingtons. My sense was that what they were trying to suggest was that there was a lot more information than was being made public, and there was in a period of time when we were not being given the kind of information that is being made public at this point.

It tends to create and give credence to the notion that somehow or another there is a cover-up. And if you have talked with, as I think a lot of Members of this committee have, with a whole lot of veterans, as I am sure Colonel Leavitt can tell you, there is a great deal of suspicion on behalf of the people that served in the Persian Gulf that they are not being told the truth.

Now, let me ask, because my light is going off here, I understand your testimony refers to 25 cases of suspected or reported chemical detonations—or detections. Are all of those cases, detonations, at Khamisiyah?

Mr. WALPOLE. My testimony refers to 25 detections?

Mr. KENNEDY. Maybe that was Dr. Rostker.

Dr. ROSTKER. We carry a number of cases that are actively under investigation, and we will be reporting to the American people and the Congress on every one of them.

Mr. KENNEDY. So, in other words, there are other exposures that have taken place?

Dr. ROSTKER. There are other possible exposures where we have had a positive test kit result or a Fox Vehicle readout, and we are trying to run every one of those to ground.

Mr. KENNEDY. Is there any evidence to suggest at this point that those other cases have resulted in people complaining about illnesses?

We had testimony, I remember, in a joint hearing between us and the Defense Committee, where a number of veterans came forward and said that when a SCUD missile hit, that unlike the other soldiers who were serving from other countries, they were not asked to put on the protective gear; that they felt tingling and they felt their eyes getting red; a number of them testified that all of the bells and whistles and the various detection equipment had gone off—so I wonder whether this thing is really being investigated the way it ought to be, Doctor.

Dr. ROSTKER. That is, in fact, one of the cases that is under investigation. I don't want to draw a conclusion because we are still actively investigating it. But what we are looking for is the first-person accounts as well as corroborating information, and I hold an open mind.

Mr. KENNEDY. I guess, Mr. Chairman, my time has expired. I would just point out that it is now 6 years past the time when this occurred. If you knew for one second, Mr. Walpole, or anybody in that Agency knew that people were coming before our committee or coming before us in top secret testimony and letting us know that there was no exposures taking place when, in fact, anybody in that Agency knew that there was, I think that is a real scandal. And it is something that I would hope that the Agency would really look into.

Mr. STEARNS. I thank the gentlemen.

We are going to go a quick second round here, 3 minutes apiece.

I have a quick question. I would like an answer of yes or no from each of you.

Given the information available at the time, were all steps taken that should have been taken to avoid potential chemical warfare exposure at Khamisiyah and to notify those who may have been exposed at the earliest possible time?

So I am just asking, do you think that we took and made available all the information on the potential for chemical warfare at Khamisiyah, and did we notify the people who were going to be exposed in a timely manner? Just quickly, if you could just start. Maybe, Colonel Leavitt, you could just tell me the answer to that.

Colonel LEAVITT. Sir, I only have knowledge of the first one, and I would say yes.

Mr. STEARNS. I am sorry? Say that again.

Colonel LEAVITT. I only have knowledge of the first part of your question, and I would say yes.

Mr. STEARNS. Okay. Mr. Walpole.

Mr. WALPOLE. It is a qualified yes. As we have said, and you will see in the paper, we should have done better, but at the time, yes.

Mr. STEARNS. You felt you notified—you made the notification in a timely manner?

Mr. WALPOLE. The notifications were made in a timely manner.

Mr. STEARNS. Okay. Dr. Rostker.

Dr. ROSTKER. Since we are all qualifying, I think I would come down on a qualified no.

Mr. STEARNS. Okay.

Dr. ROSTKER. And that's because——

Mr. STEARNS. I mean, this is understandable that you folks wouldn't agree.

Dr. ROSTKER. That's right.

Mr. STEARNS. I don't expect you to agree.

Dr. ROSTKER. And that's because we know that the lead divisions were notified, and we cannot at this point trace it down to the 82nd. And if there was a concern, the entire corps, especially the 82nd, which actually did the demolitions at Khamisiyah, should have been notified. It may well be that they were. We just can't certify that at this time.

Mr. STEARNS. You can't corroborate that?

Dr. ROSTKER. That is correct, sir.

Mr. STEARNS. Colonel Huber.

Colonel HUBER. Sir, I don't believe I have enough information, personal information, to corroborate yes or no.

Mr. STEARNS. Well, you just indicated you were in there yourself.

Colonel HUBER. Yes, sir. I was in a separate unit. I believe I would agree with Dr. Rostker because I don't think we had that information.

Mr. STEARNS. You didn't know.

Colonel HUBER. No, sir.

Mr. STEARNS. You personally have already testified that you didn't know.

Colonel HUBER. That's correct, sir.

Mr. STEARNS. So that the information of a potential chemical warfare was not known to you, and obviously it wasn't made in a timely manner. So, I mean, this is another area that we hope to get into to make sure that this doesn't occur again and that, you know—with that, I will conclude mine.

And the next person that we have, let's see, what did I do with that list?

Mr. Clyburn, you are next.

Mr. CLYBURN. Thank you, Mr. Chairman.

Mr. Chairman, I have two questions. The first one, I think, is for Colonel Leavitt, I suspect. Of the 300 people—I think I heard there were 300 people of the 6,000 who responded to the 20,000 survey have reported some health problem.

Have we put together a task force to really look at those 300 people, study them to see whether or not there was anything about the illnesses they are claiming that could in any way have some common thread here that would lead us to believe that something, some hazard, was exposed to in the Gulf War?

Dr. ROSTKER. I think I am the one who should—can answer that.

Mr. CLYBURN. All right.

Dr. ROSTKER. Our first concern is to make sure that they are getting the proper medical care, and so our first concern is to make sure that they go into the registries. The registries provide the base information.

The questionnaire we had was not a medical questionnaire. It was simply a screen questionnaire. So we were not trying to do pop

medicine here in assessing them. Our major concern is to make sure that they get into the treatment facilities.

Mr. CLYBURN. So that you are saying that you did follow up with these 300 people?

Dr. ROSTKER. We are in the process of following up with them. It is an ongoing process.

Mr. CLYBURN. Okay. But you have not decided to put together some kind of medical task force to just try and make some determination?

Dr. ROSTKER. These are, as you well know, self-reported. The most important thing is to get them objectively seen and make sure that we are taking care of their health. There are a number of epidemiological and follow-up studies across the entire theater; so being part of the health registries and then follow-on studies are important.

Mr. CLYBURN. Let me get to my second question that I have. In view of the two qualified yeses and two qualified noes, in view of that, why should the Members of this committee have any real confidence that all of the information on possible exposure, all of the information on what may or may not have taken place, all of the documents and relevant information and data are going to be examined and the facts are going to be determined to the satisfaction of this committee and ultimately the American people?

Dr. ROSTKER. Well, let me talk for the Defense Department. We run a totally open process. The agent at this point is the President's Advisory Committee. They have full access to everything we have. We have provided them office space in our complex. They are free to observe any meeting we have, any interviews we give, sit in on my staff meetings. And I would extend, as I have, the same invitation to the committee.

There is nothing we are doing that is not totally transparent. It starts with our relations with our veterans and it continues through the publication of our case narratives. So you can see what we know, and we can have a dialogue to make sure we get the right story.

Mr. STEARNS. The gentleman's time has expired.

Mr. CLYBURN. Mr. Chairman.

Mr. STEARNS. Excuse me.

Mr. CLYBURN. I am sorry, but I know the this kind of transparency may not be inherently possible for the CIA, but can we have an answer to that from the two qualified yeses?

Mr. WALPOLE. Yes. I think when you read the Khamisiyah historical perspective paper that was passed out to you, that paper is very candid, very forthright, tells you the good and the bad. And I think when you go through that, you will come to the same conclusion I did: Qualified, but notifications were made before the demolition occurred.

Were there other mistakes before and after in making connections? Yes.

Mr. CLYBURN. Okay. Thank you, Mr. Chairman.

Mr. STEARNS. Mr. Bachus is next.

Mr. BACHUS. Thank you.

My first question is going to deal with chronic health effects of exposure to the nerve gas. The Defense Department, in testimony

before our committee and in several statements that I have read, has basically taken the position that there are no long-term health effects, chronic health effects, unless there is some immediate symptoms at the time of exposure.

Dr. ROSTKER. That was the position, and we are funding additional research to better understand that exact point.

Mr. BACHUS. And, Doctor, I knew that you all were. In fact, you are spending $15 million this year and I think $5 million last year to study this, and I know you are aware of, because I have read everybody's testimony, that the Institute of Medicine has said that they feel that that position is far from complete; you know, it is still up in the air.

And my question in this regard is when do you think we might get those studies completed?

You know, you want the information. We all recognize that we need it and that it is an open question. When do you think it can be answered?

Dr. ROSTKER. Medical research takes a long time. But let me say that the most important thing that we can do right now in the short run is to make sure we provide adequate medical care to our veterans and we treat them. In almost all of these cases, we are still left with treating the symptoms, and that's the most important.

We are also funding a number of hypotheses or inquiries about hypotheses again to look for treatment modalities.

Mr. BACHUS. Let me go into some of those I think you may be talking about. A lot of these troops took PB tablets.

Dr. ROSTKER. That's correct.

Mr. BACHUS. Which are nerve agent antidotes, and they seem to believe that there may be some—that they were affected by those.

Were they approved by the FDA prior to being given to the troops?

Dr. ROSTKER. They were approved by the FDA on a limited license. The FDA approves on two bases, safety and efficacy, and the ability to effect. There has never been a question on PB in terms of safety. In fact, it is a chemical, it is a drug that has been widely used in the medical community.

Mr. BACHUS. So there are studies on the long-term effects? You know, I know these troops took them every 6 hours.

Dr. ROSTKER. And in dosages much less——

Mr. BACHUS. Okay.

Dr. ROSTKER (continuing). Than the dosage that it is used.

The question for the FDA was efficacy, and we don't know of any way of proving the effects of PB without exposing people to nerve agent, which we can't do.

Mr. BACHUS. And vaccines, you are looking into that?

Dr. ROSTKER. Yes sir, we are. Correct.

Mr. BACHUS. I want to ask one final question. We have talked about what documents have and have not been declassified and supplied to the committee and released to the public.

You know, the Edingtons made a list that said there were 58 key documents that they were essential in understanding this whole issue. And it is my understanding you all have released 21 of those; is that right?

Mr. WALPOLE. No. All of those have been released. In fact, they were all released last year. None of the documents we released last week were on their list. These were all completely new documents.

Mr. BACHUS. Okay. How about the post-war assessment of chemical weapons that was found in Kuwait? Has that been released?

Mr. WALPOLE. Post-war assessment of chemical weapons?

Mr. BACHUS. There was a post-war assessment. The Edingtons described it over a 100-page document, which was a post-war assessment of chemical weapons found in Kuwait.

Mr. WALPOLE. I am drawing a blank on that. I will get an answer for you for the record on that.

Mr. BACHUS. If that was——

Mr. WALPOLE. If that was a document that they mentioned on their list should be released, it has been released.

Mr. BACHUS. Okay.

Mr. WALPOLE. I know those have all been released.

Mr. BACHUS. I guess that's the bottom line. All 58 documents.

Mr. WALPOLE. Yes, and they are all on GulfLINK.

Mr. BACHUS. I just want to add, as we close, for the record, to show you what a domino effect we have had, when we have had this issue of the Czechs reporting to us chemical exposures or detections, and, you know when we have asked, you all have said it was noted that they told us about one on January the such and January the such, so we had two reports. Well, you know, when you look back at the 200 days or the 224 days, it just so happens that those 2 days are 2 of the 26 days or the 30 that we have records for.

Dr. ROSTKER. Well, I don't think that——

Mr. BACHUS. Is that not accurate?

Dr. ROSTKER. As I started to explain, when the testimony was prepared for the Defense Science Board, the pages that were significant were pulled out. So they were pulled out, as best I understand it, because they were, in fact, significant. I think it goes that way rather than isn't it a coincidence? It is no coincidence. They were pulled out because those were significant events that were reported to the Defense Science Board.

Mr. STEARNS. The gentleman's time has expired. Mr. Evans.

Mr. EVANS. Thank you, Mr. Chairman.

Dr. Rostker, much attention has been placed on loss of data concerning the recordings of potential chemical weapons incidents. A number of us, I think about six or seven of us on this committee, are also Members of the National Security Committee. What kind of recommendations can you make to prevent this from happening in the future?

Dr. ROSTKER. Well, I would like to wait and see what the DOD Inspector General comes out with. We have testified before that, in general, recordkeeping in the Gulf was not as good as it was in previous wars. We have, for example, less certainty about where troops were coming out of the Gulf than we had in the Korean War or World War II, and we can attribute it to changes in procedures, like the elimination of the morning report, the elimination of the company clerk.

It is also clear that we need to sharpen the procedures for archiving information, for getting information. The Army has done

an outstanding job of going back and finding information even this late. It is unfortunate we have to do that, but there was information, there may still be information, and we are dedicated to trying to find it.

Mr. EVANS. Do you know if any individuals have been identified as being responsible for the loss of classified data such as command logs involving the possible use or exposure to chemical weapon agents?

Dr. ROSTKER. Again, I think we need to wait for the DOD IG report that will go into this, we expect, in more detail.

Mr. EVANS. I guess I just want to make a comment. I am very disturbed that logs are missing or not complete and that they are kept perhaps in a spiral notebook, or messages between shifts of this informal working group were kept in a spiral notebook. I was in the Marine Corps. When I was a security guard, that would be completely unacceptable. We had one log book. If it was missing on your watch, you would be standing before the command.

Mr. STEARNS. Mr. Evans, could I just have you speak into the speaker a little bit?

Mr. EVANS. I am sorry.

Dr. ROSTKER. Let me endorse what you just said. The service that absolutely has the most complete set of logs and records is the United States Marine Corps. There is no question about that.

Mr. EVANS. I am not trying to make this into a commercial for the Marine Corps.

Dr. ROSTKER. As Assistant Secretary of the Navy, I would say make it into a commercial.

Mr. EVANS. At least somebody is doing something right. Right, Vic?

Mr. SNYDER. Yes.

Mr. EVANS. Thank you, Mr. Chairman.

Mr. STEARNS. Thank you, Mr. Evans. Mr. Snyder.

Mr. SNYDER. Thank you, Mr. Chairman.

Mr. Walpole, in your written statement here, you discuss your mission as you see it. Let me ask you: Is part of your mission to sort out—since the war ended and we began this inquiry into the Gulf War illness, is part of your mission to sort out the delay in the CIA and the Intelligence Community about why some of this information has not been forthcoming?

Mr. WALPOLE. That falls more into the CIA IG's responsibility, but it overlaps with us to the extent that we have been asked to develop lessons learned——

Mr. SNYDER. Right.

Mr. WALPOLE (continuing). That analysts could put into place immediately to address concerns there.

Mr. SNYDER. Is one of those paragraphs, lessons learned paragraphs, going to be the issue of expediting the declassification of documents in a post-war situation? Is that something that you all are looking at?

Mr. WALPOLE. That may well come out. I think that we have learned, just through this process, that getting information out, whether it is to the veterans or to the American public on any issue, that the public needs to have a better understanding of what the CIA does for national security, and because much of what we

do is classified, they don't have that. And that will end up being, probably as a broader arching issue than you are describing, one of the recommendations.

Mr. SNYDER. Let me make the argument that in this kind of a situation, it is a two-way street, and that you all probably benefit from having information out there that triggers some discussions amongst veterans' groups, reporters, who have their own source of information that they could feed back to you.

I mean, I think the more information that's declassified, you know, there are networks out there that we all can learn from. So I think it hurts—it hurts, I guess, us as Congress and you as the Agency in trying to sort through that stuff without having it out there in the public sector. But I would hope that that would be part of your discussion, too. I think there has been some concerns we have too many dang secrets in the world, and we are slow at getting that information out.

Mr. WALPOLE. Yes. In fact, it already has been. The paper that you all have was released in part to get something into the hands of the veterans so they can have discussions over the phone, unclassified lines, on the Khamisiyah issue.

Mr. SNYDER. Right.

Just a couple of very specific questions. When you referred to your task force, are we talking 50 people, 500 people? How many?

Mr. WALPOLE. There are 50.

Mr. SNYDER. Fifty. Then you used the term "many analysts" at some point as being a part of that, or many of the analysts that were involved previously are on your task force. Out of that 50, how many analysts that were discussed in the paper are now part of your task force?

Mr. WALPOLE. I would probably have to tell you that number for the record. I haven't kept the track of the number for the record.

Mr. SNYDER. Three, fifteen?

Mr. WALPOLE. I probably have 15, 20 analysts. It is not just a few.

Mr. SNYDER. Thank you, Mr. Chairman.

Mr. STEARNS. I thank my colleague. Dr. Cooksey.

Mr. COOKSEY. Thank you, Mr. Chairman.

I would like to ask General Flowers, who is in the audience, to come up to the front table, if you would.

By way of introduction, General Flowers is the president of the Mississippi River Commission. Three weeks ago, we had some of my constituents, and I have a long stretch of the Mississippi River in Louisiana, they were out of their homes because of rising flood water. He stood up and talked to some mad Cajuns, and they are worse than Saddam Hussein when they are flooded out, but most importantly he made the river drop. Now, if he claims credit for that, the Mississippi River is 2 or 3 feet lower.

I walked down to my office to see someone else. He happened to be there, and I said, you wouldn't guess what's going on. He said, I was there.

So, General Flowers, would you tell us in 3 minutes or 6 minutes maybe what really went on?

Mr. STEARNS. General Flowers, before you begin, if you would just state your name, your position, or your rank and position for the record, and we will give you 5 minutes.

Mr. BACHUS. And how far the river dropped.

Mr. STEARNS. Go ahead.

STATEMENT OF ROBERT B. FLOWERS, COMMANDING GENERAL, MISSISSIPPI VALLEY DIVISION, U.S. ARMY CORPS OF ENGINEERS; PRESIDENT, MISSISSIPPI RIVER COMMISSION

General FLOWERS. Yes, sir. It is Robert B. Flowers, major general. I am the commanding general of the Mississippi Valley Division, U.S. Army Corps of Engineers, and president of the Mississippi River Commission.

About 4 feet.

Mr. STEARNS. Okay. General, I will let you proceed, and we will give you 5 minutes. I think what you are testifying is you were there, and you will testify in what capacity?

General FLOWERS. Sir, I need to apologize first. I am not—I didn't prepare to be here today. I came on Mississippi River Commission business and division business, and I just happened to see Representative Cooksey. We had a very brief conversation, and the next thing I know, I am here.

But I was, in fact, at Khamisiyah when it was blown up. During the Gulf War, I was the commander of the 20th Engineer Brigade, 18th Airborne Corps. We had—during the days since the beginning of the ground war, we had moved very quickly. For my brigade, it had been a very traumatic time in that we had suffered some deaths due to some demolitions on another airfield. We had been dealing with that in one of our battalions.

The move of the corps was very rapid, much more rapid than we had expected. We were trying to bring up all of the roadways so that we could resupply the corps. In the midst of that, I got a message from corps headquarters directing that I chop one of the combat battalions to the 82nd so that they could help demolish some munitions that had been found by the 82nd at Khamisiyah.

We did that. The battalion chopped was the 37th Engineer Battalion, one of my brigade battalions before the war. In a previous assignment, I had also commanded the 307th Engineers of the 82nd, and the commander then during the Gulf War, Lieutenant Colonel Carl Strock, had been my executive officer when I was the battalion commander.

The 37th and 307th went up and designed the demolition of the depot. While the operation was not under my direct command, as the corps engineer I went up to ensure that technically and safetywise everything was proper.

Contacted the battalion commanders, Colonel Holcombe, Colonel Strock, visited them, and checked their rehearsal for the actual demolition itself to make sure that the method that they were using was sound, that they had considered what they were doing. Both are superior officers, and I was convinced, after observing the rehearsal, that the demolition would go as it was planned.

And then I was present when the initial demolition took place at Khamisiyah. In fact, I was in a helicopter at a stand-off distance flying offset about over the canal when the initial demolitions were

detonated. We very quickly then sat down because debris was cooking off, and continued observing the demolitions from the ground, the vicinity of the canal, with the 37th.

Mr. STEARNS. Dr. Cooksey, anything you want to add to that?

Mr. COOKSEY. Okay. Prior to the detonation, did you know that there were any chemical weapons there, or did you suspect it, and were any precautions taken?

General FLOWERS. No, sir, we did not. We had been aware, since early on in the war, of the enemy's capability, but we—when we moved on the—during the ground war we were not notified of any situation which would cause the commanders to go to an elevated mission-oriented protective posture mode.

So the soldiers in our brigade were moving forward with their protective masks on their body and their protective suits with them so that they could quickly don them. We had had several incidents before that where we had on occasion to go quickly to MOPP 4, donning the entire protective kit, and in my assessment the soldiers were very well-trained at that time in the use of their chemical protective equipment because of the threat that existed.

But, no, we were not aware, and, in fact, when I went for the initial rehearsals, we—I asked the question of the battalion commanders if someone had inspected for chemical weapons and was told that a special weapons detachment had been through and had basically told the commanders that there were no chemical weapons there.

We did have our detection equipment there, but I don't recall any detection or monitoring device registering chemical.

Mr. COOKSEY. Let me clarify that then. You had a weapons, chemical weapons detection group go through, and they said they did not think there was any?

General FLOWERS. Sir, I did not. I questioned, when I went up for the rehearsal, the battalion commanders, and asked them if anyone had checked for chemical weapons in the bunkers and was told that a special weapons detachment had certified there were none.

Mr. COOKSEY. What precautions would you have taken had you known that there were weapons there, chemical weapons?

General FLOWERS. Well, we would have tried to do a little more research on the type of weapons that were there and how to properly dispose of them. The mission that was directed by the 82nd to the battalions was to demolish the munitions that were there in what appeared to be a theater-level ammunition supply point.

And if there had been—our standard for dealing with anything chemical was to try and avoid it, if possible. What we were concerned primarily with when we went in was the presence of chemical mines. So we had trained the soldiers on how to identify chemical mines, and if they found chemical mines, we were to try to find a way around them as opposed to trying to deal with them. If we would have had to deal with them, we probably would have dealt with them in a standard fashion, but we would have employed a much longer stand-off distance. It is hard to describe a scenario when you are in a desert where you would have to do that.

Mr. COOKSEY. I went through chemical warfare school in 1967. I really don't remember much about it. But did any of your chemi-

cal detection devices go off, yours personally or any of your men, number one? And number two, did you or any of your men have symptoms of Gulf War illness?

General FLOWERS. Sir, I don't recall any of the chemical weapons detectors going off during that initial explosion.

I am participating in the survey. I am one of the data points that I thought I heard somebody talk about earlier.

When you fill out the checklist, they ask you if you are suffering some of these symptoms. I had to reply in the affirmative on some of them, but I don't know if they are Gulf War-related or they are just related to the other places that I have been, or my age.

Mr. COOKSEY. Is there any question that Members of the panel would like to ask General Flowers that I have not asked?

Mr. STEARNS. Would the gentleman yield?

I think what we should do here is continue our round. Your time has expired.

General Flowers, if you would remain at the desk and let me get to Mr. Hutchinson, and then we can finish up here, we have Mr. Quinn who came and Mr. Quinn wants to have an opportunity.

We are into a second round, Jack, and it is 3 minutes.

So if you will stay, General Flowers, we think this is providential that you are here, and we thank Mr. Cooksey for his initiative here.

Mr. Hutchinson.

Mr. HUTCHINSON. Thank you, Mr. Chairman.

I want to address this to General Flowers and perhaps to Dr. Rostker. There is a chemical detections unit that checked out the depot. If you had known, if intelligence had provided information that there were chemical weapons there, would there have been a different procedure followed by the chemical detection unit, and could have they discovered it if that information had been available?

General FLOWERS. Yes, sir.

Mr. HUTCHINSON. And so there are different levels of review, depending upon the intelligence information that is available?

General FLOWERS. Yes, sir. If you—if you know that something exists, you prepare to deal with it.

Mr. HUTCHINSON. Was there anything, General, at that time that made you think anything unusual had occurred after the demolition; you know, there's no alarms, but from talking with people, did anything trigger that there might have been some exposures?

General FLOWERS. No, sir. My most vivid recollection of the day was of the number of civilian refugees that were clustering around the soldiers who were trying to keep them back from the depot as we were doing the demolition. On that particular day, that was kind of our number one concern. There were quite a few civilians who were wandering up trying to ask for food and so forth. But I don't recall any of the soldiers, when I was there, suffering any sort of ill effects, and nor did I.

Mr. HUTCHINSON. When was the first time that you learned or were notified that there might have been some exposure?

General FLOWERS. Last fall.

Mr. HUTCHINSON. And did you receive a letter, or was this from the media or what?

General FLOWERS. No, sir. I received a phone call from Lieutenant Colonel, Retired, Bob Holcombe, who asked me if I was aware that they were looking into the possible existence of chemical weapons there, and I told him I was not. That was the first I had heard of it.

Then I was contacted shortly thereafter by someone from the task force who asked me some questions, and then I was part of the IG investigation and gave some testimony during that.

Mr. HUTCHINSON. What is your reaction, as someone who was there, as to the CIA's indication that they had information that there perhaps was chemical weapons there? Is it disbelief? What is your reaction?

General FLOWERS. Well, I am disappointed.

Mr. HUTCHINSON. That's all I have, Mr. Chairman.

Mr. STEARNS. Thank you, Mr. Hutchinson. Mr. Quinn.

Mr. QUINN. Well, Mr. Chairman, thank you for calling the hearing. I appreciate the fact that our witnesses are here and have been cooperating all morning. I have to apologize for not being able to be here and don't want to be repetitive in what has been asked and what has been responded to.

Only to say that while I am not a Member of this subcommittee, I am the chairman of the Subcommittee on Benefits, and I just want the witnesses and the full committee here, and other Members, to know that our subcommittee is just as interested, although it is not a subcommittee of jurisdiction. But sooner or later we will be talking about benefits for our veterans, as we do after all situations like this. So we are as involved as we can be and want you to know, Mr. Chairman, that you have our full support, and we will stay as very close as we can to the situation.

Mr. STEARNS. Thank you, Jack.

I think with that we are going to conclude the Panel 1. I appreciate so much your patience, and, General Flowers, I appreciate your volunteering to come forward. And we are going to recess. We have a 15-minute vote, which is about 10 minutes left, and a 5-minute. So we will try and reconvene after that second vote, which looks like a little after 1 o'clock, and I beg the indulgence of the second panel, and I urge Members to come back. With that, we are in recess.

[Brief recess.]

Mr. BACHUS (presiding). Welcome to the Oversight and Investigations Committee of the Veterans' Committee, and we will call for the testimony of panel 2.

At this time, we are going to have the testimony of Matt Puglisi, assistant director of the National Veterans Affairs and Rehabilitation for the American Legion; and also Jeffrey Ford, who is executive director of the National Gulf War Resource Center.

Mr. Puglisi, would you like to go first? My understanding is, both of you were in the Gulf War. You were a major, Mr. Puglisi; is that right?

Mr. PUGLISI. No, sir. I wish I was. I would have gotten a bigger paycheck. I was a second lieutenant during the Gulf War. Now I am a captain in the Marine Reserve.

Mr. BACHUS. I was a PFC, so you were way above me.

And Mr. Ford, you were actually part of the team that participated in the detonation at Khamisiyah?

Mr. FORD. Yes, sir. I was serving with the 307th Engineering Battalion at the time, and I hauled all the demolition supplies and set many of the charges for about 15 days.

Mr. BACHUS. We welcome your testimony before the committee, and we will start with you, Mr. Puglisi.

STATEMENTS OF MATTHEW PUGLISI, ASSISTANT DIRECTOR, NATIONAL VETERANS AFFAIRS AND REHABILITATION, THE AMERICAN LEGION; AND JEFFREY S. FORD, EXECUTIVE DIRECTOR, NATIONAL GULF WAR RESOURCE CENTER

STATEMENT OF MATTHEW PUGLISI

Mr. PUGLISI. Thank you, Congressman, and thank you, staff, for spending your lunch with us this afternoon.

The American Legion appreciates the opportunity to offer testimony regarding Gulf War illnesses today. We commend you and other members of the committee and the chairman for devoting a hearing to this important topic, and we look forward to future hearings that will investigate how the Federal Government can provide effective medical treatment to Gulf War veterans. The American Legion is the largest veterans service organization, including over 45,000 Gulf War veterans, and the leading advocate for veterans of that war. In 1995, we created a Gulf War Task Force dedicated to serving Gulf War veterans, their families, and their advocates.

I am a Gulf War veteran with combat service as an artillery forward observer serving with the 2nd Marine Division in Saudi Arabia and Kuwait. I also represent the American Legion as a member of the VA Persian Gulf Expert Scientific Committee.

The topic of today's hearing focuses on chemical warfare agents and their role in Gulf War illnesses. Although important and of great interest to Gulf War veterans, the public, and the media, the demolition of the Khamisiyah bunker, the role of chemical warfare agents, and the bumbling of Central Intelligence Agency, CIA, and Department of Defense, DOD, are only parts of the overall issue of Gulf War illnesses. The Nation is confronted with sick veterans. It should devote resources to making them healthy while it investigates the role of all the risk factors encountered in the Persian Gulf that may have lead to the illnesses seen today in thousands of Gulf War veterans.

The ongoing investigations into CIA, DOD, and chemical warfare will not pay one disabled veteran's overdue utility bill, it will not compensate one disabled veteran, it will not have any positive or measurable impact on veterans' lives other than to provide information about events that took place over 6 years ago.

The current research portfolio has appropriately addressed epidemiology or health surveys and toxicological surveys of Gulf War veterans' experiences. However, of over the 90 Federal medical and scientific studies, none are examining the health of Gulf War veterans after they seek treatment from public and private medical doctcrs. The Veterans' Affairs Committee can do something about this

by immediately calling on the Government to study the effectiveness of medical treatment provided to Gulf War veterans.

In the last 15 years, outcomes research has examined the subjective experience of patients under real world conditions. The goal has generally been not merely to test the efficacy of interventions—for instance, can drug treatment for a particular disease make patients feel better?— but whether a given group of patients actually feels better after they received specific forms of treatment.

How do Gulf War veterans feel after they received treatment from VA and DOD. Did they feel better? The same? Worse? As of today, no one knows. There is no data available, only anecdotes. VA and DOD have not formally measured health outcomes for veterans after they received care from these agencies.

Fatigue is the symptom most commonly reported by Gulf War veterans. However, they have not received standard clinical testing under current diagnostic strategies in primary care for fatigue. They are therefore not likely to have been treated appropriately for fatigue.

Veterans seen in health maintenance organizations are not likely to receive sophisticated treatment for chronic fatigue-like symptoms. Sick veterans therefore are left feeling ill.

In other diseases without a known cure, the U.S. health care model has evolved an approach over the last 30 years; namely, randomized clinical trials of various possibly effective treatments in an attempt to weigh the benefits and the costs. The logical course is then to conduct randomized control trials with treatments and approaches in order to find the most effective ones. Congress should be consider funding this in the current budget deliberation.

After denying that chemical warfare agents played any role in Gulf War illnesses, the Federal Government is now undertaking massive investigations and spending millions of dollars to understand how many veterans were exposed to those agents and what role chemical warfare agents played in the illnesses we see today. The American Legion welcomes congressional oversight of these efforts. The next step, however, is to devote resources to the most important task left to the Nation in the aftermath of the Gulf War, and that is effectively caring for sick veterans of the Gulf War and their families.

Thank you, sir. I have finished my testimony, and I am looking forward to questions from yourself.

[The prepared statement of Mr. Puglisi appears at p. 252.]

Mr. BACHUS. Thank you. Mr. Ford.

STATEMENT OF JEFFREY S. FORD

Mr. FORD. Thank you, Mr. Chairman, members and staff of the committee.

On March 4, 1991, while serving with the 307th Engineer Battalion of the 82nd Airborne Division, I watched along with members of the 37th Engineer Battalion the destruction of 43 bunkers, one of which we now know contained tons of deadly binary-tipped nerve agent rockets.

We now know that claims by our Government that no chemical weapons were present in the theater of operations or potentials of exposure were grossly wrong. We also know that all this time there

was evidence, both classified and unclassified, that our troops may have been exposed to Iraqi chemical and biological weapons. I am here today to provide a Gulf War veteran's overview of the Government's response concerning these illnesses and the investigations into possible causes and outcomes, and, most importantly, I will speak for the ill Gulf War veterans and their families in need of appropriate care and compensation.

On March 26 of this year, I spent an entire day with a new team at the Office of the Special Assistant of the Deputy Secretary of Defense for Gulf War Illnesses under Dr. Bernard Rostker. With their full cooperation, I asked him for access to my case file to make sure they had all the needed information from me. My previous reports could not be found in their database.

We then began a coordinated search to find where the breakdown had occurred, and later that afternoon the supervisor with the callback team advised me they had discovered a separate file in California for Khamisiyah incident reports left over from the past team that had not been transferred to Washington. This file revealed 1,174 previously uninvestigated reports related to Khamisiyah. Those reports have now been forwarded to the appropriate investigators.

After solving a systemic problem that had existed for some time, I truly felt the two-way communication promised by Dr. Rostker was beginning to bear fruit. He tells me his team is addressing some 63 separate case scenarios and at this time nothing is being ruled out in the investigation; every concern I voiced was being looked into and more.

To evaluate this aspect, I met for 30 minutes with an investigator working on Khamisiyah. I relayed to him not only by experience in 1991 but also what I have learned since. We freely discussed all aspects of what is currently known about this incident and what is currently being investigated. We went over the current case narrative, where I pointed out what I believed to be errors, and was assured these discrepancies had already been corrected for the next revision.

It is my opinion that the incident at Khamisiyah is being adequately investigated so far as this team has been tasked. The only questions that remain unanswered are either still being investigated or have been delayed due to lack of data.

I was also given the opportunity to have a closed-door meeting with the 20 or so veterans who comprised the investigative callback team. I was pleased to find that they had copies of our self-help guides and had been finding our references useful.

We discussed primarily trouble veterans were experiencing that I was aware of, and they said they were receiving much the same feedback: Active-duty sergeant majors, captains, and enlisted who were feeling ill but were afraid to come forward for fear of losing their careers; distraught wives of veterans calling on behalf of their husbands who were about to lose their jobs because they could no longer perform their duties; newlyweds concerned about the potential of birth defects and wanting to know if they should risk trying to have a family; the mother who wanted to know why her son died at 35 from liver and pancreatic cancer; or the sister of a Gulf vet who killed himself because of the chronic pain and frustration he

could no longer stand; could his wife and two little kids get compensation now that he was gone? she asked.

We talked for two hours, and I came away assured that this room full of fellow veterans would do all they could to make this team work.

This by no means was our first encounter with Dr. Rostker and his team. They sought out our organization and have included us in all of their outreach, including frequent updates, special outreach, and an inception and planning of a series of town hall meetings with Dr. Rostker in the coming weeks.

We are encouraged by the speed with which Dr. Rostker has made necessary changes, and from what I have personally seen so far, this facet of the investigation is headed in a positive direction and has produced profound and tangible results when compared to the efforts of the past. We look forward to maintaining this mutually productive relationship and hope to foster more working relationships such as this with other agencies as well.

We find that many veterans are still unaware of the Department of Defense and VA registry examinations or have little understanding of their purpose. Those veterans who do go through the phase 1 protocol examinations still do not receive appropriate follow-up treatment at some facilities.

We would like to recommend that the Public Law 103–210 authorizing the Department of Veterans Affairs to provide health care services on a priority basis to Persian Gulf War veterans be extended to at least December 31, 2001, to coincide with the extension of the presumptive period for claims.

We also request that both Departments of Defense and Veterans' Affairs send letters to every Persian Gulf veteran, regardless of whether or not they are currently in any registry, advising them of services available to veterans and their families. This has not been done since 1994.

Personally, I feel that the CIA downwind modeling hazards, that are investigations being conducted so far, is unrefined, subjective, lacking in critical data, and not good empirical science. This matter must be investigated by other entities other than the Presidential Advisory Committee. Any further research pertaining to flume analysis should no longer be the responsibility of the CIA.

In conclusion, a number of positive measures are now being taken to intensify this Government's assessment of Gulf War veterans illness, however much remains to be done and seen. These maladies are afflicting nearly one out of seven Gulf War veterans and their families. One-third remain on active duty, and many more are serving in reserves and National Guard units. They are too of afraid to come forward with their health concerns and information relating to their service in the Gulf.

We must add to that the more than 100,000 who have come forward to health screenings, 85 percent of which are symptomatic. The most recent study completed on mortality in this group was based on 1993 data, yet this study was touted as the definitive study by the VA only this past fall.

Due to years of denials, studies and research that has been completed to date rarely, if ever, considered the possibility of exposure to chemical or biological warfare agents. We must go back through

every study, test, survey, protocol, examination, and investigation, and take into account what we now know. At the same time, we must move forward with what we do know in an open, positive, and focused manner.

There are and have been six Senate and House committee investigations; inspectors general of the Army and CIA; special assistants to the Secretary of Defense, CIA, and the President; Presidential Advisory Committee; Institute of Medicine; Centers for Disease Control; Defense Science Task Board,, Persian Gulf Veterans Coordinating Board; Persian Gulf Expert Scientific Committee; and over 100 studies being conducted. Yet the only thing anybody agrees upon is that we were under stress in a war.

Veterans and their families, DOD, and civilian contractors, and all those who now suffer these ailments are now under more stress than when they were in the Gulf. These people need proper medical treatment and compensation, and, most of all, they need answers to their ever lingering questions.

Thank you.

[The prepared statement of Mr. Ford, with attachment, appears at p. 261.]

Mr. BACHUS. Thank you, gentlemen.

First of all, I want to recognize several VA, or Department of Veterans Affairs officials who have been here today listening to this testimony.

I want to commend you. And, Mr. Walpole, I commend you and your CIA staff for staying and listening to this testimony. I appreciate that, and I think it will be valuable to you. And I commend you for investing that time.

Mr. Puglisi, you have mentioned having clinical studies as opposed to the studies that have been undertaken, which are just broad studies to try to see if there are any trends, and I agree with you. I mean, the number one priority ought to be treating our sick veterans, that ought to be our primary concern.

Are we somewhat limited by the fact that many scientists are telling us that there are many different causes of Gulf War syndrome, there is not one cause? And we have so many different suspects: We have the antidotes, we have the vaccinations, we have the pills.

Do you want to comment on that? How do we develop a case study, or how many different clinical tracks would you identify as necessary, maybe?

Mr. PUGLISI. Sure. If I could clarify my testimony, I didn't want to suggest that the basic research and the epidemiology and some of the other studies shouldn't be done. They should be done. They are very important to understanding the different suspects that we have right now, and we have a great many.

Mr. BACHUS. Are you satisfied with those studies thus far?

Mr. PUGLISI. Well, the American Legion is reviewing the ongoing studies. We have a medical consultant that works with the American Legion and has overseen those studies, gotten with the principal investigators, looked at their protocols, and the vast majority of them are very well designed and should answer the questions they are seeking to answer.

The Presidential Advisory Committee also took a look at those studies and is pretty confident in them. But what is not being done——

Mr. BACHUS. Just the clinical studies?

Mr. PUGLISI. Yes, sir, and clinical studies in the sense of asking patients which treatments make them feel better. It sounds like a simple question, but these studies have to be well designed; they are pretty complex; they cost a lot of money.

Mr. BACHUS. What we refer to as outcome research?

Mr. PUGLISI. Yes, Congressman, that's right. That hasn't been done yet.

While we are trying to figure out the cause—and that is important—we haven't taken a look at how Gulf War veterans are doing right now. Mr. Ford pointed out the frustration that veterans are having. The cuts that VA has taken—I am not saying it just for the benefit of the folks sitting behind me, but the cuts that VA has taken have affected not only the care they can give the Gulf War veterans, but have also affected the compensation claims that veterans have filed.

There is a backlog of Gulf War veterans claims that numbers well over 10,000. VA is in the process of reviewing them. The Secretary is in the midst of changing the regulations that affect Gulf War veterans, which means many claims will have to be opened up and looked at again.

VA doesn't have the staff on hand after the cuts they have taken to adjudicate these claims in a timely manner. The effect it has is not only VA coming to Congress to say, gee, we have this backlog that is taking a lot of time. One is, it has a terrible effect on morale of VA employees, but, more importantly, it affects how veterans view the Government and VA, because they are frustrated with how long it takes them to get their claims through the system.

So what I was trying to say in my testimony is what the American Legion thinks is important is that although chemical weapons and controversies and appearances of a cover-up are very important to investigate, right now there are many Gulf War veterans who are very frustrated not only with their poor health today as a result of their service in the Gulf, but with the kinds of benefits and services the Government provides to them right now.

Mr. BACHUS. Okay. Are you aware of any study designs or any protocols that have been developed and reviewed that you are advocating? Are there any clinical studies out there today?

Mr. PUGLISI. There are epidemiology studies that are following up with veterans in a clinical setting. There aren't any that are true outcome studies and designed to answer that question.

Mr. BACHUS. What do you think these studies ought to cover, these, as you say, outcome-driven studies? Vaccinations?

Mr. PUGLISI. Actually, Congressman, there are studies looking at particular possible causes like the vaccinations or pyridostigmine bromide, the nerve agent pre-treatment, but studies focusing on what we can do for the veterans now and what treatments are effective are not being done.

If veterans are suffering from fatigue, the fatigue could be caused by many things. In the case of nerve damage, if there is nerve damage, there isn't a lot we can do now if they suffer this nerve dam-

age, but what we can do is alleviate the fatigue or help them work through the fatigue which is always going to be there.

So while we look for what caused the fatigue, we should also look at what we can do for someone with fatigue to help them get on with their life. The first question, what caused it, is real sexy and controversial, and as you saw the room was packed when we were talking about it earlier, but what I am talking about is the most important thing affecting the Gulf War veterans, and you can see the interest that it has right now, and that should change.

Mr. BACHUS. Thank you.

Mr. Ford, I know on a CBS interview in February, you detailed your participation in the demolition at Khamisiyah and you said that at that time you felt that you had been lied to. Is that a mischaracterization? Do you still feel that today, having heard the testimony of the first panel?

Mr. FORD. I believe I was referring to how I felt when I first saw on "60 Minutes" last fall that there had been chemicals stored possibly at Khamisiyah. I had—prior to that knowledge, I had always tried to maintain an open mind and give the Government the benefit of the doubt that they were telling the truth, that no classified or unclassified documents revealed any potential chemicals of even being in the theater of operations.

Mr. BACHUS. I think you said possibly "lied to." Do you at this time maybe get a sense of that——

Mr. FORD. I can't tell, if it is, how much of it is actual deception or incompetence, to tell you the truth, or just human error. I am sure there is plenty of that involved as well.

Mr. BACHUS. When you talk about human error or just simply, has it occurred to you that maybe they did not have the facts, either, that they were at least unaware that these were chemical weapons?

Mr. FORD. I can see up and down the chain of command both in the intelligence community, the CIA, and the Department of Defense, as well as chains of commands, information was disseminated. First of all, it was a very difficult environment to communicate in, long distances, and a lot of chaos.

Could we have done better? 20/20 hindsight says yes, and I hope we will make those changes so that this doesn't happen to another generation of veterans.

Mr. BACHUS. How about what you know now about the demolition itself, the testimony that they did not see any chemical weapons? How would those have been marked? Do we know how the Iraqis mark their chemical weapons, or is it difficult to know?

Mr. FORD. First of all, I have to say that combat engineers who were the brunt of this operation are not trained to identify ordnance. Primarily our mission is mine, countermine mobility. Enemy captured munitions is not our area.

We were told they were explosive ordnance people who inventoried all the bunkers before we blew them. For the entire 2 weeks, I saw 2 DOD people and no chemical people, nor did I see a Fox vehicle at Khamisiyah at any time.

It is my understanding that the only check for chemical weapons that they did do was to strap an M–8 alarm through the front of a Humvee and drive it through the complex. I doubt that that

would detect any chemicals unless the shells were actually leaking and on the ground.

I can tell you, though, that after the March 4 detonation, just within 15 or 20 minutes, one myth is that debris started falling. This was by no means debris; this was charges improperly placed in the bunkers, not using enough demolitions, and what has been called debris for the past years was actually 122-millimeter sarin-filled rockets igniting and launching out of Bunker 73.

Some of these missiles landed as far as 15 kilometers away, and in fact the commanding general of the 82nd Airborne Division was quoted as saying one landed at his feet.

So I think when we want to do a downwind hazard modeling, we might want to take into consideration that we had sarin-filled rockets flying through the air as far as 15 kilometers out as well as landing within 20 to 30 meters of the personnel that was at the canal that day.

I also pulled guard duty that night after the 37th Engineers left. We stayed at this position, and at no time did I ever put on any mop gear, except for a mask for about 5 minutes. Khamisiyah continued to burn and cook off all through the night until it rained the next day and we pulled back to the buildings in Tall al-Lahm and did not reenter for approximately 36 to 48 hours.

I have no doubt that had we reentered Khamisiyah that very afternoon, potentially dozens of soldiers would have been exposed to fresh and high doses of toxic agents. I guess it was just a stroke of luck that it rained.

Mr. BACHUS. Your testimony describes some difficulties you have had in getting information off the GulfLINK Internet Web site. Have you discussed those problems with DOD?

Mr. FORD. Yes, I have.

Mr. BACHUS. Have you resolved those problems? Have you been given any explanation?

Mr. FORD. The problem being that for the last year, in their declassification project, they used electronic scanning devices to scan physical documents in text, and then it is incorporated onto their Web site.

However, unfortunately, the software and hardware they have been using scrambles the documents to where they are unreadable. And anyone who has done any research on the Internet knows that if you were to enter a key word search, most of the pertinent information would not come up; therefore, you would never find the document. Unless you went actually in and physically accessed this scanned document, in some cases the original scanned document does not exist, so you have no document.

I don't know if this is a matter of neglect, seeing as it has gone on for a year and it has been pointed out for quite some time, but it seems to me a very convenient way to hide government documents right out in the open where they can be seen but yet at the same time not recognizable through computer searches and at the same time touting how many documents have been declassified to the Internet.

Mr. BACHUS. Have you gone to Dr. Rostker?

Mr. FORD. I met with Dr. Rostker and just met with Admiral Busick, special assistant to the White House, and they have as-

sured me that they have every intention of going back through every single document and manually keying them in and rereferencing and better organizing these documents. In the meantime, it is going to take a while, and, as I explained to Dr. Rostker, I know he is working on it but I need to enter it into the record so we can hold them accountable for these things.

Mr. BACHUS. Thank you.

Do you all know of any VA hospital, any facilities that you think are doing a good job of these clinical studies, outcome-based studies, now that are making headway, anything you would like to point to us as a success that should be duplicated?

Mr. PUGLISI. Congressman, there is success throughout the system. It is tough—it is not fair for me to pass on all the things I have heard from vets, because they don't call me when they have a good experience with VA; I just hear from the folks who have either had a bad experience or are confused.

But there are a lot of VA docs out there who started treating patients right after the Gulf War before all veterans were eligible for care, and they did that in spite of the regulations and, I think, to their credit. They will remain nameless though.

VA is dealing with something that is not only difficult to explain and treat, because we are still not sure what caused this, but they are doing it in the midst of budgetary constraints and reorganizing itself and moving from an inpatient system to an outpatient system. There are a lot of things going on.

So overall, VA has done an excellent job in taking care of the population of Gulf War veterans. But for those who don't get a diagnosis—and this is true whether or not one goes to the VA or a private physician—if your private doctor can't really figure out what it is that you have or what it is that made you ill, they are going to have a very difficult time treating you.

And I don't want to suggest that conducting outcome studies or clinical trials is a way to show where VA isn't doing their job well. On the contrary, it is to help VA and their doctors better understand this and be able to treat it as best that they can.

Mr. BACHUS. At this time I am going to yield to Susan Edgerton, Democratic staff member, for some additional questions.

Ms. EDGERTON. Thank you.

Mr. Puglisi, I know that American Legion has done a lot of work on behalf of the Gulf War veterans, and we commend you for that. What types of activities are you trying to track? You said you had communicated with about 20,000 veterans or they had contacted you.

Mr. PUGLISI. Gosh. Actually, the Department of Defense recently contacted 20,000 Gulf War veterans who were within 50 kilometers of the Khamisiyah bunker. The American Legion has 45,000 Gulf War veterans who happen to be members of the American Legion, and we have a number of programs geared towards them.

Ms. EDGERTON. Okay. Are you doing anything to track your own members' experiences with VA health care or to look into how they are getting access to the system?

Mr. PUGLISI. Not in any formal way, but what we do is, as members or nonmembers, as veterans contact us and they have problems, we direct them to VA, depending on what level would be

most appropriate. Sometimes I actually forward veterans to VA central office here in Washington, DC, if I think it is a problem that deserves their attention.

But while overseeing what VA does, we also have a relationship with them where we try to work with them and smooth out problems that the veterans may have, because in the end, we just want the veteran to get better; it is not worth fighting over what occurred or how the veteran slipped through the cracks.

Ms. EDGERTON. Thank you.

Mr. Ford, your written testimony seems to indicate a general level of satisfaction with the investigations of Dr. Rostker and his office thus far. Is there anything else you feel like they should be doing to improve the outreach or communications between DOD and the soldiers and veterans suffering with Persian Gulf syndrome?

Mr. FORD. Well, as I mentioned, Dr. Rostker is holding a series of town meetings throughout the Nation in the coming weeks. I think that will give Dr. Rostker a very real view of the problem out there. He also maintains that those will not be the end of his town hall meetings and he will continue to have those as long as necessary.

I do believe that there isn't a large population of veterans out there that still are not familiar with the registries or help programs, and I believe that they need to be contacted. I think I have recommended here, engage in public service announcements, media advertisements, teleconferences, to once again relay to those Gulf War veterans out there that don't have C-SPAN or CNN or aren't on the Internet, that there are 1–800 numbers, facility addresses, and places they can go for help.

We have an Internet site that received about 200,000 hits a month. We have a referral program on the Internet site where a veteran that is needing information or services can e-mail a referral coordinator. Since we revamped our Web site in the middle of February, I have received 103 requests for assistance. That is an alarming number. So far in the past 9 months, I believe I have received about 1,300 requests. The number is growing, and out of the 5,000 self-help guides that we had printed in October, we have about 1,000 left, and we are receiving requests from Veterans' Administration hospitals, vet centers, State, county VSOs for our self-help guide. So there is obviously a definite need for information and resources out there.

Ms. EDGERTON. Thank you.

Mr. BACHUS. Thank you. I think this will conclude your testimony.

I will tell you, Mr. Puglisi, that we, I think this committee, will explore further current treatment protocols and what results are having and possible treatment that needs to be developed in future hearings, and maybe even in legislation.

I will conclude the hearing by saying this, not so much concerning your testimony, but the testimony of the first panel reaffirms to me the fact that many of the documents have either been mislaid or apparently have not been produced. And it is very disturbing to me, particularly, that the chemical, nuclear, and biological logs of the central command, that most of those records apparently

have been, I am going to use the word "lost," but I will say this: They were either misplaced or were no longer where they should have been after it became apparent to anyone in Washington that they were significant.

In fact, one of the explanations offered by the first panel on why some of the documents are not available is the fact that they were not significant. And that indicates that they went through those logs looking for chemical exposures, which would have indicated certainly that they were aware of the importance of the issue at that time. And it was subsequent to that that these logs can't be found. It wasn't a matter of them not making their way back from the Gulf War. They were there, and they were looked at in relationship to this issue, and it is subsequent to that they were misplaced, destroyed, or lost.

It is quite apparent from that that it certainly increases the degree of culpability and makes you question the intent. So I think that obviously is a red flag to this committee.

You know, one of the explanations for this was that there was a computer virus, which is becoming less and less credible to me.

Mr. FORD. Mr. Chairman, I am waiting for the "dog ate my homework" excuse.

Mr. BACHUS. Right.

Mr. FORD. I do have one document, though, that is relevant, that I would like to enter. As of February 21 of this year, 9,688 claims for undiagnosed illnesses have been denied and only 669 have been approved.

Mr. BACHUS. All right.

[The attachment appears on p. 269.]

Mr. BACHUS. Thank you. We appreciate your testimony, and this concludes the hearing of the Health and Investigation and Oversight Subcommittee of the Veterans' Committee. We thank you for your attendance.

Mr. FORD. Thank you.

[Whereupon, at 1:52 p.m., the subcommittee was adjourned.]

APPENDIX

CHRISTOPHER H. SMITH
4TH DISTRICT, NEW JERSEY

WASHINGTON OFFICE:
2370 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-3004
(202) 225-3765

CONSTITUENT SERVICE CENTERS:
1540 KUSER ROAD
SUITE A9
HAMILTON, NJ 08619-3828
(609) 585-7878
TTY (609) 585-3650

100 LACEY ROAD
SUITE 38A
WHITING, NJ 08759-1331
(908) 350-2300

Congress of the United States
House of Representatives
Washington, DC 20515–3004

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CO-CHAIRMAN

Statement of Rep. Christopher Smith (NJ)
House Committee on Veterans' Affairs

Joint Hearing on Persian Gulf War Illnesses
by the Subcommittee on Health and
Subcommittee on Oversight and Investigations
April 16, 1997

Chairman Stearns and Chairman Everett, I would first like to commend you for continuing this Committee's efforts to find the causes of the illnesses which have afflicted those brave women and men who served this nation in the Persian Gulf.

Since 1991, the House Veterans' Committee has conducted at least 13 hearings to uncover the truth about the mystery illnesses which have plagued the Gulf War veterans. These efforts have paved the way for the enactment of significant laws, including giving Persian Gulf veterans the opportunity to receive medical examinations and counseling and to participate in a registry; authorizing compensation on a presumptive basis for those veterans suffering chronic disability resulting from undiagnosed illnesses; and providing priority health care to veterans who may have been exposed to toxic materials or environmental hazards while serving in the Persian Gulf. I was also pleased that the Department of Veterans Affairs recognized the difficulty in diagnosing veterans' illnesses, and recently agreed to extend the presumptive period for Persian Gulf War veterans' undiagnosed illnesses to 2001.

Mr. Chairman, despite our best efforts, many questions still remain unanswered and therefore we must earnestly continue our pursuit of a definitive answer to the cause of these ailments.

Today's hearing also presents us with the unenviable task of trying to determine what the DoD and the US Intelligence Community knew about Iraq's chemical arsenal, and specifically the Khamisiyah Ammunition Storage Point in southern Iraq. The case narrative prepared by the Dr. Bernard Rostker, and the CIA report prepared by Mr. Robert Walpole, raise serious questions about what the government knew about the chemical weapons being stored at Khamisiyah, when it was known, and whether there were any efforts to purposely withhold that information.

In order for the government to maintain its credibility with our veterans, it is imperative that we get answers to these questions. I am confident that this committee will not rest until the truth is known.

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Statement by Rep. Luis V. Gutierrez
Subcommitee on Health and Oversight and Investigations
Committee on Veterans Affairs
April 16, 1997

THANK YOU CHAIRMAN STEARNS AND CHAIRMAN EVERETT FOR CONVENING THIS IMPORTANT HEARING TO ADDRESS NEW DEVELOPMENTS IN THE ONGOING INVESTIGATION OF THE ILLNESSES AFFLICTING OUR PERSIAN GULF WAR VETERANS.

I AM PARTICULARLY ENCOURAGED THAT IN MY FIRST HEALTH SUBCOMMITTEE HEARING AS THE RANKING DEMOCRAT WE WILL BE CONSIDERING GULF WAR ISSUES.

PERSIAN GULF ILLNESSES HAVE ALWAYS BEEN A PRIORITY FOR ME ON THIS COMMITTEE AND THEY WILL CONTINUE TO BE UNTIL THEY ARE SUFFICIENTLY RESOLVED.

I AM PLEASED THAT THIS COMMITTEE HAS STARTED TO REASSERT IT'S AUTHORITY OVER ISSUES RELATED TO THE GULF WAR AND I AM HOPEFUL THAT OUR EFFORTS WILL CONTINUE THROUGHOUT THE SESSION.

THIS HEARING COMES AT AN OPPORTUNE TIME.

WE NOW KNOW THAT MORE THAN 20,000 GULF WAR VETERANS, MEMBERS OF THE 24TH ARMY INFANTRY, WERE PROBABLY EXPOSED TO CHEMICAL NERVE AGENTS AFTER THEY DEMOLISHED THE KHAMISIYAH (Kamisseeya) ARMS DEPOT IN SOUTHERN IRAQ.

WE ALSO KNOW THAT THIS DEVASTATING EVENT MAY HAVE BEEN AVOIDED HAD OUR INTELLIGENCE SERVICES BETTER RECONCILED THEIR COMPUTER DATABASES AND DISSEMINATED THEIR INFORMATION IN A MORE DIRECT MANNER.

THE CIA HAS ACKNOWLEDGED ITS MISTAKES.

HOWEVER, WHILE OUR GOVERNMENT AND THIS COMMITTEE ARE NOW ARMED WITH MORE INFORMATION WE ARE ALSO BESET BY MORE PRESSING QUESTIONS THAT MUST BE ADDRESSED.

I BELIEVE THAT VETERANS-OF-FOREIGN WARS COMMANDER JAMES NIER SAID IT BEST WHEN HE STATED," I CAN'T HELP BUT WONDER AS THESE REVELATIONS AND EVENTS CONTINUE TO UNFOLD, HOW MANY OTHER KHAMISIYAHS ARE OUT THERE WAITING TO BE UNCOVERED."

UNFORTUNATELY, THIS REMAINS A DISTINCT POSSIBILITY.

DESPITE THE THOROUGH PREPARATION OF OUR MILITARY AND OUR EXTENSIVE INTELLIGENCE CAPABILITIES IT REMAINS FEASIBLE THAT DURING A MASSIVE DEPLOYMENT OF THE NATURE OF DESERT STORM THESE WORSE CASE SCENARIOS DID OCCUR.

DO WE KNOW FOR SURE THAT THE ALLIED CARPET BOMBING CAMPAIGN THAT PRELUDED OUR GROUND ATTACK DID NOT SIMILARLY DESTROY IRAQI CHEMICAL STORAGE FACILITIES?

AS THE CIA REPORT DEMONSTRATES, ANALYSTS FOCUSED THEIR EFFORTS ON S-SHAPED AMMUNITION DEPOTS AS THE MAIN REPOSITORIES FOR IRAQI CHEMICAL ARMAMENTS.

THIS PROVED WRONG IN KHAMISIYAH. WAS THIS CONCENTRATION ON S-SHAPED FACILITIES WRONG ELSEWHERE?

THIS REMAINS CONCEIVABLE UNTIL PROVEN OTHERWISE. THE ONUS IS NOW ON OUR GOVERNMENT TO DEMONSTRATE WHAT REALLY HAPPENED.

TO PROVIDE AS MANY ANSWERS AS POSSIBLE.

TO DO OUR BEST WITHOUT HOLDING BACK.

THAT MEANS DISCLOSING ALL THE INFORMATION NEEDED TO RECTIFY THE CONCERNS OF OUR GULF WAR VETERANS.

AND PROVIDING THESE MEN AND WOMEN WITH THE HEALTH CARE AND SERVICES THEY REQUIRE.

WE HAVE STARTED TO ACQUIRE MORE DETAILS ABOUT WHAT HAPPENED IN THE GULF. AND WE HAVE BEGUN TO COMMIT ADEQUATE RESOURCES TO THIS CAUSE.

THE DEPARTMENT OF DEFENSE HAS ALLOCATED MORE THAN $25 MILLION TO GULF WAR ILLNESS RESEARCH FOR THIS YEAR ALONE.

I DO WANT TO MENTION ANOTHER CONCERN I HAVE.

BUREAUCRATIC INEFFICIENCY.

WE HAVE SEEN WHAT THIS CAN DO TO THE DISBURSEMENT OF INFORMATION IN THE INTELLIGENCE COMMUNITY. KHAMISIYAH IS THAT EXAMPLE.

TODAY, SEPARATE INVESTIGATIONS INTO PERSIAN GULF ILLNESSES ARE BEING CONDUCTED BY THE CIA, DOD, THE FOUR ARMED SERVICES, THE PRESIDENTIAL ADVISORY COMMITTEE, BOTH HOUSES OF CONGRESS AND THE GENERAL ACCOUNTING OFFICE (GAO).

AND I AM PROBABLY FORGETTING SOME GOVERNMENT AGENCY. I AM ALSO LEAVING OUT THE MANY NON-GOVERNMENTAL ORGANIZATIONS THAT HAVE CONDUCTED CREDIBLE STUDIES ON THIS ISSUE.

I BELIEVE THAT COORDINATION IS REQUIRED, COOPERATION IS NECESSARY AND THAT GOVERNMENT AGENCIES SHOULD WORK WITH THEIR NON-GOVERNMENTAL COUNTERPARTS TO GET TO THE BOTTOM OF THIS.

IN ADDITION, LET US NOT FORGET THAT WE HAVE AT OUR DISPOSAL A RESOURCE THAT MAY PROVIDE OUR GOVERNMENT WITH THE BEST ANSWERS.

THE BRAVE VETERANS THAT SERVED OUR NATION DURING THE GULF WAR.

ONCE AGAIN, I THANK THE MEMBERS OF THIS COMMITTEE AND OUR DISTINGUISHED WITNESSES FOR JOINING US TODAY.

STATEMENT OF REP. JOSEPH P. KENNEDY II
JOINT HEARING ON PERSIAN GULF WAR ILLNESS
APRIL 16, 1997

Mr. Chairman,

I would like to thank you for convening this important hearing on Persian Gulf War Illness. In September of 1992, the House Committee on Veterans Affairs held its first hearing on the health concerns of Persian Gulf War veterans. At this hearing, the federal government downplayed the severity and scope of the problem -- writing the sick veterans off as mental cases.

I was outraged, and called for a field hearing to be held in Boston that same month. I wanted to give the veterans a chance to testify for the first time about their illnesses and difficulties in receiving care.

When the men and women who fought in the Persian Gulf War returned home, they thought that the battle had been fought and won. Yet since their return they have discovered a second battle that needs to be fought - a battle to learn the true cause of a mysterious illness that has plagued many of them since the war ended.

Thousands of veterans and military personnel from the Persian Gulf are experiencing debilitating health, with symptoms such as chronic fever, fatigue, memory loss, bleeding gums, dramatic weight loss, and rashes, commonly referred to as "Gulf War Syndrome."

Since 1992 the Congress and the President have launched a series of initiatives for sick Persian Gulf War veterans. The Veterans' Committee has passed into law provisions granting these veterans priority health care and compensation. I am very pleased that President Clinton, after urging from Members of this Committee and from Secretary Brown, decided to extend the presumptive period for Persian Gulf War veterans to 10 years.

But more than six years after the end of the Gulf War, we still have more answers than questions on the issue of Persian Gulf War illness. And despite the efforts that have been made to find a cause for the health problems of Persian Gulf War veterans, the underlying causes of the disease still eludes us.

In the search for answers, a number of disturbing facts have been uncovered. One of the most disturbing to me involves our troops' exposure to chemical weapons in the Gulf. After denying for years that our troops were exposed to chemical weapons, the Department of Defense revealed in June 1996 that our troops were in fact exposed.

Then just last week we learned that the CIA knew as early as 1984 that chemical weapons were stored at Khamisiyan, and that by 1986 the CIA had firm evidence that the facility had stocks of these weapons. Yet it failed to list the depot on a list of suspected chemical weapons sites provided by the Pentagon before the War. And our troops blew up the depot.

How much longer are the proud veterans of the Persian Gulf going to be subject to this slow flow of information? Facts that are crucial to their health and well-being are just now being discovered and reported.

We must have full disclosure of all the facts. Further investigation into the issue of Gulf War Illnesses must be open and transparent -- and it must move forward rapidly. It is possible that other critical information has been withheld or misplaced -- information that could provide an important clue in determining the cause of Persian Gulf War Illness.

Our proud veterans deserve nothing less.

Statement of the Honorable Mike Doyle [PA-18]
Joint Hearing of the Health and Oversight and Investigations Subcommittees of the Committee on Veterans' Affairs to Review Gulf War Veterans' Health Concerns

April 16, 1997

The subject we are discussing today is an important one for veterans of the Persian Gulf War, many of whom are now facing serious health concerns because of their service in this conflict. The Federal Government, including all agencies responsible for their protection while in the Gulf region, owes these veterans answers about possible chemical weapons exposure and other information that might help them find the causes of, and treatments for, their illnesses.

In its final report, The Presidential Advisory Committee on Gulf War Veterans' Illnesses did not reach specific conclusions regarding the causes of the symptoms now collectively known as "Gulf War Syndrome." While additional research and analysis is ongoing, we must remember that veterans are suffering from these mysterious symptoms as we speak; therefore, every piece of information is vital in our effort to help those who are suffering regain their good health.

Unfortunately, it is, in part, because of a lack of information and communication that we are discussing this topic today. It is disturbing that confirmation of chemical weapons exposure to U.S. personnel only recently came to light. However, it is unacceptable that these events could have been prevented by such a simple thing as communication between two Government entities. The men and women who give all or part of their lives to military service depend on their Government to protect and defend them as they protect and defend it around the globe. While we cannot change the events that occurred in the Persian Gulf, we must ensure that current and future personnel can rely on this protection.

While I agree that we should look further into the reasons why, and severity of, U.S. service personnel's exposure to chemical weapons in the Gulf region, we must also take action to help those who currently suffer from Gulf War Syndrome. Providing relief to veterans suffering from these illnesses must also be a top priority for this Committee and this Congress.

STATEMENT OF HONORABLE LANE EVANS
RANKING DEMOCRATIC MEMBER
COMMITTEE ON VETERANS AFFAIRS
BEFORE THE JOINT HEARING BY THE
SUBCOMMITTEES ON OVERSIGHT &
INVESTIGATIONS AND HEALTH
APRIL 16, 1997

THANK YOU, MR. CHAIRMAN. I AM HAPPY TODAY TO JOIN CHAIRMAN EVERETT, CHAIRMAN STEARNS, AND RANKING DEMOCRATS CLYBURN AND GUTIERREZ THIS MORNING TO HEAR TESTIMONY FROM DOD AND CIA OFFICIALS CONCERNING THE STATUS OF THEIR INVESTIGATIONS INTO POSSIBLE TROOP EXPOSURE TO CHEMICAL WEAPONS DURING THE PERSIAN GULF WAR.

AS MEMBERS OF THIS COMMITTEE, I BELIEVE IT IS OUR RESPONSIBILITY TO MAKE SURE WE ARE DOING EVERYTHING THAT CAN BE DONE TO ASSIST THE MEN AND WOMEN WHO SERVED OUR NATION IN THE PERSIAN GULF.

A MAJOR FOCUS OF THIS EFFORT MUST BE DIRECTED TOWARD ENSURING THAT OUR SICK VETERANS ARE BEING CARED FOR. WE MUST ALSO BE DOING ALL WE CAN TO ENSURE THAT OUR GULF WAR VETERANS RECEIVE THE BENEFITS THAT THEY ARE RIGHTLY OWED. WE CANNOT FULLY ACCOMPLISH THESE TWO OBJECTIVES, HOWEVER, UNLESS WE ALSO TRY TO UNDERSTAND WHAT HAPPENED DURING THE WAR ITSELF THAT MAY HAVE LED TO THE ILLNESSES WE COLLECTIVELY CALL "GULF WAR SYNDROME."

SOME OF YOU MAY HAVE SEEN THE ARTICLE IN THE WASHINGTON POST OVER THE WEEKEND ABOUT THE IMPORTANCE OF UNDERSTANDING HISTORY. ONE ONLY NEEDS TO REMEMBER HOW OUR COUNTRY TREATED VETERANS EXPOSED TO AGENT ORANGE IN VIETNAM TO UNDERSTAND WHY AN IMMEDIATE AND CONCERTED EFFORT NEEDS TO

BE UNDERTAKEN NOW TO ATTEMPT TO UNRAVEL THE MYSTERY OF GULF WAR SYNDROME.

IT TOOK YEARS FOR OUR GOVERNMENT TO AS MUCH AS ACKNOWLEDGE THE CONCERNS OF VIETNAM VETERANS EXPOSED TO AGENT ORANGE DURING THE WAR. IT WAS AN EVEN LONGER AND MORE DIFFICULT JOURNEY BEFORE THE FEDERAL GOVERNMENT FINALLY BEGAN TO FULLFILL ITS OBLIGATIONS TO AGENT ORANGE VICTIMS.

AS AN ENLISTED MARINE DURING THE VIETNAM ERA, I AM PROUD TO HAVE FOUGHT IN CONGRESS FOR AGENT ORANGE VICTIMS, BUT I AM ASHAMED THAT IT TOOK SO LONG TO PROVIDE ANY RELIEF FOR LONG-SUFFERING VETERANS. I AM UNWILLING TO LET ANOTHER GENERATION PASS BEFORE WE FIND ANSWERS AND PROVIDE SOME ASSISTANCE FOR OUR GULF WAR VETERANS WHO NOW SUFFER

OR WHO MAY SUFFER IN THE FUTURE FROM "GULF WAR SYNDROME."

OUR GOVERNMENT HAS BEGUN TO INVESTIGATE THE ORIGINS OF GULF WAR SYNDROME, AND I AM ANXIOUS TO LEARN ABOUT THE STATUS OF THE VARIOUS ONGOING INVESTIGATIONS. BECAUSE I HAVE ASKED THE GENERAL ACCOUNTING OFFICE (GAO) TO REVIEW THE DOD INSPECTOR GENERAL'S INVESTIGATION, I AM ESPECIALLY INTERESTED TO KNOW THE STATUS OF THE DOD IG INQUIRY.

I APPLAUD THE LEADERSHIP OF THESE TWO SUBCOMMITTEES FOR THEIR INTEREST AND FORESIGHT IN PUTTING TOGETHER THIS HEARING, AND I LOOK FORWARD TO THIS MORNING'S TESTIMONY.

Honorable Jack Quinn
Remarks
Joint Subcommittee
on Persian Gulf Health Problems and
Possible Exposure to Chemical Warfare
April 16, 1997

Thank you Chairman Everett and Chairman Stearns for letting me take part in this hearing. You are undertaking an important subject and I want to assure you and the veterans that the Subcommittee on Benefits, which I chair, will look closely at your findings as we prepare for an oversight hearing on compensation of Persian Gulf veterans.

Controversy continues to surround the circumstances that have caused many of our Persian Gulf veterans to become ill. Recent CIA statements have revealed that the government knew about the presence of chemical weapons depots many years before the Gulf War. There have been other statements to the effect that what we are seeing is similar to what veterans have experienced after every war. Whatever happened during the war, the

government surely dropped the ball when it came to making the presence of chemical weapons known to the troops.

Congress has expressed itself over the last several years, directing medical care and compensation for Gulf War veterans. VA and DoD have made numerous statements on the extent of their programs to assist those veterans and their families and it is our job to see to it that those programs work as advertised.

Thank you Mr. Chairmen.

Statement
of
The Honorable Bernard Rostker
Special Assistant to the Deputy Secretary of Defense
for Gulf War Illnesses
to the
House Committee on Veterans Affairs
Subcommittee on Health
Subcommittee on Oversight and Investigations
April 16, 1997

Mr. Chairman, I appreciate the opportunity to appear before the Subcommittee on Health and the Subcommittee on Oversight and Investigations to report on the progress of the Department of Defense investigation of Gulf War illnesses. In previous testimony presented before the full Committee on February 11, 1997, I outlined the mission of my office and described the full extent of the commitment of the Department of Defense. We are truly committed to finding out everything we can to determine the possible causes of these illnesses while providing the best possible care for those who are ill. We also have an eye toward the future as we learn from our Gulf experience and make the necessary changes in policies, doctrine, and technologies to protect our forces in the future.

With an increased level of resources and redirected efforts, we have focused on the goal of conducting as thorough an investigation as possible into why many of our veterans who served in the Gulf War are ill and have entered into a broader dialogue with them as we proceed in our investigation. We remain committed to our veterans who served our nation so willingly; and committed to the mutual trust upon which the military contract with our service members depends. We know full well that if that commitment doesn't express itself in action - it doesn't exist.

That commitment was demonstrated in the recent presidential decision to extend the presumptive period for compensation for Persian Gulf veterans with undiagnosed illnesses. As you know, the government compensates for disability, not exposure. In the case of symptoms that may be attributed to Persian Gulf veterans' illnesses, the benefit of the doubt regarding service connection would be in favor of the veteran. We welcome this because it completely eliminates any argument that our actions are driven by concerns over government liability. Our inquiry never has been, and never will be,

driven by such concerns. Our only interest is to support our veterans by vigorously searching for the causes of illnesses among our Gulf War veterans.

Throughout this process our first and foremost concern has been, and will always be, the health of our veterans. We are continuously encouraging anyone who is ill to contact the DoD Comprehensive Clinical Evaluation Program (CCEP) or the VA Registry Examination Program to schedule an appointment for medical evaluation.

The CCEP provides medical evaluations and care for DoD beneficiaries who are Persian Gulf War veterans including active, Reserve, National Guard, and retirees, and eligible family members of such personnel. Individuals calling the toll-free hotline will receive a call from their local medical treatment facility within seven days to schedule an appointment. The medical treatment facilities must do the initial evaluation within 30 days. These evaluations help us diagnose symptoms and begin a program of medical care. As of today, over 41, 000 have been enrolled in the CCEP and 27,160 have completed exams. To date, approximately 3,024 exams are in process. The CCEP receives an average of 200 calls a week which lead to enrollment in the program. In addition to the CCEP program, the Veterans Affairs Registry Examination Program has a current enrollment of approximately 70,000 veterans.

The DoD continues to approach the problem of the Persian Gulf veterans illnesses in a far-reaching, inclusive and comprehensive manner. When we realized that the Khamisiyah demolition operation had the potential of chemical exposure for our troops, we directed our investigative team to expand the search to all possible operational, intelligence, and medical sources which may shed light on the causes of illnesses suffered by many of our veterans. Our investigation shifted to better understand two fundamental questions. First, what was the potential for exposure to chemical agents at Khamisiyah and second, who might have been exposed. Our approach also required that we examine all events in the theater of operations for their possible linkage to the causes of illnesses. In this investigative process, we have unearthed facts that were not previously known. Our aim is to provide as complete an account of these events as possible.

During the course of our investigation, we have worked to communicate with our veterans to explain our efforts and to gain an understanding of their personal concerns.

Since December, our activities in the area of risk communication have intensified. We have eliminated the backlog of calls from veterans who call our 1-800 Incident Reporting Line. This one-on-one contact with veterans has helped our investigators obtain valuable information that is incorporated into our investigation. Approximately 90% of the people who have called have been fully debriefed by a trained investigator. Their insights have increased our understanding of various events and incidents before, during, and after the war.

We launched an outreach effort in January mailing surveys to approximately 20,000 Gulf War veterans who may have been within 50 kilometers of the Khamisiyah site when bunker demolition took place. Veterans were asked if they witnessed chemical detection from indicators such as M8 alarms, M256 kits, or Fox vehicle detections; if symptoms were experienced or observed; and, if they saw or heard anything that may be helpful to the investigation. To date, more than 6,000 veterans have responded; of that number, approximately 300 commented that they experienced health problems since leaving the Gulf; approximately 300 provided information on recollections they had regarding the site. This latter group is receiving follow-up calls from our investigators for a full debriefing of their experiences. This response has provided our investigation and analysis team with many new leads which are being followed up with telephone interviews.

Communication with veterans, Congress, and the American people is a high priority for our investigation. To this end, we have improved our GulfLINK INTERNET website to include a news article format to explain what we are doing on a week-to-week basis. A hyper-text capability on the site will provide supporting information to the more technical case narratives as they are released. Our GulfLINK website is now interactive. Veterans who have questions about our investigation can now e-mail the Defense Department with their concerns and get answers. We hope this will allow us to hear from the public and be even more responsive to Gulf War veterans.

To strengthen our relationship with VSOs, I have held two monthly roundtable meetings with veterans service organizations -- one in February and one in March. I consider feedback and participation from veterans' organizations in this investigation to be a critical element in answering questions pertaining to the relevant health care issues

that concern them. Nationwide public forums have been scheduled. At the invitation of the Veterans of Foreign Wars and the American Legion, I will participate in nine town hall meetings throughout the country beginning on April 20, 1997. I look forward to this opportunity to have a one-on-one conversation with our veterans. Meetings will be conducted in Cleveland, Kansas City, Dallas, Atlanta, and Boston. In May we will travel to Denver, San Diego, Seattle and Chicago.

Our investigation is organized around a formal case management system. Cases may include examination of incidents like Khamisiyah or other environmental hazards and issues such as the use of pyridostigmine bromide (PB) tablets and pesticides. Case managers direct the efforts of many teams that review events and issues that occurred before, during or after the war to assess how events relate to potential causes of illnesses or to the need for future changes in policy.

The Investigation and Analysis Directorate (IAD) comprises the largest element of the Office of the Special Assistant and directly supports the analytical effort. The Chemical and Biological Warfare Agents Team is presently the largest team within the IAD investigating 25 cases of suspected or reported chemical detection.

The Environmental and Occupation Exposures team is investigating all cases relating to environmental and occupational exposures including depleted uranium, pesticides, and similar potential causes of illnesses.

The Medical Planning Issue Team is investigating the medical planning, policy and relevant exposure issues relating to immunizations, pyridostigmine bromide, stress, infectious diseases, and any other potentially medically-related causes of illnesses among Gulf War veterans.

The results of each investigation will be released to the public. The Khamisiyah narrative published in February was the first in a series of reports intended to open up a dialogue with Gulf War veterans. We intend to publish narratives related to incidents or issues involving Camp Monterey, Fox Vehicle capabilities, Marine Breaching Operation, Czech/French detection, Mustard Exposure, and Al Jubayl in the next 60 days.

Also central to our investigation is the Veterans Data Management team who work practically around the clock calling veterans for their input and observations. We are asking veterans that we interview to share with us any logs, journals, videotapes, or

photographs they might have in addition to eyewitness accounts to further the investigative efforts.

The Khamisiyah narrative is an interim report which portrays our best understanding of what occurred as we know it at this point in time. The narrative does not represent a final product. It was released with an appeal to individuals who were in the Khamisiyah vicinity to contact us with any information that would help us better understand the activities at this facility after the war. As we receive additional personal descriptions from veterans as well as survey results, the IAD will continue to refine the case narrative.

Ultimately, we endeavor to determine if the demolition activities at Khamisiyah during March and April 1991 relate to why some of our Gulf War veterans are sick. As we learn more about the demolition itself, and unit locations in the area, we'll have a better sense of who may have been exposed.

Given the contradictory information that has been uncovered about the demolition at Khamisiyah, it is prudent to rely on only the confirmed demolition that occurred on May 10, 1991. During the demolition operations, there were no reports of chemical munitions nor were there reports of anyone experiencing symptoms consistent with exposure to chemical agent. Subsequent inspection by the U.N. in late 1991, early 1992, and then again in May 1996 suggested that there were chemical munitions stored at Khamisiyah during the time in which U.S. forces destroyed the depot. It was not until 1995 that the evidence led CIA, and later DoD, to begin investigating the possibility that U.S. forces could have destroyed these munitions and possibly been exposed to chemical agents. This was confirmed in a U.N. visit in May 1996 and announced by the Department in June 1996.

Efforts to determine potential exposure have been ongoing. Because of the difficulties inherent in modeling the pit, Deputy Secretary of Defense White requested that the Institute for Defense Analyses (IDA) convene a panel of experts in meteorology, physics, chemistry, and related disciplines to review all of the modeling efforts. IDA also reported continued concern about the inability to describe the many variables of the agent-munition release mechanism. The IDA agreed with the CIA that huge uncertainties remained in attempting to estimate key variables such as the number of rockets present

for destruction and the number of those destroyed, total quantity of agent released, mechanism of release, and purity of agent. Both the CIA and IDA presented testimony on this issue before the March 4, 1997 public meeting of the Presidential Advisory Committee on Gulf War Veterans. At this time, DoD is working with the CIA to conduct a series of small scale tests at Dugway Proving Ground in Utah to provide insights into numbers of rockets destroyed, mechanism and quantities of agent released, and initial agent behavior.

Many questions remain to be answered. Why during the demolition operation were there no reports of anyone, soldier or civilian, experiencing symptoms consistent with exposure to a chemical agent? If there was a release of agents into the atmosphere, did it go up and who did it pass over? If there was an exposure, what are the possible health effects?

The Department of Defense believes that our search for answers to the question of who may have been exposed to chemical agents requires action now. Therefore, having discussed these concerns with the Presidential Advisory Committee at their last meeting, I am going forward with an analysis of participation rates for personnel registered the CCEP and VA medical registry programs and that were examined prior to July 1996 with regard to time and unit locations relative to Khamisiyah

We believe that our measure of outcome, while not having scientific rigor, will help further our investigation. In time, when modeling yields its best estimate of where chemical agents may have affected troops, we can observe whether the rates of participation are in some way associated with the dispersal of chemical agent.

Research will help us understand the long-term effects of exposures to a number of factors present in the Gulf War. As I reported to the Committee in February, the DoD has strengthened its research program to study a wide range of medical issues related to Persian Gulf veterans' illnesses. For fiscal year 1997, we will spend up to $27 million in Gulf War-related research. The Department's research program is conducted with extensive collaboration with the Departments of Veteran Affairs and Health and Human Services through the Research Working Group of the Persian Gulf Veterans Coordinating Board.

We are actively pursuing solid research proposals examining the consequences of possible exposure to low levels of chemical agent. In late 1996 and in early 1997, requests for proposals were published in the Commerce Business Daily to solicit proposals investigating the causal relationships between illnesses and symptoms among Gulf War veterans and possible exposures to hazardous material; chemical warfare agents; stress; combinations of inoculations and investigational new drugs during military service in the Gulf War. Proposals have been received and they are undergoing internal and external scientific review.

To insure that we fully understand the existing state of science on a variety of issues related to the health of Gulf War veterans and to help focus our future efforts, we have asked the RAND Corporation to prepare extensive medical literature reviews in nine areas including: pesticides, immunizations, chemical warfare agents, pyridostigmine bromide, stress, biological warfare agents, depleted uranium, infectious diseases, and environmental exposure to oil fires. The literature reviews will examine published articles, books and government reports.

We continue to seek the advice of oversight organizations for recommendations throughout this investigative process. The Department of Defense has taken guidance in many matters from the Presidential Advisory Committee on Gulf War Veterans' Illnesses. In March, the Departments of Defense, Veterans Affairs and Health and Human Services submitted to the President an action plan in response to the recommendations contained in the Committee's *Final Report.*

Additionally, the DoD IG is investigating the disposition of CENTCOM's nuclear, biological, and chemical logs. The Army Inspector General is conducting an investigation of events at Khamisiyah. The Assistant to the Secretary of Defense for Intelligence Oversight is conducting a further investigational effort that deals with the intelligence aspects of Khamisiyah. We expect both of these reports to be completed later in the spring.

Our investigation is one that deals concurrently with the past, the present and the future. We are attending to the health needs of our veterans, seeking them out and responding to their concerns. We are examining the past through a very thorough, painstaking investigation to find out what occurred that could be affecting the health of

many veterans. We are also looking to the future and applying what we learn to ensure that the Department implements necessary changes to military doctrine, procedures, and equipment to ensure that we protect our troops in the future. As we discover new leads, we will use every resource at our disposal to move our investigation forward. We will "widen the net" with outreach, communication, town-hall meetings and any other vehicle that maximizes the dissemination of vital information and provides further insights into our investigation.

We are conducting an open investigation. We are actively declassifying documents and making them available to the public. The Army as the executive agent for declassification has pursued every lead and recently visited numerous installations, facilities, and commands to ensure the most complete compilation of documents pertaining to the Gulf. This very pro-active approach has recently produced another 66,000 additional new pages of information. We will fully disclose everything we learn, when we learn it.

You have my commitment that we will aggressively pursue all of these issues. No effort will be spared to determine the causes of these illnesses and to provide the medical care our Gulf War veterans need and deserve.

2/21/97

Case Narrative

Khamisiyah

Case Narratives are reports of what we know today about specific events that took place during the Gulf War of 1990 and 1991. This particular case narrative focuses on the actions of American troops at Khamisiyah. In addition, we report on when it became known that American troops may have been exposed to chemical agents there. This is an interim report, not a final report. We hope that you will read this and contact us with any information that would help us better understand the events reported here. With your help, we will be able to report more accurately on the events surrounding Khamisiyah. 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

U.S. DEMOLITION OPERATIONS AT THE KHAMISIYAH AMMUNITION STORAGE POINT

Case Narratives are reports of what we know today about specific events that took place during the Gulf War of 1990 and 1991. This particular case narrative focuses on the actions of American troops at Khamisiyah. In addition, we report on when it became known that American troops may have been exposed to chemical agents there. This is an interim report, not a final report. We hope that you will read this and contact us with any information that would help us better understand the events reported here. With your help, we will be able to report more accurately on the events surrounding Khamisiyah. Please contact my office to report any new information by calling:

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Bernard Rostker
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Last Update: February 21, 1997

Many veterans of the Gulf War have been experiencing a variety of physical symptoms, collectively called Gulf War illnesses. In response to veterans' concerns, the Department of Defense (DoD) established a task force in June 1995 to investigate all possible causes. On 12 November 1996, responsibility for these investigations was assumed by the Investigation and Analysis Directorate (IAD), Office of the Special Assistant for Gulf War Illnesses (OSAGWI) which has continued to investigate the events that occurred at Khamisiyah. Its interim report is contained here. In addition, the Army Inspector General was directed by the Secretary of the Army on 25 September 1996 to conduct an investigation into Army operations at Khamisiyah, and the Assistant to the Secretary of Defense for Intelligence Oversight was directed by the Deputy Secretary of Defense on 25 September 1996 to review what the intelligence communities knew concerning Khamisiyah. These independent efforts have not yet been completed and may shed additional light on events at Khamisiyah.

As part of the effort to inform the public about the progress of this effort, DoD is publishing on the Internet and elsewhere accounts related to possible causes of Gulf War illnesses, along with whatever documentary evidence or personal testimony was used in compiling the account. The narrative that follows is the first such account.

2/21/97

SUMMARY

The story of the Khamisiyah Ammunition Storage Point or ASP has three parts: the efforts of U.S. forces to destroy Khamisiyah, the inspection of the site by the United Nations Special Commission or UNSCOM, and the public inquiry into the events that occurred there, "what we knew, and when we knew it."

The Destruction of Khamisiyah

Immediately following the end of Operation Desert Storm, U.S. Army units occupied the area known as Objective GOLD and later identified as the Khamisiyah ASP (which was also known as Tall al Lahm or Suq Ash Shuyukh). Khamisiyah was a huge ammunition storage site, covering 50 square kilometers and containing about 100 ammunition bunkers and several other types of storage facilities. The XVIII Corps (Airborne) (ABN) dispatched combat engineer and demolition units to Khamisiyah to destroy its munitions and facilities.

To perform the demolition, U.S. forces set off two very large explosions, one on 4 March 1991 and a second on 10 March 1991. They also set off a number of smaller explosions to destroy small caches of munitions and to test techniques for destroying bunkers. Demolition operations continued in the Khamisiyah area through most of April 1991.

During the demolition operations, and, indeed, throughout the entire period of U.S. occupation at Khamisiyah, there were no reports of verified chemical agent detections, nor were there reports of anyone, soldier or civilian, experiencing symptoms consistent with exposure to a chemical agent.

Inspecting Khamisiyah

In October 1991 and March 1992, and then again in May 1996, the UNSCOM inspected Khamisiyah, specifically searching for chemical weapons. Based on their own inspections and information provided by the Iraqis, UNSCOM inspectors identified three sites in and around Khamisiyah that had contained chemical weapons: in an area that became known as the "pit;" in Bunker 73, one of the bunkers subsequently identified as having been blown up by U.S. troops; and in an above-ground storage area.

In October 1991, UNSCOM inspectors found about 300 damaged and intact 122mm rockets in an area surrounded by a berm southeast of the main ASP. This area became known as the "pit." Their investigation showed that the intact rockets contained chemical agents (sarin and cyclosarin). During a subsequent visit in March 1992, about 500 rockets were blown up on site near the "pit", with the remaining rockets being shipped to Al Muthanna, Iraq for subsequent destruction. The UNSCOM destruction efforts accounts for 782 rockets; the Iraqis report that 2,160 such rockets had been at Khamisiyah. It is unknown how many of the unaccounted for rockets were destroyed by U.S. forces.

During the 1991 inspection, the Iraqis claimed that chemical munitions found in the "pit" had been salvaged from Bunker 73 and that both had been destroyed by Coalition Forces. UNSCOM inspectors visited the site of the bunker, which appeared damaged, and used chemical agent monitors. These monitors were negative, and the inspectors did not thoroughly search the bunker.

The UNSCOM team was also shown an above-ground storage site about 3 kilometers west of the ASP containing 6,300 intact 155mm artillery shells filled with mustard agent. To date, there is no evidence that any Coalition Forces had been to this site. These rounds were also shipped to the destruction facility at Al Muthanna.

US intelligence became aware of the UNSCOM findings in November 1991, but at the time this report did not result in identification of which, if any, U.S. troops participated in demolition activities at Khamisiyah. The lack of contemporaneous U.S. reports of chemical weapons, and the fact that the Iraqis were selective in their willingness to cooperate, as reported by UNSCOM to the United Nations Security Council, led to the belief the Iraqis were not telling the truth about chemical weapons being at the site when the demolition occurred. In May 1996, UNSCOM again returned to Khamisiyah, where the team conclusively identified debris in the rubble of Bunker 73 that was characteristic of chemical munitions.

The Public Inquiry

In February 1994, a request from Congressman Browder to the UN for any reports about chemical weapons found in Iraq after the Gulf War rekindled U.S. interest in Khamisiyah. The UN responded with a letter in April 1994 which listed Khamisiyah along with other chemical weapons sites. During hearings on export administration in May 1994 before the Senate Banking, Housing and Urban Affairs Committee, DoD witnesses admitted the UN had found chemical weapons at Khamisiyah but were unable to confirm that any U.S. troops were at the site.

In March 1995, as a result of Presidential concerns, the CIA began a reexamination of relevant intelligence. In May 1995, a Presidential Advisory Committee (PAC) was created. In June 1995, DoD formed the Persian Gulf Illnesses Investigation Team (PGIIT). Throughout 1995 and 1996, interest in Khamisiyah and the events surrounding it increased. On June 21, 1996, DoD confirmed publicly that "U.S. soldiers from the 37th Engineer Battalion destroyed ammunition bunkers at [Khamisiyah] in early March 1991 ... it now appears that one of these destroyed bunkers contained chemical weapons."

DoD investigation into the subject continues. What follows provides additional detail about the events described in this summary. The information upon which this narrative is based is incomplete. As the investigation continues, the IAD hopes to answer a number of these questions, including the following:

- How many chemical warfare munitions were present at Bunker 73 and at the "pit" at the time the U.S. demolitions took place?
- Were two separate groups working in the "pit" on 10 March 1991?
- Was there an additional demolition of munitions at the "pit" on 12 March 1991?
- Who were the 15 to 20 engineers assigned to assist the EOD noncommissioned officer in the "pit" on 10 or 12 March 1991?
- What were the weather conditions on the day(s) of the "pit" demolition(s)?

2/21/97

NARRATIVE (An acronym listing/glossary is at Tab A)

Introduction

The Khamisiyah ASP, also known to Coalition Forces as Tall al Lahm, Suq Ash Shuyukh (local Iraqi place names), or Objective GOLD,[1] was a large munitions storage depot. It is located in southern Iraq along the southern side of the Euphrates River and about 25 kilometers southeast of the city of An Nasiriyah. The ASP area borders a major highway[2] used extensively by U.S. troops transiting the area after the cease-fire began. Khamisiyah was an extensive complex of above- and below-ground ammunition bunkers, general storage buildings, and open equipment storage revetments (sand mounds, or berms) covering approximately 50 square kilometers. The main site covered 25 square kilometers. Figure 1 shows the location of Khamisiyah in the Kuwait Theater of Operations (KTO).

Beginning in late 1995, both the U.S. Intelligence Community and DoD's Persian Gulf Illness Investigation Team (PGIIT) began a thorough review of Iraqi chemical capabilities during Operations Desert Storm/Desert Shield and the demolition of munitions at the Khamisiyah ASP. These investigations eventually led DoD to announce that "it now appears that one of these destroyed bunkers contained chemical weapons."[3] The following details what is currently known of the events at Khamisiyah ASP involving U.S. troops:

Desert Storm Activities

At the opening of the Gulf War (January 1991), the U.S. Central Command (USCENTCOM) did not classify Khamisiyah as a chemical weapons storage site.[4] However, by late February 1991, the XVIII Corps (ABN) G-3 indicated that Khamisiyah was suspected of being a chemical weapons storage site.[5]

During the Air War of Operation Desert Storm (16 January - 1 March 1991), Coalition Force aircraft attacked Khamisiyah,[6] destroying scores of warehouses and several ammunition

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[1] Objective GOLD was a military designation for the area around what was then referred to as the Tall al Lahm ASP. GOLD was an Objective for the 24th Infantry Division (Mechanized) during the Ground War phase. The XVIII Corps Desert Shield Chronology February 1991, 26 February 1991 entry; and Brigadier General Robert H. Scales, Certain Victory, (Washington: Office of the Chief of Staff, U.S. Army, 1993), Figure 5-1.

[2] This highway was referred to as "Highway 8" or "MSR [military supply route] 8." It became the major redeployment route to reach MSR "Texas" and "Virginia," which then led back into Saudi Arabia and the units' assembly areas. 20th EN Bde General Update and Unit Location Report, 3 March 1991.

[3] DoD News Briefing, 21 June 1996.

[4] Since Khamisiyah was not specifically listed as a suspected chemical weapons storage site, it was considered to be a conventional weapons storage site. CIA Timeline on Activities Involving Khamisiyah Depot, for June 1996 PAC briefing.

[5] XVIII Corps CTOC 26 February 1991 log entry, and supporting handwritten action message form.

[6] Khamisiyah was targeted 10 times, however, only 8 missions were completed; 5 were B-52G raids and 3 were attacks by fighter/bomber aircraft. Gulf War Air Planning Staff (GWAPS) database query log.

2/21/97

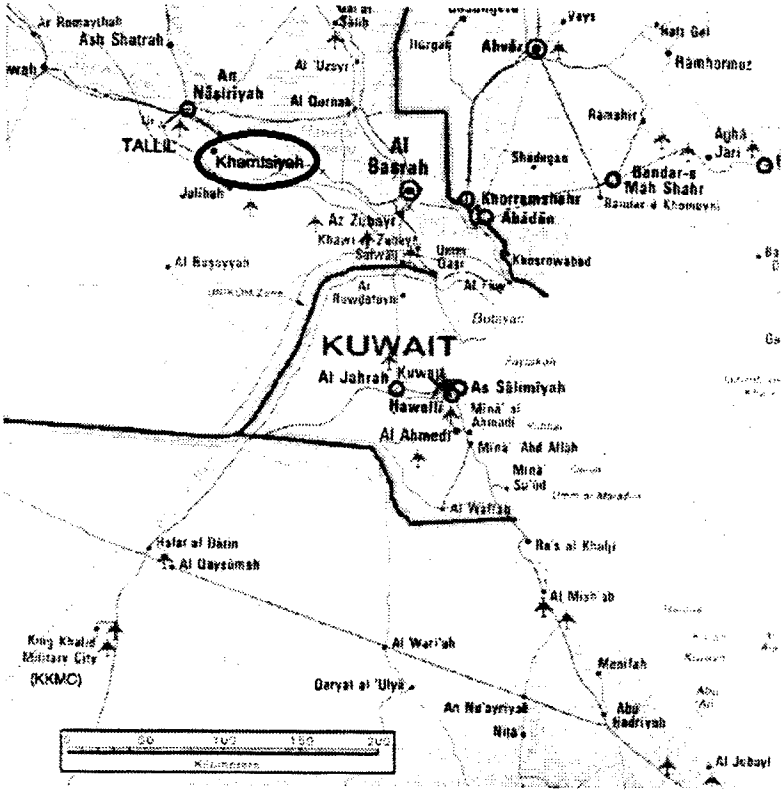

Figure 1 - Khamisiyah in the KTO.

bunkers.[7] At the commencement of the Ground War (24 February 1991), it was widely believed that U.S. Forces operating in the KTO after G-Day were likely to capture chemical warfare (CW) and, possibly, biological warfare (BW) munitions of various types.[8] Accordingly, all command levels issued Commander's Guidance for Disposition of Captured Chemical and Biological Munitions and other directives for dealing with captured Iraqi CW

[7] When the 82nd Airborne Division arrived at Khamisiyah on 1 March 1991, they saw evidence of this bombing destruction. Leavenworth 5+1 Press Conference video, 15 November 1996.

[8] Testimony by General (ret.) Schwarzkopf, 29 January 1997, before the Senate Veterans Affairs Committee.

or BW munitions (see USCINCCENT on 24 February 1991[9], COMUSARCENT on 21 February 1991[10], and XVIII Corps (ABN) on 27 February 1991[11]). For example, the Commander, 24th Infantry Division (Mechanized) (ID(MECH)), also issued a memorandum on 16 February 1991[12] detailing the guidance for handling these items. The handling/disposition of CW or BW munitions guidance documents emphasized safety and security for both Coalition Forces and the local population:

> Destruction of munitions or bulk agent will be accomplished in accordance with established EOD field disposal policies and procedures to ensure the complete and safe destruction of the captured items. Prior to destruction, all necessary measures to preclude collateral damage or down-wind hazard to friendly forces and civilians will be accomplished.[13]

Destruction of Munitions at Khamisiyah ASP

The XVIII Corps (ABN) had the mission to conduct movement to contact operations, including attacking and securing Objective GOLD (later identified as Khamisiyah). On 26 February 1991, the first US troops to reach Khamisiyah were from the 24th ID(MECH).

> On the northern end of BP 102, LTC John Craddock maneuvered his 4-64th Armor Battalion toward a canal north of Highway 8....Continuing north, the battalion overran a huge, untouched ammunition storage area and pushed the beaten Iraqis protecting the facility into the weeds near the canal.[14]

On 26 February 1991, the 24th ID(MECH) received information from the XVIII Corps (ABN) that there were "possible chemicals on Objective GOLD."[15] On 27 February 1991, the 24th ID(MECH) secured Objective GOLD[16] and continued eastward beyond Khamisiyah to cut-off retreating Republican Guard divisions near Basrah. On 28 February 1991, the 82nd Div (ABN) was located west of the 24th ID (MECH) with the "3rd Brigade conduct[ing] movement to Objective GOLD;"[17] the Objective was secured on 1 March 1991.[18] Although there is no evidence to date that the 82nd Div (ABN) received the warning

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[9] Commander's Guidance for Disposition of Captured Chemical and Biological Munitions, USCINCCENT, 241200Z FEB 91

[10] Iraqi Chemical Munition Disposition, COMUSARCENT, 211400Z FEB 91

[11] Captured Chemical and Biological Munitions, XVIII Corps (ABN), 270845Z FEB 91

[12] Memo, Commander, 24th ID(M), SUBJ: Destruction of Enemy Equipment and Supplies, 16 February 1991.

[13] Commander's Guidance for Disposition of Captured Chemical and Biological Munitions, USCINCCENT, 241200Z FEB 91, para. 3D.

[14] Brigadier General Robert H. Scales, Certain Victory, (Washington: Office of the Chief of Staff, U.S. Army, 1993), p. 257-259

[15] An XVIII Corps February 26,1991 log entry, and the supporting handwritten action message form.

[16] XVIII Corps (ABN) SITREP, 27 February 1991, p. 5.

[17] XVIII Corps (ABN) SITREP, 28 February 1991, p. 5.

[18] 2/505 one page history summary.

from the XVIII Corps (ABN) of possible chemicals on Objective GOLD, in reporting activities that occurred in securing Khamisiyah, the 82nd Div (ABN) Chemical Officer noted that standard procedures were followed:

> When the 82nd Div (ABN) initially occupied the sector, FOX vehicles and unit reconnaissance teams checked for evidence of contamination or chemical weapons. No contamination was found. Riot control agent CS was found in the Tall al Lahm ASP.....White phosphorus [artillery] rounds were also found. Artillery rounds with fill plugs and central bursters were found. They were marked with a yellow band. They were empty. Other rounds in the area were marked similarly. FOX reconnaissance determined they [the rounds] contained TNT.[19]

On 1 March 1991, the 2nd Platoon, Charlie Company, 307th Engineer Battalion, in direct support of TF 2-505, part of the 82nd Div (ABN), reconnoitered Khamisiyah ASP and concluded that demolition operations would require additional engineer support. Subsequently, the 37th Engineer Battalion was told to destroy the approximately 100 bunkers at Khamisiyah ASP.[20]

On 2 March 1991, the XVIII Corps (ABN) noted:

> XVIII ABN Corps continues defensive/ security operations in zone with emphasis on force protection, clearing of residual enemy personnel in sector and destruction/evacuation of captured enemy equipment. Now that the tempo has dropped, units are able to begin clearing bunker complexes that were initially bypassed to maintain momentum. Divisions are discovering large numbers of bunkers/underground complexes containing weapons, ammunition and other materials. Destruction of these bunkers has already begun; however, the enormity of the task before us and amount of resources required is still unknown
>
> ***
>
> Commander's evaluation... Our emphasis is on protection of the force and operations.[21]

Early on 2 March 1991, a platoon from Charlie Company, 37th Engineer Battalion arrived at the Khamisiyah ASP as an advance party for the battalion.[22] Upon its arrival, the unit found

[19] 82nd Chemical Officer's handwritten message to 2nd ACR Chemical Officer, 23 March 1991, describing activities that had occurred in AO.

[20] ENSITREP, March 3, 1991. The 37th Engineer Battalion was attached to the 82nd Div (ABN) for this purpose. The 37th Engineer Battalion was tasked through its chain of command, the 937th Engineer Group and the 20th Engineer Brigade.

[21] XVIII Corps (ABN) SITREP, 2 March 1991, pp. 3-4, 8.

[22] Personal recollection of unit commander. Leavenworth 5+1 Press Conference video.

a large number of the local civilians and many animals inside the ASP; many were inside the bunkers as well.[23]

On 3 March 1991, the remainder of the 37th Engineer Battalion (-)[24] and two teams (three soldiers each) from the 60th Explosive Ordnance Disposal Detachment (EOD) arrived at Khamisiyah.[25] The battalion had M8A1 chemical alarms mounted on various unit vehicles, and these were reported to be operational.[26] The battalion's chemical noncommissioned officer (NCO) stated he was in "MOPP 4"[27] and checked[28] some of the bunkers for chemical agents. The results of these checks were reported to be negative. As part of the operation, the U.S. troops searched the site for any "special" weapons, that is chemical weapons and laser- or optically-guided munitions. They found one rocket with possible intelligence value; all remaining were deemed conventional.[29] Two bunkers (98 and 99) were exploded to test demolition techniques.[30]

On 4 March 1991, the three line companies of the 37th Engineer Battalion, assisted by the two teams of the 60th EOD, were each assigned 12 to 14 bunkers to inventory and demolish.[31] According to the Charlie Company Commander, "the explosive ordnance guys came through and said, here's what you're looking at. These are safe to destroy."[32] Therefore, the engineers planned to use the explosives necessary to destroy conventional munitions. A total of 38[33] bunkers were rigged with explosives, including the bunker subsequently reported by the Iraqis as containing chemical munitions (Bunker 73). Reports and interviews[34] indicate that approximately 300 engineer and EOD personnel participated in the demolition at the ASP, and about 770 additional personnel from the 505th Infantry secured the area.

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[23] Documented in interviews with soldiers present. Unit ISG interview, Lead Sheet 843, July 1996.

[24] A (-) symbol indicates that the unit has detached part of its unit strength (personnel or units) to another area or mission. (Army manual FM 21-30, p. B-3; FM 101-5-1, Ch. 2, Sec. IV, p. 2-73). In this instance, the 37th EN Bn had begun redeploying its headquarters and much of its heavy equipment back to assembly areas in Saudi Arabia. Likewise, the 60th EOD had dispatched teams to different areas to support search and destroy operations by other 82nd DIV (ABN) units.

[25] Detailed in 37th EN Bn Operations Log, 24 February to 10 Mar 1991.

[26] Unit ISG stated, "Each platoon had M-8 on at all times." Lead Sheet 843, July 1996.

[27] MOPP (mission oriented protective posture) ensemble is worn at certain levels, from 0 (nothing) to 4 (mask with hood, Battle Dress Overgarment (BDO), butyl rubber gloves and overshoes). (Army manual FM 17-15, App. D, Section II).

[28] These "checks" were described by the NBC NCO to consist of performing M256 kit tests.

[29] Interview with EOD NCOIC, Lead Sheet 806, June 1996.

[30] 37th EN Bn Operations Log, 24 February to 10 Mar 1991.

[31] Both the 37th EN Bn and the 307th EN Bn lacked sufficient explosives to completely destroy all the warehouses and bunkers in Khamisiyah. In order to complete the task, the engineers made use of the explosives they found on-site; most of this explosive material consisted of the Soviet version of military C-4 explosive. 37th EN Bn message, SUBJ: Time Fuze, 4 March 1991.

[32] MAJ Huber's statement on CBS Evening News, February 12, 1997.

[33] Number of bunkers rigged is based on Unit commander's personal log entries and Leavenworth 5+1 Press Conference video.

[34] Interviews with 37th EN Bn CSM and Commander, Lead Sheet 819, June 1996 and Interview Notes, June 1996.

At approximately 1400 hours on 4 March 1991, 37 of the 38 bunkers exploded (explosives in Bunker 92 failed to go off due to a bad time fuse).[35] The weather was clear, with winds coming from the SW.[36] The engineer battalion set up an observation point approximately 3 to 4 kilometers northwest, and crosswind of the Khamisiyah ASP (see unit location on Figure 2).

At approximately 1445 hours on 4 March 1991, an M8A1 chemical alarm in Bravo Company, 37th Engineer Battalion sounded at the observation point. Since troops were at MOPP 0,[37] upon hearing the alarm, some went to MOPP 4 status, and others only donned their masks.[38] Each company and EOD team[39] performed several M256 kit tests.[40] Two NBC NCOs interviewed say they got "weak" or "slightly" positive results on M256 tests, although the test kit is designed to show either positive or negative results. The Bravo Company Commander observed the test performed by his NBC NCO and states he saw a negative result, not a "weak positive." The second NBC NCO states he did a second test that was negative.[41] ,[42] An "all clear" was then signaled. Interviews of medical personnel at battalion/brigade/division/corps-level did not reveal any evidence of symptoms or health problems related to chemical warfare agent exposure during the entire period in question.[43] Debris from the exploding bunkers (described as fragments, and in some instances intact weapons) landed in or near the observation point, so troops were moved further away from Khamisiyah.[44]

On 5 March 1991, there were heavy rains in the morning, and many vehicles became stuck. The 60th EOD teams examined the bunkers from the previous day's demolition and determined one bunker (92) did not explode. The explosives were re-fused and set off without incident.[45] EOD reviewed the results of the previous day's demolitions and decided to use a different technique to destroy the remaining bunkers.[46] Alpha Company of the 307th

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[35] 37th EN Bn Operations Log, 24 February to 10 Mar 1991

[36] Photograph of 4 March 1991 explosion at Khamisiyah showing flag blowing.

[37] MOPP level of protection was reduced (from level 2 to 0) based on the cessation of hostilities. The XVIII Corps (ABN) Desert Shield Chronology, February 1991, 271940Z February 1991 entry. (Higher MOPP levels were used when a unit was initially entering the bunker areas. 37th EN Bn NBC NCO interview and Lead Sheet 1094, October 1996.)

[38] EOD NCO interview, Lead Sheet 1077, October 1996.

[39] EOD NCO interview, Lead Sheet 1077, October 1996.

[40] Leavenworth 5+1 Press Conference video.

[41] Interview of NCO and commander, Lead Sheets 825 and 832, June 1996

[42] This information regarding negative detections is what is known to date and may be modified as the result of survey information. In January 1997, surveys were sent to people believed to have been within 50km of Khamisiyah, seeking additional information.

[43] Statement by Commander, 307th Medical Bn.

[44] Reports indicate fragments fell in the area for 5 to 30 minutes, and secondary explosions of munitions continued for 24 hours. Personal interviews, Unit NCO interview, Lead Sheet 1223, January 1997.

[45] Leavenworth 5+1 Press Conference video.

[46] This review of demolition techniques was, in part, prompted by a reported lack of explosives available to the engineers, concern about the amount of secondary explosions, and the extent of unexploded ordnance

Engineer Battalion[47] was given the mission to destroy warehouses in the NW portion of Khamisiyah ASP. The XVIII Corps (ABN) SITREP for this day also noted that the 82nd Div (ABN) destroyed ASPs at Jalibah and Tallil. There is no mention of Khamisiyah or Objective GOLD.[48]

On 6 March 1991, each engineer company of the 37th Engineer Battalion and Alpha Company from the 307th Engineer Battalion exploded a bunker to test the latest techniques for demolition developed by the 60th EOD. The EOD experts wanted bunkers to implode to reduce[49] the number of secondary explosions and to conserve the amount of explosives used. During 7-9 March 1991, no demolitions were performed because of poor weather. The time was used for demolition training, rehearsals, and inventorying[50] the remaining bunkers and warehouses.

On 9 March 1991, the Operations Officer of the 37th Engineer Battalion found crates of 122mm rockets outside the SE corner of Khamisiyah ASP.[51] A noncommissioned officer from the Headquarters & Headquarters Company (HHC) of the battalion was told to destroy these munitions in what is now called the "pit" area of Khamisiyah.[52]

On 10 March 1991, at approximately 1540 hours, crates of rockets in the "pit" were detonated. At the same time, the 60 remaining bunkers were detonated by 37th Engineer Battalion, and the warehouses were blown up by Alpha Company of the 307th.[53] There is some confusion as to whether the HHC NCO with a two-man detail was the only group setting explosives in the "pit." Photo analysis of the "pit" reveals 13 separate stacks of material. The HHC NCO and one of his detail both state they rigged 3 stacks of rockets for demolition, no other stacks were observed, and no one else was working in the "pit." However, an EOD NCO says he led a 15 - 20 man engineer/soldier detail that destroyed

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(UXO) caused by the March 4, 1991 demolition. Interview with unit commander, Lead Sheet 1266, January 1997, and 37th EN Bn mission update, March 1991.

[47] This unit, along with another team from the 60th EOD, arrived at Khamisiyah on 4 March 1991. Leavenworth 5+1 Press Conference video.

[48] XVIII Corps (ABN) SITREP, 5 March 1991, p.4.

[49] The test explosions did not produce the desired results. However, it was decided to change the charger method from individual bunkers to a singular ring main that included all the warehouses and bunkers. The net result would be one large explosion versus individual explosions timed to go off at approximately the same time. Leavenworth 5+1 Press Conference video.

[50] The IAD does not have any detailed inventories of what was actually in the ASP bunkers and warehouses. Personnel on site have stated there was not sufficient time to do an exact count of munitions, and that most of the containers had Arabic writing, which was indecipherable to the troops. IAD does have an aggregate inventory report from the 307th EN Bn and 82nd DIV (ABN) reports, and videotape showing inside some bunkers. 307th EN Bn Operations Summary, and 60th EOD Incident Journal (Desert Storm)

[51] Interviews with BN S-3, Lead Sheet 1053, October 1996 and 307th Liaison Officer, Lead Sheet 1221, January 1997.

[52] HHC S-2 NCO interview, Lead Sheet 857, July 1996.

[53] Leavenworth 5+1 Press Conference video.

approximately 850 rockets (6 to 8 stacks) in the "pit" on the same day as the "big explosion" on March 10.[54]

An accounting of demolition at the "pit" is also noted in the 60th EOD log[55] for 12 March 1991. It was recorded that 840 "5-inch" (this measure approximates 122mm) rockets were destroyed at coordinates for Khamisiyah ASP. This report, however, conflicts with information provided by an NCO from the 60th EOD.[56, 57]

The 37th Engineer Battalion observation point for the demolition on 10 March 1991 was south of Khamisiyah on MSR 8, approximately 20-30 minutes travel time by vehicle away from the ASP. Once they heard explosions, the 37th continued south towards Saudi Arabia[58] for approximately four more hours. The weather was overcast skies with poor visibility, wind direction and speed on this date are the subject of ongoing investigation by the Institute for Defense Analysis (IDA) and CIA.

On 12 March 1991, the 307th Engineer Battalion[59] identified additional ammunition stores southwest of Khamisiyah ASP, described as "another enemy bunker complex of more than 400 revetted bunkers with large caches inside."[60] During the period 15-19 March 1991, the 307th Engineer Battalion rigged explosives on the munitions found in the berm area southwest of Khamisiyah ASP. On March 20, the berm area was detonated at approximately 1530 hours.[61]

On 23 March 1991, the 2nd Armored Cavalry Regiment, part of the U.S. VII Corps, assumed responsibility for the area of operations, which included Khamisiyah. The 84th Engineer Company and the 146th EOD were among their supporting units. On 24 March 1991, the 82nd Div (ABN)[62], the 307th Engineer Battalion, and the 60th EOD departed for Saudi Arabia and subsequent redeployment.[63]

On 27 March 1991, the 2nd Armored Cavalry Regiment was told to determine if Tall al Lahm Ammo Storage Depot South (100 revetments) and Tall al Lahm Ammo Storage

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[54] HHC S-2 NCO interview, Lead Sheet 857, July 1996 and EOD NCO interview, Lead Sheets 910 and 1077, September and October 1996, respectively.

[55] 60th EOD Incident Journal (Desert Storm), 1 April 1991.

[56] EOD NCO interview, Lead Sheet 910, September 1996

[57] This conflict in reports gives rise to the question of whether there was more than one "big explosion." IAD continues to seek identification of the individual soldiers involved in the demolition so as to resolve that question.

[58] The 37th EN Bn (-) continued to the assembly area (AA ELM) to link-up with the remainder of their soldiers in preparation for redeployment to Ft. Bragg. Operations Log, 37th EN Bn for 24 February to 10 March 1991.

[59] The remainder of the 307th EN Bn arrived in Khamisiyah 11-12 March 1991 from Tallil. Leavenworth 5+1 Press Conference video.

[60] XVIII Corps CTOC Journal Sheet, 12 March 1991

[61] Leavenworth 5+1 Press Conference video.

[62] Brigadier General Robert H. Scales, Certain Victory, (Washington. Office of the Chief of Staff, U.S. Army, 1993), p.326

[63] 307th EN Bn Desert Storm Narrative, 17 May 1991

Facility [Khamisiyah] contained possible chemical/biological munitions.[64] On 28 March 1991, the unit reported to VII Corps that chemical/biological reconnaissance of both Tall al Lahm sites yielded negative results.[65]

On 2 April 1991, the 82nd Engineer Battalion, located south of the area of operations, reported hearing a large explosion in the vicinity of Tallil, another site of demolition, approximately 40 km from Khamisiyah.[66]

On 6 April 1991, members of the 84th Engineer Company and 146th EOD re-examined bunkers at Khamisiyah ASP, and determined that six bunkers required additional detonations to destroy remaining munitions.[67]

The last American units departed Khamisiyah in late April 1991.

Further details on this chronology are being gathered in the continuing investigation by the Investigation and Analysis Directorate of the Office of the Special Assistant for Gulf War Illnesses.

UNSCOM Investigations at Khamisiyah

In April 1991, the UN Security Council adopted Resolution 687, setting specific terms for a formal cease-fire to end the conflict between Iraq, Kuwait and the countries cooperating with Kuwait.[68] In May 1991, in response to UN Security Council Resolution 687, the Iraqis declared to UNSCOM that "Khamisiyah (Nasiriyah)" was a chemical weapons storage site, although it was not included in their first declaration to the UN in April 1991. This was confusing information because it referred to two locations, a known site (Nasiriyah), and an as yet unknown site (Khamisiyah).

In October 1991, UNSCOM sent a team to inspect six of the sites which were not near Baghdad. The site map provided to the UNSCOM Team was labeled "An Nasiriyah Depot S.W. (Khamisiyah)," and it depicted the layout of what U.S. Intelligence knew as An Nasiriyah ASP. However, the UNSCOM Team was not taken to An Nasiriyah, but to a different site, which is now known to be Khamisiyah. They were shown artillery shells and rockets in two separate areas apart from the main ASP (see Figure 2). An open area, 3 kilometers west of the bunkers, contained 6,323 155mm artillery shells filled with mustard agent. These shells were undamaged and were stored in an orderly fashion (in several stacks/clusters) under tarpaulins, using the natural terrain features to hide them. The second

[64] VII Corps FRAGO # 189-91, 27 March 1991

[65] VII Corps Tactical Chemical Spot Report, 28 March 1991

[66] Report in unit history file states other U.S. unit was conducting demolition mission at Tallil Air Base.

[67] 84th EN Co. Commander's comments in the Leavenworth 5+1 Press Conference video.

[68] A provision of UN Security Council Resolution 687 established the UN Special Commission (UNSCOM) whose primary Objectiveective was to identify Iraqi chemical and biological weapons and ballistic missiles which survived the war, have them moved to an Iraqi destruction facility, or to destroy the weapons themselves. UN Security Council Resolution 687

area, located in a "pit" south of the main bunker complex, contained 297 122mm rockets in three to four "heaps," some of which were damaged but most were intact. Some rockets were neatly laid out, while others appeared to have been bulldozed into piles or heaps. Many rockets were leaking, and plastic inserts and other features characteristic of chemical munitions were observed, so UNSCOM personnel drilled into one of the intact rockets to take a sample. The sample was later analyzed and found to be a chemical warfare nerve agent (sarin/cyclosarin (GB/GF)).

The Iraqis told UNSCOM in 1991 that chemical rockets found in the "pit" had been salvaged from Bunker 73, which had been destroyed as part of the demolition operations by Coalition Forces. UNSCOM acknowledged that Bunker 73 appeared damaged, but did not thoroughly inspect the bunker. Chemical agent monitoring at the bunker site was negative. No other observations were documented concerning remains of munitions, such as whether there were observable plastic inserts or other paraphernalia characteristic of chemical munitions.

In November 1991, the U.S. Intelligence Community became aware of the results of the UNSCOM Khamisiyah Ammunition Storage Facility site visit.[69] The U.S. Intelligence Community did not believe Iraqi accounts to the UN that chemical weapons had been blown up at Khamisiyah by the coalition forces at the end of the war.[70] They believed the Iraqis were engaged in possible deception, consistent with the observations of UNSCOM in their inspections and analysis of Iraqi declarations.[71]

Despite their doubts, intelligence analysts initiated a search for any U.S. units involved in blowing up munitions at Khamisiyah. A response to their request dated 12 November 1991 indicates that they had "received information from ARCENT [the Army Central Command] to the fact that 24th Mechanized Infantry Division was located in the vicinity of Tall al Lahm, but [were] unable to confirm if U.S. troops did in fact destroy buildings at this particular site."[72] ARCENT mistakenly identified the 24th Infantry Division as being in the area at the time, although they had not carried out the demolition at Khamisiyah. The ARCENT lead was followed, and a 20 November 1991 message notes that "Info on Tall al Lahm Ammo Depot was passed to ... G-2 Office, Ft. Stewart, GA." Headquarters of the 24th Mechanized Infantry Division. Further, this message states "info on presence of troops there and their activities during Desert Storm were requested...."[73] The IAD has followed that lead; after more than five years, the person contacted at Fort Stewart has no specific recollection of being contacted or of any specific subsequent actions taken. Additional follow-up has provided no further leads at this point.[74]

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[69] Redacted Message, 12 November 1991.
[70] Mr. Denny Ross, CBS News, 12 February 1997.
[71] S/23268, Letter from Executive Chairman, Office of the Special Commission, 4 December 1991, p. 2.
[72] Redacted CIA declassified message, 12 November 1991.
[73] Redacted CIA declassified message, 20 November 1991
[74] Memorandum, XX February 1997, Discussions with the 24 ID G-2 staff.

During a March 1992 visit, the UNSCOM Team consolidated and destroyed at least 500 122mm rockets. According to the UNSCOM press release[75] on 30 March 1992, the munitions destroyed included full, partially full, and empty rockets. This number includes the 297 rockets mentioned previously, which were found in the "pit". In addition to the rockets destroyed in the March 1992 site visit, more than 200[76] rockets were unearthed by the Iraqis in the "pit" and shipped to Al Muthanna for destruction. More than 700 rockets or major rocket parts in all were found in the "pit" area. The actual number of rockets in the "pit" and Bunker 73 is unknown, and continues to be topic of questioning during interviews with 1-800 callers and other interviewees.

The Public Inquiry

In February 1994, Congressman Browder (D-AL) requested from the UN any reports pertaining to chemical weapons found in Iraq after the Gulf War. The UN responded by letter in April 1994, providing in tabular format a listing of the sites at which Iraqi chemical warfare agents/weapons were found. Included in this listing was the "Khamisiyah Storage Site."[77]

In May 1994, witnesses from DoD testified before the Senate Banking, Housing, and Urban Affairs Committee (the Riegle Committee) on matters relating to export administration. In the course of that testimony, DoD witnesses acknowledged that the UN had found chemical munitions at a site, 15 nautical miles from An Nasiriyah, but stated that U.S. forces were not at that site, which they said was north of the Euphrates River.[78] Review of the testimony and responses to questions for the record submitted by DoD in September and October 1994 reveals that there was true confusion as to the location of Khamisiyah and its proximity to US troops. Furthermore, DoD believed that any destruction of chemical munitions at this "other site" (Khamisiyah) probably had occurred after the war as part of an Iraqi deception campaign.[79]

This belief formed the basis for information provided to the Defense Science Board Task Force Persian Gulf War Health Effects in June 1994. The Task Force report stated that:

> There were also reports of damage by the United Nations Special Commission inspection team that visited a different location in the general vicinity of An Nasiriyah several months after the cessation of hostilities.

[75] Unclassified UNSCOM Press Release, 1 April 1992

[76] Reuters News Agency summary, Subject: Iraq-Chemical, 25 June 1992.

[77] Letter responding to Congressman Browder's request, UNSCOM, 5 April 1994

[78] Transcript of Hearing, Senate Banking Committee, 25 May 1994, pp. 135-137. Mr. Edwin Dorn, Under Secretary of Defense for Personnel, Dr. Theodore M. Prociv, Deputy Assistant to the Secretary of Defense for Chemical and Biological Weapons, and Dr. John Kriese, Chief Officer for Ground Forces, Defense Intelligence Agency.

[79] Responses to questions for the record submitted to Congressman Riegle on 22 September and 5 October 1994

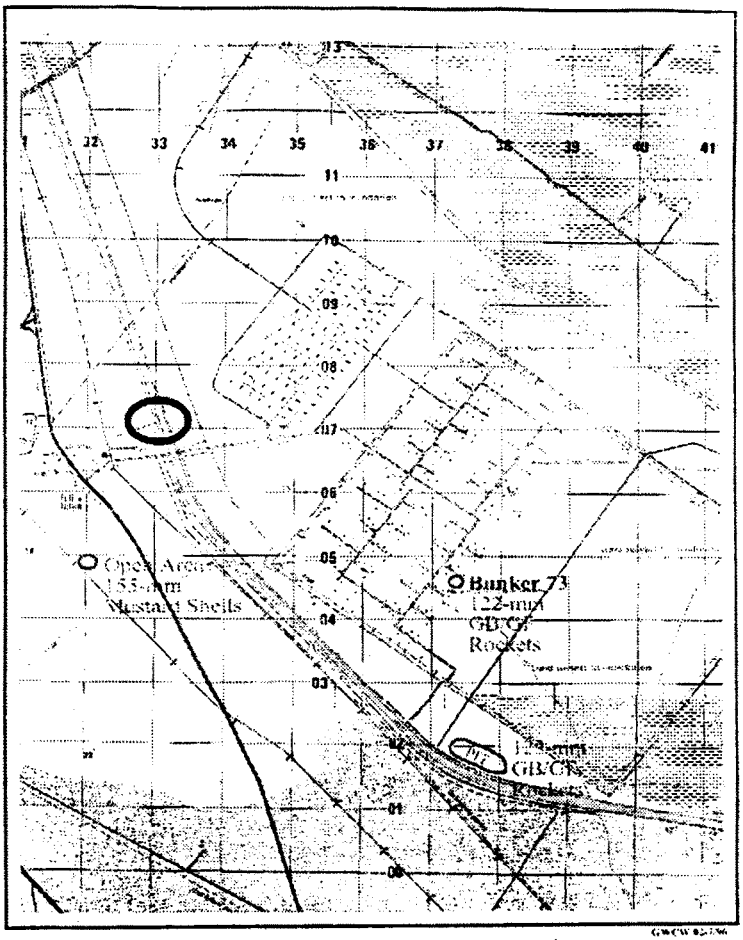

Figure 2. Close-up View of Khamisiyah (Bunkers, Location of 155mm shells, and "pit").

> There are indications that the site visited by the UNSCOM team was not a site targeted during the air war but may have been specially constructed for the UN inspectors.[80]

In November 1994, Congress directed the expansion of a DoD Gulf War registry, to include all servicemembers.[81] The agency tasked with responsibility for compiling the unit locator database was the Environmental Support Group (ESG) (now referred to as the U.S. Armed Services Center for Research of Unit Records). The ESG unit locator database incorporates all available coordinates (both latitude/longitude and universal trans-mercator indices) derived from unit logs, situation reports, etc. It reports the location of many, but not all, of the U.S. units in Iraq and Saudi Arabia during the conduct of the Gulf War by unit identification codes (UICs) and time.

In March 1995, the President directed[82] a more intensive effort to discover the causes of illnesses among Gulf War veterans. As concern over the Gulf War illnesses mounted the Acting Director Central Intelligence directed the CIA to conduct a comprehensive review of relevant intelligence information. In this review the CIA focused on identifying and quantifying Iraqi chemical, biological, or radiological releases during and after the war that could have reached U.S. troops.[83] As part of the President's initiative, the DoD and the CIA initiated new efforts to collect and review operational, intelligence and medical records from the war. In April, declassification of health documents started, and in June 1995, the Persian Gulf Illnesses Investigation Team (PGIIT) was established to provide a DoD organization to manage the different investigations which were now on-going.

Just prior to September of 1995, CIA analysts resurfaced the UNSCOM October 1991 Khamisiyah site visit report during a re-examination of thousands of intelligence reports and other intelligence holdings. On 6 September 1995, the CIA identified Khamisiyah as a key unresolved chemical weapons release issue, which raised special concern because its southerly location put it closest to U.S. troops. On 13 September 1995, CIA informed DoD's PGIIT of Khamisiyah's potential relevance to the exposure issue and asked whether U.S. military forces had been at the site.[84] DoD searched the newly constructed ESG unit locator database and indicated that some units were in the area. In October 1995, PGIIT learned from the ESG that the 37th Engineer Battalion reported a location coordinate near Khamisiyah, but there was no indication of their mission. At that time, no follow-on investigation into the 37th Engineer Battalion activities was conducted.

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[80] The Defense Science Board Task Force Report on Persian Gulf War Health Effects, p. 32, June 1994.

[81] Public Law 102-109, DoD to Establish PG Registry, and Public Law 102-585, Sec. 704, Expansion of Coverage of Persian Gulf Registry. The original registry was developed to identify veterans exposed to the Kuwait oil well fires.

[82] DoD News release, ref. # 116-95, 9 Mar 95.

[83] CIA Chronology of Khamisiyah Events, transmitted to Special Assistant for Gulf War Illnesses Executive Director, CIA on 24 January 1997.

[84] CIA Chronology of Khamisiyah Events, transmitted to Special Assistant for Gulf War Illnesses Executive Director, CIA on 24 January 1997.

Reference footnotes 83 and 84: This chronology was superseded by the CIA Update published on April 9, 1997.

The CIA continued to monitor the DoD's Khamisiyah investigation and to conduct their own research. On 26 January 1996, the CIA briefed the National Security Council (NSC) staff that U.S. troops probably blew up chemical weapons at Khamisiyah. The Presidential Advisory Committee (PAC),[85] formed in May 1995, was subsequently made aware of these initial findings. DoD and the CIA began an intense and comprehensive effort to research and analyze the Khamisiyah events. Concern about U.S. exposure increased as the topic became more fully understood. By early March 1996, CIA and PGIIT pieced together previously unanalyzed information indicating activity at the Khamisiyah ASP, and, for the first time, they received clear indications that the 37th Engineer Battalion blew up Bunker 73 at Khamisiyah.

On 10 March 1996, a CIA analyst heard a tape recording of a radio show during which a veteran (Mr. Brian Martin) of the 37th Engineer Battalion described demolition activities at a facility the analyst immediately recognized as Khamisiyah.[86] Although Mr. Martin had previously testified before the House Veterans Affairs Committee and had been contacted by DoD after the release of the Riegle report,[87] it was not until the CIA analyst heard the 10 March 1996 broadcast that the possible connection between An Nasiriyah demolitions and the bunkers at Khamisiyah was drawn. DoD and the PAC were notified of this connection on 11 March 1996.

A PGIIT investigator contacted Mr. Martin on 11 March 1996 about the demolition he had witnessed, and, with assistance from the PAC, Mr. Martin provided a video tape that showed the demolition activities he had witnessed. Another version of the tape[88] confirms the event on Mr. Martin's tape as the demolition at Khamisiyah on 4 March 1991. Review of these tapes has provided much useful information to the investigation by confirming events and weather data. Unfortunately, no such video, photographs or logs have been found that document the 10 March 1991 demolition.

On 1 May 1996, the CIA publicly announced at a PAC hearing that UNSCOM had found chemical weapons at Khamisiyah and, that "elements of the 37th Engineer Battalion performed demolition of munitions at this facility" during 1991.[89]

On 14 May 1996, UNSCOM again visited Khamisiyah. During this visit, the Iraqis told the inspectors that the 6,323 mustard rounds had been moved to Khamisiyah from Al Muthanna

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[85] Established by Executive Order 12961.

[86] Executive Director of CIA testimony before the Senate Veterans Affairs Committee, 9 January 1997.

[87] Mr. Martin had previously testified before the House Committee of Veteran Affairs in November 1993, where he described his illness and reported that he had witnessed a scud attack, saw dead animals, took pyridostigmine, and was exposed to diesel fuel. Additionally, in May 1994, after release of the Riegle Committee report, DoD contacted him to ask if he thought he could have been exposed to chemical agents and, if so, how. He cited three possible sources of exposure: the scud attack at Wadi Al Batin, the dead animals, and smoke from a bunker destruction near An Nasiriyah.

[88] IAD obtained an original, uncut version of the videotape from Mr. Martin's Company Commander, Major Huber.

[89] Extract from Testimony of Executive Officer, Office of Weapons Technology and Proliferation, CIA, to the PAC, 1 May 1996.

to An Nasiriyah in January 1991 after the beginning of the Gulf War. The Iraqis further stated that about 2,160 sarin/cyclosarin rockets were also brought from Al Muthanna in January 1991, and stored in Bunker 73 until a chemical leak was discovered, causing approximately 1100 of the rockets to be moved to the "pit" area in February 1991. According to the Iraqis, this was done before the Coalition Forces destroyed the ammunition storage area.

On 21 June 1996, DoD held a news briefing to detail these findings on Khamisiyah. The DoD said:

> UNSCOM has informed us that, as part of its ongoing effort to verify Iraqi declarations, it inspected the Khamisiyah ammunition storage area last month [May 1996]. During that inspection, UNSCOM concluded that one bunker had contained rockets with chemical agents. U.S. soldiers from the 37th Engineer Battalion destroyed ammunition bunkers at this site in early March 1991, shortly after the war ended. Based on a new review of the available information, it now appears that one of these destroyed bunkers contained chemical weapons.[90]

After the 21 June 1996 announcement, the focus of investigation shifted to better understand two questions. First, what was the potential for exposure to chemical agents at Khamisiyah, and second, who might have been exposed. DoD merged the ESG unit locator database with DMDC personnel databases to identify the people actually deployed at varying distances from Khamisiyah ASP in early March 1991.[91] Efforts are on-going to identify additional units and individuals which were in the vicinity of Khamisiyah (see Tab B to this document). In addition, the PGIIT, CIA, and DMDC conducted interviews with U.S. troops known to be involved in the demolition to try to reconstruct such information as the exact dates of the demolition, amount and type of munitions destroyed, and weather and wind direction on the dates of demolition.

Potential for Exposure - Plume Analysis

The CIA was charged by the PAC[92] to develop prediction models of the potential chemical fallout from the March 1991 demolition operations using, among other models, the U.S. Army's Chemical and Biological Defense Command's NUSSE4 transport and diffusion model. The results were briefed to the PAC on 9 July 1996, and on 2 August 1996, the CIA published a report on the Bunker 73 explosion on 4 March 1991. They concluded that the likely movement of vapor was to the east and northeast away from U.S. troops.[93]

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[90] DoD News Briefing, 21 June 96.

[91] The ESG database is known not to be definitive. See the PAC Report, January 1997, p. 30.

[92] Statement by CIA Executive Director at News Conference on Persian Gulf Veterans Illnesses, 1 November 1996.

[93] CIA Report on Intelligence Related to Gulf War Illnesses, 2 August 1996, and DefenseLINK News Release 681-96, 20 December 1996.

The CIA encountered numerous modelling uncertainties, especially weather data, and could not come to any definitive conclusions. At this time DoD assumed responsibility for efforts to model the "pit" incident. On 22 November 1996, DoD asked IDA to convene an independent panel of experts in meteorology, physics, chemistry, and related disciplines to review all of the modelling efforts available in order to determine the potential fallout from the "pit" area demolition. IDA provided a progress report on 18 December 1996. At that time, IDA reported:

> .... continued concern about the inability to describe the many variables of the agent-munition release mechanism. The panel agrees with the CIA that "huge uncertainties remain" in the number of rockets present for destruction and the number of those rockets destroyed. Among the other major variables for which there remains much uncertainty are total quantity of agent released, mechanism of release, and purity of agent.[94]

The expert panel is working with the DoD investigators and were briefed by CIA analysts in order to refine the model inputs and to see if the original dispersion and weather models or any other models may be useful in determining the possible extent of chemical exposure as a result of the Khamisiyah demolitions.

Who Was At Khamisiyah

On 7 August 1996, the Assistant Secretary of Defense for Health Affairs designed and conducted a telephone outreach to veterans who may have participated in the operation at Khamisiyah ASP. Based on a search of the ESG database and over 100 interviews, the PGIIT was able to determine units potentially involved in this operation. Individuals were selected for the telephone outreach based on their Gulf War assignment to one of these units.

DMDC identified 1179 individuals assigned to units thought to have participated in the operation. Of those identified, 542 individuals were contacted and completed the survey, 14 were uncooperative with telephone operators, and 12 individuals are deceased. The telephone outreach effort concluded in October 1996. All individuals who were not able to be contacted via the telephone were mailed a certified letter, informing them of the incident and requesting they share any information pertaining to the incident through the 1-800 hotline. 259 individuals received the certified letter but did not contact DMDC, and 352 individuals have yet to receive a letter because either it is in the process of being forwarded to them or they have no known address.

The personal descriptions of the incident offered by each individual completing the survey were analyzed to screen for potential leads for the continuing investigation. The PGIIT used the data as a basis for follow-up interviews. Of the total 542 contacted, 39 individuals mentioned chemical alarms sounding during this period. These 39 reports, and all subsequent

[94] DefenseLINK News Release, Reference Number 681-96, 20 December 1996

reports of chemical alarms sounding, are the subject of continuing examination and further analysis by the investigators of the IAD, the successor organization to PGIIT.

Given the uncertainty concerning the fallout from the "pit" demolition on 10 March 1991 and after careful review of the CIA's preliminary results, DoD decided to be conservative and notify all those who were thought to be within a 50 kilometer radius of Khamisiyah ASP between 1 March and 15 March 1991. Letters were sent to approximately 21,000 Gulf War veterans. The intent of these letters was to inform them of the incident; to inform them of the potential for low-level exposure to chemical warfare agent; to explain how to sign up for examination in the DoD or Department of Veterans Affairs registries; and to notify them of a forthcoming survey to query for specific unit/individual location information, chemical exposure data, and health and medical program participation questions. The most important part of the letter was:

> We need to hear from you, not only about your experience in the vicinity of the site, but also about any health problems you think may be a result of your service during Operations Desert Storm/Desert Shield. Your timely response to the survey will provide us with critical information. If you have information that you believe would be of immediate value to us pertaining to the events at Khamisiyah, please call the PERSIAN GULF INCIDENT HOTLINE at 1-800-472-6719.
>
> If you are experiencing health problems you believe to be a result of your service in Operation Desert Storm/Desert Shield and you are eligible for health benefits through the Department of Defense, please call the COMPREHENSIVE CLINICAL EVALUATION PROGRAM at 1-800-796-9699. If you are eligible for benefits provided by the Department of Veterans Affairs system, please call the PERSIAN GULF HELPLINE at 1-800-PGW-VETS.[95]

Mailing of the survey started 10 January 1997 and is still continuing.[96]

This case is still being investigated. As additional information becomes available, it will be incorporated. If you have records, photographs, recollections, or find errors in the details reported, please contact the DoD Persian Gulf Task Force Hot Line at 1-800-472-6719

[95] Copy of letter sent to vets.
[96] Copy of survey sent to vets.

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104

TAB A - Acronym Listing/Glossary

This TAB provides a listing of acronyms found in this report Additionally, the Glossary section provides definitions for selected technical terms which are not found in common usage.

Acronyms

1SG	First Sergeant
AASLT	Air Assault
ABN	Airborne (type of unit)
ACR	Armored Cavalry Regiment (Army unit)
ADA	Air Defense Artillery
AMB	Ambulance
AO	Area of Operations
ARCENT	Army Central Command
ASP	Ammunition Storage Point
ATC	Air Traffic Control
AVN	Aviation
Bde	Brigade (Army unit)
BDO	Battle Dress Overgarment
Bn	Battalion (Army unit)
CAM	Chemical Agent Monitor
Cbt	Combat
CCEP	Comprehensive Clinical Evaluation Program
CENTCOM	Central Command
CIA	Central Intelligence Agency
Co	Company (Army unit)
COMUSARCENT	Commander, U S Army Central Command
COSCOM	Corps Support Command
CSG	Corps Support Group
CSM	Command Sergeant Major
CTOC	Corps Tactical Operations Center
DECON	Decontamination
Det	Detachment
DIA	Defense Intelligence Agency
DISCOM	Division Support Command
Div	Division
DIVARTY	Divisional Artillery
DMDC	Defense Manpower Data Center
DoD	Department of Defense (U.S.)
DVA	Department of Veterans Affairs
EN	Engineer (Unit designation)
ENSITREP	Engineer Situation Report
EOD	Explosive Ordnance Disposal

ESG	Environmental Support Group
FA	Field Artillery (Unit designation)
FRAGO	Fragmentary Order
Fwd	Forward
GA	Georgia
GB	Nerve agent (sarin)
GF	Nerve agent (cyclosarin)
GWAPS	Gulf Air War Planning Staff
HHC	Headquarters and Headquarters Company
Hqs.	Headquarters
HTML	Hyper-Text Media Link
IAD	Investigation and Analysis Directorate
IN	Infantry (Unit designation)
KTO	Kuwaiti Theater of Operations
Maint.	Maintenance
MECH	Mechanized
mm	millimeter
MMC	Materiel Management Center
MOPP	Mission Oriented Protective Posture
MSR	Military Supply Route
MTF	Medical Treatment Facility
NBC	Nuclear, Biological, and Chemical
NCO	Non-Commissioned Officer
NCOIC	NCO In Charge
NSA	National Security Agency
NSC	National Security Council
NW	northwest
OBJECTIVE	Objectiveective
OSAGWI	Office of the Special Assistant for Gulf War Illnesses
OSD	Office of the Secretary of Defense (U.S.)
PGIIT	Persian Gulf Illnesses Investigation Team
POL	Petroleum, Oil and Lubricants
QM	Quartermaster
RMC	Regional Medical Center
S&S	Supply and Service
SE	southeast
SITREP	Situation Report
Spt	Support
Sqdn.	Squadron (Army unit)
SW	southwest
TAC	Tactical
TF	Task Force
TOC	Tactical Operations Center
U.S.	United States
UIC	Unit Identification Code

2/21/97

UN ..... United Nations
UNSCOM ..... United Nations Special Commission
USCINCCENT ..... Commander-in-Chief, U.S. Central Command
UXO ..... Unexploded Ordnance

Glossary

CCEP — Developed by a multi-disciplinary team of DoD and VA medical specialists, the CCEP provides a two-phase, comprehensive medical evaluation. Phase I is conducted at the local medical treatment facility (MTF) and consists of a history and medical examination comparable in scope and thoroughness to an in-patient hospital admissions evaluation. The medical review includes questions about family history, health, occupation, unique exposures in the Gulf War, and a structured review of symptoms.

Health care providers specifically inquire about the symptoms and Persian Gulf exposures listed on the CCEP Provider-Administered Patient Questionnaire. The medical examination focuses on patients' symptoms and health concerns and includes standard laboratory tests (complete blood count, urinalysis, serum chemistries) and other tests as clinically indicated.

Individuals who require additional evaluation after completing the MTF-level Phase I evaluation and appropriate consultations may be referred to one of 14 Regional Medical Centers (RMCs) for Phase II evaluations. RMCs are tertiary care medical centers that have representation from most major medical disciplines. Phase II evaluations consist of symptom-specific examinations, additional laboratory tests, and specialty consultations according to the prescribed protocol.

Reference: CCEP Report dated 2 Apr 96, can be found on homepage: ***http://www.ha.osd.mil/cs/pgulf/18k-a.html***

Cyclosarin — A nerve gas agent commonly referred to as GF, similar to sarin (GB) (see below), but more persistent.

References: *Agency for Toxic Substances and Disease Registry (ATSDR). 1992. Toxicological profile for Cyclosarin. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.*

Detection Paper

Detection paper is based on certain dyes being soluble in chemical warfare agents. Normally, two dyes and one pH indicator are used, which are mixed with cellulose fibers in a paper without special coloring (unbleached). When a drop of chemical warfare agent is absorbed by the paper, it dissolves one of the pigments. Mustard agent dissolves a red dye and nerve agent a yellow. In addition, VX causes the indicator to turn to blue which, together with the yellow, will become green/green-black.

Detection paper can thus be used to distinguish between three different types of chemical warfare agents. A disadvantage with the papers is that many other substances can also dissolve the pigments. Consequently, they should not be located in places where drops of, e.g., solvent, fat, oil or fuel can fall on them. Drops of water give no reaction.

On the basis of spot diameter and density on the detection paper, it is possible to obtain an opinion on the original size of the droplets and the degree of contamination. A droplet of 0.5 mm diameter gives a spot sized about 3 mm on the paper. A droplet/cm2 of this kind corresponds to a ground contamination of about 0.5 g/m2. The lower detection limit in favorable cases is 0.005 g/m2

Reference: Detection of Chemical Weapons: An overview of methods for the detection of chemical warfare agents; homepage: http://www.opcw.nl/chemhaz.detect.htm

M256A1 Chemical Agent Detection Kit

The M256A1 kit is a portable, expendable item capable of detecting and identifying hazardous concentrations of chemical agent. The M256 kit is used after a chemical attack to determine if it is safe to unmask. The M256A1 kit has replaced the M256 kit. The only difference between the two kits is that the M256A1 kit will detect lower levels of nerve agent. This improvement was accomplished by using an eel enzyme for the nerve test in the M256A1 kit in place of the horse enzyme used in the M256 kit.

Reference: Worldwide Chemical Detection Equipment Handbook, p. 430

M8A1 Chemical Alarm

The M8A1 is an automatic chemical agent detection and warning system designed to detect the presence of nerve agent vapors or inhalable aerosols. The M8A1 will automatically signal the presence of the nerve agent in the air by providing troops with both a audible and visible warning. The M8A1 was fielded to replace the wet chemical M8 detector with a dry system which eliminated the M229 refill kit, the logistic burden and associated costs. The M8A1 operates in a fixed, portable, or vehicle mounted configuration.

Reference: Worldwide Chemical Detection Equipment Handbook, p. 412

Mustard

Mustard "gas" refers to several manufactured chemicals including sulfur mustard. They do not occur naturally in the environment. The term gas is in quotes because mustard "gas" does not behave as a gas under ordinary conditions. Mustard "gas" is really a liquid and is not likely to change into a gas immediately if it is released at ordinary temperatures. As a pure liquid, it is colorless and odorless, but when mixed with other chemicals, it looks brown and has a garlic-like smell. Mustard "gas" was used in chemical warfare and was made in large amounts during World Wars I and II. It was reportedly used in the Iran-Iraq war in 1984-1988. It is not presently used in the United States, except for research purposes.

The only way that mustard "gas" would enter the environment [other than through use as a weapon] would be through an accidental release. Some evaporates from water and soil into air. It does not easily go into water, and the amount that does breaks down quickly. It is more stable in soil than in water but still breaks down within days, depending on the outside temperature (cold weather makes it more stable). It does not go from soil to groundwater. Mustard "gas" does not build up in the tissues of animals because it breaks down so quickly.
Mustard "gas" makes your eyes burn, your eyelids swell, and causes you to blink a lot. If you breathe mustard "gas," it can cause coughing, bronchitis, and long-term respiratory disease.

References: Agency for Toxic Substances and Disease Registry (ATSDR). 1992. Toxicological profile for mustard "gas." Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Sarin

Sarin is a light brown liquid. It is odorless, and evaporates about as fast as gasoline. It is toxic both as fumes and to the touch. It is not as persistent an agent as Tabun or Soman, the other two of the trinity of nerve gases developed in Germany.

Sarin, along with Tabun and Soman was invented not long before the Second World War by German scientist Dr. Gerhard Schrader. While developing insecticides similar to malathion and parathion, he discovered the first "nerve gas" agents, as they were then called. In 1936 he discovered Sarin. The Germans stockpiled these weapons during the Second World War, but never used them, probably because of Hitler's personal distaste for the weapons (he himself was a victim of gas attacks in Flanders during the First World War). Sarin is now known as "GB."

Only very small amounts of Sarin are needed to kill. A single milligram of Sarin coming in contact with the skin is sufficient to kill. In a vaporous form, it takes a concentration of 100 milligrams per cubic meter to be fatal. Nerve gases such as Sarin are known as "organophosphorus anticholinesterases" or "OP's." Their chemical method of killing is to block the enzyme cholinesterase. The body's muscles receive electrical impulses caused by choline. Cholinesterase break down choline, making sure these impulses stop at the proper time. Cholinesterase attaches itself to choline and breaks it down, thus halting the impulse. Sarin fools the cholinesterase into acting upon the Sarin as it would choline. When the cholinesterase attaches itself to Sarin, it doesn't break down. Thus, choline is not broken down, and the body goes into convulsions.

The first symptoms start in the eyes, where the pupils contract and vision is blurred. It causes breathing problems and chest tightness. Finally it produces vomiting and headaches, after which the heart and lungs stop as the body convulses. The antidote is a substitute for the missing cholinesterase, which is atropine.

The armed forces in the Gulf War were given Oxime tablets in case of gas attack, which acts to release cholinesterase from the Sarin.

References: Agency for Toxic Substances and Disease Registry (ATSDR). 1992. Toxicological profile for Sarin. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

UN Security Council Resolution 687

This resolution was adopted by the UN Security Council at its 2981st meeting, on 3 April 1991. The pertinent section of this resolution, as related to the Khamisiyah report, follows:

6. Notes that as soon as the Secretary-General notifies the Security Council of the completion of the deployment of the United Nations observer unit, the conditions will be established for the Member States cooperating with Kuwait in accordance with resolution 678 (1990) to bring their military presence in Iraq to an end consistent with resolution 686 (1991);

Invites Iraq to reaffirm unconditionally its obligations under the Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, signed at Geneva on 17 June 1925, and to ratify the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, of 10 April 1972;

Decides that Iraq shall unconditionally accept the destruction, removal, or rendering harmless, under international supervision, of:

(a) All chemical and biological weapons and all stocks of agents and all related subsystems and components and all research, development, support and manufacturing facilities;

(b) All ballistic missiles with a range greater than 150 kilometres and related major parts, and repair and production facilities;

Decides, for the implementation of paragraph 8 above [paragraph 6 is only numbered paragraph in document], the following:

(a) Iraq shall submit to the Secretary-General, within fifteen days of the adoption of the present resolution, a declaration of the locations, amounts and types of all items specified in paragraph 8 and agree to urgent, on-site inspection as specified below;

(b) The Secretary-General, in consultation with the appropriate Governments and, where appropriate, with the Director-General of the World Health Organization, within forty-five days of the passage of the present resolution, shall develop, and submit to the Council for approval, a plan calling for the completion of the following acts within forty-five days of such approval:

Reference: UN Security Council Resolution 687, dated April 1991

2/21/97

TAB B - Units Identified as Being Within a 50 Kilometer Radius of Khamisiyah ASP (4-15 March 1991)[97]

The following tables shows those units, and reported total personnel strengths, which have been identified by investigators as being present during the demolition operations at Khamisiyah ASP:

MAJOR COMMAND	*UNIT DESIGNATION*	*PERSONNEL STRENGTH*
82nd Division (Airborne)	Hqs., 82nd Div	399
	Tactical Command Post (TAC), 1st Bde	122
	Tactical Operations Center (TOC), 3rd Bde	112
	1st Bn, 504th IN	757
	2nd Bn, 504th IN	794
	1st Bn, 505th IN	787
	2nd Bn, 505th IN	778
	3rd Bn, 505th IN	772
	4th Bn, 325th IN	774
	1st Bn, 319th FA	462
	2nd Bn, 319th FA	468
	1st Sqdn, 17th Air Cavalry	443
	3rd Bn, 73rd AR	596
	313th MI Bn	474
	307th Medical Bn	370
	307th EN Bn	498
	37th EN Bn	511
	450th Civil Affairs Bn	77
24th IN Division (Mech)	Main Command Post, 24th IN Div	908
	Hqs., 197th IN Bde	323
	2nd Sqdn, 4th Cavalry	404
	24th Signal Bn	668
	724th Combat Support Bn	855
	1st Bn, 5th ADA	635

[97] Based on locations reported for battalion-level Unit Identification Codes (UICs) derived from the Geographic Information System (GIS) [UIC-based personnel strengths from the Defense Manpower Data Center (DMDC).]

2/21/97

MAJOR COMMAND	*UNIT DESIGNATION*	*PERSONNEL STRENGTH*
	Hqs., 36th EN Group	71
	3rd EN Bn	682
	5th EN Bn	807
	299th EN Bn	601
	362nd EN Co.	156
101st Airborne Division (Air Assault)	Rear Command Post, 2nd Bde	87
	Hqs., 101st Aviation Bde	146
	1st Bn, 320th FA	436
Other Units	2nd Sqdn, 3rd ACR	866
	Hqs., 265th EN Group	75
	Hqs., 937th EN Group	79
	12th EN Bn	747
	46th EN Bn	605
	264th EN Co.	98
	Tactical Command Post (TAC), XVIII Corps Artillery (Airborne)	219
	1st Bn 181st FA	443
	1st Bn, 623rd FA	411
	Hqs., 513th MI Bde	197
	Hqs., 12th Aviation Bde	146
	9th Chemical Co.	41
	36th Medical Detachment	58
	5th Mobile Army Surgical Hospital	150
	41st Medical Hospital	247
	47th Combat Support Hospital	234
	47th Field Hospital	284

Total 20,867

2/21/97

The following units have been identified to the IAD through contacts with commanding officers. The IAD is providing this information to a separate team whose focus is to verify unit locations :

24th Infantry Division (Mechanized)

1st Bde:	2nd Bde:	197th IN Bde:
HHC 1st Bde	HHC 2nd Bde	HHC 197th
2/7th IN Bn	3/15 IN Bn	1/18th IN Bn
3/7th IN Bn	1/64th AR Bn	2/18th IN Bn
2/69th AR Bn	4/64th AR Bn	2/69th AR Bn
1/41st FA Bn	3/41 FA Bn	4/41st FA Bn
5th EN Bn	3rd EN Bn	299th EN Bn
24th Fwd Spt Bn	224th Fwd Spt Bn	324th Fwd Spt Bn

Division Support Command:

HHC & MMC, DISCOM
724th Support Bn (Main)
91st Chemical Co.
327th Chemical Co. (DECON)
197th Support Bn
82nd Ordnance Det.
83rd Ordnance Det.

Medical:
5th MASH
2nd MASH
10th MASH
274th Field Surgical Team
595th Medical Co.
3/565th Medical Co. (AMB)
47th Cbt Spt. Hosp.
498th Air Ambulance Co.
34th Medical Bn
786 Medical Det. (KA)
702nd Medical Co. (CLR)
690th Medical Co. (AMB)

171st Corps Support Group
260th QM Bn:
110 Supply Co. (POL)
84th Med. Truck Co. (Cargo)
416th Med. Truck Co. (POL)
542nd Maint. Co.
24th Ordnance Co.
851st S&S Co.
548th S&S Bn:
57th Med. Truck Co.
1083rd Heavy Truck Co.
514th Maint. Co.
460th S&S Co.
541st Maintenance Bn
226th Maint. Co.
632nd Maint. Co.
991st Heavy Truck Co.
133rd Ordnance Det.
118th Ordnance Det.

2/21/97

24th Aviation Bde:
HHC 24th Avn Bde
1/24th Avn Bn
3/24th Avn Bn
1/58th Avn Bn (ATC)

Division Artillery:
HHC, DIVARTY
G-333 FA (TAB)

212th FA Bde:
2/17th FA Bn
2/18th FA Bn
3/27th FA Bn
C-25th FA (TAB)

Division Troops:

2/4th Cavalry Sqdn
124th Military Intelligence Bn
36th EN Group
362nd CSE Co.
264th MGB Co.
1/5th ADA Bn
24th Signal Bn
24th Military Police Co
211th Military Police Co
519th Personnel Service Co
24th Finance Support Unit
422nd Civil Affairs Co
Det. 300 Postal Co
HHC Division

1st Corps Support Command (COSCOM)

46th Corps Support Group (CSG); assigned to the 82nd Div (ABN)
171st CSG; assigned to the 24th ID (MECH)
101st CSG; assigned to the 101st Div (AASLT)

If you are aware of units or individuals who were within the 50-kilometer radius of Khamisiyah who are not listed above, please contact the DoD Persian Gulf Task Force Hot Line at 1-800-472-6719.

Persian Gulf War
Illnesses Task Force

Statement for the Record

by

Robert D Walpole
Special Assistant to the ADCI
for Persian Gulf War Illnesses Issues
Central Intelligence Agency

to the
House Committee on Veterans' Affairs
Subcommittee on Health
Subcommittee on Oversight and Investigations

16 April 1997

Introduction

Chairman Stearns, Chairman Everett and members of the Committees, I am pleased to appear before you today to discuss CIA's and the Intelligence Community's efforts on the issue of Gulf war veterans' illnesses and the possible exposure of some of those veterans to chemical weapons agent. We know how important this issue is to the veterans, and that our intelligence is essential to understanding what occurred during the war.

In response to President Clinton's tasking to his Advisory Committee (PAC) on Gulf War Veterans' Illnesses, and after determining that the issue required additional resources, George Tenet, Acting Director of Central Intelligence, appointed me his Special Assistant on this issue on 27 February, and asked me to have a Task Force running by 3 March. Since that time, we have kept the staff of this committee, as well as several other committees, apprised of our findings and actions. The focus of our efforts is to help find answers to why the veterans are sick. We are supporting numerous government efforts on this issue, and are searching files for any intelligence that can help.

Last Week's Release

Before I describe our mission, let me emphasize that one of my primary tasks is to set the record straight, and I must do that from the outset regarding our public release last week on Khamisiyah. In reporting the Intelligence Community's admission about missing some important intelligence prior to the Gulf war, some have missed a very important point in our story:

- It has been correctly reported that the Intelligence Community did not list Khamisiyah as a suspect chemical weapons storage site prior to the war, even though we had a report that identified it in 1986 as a forward-deployed CW storage location during the Iran-Iraq war.

- But some have missed a more important point, suggesting that our error in not listing Khamisiyah before the war equated to a failure to provide warning before US demolition activities. On that point, the record is clear--CIA and DIA provided multiple warnings to our military forces in the field.

I will go into the details later in this statement.

First I will discuss the mission and scope of the task force, and our progress to date, including our modeling and search efforts, and the recent release of documents and publication of our paper on Khamisiyah.

Mission and Scope

The mission of this Task Force is to provide intensive, aggressive intelligence support to the numerous US Government efforts currently investigating Persian Gulf war illnesses issues. Fifty officers are serving on the task force, drawn from across the Intelligence Community--CIA, NSA, DIA, and NIMA--and from DoD's Offices of the Special Assistant for Gulf War Illnesses and Assistant to the Secretary for Intelligence Oversight. We have made considerable progress in addressing this mission during our first several weeks.

The task force is managing and reviewing all intelligence aspects related to this issue with the goal of "getting to the bottom" of it. Specifically the task force provides intelligence support across several fronts:

- Documents--search, declassification, and sharing;
- Modeling support;
- Communications with DoD, the NSC, the PAC, the Hill, and veterans' groups; and
- Supportive analysis.

This is the first time we have fully integrated an analytical component into a task force on this issue to run to ground every thread we uncover on the issue, and to prepare papers providing the analytical context surrounding relevant material.

An example of this group's efforts was disseminated a few weeks ago in Salt Lake City at the Presidential Advisory Committee meeting. It is a one-page paper concerning the release of chemical warfare agent at Khamisiyah during March 1991. The day after the meeting, DoD received numerous calls on the 1-800 number, some from veterans who recall being at Khamisiyah. This is an important step forward in trying to determine exactly what happened at Khamisiyah and to address veterans' concerns about their possible exposure to chemical agent.

Modeling Support

In the past, we were able to model the events at Al Muthanna, Muhammadiyat, and Bunker 73 at Khamisiyah largely because we had test data indicating how the agent would react and release when structures in which it was stored were bombed or detonated. However, when we turned to modeling demolitions at the pit, we quickly realized we had significant uncertainties regarding how rockets with chemical warheads would have been affected by

open-pit demolitions. We were also uncertain about the number of demolition events and the weather conditions at the time of the demolitions.

We are continuing to reduce the uncertainties used in chemical exposure modeling and are aggressively analyzing any thread of information related to these uncertainties in order to more accurately identify the extent of the release. We are helping the Department of Defense develop tests to destroy rockets containing CW agent simulants. We expect this to provide us invaluable data on how the agent would react in an open-pit demolition, similar to the data earlier testing had provided for detonations in buildings.

We are also working with DoD to talk to veterans who are providing some knowledge about the demolition events at the pit. In Salt Lake City, we reiterated our uncertainties but indicated that we believed, on the basis of the limited and often contradictory data we had, that two demolition events were more likely than one. These data included a military log entry for destruction on March 12, the contradictory stories from two soldiers, and an UNSCOM video tape.

We also indicated that, if we could find just one more soldier who had been in the pit, we would increase our knowledge by 50 percent. DoD's Office of the Special Assistant for Gulf War Illnesses has found other eyewitnesses. CIA and DoD recently interviewed four eyewitnesses together, including the two original soldiers. These interviews called into serious question the log's credibility; we learned it was prepared after the fact and that we should not rely on the 12 March date. Even with four soldiers together, we obtained several contradictory statements. Just this week, DoD located another eyewitness who may be able to shed light on some of the contradictions. Even so, with the log's credibility in question, the prudent approach would be to model one event that occurred on March 10; from a modeling perspective, this would be true whether the demolition occurred as two events at the same time. We will proceed jointly with DoD to complete that modeling once the test data are obtained. If we receive further information on what actually happened in the pit, we will modify this approach.

Document Efforts

In addition to efforts I mentioned earlier about Khamisiyah, we are conducting document searches on Iraqi CW sites as well as any intelligence related to potential biological warfare and radiological exposure, and environmental issues. We are using search criteria developed by previous task forces and expanding them by adding related topical search terms and increasing the range of dates to be searched. Intelligence we find that sheds light on or can help the Presidential Advisory Committee, Persian Gulf Veterans Coordinating Board, veterans and public understand Gulf war illnesses issues

will be identified and declassified. Any documents that cannot be released for reasons of national security will be delivered to relevant US Government agencies, the Presidential Advisory Committee, and Congressional Committees that are following this issue. We also plan to write analytic papers to try to help the readers put all of the information into context. The first of these papers was released last week.

Khamisiyah Paper

During our initial efforts on Khamisiyah, we determined that certain intelligence documents were critical to answering the questions--what did the Intelligence Community know when, and what did we do with that information. We began briefing these documents to the PAC and appropriate Congressional Committees. We also began simultaneous efforts to declassify key papers and to search for other material relevant to the questions. As this work progressed, we determined that a paper detailing the historical perspective would be useful to accompany the release of the documents we were declassifying.

The paper, released on 9 April, provides details about the Intelligence Community's knowledge of Khamisiyah before, during, and after the war. Some highlights of the paper pertinent to recent media coverage include:

- In 1986, the IC knew Khamisiyah had been a chemical weapons storage site during the Iran-Iraq war, specifically during 1984 and 1985.

- Subsequent analytic assessments began to focus on S-shaped bunkers as future forward-deployed storage locations for chemical weapons.

- Since Khamisiyah did not have an S-shaped bunker, it was not included in subsequent analytical thinking or lists of suspect CW storage sites, including during the 1990 US deployments to the Persian Gulf.

- Nevertheless, during those deployments, the IC warned that Iraq had likely forward deployed its chemical weapons and was prepared to use them against Coalition forces.

- On 1 February 1991, DIA warned that chemical weapons could be stored anywhere—even in the open.

- On 23 February 1991, before the ground war and nine days before US military performed demolition at Khamisiyah, CIA passed information to CENTCOM pointing to Khamisiyah as a potential chemical storage facility. While the information did not mention Khamisiyah by name, it included geographic coordinates identifying the area and noted a specific storage area on the military's Joint Operations Graphics map.

- On 25 February, CENTCOM tasked national technical means to determine if Iraqi troops were in several places of concern; this included the same coordinates passed to CENTCOM by CIA in the message two days earlier. National Technical Means would have been able to provide information on Iraqi troop presence before anyone was sent to check for special weapons.

- On 28 February, at least four days before demolition occurred, DIA had sent a message to CENTCOM indicating that biological and chemical weapons could be stored at Khamisiyah and other facilities.

- Also on 28 February, CENTCOM requested ARCENT to determine, by noon on 4 March, whether chemical or biological weapons were present at Khamisiyah and 16 other sites. The response, which was not received until 1 April, indicated that no chemical weapons were found at Khamisiyah. The rockets in Bunker 73 were destroyed after noon on 4 March, and those in the pit were destroyed on 10 March.

- On 6 March, CIA passed to CENTCOM a reiteration of its warning that Iraq did not mark its chemical munitions. While this warning was two days after the bunker demolition, it was four days before demolition in the pit; both demolitions were unknown to CIA at the time. The 6 March cable further advised CENTCOM that opportunities to identify chemically filled munitions could be missed and that, when caches of unmarked munitions were destroyed, there was the possibility that individuals could be exposed to chemical warfare agents.

- Finally, well after the war, it was the CIA that determined that chemical agent had been released at Khamisiyah.

The documents released and the Khamisiyah paper written to accompany them do not change our judgment that Iraq did not use chemical weapons during Desert Storm. The paper does, however, illustrate that intelligence support—particularly in the areas of information sharing and analysis—should have been better. The Task Force is preparing recommendations to address these problems and will continue to assess how we ensure they will not occur in the future.

That said, CIA and the Intelligence Community did not warrant charges that we did not provide warning before US post-war demolitions. As already indicated, CIA and DIA provided multiple warnings. Recent coverage on this issue actually highlighted difficulties inherent to dealing with intelligence. We who report intelligence indeed missed some important opportunities to draw accurate conclusions about Khamisiyah before the war; in focusing on that part

of the story, however, some reporters who received our briefing and related information missed the opportunity to report other important details on the issue, especially that warnings were given before demolition activities were conducted.

Conclusion

In conclusion, I want to reiterate George Tenet's and the Intelligence Community's commitment to the men and women who served this country in the Persian Gulf. We owe them a full and accurate accounting of what happened during the final days of Desert Storm and in the following days and weeks before their return to the United States. To that end, the intelligence material we released on Khamisiyah, including the paper outlining the related historical perspective, gives the veterans and American citizens a clearer understanding of what we knew, and how we used this material to prepare and to warn our forces. We stand behind our contributions to national security and are working to enhance our support for the future.

Persian Gulf War
Illnesses Task Force

Khamisiyah: A Historical Perspective on Related Intelligence

9 April 1997

Reprint
14 April 1997

Introductory Note From the Acting Director of Central Intelligence

On February 27, in response to President Clinton's tasking to his Advisory Committee (PAC) on Gulf War Veterans' Illnesses, I appointed Robert Walpole to be my Special Assistant for this issue. I asked him to have a Persian Gulf War Illnesses Task Force running by 3 March. One of its first tasks was to determine what the Intelligence Community knew about the Khamisiyah storage facility, when we knew it, and what we did with that information. Former task forces had focused on identifying areas of potential exposure to chemical agents and on assessing what had happened in March 1991 at Khamisiyah.

This paper and the accompanying documents do not contradict previous intelligence warnings before Desert Shield/Desert Storm: that Iraq was likely to have chemical warfare (CW) munitions in the theater of operations and that Iraqi CW munitions might not be marked. It also does not change our judgment that Iraq did not use chemical weapons during Desert Storm.

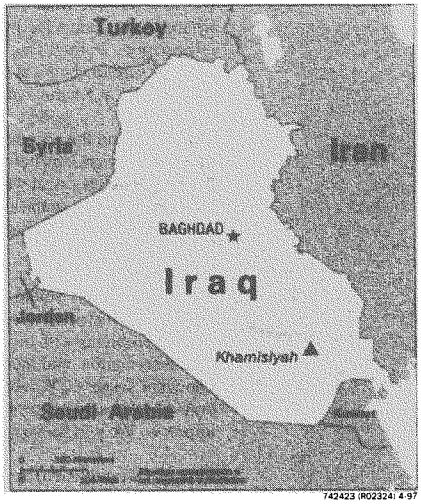
The paper does, however, illustrate that intelligence support associated with Operations Desert Shield and Desert Storm—particularly in the areas of information distribution and analysis—should have been better. Key issues include problems with multiple databases; limited sharing of "sensitive" but vital information; and incomplete searches of files while preparing lists of known or suspect CW facilities. This Task Force is preparing recommendations to address these problems and will continue to assess how we can improve. We will move aggressively to implement those recommendations.

Finally, I would like to thank the United Nations Special Commission for its part in this public release of information. I also want to reiterate my commitment to the men and women who served this country in the Persian Gulf. We owe them a full and accurate accounting of what happened. This paper is a part of that commitment. But this commitment also extends to enhancing intelligence support to men and women who will serve in the future.

George J. Tenet

Khamisiyah: A Historical Perspective on Related Intelligence

The US Intelligence Community (IC)[1] has assessed that Iraq did not use chemical weapons during the Gulf war. However, based on a comprehensive review of intelligence information and relevant information made available by the United Nations Special Commission (UNSCOM), we conclude that chemical warfare (CW) agent was released as a result of US postwar demolition of rockets with chemical warheads in a bunker (called Bunker 73 by Iraq) and a pit in an area known as Khamisiyah.



Iraq's Chemical Warfare Program

Before the Persian Gulf war, the IC assessed that Iraq had a significant chemical weapons capability, including chemically armed Scuds. The IC also assessed that Iraq had used chemical weapons on numerous occasions against Iran and its own citizens. At the time of the US deployments to the Persian Gulf, the IC had reached consensus that Iraq had chemical weapons in its arsenal, had likely forward-deployed these weapons, and was prepared to use them against Coalition forces.

When Desert Shield began, our concerns about the Iraqi use of weapons of mass destruction became the focus of our chemical weapons analytic and collection efforts. IC analysts sought to identify possible Iraqi CW facilities for targeting purposes. Sites throughout Iraq were identified, albeit on incomplete information.

Several CIA chemical and biological warfare analysts maintained internal 24-hour coverage during the start of the air war and later through the ground campaign to provide support to senior CIA officials and key policymakers. Although there were many reports of chemical weapons use, analysis of all-source information indicated that these were false alarms and that chemical weapons were not used. CIA later published an assessment concluding that Iraq had never deployed chemical weapons to its frontline units, subsequently decided to move them out of the theater prior to war, and never used them against Coalition forces.

In the months immediately following the Gulf war, the IC turned its assets to identifying and characterizing Iraq's surviving CW and other weapons-of-

[1] The Intelligence Community comprises the Central Intelligence Agency, Defense Intelligence Agency, Bureau of Intelligence and Research (State), National Security Agency, National Imagery and Mapping Agency, and several other organizations within the Departments of Defense, Treasury, Justice, and Energy.

Figure 2. Predemolition photo of Khamisiyah ammunition storage area showing Bunker 73 and pit area. Darkened areas indicate bomb craters.

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mass-destruction capabilities. As the following intelligence chronology demonstrates, the IC did not focus on the possible release of chemical agent until after veterans' health concerns surfaced.

Intelligence Chronology of the Khamisiyah Depot

When viewed with the clarity of hindsight, the history of events at the Khamisiyah facility appears relatively simple. The following intelligence chronology, however, underscores the complexity of the issue and the ambiguity intelligence analysts face in piecing together sometimes conflicting information.

The IC has access to a large volume and multiple sources of information, but individual analysts rarely have access to all information on a given topic. Furthermore, not all information we receive is clear or correct. Analysts normally must sort through large volumes of reporting, much of which is contradictory, inaccurate, incomplete, or ambiguous, to reach a single analytic judgment. Finally, resource constraints and conflicting priorities limit the number of intelligence issues that can be addressed in depth.[2]

Intelligence on Khamisiyah was buried in a large volume of reporting that needed to be sorted and analyzed. Only after a massive interagency effort was this evidence identified, isolated, analyzed, and prepared for release. The sheer volume of reporting on Iraq greatly complicated our ability to single out this one facility—which was only a small part of the Iraqi CW effort—and properly exploit information once received. We will continue to search for relevant documents and to release useful information.

The Intelligence Record: 1976-90

Before its demolition by US forces in 1991, the Khamisiyah facility was a large ammunition storage depot in southeastern Iraq, approximately 100 kilometers (km) from the Kuwaiti border. The facility we now call Khamisiyah was first identified in intelligence information from September 1976, while it was under construction. The IC identified the facility as a conventional ammunition depot. In June 1977, it was assigned the name Tall al Lahm—after a nearby town—in our imagery database. [*1*] This remained the most common name the United States used for the facility until mid-1996, when the name used by the Iraqis—Khamisiyah—was adopted to avoid confusion. Information available to the IC identified the facility's location as 304700N/0462615E. [*1*]

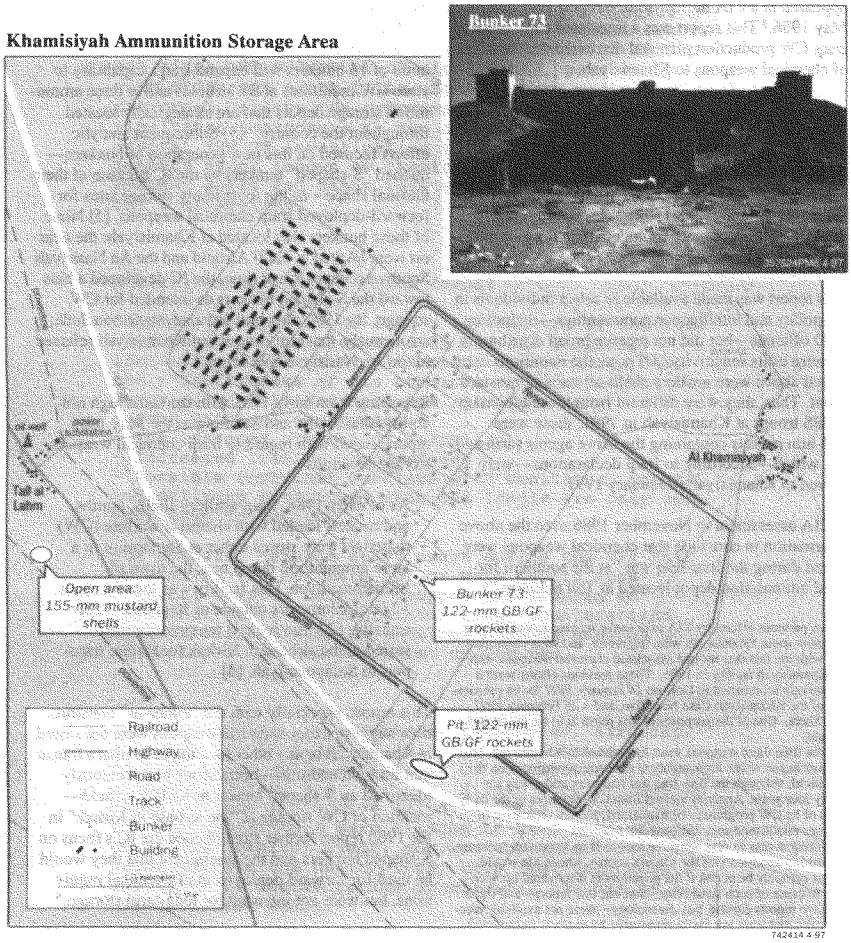
The first known reference to the depot using the Iraqi name Khamisiyah occurred in intelligence reporting in April 1982, when the "Al Khamisiyah ammunition depot" was mentioned in connection with the transfer of munitions in support of Iraqi military operations during the Iran-Iraq war. [*2*] This report did not specify the facility's location, but subsequent reporting associated it with the geographic coordinates of the nearby town of Khamisiyah (3046N/04629E). [*3*] Neither this reporting nor the intelligence from 1976 hinted at any connection with chemical weapons. This facility was maintained in a National Security Agency database as Khamisiyah, and in the imagery database as Tall al Lahm. No apparent effort at the time was made to reconcile the facility names.

While not discovered until 20 March 1997, intelligence acquired in July 1984 currently provides the earliest potential indication that chemical weapons or chemical warfare activities might have been associated with the Khamisiyah depot at the time. As part of an ongoing review of historical files on Khamisiyah, we discovered information indicating that a decontamination vehicle normally associated with tactical chemical defense was at the depot. This activity was not associated with any specific bunker or other storage structure and, by itself, does not provide confirmation of chemical weapons storage.

The first recognized connection between Khamisiyah and chemical weapons—and the only such evidence prior to Iraq's August 1990 invasion of Kuwait—

[2] Although monitoring Iraq's CW program in general remained a high priority, available collection and analytic resources were focused on key production-related facilities rather than storage sites. In addition, CW analysts were also responsible for monitoring critical developments in countries such as Libya, Iran, and Russia.

Khamisiyah Ammunition Storage Area



appeared in a CIA human-source report obtained in May 1986.[3] This report was a translated copy of an Iraqi CW production plan and discussed the transfer of chemical weapons to Khamisiyah:

> 3,975 155-mm mustard-loaded artillery grenades [sic] have been issued (from June 1984 to March 1985) to al-Khamisiyah warehouses. We do not have official data about using this quantity by the third army corps. The warehouses currently have 6,293 150-mm mustard bombs [sic], enough to meet front demands for four days on a 15-minute mission.[4] [*4*]

This report was made available to select individuals in the policy and intelligence communities—including DoD officials—but did not receive broad distribution because of its sensitivity.[5] Of note, the munitions mentioned above were artillery shells containing mustard agent. Thus, they were different from those blown up by US troops at Khamisiyah in 1991; those were 122-mm rockets containing the nerve agents sarin and GF, which—according to Iraqi declarations—were moved to Khamisiyah in January 1991.

A CIA assessment in November 1986 used the above information to conclude that chemical weapons were stored during the Iran-Iraq war "at the southern forward ammunition depot located at Tall al Lahm."[6]

This assessment shows that a connection had been made at that time between Khamisiyah and what we knew as Tall al Lahm. It also stated that "a new generation of 16 bunkers will expand Iraq's capability to store CW munitions at six airfields and at three ammunition storage depots that are strategically located throughout the country." [*5*] Subsequent analytic efforts focused on this new generation of bunkers—dubbed "S-shaped" bunkers by the IC because of their unusual shape—as the most likely storage sites for forward-deployed Iraqi chemical weapons. [*5*] None of these bunkers was located at Khamisiyah: the nearest were located at Tallil Airfield and the An Nasiriyah Southwest depot. Over time, the IC developed a bias toward the S-shaped bunkers as intended for CW storage. By 1991, this bias led analysts to conclude, erroneously, that reporting about Khamisiyah referred to the An Nasiriyah SW depot.

Reporting from early 1988 with the same high reliability, sensitivity, and handling as the May 1986 report, stated with regard to Iraqi chemical weapons storage locations:

> As of early 1988, Iraqi artillery shells, bombs, and rockets loaded with chemical warfare (CW) materials were stored either at Samarra or in a large ammunition dump near the town of Muhammadiyat. This facility was located about 12 [sic] kilometers outside of Baghdad. Additionally, 122-mm rockets temporarily were stored at the airbase in Kirkuk for further transport to Sulaymaniyah. [*6*]

This report, especially with the "either-or" construction, suggested that chemical weapons were not stored at Khamisiyah or any other location in southern Iraq at that time. In addition—because we had previously identified an S-shaped bunker at Kirkuk airfield—mention of CW storage at "the airbase in Kirkuk" in the 1988 report further strengthened the IC's focus on S-shaped bunkers and the assessment that they would be used for forward deployment of chemical munitions, but were not intended for long-term storage.

This information, the strengthened analytic bias toward S-shaped bunkers, and several other factors

[3] Two previous efforts by CIA to describe its assessment of what we knew about Khamisiyah were imprecise, and were contradictory with the fact that we had associated chemical weapons with the Khamisiyah facility in 1986. These previous efforts were a chronology transmitted to DoD on 24 January 1997 for its preparation of the Khamisiyah Case Narrative, and a 26 February 1997 Fact Sheet. One of the purposes of this paper is to set the record straight.

[4] At the time these weapons were first moved to Khamisiyah, Iraq had just begun to use large numbers of chemical weapons on the battlefield, although the Iran-Iraq war had been under way for nearly four years. Analysts viewed Iraqi CW practices in the early years of its CW program to be haphazard, and not indicative of routines established once the program matured.

[5] Limiting access to very sensitive reports is an important measure in ensuring anonymity of the report's source, whose life would almost certainly be at risk if his government discovered his identity. Because of such sensitivity, however, this report—and other sensitive reports cited in this chronology—were not available electronically and were not easily retrievable by analysts doing retrospective analysis.

[6] This assessment was one of many routine IC reports on Iraq's CW program and was distributed to DoD and other elements of the policy and intelligence communities.

may have played a role in Khamisiyah's omission from CW facility lists generated by the IC between 1986 and 1991. For example, following the May 1986 report and the November 1986 assessment, some analysts believed the reported activity at Khamisiyah represented temporary, forward-deployed storage.[7] We have located no additional reporting suggesting chemical weapons were stored at Khamisiyah from May 1986 to the end of the Iran-Iraq war in 1988—a period in which Iraq used thousands of tons of CW agents against Iran.

Operations Desert Shield/Desert Storm: August 1990–February 1991

Additional information concerning possible chemical weapons storage at Khamisiyah was obtained shortly after Iraq invaded Kuwait, but was not recognized until early 1996 during a review of the Khamisiyah facility as a possible CW agent release site. Intelligence acquired on 18 August 1990 showed what was reported only as munitions transloading activity. Because CW analysts did not carry Khamisiyah on their lists of CW-related facilities in 1990, the information was not reviewed by chemical weapons specialists at the time. We now judge that this activity might have been a chemical weapons transfer under way outside a bunker at Khamisiyah; we have determined that this was not Bunker 73.

Khamisiyah was not mentioned as a chemical weapons storage location in any finished intelligence document or list of facilities produced during the months leading up to Desert Storm. At the time, the IC unanimously identified S-shaped bunkers as the most likely locations for forward deployment of chemical weapons when tasked to identify Iraqi CW facilities. As a result, Khamisiyah was not added to IC lists of suspect Iraqi CW facilities. Analysts emphasized at the time, however, that chemical weapons could be stored anywhere—even in the open. [7] Nevertheless, the Tall al Lahm facility was mentioned in 28 February 1991 military intelligence information requests as suspected to have possibly contained chemical munitions prior to the ground war. [8]

A report pertaining to chemical weapons at a location we now know to be Khamisiyah was obtained during Desert Storm. On 23 February 1991, a CIA reporting cable indicating potential storage of chemical weapons was sent to CIA Headquarters and Desert Storm support elements in Saudi Arabia. This cable reported the location to be 3047N/04622E. The cable did not provide the name of the facility or any details about the chemical weapons, but mentioned the information corresponded to a storage area "east of Juwarin." The chain of acquisition of this report was quite tenuous. The source was reportedly in the Iranian Air Force or Air Force–related industry; he apparently passed the information through foreign intermediaries. [9] In Saudi Arabia, this report was immediately made available to Central Command (CENTCOM) and some subordinate US military elements in Riyadh. [10] Review of the cable shows the coordinates to be at or near the town of Tall al Lahm on various maps, and the storage area (unnamed) on the Joint Operations Graphic (JOG) series map to be near "Al Khamisiyah." This storage area is the Khamisiyah storage facility.

On 24 February, CIA was informed that CENTCOM/Collections tasked its assets to investigate this facility. On 25 February 1991, CIA/DO telephoned a CIA analyst and relayed some of the information in the cable. The analyst noted that the coordinates were close to the An Nasiriyah depot and Tallil airfield, both of which were carried as suspect CW storage facilities because of the presence of S-shaped bunkers. The analyst consulted with the National Photographic Interpretation Center (NPIC) and learned that CW-related activity had been reported at An Nasiriyah in mid-January 1991. On the basis of this activity, the analyst suspected that the report referred to the An Nasiriyah depot.[8] [11] Nevertheless, this misidentifi-

[7] Forward-deployed storage, by definition, is deemed to be temporary; that is, for use during wartime-related operations. Nevertheless, analytical judgments about the forward-deployed usage of Khamisiyah, either at that time or currently, should not be misinterpreted as a justification for the facility's not being listed as a potential chemical weapons storage site prior to Desert Storm. Given the uncertainties at the time about locations of Iraq's CW stockpile, IC lists of suspected chemical weapons storage facilities should have been broader and should have included sites at which chemical weapons had previously been stored.

[8] Later information suggests that An Nasiriyah actually was a CW storage facility at the beginning of Desert Storm. According to Iraqi declarations, the undamaged mustard rounds stored in the open near Khamisiyah were moved there from Nasiriyah after the air war began.

cation was never relayed to DoD. Instead, CIA indicated that "WE ARE UNABLE TO IDENTIFY SPECIFIC CHEMICAL STORAGE FACILITY AT [referenced] LOCATION." [*12*] The second paragraph of the 23 February 1991 cable was subsequently sent to select CIA analysts.

During 23-25 February 1991, Army Central Command (ARCENT) issued a collection emphasis for the coordinates mentioned in the 23 February CIA cable; this emphasis, however, requested confirmation that Iraqi troops were present and did not mention chemical weapons. [*13*] In addition, it is unclear if there is any direct relationship between this information and a 26 February 1991 XVIII Airborne Corps log entry stating that there were "possible chemicals on Objective Gold," a location at or near Tall al Lahm.[9] [*14*]

Also in February 1991, DIA completed a review of nonrefrigerated "12-frame" bunkers. (Just as the previously mentioned S-shaped bunkers were associated with the storage of chemical weapons, 12-frame bunkers were believed to be potential storage sites for biological and possibly chemical weapons.) In late February, DIA notified CENTCOM that such bunkers were at Tall al Lahm and at five other facilities. [*15*]

On 28 February 1991, CENTCOM's National Military Intelligence Support Team (NMIST) requested that ARCENT determine by 4 March whether chemical or biological weapons were present at 17 suspected CBW storage locations occupied by ground forces. The request stated that "THESE SITES WERE SUSPECTED TO HAVE POSSIBLY CONTAINED SPECIAL MUNITIONS PRIOR TO THE GROUND WAR." The Tall al Lahm depot and the adjacent revetted storage area were included in this list. [*8*] A response from VII Corps on 1 April states that no chemical weapons were found at either part of Tall al Lahm or at 11 other sites on the list occupied by US troops. Four of the facilities were not occupied by US troops and could not be surveyed.[10] [*16*]

[9] This paragraph was prepared in coordination with DoD's Office of the Special Assistant for Gulf War Illnesses.
[10] This paragraph was prepared in coordination with DoD's Office of the Special Assistant for Gulf War Illnesses.

The Postwar Period: March-April 1991

Postwar reports received by the IC indicated that no chemical weapons were found in the Kuwaiti Theater of Operations (KTO). [*17*] These reports were generally accepted by the IC. While most national-level sources said that Iraq's chemical munitions were probably not marked, lower-level tactical units were disseminating information on markings that was gathered from enemy prisoner of war (EPW) interrogations and other local sources. [*17*] As a result, either the standard US CW marking system or incorrect markings data gleaned from EPWs were mistakenly used by some CENTCOM troops as the basis for determining if captured Iraqi munitions contained chemical agents. On 6 March 1991, in an attempt to gain clearance to enter the KTO, CIA analysts relayed concerns about the markings issue to CENTCOM J-2 and J-3 officers in Saudi Arabia through the Joint Intelligence Liaison Element in Saudi Arabia (JILE/Saudi):

> ALTHOUGH THERE HAVE BEEN EPW REPORTS THAT IRAQ'S CHEMICAL MUNITIONS HAVE COLORED BANDS [or] OTHER MEANS OF IDENTIFICATION, OUR EXPERIENCE WITH THE MUNITIONS IRAQ USED IN ITS WAR WITH IRAN INDICATES THAT THE IRAQIS DID NOT/NOT MARK THEIR CHEMICALLY FILLED MUNITIONS. WE BELIEVE THE EPW REPORTS ON MARKINGS MAY REFLECT TRAINING CLASSES ON CHEMICAL MUNITIONS USING SOVIET EXAMPLES...IF PERSONNEL IN THE KTO ARE NOT AWARE OF THIS POSSIBILITY, OPPORTUNITIES TO SUCCESSFULLY IDENTIFY CHEMICALLY FILLED MUNITIONS MAY BE MISSED. WHEN CACHES OF UNMARKED MUNITIONS ARE DESTROYED, THERE IS ALSO THE POSSIBILITY THAT INDIVIDUALS COULD BE EXPOSED TO CHEMICAL WARFARE AGENTS. [*18*]

Although not known to analysts at the time, US forces had destroyed Bunker 73 at Khamisiyah two days earlier.

As reported by UNSCOM inspectors, the Iraqi chemical weapons inadvertently demolished by US troops at Khamisiyah had no CW-specific marking or colored bands. Furthermore, Iraqi munitions at Khamisiyah that did bear colored markings—as seen on US military photography—can be readily identified as non-CW munitions.

In April 1991, the United States intercepted an Iraqi report that claimed American forces blew up the Khamisiyah depot on 1 and 2 April 1991. [*19*] In fact, according to DoD, US forces had demolished the majority of the facility during 4-10 March 1991, although additional demolition continued to occur until US forces withdrew in mid-April. Additional reporting, distributed widely within the IC, indicated that Khamisiyah was later surveyed by Iraqi forces seeking to salvage usable munitions. This reporting indicated that the Iraqis believed "MOST OF THE AL KAMISIYAH [sic] AMMUNITION DEPOTS WERE DESTROYED BY 'AMERICAN' AIRCRAFT BOMBING OR DETONATION . . . " [*20*] None of this reporting mentioned the presence of chemical weapons, however, and they were not reviewed by CW analysts.

Supporting UNSCOM: May 1991-93

The first indication that damaged chemical munitions were located at Khamisiyah appeared in Iraq's 16 May 1991 declaration to the United Nations. In that declaration, Baghdad listed 2,160 destroyed sarin-filled 122-mm rockets at "Khamisiyah stores" and 6,240 intact mustard-filled 155-mm artillery shells at "Khamisiyah stores (Nasiriyah)." [*21*] Because of the previous assessment that An Nasiriyah was a suspect CW storage facility, the IC assumed at the time that this was the facility Iraq was referring to, and that what the Iraqis called Khamisiyah, we called An Nasiriyah. A follow-up Iraqi declaration from 17 May reported that "Khamisiyah stores (Nasiriyah)" was located at 3046N/04630E.[11] These declarations to the UN were obtained through the Department of State and were given broad distribution throughout State, DoD, and the IC.

In August 1991, CIA published a highly classified intelligence assessment on Iraqi noncompliance with UN Security Council Resolution 687, which mandated the elimination of Iraq's chemical, biological, and nuclear weapons and ballistic missile programs. This report, which received limited distribution within the intelligence and policy communities,[12] compared Iraq's grossly inadequate declarations with what we knew about its programs to develop weapons of mass destruction. Khamisiyah was listed in this document as a known CW storage site:

> We *know* . . . that chemical weapons have been stored at three declared sites—Samarra', Muhammadiyat, and Khamisiyah—*for several years* . . . Chemical weapons were stored at the Khamisiyah site as early as 1985 . . . Iraq declared that chemical munitions are stored at the Khamisiyah storage facility, near the city of An Nasiriyah...reporting indicated in 1986 that several thousand mustard munitions were stored at the Khamisiyah site. The Iraqi coordinates are

[11] These coordinates fall near—but not directly on—the Khamisiyah depot. The geographic coordinates declared by the Iraqis for other CW sites known to us were in error by as much as 30 minutes (about 50 kilometers), however, so the accuracy of declared coordinates was questionable. As a result, the declared coordinates were viewed by the IC as consistent with the An Nasiriyah depot. In addition, the Iraqis were less than forthcoming and sometimes misleading in this and other declarations, which tended to bring to question the overall credibility of Iraqi information.

[12] External distribution:
The President
Assistant to the President for National Security Affairs
Assistant to the President and Deputy for National Security Affairs
The Secretary of State
The Secretary of Defense
The Secretary of Energy
Chairman, Joint Chiefs of Staff
The Director, Defense Intelligence Agency
The Director, National Security Agency
The Director, Arms Control and Disarmament Agency
Assistant Secretary of State for Intelligence and Research
Assistant Chief of Staff of Air Force Intelligence

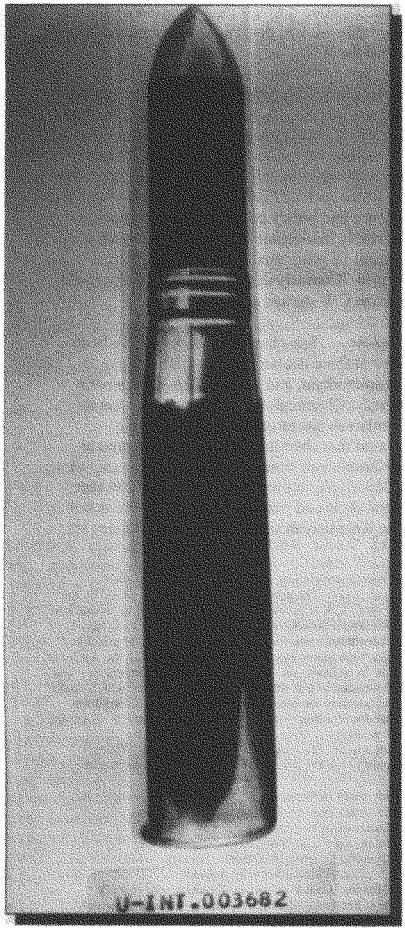


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Figure 4. *Some Iraqi munitions at Khamisiyah—such as this high-explosive squash head (HESH) round—had colored markings but were readily identified as non-CW munitions.*

close to those of a storage facility near An Nasiriyah that contains one S-shaped bunker. The bunker was extensively damaged by Coalition attacks. [Emphasis added.] [22]

While drafting this paper, CIA analysts reviewed the May 1986 report. At that time, they interpreted Khamisiyah to be An Nasiriyah in light of the wording in Iraq's May 1991 declaration, as well as the analytical emphasis placed on S-shaped bunkers. In addition, the quote cited above contains several inaccuracies:

- We *knew* that chemical weapons had been stored at Samarra and Muhammadiyat *for several years*; that part of the August 1991 paper was correct. However, we did *not know*—and still do not have evidence—that chemical weapons had been stored at Khamisiyah or Nasiriyah *for several years*. At the time the paper was written, we *knew* that chemical weapons had been stored at a site named Khamisiyah during 1984 and 1985, and we had known that *for several years*.

- The negation date of 1985 was inaccurate; the May 1986 report—from which this quote was extracted—clearly indicated that chemical weapons were moved to Khamisiyah in June 1984.

On the Khamisiyah issue, in short, this paper not only perpetuated the erroneous connection with An Nasiriyah, but it also generated some additional inaccuracies. [22]

During the UNSCOM 9 (CW 2) inspection from 15 to 22 August 1991, Iraq stated that Coalition troops still occupied Khamisiyah on 18 April 1991—the date of Iraq's first declaration—and that Iraq was unable to account for the chemical weapons stored there until after Coalition forces departed. This information was first obtained by the US Government in September 1991 but was not widely available until June 1992. [23]

The US Government continued to confuse Khamisiyah with Nasiriyah until after October 1991, when UNSCOM 20 inspected Khamisiyah and

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Figure 5. *Demolition of bunkers at Khamisiyah, 4 March 1991.*

documented the location and disposition of chemical weapons at the site.[13] [*24*] Continuing to bolster the erroneous connection between An Nasiriyah and Khamisiyah, a DIA analyst using an IC presentation briefed the UNSCOM 20 team on An Nasiriyah before the inspection, believing this to be the site Iraq called Khamisiyah. The Arms Control Intelligence Staff (ACIS)[14] later determined—on the basis of a description of the facility and better locational information obtained through Global Positioning Satellite (GPS) receivers—that Khamisiyah was actually the facility known to the United States as Tall al Lahm. [*25, 26*]

The Iraqis claimed that Coalition forces had destroyed buildings and munitions at Khamisiyah. At the time, many analysts believed that the chemical weapons found at Khamisiyah might have been placed there after the ground war as part of the Iraqi effort to conceal aspects of its weapons-of-mass-destruction programs. In hindsight, the April 1991 intercept of similar information mentioned earlier should have added credibility to the Iraqi claim and should have led the US Government to conclude much sooner that Khamisiyah was a potential CW release site. The IC requested DIA review available imagery of the facility for preinspection activity that would suggest that the Iraqis staged the inspection. However, no images immediately prior to the inspection were available. That review covered only a short period prior to the inspection and did not extend to a review of intelligence that included the 18 August 1990 information described earlier.

On 12 November 1991, DoD disseminated a report drafted by ACIS, which included Iraq's claims about Coalition destruction of chemical munitions and offered some supporting evidence:

> THE IRAQIS CLAIMED THE BUILDINGS AND MUNITIONS WERE DESTROYED BY OCCUPYING COALITION FORCES. IN

[13] Additional information about Khamisiyah was obtained by two UNSCOM inspection teams later in 1991, but this information was not passed to the United States until after information from the UNSCOM 20 inspection. During the UNSCOM 11 (August 1991) inspection, the correct coordinates of Khamisiyah were acquired by UNSCOM from the Iraqis. UNSCOM 17 became the first inspection team at Khamisiyah when it very briefly visited the site on 25 October 1991.

[14] ACIS is an interagency organization that, at the time, was the IC focal point supporting US Government efforts vis-à-vis Iraq.

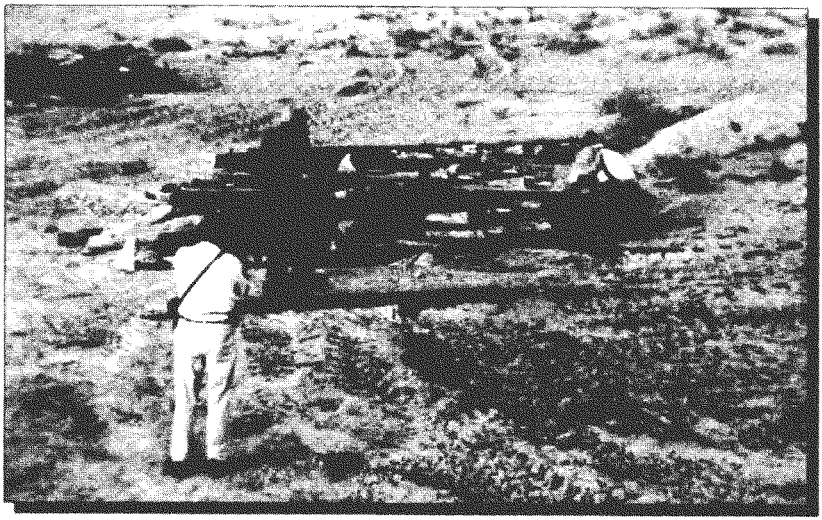

Figure 6. United Nations inspection, October 1991.

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> THE TEAM'S ESTIMATION, THE DESTRUCTION OCCURRED AS A RESULT OF LOCALLY-PLACED EXPLOSIVES AS OPPOSED TO BOMBING. [27]

The report was widely disseminated, including to DoD. The same day, additional information suggesting that US forces conducted demolition activities in the areas inspected by UNSCOM 20 appeared in an internal ACIS administrative cable, which was not distributed outside CIA:

> THE INSPECTORS ALSO NOTED THAT THE BUILDINGS [at Khamisiyah] WERE DESTROYED BY DEMOLITIONS AS OPPOSED TO AERIAL BOMBARDMENT. THEY ALSO FOUND AN EMPTY U.S. CRATE LABELED AS M48, WHICH ARE SHAPE CHARGES USED BY THE U.S. MILITARY. [We] NOTIFIED ARMY CENTRAL COMMAND (ARCENT) [G-2 Forward in Dhahran] OF THE LOCATION AND EVIDENCE FOUND AT TALL AL LAHM. WE RECEIVED INFORMATION FROM ARCENT TO THE FACT THAT 24TH MECHANIZED INFANTRY DIVISION WAS LOCATED IN THE VICINITY OF TALL AL LAHM, BUT WE ARE UNABLE TO CONFIRM IF U.S. TROOPS DID IN FACT DESTROY BUILDINGS AT THIS PARTICULAR SITE. WE ARE SENDING THIS INFORMATION TO YOU IN ORDER TO TAKE APPROPRIATE ACTION AS YOU SEE FIT AS THE RISK OF CHEMICAL CONTAMINATION BY 24TH ID PERSONNEL IS A POSSIBILITY. [28]

Internal documents show that ACIS contacted an individual in the office of the G-2, 24th Mechanized Infantry Division, on 20 November 1991. [29, 30]

357522PM6 4 97

Figure 7. *Remnants of Bunker 73 at Khamisiyah, February/March 1992.*

Subsequent information identified by DoD's Office of the Special Assistant for Gulf War Illnesses indicates that G-2 asked G-3 whether the 24th found chemical weapons, or was at Khamisiyah. ACIS did not pursue this issue with JCS, DIA, or OSD at that time. We have seen no evidence yet that ARCENT included the findings in reports to higher authorities.

The UNSCOM 29 inspection in February and March 1992 involved the destruction of hundreds of chemical munitions at Khamisiyah. During the inspection, the Iraqis repeated their claim that Coalition forces destroyed chemical munitions in 1991. [*31*] After leaving Iraq, one of the UNSCOM team members informally requested additional background information before further destruction activities at Khamisiyah. This involved details pertaining to Coalition force activities at Khamisiyah: who was there, when they were there, and what actions were taken. [*32*] UNSCOM never made a formal request for this information and never followed up on the informal request, perhaps because UNSCOM decided no further destruction activity at Khamisiyah was necessary.

In February 1996, CIA began a search for documents relating to the Khamisiyah facility as a possible chemical agent release site in 1991. Early in that search, an undated working paper was found in an Iraqi chemical weapons inspections file in the Nonproliferation Center (NPC).[15] Further queries indicated that an NPC officer drafted the working paper in May 1992, intending it to be included with a formal action requirement to DoD after determining that no action had been taken on the earlier informal request. [*33*] In the paper he suggests the possibility that US forces unwittingly destroyed CW munitions at Khamisiyah. He does not recall taking any further action on the draft, and he did not maintain a copy in his personal files. [*34*] CIA cannot find any record of it being attached to a tasking, distributed within NPC or CIA, or sent to the IC or DoD. It is possible that no further action was taken because the issue of the presence of Coalition forces at Khamisiyah had already been raised with DoD in November 1991. In addition, as stated earlier, UNSCOM had decided that no further destruction at Khamisiyah was necessary, and the IC continued to focus on the large portions of Iraq's CW program that Baghdad had hidden.

Gulf War Illnesses Concerns: 1993-Present

From 1993 through mid-1995, CIA efforts focused on providing intelligence support to DoD investigations, since most of DoD's efforts involved operational issues.

During a Senate Banking Committee hearing on 25 May 1994, Senator Don Riegle focused on the issue of potential CW agent fallout from bombed Iraqi facilities, including the "An Nasiriyah" depot. The Director of NPC addressed the issue of chemical weapons in the KTO:

> The coalition forces did not find any CW agents stored in the Kuwaiti theater of operations, with the exception of some the UN found near An Nasiriyah.

This reference to An Nasiriyah, and others made by DoD officials at the hearing, demonstrate that there was still some confusion at the time about where chemical weapons were found in the KTO. [*35*]

In August 1994, DIA responded to a series of questions related to Gulf war illnesses that were posed by the Senate Banking Committee. Distrust of Iraq and continuing confusion surrounding Khamisiyah are reflected in DIA's response on the issue of chemical weapons in the KTO:

> Finally, it has been widely circulated that UN inspection teams found thousands of destroyed and intact chemical rounds in an ammunition depot at Nasiriyah, and that this discovery contradicts our statement in paragraph one of this answer. Nasiriyah technically is outside the KTO, being north of 31°00 N and the Euphrates River. More importantly, it was not in the territory occupied by Coalition forces after the war. Moreover, the following points are relevant because UN inspectors did not really "find" the subject munitions. In reality, the Iraqis declared the munitions to the UN and the inspectors eventually went to that location to check what the Iraqis had reported:
>
> 1) The UN inspection occurred at least eight months after the war;
>
> 2) The location of the "found" chemical rounds was 15 miles from the widely discussed CBW bunkers bombed at Nasiriyah (the site which was originally expected to be inspected). The bombed bunkers were not inspected until one year later in Oct 1992 and found to contain no chemical or biological weapons . . . [*36*]

Because of the increased focus on Gulf war illness issues by both the public and Congress, as well as concerns raised by two CIA analysts, Acting Director of Central Intelligence Studeman authorized a

[15] In December 1991, NPC took over the former ACIS role of IC focal point supporting US Government efforts vis-a-vis Iraq.

comprehensive review of intelligence by CIA on the issues related to the Gulf war in March 1995. Throughout the summer of 1995, CIA conducted a study to evaluate the possibility that US forces could have been exposed to fallout from US bombing of Iraqi CW production and storage facilities. As part of this study, a CIA analyst constructed a comprehensive summary of Iraqi CW-related facilities, focusing on the status and disposition of CW agents at these sites. Separately, an NPC officer reviewed UNSCOM information. The Khamisiyah facility emerged as a key site that needed to be investigated because of its proximity to Coalition forces and the ambiguities surrounding the disposition of chemical weapons at the site. [*37*] CIA informed DoD's Persian Gulf Investigative Team (PGIT)[16] in September 1995 of Khamisiyah's importance and requested additional information about US troop activities there to which PGIT responded in October. [*38, 39*]

CIA's research of Khamisiyah intensified in 1996 as evidence of unwitting US involvement in CW-related destruction activities began to be recognized. On 26 January 1996, as part of a preliminary briefing to National Security Council staff on CIA's declassification initiative and ongoing study about potential exposure to chemical, biological, and radiological agents during the Gulf war, CIA mentioned the possibility of CW storage and agent release at the Khamisiyah facility. [*40*] NSC Staff indicated that this needed to be pursued aggressively together with DoD. Between 8 February and 7 March 1996, analysts conducted an intensive search of historical files, imagery, and other records, uncovering more evidence linking US troops to destruction of chemical weapons at Bunker 73 at Khamisiyah. A retrospective search of imagery, for example, revealed that a row of bunkers at Khamisiyah had been destroyed between 1 and 8 March 1991—after the cease-fire. Analysts also uncovered cables indicating UNSCOM inspectors had found evidence of US demolition charges at Khamisiyah. [*28*] On 5 March 1996, CIA informed a Presidential Advisory Committee (PAC) staffer that a probable release of chemical agent occurred at Khamisiyah in conjunction with US troops. On 10 March 1996, a CIA analyst heard a tape recording of a radio show in which a veteran of the 37th Engineering Battalion described demolition activities at a facility the analyst immediately recognized as Khamisiyah. PGIT was informed on 11 March, and the PAC was notified the same week.

CIA and DoD personnel met with UNSCOM officials on 19 March 1996 to begin a dialogue regarding Gulf war illnesses issues. At this meeting, UNSCOM indicated that it planned to revisit Khamisiyah to resolve newly raised munitions accounting issues. As a result of this dialogue, UNSCOM agreed to make public appropriate relevant information. At the 1 May 1996 PAC meeting, CIA publicly announced that the 37th Engineering Battalion had destroyed munitions at Khamisiyah in March 1991 and that CIA was "working with the DoD Investigative Team to resolve whether sarin-filled rockets were destroyed at Bunker 73 and whether some US personnel could have been exposed to chemical agent."

During UNSCOM's inspection of Khamisiyah on 14 May 1996, it was determined that some of the destroyed rockets in Bunker 73 were chemical weapons. This was based on the presence of high-density polyethylene inserts, burster tubes, fill plugs, and other features characteristic of chemical warheads for Iraqi 122-mm rockets. In addition, Iraq claimed for the first time that Coalition troops also destroyed the rockets in the nearby pit area at Khamisiyah. [*41*] In light of this information, CIA and DoD determined that US forces destroyed chemical weapons in Bunker 73 on 4 March 1991 along with more than 30 bunkers containing conventional weapons. DoD publicly announced these conclusions on 21 June 1996. CIA efforts since then have focused on modeling the effects of agent releases at the bunker and on investigating the pit area demolition.

By August 1996, CIA had completed its study of potential exposure caused by US bombing of Iraqi chemical facilities and by the demolition of Bunker 73 at Khamisiyah. The results were made available to the public. Several critical data points necessary for a more accurate estimate of the potential chemical hazard resulting from demolitions in the pit, however, were not available. The details surrounding

[16] Established in June 1995.

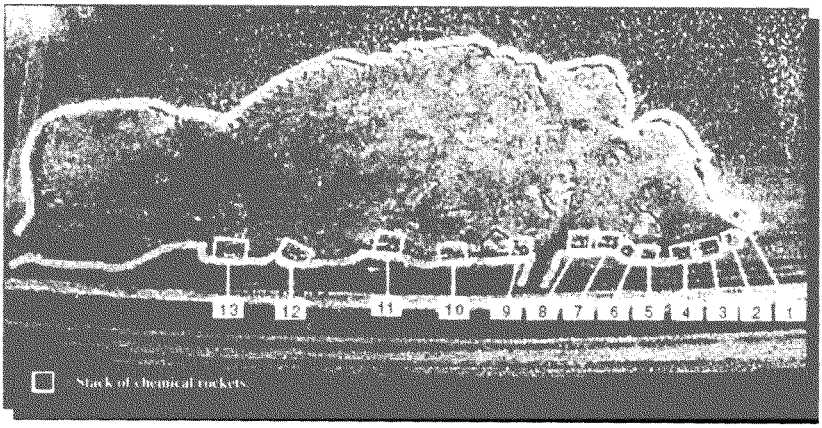

Figure 8. Predemolition photo of pit area near Khamisiyah.

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destruction of chemical weapons in the pit area are less certain than events at Bunker 73. Recent analysis of the evidence suggests that two destruction events at the pit—the first on 10 March 1991 and the second on 12 March—are more likely than a single event.

Ongoing investigations related to Gulf war illnesses have shed light on the sequence of events at Khamisiyah. DoD—including DIA and the Defense Humint Service (DHS)—and CIA have recently acquired several pieces of information. UNSCOM has made available selected videotapes, photographs, and sample analysis taken from destroyed munitions from the UNSCOM 20 inspection in 1991. In addition, we have spoken with two of the soldiers who performed demolition activity in the pit area. These data strongly suggest that munitions in the pit were destroyed by US troops and provide evidence that demolition might have occurred on two separate occasions.[17]

[17] DIA searched for tactical imagery of Khamisiyah taken after the demolition but found none; this imagery was not systematically archived. The Army IG acquired a ground photograph that, upon analysis, appears to have been taken in the pit after demolition. This is only the third known photo of Khamisiyah taken immediately after the demolition. It has already been released publicly and, in fact, has been used on flyers written by CIA and DoD to provide and seek more information on Khamisiyah.

Efforts To Help Address Gulf War Illnesses Issues

Several IC task forces have been created since the initial DoD emphasis in 1994 on identifying intelligence information that may be related to Gulf war illnesses. DIA formed a search and declassification effort in March 1995, followed in October 1995 by CIA's Persian Gulf War Illnesses Task Force. These groups were tasked with identifying, declassifying, and publicly releasing intelligence information that might shed light on potential causes of Gulf war illnesses. In October 1996, DIA formed a Persian Gulf Focus Group to support Gulf war illness–related efforts in other DoD offices and CIA. Most recently, on 27 February 1997, Acting DCI George Tenet created an IC task force on Persian Gulf war illnesses in parallel with President Clinton's 60-day directive to the Presidential Advisory Committee. One of the purposes of this task force, which began its work on 3 March, is to ensure all documentation relevant to Khamisiyah and Gulf war illnesses is made available promptly to the many governmentwide offices now involved in the issues.

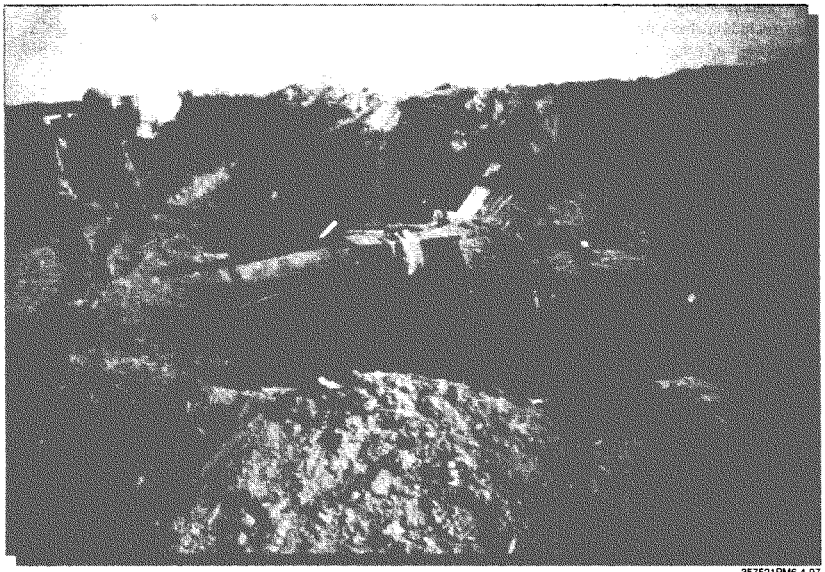

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Figure 9. Chemical rockets destroyed in pit area, March 1991.

Some Lessons Learned

Even though CENTCOM listed the Khamisiyah facility as a potential CW storage site before the ground war, and additional concerns about the facility were transmitted in February 1991, this historical perspective highlights several areas that need attention:

- *Intelligence agencies must reconcile information in databases to eliminate confusion about facilities.* For example, different agencies' information on munition storage sites needs to be analyzed to generate a common list. This would minimize the type of confusion and misconnections made on the Khamisiyah issue and may have prompted an earlier review of older intelligence for evidence of possible CW storage or transfer activities.
- *Intelligence components handling sensitive information must review their procedures for deciding how to share vital information with others who have a need to know.* For example, intelligence analysts in Washington were not told that the original source of the 23 February 1991 report was someone in the Iranian Air Force or Air Force–related industry. [*50*] This cable and others related to subsequent UN inspections were not shared with DIA.
- *Intelligence analysts must remain increasingly careful to avoid "tunnel vision" in crafting their judgments.* The culture during the late 1980s stressed making definitive judgments and eschewed alternative outcomes or analysis. The IC in recent years has

made important strides in addressing these problems, including changing its culture and instituting analyst training programs to stress inclusion of alternative scenarios and conclusions.

- *Finally, as intelligence agencies support defense and policy efforts on specific issues, they must ensure that searches are more thorough in order to provide the fullest possible answers.* For example, a search of CW files dating back to Iraqi use of CW in the Iran-Iraq war would have revealed the 1986 Khamisiyah-Tall al Lahm connection and its association with chemical weapons, and at a minimum should have placed the facility on the IC's list of suspected CW sites for targeting and warning. It might also have prompted a more thorough search for other information.

The DCI Persian Gulf War Illnesses Task Force will be providing a paper on the lessons learned through its studies. That paper will include recommendations to address concerns discovered in this study, as well as any others discovered by the Task Force in the course of its work. In this regard, the Task Force's intent is not only to assist US Government efforts on Gulf war illnesses issues, but also to help the IC enhance its efforts for the future.

Chronology

Information & Events	Actions
Sep 76: First intelligence revealing depot	
	Jun 77: Depot named "Tall al Lahm" in imagery database
Sep 80: Iran-Iraq war begins	
Apr 82: First mention of "Khamisiyah" depot in reporting	
Aug 83: Iraq begins using chemical weapons against Iran	
Jul 84: Decon vehicle present at Khamisiyah; not found until March 1997	
May 86: Sensitive human-source report indicates chemical weapons moved to Khamisiyah between Jun 84 and Mar 85; report received limited distribution	
	Nov 86: CIA/DI intelligence assessment concludes that chemical weapons stored at "Tall al Lahm," but highlights S-shaped bunkers as future CW deployment sites
2 Aug 90: Iraq invades Kuwait	
18 Aug 90: Possible chemical weapons transfer activity underway at Khamisiyah, but not identified as such until early 1996	Reported as munitions transloading activity
17 Jan 91: Desert Storm air campaign begins	
23 Feb 91: CIA reporting cable sent to Headquarters and Desert Storm support element states chemical weapons stored at 3047N/04622E (now known to be Khamisiyah)	Report passed to CENTCOM in Riyadh; CENTCOM issues several collection taskings that week, but relationship unclear
24 Feb 91: Ground war begins	
28 Feb 91: Cease-fire declared	DIA notifies CENTCOM that possible BW- or CW-related bunker identified at Tall al Lahm
4, 10, 12 March 91: US troops destroy chemical weapons at Khamisiyah	

Chronology (continued)

Information & Events	Actions
	6 Mar 91: CIA analysts warn CENTCOM of risks from unmarked Iraqi chemical munitions; Khamisiyah not on CIA list of facilities of interest
8 Mar 91: CENTCOM reports that no chemical munitions found in KTO and restates its view that Iraqi chemical munitions bear characteristic markings	
Apr 91: Intercepted Iraqi reports claim US forces destroyed Khamisiyah on 1-2 April	
16 May 91: Iraqi declaration provides first indication that damaged chemical weapons located at "Khamisiyah storage facility"	Declared facility assessed to be An Nasiriyah
15-22 Aug 91: Iraq tells UNSCOM 9 (CW 2) team that Khamisiyah and chemical weapons there were under Coalition control until after 18 Apr 91	
Oct 91: UNSCOM 20 inspects Khamisiyah; originally expected site to be Nasiriyah	**Nov 91**: Khamisiyah correctly identified as facility commonly known to the US as Tall al Lahm
12 Nov 91: CIA administrative cable notes evidence of US demolition charges found at Khamisiyah	CIA notifies ARCENT; later contacts 24th Mech.
Feb-Mar 92: UNSCOM 29 destroys chemical weapons at Khamisiyah; UNSCOM informally requests information on Coalition activities at site	Memo seeking DoD answers to UNSCOM request drafted by NPC officer but apparently not sent; no formal UNSCOM request
25 May 94: CIA testimony to Senate Banking Committee shows CIA aware that "Nasiriyah" depot in KTO, but uncertain if US troops occupied site	
Mar 95: ADCI Studeman authorizes CIA review of relevant intelligence	
	Summer 95: CIA conducts study of potential exposure from bombed Iraqi CW facilities; concludes Khamisiyah key to exposure issue; requests information on US troop activities there
	26 Jan 96: CIA briefs Khamisiyah evidence to NSC
	8 Feb-7 Mar 96: Intensive CIA search of historical files uncovers more evidence linking US troops to destruction of chemical weapons at Khamisiyah

Chronology (continued)

Information & Events	Actions
10 Mar 96: CIA analyst hears taped radio broadcast that provides missing link connecting US troops to Khamisiyah demolition	DIA, PGIT, PAC quickly notified of this discovery
19 Mar 96: UNSCOM plans to revisit Khamisiyah based on concerns of Iraqi munitions accounting	
	1 May 96: At PAC hearing, CIA publicly announces evidence US troops unknowingly destroyed chemical weapons at Khamisiyah
14 May 96: UNSCOM inspects Khamisiyah, verifies that Bunker 73 contained chemical rockets; Iraq claims for first time that US forces destroyed chemical weapons in pit area as well	
	Aug 96: CIA publishes unclassified study of potential exposure caused by US bombing of various Iraqi chemical facilities and by demolition at Khamisiyah Bunker 73
	Oct 96: DIA forms Persian Gulf Focus Group; acquires additional evidence about pit area demolition
	27 Feb 97: ADCI Tenet creates IC task force on Gulf war illnesses

References

1 First identification of Tall al Lahm, 1976

2 First indication of Khamisiyah depot, April 1982

3 Reported coordinates of Khamisiyah, August 1982

4 Report indicating chemical weapons at Khamisiyah, May 1986

5 Iran-Iraq: Chemical Warfare Continues, November 1986

6 Reported Iraqi CW storage locations, August 1988

7 DIA assessment of Iraqi CW storage possibilities

8 Military intelligence information request, 28 February 1991

9 CIA cable on suspected chemical storage area, 23 February 1991

10 CENTCOM informed of 23 February 1991 CIA cable, 24 February 1991

11 CIA Desert Storm CBW activity report, 25 February 1991

12 CIA response to 23 February 1991 cable, 26 February 1991

13 ARCENT collection emphasis, 25 February 1991

14 XVIII Corps log entry, 26 February 1991

15 DIA suspect BW/CW facilities cable, 28 February 1991

16 ARCENT response to 28 February 1991 military intelligence information request, 1 Apr 91

17 Cable relaying CENTCOM information on CW, 8 March 1991

18 CIA relays concerns about unmarked chemical munitions, 6 March 1991

19 Report describing US demolition of Khamisiyah, 3 April 1991

20 Report describing US destruction of Khamisiyah, 21 April 1991

21 Iraqi declaration, 16 May 1991

22 Iraq's Noncompliance With UN Security Council Resolution 687, August 1991

23 Answers to questions posed by UNSCOM 9 on chemical agents and synthetic processes

24 Site descriptions from UNSCOM 20 inspection report, 13 November 1991

25 Memorandum of phone call, 15 November 1991

26 ACIS on facility identification and tasking, 15 November 1991

27 UNSCOM 20 inspection results of Kamisiyah ammunition storage facility, 12 November 1991

28 Situation report on Tall al Lahm ammunition storage depot, 12 November 1991

29 Record of phone call, 20 November 1991

30 Cable version of record of phone call, 20 November 1991

31 Chemical rocket destruction in Khamisiyah, 1992

32 UNSCOM member questions about Coalition activity, 1 April 1992

33 Working paper mentioning possible CW exposure, 1992

34 Internal memorandum on Persian Gulf war veterans' illnesses, 30 May 1995

35 Hearing before the Committee on Banking, Housing, and Urban Affairs; United States Senate; 103rd Congress; 2nd Session, 25 May 1994

36 DIA response to Riegle Committee questions, August 1994

37 Internal memorandum describing uncertainties about Tall al Lahm, 6 September 1995

38 Internal memorandum requesting information to support study of potential exposure issues, 13 September 1995

39 Unit location listing provided by PGIT

40 CIA briefing to NSC on study of potential exposures, 26 January 1996

41 Iraqi Fallujah, Khamisiyah, and An-Nasiriyah chemical warfare related sites, 1996

Subject: SUBJ: FIRST IDENTIFICATION OF TALL AT LAHM, 1976
Not Finally Evaluated Intelligence

TO FACILITATE ELECTRONIC ACCESS, THIS DOCUMENT HAS BEEN REFORMATTED TO ELIMINATE INFORMATION THAT DOES NOT PERTAIN TO GULF WAR ILLNESS ISSUES OR THAT IS CLASSIFIED. A COPY OF THIS REDACTED DOCUMENT, IN ORIGINAL FORMAT, IS AVAILABLE ON REQUEST.

NEW WORKSHEET

DATA ENTRY

0445-30

SUGGESTED SERIES NUMBER VALIDATED

NO	BE	NAME OF TARGET (38 SPACES)	COUN
$$$0445-30	$DA0006	TALL AL LAHM AMMO DEPOT	12

DATE
7609

GDES: 2.4 nm EAST OF TALL AL LAHM AND 6.5 NM SOUTH OF SUG ASH SNUYK THE AMMO DEPOT CONSISTS OF AMMO STORAGE BUNKERS UNDER CONSTRUCTION, CONSTRUCTION SUPPORT BUILDINGS, VEHICLE SHEDS, AND NUMEROUS PIECES OF SUPPORT EQUIPMENT AROUND THE AREA.

1.5(c)
95627:95627

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28 APR 82

AMMUNITION DISPERSEMENTS TO IRAQI EASTERN DEPOTS AND DUMPS

AL KHAMISHIYAH ((UNLOCATED)): AMMUNITION DEPOT

AN NASIRIYAH ((3102N 04616E)): AMMUNITION DEPOT

2,000 SHELLS FROM AL SA'D AMMUNITION DEPOT TO AL KHAMISIYAH AMMUNITION DEPOT

1,000 130MM FULL CHARGE SHELLS FROM KHAMISIYAH AMMUNITION DUMP

16 AUG 82

IRAQI AMMUNITION DISBURSEMENTS TO EASTERN AREAS

((AN NASIRIYAH 3102N 04616E))

AL KHAMISIYAH ((3046N 04629E)): AMMUNITION DEPOT

AN NASIRIYAH ((3102N 04616E)): AMMUNITION DEPOT

1000 SHELLS TO AN NASIRIYAH AMMUNITION DEPOT

130 MM FULL CHARGE AMMUNITION FROM AMMUNITION DEPOT TO THE GROUPS BELOW AS FOLLOWS:
200 SHELLS TO AL KHAMISIYAH AMMUNITION DEPOT,
100 SHELLS TO AN NASIRIYAH AMMUNITION DEPOT,

Subject: SUBJ: REPORT MENTIONING CHEMICAL WEAPONS AT KHAMISYAH, MAY 1986
Not Finally Evaluated Intelligence

TO FACILITATE ELECTRONIC ACCESS, THIS DOCUMENT HAS BEEN REFORMATTED TO ELIMINATE INFORMATION THAT DOES NOT PERTAIN TO GULF WAR ILLNESS ISSUES OR THAT IS CLASSIFIED. A COPY OF THIS REDACTED DOCUMENT, IN ORIGINAL FORMAT, IS AVAILABLE ON REQUEST.

SUBJECT:

THE FOLLOWING EXCERPT IS FROM THE LAST PAGES OF A LENGTHY OFFICIAL IRAQI DOCUMENT REGARDING ITS CHEMICAL WEAPONS' PRODUCTION PLANTS. IT WAS WRITTEN IN LATE 1985 AND OBTAINED BY THE CIA IN MAY 1986

ARTILLERY GRENADES

A. 3,975 155MM MUSTARD LOADED ARTILLERY GRENADES HAVE BEEN ISSUED (FROM JUNE 1984 TO MARCH 1985) TO AL-KHAMISIYAH WAREHOUSES. WE DO NOT HAVE OFFICIAL DATA ABOUT USING THIS QUANTITY BY THE THIRD ARMY CORPS. THE

WAREHOUSES CURRENTLY HAVE 6,293 150MM MUSTARD BOMBS, ENOUGH TO MEET FRONT DEMANDS FOR FOUR DAYS ON A 15-MINUTE MISSION. THIS IS BASED ON 155MM AUSTRIAN ARTILLERY BATTALIONS (FIVE BATTALIONS) ASSIGNED TO CHEMICAL WEAPONS. SUPPOSING THAT ALL THESE BATTALIONS ARE ASSIGNED TO A CORPS SECTOR, THEY CAN FIRE 1,620 BOMBS IN 15 MINUTES, THE TIME REQUIRED TO FIRE CHEMICAL WEAPONS.

IF THE NEED TO USE 155MM SARIN BOMBS SHOULD ARISE, 857 BOMBS CAN BE-LOADED WITH END PRODUCT FROM AVAILABLE SUPPLIES (3,000 LITERS) IN THREE DAYS IN THREE SHIFTS A DAY (EIGHT HOURS A SHIFT). IN ADDITION, 12,571 155MM SARIN BOMBS CAN BE LOADED IN THE NEXT FIVE MONTHS (USING 44,000 LITERS OF SARIN TO BE PRODUCED DURING THESE MONTHS) OR AN AVERAGE OF 2,514 BOMBS A MONTH. THIS QUANTITY IS WITHIN THE CAPABILITY OF THE FIVE ARTILLERY BATTALIONS AND WITHIN THE LOADING TIME.

1.5(c)
95629:95629

Subject: SUBJ: IRAN-IRAQ: CHEMICAL WARFARE CONTINUES, NOVEMBER 1986
Not Finally Evaluated Intelligence

TO FACILITATE ELECTRONIC ACCESS, THIS DOCUMENT HAS BEEN REFORMATTED TO ELIMINATE INFORMATION THAT DOES NOT PERTAIN TO GULF WAR ILLNESS ISSUES OR THAT IS CLASSIFIED. A COPY OF THIS REDACTED DOCUMENT, IN ORIGINAL FORMAT, IS AVAILABLE ON REQUEST.

IRAN-IRAQ: CHEMICAL
WARFARE CONTINUES

AN INTELLIGENCE ASSESSMENT

NOVEMBER 1986

Iran-Iraq: Chemical Warfare CONTINUES

Key Judgments
Information available
as of October 1986
was used in this report.

Reliable reporting indicates that Iraq has used lethal chemical weapons (CW) against Iran numerous times since its first use of the blister agent mustard in August 1983. More recently, Iraq used CW, including nerve agents, throughout the February-March 1986 Iranian offensives, causing Iran to suffer about 8,000 CW-related casualties. Although CW use in these offensives has been heavier than in previous years, it has had a less definitive effect on the course of battle. This decrease in effectiveness has resulted from:
- Poor tactical employment.
- Lessened element of surprise.
- Increased Iranian preparedness.
- Possible problems with munitions, agents, and delivery techniques.

Iraq has not yet mastered the tactical use of chemical weapons, and we believe its proficiency in using these weapons will improve only marginally with increased experience. Despite the heavy usage, these chemical weapons have neither stopped the Iranian advance nor ensured a successful Iraqi counterattack. We doubt that their use will be a major factor in deciding the outcome of the war.

Iraq now possesses one of the largest chemical weapons inventories in the Middle East and has the production capacity in place to increase its stockpile significantly over the next few years. These capabilities provide Iraq a substantial potential to supply others with chemical warfare agents and technology. We believe, however, that the current regime in Iraq is unlikely to become a supplier, but the potential to do so remains.

Because the political costs of continued CW use have been so small, we doubt that Iraq will abandon its use of chemical weapons in the foreseeable future. Furthermore, Iraq probably has now made sufficient progress in its chemical weapons program to render it relatively immune to the foreign trade restrictions. US and Western nations' efforts to embargo Western precursor chemicals have not, and probably will not, curtail Iraq's CW

progress.

Iran-Iraq: Chemical
Warfare Continues

The Forecast: Continuation of the Same

We believe Iraq will continue to wage chemical warfare as it has in the past because Baghdad recognizes that chemical weapons (CW) can create significant numbers of casualties. The Iraqi use of these weapons is unlikely to be a MAJOR FACTOR IN THE outcome of the war, however.

NONETHELESS, WE EXPECT
Iraq to use INCREASINGLY Greater amounts of agent per attack in an effort to keep Iranian losses high. Iraq's continually growing agent production capacity, particularly of nerve agents, will support such a strategy. Furthermore, Baghdad's increasing experience with chemical weapons use should marginally improve its tactical employment of chemical weapons.

Iraq intends to continue and,
in fact, to expand its CW agent production capability
The Iraqis are becoming more sophisticated AND SELF-RELIANT in their CW agent research and production efforts. Iraq probably has now made sufficient progress in its chemical weapons program to render it relatively immune to foreign trade restrictions. US and Western nations' efforts to embargo Western precursor chemicals probably slowed the Iraqi chemical warfare program somewhat and imposed greater costs, but these efforts have not, and probably will not, curtail its progress. Most production equipment is in place, Iraq Is using numerous front companies and friendly states to circumvent tHe Western embargoes on precursor chemicals. Moreover, even if the Western embargoes were effective and IraQ's ability to procure supplies in Western EUROPE WERE ENDED, we believe Iracl would turn to
FOR SUPPLIES of
all required chemicals

Of significant concern to us are Iraq's long-range intentions regarding its agent production capacity. The production units on line or undergoing installation provide Iraq a substantial potential to supply chemical warfare agents and technology; however, we judge it unlikely under the current regime in Iraq. The increasing number of nations in the Middle East and elsewhere that possess CW capabilities suggests that chemical weapons may once again be integrated into conventional weapons arsenals and that their use may become viewed as politically acceptable.

Conventional Use of Chemical Warfare

Iraq's Learning Curve

Iraq has used lethal chemical weapons--primarily in response to Iranian offensive actions--since August 1983. (Iraq had also used tear gas several times during 1982.) In August 1983 Baghdad used a limited amount of mustard against Iranians in northern Iraq extensive use of mustard in November of that year caused several hundred Iranian casualties and was instrumental in stopping an Iranian attack. Iraq subsequently employed mustard and the nerve agent tabun during the early 1984 Iranian offensive and again during the March 1985 offensive. The 17 March 1984 use of tabun was the first use anywhere of nerve agents in a conventional battle. Both mustard and tabun were used by Iraq in the Val Fair 8 and 9 offensives, which began in February 1986 (see inset)

Iraq's use of chemical warfare has reflected its overall defensive strategy. It has employed chemical agents during Iranian offensives and in support of Iraqi counterattacks. Chemical weapons have been used against Iran's frontline troops to disrupt attacks during the initial stages of battle. Subsequent use against frontline and rear-area troop concentrations caused casualties that stressed Iranian evacuation capabilities and generally hindered Iranian support operations.

We have not been able to derive any indicators of impending CW use.

The Iraqis have not always used their chemical weapons with great effectiveness. They have used them when the wind was blowing toward their own units and during daylight hours when the Iranians were more likely to be alert. Moreover, because Iran's major offensive successes usually have occurred during the rainy season, Iraq invariably has had to use its chemical weapons during unfavorable weather conditions.

Relying on aerial bombs as its primary means of delivery has also caused Iraq problems (see inset.) For reasons of personal security, Iraqi pilots often have not dropped enough chemical agent at any one time and place to be militarily effective. In addition, in the past Iraqi President Saddam Husayn personally dictated tactics, thereby inspiring Iraqi pilots to avoid loss of their aircraft by dropping their bombs from high altitudes, particularly over well-defended troop concentrations. In mid-1986, however, Iraqi pilots began to fly lower and take more risks in their normal bombing missions, and this approach may carry over to chemical attacks.

Reliable information indicates that Iraq's tactics mAy call for use of more than one agent at a time. Iranian victims have claimed simultaneous delivery of different sizes aND colors of chemical bombs, presumably with different agent fills. Some Western medical personnel believe tHe symptoms of the victims support simultaneous exposure to two or more different agents. The UN investigating team confirmed that mustard agent (shown by chemical analysis to be 95 percent pure) and tabun were used in the Val Fajr 8 and 9 offensives.

Utility Assessment: A Mixed Result

Despite the success of Iraq's initial use of chemical warfare during battles in 1983 and its gradually increasing familiarity with using chemical weapons, the effectiveness of its chemical attacks has been decreasing. This decrease has resulted from:
- Poor tactical employment.
- The lessened element of surprise.
- Increased Iranian preparedness.
- Possible technical problems with munitions, agents, and delivery techniques that the Iraqis are only now beginning to correct.

For example, despite heavy usage during the Val Fair offensives--we estimate 100 or more metric tons--chemical weapons neither stopped the Iranian advance nor ensured a successful Iraqi counterattack. Nonetheless, the use of chemical weapons has had a major impact on the character of the war.

decontamination, by ambulance, helicopter, aircraft, or other available meanS. A Iranian reports that, while evacuating CW casualties from an attack in March, the Pilots wore protective masks but not protective suits. In this instance none of the evacuation team were alleged to have been affected by the chemical agent, nor was any effort made to Decontaminate the helicopters. This fact indicates a low level of contamination or possibly the use of a nonPersistent agent.

CW Production Capabilities: Developing Apace

Iraq: Independent and Sophisticated

Iraq probably now possesses the largest chemical weapons capability in the Middle East and has the capacity to increase its stockpile significantly over the next few years. This has been accomplishED despite Western diplomatic pressure and economic sanctions against acquisition of requisite materials.

Analysis and modeling of Iraq's production facility lead us to estimate that Iraq is currently producing at least 6 tons per day of the blister agent mustard, between 1 and 2 tons per day of the nerve agent tabun, and limited amounts of the nerve agent saRin. In addition, it is researching production of the nerve agents soman, VG, and VX, AND the psyChochemicals BZ and EA3443.

Iraq's CW production facility is near the town of Samarra, northwest of Baghdad. Over the past year, four new CW agent production facilities were coMpleted at the SamaRrA complex. These facilities probably are for the production of mustard, tabun, and possibly saRin. However, they could also be used for small-scale production of soman, VX, EA3443, or BZ.

We assess that Iraq is developing the capability to produce indigenously key precursor chemicals and equipment from raw materials that are not uniquely associated with CW. This capability would effectively

circumvent any actions--except a total embargo--designed to constrain the Iraqi CW production program.

CW Depots: Growing in Capacity

Iraq has increased its CW munition storage capability substantially over the last six years.
eight new CW storage bunkers were completed adjacent to the Samarra' production facility during 1983. The eight bunkers have a total floorspace of about 4,000 square meters and serve as Iraq's main CW depot. Each bunker could store at least 200

500-kilogram bombs. In addition, a new generation of 16 bunkers will expand Iraq's capability to store CW munitions At six airfields and at three ammunition storage depots that are strategically located throughout the country.

The only bunker completed to date is at Tallil airfield in southern Iraq. Finished in early 1986,

The bunker at Tallil has over 500 square METERS OF FLOOR SPACE and could store about 200 500-kilogram bombs.

We expect that the next Iraqi chemical bunkers to be completed--probably within the next six months--will be two bunkers at AL Kut airfield and one bunker

each at the Ash Shu'aybah and Nasiriyah ammunition depOts. Completion estimates for the remaining seven bunkers are difficult because of the sometimes lengthy periods of inactivity at the sites.

Only within the last year have the bunkers at H-3 appeared to be externally complete and separately secured; the road network to the bunkers is also coMPLETE.

As early as 1982 analysis indicated that storage of chemical munitions probably was limited to one bunker at the Karbala' ammunition depot. Subsequent reporting suggests the presence of an additional one or two bunkers at the Kirkuk and Sulaymaniyah ammunition depots. While we have no confirmation that CW munitions are stored at the southern forward ammunition depot located at Tall al Lahm, we conclude that CW munitions must be stored there because of the heavy use of CW by Iraqi ground troops in the south.

Chemical Agents and Field Employment

In general the amount of agent delivered determines the extent of contamination and the number of casualties. The persistenCy of the specific agent varies depending on the type of munition used and the weather conditions. In all cases, given sublethal doses of an agent, incapacitation will occur to varying deGrees.

Blister Agents

Blister agents are primarily used to cause medical casualties. They may also be used to restrict use of terrain, to slow movements, and to hamper use of material and installations. These agents affect the eyes and tungs and blister the skin. Sulfur mustard and lewisite are TWo examples of blister agents. Most blister agents are inSidious in action; there is little or no pain at the time of exposure except with lewisite, which causes immediate pain on contact.

Mustard is preferred over lewisite because lewisite hydrolyzes very rapidly exposure to atmospheric moisture to FOrm a nonvolatile solid. This conversion lowers the vapor hazard from contaminated terrain and decreases the effectiveness of the agent through clothing. Lewisite is less persistent than mustard; however, persistency of both agents becomes very short under humid conditions.

Blood Agents

Blood agents are absorbed into the body primarily by breathing. They prevent the normal utilization of oxygen by the cells and cause rapid damagE to body tissues. Blood agents such as hydrogen cyanide (AC) and cyanogen chloride are highly volatile and in the gaseous state dissipate rapidly in air. Because of their high volatility, these agents are most effective when surprise can be achieved against troops who do not have masks or are poorly trained in mask discipline. In addition, blood agents are ideally suited for employment on terrain that the user hopes to occupy within a short time. Blood agents rapidly degrade the mask filter's effectiveness. Therefore, these agents could be used in combination with other agents in an attempt to defeat the mask's protective capabilities.

Nerve Agents

Nerve agents such as sarin (GB) and tabun (GA) are members of a class of compounds that are more Lethal and quicker acting than mustard. They are organophosphorus compounds that inhibit action of the enzyme cholinesterase. In suFFIcient concentration, the ultimate effect of these agents is paralysis of the respiratory musculature and subsequeNt death.

Nerve agents are extremely rapid acting aNd may be absorbed through the skin or through the respiratory tract: Exposure to a lethal dose may cause death within as LIttle as 15 minutes. These gases are used when immediate casualties are desired and to create a short-term respiratory hazard on the battlefield.

Bombs: The Preferred Delivery System

According to an Iraqi MIG-23 pilot, bombs are dropped in a random pattern from an altitude of 3,000 to 4,000 meters. Examination of bomb craters showed them to , be 4 meters in diameter and 2 to 3 meters deep, with debris spread over a 20- to 30-meter radius. Mustard droplets were detected at distances of I00 to 200 meters from the craters.

In addition to bombs, Baghdad has chemical artillery shells for its 82-mm and 120-mm mortars and its 130-mm, 152-mm, and I55-mm guns. Furthermore, Iraq probably has the capability to deliver chemicals with 122-Mm rockets. Mustard agent has been delivered by all of these systems, while tabun has been delivered by aerial bombs only.

1.5(c)
95224:95224

Subject: SUBJ: REPORT IRAQI CW STORAGE LOCATIONS, AUGUST 1988
Not Finally Evaluated Intelligence

TO FACILITATE ELECTRONIC ACCESS, THIS DOCUMENT HAS BEEN REFORMATTED TO ELIMINATE INFORMATION THAT DOES NOT PERTAIN TO GULF WAR ILLNESS ISSUES OR THAT IS CLASSIFIED. A COPY OF THIS REDACTED DOCUMENT, IN ORIGINAL FORMAT, IS AVAILABLE ON REQUEST.

Subject: The Following Excerpt is from a Reliable Intelligence Report on the iraqi CW Production and Stockpile Levels. The Information was Obtained and Disseminated by CIA in August 1988.

As of early 1988, Iraqi artillery shells, bombs, and rockets loaded with chemical warfare (CW) materials were stored either at Samarra, or in a large ammunition dump near the town of Muhammadiyat. This facility was located about 12 kilometers outside of Baghdad. Additionally, 122mm rockets temporarily were stored at the air base in Kirkuk for further transport to Sulaymaniyah.

1.5(c)
95626:95626

IRAQ: POTENTIAL FOR CHEMICAL WEAPON USE.

Filename:71726882
PATHFINDER RECORD NUMBER: 26882
GENDATE: 950605
NNNN
TEXT:
ENVELOPE CDSN = LGX140 MCN = 91032/13061 TOR = 910321012
OTTSZYUW RUEKJCS2674 0321010- --RUEALGX.
ZNY
HEADER O 011010Z FEB 91
FM JOINT STAFF WASHINGTON DC
INFO RUEALGX/SAFE
O 010600Z FEB 91
FM DIA WASHINGTON DC//IRAQ REGIONAL ITF//
TO DIACURINTEL
RUDPMAX/FAISA FT BRAGG NC
RUKGNLA/DLA CAMERON STA VA
RUDPTOC/XVIII ABN CORPS INTEL CEN.FT BRAGG NC
RUWJHRA/CDRUSAEPG FT HUACHUCA AZ
AIG 7011
AIG 7046
AIG 7033
RHMPOSP/SEVENTHFLT OSP
RHWZOSP/OSP EASTPAC
RHTMMCC/MMCC BCST
RHFTAAA/39SOW RHEIN MAIN AB GE
RHSEACR/CDR 2D ACR MAIN FWD
XMT CTF SIX ZERO
BT
CONTROLS
SECTION 01 OF 04
PASS: [(b)(2)]

SERIAL: DIM 37-91

BODY SUBJ: IRAQ: POTENTIAL FOR CHEMICAL WEAPON USE.
DOI: 25 JAN 91

KEY JUDGMENTS

1. COALITION ATTACKS ARE STEADILY ELIMINATING IRAQ'S CHEMICAL

WEAPON PRODUCTION AND FILLING CAPABILITIES. BASED ON BOMB DAMAGE
ASSESSMENTS, A 40- TO 50-PERCENT DEGRADATION IN IRAQ'S CHEMICAL PRODUCTION AND FILLING CAPABILITIES HAS BEEN REALIZED TO DATE.
2. IRAQ IS LIKELY TO RETAIN A SIGNIFICANT CHEMICAL WEAPON STOCKPILE FOR SOME TIME, ALTHOUGH 1TS NERVE AGENT STOCKS ARE BEING
REDUCED BY SPOILAGE AND PROBABLY WILL BE MILITARILY INEFFECTIVE AFTER 31 MARCH. IRAQ'S BINARY STOCKS AND BLISTER AGENTS WILL REMAIN
TOXIC FOR A LONGER TIME.
3. THE PRINCIPAL THREAT OF CHEMICAL ATTACK IS FROM ARTILLERY AND MULTIPLE ROCKET LAUNCHER FIRE AGAINST COALITION GROUND FORCES.
THE LIKELIHOOD THAT CHEMICAL MUNITIONS WOULD BE AIR DELIVERED HAS BEEN REDUCED BY ALLIED AIR SUPERIORITY. IRAQ HAS TOO FEW SCUD CHEMICAL WARHEADS TO SUSTAIN THEIR USE.
4. ATTACKS ON IRAQ'S CHEMICAL AGENT PRODUCTION AND WEAPONS FILLING CAPABILITIES SHOULD BE CONTINUED. ELIMINATING FIRE SUPPORT ASSETS AND CHEMICAL STORAGE AREAS AT GROUND FORCE DEPOTS IS THE MOST EFFICIENT MEANS TO PREVENT TACTICAL USE OF CHEMICAL WEAPONS.

BACKGROUND

5. IRAQ HAS A SIGNIFICANT PRODUCTION CAPABILITY FOR BOTH NERVE AND BLISTER AGENT WEAPONS. THE IRAQI CHEM1CAL WEAPON PRODUCTION
FACILITY AT SAMARRA HAS BEEN DAMAGED SERIOUSLY BY COALITION AIRSTRIKES; THE LOSS OF TWO OF THE THREE FILL BUILDINGS AND THE PARTS WAREHOUSES WILL GREATLY REDUCE IRAQ'S POTENTIAL TO REPLENISH
ITS CHEMICAL MUNITIQN STORES. FURTHER STRIKES AGAINST SAMARRA WILL BE REQUIRED TO ELIMINATE THIS CAPABILITY.
6. IRAQ IS NOT ABLE TO MAKE GOOD-QUALITY CHEMICAL AGENTS. TECHNICAL FAILURES HAVE REDUCED THEIR PURITY AND CAUSED PROBLEMS IN
STORAGE AND HANDLING. THIS IS A PARTICULAR PROBLEM FOR THE SARIN-TYPE NERVE AGENTS (GB AND GF). THESE BOTH CONTAIN HYDROFLUORIC ACID
(HF), AN IMPURI1.Y THAT ATTACKS METAL SURFACES AND CATALYZES NERVE AGENT DECOMPOSITION. THIS LEADS TO METAL FAILURE AND LEAKS IN THE

AMMUNITION, INCREASING HANDLING HAZARDS. MUSTARD IS ALSO JUDGED TO
BE OF POOR QUALITY, BUT IT HAS LESS CORROSIVE IMPURITIES. LOWER PURITY SIGNIFICANTLY LIMITS SHELF LIFE AND REDUCES TOXIC EFFECTS WHEN THE MUNITION IS EMPLOYED.
7. IN WEAPONS WITH RELATIVELY SMALL FILL WEIGHTS, THE REDUCED PURITY AND LOSS OF TOXICITY THROUGH DILUTION PROBABLY WOULD NOT HAVE MUCH EFFECT ON THE WEAPON'S AREA OF COVERAGE. IN MUNITIONS
WITH LARGER FILL WEIGHTS (AERIAL BOMBS AND MISSILE WARHEADS), THE WEAPON'S LOSS OF POTENCY COULD REDUCE CONTAMINATED AREAS CONSIDERABLY. ENVIRONMENTAL FACTORS INCLUDING WEATHER AND TERRAIN
ALSO INFLUENCE THE EXTENT AND EFFECTIVENESS OF CONTAMINATION.
8. RECENT PRODUCTION. A CHEMICAL AGENT-WEAPONS PRODUCTION RUN
PROBABLY WAS CONDUCTED AT SAMARRA FROM MID-DECEMBER 1990 THROUGH
MID-JANUARY 1991. PERIODIC PRODUCTION RUNS ARE NEEDED TO REPLENISH
DETERIORATED NERVE AGENT STOCKS. THE IRAQI STOCKPILE'S TOTAL SIZE IS NOT KNOWN, BUT IT HAS BEEN ESTIMATED AT 300 TO 2,000 TONNES. THE
LARGER STOCKPILE SIZE IS BASED ON A LARGE PROPORTION OF MUSTARD IN
THE INVENTORY.
9. THE NERVE AGENT RECENTLY PRODUCED SHOULD HAVE ALREADY BEGUN
TO DETERIORATE, AND DECOMPOSITION SHOULD MAKE MOST OF THE NERVE
AGENT WEAPONS UNSERVICEABLE BY THE END OF MARCH 1991. IRAQ'S BINARY
STOCKS AND BLISTER AGENTS WILL REMAIN TOXIC FOR A LONGER TIME. THE RECENT PRODUCTION RUN AT SAMARRA COULD HAVE RESULTED IN NEW STOCKS
OF BINARY CHEMICAL MUNITIONS.
10. PRODUCTION FACILITIES. THE SAMARRA PRODUCTION COMPLEX, CONTAINED IN AN AREA OF ABOUT 25 SQUARE KILOMETERS, IS THE WORLD'S
LARGEST CHEMICAL AGENT PRODUCTION FACILITY. IT HAS FIVE RESEARCH/PRODUCTION BUILDINGS, SIX PRODUCTION BUILDINGS, FOUR

PRODUCTION BUNKERS, THREE FILLING BUILDINGS, AND NUMEROUS SUPPORT
BUILDINGS. A STORAGE AREA HAS EIGHT CRUCIFORM BUNKERS WHERE CHEMICAL WEAPONS ARE HELD FOR SHIPMENT TO BUNKERS THROUGHOUT IRAQ
OR TO DEPLOYED FORCES. ALLIED BOMBING HAS DESTROYED SEVERAL OF THE
PRODUCTION AND MUNITION-FILLING FACILITIES.
11. SAMARRA IS CAPABLE OF PRODUCING NERVE AND BLISTER AGENTS, BINARY COMPONENT CHEMICALS, AND RIOT CONTROL AGENTS.
12. THREE PLANTS FOR PROBABLE CHEMICAL AGENT PRECURSOR PRODUCTION HAVE BEEN BUILT NEAR THE HABBANIYAH-AL FALLUJAH AREA. SOME OF THE HABBANIYAH PLANTS ALSO MAY BE ABLE TO PRODUCE CHEMICAL
AGENT OR BINARY COMPONENTS.
13. OTHER FACILITIES. OTHER CHEMICAL AGENT PRODUCTION FACILITIES HAVE BEEN REPORTED, BUT THE REPORTS ARE NOT CONSIDERED CREDIBLE. IT IS POSSIBLE IRAQ HAS ESTABLISHED CLANDESTINE PRODUCTION SITES INSIDE LARGE PRODUCTION COMPLEXES, SUCH AS THE AL
QAIM FERTILIZER PLANT, OR AT REMOTE OR EVEN UNDERGROUND LOCATIONS.
THESE POSSIBILITIES ARE CONSIDERED UNLIKELY. HIDING A CHEMICAL AGENT PLANT IN A LARGE COMPLEX RISKS ITS DISCOVERY BY VISITORS. THERE IS ALSO A RISK OF ACCIDENTALLY EXPOSING FACTORY WORKERS TO CHEMICAL AGENTS. CLANDESTINE LOCATIONS WOULD BE DIFFICULT TO ESTABLISH AND OPERATE WITHOUT DISCOVERY BECAUSE OF THE ACTIVITY EVEN MINIMAL MAINTENANCE WOULD REQUIRE. ADDITIONALLY' THE IRAQIS DEPEND ON FOREIGN ASSISTANCE FOR THEIR TECHNICAL OPERATIONS, AND
IT IS LIKELY THAT SUCH ASSISTANCE WOULD ADD TO THE RISK OF DISCLOSORE.
14. CHEMICAL STOCKPILE. DIA ESTIMATES THAT MOST OF THE IRAQI CHEMICAL STOCKPILE IS IN MUNITIONS, WITH A MODEST AMOUNT OF CHEMICAL AGENTS STORED IN BULK. DIA ASSESSES THAT MOST OF IRAQ'S CHEMICAL WEAPONS ARE UNITARY; THEY HAVE BEEN FILLED WITH A FINISHED CHEMICAL AGENT. BINARY WEAPONS ARE BEING INTRODUCED, BUT
THEY ARE BELIEVED TO BE A SMALL PART OF THE CURRENT STOCKPILE. THE STOCKPILE INCLUDES NERVE AND BLISTER AGENT WEAPONS. BLOOD AGENTS
CANNOT BE RULED OUT.

15. MISSILE WARHEADS. IRAQ IS ASSESSED TO HAVE A LIMITED NUMBER OF CHEMICAL WARHEADS FOR ITS SCUD-B MISSILES AND POSSIBLY FOR THE AL HUSAYN AND THE AL ABBAS MISSILES. A CHEMICAL WARHEAD WOULD IMPROVE THE VALUE OF THESE INACCURATE MISSILES BY GIVING THEM THE POTENTIAL TO CONTAMINATE LARGE AREAS. THE CHEMICAL FILL WEIGHT FOR THE MISSILES HAS BEEN ESTIMATED AT ABOUT 550 KG FOR THE SCUD-B, 80 TO 1U0 KG FOR THE AL HUSAYN, AND 200 TO 3U0 KG FOR THE AL ABBAS.
THE EXTENDED-RANGE SCUD MISSILES GAINED RANGE IN PART BY REDUCING
THE MISSILE PAYLOAD. SIGNIFICANT TECHNICAL PROBLEMS IN GUIDANCE, FUSING, AND AGENT STABILITY WILL CONTINUE TO LIMIT THEIR EFFECTIVENESS, BUT THEY COULD BE USED AS TERROR WEAPONS AGAINST CIVILIANS.
16. THE MOST EFFECTIVE CHEMICAL AGENT FILL FOR A MISSILE WARHEAD IS A PERSISTENT AGENT. THE VX NERVE AGENT OR A THICKENED AGENT OF ANY TYPE COULD BE USED TO ATTACK HIGH-VALUE DEEP TARGETS.
IRAQ'S BEST AGENTS FOR MISSILE WARHEADS ARE THE PERSISTENT BLISTER AGENT MUSTARD AND THE SEMIPERSISTENT NERVE AGENT GF. VX IS A POSSIBLE AGENT IN THE IRAQI INVENTORY.
17. AERIAL WEAPONS. AIRCRAFT ARE IRAQ'S ONLY MEANS TO DELIVER CHEMICAL AGENTS ACCURATELY AT DISTANCES IN EXCESS OF ARTILLERY RANGE. DURING THE IRAN-IRAQ WAR, ALL TYPES OF AIRCRAFT, INCLUDING HELICOPTERS, WERE USED TO DELIVER CHEMICALS.
18. IRAQ HAS DEVELOPED 90MM ROCKETS FOR ITS HELICOPTERS. THESE PROBABLY ARE FILLED WITH MUSTARD, BUT THEY COULD CONTAIN ANY
AGENT.
19. AERIAL BOMBS ARE ESTIMATED TO BE THE MAJOR PART OF THE IRAQI STOCKPILE. ABOUT 65 TO 75 PERCENT OF IRAQ'S CHEMICAL AGENT STOCK IS ASSESSED TO BE IN BOMBS BECAUSE BOMBS CONTAIN LARGER AMOUNTS OF AGENT THAN DO ARTILLERY SHELLS. IRAQI AERIAL BOMBS ARE ESTIMATED TO HAVE 100 KG OF NERVE AGENT OR 120 KG OF MUSTARD IN THE
500-KG BOMBS AND 50 KG OF NERVE AGENT OR 60 KG OF MUSTARD IN THE 250-KG BOMBS. ARTILLERY SHELLS CONTAIN AN ESTIMATED 1.5 TO 3.4 KG OF AGENT.
20. GROUND DELIVERY SYSTEMS. IRAQ HAS DELIVERED CHEMICALS USING ITS 130MM, 152MM, AND 155MM TUBE ARTILLERY AND 122MM MULTIPLE
ROCKET LAUNCHERS. OTHER FIRE SUPPORT SYSTEMS COULD BE USED TO

DELIVER CHEMICALS. THERE ARE UNCONFIRMED REPORTS OF CHEMICAL EMPLOYMENT BY ROCKET-PROPELLED GRENADES AND MINES.

21. OTHER AGENTS AND WEAPONS. IRAQ PROBABLY HAS FILLED MUNITIONS WITH PARTICULATE CARRIERS IMPREGNATED WITH MUSTARD, ALSO CALLED "DUSTY MUSTARD." WITH THE PARTICULATE CARRIER GROUND TO A PREDETERMINED SIZE, THE "DUSTY" AGENT CAN PENETRATE THE NATO-TYPE PROTECTIVE ENSEMBLE. OTHER POSSIBLE ITEMS IN THE IRAQI ARSENAL ARE AEROSOL GENERATORS FOR AGENT DISSEMINATION AND SPRAY TANKS THAT COULD SPREAD CHEMICAL CONTAMINATION FROM HELICOPTERS OR FIXED-WING AIRCRAFT.

22. CONSEQUENCES OF BINARY INTRODUCTION. IRAQ IS CAPABLE OF PRODUCING THE COMPONENTS AND CHEMICALS FOR BINARY CHEMICAL MUNITIONS, BUT THE NUMBER OF BINARY WEAPONS IN INVENTORY IS BELIEVED TO BE LIMITED. UNITARY MUNITIONS REMAIN THE PRIMARY CHEMICAL WEAPON TYPE IN THE IRAQI INVENTORY. ONE OF IRAQ'S MOTIVATIONS FOR DEVELOPING BINARY WEAPONS WAS TO MAKE CHEMICAL AGENTS THAT ARE MORE STABLE IN STORAGE. BINARIES COMBINE TWO OR MORE CHEMICALS IN A MUNITION TO PRODUCE A CHEMICAL AGENT. THE CHEMICALS USED IN THE BINARY WEAPON ARE NOT CHEMICAL AGENTS AND HAVE LOWER TOXICITY, SO THEY ARE EASIER TO PRODUCE WITH GOOD QUALITY THAN UNITARY CHEMICAL AGENTS AND ARE SAFER TO HANDLE.

23. THE MOST LIKELY IRAQI CHEMICAL AGENTS TO BE USED IN BINARY WEAPONS ARE THE NERVE AGENTS GB AND GF. BOTH ARE MADE BY THE REACTION OF AN ALCOHOL WITH THE CHEMICAL DIFLUOROMETHYLPHOSPHONATE (DF). GB IS PRODUCED BY THE REACTION OF ISOPROPYL ALCOHOL (ISOPROPANOL) WITH DF; GF IS PRODUCED BY THE REACTION OF CYCLOHEXYL ALCOHOL (CYCLOHEXANOL) WITH DF. GF PRODUCTION IS MORE DIFFICULT IN THE BINARY CONFIGURATION SINCE CYCLOHEXANOL IS LESS REACTIVE THAN ISOPROPANOL. THE REACTION WILL TAKE LONGER AND MAY NEED TO BE HEATED.

24. THE MOST LIKELY TYPES OF IRAQI BINARY WEAPONS ARE ARTILLERY, MULTIPLE ROCKET LAUNCHERS (MRLS), AND MISSILE WARHEADS.

ALTHOUGH ANY WEAPON CARRYING A CHEMICAL FILL CAN BE CONVERTED TO A
BINARY. GB IS THE MOST LIKELY FILL FOR THE ARTILLERY AND MRL AMMUNITION. GF IS MORE LIKELY TO BE USED IN LARGER MUNITIONS, SUCH AS MISSILES OR AERIAL BOMBS.
25. BINARY WEAPONS HAVE DISADVANTAGES THAT WOULD REDUCE THEIR
VALUE TO THE IRAQIS. A LARGE PART OF THE BINARY'S INTERIOR IS FILLED WITH NONLETHAL COMPONENTS THAT HELP MIX THE CHEMICALS WHEN
THE WEAPON IS DELIVERED. THESE COMPONENTS ALSO HELP KEEP THE CHEMICALS SEPARATED PRIOR TO USE. BECAUSE THE REACTION MUST TAKE PLACE WHILE THE WEAPON IS EN ROUTE TO THE TARGET, THE REACTION DOES
NOT CONVERT ALL THE DF TO A CHEMICAL AGENT WHEN THE ROUND HITS ITS
TARGET. THE ROUND CONTAINS A MIXTURE OF AGENT, UNREACTED DF, UNREACTED ALCOHOL, HF, AND OTHER IMPURITIES WHEN IT REACHES THE TARGET.
26. AN ADDITIONAL PROBLEM FOR THE IRAQIS MAY BE THE POOR QUALITY OF THE DF THEY PRODUCE. THE SAME CHEMICAL ENGINEERING PROBLEMS THAT HAVE LIMITED THE PURITY OF CURRENTLY PRODUCED AGENTS
ALSO COULD LIMIT THEIR DF QUALITY. DF IS MADE FROM AN ORGANOPHOSPHORUS CHEMICAL AND HF. REMOVING THE HF IS DIFFICULT: IT
IS LIKELY THAT IRAQI DF CONTAINS HF, WHICH COULD CATALYZE DECOMPOSITION.
27. DISTRIBUTION OF THE STOCKPILE. THE CHEMICAL STOCKPILE'S LOCATION IS NOT KNOWN WITH CONFIDENCE. LIKELY STORAGE SITES ARE THE
22 S-SHAPED BUNKERS DISTRIBUTED THROUGHOUT IRAQ AND THE 8 CRUCIFORM
BUNKERS AT SAMARRA. [(b)(1) sec 1.3(a)(4)] CHEMICAL WEAPONS ALSO COULD BE STORED IN THE REFRIGERATED BUNKERS LOCATED
THROUGHOUT IRAQ. [(b)(1) sec 1.3(a)(4)] VIRTUALLY ANY IRAQI BUNKER LARGE ENOUGH TO ALLOW MUNITIONS THROUGH THE DOOR COULD BE USED, AND, IF NECESSARY, CHEMICAL MUNITIONS SIMPLY COULD
BE STORED IN THE OPEN.
28. DIA ASSESSES THAT IN THE KUWAITI THEATER OF OPERATIONS,

THE STOCKPILE PROBABLY HAS BEEN DISTRIBUTED TO THE GENERAL SUPPORT AMMUNITION DEPOTS WITH CHEMICAL STORAGE BUNKERS AND FIELD SUPPLY
AREAS FOR THE DEPLOYED UNITS. THE NORTHERN S-SHAPED BUNKERS ASSOCIATED WITH AIRFIELDS STILL MAY CONTAIN SIGNIFICANT QUANTITIES OF CHEMICAL WEAPONS.

29. DOCTRINE FOR CHEMICAL USE. DURING THE WAR WITH IRAN, THE IRAQIS LEARNED TO USE CHEMICAL WEAPDNS IN WAYS THAT MAXIMIZED EFFECTIVENESS. FOR EXAMPLE, THEY DISSEMINATED CHEMICAL AGENTS IN THE MORNING RATHER THAN LATER IN THE DAY, WHEN HIGH TEMPERATURES WOULD ACCELERATE EVAPORATION. TYPICALLY, THE IRAQIS WOULD DEPOSIT
PERSISTENT MUSTARD AGENT IN AN IRANIAN FORCE'S REAR AREA AND THEN BOMBARD THE FRONT WITH A NONPERSISTENT NERVE AGENT (SARIN). TROOPS
FLEEING THE SARIN-CONTAMINATED AREA THEN WOULD BE EXPOSED TO MUSTARD AS WELL.

30. IRAQ MIGHT ATTEMPT TO USE AIR ASSETS TO ATTACK TARGETS BEHIND THE LINES, SUCH AS LOGISTIC STOCKPILES, PORTS, AND AIRFIELDS. AIRFIELDS, IN PARTICULAR, WOULD BE CRITICAL TARGETS BECAUSE OF COALITION AIR POWER. PERSISTENT CHEMICALS WOULD BE EMPLOYED TO SUPPRESS AIRFIELD OPERATIONS. ATTACKS AGAINST NAVAL SHIPS MIGHT BE ATTEMPTED BUT WOULD NOT BE EXPECTED TO HAVE A SIGNIFICANT MILITARY EFFECT.

31. IRAQ USED CHEMICALS EFFECTIVELY IN THE 1988 OFFENSIVES AGAINST IRAN. DURING THIS TIME, IRAQ EMPHASIZED SELECTIVE SATURATION OF TARGETS WITH CHEMICAL WEAPONS. BECAUSE IRAQ HAD THE
OPERATIONAL INITIATIVE, ITS FORCES COULD CHOOSE THE BEST WEATHER AND TERRAIN CONDITIONS TO SELECT CHEMICAL TARGETS.

32. LATE IN THE WAR WITH IRAN, SADDAM HUSAYN DELEGATED THE AUTHORITY TO USE CHEMICALS TO CORPS COMMANDERS, WHICH IMPROVED
RESULTS. THE DISCRETION OF THE GROUND FORCE COMMANDER MADE IT POSSIBLE TO RESPOND QUICKLY WHEN THE TACTICAL SITUATION FAVORED CHEMICAL WEAPON USE, AND COMMANDERS TOOK ADVANTAGE OF THIS AUTHORITY.

33. [(b)(1) sec 1.3(a)(4)]

34. [(b)(1) sec 1.3(a)(4)]

35. [(b)(1) sec 1.3(a)(4)]

36. IN RECENT DAYS, [(b)(1) sec 1.3(a)(4)] HOWEVER, IRAQ'S DIPLOMATIC REPORTING REPEATEDLY WARNS OF THE INTENTION TO USE CHEMICALS AGAINST THE COALITION, AND IRAQI RADIO RECENTLY ANNOUNCED ALLIED CHEMICAL ATTACKS IN THE BASRA VICINITY. IT APPEARS THAT IRAQ MAY BE LAYING THE PSYCHOLOGICAL GROUNDWORK FOR ITS USE OF CHEMICAL WEAPONS.

37.[(b)(1) sec 1.3(a)(4)]

38. [(b)(1) sec 1.3(a)(4)]

39.[(b)(1) sec 1.3(a)(4)]

40.[(b)(1) sec 1.3(a)(4)]

41.[(b)(1) sec 1.3(a)(4)]

42. PROSPECTS FOR CHEMICAL USE. IRAQ'S CHEMICAL CAPABILITY REMAINS SIGNIFICANT. THIS CAPABILITY WILL DETERIORATE OVER TIME, BUT IT WILL NOT BE ELIMINATED COMPLETELY. IRAQ RETAINS THE ABILITY TO LAUNCH CHEMICAL STRIKES AT ANY TIME WITH ARTILLERY AND AIR POWER, AND IT COULD USE CHEMICALS ON SOME OF ITS REMAINING SCUD-B MISSILES.

43. IRAQ MAY BE SAVING ITS CHEMICAL WEAPONS TO LAUNCH A STRIKE WITH ALL AVAILABLE ASSETS TO KILL AND INJURE COALITION FORCES. SUCH AN ATTACK MIGHT ATTEMPT TO DISRUPT AN ALLIED ATTACK OR MIGHT BE PROMPTED BY IRAQ'S CALCULATION THAT IT IS FACING IMMINENT DEFEAT AND HAS LITTLE TO LOSE. THESE OPTIONS COULD BE COUNTERED BY DIMINISHING IRAQ'S CAPABILITY TO DELIVER CHEMICAL WEAPONS: ELIMINATING ITS AIRFIELDS, MISSILE LAUNCHERS, AND FIRE SUPPORT ASSETS.

44. SADDAM EVIDENTLY BELIEVES THE US HAS BOTH A CHEMICAL AND A NUCLEAR CAPABILITY IN THE THEATER, BUT DIA ASSESSES THAT THIS WOULD NOT DETER HIM FROM EMPLOYING CHEMICAL WEAPONS AGAINST COALITION FORCES. DIA JUDGES THAT SADDAM VALUES THE FORCE-MULTIPLICATION

CAPABILITY OF CHEMICAL WEAPONS TOO HIGHLY TO FORGO THEIR USE IN ANY
IMPORTANT COMBAT SITUATION WHERE THEY WOULD PROVIDE SUBSTANTIAL
TACTICAL BENEFITS. CHEMICAL WEAPONS ARE INTEGRAL TO IRAQ'S MILITARY
DOCTRINE. CONSEQUENTLY, DIA ESTIMATES THAT:
--IRAQI FORCES WOULD BE VIRTUALLY CERTAIN TO USE CHEMICAL WEAPONS
IN ANY DEFENSIVE SITUATION IN IRAQ OR KUWAIT WHERE THEY ARE BEING
PUSHED BACK BY AN ALLIED OFFENSIVE AND THEIR DEFEAT IS IMMINENT.
--IRAQI FORCES WOULD BE VERY LIKELY TO USE CHEMICAL WEAPONS AS AN
INTEGRAL PART OF ANY OFFENSIVE INTO TERRITORY DEFENDED BY US OR
OTHER ALLIED FORCES.
--IRAQ MAY USE CHEMICAL WEAPONS TO DISRUPT AN IMMINENT ALLIED
ATTACK.
--ONCE IRAQI FORCES BEGIN USING CHEMICAL WEAPONS AGAINST ALLIED
FORCES, DIA ANTICIPATES THEY WOULD BE WILLING TO USE THEIR ENTIRE
CHEMICAL ARSENAL, INCLUDING MISSILES WITH CHEMICAL WARHEADS.
--SPECIAL FORCES OR OTHER GROUPS ALSO COULD DELIVER CHEMICAL
WEAPONS TO SELECTED TARGETS.
45. (U) THIS MEMORANDUM CONTAINS INFORMATION AS OF 25 JANUARY
1991.
ADMIN PREP: [(b)(2)]

8

OTG: 28***** Feb 90 (91)

SUBJECT: Suspected Chemical/biological weapons storage sites in the KTO prior to the ground war.

1. (U) Priority: IU

2. (U) Need no later than: 041200C Mar 91

3. (U) Requestor: CENTCOM / *******/ JIO DOJ2

4. Justification: The threat of special munitions may still pose a hazard to coalition forces and access to suspected chemical/biological (CW/BW) sites may offer an opportunity to clarify the extent of the Iraqi CW/BW capability.

5. Information requested: Request that ARCENT survey the following locations to determine if they do or do not contain possible chemical/biological weapons. These sites were suspected to have possibly contained special munitions prior to the ground war. A brief description follows

3056**N 04605**E	Tallil Airfield
300700N 0471000E	Ammo Dump-** trucks ********** at storage site
3006**N 04713**E	3 Ammo bunkers, 30 supply bunkers, 400 revetted trucks, 800 vehicle revetments unoccupied, and-400 hardened bunkers.
301800N 0473000E (0445VRV228)	Ammo site: 50 ammo storage revetments 23 occupied.
294500N 0465000E	Ammo storage site
294600N 0464900	Ammo storage site
294600N 0465200E	127 trucks, 16 occupied, fence secured revetments.
302600N 0471400E	Rumaylah ammo storage area southwest - Jan had suffered damage to 145 revetments. 10 occupied intact and 10 revetted trucks.
302600N 0472500E	Rumaylah ammo storage area 1 130 trucks
302900N 0473830E	Ash Shuaybah ammo storage depot northwest damaged by explosion, still active 17 underground storage bunkers, 12 bermed storage buildings in use.
303200N 0465200E	Al Jazair ammo storage area. Approximately 86 KM west of Al Basrah. 23 AAA positions, each with 37-MM AAA guns in each site.
301600N 0474100E	** Underground storage bunkers.
302500N 0474200E	Ash Shuaybah ammo storage east permanent ammo storage area consisting of 11 revetted storage buildings and 2 ammo storage bunkers.
302600N 0473700E	Ammo site - 12 earthen storage (86 revetments and 10 ammo storage buildings, 1 revetment has bomb damage.

3046**N 04525**E	Tall Al Lahm ammunition storage depot south: 100 occupied revetments. This *** logistic site covers the following area 041****N/04627*****E to 3045****N/04627****E to 3045****N/04824****E to 3045****N/04823****E to close.
3057**N 04610**E	An Nasiriyah ammunition storage depot - 6 storage bunkers destroyed within the main storage facility.
304700N 0462800E	Tall Al Lahm ammunition storage 42 of 88 ammunition storage buildings destroyed and another 10 damaged. Across the major highway in the vicinity of 304200N 0462500E are 950 to 1000 revetments. Over 500 revetments are occupied with material and trucks.

"Final formatting and approval for release to GULFLINK is being accomplished by DIA"

9

Subject: SUBJ: CIA CABLE ON SUSPECTED CHEMICAL STORAGE AREA, 23 FEBRUARY 1991
Not Finally Evaluated Intelligence

TO FACILITATE ELECTRONIC ACCESS, THIS DOCUMENT HAS BEEN REFORMATTED TO ELIMINATE INFORMATION THAT DOES NOT PERTAIN TO GULF WAR ILLNESS ISSUES OR THAT IS CLASSIFIED. A COPY OF THIS REDACTED DOCUMENT, IN ORIGINAL FORMAT, IS AVAILABLE ON REQUEST.

2312512 FEB 91

TO: IMMEDIATE JILE/SAUDI, DIRECTOR

SUBJECT: WNINTEL -- SUSPECTED CHEMICAL STORAGE FACILITY

ACTION REQUIRED: PLS ADVISE IF INFORMATION SHOULD BE SUBMITTED AS INTEL.

1. RECEIVED A VERY UNUSUAL MESSAGE FROM OUR AMBASSADOR TODAY. COM RETURNED FROM A MEETING THIS MORNING WITH A HANDDRAWN MAP AND SOME COORDINATES OF A LOCATION IN IRAQ THAT IS DESCRIBED AS A CHEMICAL WEAPONS STORAGE FACILITY.

INDICATED THAT THEY HAD OBTAINED IT FROM SOMEONE IN THE IRANIAN AIR FORCE OR AIR FORCE-RELATED INDUSTRY (IT WAS UNCLEAR TO COM). ALTHOUGH THE CHAIN OF ACQUISITION SEEMS TENUOUS, ON THE OFF CHANCE THAT IT IS USEFUL, WE ARE FORWARDING IT.

2. WE PLOTTED THE COORDINATES AND MATCHED THE DRAWING ON JOG (AIR) SERIES 1501, SHEET NE 38-7, EDITION 5. THE COORDINATES ARE (3047N-4622E). ON THIS MAP, THOSE COORDINATES MATCH UP TO A STORAGE AREA EAST OF JUWARIN, IRAQ. ACCORDING TO INFORMATION THIS IS A CHEMICAL WEAPONS STORAGE AREA. PLS ADVISE.

END OF MESSAGE

1.5(c)
95618:95618

10

Subject: SUBJ: CENTCOM INFORMED OF 23 FEBRUARY 1991 CIA CABLE, 24 FEBRUARY 1991
Not Finally Evaluated Intelligence

TO FACILITATE ELECTRONIC ACCESS, THIS DOCUMENT HAS BEEN REFORMATTED TO ELIMINATE INFORMATION THAT DOES NOT PERTAIN TO GULF WAR ILLNESS ISSUES OR THAT IS CLASSIFIED. A COPY OF THIS REDACTED DOCUMENT, IN ORIGINAL FORMAT, IS AVAILABLE ON REQUEST.

2400002 FEB 91

CITE JILE/SAUDI

TO: IMMEDIATE DIRECTOR

SUBJECT: FYI

*REF: 231252ZYES91

1. FYI, CENTCOM/COLLECTIONS HAS TASKED COLLECTION ASSETS TO INVESTICATE THE POSSIBLE CHEMICAL WEAPONS STORAGE FACILITY AS DESCRIBED IN REF. CENTCOM APPRECIATES PASSING THIS INFORMATION, FOR CHEMICAL FACILITIES, AS YOU CAN IMAGINE, CARRY HIGH TARGETTING PRIORITIES. RGDS.

END OF MESSAGE

94748:94748
1.5c

SUBJECT: SUBJ: CIA DESERT STORM CBW ACTIVITY LOG, 25 FEBRUARY 1991
NOT FINALLY EVALUATED INTELLIGENCE

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DESERT STORM

ACTIVITY LOG

25 FEB 91

25 FEB 91

0815 HRS:
DO SOURCE HAS IDENTIFIED A PLACE NEAR JUWARIN (3047N/04622E) AS A CW STORAGE LOCATION. APPARENTLY IT'S IDENTIFIED AS SOME TYPE OF STORAGE PLACE ON THE JOG I50I NH 38-7 MAP AFTER LOOKING THROUGH DRAWERS I CAN'T FIND IT. OH, WELL. THE COORDINATES ARE SORT OF NEAR EITHER AN NASIRIYAH OR TALLIL.

0835 HRS:
MY PUNY BRAIN SEEMS TO REMEMBER THAT THERE WERE DECON VEHICLES SEEN AT AN NASIRIYAH SHORTLY AFTER IT WAS BOMBED. CALL NPIC TO CHECK
SAYS THAT ON 17 JAN TWO
DECON VEHICLES WERE PRESENT AT AN NASIRIYAH. YESTERDAY, THERE'S INFO THAT HELICOPTERS WERE PRESENT AT THE AN NASIRIYAH STORAGE AREA. ANALYSIS: MAYBE WE'VE FINALLY FOUND A CW STORAGE LOCATION!

94757:94757
1.5C

12

Subject: SUBJ: CIA RESPONSE TO 23 FEBRUARY 1991 CABLE, 26 FEBRUARY 1991
Not Finally Evaluated Intelligence

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2602382 FEB 91 DIRECTOR 533647

TO: IMMEDIATE JILE/SAUDI
SUBJECT: SUSPECTED CHEMICAL STORAGE FACILITY

1. WE ARE UNABLE TO IDENTIFY SPECIFIC CHEMICAL STORAGE FACILITY LOCATION. WE PASSED INFORMATION INFORMALLY TO ANALYSTS.

2. MINIMIZE CONSIDERED.

END OF MESSAGE

1.5(c)
94749:94749

(b.2.)

/********** THIS IS A COMBINED MESSAGE **********/
BODY
SUBJ: ARCENT COLLECTION EMPHASIS FOR FEB 91
1. COLLECTION OBJECTIVES: PROVIDE SUPPORT TO ARCENT UNITS FOR OPERATION DESERT STORM PLANNING AND EXECUTION; LOCATE AND DETERMINE DISPOSITION OF REPUBLICAN GUARDS; LOCATE AND DETERMINE DISPOSITION OF IRAQI UNITS WITHIN THE ARCENT'S AND JOINT FORCES COMMAND NORTH'S AREAS OF OPERATIONS; LOCATE AND DETERMINE DISPOSITION OF RESERVE IRAQI UNITS; VALIDATE TARGETS FOR TARGET INTERDICTION; BATTLE DAMAGE ASSESSMENT; AND PROVIDE INDICATIONS AND WARNING.
2. ARCENT'S EMPHASIS FOR FEB 91:
IN PRIORITY ORDER:

(b.1. sec. 1.5.c.)

(B) GOLD ORANGE (18 ABC)
49 ID & 18 ABC OBJ'S (b.1. sec. 1.5.c.)
DETERMINE DISPOSTION &
ACTIVITY.

DROP IF CAPTURED BY 252400Z FEB.

(b.1. sec. 1.5.c.)

3. ARCENT'S EMPHASIS FEB:
REQUIREMENTS ARE LISTED IN ORDER OF PRIORITY.
A. SITUATIONAL DEVELOPEMENT: CONFIRM/DENY PRESENCE OF ENEMY FORCES.
(b.1. sec. 1.5.c.)

OBJ GOLD 304700N0462200E (18 ABC)
OBJ ORANGE

(b.1. sec. 1.5.c.)

A. DETECT CHANGE IN DISPOSITION IN FOLLOWING DIV'S & AREAS:
UNIT/LOCATION SEARCH BOX

49 ID/OBJ ORANGE 95
OBJ GOLD 96

(b.1. sec. 1.5.c.)

B. TARGET VALIDATION OF STRIKE TARGETS. IN PRIORITY, (b.1. sec. 1.5.c.)

(b.1. sec. 1.5.c.)

A. MONITOR KEY UNITS & LOCATIONS IN FOLLOWING DIV'S AND POINTS:

(b.1. sec. 1.5.c.)

OBJ GOLD
OBJ ORANGE

ARCENT'S EMPHASIS FOR FEB 91:
A. SITUATIONAL DEVELOPEMENT OF FOLLOWING DIV'S AND AREAS:
VII CORPS 0400-1000C HOURS ?????????????
MONITOR MOVEMENT & REACION OF FOLLOWING DIV'S

(b.1. sec. 1.5.c.)

OBJ GOLD (b.1. sec. 1.5.c.)
OBJ ORANGE

1996 1211 1613 2928

Khamisiyah 14

DAILY STAFF JOURNAL OR DUTY OFFICER'S LOG
For use of this form, see AR 220-1; the proponent agency is Office of The Deputy Chief of Staff for Operations & Plans

PAGE NO. 4 | NO. OF PAGES 6

ORGANIZATION OR INSTALLATION | LOCATION

PERIOD COVERED

FROM HOUR	FROM DATE	TO HOUR	TO DATE
	26 Feb 91		26 Feb 91

ITEM NO.	TIME IN	TIME OUT	INCIDENTS, MESSAGES, ORDERS, ETC.	ACTION TAKEN	INL
70	0735		82d - Unit UPDATE As of 0200c	RF/UUR	BWE
71	0745		XVIII ABN Corps Unit UPDATES	RF/UUR	BWE
72	0754		3ACR - Unit UPDATE. As of 0800	RF/UUR	BWE
73	0756		ATO for 26 Feb	RF/Info	BWE
74	0815		VII Corps UPDATE As of 0730	RF/Info	BWE
75	0816		Move FSCL To River per BGA	RF/Info	BWE
76	0818		Status of 12th AVN BDE	RF/Info	BWE
77	0821		When CAN 24ID move?	RF/Info	BWE
78	0825		101st ABN DIV (AASLT) OPERATIONS	RF/I.M.	BWE
79	0950		MARINE OBJECTIVES 26 Feb 91	RF/Info	BWE
80	0952		Possible Chemicals on OBJ GOLD	RF/Info	BWE
81	0955		French moving into As SALMAN	RF/Info	BWE
82	0958		BG Stewart Arrives TAC CP (Tenitative)	RF/Info	BWE
83	0959		82d Holding Vic AA Fayetteville	RF/Info	BWE
84	1011		XVIII Corps Arty UPDATE	RF/UUR	BWE
85	1022		Unit UPDATES - 24ID, 82d, 101, 12, 18th	RF/UUR	BWE
86	1025		Combat OPS Summary	RF/CNS	BWE
87	1027		EVACUATION of EPWs	RF/O.M.	BWE
88	1029		BG Arnold Delayed - 1100hrs	RF/Info	BWE
89	1030		Weather Hold due to wind - 18th AVN	RF/Info	BWE
90	1031		VII Corps UPDATE As of 1012c	RF/Info	BWE
91	1033		Guidence on EPWs for 24th	RF/Info	BWE
92	1034		82d - Moving Past 40.60 GRID	RF/Info	BWE

TYPED NAME AND GRADE OF OFFICER OR OFFICIAL ON DUTY: BRENFLECK, BRIEN OPSNCO

SIGNATURE: Brien Brenfleck

DA FORM 1 NOV 63 1594 PREVIOUS EDITION OF THIS FORM IS OBSOLETE. GPO : 1988 O - 210-

1996 1211 16133552

MESSAGE FORM/ CTOC JOURNAL SHEET	PRIORITY	CLASSIFICATION SSS	
TO: 2AID 101st Abn	FROM: COL AKERS	Means of Delivery msg rdo (VR)	DTG Received 260845C Feb 91

MESSAGE: SUBJ: Possible Chemicals on OBJ GOLD

Enemy is departing vic OBJ GOLD in 2 directions, NW and SE. It is possible that we have hit chemical munitions, and enemy is fleeing area as quickly as possible. LEAD with FOX vehicles when entering area.

Call on Opn Chg

ACTION:
- Notified 2AID MAIN, CPT JUDGE, 260850C Feb
- Notified 101st Abn Div (AAFCA) - [illegible] HUSTED 260855C Feb 91 (VERIFIED RECEIPT [illegible] PUGH - 0905)

DTG Completed	Journal No	Actioned By:
	80	CPT CHURA

CLASSIFICATION: SSS

Downgrading NOOR

DISTRIBUTION SEC/UNIT	
G2	
Dep G2	
G2 Admin	
G2 CHOPS	
G2 Ops MAP	
G2 Production	
G2 SSO	
G2 CI/OPSEC	
G2 ASPEC	
G2 CM&D	
G2 Plans	
G2 R&S	
G2 TGTS	
G2 SWO	
G3	
DEP G3/CHOPS	
G3 Admin	
G3 Ops	
G3 Ops MAP	
G3 Ops Rpts/Journal	
G3 Plans	
G3 NBCE	
G3 EW	
G3 ADE	
G3 Air/ALO	
FAS	
Corps Avn	
Engr	
C-E	
AG	
G1	
G4	
G5	
Hq Cmdt	

FB FORM 3766 1 MAR 79 (AFZA-OPT-B) PREVIOUS EDITION OBSOLETE • U.S. GPO: 1990-7204

DTG: Feb 91

SUBJ: Response to Iraqi Storage bunkers (Addendum)

1. The following is intended to amplify and expand on Feb 91, subject, response to poss BW Bnkr. There are currently 12 frame storage bunkers in Iraq. Of these both the refrigerated and the non-refrigerated types may have a BW association. At one of these bunker after it was struck and severely damaged indicated that the Iraqis were attempting to remove material that may have been salvageable inside, and decontaminate it for future use. Also, some agents are relatively heat resistant

2. The number of twelve frame bunkers in Iraq, is so large as to suggest roles in addition to BW storage. They could include storage for chemical, FAE, and sensitive electrocics for weapons, as well as other functions including possibly weapons fill or handling.

3. Some of the destroyed/damaged 12 frame refrigerated bunkers (An Nasiriyah Stor Fac SW), and undamaged non-refrigerated 12 frame bunkers (3 at AZ SUBAYR ammo DPO SE) may be within range of coalition forces operating in southern Iraq. A determination of what is present in these bunkers, or may have been present at destroyed bunkers based on a sample of the immediate area, could be of major military and intelligence importance. If an attempt is made to access these bunkers protective measures should be employed. Further, caution should be used since the vicinity of the bunkers may be mined.

*Tall Al Lahm	1	3047	N	04625.	*	E	These Nr Bnks are approx
Ammo stor area	2	3047	N	04625		E	17 NM S/SE of Tallil AF,
							3 NM S of SUQ ASH

SHUYAKH RD INTERSEC.

"Final formatting and approval for release to GULFLINK is being accomplished by DIA"

OTG: 01***** Apr 91

Passing instructions: From CMO VII Corps to CMO 513th MI BDE

SUBJECT: Response to ********** suspected chem/bio weapons storage sites in KTO prior to ground war (U)

1. The following locations do not contain chemical/biological weapons. All locations were confirmed through VII Corps G2 OPS BY VII Corps Division on 30 Mar 91.

305604N0460536E	Tallil AFLD. No chem found
300700N0471000E	Ammo dump. No chem found
300613N0471331E	3 ammo bunkers etc. No chem found
301800N0473000E	Ammo site. No chem found
294500N0465000E	Ammo storage site. No chem found
294500N0464900E	Ammo storage site. No chem found
294600N0465200E	127 trucks. Fenced revetments-No chem
302600N0471400E	Rumaylah ammo storage. No chem found
302600N0472500E	Rumaylah ammo storage. No chem found
302900N0473839E	Ash shuaybah ammo storage depot
303200N0465200E	Al Jazair ammo storage area-No chem
304649N0462522E	Tall Al Lahm ammo. No chem found
305750N0461030E	An Nasiriyah ammo. No chem found
304700N0462600E	Tall Lahm ammo. No chem found

2. The following locations can not be confirmed whether or not they contain chemical munitions, because they are past the demarcation line and are in Iraqi territory.

302900N0473830E	Ash Shubeyah ammo storage depot northwest. In Iraqi territory.
301600N04741005	**Underground storage bunkers. In Iraqi territory.
302500N040474200	Ammo storage In Iraqi territory.
302502N0473700E	Ammo site - 12 earthen storage revetments and 10 ammo blogs. In Iraqi territory.

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Subject: CW REQUIREMENTS RESPONSE

Not Finally Evaluated Intelligence

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MAR 91

SUBJECT: CW REQUIREMENTS RESPONSE

HAS NOT REPEAT NOT FOUND ANY
CHEMICAL OR BIOLOGICAL MUNITIONS STORED IN THE KTO, NOR WERE ANY CHEMICAL OR BIOLOGICAL MUNITIONS WITH REPUBLICAN GUARD OR IRAQI ARMY UNITS OVERRUN/CAPTURED BY COALITION FORCES.
REPORTING EARLY IN THE WAR OF CHEMICAL MINES AND BUNKERS PROVED FALSE ACCORDING TO CENTCOM AUTHORITIES. A MORE RECENT REPORT OF A POSSIBLE
CHEMICAL STORAGE BUNKER IN KUWAIT CITY
PROPER, NOT FAR FROM THE US EMBASSY, HAS PROVEN NEGATIVE AND

THIS FACILITY IS SCHEDULED FOR DEMOLITION TODAY. MILITARY CHEMICAL EXPERTS REPORT THAT THE BUNKER MIGHT HAVE BEEN BUILT AS A CHEMICAL STORAGE FACILITY, BUT TESTS REVEALED NO TRACES OF CHEMICAL AGENTS.

THERE HAS BEEN ONLY ONE INSTANCE IN WHICH A SOLDIER MAY HAVE BEEN, AND BY INDICATIONS WAS, EXPOSED TO CHEMICAL AGENTS. THIS OCCURRED THREE DAYS AGO IN THE AREA PREVIOUSLY OCCUPIED BY IRAQI 52D INF DIV, VIC GEO COORD 2956N 04706E. CONFUSION AS TO THE EXACT CAUSE OF INJURY STEMS FROM THE SOLDIER USING THERMITE GRENADES TO DESTROY DAMAGED IRAQI EQUIPMENT. THE SOLDIER WAS NOT IN CHEMICAL PROTECTIVE GEAR, BUT DRESSED IN NOMEX. WHEN HE DISCOVERED THE BLISTER, A NEARBY FOX CHEMICAL DETECTION VEHICLE MADE AN IMMEDIATE ASSESSMENT. THE FOX SNIFFER EQUIPMENT IDENTIFIED HD AND HQ (A MIXTURE OF HD AND Q AGENTS) PRESENT. A BUNKER IN THE VICINITY WAS INSPECTED AND HD VAPORS WERE DETECTED. SOAP POWDER ALSO WAS FOUND ON THE FLOOR, WHICH MAY HAVE BEEN USED AS EITHER A DECONTAMINATION AGENT OR, EQUALLY POSSIBLE, AS THE BASE FOR MIXING WITH GASOLINE TO FORM FUGASSE/NAPALM FOR MOLOTOV COCKTAILS. NO CHEMICAL MUNITIONS WERE FOUND, AND, AT THIS TIME, THE INJURY IS BELIEVED TO HAVE BEEN CAUSED BY CHEMICAL RESIDUALS IN THE AREA. INDIVIDUAL'S CLOTHING HAS BEEN SENT THROUGH MILITARY CHANNELS TO CRDEC (CHEMICAL RESEARCH, DEVELOPMENT AND EVALUATION CENTER) FOR ANALYSIS.

ASH SHUAYBAH IS NOT UNDER COALITION FORCES CONTROL. MILITARY CHEMICAL SPECIALISTS TRAVELED YESTERDAY TO AN NASARIYAH. ONE CAPTAIN REMARKED THAT HE HAD NEVER REALLY APPRECIATED THE EFFECTS OF PRECISION BOMBING UNTIL HE SAW THE BUNKERS. THEY WERE COMPLETELY DESTROYED AND, FOR THIS REASON, IT WAS IMPOSSIBLE TO DETERMINE THE REFRIGERATION SYSTEM, INSULATION OR ANY SPECIFICS RELATING TO

MARKINGS

THE BUNKERS WERE "SO MUCH RUBBLE". SINCE NONE WERE OPERATIONAL, IT WAS IMPOSSIBLE TO DETERMINE OPERATING TEMPERATURES. TESTS FOR CHEMICAL AGENTS WERE CONDUCTED (ON SITE TESTS WERE NEGATIVE, BUT SAMPLES HAVE BEEN SENT TO CONUS FOR FURTHER TESTING), SOIL SAMPLES INSIDE AND OUTSIDE THE BUNKERS WERE TAKEN, AND THE SITE WAS PHOTOGRAPHED. WE EXPECT ESTIMATED DIMENSIONS OF THE BUNKERS TO BE REPORTED TO CENTCOM SOON.

TALLIL. CENTCOM FORCES ARE SCHEDULED TO WITHDRAW FROM TALLIL AREA IN THE VERY NEAR FUTURE. WE HAVE EMPHASIZED THE IMPORTANCE OF SENDING A CHEMICAL DETECTION TEAM IN TO INVESTIGATE BUNKERS THERE. HOPEFULLY, THE BUNKERS WILL BE INSPECTED NOT LATER THAN TOMORROW BEFORE THE FACILITIES AT TALLIL ARE DESTROYED BEFORE WITHDRAWAL. WE WILL ADVISE YOU OF REPORTS ON TALLIL IN A FOLLOW-UP MSG.

CHEMICAL MUNITIONS MARKINGS

INFORMATION WAS PROVIDED BY AN EXTENSIVE REPORT

INDICATED IRAQI CHEMICAL MUNITIONS ARE COLOR-CODED TO IDENTIFY THE TYPE OF CHEMICAL AGENTS CONTAINED IN THE MUNITIONS. COLORED RINGS AROUND THE MUNITIONS DENOTE THE CHEMICAL TYPE. RED RINGS INDICATE NERVE AGENTS, YELLOW RINGS DENOTE BLISTER AGENTS, AND GREEN RINGS INDICATE CHOKING AGENTS. KNEW THAT NERVE AND BLISTER AGENT MUNITIONS WERE IN THE IRAQI INVENTORY BECAUSE THEY HAD BEEN EMPLOYED IN THE IRAN/IRAQ WAR.

END OF MESSAGE

Subject: SUBJ: CIA RELAYS CONCERNS ABOUT UNMARKED CHEMICAL MUNITIONS, 6 MARCH 1991
Not Finally Evaluated Intelligence

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061923Z MAR 91 DIRECTOR 551818

TO: IMMEDIATE JILE/SAUDI

FROM: DI

SUBJECT: PROPOSED TDY

REF: A.
B. DIRECTOR 545985

ACTION REQUESTED: PLEASE SEE PARAGRAPHS 2, 6, AND 7.

1. WE HAVE JUST RECEIVED INFORMATION THAT ARMY TEAM ANALYSTS WERE TO ACCOMPANY HAS BEEN CANCELLED. ANALYSTS STILL HAVE URGENT NEED FOR THE SAKE OF FUTURE ANALYTICAL REQUIREMENTS TO VISIT ANY OF THE FOLLOWING FACILITIES WHILE THEY REMAIN UNDER COALITION CONTROL:

A. AD DIWANIYAH AMMO STORAGE EAST
3200N 4500E

B. AD DIWANIYAH AMMO STORAGE SW
3157N 4454E

C. AN NASIRIYAH AMMO STORAGE SW
3058N 4611E

D. ASH SHUAYBAH AMMO STORAGE NE
3029N 4739E

E. TALLIL AIRFIELD
3056N 4605E

2. URGENTLY REQUEST THAT JILE/SAUDI DETERMINE IF ANY OF THE ABOVE IRAQI FACILITIES WILL STILL BE IN COALITION HANDS IN THE NEXT 60 HOURS.

3. HIGH LEVEL POLICYMAKERS WANT IMMEDIATE ANSWERS TO QUESTIONS ON PRESENCE OF CHEMICAL MUNITIONS IN THE KTO. THE NEXT TWO WEEKS, WHILE FACILITIES ARE STILL IN COALITION CONTROL, ARE A PERIOD OF GOLDEN OPPORTUNITY TO COLLECT INTELLIGENCE INFORMATION THAT COULD ANSWER THESE INQUIRIES. PRESENCE OF ANALYSTS WILL ENSURE THAT

POLICYMAKERS' QUESTIONS ARE ADDRESSED.

4. ALTHOUGH THERE HAVE BEEN EPW REPORTS THAT IRAQ'S CHEMICAL MUNITIONS HAVE COLORED BANDS OTHER MEANS OF IDENTIFICATION, OUR EXPERIENCE WITH THE MUNITIONS IRAQ USED IN ITS WAR WITH IRAN INDICATES THAT THE IRAQIS DID NOT/NOT MARK THEIR CHEMICALLY FILLED MUNITIONS. WE BELIEVE THE EPW REPORTS ON MARKINGS MAY REFLECT TRAINING CLASSES ON CHEMICAL MUNITIONS USING SOVIET EXAMPLES. OUR EXPERTS ARE FAMILIAR WITH THE SPECIFIC TYPES OF MUNITIONS THAT IRAQ FILLED WITH CHEMICAL WARFARE AGENTS DURING THE IRAN-IRAQ WAR. IF PERSONNEL IN THE KTO ARE NOT AWARE OF THIS POSSIBILITY, OPPORTUNITIES TO SUCCESSFULLY IDENTIFY CHEMICALLY FILLED MUNITIONS MAY BE MISSED.

WHEN CACHES OF UNMARKED MUNITIONS ARE DESTROYED, THERE IS ALSO THE POSSIBILITY THAT INDIVIDUALS COULD BE EXPOSED TO CHEMICAL WARFARE AGENTS. IF ANY CW AGENTS ARE DETECTED, EXPERTS WILL PROVIDE REAL-TIME GUIDANCE ON TYPES OF AGENTS KNOWN OR SUSPECTED OF BEING IN THE IRAQ ARSENAL.

5. PRESENCE OF EXPERTS WILL ALSO ENSURE THAT ANY DOCUMENTS, MATERIALS, OR INFORMATION OBTAINED FROM EPWS OR CAPTURED AREAS CAN BE REVIEWED IN REAL-TIME FOR CW RELEVANCE. OUR EXPERTS CAN ALSO HELP FOCUS DEBRIEFING QUESTIONS AND COLLECTION EFFORTS.

6. REQUEST JILE/SAUDI IMMEDIATELY PROVIDE ANY INFORMATION AVAILABLE ON RECENT REPORTING INDICATING THAT A US SOLDIER HAD BEEN EXPOSED TO BLISTER AGENTS. WHEN REPORTING OF THIS TYPE SHOWS UP, HIGH LEVEL CONSUMERS--THE PRESIDENT, THE DIRECTOR OF CENTRAL INTELLIGENCE, AND MEMBERS OF THE NATIONAL SECURITY COUNCIL--DEMAND AN IMMEDIATE ASSESSMENT. WITHOUT ADDITIONAL DETAILS, OUR EXPERTS ARE UNABLE TO DETERMINE THE VALIDITY OF SUCH REPORTS. INITIAL ASSESSMENTS THAT WE ARE UNSURE OF THE IMPLICATIONS OF THESE REPORTS CAN ONLY KEEP THESE CONSUMERS AT BAY, FOR A SHORT TIME.

7. REQUEST THAT JILE/SAUDI DIRECTLY APPROACH CENTCOM CCJ2 AND ASK FOR IMMEDIATE COUNTRY CLEARANCE FOR ANALYSTS. ANALYSTS ARE READY FOR IMMEDIATE DEPARTURE WHEN COUNTRY CLEARANCE RECEIVED.

1.5(c)
74543:65158

03 APR 91

SOURCES FROM IRAQ'S INFANTRY DIVISION LOCATED IN AN NASIRIYAH (3102N 04616E) LEARNED ON 3 APRIL 1991 THAN AN AMERICAN FORCE . HAD BLOWN UP THE IRAQI AL IMAM 'ALI BASE AND THE AL KHAMISIYAH (3046N 04629E) AMMUNITIONS STORAGE DEPOT ON 1 AND 2 APRIL.

95622:95622
1.5(c)

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21 APR 91

IRAQI VI CORPS
UNITS CONDUCT SEARCH OPERATIONS. APRIL 1991;
DAMAGES TO AL KAMISIYAH AMMUNITION DEPOTS
DUE TO DESERT STORM OPERATIONS

TEXT:

MILITARY UNITS SUBORDINATE TO THE IRAQI VI CORPS
CONDUCTED SEARCH OPERATIONS
APRIL 1991.

AL KAMISIYAH AMMUNITION DEPOTS
MOSTLY DESTROYED PROBABLY BY DESERT STORM FORCES

VI CORPS . . ON APRIL.

SEARCH OF THE AREA OF
TALL AL LAHM (3047N 04623E), THE AL KAMISIYAH (3046N 04629E)
AMMUNITION DEPOTS (NFI).

MOST OF THE AL KAMISIYAH
AMMUNITION DEPOTS WERE DESTROYED BY "AMERICAN" AIRCRAFT BOMBING
OR DETONATION.

95624:95624
1.5(c)

Subject: SUBJ: IRAQI DECLARATION
Not Finally Evaluated Intelligence

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ANNEX IV

LOCATION, CONDITION, AND TECHNICAL SPECIFICATIONS OF MUNITIONS

NO: 1

LOCATION.: MUTHANNA ESTABLISHMENT (SAMARRA)

AGENT: SARIN

MUNITION: 122-MM ROCKET WARHEAD

QTY: 6,120

DESCRIPTION: METAL WARHEAD COMPRISING TWO PLASTIC CONTAINERS (TOTAL CAPACITY 7 LITRES), EQUIPPED WITH IMPACT FUSE AND INTERNAL BURSTER FILLED WITH RDX; MOUNTED ON MISSILE VEHICLE WITH BINARY-SYSTEM SOLID FUEL STORED OUTDOORS IN WOODEN BOXES

CONDITION: NORMAL

NO: 2

LOCATION: MUTHANNA ESTABLISHMENT

AGENT: SARIN

MUNITION: 122-MM ROCKET

QTY: 2,500

DESCRIPTION: METAL WARHEAD COMPRISING THREE METAL CONTAINERS LINED WITH TEFLON (TOTAL CAPACITY 6 LITRES); FOLLOWING DISPERSAL, THE CONTAINERS ARE OPERATED BY IGNITING AN ALL-WAYS FUSE; MOUNTED ON MISSILE VEHICLE COVERED BY BINARY-SYSTEM SOLID FUEL

CONDITION: UNDER DEBRIS IN DAMAGED STORE

NO: 3

LOCATION: MUHAMMADIYAT

AGENT: SARIN

MUNITION: OS-2 SERIAL BOMB

QTY: 200

DESCRIPTION: MADE OF LOCALLY-PRODUCED ALUMINIUM; CAPACITY 220 LITRES; EQUIPPED WITH INTERNAL BURSTER FILLED WITH RDX AND IMPACT FUSE

CONDITION: UNDER DEBRIS; DESTROYED

NO: 4

LOCATION: MUHAMMADIYAT

AGENT: MUSTARD GAS

MUNITION: LD-250 SERIAL BOMB

QTY: 200

DESCRIPTION: LOCALLY PRODUCED; EQUIPPED WITH INTERNAL BURSTER FILLED WITH RDX AND IMPACT OR PROXIMITY FUSE

CONDITION: DAMAGED

NO: 5

LOCATION: MUHAMMADIYAT

AGENT: CS

MUNITION: MORTOR SHELL

QTY: 20,000

DESCRIPTION: ORDINARY BOMB; CAPACITY 440 GM (?); EQUIPPED WITH IMPACT FUSE

CONDITION: DESTROYED

NO: 6

LOCATION: KHAMISIYAH STORES

AGENT: SARIN

MUNITION: 122-MM ROCKET

QTY: 2,160

DESCRIPTION: AS IN (1) ABOVE

CONDITION: DESTROYED

NO: 7

LOCATION: CHEMICAL CORPS TRAINING CENTRE (NEAR FALLUJAH) (80 KM WEST OF BAGHDAD)

AGENT: MUSTARD GAS

MUNITION: ARTILLERY SHELL

QTY: 6,394

DESCRIPTION: 3.5-LITRE-CAPACITY SHELL EQUIPPED WITH INTERNAL BURSTER (TYPE RDX) AND IMPACT OR PROXIMITY FUSE

CONDITION: NORMAL

NO: 8

LOCATION: AL-WALID AIRBASE

AGENT: SARIN

MUNITION: BINARY-SYSTEM R-400 SERIAL BOMB

QTY: 336

DESCRIPTION: LOCALLY PRODUCED; 90 LITRES; AGENTS MIXED SHORTLY BEFORE UTILIZATION; EQUIPPED WITH RDX-TYPE INTERNAL BURSTER; IMPACT FUSE AND DELAY FUSE (?)

CONDITION: NORMAL

NO: 9

LOCATION: SADDAM AND QADISIYAH AIRBASE

AGENT: MUSTARD GAS

MUNITION: AALD-500 500-GAUGE SERIAL BOMB

QTY: 140

DESCRIPTION: CAPACITY 12 LITRES; EQUIPPED WITH RDX-TYPE INTERNAL BURSTER AN IMPACT OR PROXIMITY FUSE

CONDITION: NORMAL

NO: 10

LOCATION: SADDAM, QADISIYAH, AL-PAKR AND TAMMUZ AIRBASES AND AL-TUZ AIRFIELD

AGENT: MUSTARD GAS

MUNITION: LD-250 250-GAUGE SERIAL BOMB

QTY: 900

DESCRIPTION: CAPACITY 60 LITRES; LOCALLY PRODUCED; EQUIPPED WITH RDX-TYPE INTERNAL BURSTER AND IMPACT OR PROXIMITY FUSE

CONDITION: NORMAL

NO: 11

LOCATION: DUJAYL (AVARAH)

AGENT: SARIN

MUNITION: AL-EUSSEIN MISSILE WARHEAD

QTY: 16

DESCRIPTION: LOCALLY-PRODUCED WARHEAD; CAPACITY 140 LITRES; EQUIPPED WITH INTERNAL BURSTER AND IMPACT FUSE

CONDITION: NORMAL

NO: 12

LOCATION: DUJAYL (AVARAH)

AGENT: BINARY SARIN

MUNITION: AL-EUSSEIN MISSILE WARHEAD

QTY: 14

DESCRIPTION: LOCALLY-PRODUCED WARHEAD; CAPACITY 140 LITRES; AGENTS ARE MIXED ABORTLY BEFORE UTILIZATION; EQUIPPED WITH INTERNAL BURSTER AND IMPACT FUSE

CONDITION: NORMAL

NO: 13

LOCATION: KHAMISIYAH STORES (NASIRIYAH)

AGENT: MUSTARD GAS

MUNITION: 155-MM SHELL

QTY: 4.240

DESCRIPTION: 3.5-LITRE-CAPACITY BOMB EQUIPPED WITH RDX-TYPE INTERNAL BURSTER AND IMPACT OR PROXIMITY FUSE

CONDITION: NORMAL

1.5(c)
76864:76864

Subject: SUBJ: IRAQ'S NONCOMPLIANCE WITH UN SECURITY COUNCIL RESOLUTION 687, AUGUST 1991
Not Finally Evaluated Intelligence

TO FACILITATE ELECTRONIC ACCESS, THIS DOCUMENT HAS BEEN REFORMATTED TO ELIMINATE INFORMATION THAT DOES NOT PERTAIN TO GULF WAR ILLNESS ISSUES OR THAT IS CLASSIFIED. A COPY OF THIS REDACTED DOCUMENT, IN ORIGINAL FORMAT, IS AVAILABLE ON REQUEST.

Directorate of
Intelligence

Iraq's Noncompliance With UN
Security Council Resolution 687

An Intelligence Assessment

August 1991

We know through reporting that chemical weapons have been stored at three declared siteS---Samarra', Muhammadiyat, and Khamisiyah---for several years. The latter TWO SITES were not in Iraq's initial declaration to the UN but were declared shortly thereafter. By 1988, SAMARRA' and Muhammadiyat reportedly were two of Iraq's principal CW storage sites. Chemical weapons were stored at the KhamiSiyah site as early as 1985. three other storage sites declared by Iraq contained S-shaped special storage bunkers, all but one of which was damaged or destroyed by Coalition AIRSTRIKES.

Khamisiyah Storage Facility

Iraq declared that chemical munitionS are stored at the Khamisiyah storage facility, near the city of An Nasiriyah. REPORTING indicated in 1986 THAT SEVERAL THOUSAND MUSTARD munitions were stored at the Khamisiyah site. The Iraqi coordinates are close to those of a storage facility near An Nasiriyah that contains ONE S-shaped bunker. The bunker was extensively damaged by Coalition attacks.

1.5(C)
95631:95631

SUBJECT: SUBJ: THE UNITED NATIONS SPECIAL COMMISSION ON IRAQ (UNSCOM) HAS MADE AVAILABLE THE FOLLOWING INFORMATION DERIVED FROM THE UNSCOM 9/CW-2 (15 TO 22 AUGUST 1991) MISSION INSPECTION REPORT:
NOT FINALLY EVALUATED INTELLIGENCE

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ANNEX R

ANSWERS TO QUESTIONS POSED BY UNSCOM 9 ON CHEMICAL AGENTS AND SYNTHETIC PROCESSES

120
WHY WAS THE ORIGINAL DECLARATION OF 155-MM MUSTARD SHELLS SO INCOMPLETE?

A: THE DECLARATION FOR KHAMISIYAH WAS NOT MADE UNTIL AFTER 18 APRIL BECAUSE ON 18 APRIL KHAMISIYAH WAS STILL IN THE HANDS OF THE COALITION FORCES. WE DID NOT KNOW UNTIL AFTER THEIR WITHDRAWAL HOW MANY MUSTARD GAS SHELLS HAD BEEN LEFT THERE, IF ANY.

(COMMENT: EVEN IF CORRECT, THIS DOESN'T, OF COURSE, ANSWER THE QUESTION IN RELATION OF THE MUSTARD SHELLS AT FALLUJAH)

1.5(C)
95763:75711

Subject: SUBJ: SITE DESCRIPTIONS FROM UNSCOM 20 INSPECTION REPORT, 13 NOVEMBER 1991
Not Finally Evaluated Intelligence

TO FACILITATE ELECTRONIC ACCESS, THIS DOCUMENT HAS BEEN REFORMATTED TO ELIMINATE INFORMATION THAT DOES NOT PERTAIN TO GULF WAR ILLNESS ISSUES OR THAT IS CLASSIFIED. A COPY OF THIS REDACTED DOCUMENT, IN ORIGINAL FORMAT, IS AVAILABLE ON REQUEST.

THE UNITED NATIONS SPECIAL COMMISSION ON IRAQ (UNSCOM) HAS MADE AVAILABLE THE FOLLOWING INFORMATION DERIVED FROM THE UNSCOM 20/CW-6 MISSION (22 OCTOBER TO 11 NOVEMBER 1991) INSPECTION REPORT (DATED 13 NOVEMBER 1991):

SECTION 3

SITE DESCRIPTIONS

INTRODUCTION

68. THE UNSCOM 20 INSPECTION TEAM VISITED 6 DECLARED CHEMICAL WEAPONS STORAGE SITES: SADDAM AIR BASE, AL-TUZ AIRFIELD, KHAMISIYAH CW STORAGE SITE, QADISIYAH AIR BASE, AL-WALID AIR BASE AND MUHAMMADIYAT CW STORAGE SITE.

KHAMISIYAH CW STORAGE SITE

78. KHAMISIYAH CW STORAGE SITE IS SITUATED APPROXIMATELY 25KM SOUTHEAST OF NASIRIYAH. THERE WERE TWO TYPES OF CHEMICAL WEAPONS STORED THERE: 155MM MUSTARD-FILLED ARTILLERY SHELLS AND 122MM 'BINARY SARIN' ROCKETS (FILLED WITH A MIXTURE OF GB AND GF).

79. THE 122MM CHEMICAL ROCKETS WERE STORED WITHIN THE CONFINES OF KHAMISIYAH AMMUNITION DEPOT. ARTILLERY SHELLS WERE LOCATED IN AN UNFENCED OPEN AREA ABOUT 5KM EAST OF THE DEPOT.

80. A SMALL QUANTITY OF SALVAGED 122MM ROCKETS WAS LOCATED IN A HOLLOWED-OUT PIT. THE ROCKETS WERE PLACED IN THREE PILES. THE MAIN STOCK OF 122MM ROCKETS WERE STORED. IN THE REMAINS OF A DEMOLISHED STORAGE BUNKER. THE IRAQIS REFER TO THE BUILDING AS "WAREHOUSE 73". THE ROCKETS IN AND AROUND THIS STRUCTURE WERE DAMAGED BEYOND REPAIR. THE BUNKER ITSELF HAD BEEN REDUCED TO A PILE OF RUMBLE. COUNTING OF THE CONTENTS WAS NOT POSSIBLE. EXPLOSIVE HAZARDS AND CONTAMINATED AREAS EXIST WITHIN THE DEPOT. MOVEMENT THROUGH THE DEPOT WAS RESTRICTED BECAUSE OF MUNITIONS AND EXPLOSIVE MATERIALS SCATTERED THROUGHOUT THE AREA. MUNITIONS CANNOT BE TRANSPORTED AND MUST BE DESTROYED WHERE THEY ARE. DESTRUCTION OF THE ROCKETS WOULD BE DIFFICULT AND DANGEROUS OWING TO THEIR DETERIORATION AND PRESSURE BUILD-UP WITHIN THE CASING. CAREFUL ADDITIONAL STUDY IS NECESSARY BEFORE A DETAILED DESTRUCTION RECOMMENDATION CAN BE MADE.

81. THE IRAQI EXPLANATION THAT THE ROCKETS HAD BEEN DESTROYED DURING THE WAR WAS INADEQUATE. THE INSPECTION TEAM OBSERVED THAT THE STRUCTURES DID NOT LOOK AS THOUGH THEY HAD BEEN BOMBED, BUT RATHER DESTROYED BY LOCALLY PLACE DEMOLITION CHARGES. SINCE THAT THE IRAQI ARMY EVACUATED THIS AREA DURING THE WAR, THE POSSIBILITY THAT THE CHEMICAL WEAPONS WERE DESTROYED BEFORE ITS DEPARTURE CANNOT NOT BE EXCLUDED.

82. IN CONTRAST TO THE CONDITION OF THE ROCKETS, THE ARTILLERY PROJECTILES APPEARED TO HAVE RETAINED SOME UTILITY. THIS IS AN ADDITIONAL INDICATION THAT THE 155MM PROJECTILES WERE MOVED TO THE PRESENT LOCATION AFTER THE WAR. THE 155MM SHELLS COULD BE TRANSPORTED TO AL-MUTHANNA FOR DESTRUCTION WITHOUT DIFFICULTY.

83. A MAP OF KHAMISIYAH AREA AND DIAGRAMS OF THE RELEVANT CW STORAGE SITES ARE ATTACHED.

SECTION 5

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

136. A SIMILAR SITUATION EXISTS AT KHAMISIYAH WITH REGARD TO THE 122MM ROCKETS. THEY ARE TO DANGEROUS TO MOVE. IT SHOULD BE NOTED THAT WRITTEN PERMISSION HAS ALREADY BEEN GIVEN TO THE IRAQI AUTHORITIES TO MOVE THE AMMUNITION WHICH HAS BEEN DEEMED FIT TO BE TRANSPORTED. THE IRAQIS HAVE ALSO BEEN TOLD TO TAKE NOT ACTION CONCERNING ALL OTHER AMMUNITION UNTIL THEY RECEIVE ADVICE FROM UNSCOM.

138. DURING UNSCOM 20 FURTHER DISCUSSION WERE HELD WITH THE SENIOR IRAQI CW OFFICIALS. AS ON PREVIOUS OCCASIONS THE QUESTIONS OF THE TEAM WERE MET WITH OBFUSCATION, PREVARICATION AND DOWNRIGHT LYING.

139. ANOMALIES WERE DISCOVERED AT SEVERAL SITES CONCERNING THE CONDITION OF AMMUNITION. IT WAS EVIDENT THAT AMMUNITION HAD BEEN MOVED TO ITS CURRENT LOCATION WELL AFTER THE END OF THE GULF WAR. THE REASON FOR THIS IS NOT CLEAR. THE IRAQIS DENY THAT THEY HAVE REMOVED ANY AMMUNITION AND WILL PROVIDE NO INFORMATION ON THIS. THE SIGNIFICANCE OF THIS IS HARD TO ASSESS.

140. THE INCIDENT WHICH WHILST OPENING A 122MM ROCKET AT KHAMISIYAH PROVED THAT BOTH THE EQUIPMENT USED AND THE PROCEDURES ADOPTED WERE CORRECT.

ANNEX F - DETECTION INFORMATION

7. KHAMISIYAH STORAGE:

- NO POSITIVE DETECTION AND NO HAZARD WITH 155MM SHELLS, IF NOT UNSCREWING HANDLING RINGS.
- ON AND AROUND THE 122MM ROCKETS:

·NO VAPOUR DETECTION

- MANY LEAKS ON THE GROUND (LIQUID DETECTION: 5 BARS PHOSPHORUS WITH AP2C)

OPERATIONS

18. AN NASIRIYAH DEPOT. TWO 122MM BINARY GB/GF ROCKETS WERE SELECTED FOR CHEMICAL SAMPLING, AND ONE OF THESE TWO ITEMS WAS EXAMBLED WITH ARS ALONE. THE INAICATION WAS LIQUID. THIS WAS THE ITEM WHICH SPRAYED LIQUID G-AGENT ON THE EOD PERSONNEL DRILLING THE MUNITION.

19. A TARGET OF OPPORTUNITY WAS MISSED BY NOT INTERROGATING ANY OF THE 5.000+ MUSTARD- FILLED 155MM PROJECTILES. ARS WOULD HAVE BEEN IDEAL IN THIS SITUATION.

1.5(c)
72668:72668

Subject: SUBJ: MEMORANDUM OF PHONE CALL, 15 NOVEMBER 1991
Not Finally Evaluated Intelligence

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MEMORANDUM OF PHONE CALL 15 NOV 91

1. TALKED TO 0815L

7. CAME BACK ON THE LINE TO POINT OUT THAT PARA OF LAST NIGHT'S SUPPORT CABLE CONTAINED A MISUNDERSTANDING ON OUR PART. HE STATED (VERY EMPHATICALLY-YOU KNOW) THAT TALL AL LAHM AMMUNITION STORAGE DEPOT THAT WAS VISITED BY UNSCOM 20 IS NOT THE SAME AS THE AN NASIRIYAH STORAGE FACILITY SW. THESE TWO INSTALLATIONS ARE ABOUT 25 KILOMETERS APART, AND THE IRAQIS TOOK THE TEAM TO THE FORMER LOCATION, BUT NOT THE LATTER.

1.5(c)
94742:94742

Subject: SUBJ: ACIS ON FACILITY IDENTIFICATION AND TASKING, 15 NOVEMBER 1991
Not Finally Evaluated Intelligence

TO FACILITATE ELECTRONIC ACCESS, THIS DOCUMENT HAS BEEN REFORMATTED TO ELIMINATE INFORMATION THAT DOES NOT PERTAIN TO GULF WAR ILLNESS ISSUES OR THAT IS CLASSIFIED. A COPY OF THIS REDACTED DOCUMENT, IN ORIGINAL FORMAT, IS AVAILABLE ON REQUEST.

15 NOV 91

5 - ACIS APOLOGIZES FOR MISUNDERSTANDING ON TALL AL LAHM STORAGE FACILITY TERMINALS WERE DOWN MOST OF DAY ON 14 NOV AND HAD TROUBLE VERIFYING DIFFERENCE BETWEEN TWO FACILITIES. TASKING WILL BE FORWARDED TO STUDY THIS FACILITY FOR ACTIVITY THAT MIGHT INDICATE THAT THE IRAQIS BROUGHT CW MATERIAL INTO FACILITY JUST FOR THE INSPECTION, RESULTS WILL BE FORWARDED NEXT WEEK. ALSO ACIS WILL GET IN TOUCH WITH 24TH MI DIVISION ON THIS MATTER. ACIS HAS NO ON CW6 VISIT TO TALL AL LAHM FACILITY. PLEASE QUERY STATUS OF REPORT FAX ACIS IF POSSIBLE.

1.5(c)
94736:94736

ENVELOPE CDSN = LGX071 MCN = 91316/10784 TOR = 913161212
PTTSZYUW RUEKJCS5419 3161212-SSSS--RUEALGX.
ZNY SSSSS
HEADER P 121212Z NOV 91
FM JOINT STAFF WASHINGTON DC
INFO RUEADWD/OCSA WASHINGTON DC
RUEAHQA/CSAF WASHINGTON DC
RUEACMC/CMC WASHINGTON DC
RUSNNOA/USCINCEUR VAIHINGEN GE
RUFGAID/USEUCOM AIDES VAIHINGEN GE
RUCUAAA/HQ SAC OFFUTT AFB NE//XP//
RUETIAQ/MPCFTGEORGEGMEADEMD
RHFPAAA/UTAIS RAMSTEIN AB GE//IN-CMO//
RHFUMHE/BRFINK MHE BOERFINK GE
RHEPAAB/TAC IDHS LANGLEY AFB VA//IDHS//
RHCGSRB/COMUSARCENT FT MCPHERSON GA//AFRD-DSO//
RUFTAKA/USAINTELCTRE HEIDELBERG GE
RUFTAKC/UDITDUSAREUR HEIDELBERG GE
RUDOGHA/USNMR SHAPE BE//SURVEY//
RHDLCNE/CINCUSNAVEUR LONDON UK//N2/N24//
RHCGSRB/CINCFOR FT MCPHERSON GA//FCJ2-IC/FCJ3-OD//
RUCBSAA/USCINCLANT NORFOLK VA//J2//
RUWSMXI/MAC INTEL CEN SCOTT AFB IL//IN//
RUCJACC/USCINCCENT MACDILL AFB FL//CARA//
RUCQVAB/USCINCSOC INTEL OPS CEN MACDILL AFB FL
RUQYSDG/FOSIF ROTA SP
RUEOFAA/COMJSOC FT BRAGG NC//J2//
RULKQAN/MARCORINTCEN QUANTICO VA
RUSNNOA/USCINCEUR VAIHINGEN GE
RUFTAKA/CDR USAINTELCTRE HEIDELBERG GE
RUEALGX/SAFE
P 121157Z NOV 91
FM
TO RUEKJCS/DIA WASHDC PRIORITY

RHEHAAA/THE WHITE HOUSE WASHDC//SITUATION ROOM// PRIORITY
RUEHC/SECSTATE WASHDC PRIORITY

RUHGRPG/COMUSNAVCENT
RUEBFDA/USCENTAF FWD DHAHRAN//IN//
RUEBFDA/4404CW DHAHRAN//IN//

RUHGPSA/CTF ONE FIVE FOUR
RUHGMFG/CTF ONE FIVE SIX
RUHGMFG/CTF ONE FIVE EIGHT
RUWMHJA/NAVSTKWARCEN FALLON NV//N-2//
RUDHAAA/CDRINSCOM FT BELVOIR VA//IAOPS-H-F//
RUCDGDA/DIRMSIC REDSTONE ARS AL//AIAMS-T//
BT

SERIAL: (U) IIR 6 021 0020 92.

/********** THIS IS A COMBINED MESSAGE **********/
BODY COUNTRY: (U) IRAQ (IZ).
SUBJECT: IIR 6 021 0020 92/UNSCOM 20 (CW6) INSPECTION RESULTS OF KAMISIYAH AMMUNITION STORAGE FACILITY (U).

WARNING:

THIS IS AN INFORMATION REPORT, NOT FINALLY EVALUATED INTELLIGENCE.

DEPARTMENT OF DEFENSE

DOI: (U) 911027.

SOURCE:

SUMMARY: ON 26 AND 27 OCT 91, THE UNITED NATIONS SPECIAL COMMISSION CHEMICAL WARFARE TEAM 6, UNSCOM 20, INSPECTED CHEMICAL MUNITIONS AT AN AMMUNITION STORAGE DEPOT NEAR AN NASIRIYAH. A POTENTIAL NERVE AGENT CASUALTY WAS COMPLETELY PROTECTED BY A GERMAN-MADE PROTECTIVE SUIT.

TEXT 1. BACKGROUND--BETWEEN 22 OCT 91 AND 1 NOV 91, THE UNITED NATIONS SPECIAL COMMISSION (UNSCOM) CHEMICAL WARFARE (CW) INSPECTION TEAM 6, UNSCOM 20, CONDUCTED DETAILED INSPECTIONS OF DECLARED CW STORAGE SITES THROUGHOUT IRAQ. ON 27 OCT 91, THE TEAM COUNTED AND CATALOGUED CHEMICAL MUNITIONS STORED AT AN AMMUNITION STORAGE FACILITY NEAR AN NASIRIYAH. IN ADDITION, THE TEAM INSPECTED TWO OTHER SITES CONTAINING 155MM ARTILLERY ROUNDS AND SALVAGED 122MM ROCKETS.
2. AMMUNITION DEPOT--THIS DEPOT //GEOCOORD:3074N04429E//, IS LOCATED APPROXIMATELY 25 KILOMETERS SOUTHEAST OF AN NASIRIYAH. THIS FACILITY IS OF EQUAL SIZE TO THE AN NASIRIYAH DEPOT SOUTHWEST

//GEOCOORD:3057N04306E//. THE DEPOT CONSISTS OF A MIXTURE OF BUILDINGS OF VARIOUS CONSTRUCTIONS, AND NUMEROUS TANKS, CONTENTS UNKNOWN, ALL SURROUNDED BY EARTHEN BERMS. THESE TANKS COULD BE WATER SUPPLIES.

3. 155MM ARTILLERY SHELLS--155MM ARTILLERY SHELLS WERE LOCATED IN AN UNFENCED OPEN AREA APPROXIMATELY FIVE KILOMETERS EAST OF THE DEPOT AT //GEOCOORD:3043N04625E//. THE SHELLS WERE PAINTED GREY WITH THE WORD GAZ, WRITTEN IN ARABIC SCRIPT, FOLLOWED BY THE LETTER "H", WRITTEN IN ROMAN SCRIPT. THE LOT NUMBER WAS WRITTEN UNDERNEATH THIS. THE SHELLS HAD LIFTING/HANDLING RINGS ON TOP. SOME OF THE RINGS HAD WASHERS, WHILE OTHERS DID NOT. THE ONLY MUSTARD DETECTED WAS FROM ONE ROUND WHERE THE LIFTING RING HAD LOOSENED. THERE WAS NO EVIDENCE OF ANY EXPLOSIVES, BURSTER CHARGES, OR FUSES. THE SHELLS WERE NOT NEATLY STACKED. ALTHOUGH THE SHELLS HAD BEEN ON PALLETS, SOMEONE APPARENTLY HAD PUSHED THEM OVER. WHEN THE TEAM ARRIVED, THE SHELLS WERE COVERED WITH CANVAS. THE IRAQIS REMOVED THE CANVAS SO THE TEAM COULD COUNT THE SHELLS. ALTHOUGH THE IRAQIS DECLARED 6,240 SHELLS, THE TEAM COUNTED A TOTAL OF 6,323. OTHER THAN THE LEAKING SHELL, ALL THE SHELLS APPEARED TO BE IN GOOD CONDITION, AND WILL BE MOVED TO THE "UTHANNA STATE ESTABLISHMENT //GEOCOORD:334956N0434813E// FOR DESTRUCTION.

4. 122MM ROCKETS--THE IRAQIS DECLARED 2,160 ROCKETS, WHICH ARE STORED IN TWO SEPARATE LOCATIONS. DUE TO THE HAZARDOUS CONDITIONS AT THE TWO SITES, THE TEAM WAS ABLE TO ONLY COUNT 297 ROCKETS.

A. OPEN PIT--ON 26 OCT 91, THE TEAM INSPECTED A PIT NEXT TO THE CANAL WHERE THE IRAQIS HAD DUMPED THE SALVAGED 122MM BINARY SARIN ROCKETS, WHICH WERE FILLED WITH A MIXTURE OF GB AND GF. THESE ROCKETS WERE APPARENTLY SALVAGED FROM WHAT THE IRAQIS REFERRED TO AS WAREHOUSE '73' AT THE DEPOT. THE APPROXIMATE LOCATION FOR THIS PIT IS //GEOCOORD:304480N0462580E//. INSIDE THE PIT, MEASURING 300 METERS BY 150 METERS, THE ROCKETS WERE HEAPED INTO FOUR PILES, THREE LARGE PILES AND ONE SMALL PILE, ALONG WITH THEIR ASSOCIATED WOODEN CRATES. IT APPEARED TO THE TEAM THAT THE WOODEN BOXES HAD BEEN PILED UP WITH EXPLOSIVES UNDERNEATH AND BLOWN TO PIECES. THERE WERE VARIOUS OTHER REMAINS OF CONVENTIONAL ROCKETS, ALONG WITH OTHER "ILITARY-TYPE LITTER IN THE PIT.

B. 122MM ROCKET SAMPLING--ON 27 OCT 91, THE TEA" TOOK SAMPLES FROM THE 122MM ROCKETS. THE SAMPLING WAS PRECEDED BY AN EXPLOSIVE ORDNANCE DESTRUCTION (EOD) TECHNICIAN DRILLING A HOLE IN THE ROCKET. AS THE TECHNICIAN PREPARED, A DECONTAMINATION LINE WAS ESTABLISHED WITH DOCTORS STANDING BY. PRIOR TO DRILLING THE HOLE, EOD PERSONNEL DONNED FULLY-IMPERMEABLE CHEMICAL PROTECTIVE SUITS WITH OXYGEN BOTTLES. THE EOD TECHNICIAN ATTEMPTED TO DRILL INTO THE ROCKET, BUT WAS UNSUCCESSFUL AT THIS SPOT. HE CHOSE A SECOND SPOT, AND BEGAN TO DRILL AGAIN. ALTHOUGH THE DRILLING WAS VERY DIFFICULT, THE DRILL SUDDENLY ENTERED THE ROCKET AND WAS IMMEDIATELY FORCED BACK OUT. A FOUR-"ETER STREAM OF SARIN, UNDER CONSIDERABLE PRESSURE, SPRAYED FROM THE ROCKET, AND HIT THE EOD TECHNICIAN UNDER THE JAW WITH CONSIDERABLE FORCE. APPROXIMATELY ONE-THIRD OF THE ROCKET'S CONTENTS ESCAPED. THE TECHNICIAN IM"EDIATELY UNDERWENT FULL DECONTA"INATION PROCEDURES. THIS PROCESS WAS CONDUCTED TWICE BEFORE THE TECHNICIAN WAS CO"PLETELY DECONTA"INATED BECAUSE THE SARIN WAS IN ALL THE FOLDS OF THE GARMENT AROUND THE NECK AND AR"S. IN ADDITION, THE CHEMICAL AGENT "IXTURE CONTAINED GF, WHICH IS "ORE DIFFICULT TO REMOVE THAN GB. THE INDIVIDUAL SPENT APPROXIMATELY 40 MINUTES IN THE SUIT AND SUFFERED NO EFFECTS FROM THE ORDEAL. THERE WAS PLENTY OF WATER ON THE SITE FOR THE DECONTAMINATION PROCEDURE AND TO KEEP THE INDIVIDUAL COOL DURING THE PROCESS. FOLLOWING THIS INCIDENT, THE REQUIRED SAMPLES OF THE AGENT WERE TAKEN. BASED ON THIS INCIDENT, THE TEAM BELIEVED THE IRAQIS COULD NOT HAVE SAFELY OPENED THE ROCKETS. THE CONTENTS OF THE ROCKETS MUST BE UNDER CONSIDERABLE PRESSURE. AFTER THE SARIN EJECTED FROM THE ROCKET, THE PLASTIC CONTAINER INSIDE RECOVERED ELASTICALLY AND ACTUALLY MOVED ABOUT FOUR MILLIMETERS, OBSCURING THE HOLE. THERE WAS NO OBVIOUS EXTERNAL SIGN OF THE PRESSURE. THERE WAS NO OBVIOUS DISTORTION OR BULGING OF THE ROCKET CASING, AND NO APPARENT LEAKAGE. THE IRAQIS WERE GENUINELY CONCERNED AND VERY SURPRISED BY THE INCIDENT. IN THE TEAM'S ESTIMATION, THE IRAQIS DO NOT HAVE THE EQUIPMENT TO SAFELY DRAIN THE ROCKETS, AND UNDER THE SAME CIRCUMSTANCES WOULD HAVE SUFFERED A SEVERE CASUALTY, PROBABLY A FATALITY.

C. BUNKER 73--ON 27 OCT 91, THE TEAM INSPECTED BUNKER 73, AS IT IS KNOWN BY THE IRAQIS, WHICH IS LOCATED ABOUT THREE KILOMETERS FROM THE HEADQUARTERS BUILDING OF THE AMMUNITION DEPOT, AND WAS COMPLETELY DESTROYED. ALL THAT REMAINED WAS A PILE OF EARTH WITH A FEW STANCHIONS STICKING UP, AND SOME TWISTED REINFORCING STEEL WITH CHUNKS OF CONCRETE ATTACHED. THIS BUNKER WAS JUST A STANDARD AMMUNITION STORAGE BUNKER, SURFACE CONSTRUCTION, WITH EARTHEN BLAST PROTECTION ON THE SIDES. THIS BUNKER APPEARED TO BE STANDARD WHEN COMPARED TO OTHER BUNKERS IN THE AREA. IT APPEARED TO HAVE NO SPECIAL PROVISIONS FOR VENTILATION AND WAS

CHEAPLY CONSTRUCTED. 122MM ROCKETS, WITH THEIR CANISTERS SPLIT OPEN, WERE SCATTERED THROUGHOUT THE BUNKER AREA. HOWEVER, NO CONTAMINATION WAS DETECTED. ALTHOUGH THE IRAQIS HAVE "OVED A LARGE "AJORITY OF "UNITIONS TO THE PIT, THERE ARE STILL ROCKETS, EITHER WITH SPLIT CASINGS OR OTHER DAMAGE, SCATTERED AROUND THE AREA. NONE OF THE 122M" MUNITIONS OBSERVED COULD BE CONSIDERED SERVICEABLE. THE IRAQIS WERE TOLD NOT TO "OVE THE "UNITIONS. THE IRAQIS CLAIMED THE BUILDINGS AND "UNITIONS WERE DESTROYED BY OCCUPYING COALITION FORCES. IN THE TEA"'S ESTIMATION, THE DESTRUCTION OCCURRED AS A RESULT OF LOCALLY-PLACED EXPLOSIVES AS OPPOSED TO BOMBING.

COMMENTS: (U) NONE.
//IPSP: (U)
//COMSOBJ: (U)
ADMIN PROJ: (U)
INSTR:

PREP: (U)
ENCLS: (U) NONE.
ACQ: (U)
DISSE": (U) FIELD: NONE.

95730:95730
1.5(c)

970212_cia_68329_68329_01.txt

Subject: SUBJ: SIT REP ON TALL AL LAHM

Not Finally Evaluated Intelligence

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NOV 91 STAFF

SUBJECT: STATUS REPORT, 12 NOV 91

TEXT:

1. SITUATION REPORT ON TALL AL LAHM AMMUNITION STORAGE DEPOT: UNSCOM 20 INSPECTED TALL AL LAH14 STORAGE DEPOT (GEOCOORD: 3044SON 462580E) ON 26-27 OCTOBER 1991. THE SITE IS LOCATED APPROXIMATELY 25KM SOUTHEAST OF AN NASIRIYAH. THE INSPECTORS FOUND TALL AL LAHM LITTERED WITH DAMAGED AND DESTROYED SARIN-FILLED 122MM ROCKETS. THE INSPECTORS ALSO NOTED THAT THE BUILDINGS WERE DESTROYED BY DEMOLITIONS AS OPPOSED TO AERIAL BOMBBARDMENT. THEY ALSO FOUND AN EMPTY U.S. CRATE LABELED AS M48, WHICH ARE SHAPE CHARGES USED BY THE U.S. MILITARY.

NOTIFIED ARMY CENTRAL COMMAND (ARCENT) OF THE LOCATION AND EVIDENCE FOUND AT TALL AL LAHM. WE RECEIVED INFORMATION FROM ARCENT TO THE FACT THAT 24TH MECHANIZED INFANTRY DIVISION WAS LOCATED IN THE VICINITY OF TALL AL LAHM, BUT WE ARE UNABLE TO CONFIRM IF U.S. TROOPS DID IN FACT DESTROY BUILDINGS AT THIS PARTICULAR SITE. WE ARE SENDING THIS INFORMATION TO YOU IN ORDER TO TAKE APPROPRIATE ACTION AS YOU SEE FIT AS THE RISK OF CHEMICAL

CONTAMINATION BY 24TH ID PERSONNEL IS A POSSIBILITY.

END OF MESSAGE

68329:68329

1.5c

First Page |Prev Page |Next Page |Src Image

Subject: SUBJ: RECORD OF PHONE CALL, 20 NOVEMBER 1991
Not Finally Evaluated Intelligence

9

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SPOKE WITH CAPT AT G2 OFFICE, FT STEWART, GA, HOME OF 24TH MECH INF DIV. WANTED ME TO PASS ON INFORMATION REGARDING CW MUNITION AT TALL AL LAHM AMMO DEPOT IN SOUTHERN IRAQ. I REQUESTED THAT ANY INFORMATION REGARDING U.S./COALITION FORCES AT THIS FACILITY DURING OP. D-S. BE FORWARDED TO ACIS.

1.5(c)
94768:94768

970212_cia_94737_94737_01.txt

Subject: SUBJ: INFO ON TALL AL LAHM AMMO

Not Finally Evaluated Intelligence

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SLUGS: WNINTEL

SUBJECT:

20 NOVEMBER 1991

TEXT:

CHEMICAL:

INFO ON TALL AL LAHM AMMO DEPOT WAS PASSED TO AT G-2 OFFICE, FT STEWART GA (24TH MI DIVISION). INFO ON PRESENCE OF TROOPS THERE AND THEIR ACTIVITIES DURING DESERT STORM WERE REQUESTED WILL PASS ON ANY SIGNIFICANT INFORMATION TO WHEN AVAILABLE.

94737:94737

1.5(c)

First Page |Prev Page |Next Page |Src Image

SERIAL: (U) IIR 6 021 0099 92.
BODY:
COUNTRY: (U) IRAQ (IZ).
COMBINE: COMPLETE

SUBJECT: IIR 6 021 0099 92/CHEMICAL ROCKET DESTRUCTION IN KHAMISIYAH (U).

WARNING:

THIS IS AN INFORMATION REPORT, NOT FINALLY EVALUATED INTELLIGENCE.

DEPARTMENT OF DEFENSE

DOI: (U) 920324.

SOURCE:

SUMMARY: A UNITED NATIONS SPECIAL COMMISSION CHEMICAL DESTRUCTION TEAM, UNSCOM 29 (CD 1), DESTROYED A TOTAL OF 463 BINARY CHEMICAL (GB, GF) 122-MM ROCKETS NEAR KHAMISIYAH CW STORAGE SITE, IRAQ.

TEXT: 1. NOTE--THIS IIR IS BEING RETRANSMITTED AT WASHINGTON CUSTOMER REQUEST TO BE INSERTED INTO THE DIA DATA BASE. THE ORIGINAL TRANSMISSION OF THIS IIR WAS DTG APR 92.///
DURING THE PERIOD 23 FEB - 22 MAR 92, A UNITED NATIONS SPECIAL COMMISSION CHEMICAL DESTRUCTION TEAM, UNSCOM 29 (CD 1), DESTROYED A TOTAL OF 463 BINARY CHEMICAL (GB, GF) 122-MM ROCKETS FROM KHAMISIYAH CW STORAGE SITE //GEOCOORD:304420N0462640E// NEAR AN-NASIRIYAH, IRAQ. NINETY PERCENT OF THE ROCKETS ACTUALLY CONTAINED AGENT, WITH AN ESTIMATED TOTAL AGENT WEIGHT OF 3 TONS.
2. LOCATION. DESTRUCTION TOOK PLACE IN THE VICINITY OF //GEOCOORD:304325N0464045E//. THE TEAM SELECTED THIS LOCATION AFTER CAREFUL CONSIDERATION OF SUCH FACTORS AS TOPOGRAPHY, WEATHER, AND POPULATION CENTERS. SAFETY WAS THE PRIMARY DETERMINANT, GIVEN THE MAIN WIND DIRECTION (ENCLOSURE 1). UNDER THE WIND CONDITIONS MOST PREVALENT IN THE AREA, THE SAFETY ANGLE OF THIS LOCATION IN RELATION TO THE POPULATION CENTERS NEARBY WAS 150 DEGREES.
3. IN ADDITION TO THE ROCKETS DESTROYED, THE TEAM DISCOVERED 74 ROCKETS, 8 WARHEADS, AND 4 ROCKET MOTORS AT KHAMISIYAH CW STORAGE SITE. THEY WERE RECOVERED FROM THE SAND BANK BETWEEN THE CHEMICAL WEAPONS STORAGE AREA AND THE CANAL TO THE SOUTH

. THE TEAM LEADER INSTRUCTED THE IRAQIS TO CONTINUE TO SEARCH IN THE SAND BANK FOR ANY MORE ROCKETS, THEN TO MAKE AN OFFICIAL DECLARATION OF THE NUMBER OF ROCKETS FOUND.

4. THE TEAM STATED THAT OTHER AREAS NEAR AN-NASIRIYAH WILL NEED TO BE INSPECTED IN DETAIL FOR POSSIBLE STORED CW MUNITIONS.

BELIEVED THAT ADDITIONAL BACKGROUND WORK IS REQUIRED TO IDENTIFY THE ORIGINAL STORAGE LOCATION OF THE CHEMICAL ROUNDS THAT THEY DESTROYED. THE IRAQIS CLAIMED THAT ALL DAMAGE IN THE AREA WAS CAUSED BY COALITION FORCES THAT HAD OCCUPIED THE AREA. THE TEAM THOUGHT THAT THERE WAS SUFFICIENT UNCERTAINTY TO MERIT FURTHER EXAMINATION OF THIS ISSUE.

5.

COMMENTS: 1. IRAQ DECLARED KHAMISIYAH AS A STORAGE SITE FOR CHEMICAL MUNITIONS, BUT INITIALLY GAVE NO SPECIFIC LOCATION FOR THE FACILITY OTHER THAN THAT IT WAS NEAR AN-NASIRIYAH. THE U.S. INTELLIGENCE COMMUNITY INITIALLY BELIEVED THAT AN-NASIRIYAH DEPOT SOUTHWEST //GEOCOORD:3057N04611E// WAS THE MOST LIKELY STORAGE FACILITY FOR CW MUNITIONS IN THE AREA. THE UNSCOM TEAM TASKED TO VERIFY THE STORED CHEMICAL MUNITIONS, UNSCOM 20, DID NOT VISIT THIS DEPOT, HOWEVER, AS THE IRAQIS TOOK THEM TO KHAMISIYAH CW STORAGE SITE.

2. (U) THIS IIR IS A RETRANSMISSION; ORIGINAL DTG OF IIR IS 110723ZAPR92.

95623:95623
1.5(c)

Subject: SUBJ: UNSCOM MEMBER QUESTIONS ABOUT COALITION ACTIVITY, 1 APRIL 1992
Not Finally Evaluated Intelligence

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010801Z APR 92

2.

A. A TOTAL OF 463 BINARY (GB, GF) 122MM ROCKETS WERE EXPLOSIVELY DESTROYED DURING UNSCOM 29'S 32 DAYS IN IRAQ. NINETY PERCENT OF THE ROCKETS ACTUALLY CONTAINED AGENT, AN ESTIMATED TOTAL OF 3 TONS OF AGENT.

3.

A. REQUESTED THAT ADDITIONAL BACKGROUND INFORMATION BE PROVIDED UNSCOM BEFORE FURTHER DESTRUCTION TAKES PLACE AT KHAMISIYAH. THE IRAQIS TOLD UNSCOM 29, AS THEY HAD TOLD UNSCOM 20, THAT THE DESTRUCTION AT THE STORAGE SITE HAD BEEN CAUSED BY COALITION FORCES WHO HAD OCCUPIED THE AREA UNTIL 10 MAR 91. UNSCOM 20 CONCLUDED THAT IT WAS PROBABLE THAT THE IRAQIS HAD GATHERED THE ROCKETS HERE AND ATTEMPTED TO DESTROY THEM THEMSELVES. REQUESTED DETAILS PERTAINING TO COALITION FORCES' ACTIVITIES AT THIS SITE: WHO WAS THERE, WHEN WERE THEY THERE; HOW LONG DID THEY STAY' WHAT ACTIONS WERE TAKEN; ETC. AGREED TO SUBMIT A REQUEST FOR THE INFORMATION.

1.5(c)
94741:94741

Subject: SUBJ: WORKING PAPER MENTIONING POSSIBLE CW EXPOSURE, 1992
Not Finally Evaluated Intelligence

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1. REQUEST DETAILS PERTAINING TO COALITION GROUND FORCE ACTIVTIES AT THE FOLLOWING SITES:

AN NASIRIYAH DEPOT SOUTHWEST (3057N04611E)
TALL AL LAHM STORAGE AREA (3047N04627E) (AKA KHAMISIYAH STORAGE AREA)
KHAMISIYAH CW STORAGE SITE (3044N04625E)

PLEASE PROVIDE INFORMATION ON WHO WAS THERE (WHAT UNIT(S); WHEN WERE THEY THERE; HOW LONG DID THEY STAY; WHAT ACTIONS WERE TAKEN (I.E., DID THEY COLLECT AND EXPLOSIVELY DESTROY ANY MUNITIONS? IF SO, WHERE, WHEN, DETAILS? DID THEY PLACE CHARGES IN/AROUND STORAGE BUNKERS AND DETONATE THEM?); ETC

2. JUSTIFICATION. THE IRAQIS TOLD UNSCOM 29, AS THEY HAD TOLD UNSCOM 20, THAT THE DESTRUCTION AT KHAMISIYAH STORAGE AREA AND AT THE KHAMISIYAH CW STORAGE SITE HAD BEEN CAUSED BY COALITION FORCES WHO HAD OCCUPIED THE AREA UNSCOM 20 CONCLUDED THAT IT WAS PROBABLE THAT THE IRAQIS HAD GATHERED THE ROCKETS HERE AND ATTEMPTED TO DESTROY THEM THEMSELVES ADDITIONAL INFORMATION TO CONFIRM OR REFUTE THE IRAQI CLAIM WILL SIGNIFICANTLY ASSIST THE INTELLIGENCE COMMUNITY'S EFFORTS TO IDENTIFY IRAQ'S CW STORES.

3. BACKGROUND:

A. IN ITS DECLARATION TO THE U.N. ON CHEMICAL WEAPONS HOLDINGS, IRAQ DECLARED THAT CHEMICAL MUNITIONS WERE STORED AT KHAMISIYAH, NEAR AN-NASIRIYAH. THE SPECIFIC LOCATION WAS NOT GIVEN. THE U.S. INTELLIGENCE COMMUNITY IDENTIFIED AN-NASIRIYAH DEPOT SOUTHWEST AS THE PROBABLE FACILITY TO WHICH IRAQ REFERRED.

B. UNSCOM 17 VISITED KHAMISIYAH ON 24 OCT 91 AT THE REQUEST OF UNSCOM NEW YORK TO CHECK ON REPORTED MOVEMENT OF MUNITIONS THAT WERE TAKING PLACE. UNSCOM 17 REPORTED THAT THE IRAQIS ADMITTED MOVING UP TO 20 TRUCKS PER DAY OF RECOVERABLE CONVENTIONAL MUNITIONS FROM THE DAMAGED STORAGE BUNKERS AT KHAMISIYAH. ACCORDING TO ONE OF THE UNSCOM 17 PERSONNEL WHO VISITED KHAMISIYAH, THE REPORT DID NOT STATE, HOWEVER, THAT THE SENIOR IRAQI MINISTRY OF DEFENSE REPRESENTATIVE TOLD UNSCOM 17 THAT CW MUNITIONS WERE STORED OUTSIDE THE KHAMISIYAH STORAGE AREA PROPER. UNSCOM 17 DID NOT INSPECT THE AREA BUT DID REPORT THAT LEAKING CHEMICAL AGENT WAS NOTICEABLE.

C. UNSCOM 20 VISITED THE KHAMISIYAH STORAGE SITE ON 26 AND 27 OCT 91. THEY STATED THAT BINARY SARIN-FILLED 122MM ROCKETS ALONG WITH THEIR ASSOCIATED WOODEN CRATES, APPARENTLY SALVAGED FROM WHAT THE IRAQIS REFERRED TO AS WAREHOUSE 73 AT THE KHAMISIYAH STORAGE AREA,

HAD BEEN PLACED IN FOUR PILES IN A LARGE PIT OUTSIDE THE KHAMISIYAH STORAGE AREA PROPER; I.E., AT KHAMISIYAH CW STORAGE SITE. (WAREHOUSE, OR BUNKER, 73 IS LOCATED ABOUT 3 KM FROM THE HEADQUARTERS BUILDING AT KHAMISIYAH STORAGE AREA. IT IS A STANDARD AMMUNITION BUNKER OF SURFACE CONSTRUCTION WITH EARTHEN BLAST PROTECTION ON THE SIDES. IT IS COMPLETELY DESTROYED.) NO MARKINGS TO IDENTIFY THE ROCKETS AS CHEMICAL MUNITIONS WERE NOTED. THE WOODEN BOXES APPEARED TO HAVE BEEN PILED UP WITH EXPLOSIVES UNDERNEATH AND BLOWN TO PIECES. THERE WERE REMAINS OF VARIOUS OTHER CONVENTIONAL ROCKETS AND OTHER MILITARY-TYPE LITTER IN THE PIT EQUIPMENT ASSOCIATED WITH U.S. MILITARTY DEMOLITIONS WAS DISCOVERED.

D. UNSCOM 29 SPENT THE PERIOD 23 FEB - 22 MAR 92 AT KHAMISIYAH CW STORAGE SITE, DESTROYING THE 122MM BINARY SARIN-FILLED ROCKETS. THEY FOUND ADDITIONAL ROCKETS STREWN AROUND THE SITE AND BURIED IN THE SAND BANKS BETWEEN THE SITE AND THE CANAL TO ITS SOUTH.

4. COMMENTS. THERE IS A DISTINCT POSSIBILITY THAT COALITION. (U.S.) GROUND FORCES DESTROYED BUNKERS OR PILES OF MUNITIONS CONTAINING BINARY SARIN-FILLED ROCKETS, WITHOUT KNOWING THAT THE CHEMICAL ROUNDS WERE PRESENT. RESEARCH TO RESPOND TO UNSCOM'S QUERY SHOULD ALSO REVEAL IF ANY SUCH EXPOSURE ACTUALLY OCCURRED. (S)

1.5(c)
95968:95968

SUBJECT: SUBJ: INTERNAL MEMORANDUM ON PERSIAN GULF WAR VETERANS' ILLNESSES, 30 MAY 1995
NOT FINALLY EVALUATED INTELLIGENCE

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NOTE FOR:
FROM:
DATE: 30-05-95 10:23:18
SUBJECT: PERSIAN GULF WAR VETERANS' ILLNESSES

REF: EMPLOYEE BULLETIN 0003-95, DTD 19 MAY 1995

1. THE FOLLOWING MAY OR MAY NOT BE PERTINENT TO THE SUBJECT, BUT IS FORWARDED IN RESPONSE TO REQUEST FOR AN AGENCY PERSON WITH INFORMATION THAT MIGHT BEAR ON POSSIBLE CAUSES OF GULF WAR SYNDROME.

2. AN INSPECTION TEAM UNDER THE AUSPICES OF THE UNITED NATIONS SPECIAL COMMISSION (UNSCOM)--UNSCOM 29/CHEMICAL DESTRUCTION 1--VISITED IRAQ 23 FEB-22 MAR 92 TO SUPERVISE THE DESTRUCTION OF SARIN-FILLED 122 MM ROCKETS. THE SITE AT WHICH THE ROCKETS HAD BEEN STORED IS CALLED KHAMISIYAH BY THE IRAQIS, AND IS KNOWN TO THE US INTELLIGENCE COMMUNITY AS TALL AL LAHM AMMUNITION STORAGE FACILITY. DURING THEIR PERIOD IN IRAQ, THE IRAQIS TOLD THE INSPECTION TEAM THAT MUCH OF THE DESTRUCTION AT THE KHAMISIYAH SITE HAD BEEN CAUSED BY COALITION FORCES WHO HAD OCCUPIED THE SITE , BUT THE INSPECTORS THOUGHT IRAQ MIGHT SIMPLY HAVE GATHERED THE ROCKETS HERE AND ATTEMPTED TO DESTROY THEM THEMSELVES. UNSCOM REQUESTED ADDITIONAL INFORMATION FROM THE US ON THE ACTIVITIES OF ANY COALFILCH FORCES WHO HAD BEEN IN THAT AREA.

THE CABLE ON THIS TEAM'S ACTIVITIES NOTED THAT THE TEAM "...REQUESTED DETAILS PERTAINING TO COALITION FORCES' ACTIVITIES AT THIS SITE: WHO WAS THERE; WHEN WERE THEY THERE; HOW LONG DID THEY STAY; WHAT ACTIONS WERE TAKEN; ETC."

3. A DOD INTELLIGENCE INFORMATION REPORT-IIR 6 021 0099 92/CHEMICAL ROCKET DESTRUCTION IN KHAMISIYAH--PROVIDED DETAILS OF THE TEAM'S DESTRUCTION ACTIVITY AND PROVIDED COORDINATES FOR THE KHAMISIYAH FACILITY AND THE NEARBY DESTRUCTION SITES. THE IIR ALSO FORWARDED A SKETCH MAP AND AN ANNOTATED MAP EXTRACT DEPICTING THE EXACT LOCATION OF THE DESTRUCTION SITES.

4. IN MID-MAY, I PREPARED A REQUEST TO DOD FOR THE INFORMATION DESIRED BY UNSCOM. DOD NEVER RESPONDED TO THE REQUEST. I HAVE SEARCHED WITHOUT SUCCESS THROUGH MY OWN AND THE OFFICE'S FILES FOR A COPY OF THIS REQUEST TO DOD.

5. PRIOR TO MAY 1991, I HAD SERVED AS SENIOR ANALYST WITH THE CURRENT ANALYSIS BRANCH OF THE JOINT INTELLIGENCE CENTER (JIC) IN THE PENTAGON. AS ALL ARE AWARE, THE THREAT OF IRAQI USE OF CW OR BW WEAPONS WAS A HIGH PRIORITY DURING THE PREPARATIONS FOR AND THE CONDUCT OF DESERT STORM. IN MY CAPACITY IN THE JIC, I NEVER CAME ACROSS A SINGLE INSTANCE OF PROVEN CW OR BW USE OR DISCOVERY

ANYWHERE IN THE ACTIVE THEATER OF OPERATIONS.

6. I HAVE BEEN CONNECTED CONTINUOUSLY WITH THIS ACTIVITY SINCE MAY 91

COPIES OF THE TWO REPORTS CITED ABOVE ARE AVAILABLE FROM ME IF THEY MIGHT BE OF USE TO YOU.

1.5(C)
94784:94784

S. HRG. 103-900

UNITED STATES DUAL-USE EXPORTS TO IRAQ AND THEIR IMPACT ON THE HEALTH OF THE PERSIAN GULF WAR VETERANS

HEARING

BEFORE THE

COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS UNITED STATES SENATE

ONE HUNDRED THIRD CONGRESS

SECOND SESSION

ON

UNITED STATES CHEMICAL AND BIOLOGICAL WARFARE-RELATED DUAL-USE EXPORTS TO IRAQ AND THEIR POSSIBLE IMPACT ON THE HEALTH CONSEQUENCES OF THE PERSIAN GULF WAR

MAY 25, 1994

Printed for the use of the Committee on Banking, Housing, and Urban Affairs

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Dr. OEHLER. What we're saying is that we have no evidence that they were, and it cannot be any stronger than that.

The CHAIRMAN. Do you have a theory as to what was going on then?

Dr. OEHLER. I don't know if my theory counts much. As a scientist, I know that trying to design sensors to detect specific chemicals and not others is a rather difficult job and false alarms are a way of business.

I'll also note that the battlefield is a pretty messy place with incoming rockets, which when they impact have unexpended rocket fuel that vaporizes, you have explosives that go off, you have solid fuel missiles going with pollutants in the air. There's an awful lot of what would be hard-to-identify chemicals in the atmosphere at any time.

The CHAIRMAN. So much of the Department of Defense reports now rest on the fact that the chemical alarms that they put out there that kept going off did not work right. Maybe they are right that they did not work, and they bought a lot of equipment that did not work right. But I do not find your answer satisfactory, quite frankly, and let me just be blunt about it. If you have got some information, classified or other, that will bear out what you are saying, I would like to see it. I would like to see it all.

Dr. OEHLER. I have no information to suggest, that leads us to the conclusion that any BW or CW agents were used against coalition forces.

The CHAIRMAN. Well, you see, again, that is a very—that is what we call in the business the use of a very carefully structured phrase. Let me give you an example. Suppose a bombing run hits a munitions facility and blows up into the air some of these agents, either gas agents or biological agents, and they are carried by the windstream down over our troops, and they are impacted by it. Is that a use?

Dr. OEHLER. Let me address those two specifically.

The CHAIRMAN. First of all, I would like a yes or a no—in terms of the way you are using the word "use." Is that a use or not a use?

Dr. OEHLER. I would call that exposure, certainly.

The CHAIRMAN. But is that a use within the way you are using it here?

Dr. OEHLER. No, but I would not sit here and try to use some legal definition to get around a problem like that. I do not have any intelligence information to suggest that coalition forces were exposed, whether it be by intentional use or by accidental discharge to BW/CW agents.

Let me address these two separately, because I think this is significant. The coalition forces did not find any CW agents stored in the Kuwaiti theater of operations, with the exception of some the U.N. found near An Nasiriyah.

The CHAIRMAN. Right. We talked about that earlier.

Dr. OEHLER. And, if in fact a munition blows up a chemical warhead storage site and chemical agents are released into the atmosphere, the modeling that has been done on this suggests that nothing is going to go further than maybe 10 miles. So if your American troops, if the coalition troops are much farther than that, they are not going to be exposed to chemical warfare.

Questions from Chairman Riegle

Filename:0riegleq.894
Aug. 94

Subject: Questions from Chairman Riegle

QI. Was the Department of Defense intelligence apparatus aware of the items exported to Iraq by the United States which were converted to use in the Iraqi chemical, biological, and nuclear programs prior to the Persian Gulf War? Provide specific details.

AI. During the earlier years associated with Iraq's build-up of its scientific, industrial and military capabilities, Iraq was neither a proscribed nation to be denied military critical technology, nor an enemy. The US intelligence community is forbidden from monitoring the activities of US citizens and its companies. Consequently, very little was known by the Intelligence Community about US exports of technology with military potential, particularly to a non-proscribed non-enemy nation, unless it was informed of such exports by the Department of Congress. During 1980-1994 Commerce requested review of only 16 dual-use export cases by the DoD. Of these, only two were forwarded to the DIA for technical review. They involved computers and signal processing equipment. DIA recommended denial in both cases. DIA was aware of the illegal export of thiodiglycol to Iraq by the Baltimore company Alcolac. DIA assisted customs and the FBI in their investigation and successful prosecution of that company. DIA biological warfare (BW) analysts were aware of some of the dual-use items purchased by Iraq for its BW program, but generally did not know what U.S. company was supplying the items.

Q2. Were Iraqi chemical and biological facilities among the priority targets hit by Coalition bombers during the first days of the air war?

A2. Yes. Some Iraqi chemical and biological (CBW) facilities were priority targets and were among the first attacked on and around the first days of the air war. Not every CBW target was attacked during the first days however. CBW targets were themselves prioritized, generally by the intelligence community, then specifically, by the operators out of CENTCOM

and were attacked accordingly. Generally speaking, CBW targets were attacked at the very beginning and throughout the air campaign.

Q3. Were U.S. national laboratories contacted prior to the war and requested to assess the danger from the fallout of bombing Iraqi chemical, biological, and nuclear facilities? What was their advice?

A3. The Defense Nuclear Agency was tasked to assess the danger of fallout from bombed Iraqi facilities. Their advice was passed to CENTCOM though other than intelligence channels.

Q10. Are all biological agents lethal? Isn't it true that one biological warfare strategy is to debilitate your adversary's capabilities and another is to overload his medical facilities?

A10. No, not all biological warfare agents are lethal; some are only lethal if untreated, while others are almost always lethal, even with medical treatment. Incapacitating BW agents could be used to debilitate an adversary's capabilities and to overload his medical facilities.

Q15. Were any biological agents or materials capable of being used to cause disease or other illnesses discovered by the U.S. or any other Coalition forces in Iraq, Kuwait, or Saudi Arabia? What were those materials?

A15. No such materials were found by U.S. or Coalition forces.

Q16. Were any Iraqi vaccines discovered or did interviews of enemy prisoners of war, or others, reveal what biological warfare-related materials the Iraqis had defended against?

A16. No.

Q17. Did Iraq have a biological warfare program that appeared to be offensive in nature?

A17. Yes. See question 29.

Q19. Were chemical munitions or binary precursor materials

capable of being used in chemical warfare discovered in any area of Iraq, Kuwait, or Saudi Arabia before, during, or after the war by US Forces, US civilian personnel or other Coalition participants?

AI9. The wording of this question requires a three part answer to include responses addressing the Kuwaiti Theater of Operations (KTO), Operation Provide Comfort, and the UN inspections.

The Kuwaiti Theater of Operations (KTO) included southern Iraq south of 31'00 N, Kuwait, and Saudi Arabia. This was the area eventually occupied by Coalition ground forces before, during and after Operation Desert Storm. Neither chemical munitions, bulk agent, nor binary precursors were discovered in the KTO before, during or after the war by US Forces, civilian personnel, or Coalition participants.

On 28 May 1991, several months after the war, during Operation Provide Comfort in Kurdish occupied northern Iraq, four Iraqi expended, unexploded, 122mm chemical rockets were discovered by US forces near the town of Kani Masi 37'13 N 043'26 E. This area is in extreme north central Iraq, about five miles from the Turkish boarder. The rounds appeared to be duds and appeared to have been in the field for years. The rounds were returned to the US, exploited, and found to contain no intact chemical agent, only degradation

products of the nerve agent sarin. This information, along with the location and condition of the rounds indicate they were most likely fired during the reported Iraqi use of chemical weapons against Kurds in 1988. These rounds in no way should be associated with events of Desert Storm nor be used as evidence in the investigation of so-called Gulf War Syndrome. Their only significance is that, at the time, they confirmed our assessment that such weapons existed in the Iraqi arsenal.

Finally, it has been widely circulated that UN inspection teams found thousands of destroyed and intact chemical rounds in an ammunition depot at Nasiriyah, and that this discovery contradicts our statement in paragraph one of this answer. Nasiriyah technically is outside the KTO, being north of 31'00

N and the Euphrates River. More importantly, it was not in the territory occupied by Coalition forces after the war. Moreover, the following points are relevant because UN inspectors did not really "find" the subject munitions. In reality, the Iraqis declared the munitions to the UN and the Inspectors eventually went to that location to check what the Iraqis had reported:
I) the UN inspection occurred at least eight months after the war;
2) the location of the "found" chemical rounds was 15 miles from the widely discussed CBW bunkers bombed at Nasiriyah (the site which was originally expected to be inspected). The bombed bunkers were not inspected until one year later in Oct 1992 and found to contain no chemical or biological weapons;

Q20. What evidence, if any, is there concerning the forward deployment of chemical and biological warfare agents or weapons prior to or during the Persian Gulf conflict? What evidence, if any, is there of Iraqi attempts to avoid the destruction of chemical or biological warfare agents or weapons by Coalition bombings? For example, transshipment activity just prior to the initiation of the air war from chemical production facilities such as Samarra Habbaniyah, or others.

A20. There is no evidence, that Iraq forward deployed chemical and/or biological agents or weapons prior to or during Desert Storm. Even though at the time, many analysts expected and warned against potential Iraqi use of CBW, it is our position now, and has been since the end of the war, that Iraq did not intend to use CBW because of the fear of massive retaliation, and the conclusion that Coalition troops Were too well prepared to fight in a CBW environment, if not, far better prepared than Iraqi troops, thus eliminating their advantage. This conclusion is based primarily, but not totally, on:

- their were no indications and warnings of imminent Iraqi use of CW i.e. heavy transshipment activity of CW transport trucks from

Samarra to the forward areas. - not one CBW munition was found

in the captured/occupied Iraqi territory.

Even if Iraq intended to use CW against the Coalition, the pace and ferocity of the air ahd ground campaign was such that Iraq's ability to produce, weaponize, forward deploy, and deliver CW on a target was virtually eliminated. The only CW which could have been used had to be pre-positioned in substantial amounts. The pace and ferocity of the air and ground campaign, in our opinion, rendered it impossible to move any CW munitions into or out of the KTO. Because the ground campaign quickly overwhelmed the Iraqi forces, we would expect to find abandoned CW munitions, as was the case for conventional munitions and equipment. It is difficult to believe that under the mass1ve bombardment levied against the Iraqi troops that they somehow managed to move substantial amounts of CBW munitions out of the KTO, undetected, leav1ng not a trace of it behind. Since no CBW was found in the KTO we believe it never was there.

There is evidence that Iraqi attempted to avoid destruction of its CBW production equipment prior to the air war. Besides camouflaging many of its production buildings, cargo trucks did move an unknown amount of CW production equipment from Samarra. Equipment-moving trucks and refrigerated trucks were also observed at the Salman Pak BW facility prior to the onset of bombing, suggesting that Iraq was moving equipment or material into or out of the facility. Information obtained after the conflict revealed that Iraq had moved BW agent production equipment from Salman Pak to the Al Hakam suspect BW facility.

QZI. What evidence, if any, exists of Iraqi chemical and biological warfare defensive measures during or prior to the Persian Gulf War?

A21. Iraq claims it did not have a dedicated BW defensive program. Iraq distributed drugs for the treatment of nerve and mustard exposure to at least some of its Republican Guard Divisions. There was an effort to outfit their troops with chemical protective gear; this usually consisted of a gas mask, gloves, boots, simple poncho, and individual chemical agent antidote kits. Additionally, decontamination stations were established throughout Iraq.

Q22. What evidence, if any, exists of Iraqi command

instructions to use chemical weapons prior to or during the war?

A22. There is no/evidence to indicate instructions or orders to use chemical weapons were given by Iraqi command authorities prior to or during the war.

Q23. Were any Iraqi chemical units in Iraq or Kuwait located or reported on by US or Coalition sources during Operation Desert Shield or Desert Storm? Explain.

A23. No. Specific locations of Iraqi chemical units were never reported by US or Coalition sources during Operation Desert Shield or Desert Storm. See question 35.

Q24. In the Department of Defense's final report to Congress on the Conduct of the Persian Gulf War, it was reported that 88 Scud launches were detected. Saddam Hussein has claimed to have launched at least 93 Scuds. Can you explain the discrepancy? Were any Scud missiles launched by Iraq against Turkey or any other location other than Israel or Saudi Arabia? Were U.S. forces and dependent personnel in Turkey ever ordered into MOPP gear?

A24. DIA holds a total of 88 SCUD launches against Israeli and Saudi Arabian targets only. We cannot explain the discrepancy between Saddam's claim to have launched at least 93 SCUDs.

Q26. Did Iraq conduct test firings of Scuds or other short or medium range ballistic missiles during Operation Desert Shield? What was the assessed purpose for these tests since Iraq already had extensive knowledge of the capabilities of Scud missiles?

A26. No. Iraq did not conduct test firings of SCUDs or other short or medium range ballistic missiles during Operation Desert Shield.

Q27. Did Iraq have the capability to deliver biological weapons via ground based aerosol generators, aircraft, helicopters, or FAW missiles? Did they have any other means of delivering biological weapons?

A27. Iraq had a capability to deliver BW agents

from missile warheads and aerial bombs. Iraq also had the capability to disseminate biological agents from ground-based aerosol generators; however we found no evidence that they had attempted to do so. Other delivery systems (helicopters) and munitions (i.e., CW munitions) could be used to disseminate BW agents; however, we found no evidence that Iraq had loaded BW agents into any such munitions.

Q29. What was the Defense Intelligence Agency evaluation of Iraq's chemical and biological weapons programs and delivery means, prior to, during, and after the Persian Gulf War? What delivery means were within range of Coalition forces at the beginning of the air war and by the end of the ground war?

A29. Prior to the Persian Gulf War Iraq was assessed to possess roughly 1000 MT of chemical agent equally split between the blister agent mustard and the nerve agents sarin (GB) and GF. Small amounts (possibly tens of tons) of the persistent nerve agent VX were assessed as possibly available from ongoing R&D programs The nerve agent soman (GD) and the psychochemical BZ were also assessed to be in the R&D stage. Much of the above 1000 MT of agent was assessed

to be weaponized in the following munitions with the remainder stored as bulk agent:

Artillery

155mm *
152mm
130mm
122mm rocket *

Mortars

82mm
120mm

Aerial

250kg bomb
500kg bomb
Cluster bombs

90 mm rocket

Note: (I) * Preferred weapon for artillery
(2) Landmines were assessed as possible.

Missiles

SCUD
Al Husayn
Al Abbas

(3) Frog missiles are capable of CW delivery but no evidence existed for such a warhead in Iraq.

Prior to the Persian Gulf War, DIA assessed that Iraq had BW agents weaponized in aerial bombs and Scud missile warheads, and that Iraq was capable of disseminating BW agents with ground-based aerosol generators. Scud missiles and alrcraft capable of carrying aerial bombs probably were within range of Coalition forces during the war, but we know of no BW munitions for these systems which were ever forward-deployed. Further, we know of no occasion when such dissemination systems or munitions were used to disperse BW agents during the war.

After the war, DIA assessed the CW program to be severely degraded but not eliminated. The BW program was assessed to have retained the infrastructure needed to reestablish itself. UN inspections and ongoing intelligence efforts have resulted in DIA's reassessment that although nearly all known buildings and bunkers associated with CBW programs were destroyed, CW and BW production equipment, precursors and munitions have been hidden or salvaged and that both programs could be reestablished shortly after UN inspections ceased.

Iraqi CBW delivery assets in range of Coalition troops both before and after the war were SCUDs, aerial bombs, and potentially any ISSmm artillery or 122mm mobile rocket launcher within approximately 25 kilometers of Coalition forces. One must keep in mind that during the war, Coalition air superiority largely eliminated aircraft delivery of CBW agents to forward areas, and that by the end of the ground war, Iraqi air and ground forces, as well as its command and control structure were in complete disarray.

Q30. Describe the evolution of Iraq's battlefield employment of chemical weapons during the Iran-Iraq war, did Iraq's ability to use these weapons improve over the course of the war?

A30. Generally speaking Iraq's use of CW against Iran during their war improved dramatically as the war progressed. Essentially, Iraq learned how to use CW through on the job training, very inefficiently at first then becoming quite effective towards the end. Iraqi use of CW against Iran can be divided into three distinct phases. The first phase, which continued until 1986, involved the use of CW agents in a strictly defensive role, to disrupt Iranian offensives. In a transitory phase lasting from late 1986 to early 1988, Iraq used CW preemptively against staging areas prior to Iranian offensives. Finally, and most significantly, Iraq used massed nerve agent strikes as an integral part of its well-orchestrated offensive in the spring and summer of 1988. The success of these offensives prompted Iran to accept a cease-fire in August 1988.

Q31. What chemical and biological agents were assessed to be in the Iraqi operational inventory and test inventories prior to the Persian Gulf War?

Chemical agents assessed to be in the Iraqi operational inventory prior to the Persian Gulf War were mustard, sarin, and GF. Tabun and dusty mustard were known to have been used against Iran but were thought to possible have been dropped from the 1990 inventory. Agents assessed to be in the R&D stage were VX, BZ and Soman.

Biological agents assessed to be in the pre-war inventory were anthrax and botulinum toxin in a limited number of missile warheads and aerial bombs.

Q34. What evidence exists, if any, to indicate that Iraq deployed chemical mines in the Kuwaiti theater of operations?

A34. There is no evidence that Iraq deployed chemical mines in the KTO. In fact, over 350,000 Iraqi mines have been found and removed from Kuwait, none of which were chemical mines.

Q35. Did Iraq deploy any chemical units or establish any chemical decontamination sites in the Kuwaiti or Iraqi theater

of operations - or in the disputed territories?

A35. Iraqi defensive chemical units are a standard complement of a typical Iraqi Corp and Division. Our best information suggests that most but not all of Iraqi divisions deployed with their standard chemical units. Dedicated offensive chemical units were assessed to be part of Republican Guard Divisions only, however, theoretically, virtually any 155mm artillery piece or 122mm mobile rocket launcher could fire CW rounds.

Yes. Iraq establish chemical decontamination sites in the KTO as well as throughout Iraq. Similar decontamination sites are located at known chemical training schools and therefore, their appearance is assessed more as standard operating procedure rather than a hard indicator of intent to use CW.

Q36. Which country provided the chemical Scud warheads to Iraq that were later located by the UN inspections? If by another country, how many of these warheads were initially provided? Did Iraq also manufacture its own?

A36. Iraq manufactured all of its chemical SCUD warheads indigenously.

Q37. Was the [(b)(1) sec 1.3(a)(4)] suspected of providing chemical or biological warfare training to Iraqi officers either in Iraq,
or any other country? Explain.

A37. there is absolutely no evidence to suggest, that they provided offensive chemical or biological weapons training to Iraq at any time. [(b)(1) sec 1.3(a)(4)]involved in providing defensive CBW equipment and training to the Iraqis in the early 1980's.

038. Is the Department of Defense aware of any to the Iraqis in setting up any chemical training center or production facility in Iraq? Explain.

A38
[(b)(1) sec 1.3(a)(4)]in setting up a chemical training facility in Iraq-
constructed a CW training center
near Habbaniyah, and may have helped train Republican Gaurd

troops in field
operations in a chemical environment.

Q40. Is there any classified or unclassified information that would indicate any exposures to or detections of chemical or biological agents?

A40. Other than the Czech detections on 19 and 24 January 91, which have been discussed at length during testimony and other questions for the record, there is no information, classified or unclassified, which would indicate any exposures to or valid detections of chemical agents. There were many, probably thousands, of false chemical alarms experienced by the Coalition, however, no alarm ever was verified using follow-up confirmation procedures. This issue has also been discussed at length in testimony and other questions for the record.

As with the alleged CW detections, there are some unsubstantiated reports that allege exposure to BW agents. However, despite concerted efforts, Coalition assets were not able to confirm any of these reports.

Q41. Is there any classified or unclassified information that would indicate the discovery of any chemical, biological, radiological or nuclear warfare related materials by U S. or Coalition forces before, during, or after the Persian Gulf War?

A41. There is no information, classified or unclassified, that would indicate the discovery of any chemical, biological, radiological or nuclear warfare related materials by the US or Coalition forces before, during or after the Persian Gulf War. See question 19.

Q46. What is the role of the Defense Intelligence Agency in the investigation into the exposure of U.S. forces to chemical, biological or radiological materials during Operation Desert Shield and Desert Storm?

A46. DIA's role, as always, has been to provide intelligence to the OSD. DIA has been deeply involved with the investigation into alleged exposure of US forces to chemical, biological or radiological materials during Desert Shield and

Desert Storm since the investigation began in early summer 1993. DIA has reviewed every aspect of its assessment of Iraqi chemical, biological and nuclear weapons programs, the possibility of their use against Coalition troops, and the possibility of accidental release from bombed Iraqi targets. DIA has spearheaded the investigation into the alleged Czech detections, making the honest assessment that the Czech detections were likely valid. Leaving no stone unturned, DIA traveled to Saudi Arabia, Kuwait, Israel, Czech Republic, France and England to further investigate the issue. Likewise, through the Defense Attache system, DIA requested information and assessments regarding the issue from other Coalition members and allies. To date, all of DIAs efforts and contacts point to the unanimous conclusion that coalition troops were not exposed to chemical or biological agents, either accidently (as a result of downwind exposure from bombed Iraqi facilities) or purposely (from direct Iraqi use).

[b.2.]

Subject: SUBJ: INTERNAL MEMORANDUM DESCRIBING UNCERTAINTIES ABOUT TALL AL LAHM, 6 SEPTEMBER 1995
Not Finally Evaluated Intelligence

TO FACILITATE ELECTRONIC ACCESS, THIS DOCUMENT HAS BEEN REFORMATTED TO ELIMINATE INFORMATION THAT DOES NOT PERTAIN TO GULF WAR ILLNESS ISSUES OR THAT IS CLASSIFIED. A COPY OF THIS REDACTED DOCUMENT, IN ORIGINAL FORMAT, IS AVAILABLE ON REQUEST.

NOTE FOR:

FROM:

DATE: 09-06-95 10 29.50 AM

SUBJECT: GULF WAR SYNDROME

TO ACHIEVE ANY MEANINGFUL RESULTS ON THE FALLOUT HAZARD ISSUE, WE NEED TO SETTLE THE NASLRIYAH/TALL AL LAHM ISSUE THE UN-FOUND PARTIALLY DESTROYED GB MUNITIONS THERE; THESE POSED THE ONLY POTENTIAL (REALISTIC) FALLOUT THREAT TO COALITION FORCES THE KEY, THEREFORE, IS IN DETERMINING WHEN AND HOW THESE MUNITIONS WERE DESTROYED AND WHERE COALITION TROOPS WERE AT THE TIME THERE ARE A COUPLE OF COMPLICATING ISSUES, THOUGH:

ANALYSIS COULD IDENTIFY (AT LEAST APPROXIMATELY) WHEN STORAGE BUILDINGS WERE DESTROYED HOWEVER, WE DON'T KNOW THE EXACT LOCATIONS OF THE DAMAGED MUNITIONS. THE UN INSPECTION TEAM THAT WENT THERE EXPECTED TO BE TAKEN TO A DIFFERENT SITE AND DIDN'T HAVE LINE DRAWINGS AVAILABLE WAS ON THAT TEAM BUT WAS IN THE GROUP THAT WENT TO INSPECT THE UNDAMAGED MUSTARD MUNITIONS. RECORD OF ANY BOMBINGS AT THE PLANT WOULD BE A USEFUL START IF ALL ATTACKS THERE TOOK PLACE ON THE SAME DAY, FOR EXAMPLE, WE COULD NARROW DOWN THE TIMEFRAME FOR POTENTIAL AGENT RELEASE

COULD HELP BY PROVIDING RECORDS OF WHEN AIR ATTACKS ON THIS FACILITY OCCURRED AND LETTING US KNOW WHAT HAPPENED WHILE COALITION FORCES OCCUPIED THAT AREA AT THE END OF THE WAR. THE UNSCOM TEAM THOUGHT THAT DAMAGE AT THE CW STORAGE AREA LOOKED LIKE DEMOLITION WORK. IF TRUE, THE BIG QUESTION IS, WHO DID IT--THE COALITION OR THE IRAQIS? I'D LIKE TO KNOW WHAT OUR TROOPS SAW AND/OR DID IN THE SHORT TIME THEY WERE IN THE AREA.

I DON'T THINK IT WOULD BE TOO DIFFICULT TO REQUEST
COULD GIVE US A REASONABLE ANSWER I'M NOT AS SURE ABOUT TASKING
FOR INFO BUT I'II LET YOU WORRY ABOUT THAT.

CC:

1.5(C)
95621:95621

SUBJECT: SUBJ: INTERNAL MEMORANDUM REQUESTING INFORMATION TO SUPPORT STUDY OF POTENTIAL EXPOSURE ISSUES, 13 SEPTEMBER 1995
NOT FINALLY EVALUATED INTELLIGENCE

TO FACILITATE ELECTRONIC ACCESS, THIS DOCUMENT HAS BEEN REFORMATTED TO ELIMINATE INFORMATION THAT DOES NOT PERTAIN TO GULF WAR ILLNESS ISSUES OR THAT IS CLASSIFIED. A COPY OF THIS REDACTED DOCUMENT, IN ORIGINAL FORMAT, IS AVAILABLE ON REQUEST.

13 SEP 95

MEMORANDUM FOR:

FROM:

SUBJECT: REQUEST FOR INFORMATION TO SUPPORT DESERT STORM "FALLOUT STUDY"

MY STUDY INTO THE POTENTIAL FALLOUT FROM DAMAGED OR DESTROYED IRAQI CHEMICAL MUNITIONS IS FOCUSING ON THE TALL AL LAHM STORAGE DEPOT (304700N0462615E), WHICH IS THE ONLY SITE IN SOUTHERN IRAQ AT WHICH UNSCOM FOUND CHEMICAL WEAPONS. UNFORTUNATELY, AS YOU ARE WELL AWARE, SIGNIFICANT GAPS EXIST IN OUR UNDERSTANDING OF WHEN THESE WEAPONS ARRIVED AND WHEN THEY COULD HAVE BEEN DAMAGED. BECAUSE THIS FACILITY WAS NOT IDENTIFIED AS A CW STORAGE FACILITY UNTIL LATE 1991, LITTLE IS KNOWN ABOUT THE BACKGROUND OF THIS FACILITY AND WHAT TRANSPIRED THERE DURING OPERATION DESERT STORM.

I HAVE IDENTIFIED SOME KEY QUESTIONS (PRESENTED BELOW) THAT I BELIEVE DOD IS BEST ABLE TO ADDRESS. I REQUEST THAT YOU IDENTIFY AN APPROPRIATE POINT-OF-CONTACT AT DOD AND FORWARD THESE QUESTIONS TO THAT PERSON:

DURING OPERATION DESERT STORM, WERE COALITION AIR ATTACKS CONDUCTED AGAINST THE TALL AL LAHM STORAGE DEPOT? IF SO, WHAT ORDNANCE WAS DROPPED ON WHICH DAYS? WHAT DAMAGE RESULTED FROM THESE ATTACKS?

DURING THE GROUND PHASE OF DESERT STORM, DID COALITION GROUND FORCES FIRE ARTILLERY OR OTHER WEAPONS AT THE TALL AL LAHM DEPOT? IF SO, WHAT ORDNANCE WAS USED? WHEN DID THIS OCCUR, AND HOW CLOSE WERE COALITION UNITS AT THE TIME(S) OF ATTACK? WHAT WAS THE RESULTING DAMAGE?

DID COALITION FORCES OCCUPY THE TALL AL LAHM DEPOT AT THE CONCLUSION OF DESERT STORM? IF SO, WHEN DID TROOPS FIRST OCCUPY THE DEPOT, AND WHEN DID THEY WITHDRAW? WHICH UNITS OCCUPIED OR WERE IN CLOSE PROXIMITY TO THIS DEPOT? WAS ANY DEMOLITION OF BUILDINGS, MUNITIONS, OR OTHER MATERIEL CONDUCTED BY COALITION TROOPS WHILE THE FACILITY WAS UNDER THEIR CONTROL? IF SO, WHAT WAS THE EXTENT OF THIS ACTIVITY? IN WHAT CONDITION WAS THE DEPOT (SPECIFICALLY ANY BUILDINGS, BUNKERS, AND REVETMENTS THERE) WHEN FIRST OCCUPIED BY THE COALITION? WERE THERE ANY CREDIBLE

DETECTIONS OF CW AGENTS AT THIS FACILITY AT THE TIME IT WAS UNDER THE CONTROL OF COALITION FORCES?

1.5(C)
94781:94781

Unit Location Listing

	Br	Command	Box	UIC	Unit Description	J-Date	Location Name	MGRS Grid	Latitude	Longitude
1	A	XVIII ABN CORPS	8		0082 ABN DIV O3 BDE	91060		PV34800650	30 46 07	046:24.33
2	A	XVIII ABN CORPS	27	WAA5AA	0017 ARSQ 01 AIR CAV SQDN	91060		PV35800730	30 47 26	046:25.13
3	A	XVIII ABN CORPS	8		0082 ABN DIV O3 BDE	91061		PV34800850	30.48.07	046:24.33
4	A	CENTER OF MIL HIST	33		0082 ABN DIV O3 BDE	91061		PV34800850	30.48.07	046:24.33
5	A	XVIII ABN CORPS	30	WABGAA	0307 EN BN ABN TAC CP	91061	TALL AL LAHM ASP	PV35000800	30 47.51	046:24.40
6	A	22ND SUPCOM	220		0082 ABN DIV O3 BDE	91062	VIC OBJ GRAY		30.48.00	046:24.00
7	A	HQ, USAREUR AND 7TH AR	10		3RD BDE, 82 ABN DIV	91062	VIC OBJ GRAY		30.48.00	046:24.00
8	A	24TH INF DIV	30		0082 ABN DIV O3 BDE	91062	VIC OBJ GRAY		30.48.00	046:24.00
9	A	CENTER OF MIL HIST	33		0082 ABN DIV O3 BDE	91062	VIC OBJ GRAY		30.48.00	046:24.00
10	A	XVIII ABN CORPS	8		0082 ABN DIV O3 BDE	91062		PV34800650	30.45.21	046:24.33
11	A	XVIII ABN CORPS	31	WGGOAA	0037 EN BN	91062		PV36200710	30.47.21	046:25.25
12	A	XVIII ABN CORPS	41	WGGOAA	0037 EN BN CORPS CBT AVN CP	91062		PV36200710	30 47 21	046 25 26
13	A	XVIII ABN CORPS	41	WGGOAA	0037 EN BN CORPS CBT AVN	91062		PV36200710	30 47 21	046 25 25
14	A	22ND SUPCOM	220		0082 ABN DIV O3 BDE	91063	VIC OBJ GRAY		30.46.00	046 25.00
15	A	XVIII ABN CORPS	27	WGGOAA	0037 EN BN CENTER MASS	91063		PV37000620	30:46.45	046:25.54
16	A	XVIII ABN CORPS	27	WGGOAA	0037 EN BN CENTER MASS	91063		PV37000620	30:46.61	046:25.54
17	A	XVIII ABN CORPS	27	WABVAA	0505 IN BN 02 ABN	91064		PV35000600	30 46 23	046:24 40
18	A	XVIII ABN CORPS	27	WABVAA	0505 IN BN 02 ABN	91064		PV37500550	30 46 38	046:24.13
19	A	VII CORPS	21		0001 IN DIV	91101		PV39000600	30 48 12	046 27.09

As of 10/11/95 11 48.45 *** Unclassified*** Page 1 of 1

95628.95628
1.5c

Document Footnote:

It must be pointed out that this list of unit locations is old information and has since been updated with more complete and accurate data. This information was the first attempt made to determine if Friendly Forces operated near Khamisiyah (aka: Tall Al Lahm), and came from DoD Environmental Support Group (ESG) database in October 1995. It was informally provided to CIA analysts in response to a query of whether troops were at Khamisiyah. After further research the DoD Investigation and Analysis Directorate (IAD) compiled a more complete list. The most current and complete list of units located at Khamisiyah is included in the Khamisiyah Case Narrative which was published in February 1997 by the DoD, Special Assistant for Gulf War Illnesses, Investigation and Analysis Directorate.

SUBJECT: SUBJ: CIA BRIEFING TO NSC ON STUDY OF POTENTIAL EXPOSURES, 26 JANUARY 1991
NOT FINALLY EVALUATED INTELLIGENCE

TO FACILITATE ELECTRONIC ACCESS, THIS DOCUMENT HAS BEEN REFORMATTED TO ELIMINATE INFORMATION THAT DOES NOT PERTAIN TO GULF WAR ILLNESS ISSUES OR THAT IS CLASSIFIED. A COPY OF THIS REDACTED DOCUMENT, IN ORIGINAL FORMAT, IS AVAILABLE ON REQUEST.

26 JAN 96

ONGOING CIA STUDY OF
POTENTIAL FOR EXPOSURE TO CBR
AGENTS DURING THE
PERSIAN GULF WAR

CENTRAL INTELLIGENCE AGENCY

WHY STUDY CBR EXPOSURE?

RESPONSE TO ALTERNATIVE VIEWS OF 2 CIA EMPLOYEES

CONTINUING EFFORT TO PROVIDE INDEPENDENT, COMPREHENSIVE, DEFENSIBLE REVIEW OF INTELLIGENCE TO SUPPORT USG EFFORTS BY:
- REVIEWING NEW INTELLIGENCE AND SUPPORTIVE INFORMATION
- REVISITING CIA ASSESSMENTS

STUDY INCLUDES

INFORMATION SURFACED BY CIA'S SPECIAL SEARCH AND DECLASSIFICATION EFFORT.

LATEST UNSCOM INFO

REEVALUATION OF FALLOUT MODELS.

STUDY INCLUDES (CONT):

NON-CLASSICAL AGENTS OR USE

INTEL ON GULF WAR HAZARDS

INTELLIGENCE ON NON-US ILLNESSES

IRAQI CW INTENT

STUDY USES FOR POINTING
PURPOSES:

VETERAN MEDICAL DATA

DOD OPERATIONAL LOGS

VETERAN TESTIMONIALS

BUT, NO COMPREHENSIVE REVIEW OR INVESTIGATION.

INTERIM REPORT OUTLINE

PAPER WILL COVER MAIN ASSESSMENTS ON USE, LOCATION, INTENT, FALLOUT, NOVEL AGENTS.

EXTENSIVE COVERAGE IN APPENDICES OF CBR PROGRAMS, MUNITIONS LOCATION, INTEL REPORT CREDIBILITY, AND SCUD PROPELLANTS.

IF SIGNIFICANTLY DECLASSIFIED WILL AID IN RESOLVING SOME PUBLIC CONCERNS.

PREVIOUS ASSESSMENTS

NO CONCLUSIVE
EVIDENCE OF EXPOSURE
CHEMICAL WEAPONS IN
KTO PRIOR TO AIR WAR
BUT REMOVED
FALLOUT INCAPABLE OF
REACHING TROOPS
CZECH DETECTIONS
ENIGMATIC

JAN 96 ASSESSMENTS

NO CONCLUSIVE
EVIDENCE OF EXPOSURE

NEW INTEL SOURCES: ADD'L HUMINT,
UNSCOM INFO

CHEMICAL WEAPONS IN
KTO BUT PULLED TO
ABOUT 31N BY AIR WAR

NEW INTEL SOURCES: ADD'L HUMINT,
UNSCOM INFO

FALLOUT INCAPABLE OF
REACHING TROOPS

NEW INTEL SOURCES: ADD'L MODELING USING
WEATHER FRONTS

CZECH DETECTIONS
ENIGMATIC

NEW INTEL SOURCES: ADD'! MODELING USING
WEATHER FRONTS

SOME ISSUES

POSSIBILITY OF EXPOSURE DUE TO EOD

KUWAIT GIRL' S SCHOOL TANK

RESIDUAL RFNA IN SCUDS

NOVEL AGENTS

CHEMICAL MUNITIONS
IDENTIFICATION

UNSCOM EXPERIENCE AND HUMINT INDICATE
LACK OF CHEMICAL WEAPON MARKINGS.

IRAQ TOLD UNSCOM INSPECTORS THAT US
EOD PERSONNEL DESTROYED GB ROCKETS AT
TALL AL LAHM IN KTO.

POSSIBILITY OF LOCALIZED EXPOSURE HAZARD
FROM SUCH DESTRUCTION.

KUWAIT GIRL'S SCHOOL TANK

FOCAL POINT OF CBW EXPOSURE ADVOCATES

WE BELIEVE THAT TANK CONTAINED RFNA

SAMPLING COULD FURTHER CLARIFY ISSUE

EXPOSURE TO SCUD PROPELLANT

STRONG CORRELATION FOUND BETWEEN
TESTIMONIES OF SOME VETERANS ON SCUDS AND
KNOWN AL HUSAYN EVENTS.

IMMEDIATE VETERAN SYMPTOMS MATCH
TEXTBOOK CHARACTERISTICS OF RFNA EXPOSURE.

DOD IS INVESTIGATING FURTHER.

NOVEL CBR AGENTS

EXCEPT PCP, CW INFO COVERS CLASSIC AGENTS
BW RESEARCH INCLUDED SEVERAL NOVEL AGENTS
RADIOLOGICAL WORK RESEARCH ONLY

NO INFO ON EFFORT TO PRODUCE ILLNESSES
CONSISTENT WITH THOSE OF GW VETERANS

CONTINUING INFORMATION FLOW AND IRAQ'S
STORY INCOMPLETE

STUDY PLANS

INTERIM REPORT DUE OUT EARLY SPRING.

FINAL CONCLUSIONS DEFERRED PENDING
COMPLETION OF SEARCHES, COLLECTION, AND
ANALYSIS.

95630:95630
1.5C

P 22 MAY 96

(b.2.)

SERIAL: (U) IIR 6 021 0196 96.

/********** THIS IS A COMBINED MESSAGE **********/
BODY
COUNTRY: IRAQ (IZ).

SUBJECT: IIR 6 021 0196 96/IRAQI FALLUJAH, KHAMISIYAH, AND AN-NASIRIYAH CHEMICAL WARFARE RELATED SITES

(b.1. sec. 1.5.c., b.2.)

DEPARTMENT OF DEFENSE

DOI: (U) 960520

(b.2.)

(b.1. sec. 1.5.c.)

SUMMARY: FROM 960511 TO 960520, UNSCOM ONGOING MONITORING AND VERIFICATION SUPPORT TEAM INSPECTED THE IRAQI CHEMICAL WARFARE RELATED FACILITIES, FALLUJAH THREE, AND THE KHAMISIYAH (TALL AL-LAHM) AND AN-NASIRIYAH MUNITIONS STORAGE AREAS.

TEXT: 1. FROM 960511 TO 960520, UNITED NATIONS SPECIAL COMMISSION (UNSCOM) ONGOING MONITORING AND VERIFICATION SUPPORT TEAM-NINE B (OST-9B) INSPECTED THE FOLLOWING IRAQI CHEMICAL WARFARE (CW) RELATED FACILITIES--FALLUJAH THREE CASTOR OIL EXTRACTION FACILITY//GEOCOORD: 333288N04333694E//, THE KHAMISIYAH (TALL AL-LAHM) AMMUNITION STORAGE AREA//GEOCOORD: 3047N04626E//, AND THE AN-NASIRIYAH STORAGE DEPOT//GEOCOORD: 3057N04306E//.

(b.1. sec. 1.5.c.)

3. KHAMISIYAH (TALL AL-LAHM)
AMMUNITION STORAGE AREA. OST-9B INSPECTED THE AREA INSIDE AND AROUND BUNKER 73. THIS STRUCTURE WAS TOTALLY DESTROYED, BUT THERE WAS EVIDENCE OF A LARGE NUMBER OF SAKR-18, 122MM CHEMICAL ROCKETS BOTH IN THE PREVIOUS FOOTPRINT OF THE STRUCTURE, AS WELL AS THE SURROUNDING AREA. THE INSPECTION TEAM TOOK A NUMBER OF STILL AND VIDEO PHOTOGRAPHS OF THE AREA AND THE ROCKETS, CONCENTRATING ON FEATURES WHICH ARE SPECIFIC TO CW FILLED ROCKETS (I.E. CENTRAL BURSTER, PLASTIC CANISTERS, ETC.). (b.1. sec. 1.5. c.)
DISCUSSIONBETWEEN THE INSPECTION TEAM AND THE IRAQI REPRESENTATIVES REVEALED THE FOLLOWING--
3A. IRAQ MOVED 2,160 SAKR-18 GB/GF FILLED ROCKETS (TWO CANISTERS-GA/GF) BETWEEN 910110 TO 910115 FROM AL-MUTHANNA STATE ESTABLISHMENT//GEOCOORD: 335031N0435051E// TO BUNKER 73. (FIELD COMMENT--GA IS TABUN, GB IS SARIN, AND GF IS CYCLOHEXYL SARIN.)
3B. ALMOST IMMEDIATELY, THE ROCKETS BEGAN TO LEAK AND THE IRAQIS BEGAN TO MANUALLY MOVE THE ROCKETS (FOUR MEN PER ROCKET) TO A SITE, IN THE OPEN, NEAR THE CANAL, LOCATED APPROXIMATELY FOUR KILOMETERS FROM BUNKER 73. BY THE TIME OF THE IRAQI RETREAT IN LATE 910200 AND EARLY 910300, APPROXIMATELY 1,100 ROCKETS HAD BEEN REMOVED FROM THE SITE. BOTH BUNKER 73 AND THE ROCKETS THAT WERE STORED IN THE OPEN WERE INTACT AT THE TIME OF THE IRAQI RETREAT.
3C. UPON RETURNING TO THE SITE, AFTER OCCUPATION FORCES HAD WITHDRAWN, THE IRAQIS DISCOVERED THAT BUNKER 73 HAD BEEN DESTROYED. THE IRAQI REPRESENTATIVE STATED THAT THERE WAS A LOT OF WIRE AND OTHER EVIDENCE OF GROUND DESTRUCTION PRESENT. ADDITIONALLY, THERE WAS THE SAME TYPE OF EVIDENCE TO SUPPORT THE FACT THAT SOME OF THE ROCKETS LOCATED IN THE OPEN AREA HAD BEEN DESTROYED BY THE OCCUPYING FORCES.
3D. FURTHER DEVELOPMENTS INCLUDED UNSCOM 29'S DESTRUCTION OF APPROXIMATELY 700 OF THE REMAINING ROCKETS LOCATED IN THE OPEN AREA, AS WELL AS THE IRAQI BACKFILL OF THE BUNKER 73 AREA WITH SOIL.(FIELD COMMENT--UNSCOM 29/CD1 CONDUCTED ITS CW DESTRUCTION MISSION FROM 920228 TO 920324.)
3E. IN ADDITION TO THE BUNKER 73 AREA, THE INSPECTION TEAM ALSO EXAMINED THE 'CANAL BANK' AREA, USED BY THE IRAQIS FOR OPEN STORAGE, AND FOUND EVIDENCE OF SAKR-18'S//GEOCOORD: 304454.1N0462587.1E//.

THE INSPECTION TEAM EXAMINED THE REMAINS OF THE TWO MOST SOUTHERN BUNKERS OF EACH OF THE SOUTHERNMOST ROWS (NEAREST THE NEW CANAL, INCLUDING BUNKER 73) FOR THE PRESENCE OF CW OR SUSPECT CW MUNITIONS. THIS WAS DONE TO VERIFY THE IRAQI CLAIM THAT NO OTHER CW MUNITIONS WERE PRESENT AT KHAMISIYAH. THERE WAS NO EVIDENCE OF FURTHER CW MUNITIONS. THERE WAS, HOWEVER, SOME EVIDENCE OF SOME INTERESTING 'BASE EJECT', 155MM PROJECTILES WHICH WERE EMPTY.

3F. IN SUMMARY, BASED ON PHYSICAL EXAMINATION, AS WELL AS DISCUSSION WITH IRAQI REPRESENTATIVES, IT APPEARED THAT THERE WERE APPROXIMATELY 2,160 GB/GF FILLED 122MM SAKR-18 CW ROCKETS AT KHAMISIYAH AT THE TIME OF THE GULF WAR. FURTHER, THERE IS NO REASON TO DISBELIEVE THE IRAQIS WITH RESPECT TO CIRCUMSTANCES SURROUNDING THE DESTRUCTION OF THESE ROCKETS.

(b.1. sec. 1.5.c.)

4. AN-NASIRIYAH STORAGE DEPOT. THE PURPOSE OF THE INSPECTION OF AN-NASIRIYAH WAS TO DOCUMENT EVENTS SURROUNDING THE RECEIPT, STORAGE, AND REMOVAL OF APPROXIMATELY 6,000 155MM IRAQI HD MUNITIONS MOVED TO AN-NASIRIYAH IN THE MID 910100 TIME-FRAME. (b.1. sec. 1.5.c.)

THE INSPECTION TEAM OBSERVED THAT 12 TO 14 BUNKERS WERE IN USE AT THIS SITE, 22 HAD BEEN DESTROYED BY COALITION BOMBING, AND OVER 20 HAD BEEN DESTROYED BY OCCUPATION FORCES.
(b.1. sec. 1.5.c.)

4B. THE INSPECTION TEAM'S DISCUSSION WITH THE IRAQI REPRESENTATIVES CENTERED AROUND THE DELIVERY, STORAGE, AND MOVEMENT OF HD MUNITIONS FROM AL-MUTHANNA TO THIS SITE IN 910100, SPECIFICALLY THE FOLLOWING--
-QAPPROXIMATELY 6,000 MUNITIONS WERE MOVED FROM AL-MUTHANNA TO AN-NASIRIYAH BETWEEN 910110 AND 910115.
-QTHE MUNITIONS WERE PLACED IN IRAQI BUNKER NUMBER EIGHT//GEOCOORD: 305815.9N0461015.3E//.
-QALSO IN BUNKER EIGHT THERE WERE A RELATIVELY SMALL NUMBER OF 120MM HE MORTAR ROUNDS AND 7.9MM BALL SMALL ARMS

AMMUNITION.
-QTHE MUNITIONS WERE REMOVED FROM BUNKER EIGHT AND AN-NASIRIYAH OVER A ONE-WEEK PERIOD AROUND 910215 AND PLACED IN THE OPEN AREA NEAR KHAMISIYAH (TAL AL-LAHM)//GEOCOORD: 304605.3N0462276.1E//. THE INSPECTION TEAM EXAMINED THIS SITE AND DISCOVERED NO EVIDENCE OF REMAINING MUNITIONS OF ANY TYPE. THERE IS, HOWEVER, A RECENTLY CONSTRUCTED CANAL ADJACENT TO THE DUMP SITE.
4C. THE INSPECTION TEAM EXAMINED ADDITIONAL BUNKERS IN ORDER TO CLARIFY QUESTIONS ASSOCIATED WITH THE AN-NASIRIYAH SITE, SPECIFICALLY THE FOLLOWING--
-QIRAQI BUNKER NUMBERS 15//GEOCOORD: 305773.0N0461015.5E// AND 19 (UNSCOM NUMBERS 99 AND 98 RESPECTIVELY). THE INSPECTION TEAM DID NOT OBTAIN GEOGRAPHIC COORDINATES FOR BUNKER 19, DUE TO SAFETY CONSIDERATIONS. THESE TWO BUNKERS WERE TYPICAL IN THEIR CONSTRUCTION AND CONTENT, SUCH AS MIXED PROJECTILES, MORTAR ROUNDS, SMALL ARMS AMMUNITION, AND PROPELLANT. HOWEVER, THESE TWO STRUCTURES WERE DESTROYED AT 0100 HOURS, 910117, BY COALITION BOMBING. IN ALL APPROXIMATELY 22 STRUCTURES WERE DESTROYED BY AERIAL BOMBING. BUNKER EIGHT WAS DESTROYED BY OCCUPATION FORCES, AS EVIDENCED BY U.S. DETONATORS, ETC., LEFT IN PLACE. THERE WAS NO EVIDENCE OF OTHER THAN CONVENTIONAL MUNITIONS AT THESE SITES.
4D. IRAQI BUNKERS 59//GEOCOORD: 305787.7N0460917.0E//, 60//GEOCOORD: 305780.2N0460923.0E//, AND 61//GEOCOORD: 305771.0N0460922.0E// (UNSCOM NUMBERS 101 TO 103). THESE BUNKERS WERE ALL DESTROYED BY COALITION AERIAL BOMBING. THEY WERE BUILT AND USED FOR STORAGE OF SENSITIVE EXPLOSIVES, I.E. DETONATION CHARGES, DETONATORS, TNT, ETC. AS SUCH, THEY WERE EQUIPPED WITH 'CHILLERS', WHICH PROVIDED COOLED AIR TO THE INTERIOR OF THE BUNKERS' FOUR SEPARATE STORAGE ROOMS. THE INSPECTION TEAM EXAMINED ALL OF THESE BUNKERS AND DISCOVERED NO EVIDENCE OF ANYTHING OTHER THAN THOSE TYPES OF EXPLOSIVES PREVIOUSLY INDICATED AS BEING STORED THERE.
4E. IRAQI BUNKER 20//GEOCOORD: 305747.7N0461047.8E// (UNSCOM NUMBER 71). THIS BUNKER WAS TYPICAL OF THE TYPE REMAINING IN USE. THE DOORS TO THE STRUCTURE WERE LOCKED, HOWEVER, THE IRAQIS READILY AGREED TO ALLOW ACCESS. THE CONTENTS OF THE BUNKER WERE AS FOLLOWS--
-Q120MM MORTAR ROUNDS
-Q130MM PROJECTILES
-Q155MM HE (U.S. 820000)

-QFUSES
-QPROPELLANT
-QSMALL ARMS AMMUNITION
THE PHYSICAL CONSTRUCTION OF THE BUNKER WAS ESSENTIALLY A MAIN ROOM SURROUNDED BY AN ANNULUS WITH TWIN ANTEROOMS OFF THE ENTRANCE. 155MM AND 12MM SHELLS WERE STACKED IN THE ANTEROOMS. (FIELD COMMENT--THE CHIEF INSPECTOR STATED THAT THERE APPEARED TO BE NO 'RHYME OR REASON' TO IRAQI STORAGE PROCEDURES.)
4F. IRAQI BUILDING THREE//GEOCOORD: 305745.5N0460940.0E//. THIS STRUCTURE WAS ONE OF THREE SUCH STRUCTURES LOCATED AT THE AN-NASIRIYAH SITE. ESSENTIALLY THESE FACILITIES WERE CONSTRUCTED OF BRICK AND CORRUGATED TIN, AND BUILT AT-GRADE. THE DAMAGE ASSOCIATED WITH THESE FACILITIES WAS EXPLAINED AS OCCURRING FROM THE BLAST WAVE FROM THE DESTRUCTION OF ADJACENT STRUCTURES. AN EXAMINATION OF BUILDING THREE REVEALED THE FOLLOWING CONTENTS--
-
-Q240MM CHINESE MORTAR ROUNDS
-
-Q122MM HE ROCKETS (JORDANIAN)
-
-Q155MM HIGH EXPLOSIVE ANTI-TANK, TNT,
- AND CYCLOTRIMETHYLENE NITRAMINE (RDX)
-QOF U.S. MANUFACTURE
-
-QROCKET-PROPELLED GRENADE LAUNCHERS (RPG)
-
-QLIGHT ANTI-TANK WEAPONS OF RUSSIAN MANUFACTURE
-
-QSMALL ARMS AMMUNITION
-
-QTOW OF U.S. MANUFACTURE
-
-QAT-3 SAGGER ANTI-TANK GUIDED MISSILE OF RUSSIAN
-QMANUFACTURE
-
-Q120MM TANK AMMUNITION OF U.S. MANUFACTURE

9b.1. sec. 1.5.c.)

4G. IN SUMMARY, THERE WAS NO INDICATION THAT THERE ARE CURRENTLY CW MUNITIONS STORED AT THIS SITE. FURTHERMORE, THERE IS NO EVIDENCE, EITHER PHYSICAL OR AS A RESULT OF DISCUSSIONS WITH IRAQI REPRESENTATIVES, THAT THERE WERE CW MUNITIONS STORED HERE IN ADDITION TO THOSE 6,000 HD MUNITIONS INDICATED ABOVE.

5. THE FOLLOWING IS A LISTING OF THE LOCATION OF SPECIFIC TYPES OF CW MUNITIONS AND IS A DIRECT EXCERPT FROM IRAQ'S MOST RECENT CHEMICAL FULL, FINAL, AND COMPLETE DISCLOSURE (FFCD), PRESENTED TO UNSCOM ON 960513-

-QSTATUS OF MUNITIONS FILLED WITH MUSTARD AND LOCATION-

STORAGE SITE	QUANTITY	TYPE OF MUNITIONS
AL-MUHAMMADIYAT	200	AERIAL BOMB 250
SADDAM BASE	315	AERIAL BOMB 250
SADDAM BASE	90	AERIAL BOMB 500
AL-BAKR BASE	25	AERIAL BOMB 250
AL-BAKR BASE	135	AERIAL BOMB 500
AL-KADISIYA BASE	135	AERIAL BOMB 250
AL-KADISIYA BASE	315	AERIAL BOMB 500
AL-TUZ	225	AERIAL BOMB 250
AL-TUZ	135	AERIAL BOMB 500
TAMOZ BASE	200	AERIAL BOMB 250
AL-NASIRIYA MUNITIONS STORES (AL-KAIMISIYA)	6,240	ARTILLERY SHELL 155MM
AL-AUKHADER MUNITIONS STORES (THEN TRANSFERRED TO CHEMICAL PROVING GROUND)	6,394	ARTILLERY SHELL 155MM

-QSTATUS OF R-400 FILLED WITH IRAQI BINARY AND LOCATION--

STORAGE SITE	QUANTITY
AL-WALEED AIR BASE	176
SADDAM AIR BASE	80
AL-KADISIYA AIR BASE	240
SAAD AIR BASE	28
TAMOZ AIR BASE	120
TALHA AIRSTRIP	60
MURSANA AIRSTRIP	160
AL-TABAAT AIRSTRIP	160

-QSTATUS OF DISTRIBUTION OF OTHER MUNITIONS--

STORAGE SITE	QUANTITY	TYPE OF MUNITIONS
AIRSTRIP-37 (TAMOOZ AIR BASE)	125	AERIAL BOMB/250 FILLED CS
AL-MUHAMMADIYAT	12	AERIAL BOMB/DB-2 FILLED WITH

		SARIN
AL-MAYMONA MUNI-TIONS (STORE)	4,100	ROCKET 122MM FILLED WITH SARIN
AL-AUKHADER MUNI-TIONS (STORE)	2,160	ROCKET 122MM FILLED WITH SARIN
AL-KAMISIYA	2,160	ROCKET 122MM FILLED WITH SARIN
DUJALA AWARA	30	AL-HUSSEIN WARHEADS, 16 FILLED WITH SARIN, 14 FILLED WITH ALCOHOL
AL-NEBAIE	20	AL-HUSSEIN WARHEADS, FILLED WITH ALCOHOL

9b.1. sec. 1.5.c.)

//IPSP: (U) b.2.
//COMSOBJ: (U) b.2.

(b.1. sec. 1.5.c.)

(b.2.)

STATEMENT BY
COLONEL THOMAS P. LEAVITT
CHIEF, INSPECTIONS DIVISION
DEPARTMENT OF THE ARMY INSPECTOR GENERAL AGENCY
ON THE DEMOLITION OF IRAQI AMMUNITION

Mr. Chairman and members of the committee:

I thank you for this opportunity to update you on the Department of the Army Inspector General's inquiry into the destruction of Iraqi ammunition at and around the Khamisiyah ammunition storage facility by U.S. Army ground forces in March 1991. My comments today will address the focus of the inquiry as directed by the Secretary of the Army, a short review of the methodology, the current status of the on-going inquiry, and a summary of our future plans.

SECRETARY OF THE ARMY DIRECTIVES

On 25 September 1996, the Secretary of the Army directed the Department of the Army Inspector General to determine the facts surrounding the demolition at Khamisiyah. The inquiry was to focus on:

--Was the presence of chemicals detected when the ammunition was destroyed?

--Was this presence reported and to what level?

--Were appropriate force protection measures taken during the ammunition demolition operation?

On 18 October 1996, the Secretary of the Army issued a supplemental directive. The Department of the Army Inspector General was also to address:

--The weapons destroyed;

--The personnel who participated in the destruction;

--The potential exposure of those personnel;

--The potential exposure of other personnel who, taking into consideration the amount of agent possibly released and applicable wind patterns, might have been exposed;

--Any other significant factors about the incident;

--Any other sites where the same or similar operations were conducted.

METHODOLOGY

The Department of the Army inquiry team proceeded with their train-up by developing an action plan and methodology. They initially spent about 30 days screening classified and unclassified historical logs, reports, and records for records of demolition operations, reports/reconnaissance of suspected chemical weapons storage sites, and reports of activities around Khamisiyah. This effort is still on-going.

The team also sought to determine the focus on chemical weapons before, during, and after the Gulf War, asking such questions as:

--Were chemical weapons designated as a Priority Intelligence Requirement?

--What actions were taken by Commanders and Intelligence Officers regarding the presence, use, or destruction of chemical weapons and munitions?

--Was anything found and reported?

Lastly, the team planned to take sworn and recorded testimony from all locatable commanders, soldiers, veterans, and civilians involved in the destruction of the Khamisiyah facility.

STATUS

The Department of the Army Inspector General inquiry team has gathered information/documents from the Gulf War Declassification project, the Investigation and Analysis Division, Office of the Special Assistant for Gulf War Illnesses, various Army commands and agencies, the Central Intelligence Agency, the Defense Intelligence Agency, and individual soldiers, veterans, and civilians. After screening thousands of historical files and records, the team has collected over two thousand documents, approximately three hundred photographs, four video tapes, and one audio tape. Some of the documents and the vast majority of the photographs and tapes came from soldiers and veterans actually involved in the demolition operation itself. Cooperation and assistance from all individuals and agencies across the spectrum of operations and intelligence has been superb.

To date, the inquiry team has talked to over 350 soldiers, veterans, retirees, and civilians. This includes 23 chemical officers and NCOs at levels from company through Central Command (CENTCOM), ten operations/S-3 officers and NCOs battalion through CENTCOM, fourteen intelligence officers and NCOs battalion through Army Central Command (ARCENT), and five general officers. We have talked to approximately 150 soldiers, veterans, and civilians who actually participated in or were present at the destruction of the Khamisiyah ammunition storage facility. This includes the company commanders, S-3s, Command Sergeants Major, and Battalion Commanders of both the 37th and 307th Engineer Battalions, the units most directly involved in the operation. Of the 350 interviews conducted to date, over half involved sworn, recorded testimony. The remainder were documented with memorandums for record.

FUTURE PLANS

Members of the inquiry team will be conducting interviews with soldiers stationed in Europe and attending a meeting at Eglin Air Force Base with representatives from Dr. Rostker's office and soldiers/veterans from "the pit." This will largely conclude the interview portion of the inquiry. The focus will then shift to analyzing and cross-walking the data available and coordinating possible results and conclusions with the various agencies and individuals involved. There is also work remaining regarding the technical aspects of the inquiry, primarily involving the modeling effort.

CLOSING

Mr. Chairman, this short synopsis provides a snapshot of where we are with regard to the SECARMY directed Department of the Army Inspector General inquiry into the demolition of Iraqi ammunition in and around Khamisiyah, Iraq in March 1991. We expect to brief the Secretary of the Army late this month or early next month on the results of this inquiry and anticipate that specific results will be released at that time.

HOLD FOR RELEASE
UNTIL DELIVERY
EXPECTED 10:00 A.M.
APRIL 16, 1997

STATEMENT BY ELEANOR HILL

INSPECTOR GENERAL

DEPARTMENT OF DEFENSE

TO THE

COMMITTEE ON VETERANS' AFFAIRS

SUBCOMMITTEE ON HEALTH

UNITED STATES HOUSE OF REPRESENTATIVES

ON

MISSING CHEMICAL WARFARE LOGS

FROM THE

PERSIAN GULF WAR

Mr. Chairman and Members of the Subcommittee:

I am pleased to submit this statement for the Record which outlines the effort now under way by my office to find the logs maintained by the Nuclear, Biological, and Chemical (NBC) Desk Officers at the United States Central Command in Saudi Arabia during the Gulf War.

As you are aware, the Office of the Special Assistant for Gulf War Illnesses, in its efforts to identify the causes of a number of illnesses being suffered by Gulf War veterans, learned that logs which might contain information of value in its work had been kept in the Central Command J-3 Operations Center in Riyadh. An effort was begun in January 1997 by that office to find those logs.

On March 3, 1997, the Deputy Secretary of Defense directed that my office take over that inquiry and carry it to conclusion. Specifically, the Deputy Secretary asked that we follow all leads that can be developed on the location of the original log or copies, in electronic or hard copy versions; gather all originals and copies that can be located; and, if a full copy of the log cannot be located, explain why.

I have formed a team of five senior criminal investigators, supported by a staff of four auditors and investigative support personnel. The team's activities are being closely directed by senior investigative managers and will be supplemented by additional staff, as needed.

Initially, the investigative approach focused on collecting and analyzing the considerable investigative record created by the Special Assistant for Gulf War Illnesses. That effort has included reviewing numerous detailed transcribed interviews of officers assigned to the NBC Desk during the war, interviews of

other persons who may have had access to the logs after the war, as well as many telephonic and written requests for information from sources throughout the Department.

Based on our review and analysis, we have identified areas where the coverage provided by the Special Assistant was thorough, and other areas where we felt that additional professional investigative effort would be useful. For example, we believe that we should interview every available witness who was directly involved in the creation of the NBC Desk logs in Riyadh, or whom we know was in possession of the logs or any portion thereof at Central Command in Tampa after the conclusion of the Gulf War.

That investigation is now in progress. I am receiving the full cooperation and support of all affected elements of the Department. As you know, we do not comment on the details of active investigations, both to avoid jeopardizing investigative effort and to protect the privacy and reputations of parties involved. I can assure you, however, that we fully recognize the importance of this investigation. We have prioritized our efforts in this area, in order to complete our work as thoroughly and as quickly as possible. At the appropriate time, the results of the investigation will be provided to the Secretary, the Presidential Advisory Committee on Gulf War Veterans' Illnesses and the Congress.

MATTHEW L. PUGLISI
ASSISTANT DIRECTOR FOR GULF WAR VETERANS
VETERANS AFFAIRS AND REHABILITATION COMMISSION
THE AMERICAN LEGION
BEFORE THE
VETERANS AFFAIRS SUBCOMMITTEE ON HEALTH
UNITED STATES HOUSE OF REPRESENTATIVES
ON
GULF WAR ILLNESSES

APRIL 16, 1997

Mr. Chairman and distinguished Members of the Subcommittee:

The American Legion appreciates the opportunity to offer testimony concerning Gulf War Illnesses. We commend the Chairman for devoting a hearing to this important topic, and we look forward to future hearings that will investigate how the federal government can provide effective medical treatment to Gulf War veterans.

The American Legion is the largest veterans service organization, including over 45,000 Gulf War veterans, and the leading advocate for veterans of that war. In 1995, The American Legion has created a Gulf War Task Force dedicated to serving Gulf War veterans, their families and their advocates. The American Legion also has certified veterans service officers in every state who have helped over 25,000 Gulf War veterans seek benefits from the Department of Veterans Affairs (VA), and we have distributed 7,500 copies of our *Gulf War Veterans Guide to VA Benefits* to Gulf War veterans throughout the country. We have established a homepage on the Internet with a site for Gulf War veterans at **www.legion.org**.

I am a Gulf War veteran with combat service as an artillery forward observer serving with the 2nd Marine Division in Saudi Arabia and Kuwait. I also represent The American Legion as a member of the VA Persian Gulf Expert Scientific Committee.

The topic of today's hearing focuses on chemical warfare agents and their role in Gulf War Illnesses. Although important and of great interest to Gulf War veterans, the public and the media, the demolition of the Khamisiyah bunker, the role of CW agents, and the bumbling of Central Intelligence Agency (CIA) and Department of Defense (DoD) are only parts of the overall issue of Gulf War Illnesses. The nation is confronted with sick veterans. It should devote resources to making them healthy while it investigates the role of all the risk factors encountered in the Persian Gulf that may have lead to the illnesses seen today in thousands of Gulf War veterans.

What are Gulf War Illnesses?
In order to address the risk factors encountered in the Persian Gulf, it would be appropriate to discuss what exactly we know about Gulf War Illnesses today.

Soon after the Gulf War reports surfaced that Persian Gulf veterans were suffering from poor health. It became clear to The American Legion in 1991 that many of its members who were Gulf War veterans and who deployed to the Persian Gulf in good health, returned in poor health. Fatigue, headaches, joint and muscle pain, skin rashes and gastrointestinal problems were the most commonly reported symptoms. For many, the myriad of symptoms that have come to be known as "Gulf War Syndrome" became manifest after their return from the Persian Gulf. The American Legion judges that these symptoms are more accurately described as Gulf War Illnesses (GWI) because it is not clear that one illness encompasses the many symptoms reported by Gulf War veterans.

A number of scientific studies completed or underway have attempted to describe what Gulf War Illnesses are, or they have investigated some of the more extreme health

outcomes of Gulf War service (mortality and hospitalization). What we have learned to date follows:

Mortality (Deaths)
A study conducted by VA found that Gulf War veterans deployed to the Persian Gulf, as compared with era veterans who served on active duty during the period but who did not serve in the Gulf, died at a greater rate in the two years after the war from external causes (mainly auto accidents) but not from disease-related causes (including cancers and infectious disease). Their risk of death was less than half that expected in the civilian population. The findings are consistent with the postwar death rate of Vietnam veterans.

The study does not address deaths after September 1993, but this is an ongoing effort, as the Vietnam veterans mortality study is. Mortality in Gulf War veterans will be followed, and updated, for decades.

Morbidity (Hospitalizations)
A study conducted by DoD compared the hospitalization rate of deployed Gulf War veterans who remained on active duty and were hospitalized at a military hospital within two years after the Gulf War, and an appropriate control group of non-deployed era veterans. There was no significant difference between the rates of hospitalization of the two groups. This study design was mediocre, however, and its findings cannot be generalized to the entire population of Gulf War veterans. The American Legion awaits the completion of better designed studies on hospitalization rates of Gulf War veterans after the Gulf War.

Rates of Illness
Over 3,500 Gulf War veterans and era veterans from Iowa were interviewed concerning their present health, and those deployed to the Persian Gulf reported a significantly higher prevalence of medical and psychiatric conditions than era veterans not deployed to the Persian Gulf. Depression, posttraumatic stress disorder (PTSD), cognitive dysfunction, asthma, alcohol abuse, and sexual discomfort were reported at higher rates by those with service in the Persian Gulf. This well-designed study demonstrated that Gulf War veterans are likely to suffer poor health at a greater rate than those not deployed to the Persian Gulf.

Reported Birth Defects in Children Born to Spouses of Gulf War Veterans
While studies to date do not show that service in the Persian Gulf has led to an increased rate of birth defects or pediatric illnesses, The American Legion is concerned that not enough research has been completed on this tragic and emotional topic. VA has designated the Louisville VA Medical Center to conduct research on the potential reproductive and developmental hazards of military service, and The American Legion has supported additional funding of studies that will examine this issue.

Gulf War veterans planning to have children should seek qualified genetic counseling like all potential parents should, regardless of whether or not they had military service. The mother-to-be should seek quality pre-and post-natal care for her health and that of her baby.

Clinical Examination Programs
VA has offered free comprehensive physical examinations to any veteran who served in the Persian Gulf during Operations Desert Shield and Desert Storm. To date, over 63,000 Gulf War veterans have taken advantage of these exams, and all Gulf War veterans are encouraged to undergo this examination. To schedule one at a VA medical center veterans can call **1-800-PGW-VETS (1-800-749-8387)**.

To date, 12 percent of those who have undergone the exam report no health problems, and 68 percent have received a diagnosis for their health complaints. Approximately 20 percent, have not received a diagnosis for their health complaints. The most

common complaints are fatigue, muscle and joint pain, headaches, skin rashes, and memory problems.

In 1994, DoD created an identical program called the Comprehensive Clinical Evaluation Program (CCEP). Over 20,000 active duty Gulf War veterans have taken advantage of this program. The findings of both clinical programs are similar. Active duty personnel who wish to receive one of these examinations should call **1-800-796-9699**.

Nature, Scope and Circumstances of Chemical and Other Hazards to Which US and Coalition Forces Were Exposed

American troops were exposed, or may have been exposed, to many risk factors in the Persian Gulf that may have led to the illnesses many suffer from today. They include:

- biological warfare (BW) agents
- chemical warfare (CW) agents
- depleted uranium
- indigenous infectious disease
- pesticides
- petroleum products
- pyridostigmine bromide
- smoke from oil well fires
- stress
- vaccines

Most of the risk factors listed above are being actively investigated by some of the almost 100 scientific studies funded by the government. The Presidential Advisory Committee on Gulf War Veterans' Illnesses (PAC), an independent group of scientists, medical doctors and veterans, found that most of the risk factors listed above were not likely to be associated with Gulf War Illnesses. The three risk factors receiving the most attention from the scientific community, and the ones found more likely to be associated with Gulf War Illnesses, are: low-level chemical warfare agent exposure; pyridostigmine bromide and chemical interactions; and stress. The American Legion, although cognizant of these views, remains committed to its position that all the risk factors encountered in the Persian Gulf must be ruled as likely or unlikely to play a role in GWI after the ongoing scientific studies are completed.

Low Level Exposures to Chemical Warfare Agents

Czechoslovak chemical detection units in northern Saudi Arabia detected the chemical warfare agents mustard gas and sarin on January 19 and 24, 1991, and there were numerous reports of M256 kit and Fox NBC vehicle detections of chemical warfare agents throughout the theater of operations during the ground war. In March 1991, after the cease-fire, U.S. troops demolished an Iraqi ammunition bunker complex in Khamisiyah, Iraq. Although the troops were unaware at the time, one of the bunkers contained 122mm rockets filled with the chemical warfare agents sarin and cyclosarin. CIA recently confirmed that it had intelligence dating to 1984 that suggested that Khamisiyah contained CW agents. This failure to correctly analyze the available intelligence and warn U.S. troops in the Gulf was an intelligence failure that we have not heard the last of. In May 1996, these destroyed rockets were found by a United Nations inspection team, and in June 1996, DoD publicly announced these details. These detections and events are credible evidence that U.S. troops were exposed to low levels of chemical warfare agents in the Persian Gulf.

Nerve agents are odorless and colorless and belong to a family of chemicals, organophosphates, that are a common ingredient of insecticides used in homes, industry and agriculture. Sarin and cyclosarin, however, are meant to kill humans, not bugs, and are lethal in very small doses.

Symptoms of exposure were not reported by troops near the demolition, or in the vicinity of most of the other detections, even though small amounts can cause

immediate symptoms. Low level exposures causing no immediate symptoms are not likely to cause long term chronic symptoms according to existing medical knowledge, although the amount of completed research in this area is inadequate to draw definitive conclusions. A great deal of research is now underway, however, to explore the long term health effects of low level exposure to chemical warfare agents, particularly sarin.

Chemical Interactions
Pyridostigmine bromide (PB) was a nerve agent pre-treatment given to hundreds of thousands of U.S., British and Canadian troops to protect them against nerve agent attack. PB is safely taken by thousands of people every day who suffer from a nervous condition called myasthenia gravis. However, several completed and ongoing studies have suggested that PB may play a role in the illnesses being experienced by some Gulf War veterans today. Several animal studies have shown that PB when taken with some commonly used pesticides becomes toxic and causes nerve damage in animals. Another study found that rodents under severe stress have PB break the blood-brain barrier, something PB does not normally do. A human study has found subtle nerve damage in some Gulf War veterans, and the study's lead researcher has suggested that the combination of PB, pesticides and low levels of chemical warfare agents are to blame. There are currently a number of scientific studies underway that are examining the role of PB in Gulf War Illnesses and the interaction of PB with other chemicals.

Physiological and Psychological Stress
Stress has been offered as a likely underlying factor of Gulf War Illnesses by the Presidential Advisory Committee on Gulf War Veterans' Illnesses and by Dr. Kenneth Hyams (*Annals of Internal Medicine,* Sept. 1996) to name a few. Gulf War Illnesses were initially *dismissed* as stress-related by public and private medical doctors on too many occasions immediately following the war. Veterans' anger concerning stress is not directed at the role it may play in their poor health, but how their poor health was dismissed as stress-related early on.

There are very likely thousands of Gulf War veterans who suffer from PTSD. This comes as no surprise based on our experience following past wars. Many Gulf War veterans who suffer from PTSD have been identified and are receiving treatment from VA or private doctors. But PTSD does *not* explain the range of symptoms observed in thousands of Gulf War veterans which do not receive a diagnosis. If these veterans had PTSD, their symptoms would be diagnosed as PTSD.

Stress has been shown to weaken the human immune system. Chemicals and drugs encountered in the Gulf may have behaved differently because troops in the Gulf were under stress. Stress has been associated with many diseases, from heart disease to cancer. Many studies currently underway are investigating what role the stress encountered in the Persian Gulf now plays in the physiological (or medical, versus psychological) illnesses experienced by many Gulf War veterans.

Nature of Communications Regarding Those Exposures
Government communication regarding the exposures listed above has been adequate with the exception of CW agents. The federal government did not acknowledge that U.S. troops may have been exposed to CW agents until June 21, 1996. Until that date DoD and CIA insisted that there was no use, no presence and no exposure of U.S. troops to CW agents in the Kuwaiti Theater of Operations (KTO). Government communications concerning CW agents has since markedly improved.

Various Congressional committees addressed Gulf War Illnesses in 1993 and the possible role of CW agents. DoD witnesses testified that there was no evidence of Iraqi use or presence of CW agents in the KTO. DoD also testified that there were no confirmed detections of CW agents or treatment of U.S. or coalition personnel as chemical casualties. With the exception of Iraqi use of CW agents, that testimony was false in light of evidence that has been disclosed within the last nine months. The impact that this inaccurate testimony has had, besides eroding the credibility of DoD,

was to delay scientific research into the health effects of exposure to low level CW agents. Gulf War veterans will now have to wait five years longer for medical answers.

In 1994, a report by the Senate Banking, Housing and Urban Affairs Committee cited evidence regarding Iraqi chemical and biological capabilities, anecdotal evidence from Gulf War veterans, combat operations logs and other evidence to make the case that Iraqi CW weapons had been deployed to the KTO. The last assertion concerning CW weapons in the KTO, although contradicted by DoD at the time, has proven to be correct. The report further claimed that U.S. troops had been exposed to CW agents as a result of Iraqi use of CW weapons or the destruction of Iraqi chemical weapons production and storage sites during the Gulf War, and that those exposures are the cause of "Gulf War Syndrome." Those assertions have been validated only by the Czech detections near the Iraqi-Saudi border of CW agents at the time those production facilities were bombed by U.S. forces. The PAC considers the latter assertions in what has become known as the "Reigle Report" as unlikely.

In 1994 DoD created the Persian Gulf Investigative Team (PGIT) and its mission was to investigate all reports of exposure that may have lead to poor health in Gulf War veterans. PGIT was a twelve member operation that reported to the Assistant Secretary of Defense for Health Affairs, Dr. Stephen Joseph. CIA initiated its own review of intelligence records in 1995 to search for any indication of what may have caused GWI. It was the United Nations, however, that would discover evidence that U.S. troops were exposed to CW agents in the Persian Gulf.

In May 1996, during a repeat inspection of the Khamisiyah ammunition bunker complex in southeastern Iraq, the United Nations Special Commission (UNSCOM) concluded that partially destroyed 122mm nerve agent filled rockets had been demolished by coalition forces in March 1991. The rockets, initially found by UNSCOM in October 1991, were at that time believed to have been destroyed by Iraq following the cease fire. Subsequent investigation by DoD and CIA concluded that U.S. forces had indeed demolished the bunker complex, and DoD announced this information on June 21, 1996.

The PAC evaluated the PGIT's investigation and judged that it had "lacked vigor, fallen short on investigative grounds, and stretched credibility." The PAC, however, judged CIA's efforts to be aggressive and adequate. Both investigations, over a period of a year, failed to discover the significance of Khamisiyah until UNSCOM provided a reason to investigate in May 1996. Contrary to the PAC's conclusions, both investigations were failures, not just DoD's.

In response to the PAC's Final Report of January 1997, both DoD and CIA have revamped their investigations into CW agents and Gulf War Illnesses. Both will soon have over 150 people, combined, assigned to their investigations, and both have described their earlier efforts as inadequate. Both have appointed Special Assistants with broad powers and adequate resources to "leave no stone unturned" in their investigations. Both have reached out to veterans service organizations and briefed them with important new information as soon as it is discovered.

Dr. Bernard Rostker, DoD's Special Assistant for Gulf War Illnesses was appointed in November 1996 and has approached his new appointment with vigor. He continuously seeks the input of veterans groups large and small, and he will soon travel to eleven cities to meet with veterans at American Legion and VFW posts. He has released new information in a timely manner and appears to understand the credibility gap that DoD is confronting. The American Legion judges his efforts to date as solid, and we look forward to working with him in his efforts.

CIA created the Persian Gulf War Illnesses Task Force in March 1997, and Robert Walpole was appointed the Special Assistant for Persian Gulf War Illnesses. On April 9, 1997, Mr. Walpole announced that statements he made to the PAC on March 17, 1997 were incorrect, and that CIA had identified Khamisiyah as a possible CW weapons storage site in 1984, not 1986. His announcement, and his meeting with

veterans groups earlier on the day of the announcement, were a refreshing change from the earlier stance of CIA on the issue. It is too early in his tenure for The American Legion to judge its eventual outcome.

In October 1996, Patrick and Robin Eddington resigned as CIA analysts because they insisted that CIA was withholding information that confirmed CW weapons were in the KTO. CIA and the PAC asserted that the Eddingtons were incorrect, but Mr. Walpole's statements last week confirmed that the Eddingtons were right all along. The American Legion appreciates the apology that Mr. Walpole offered to Gulf War veterans over CIA's failure to warn troops about the presence of CW agents at Khamisiyah, and CIA should add Patrick and Robin Eddington to the list of people owed an apology.

Oversight of Government Investigations

The American Legion has consistently called for a group independent of DoD and CIA to conduct the investigation into U.S. troops' exposure to CW agents in the Persian Gulf. Short of that, The American Legion recognizes that without some objective oversight, the findings of the ongoing DoD and CIA investigations will be rejected by many Gulf War veterans.

Although the President extended the tenure of the PAC to perform the task of an independent oversight group, The American Legion must note the limitations of the PAC's efforts to date on the issue of CW agents in the Persian Gulf. The PAC described CIA's former investigation as aggressive and adequate this past January, yet CIA recently apologized to Gulf War veterans for its investigation's inadequacy. CIA also failed to discover the importance of Khamisiyah without the help of UNSCOM. The PAC's inability to recognize CIA's failures before CIA did displays a failure of its own.

The PAC is not alone in conducting oversight, however, and its limitations may be overcome through the efforts of other groups. The Chairman of the Senate Veterans' Affairs Committee, Arlen Specter (PA), has appointed Michael Rotko as a Special Counsel to investigate Gulf War Illnesses and the federal government's response. The American Legion is aware that Mr. Rotko will have a large staff, and that he has the backing not only of the Chairman, but the ranking member of the Committee, Senator Rockefeller (WV).

The United States General Accounting Office is also involved in overseeing the ongoing investigations, both through detailing staff to Mr. Rotko's investigation and performing investigations of its own.

To these efforts are those of The American Legion, veterans groups and interested individuals who will keep a close eye on the investigations to assure Gulf War veterans that their interests are being addressed in an effective and adequate manner. Although too early to judge, the current oversight efforts appear adequate to validate the eventual findings from CIA and DoD investigations.

The Availability of Records Through Which Veterans May Document Possible Exposures

Massive declassification efforts are underway at CIA and DoD. This, combined with the ongoing scientific studies, should help us learn more about the extent and level of exposures, but not enough to make any definitive conclusions. This Committee should examine the Agent Orange Act of 1991 and consider it as a model for presumption of exposure to certain risk factors in the Persian Gulf. This nation has a long and fitting tradition of giving its veterans the benefit of the doubt. Gulf War veterans should not be held to a more restrictive standard than Vietnam veterans.

The Most Important Issue: Medical Treatment Provided to Gulf War Veterans

Although important and of great interest to the media and public, the demolition of the Khamisiyah bunker, the role of CW agents, and the bumbling of CIA and DoD are only parts of the overall issue of Gulf War Illnesses. The nation is confronted with veterans made ill by their wartime service. It should devote all the resources necessary to

making them healthy. It should not lose focus on this most important task by focusing on peripheral issues.

The ongoing investigations into CIA, DoD and CW agents will not pay one disabled veteran's overdue utility bill, it will not compensate one disabled veteran, it will not have any positive or measurable impact on veterans' lives other than to provide information about events that took place over six years ago.

Of the over 90 federally funded medical and scientific studies, *none* are examining the health of Gulf War veterans after they seek treatment from public and private medical doctors. This Committee can do something about this by immediately calling on the federal government to study the effectiveness of medical treatment provided to Gulf War veterans.

In the last fifteen years, outcomes research has examined the subjective experience of patients under real-world conditions. The goal has generally been not merely to test the efficacy of interventions ("can drug treatment for a particular disease make patients feel better") but whether a given group of patients actually feels better after specific forms of treatment.

How do Gulf War veterans *feel* after they receive treatment from VA and DoD? Do they feel better? The same? Worse? As of today, no one knows. There is no data available, only anecdotes. VA and DoD have not formally measured health outcomes for Gulf War veterans after they receive care from those agencies.

What Should Be Done Now?
The current research portfolio has appropriately addressed epidemiology (health surveys) and toxicological aspects of veterans health experience. In the six years since the war, many Gulf War veterans have fallen ill. The few formal reviews of VA disability claims have suggested that the Compensation and Pension medical examinations may be inadequate in providing the answers concerning symptoms and disease that veterans might expect.

The way patients experience health professionals influences the way they interpret symptoms and the way they become ill. Depending on the capabilities of a health care delivery system, their care may be inappropriate or at least initially ineffective. They may be lost to follow-up because of doctor-patient relationship difficulties, institutional access problems, or personal difficulties that may include the disease process itself. Although VA has made a commitment to primary care, it is bound by some administrative constraints. These include reliance on residents in primary care teams that may have little experience in searching for certain aspects of disease, in screening for PTSD, or for treating symptoms without a recognized pathophysiology.

Fatigue is the symptom most commonly reported by Gulf War veterans. However, Gulf War veterans have not received standard clinical testing under current standard diagnostic strategies in primary care for fatigue. They are therefore not likely to have been treated appropriately for fatigue. Veterans seen in health maintenance organizations are not likely to receive sophisticated treatment for chronic fatigue-like symptoms. Sick veterans therefore are left feeling ill.

Over the last several years, cognitive behavioral therapy has been recognized as an effective intervention strategy for the chronic fatigue syndrome, and for other diseases that cause chronic fatigue or pain. Cognitive behavioral therapy make it possible for patients to learn to live with symptoms, regain function, and return to work. Similar approaches have been tried informally with similar symptoms (multiple chemical sensitivities) with some effect.

The American Legion's Recommendation To Congress
In other diseases without a known "cure," the U.S. health care model has evolved an approach over the last 30 years, namely randomized clinical trials of various possibly

effective treatments in an attempt to weigh the benefits and costs. The logical approach to GWI is then to conduct randomized controlled trials comparing cognitive behavioral therapy and other approaches. Congress should investigate funding this proposal in the budget currently under deliberation.

CONCLUSION

After denying that CW agents played any role in GWI, the federal government is now undertaking massive investigations and spending millions of dollars to understand how many veterans were exposed to these agents, and what role CW agents play in GWI. The American Legion welcomes congressional oversight of these ongoing efforts. The next step Congress must take, however, is to devote resources to the most important task left to the nation in the aftermath of the Gulf War: effectively caring for sick Gulf War veterans and their families.

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Testimony of Jeffrey S. Ford

Executive Director, National Gulf War Resource Center, Inc.

before

U.S. House of Representatives
Committee on Veterans Affairs

Subcommittee on Health

April 16, 1997

Mr. Chairman, members of the Committee,

On March 4th, 1991 while serving with the 307th Engineer Battalion of the 82nd Airborne Division I watched along with members of the 37th Engineer Battalion the destruction of 43 bunkers, one of which we now know contained tons of deadly binary-tipped nerve agent rockets. We now know that claims by our government that no chemical weapons were present in the theater of operations or potentials of exposure were grossly wrong. We also know that all this time there was evidence, both classified and unclassified, that our troops may have been exposed to Iraqi chemical and biological weapons. As before, the government maintains that no offensive use of these weapons by Saddam Hussien took place. We now know that after six years of struggle, sacrifice and loss that Gulf War Veterans are ill due to their service in the Gulf War. (PAC)

I am here today to provide a Gulf War veterans' overview of the governments' response concerning these illnesses and the investigations into possible causes and outcomes Most importantly, I will speak for the ill Gulf War veterans and their families in need of appropriate care and compensation which should be due them by a grateful nation for the sacrifices made by these men and women to preserve our way of life. I will do this today by sharing my own personal experiences not only at Khamisiyah but also from three years of research on this issue and months serving as Director of the National Gulf War Resource Center.

Department of Defense Investigations

In February, I testified before this Committee on our view of the Presidential Advisory Committees' recommendations cited in its final report. Today, I would like to begin with the response of the Department of Defense and particularly the Persian Gulf Incident Investigation Team. On the – of September 1996, I called the DOD Incident Hotline to file a report of my knowledge of events in and around Khamisiyah during the first two weeks of March 1991. A telephone operator took down some basic information and informed me an investigator may wish to contact me for further details. After a short time I posted a transcript of my incident report onto the Internet, where it was shown to staff of the Presidential Advisory Committee. The next day I received a call from an investigator from the old team in Washington and was told there was no record of my report, and would I mind giving my statement again? I did so at that time.

I testified to the Presidential Advisory Committee on this matter October 9, 1996. In December the investigative team was revamped with new direction. On March 26, 1997, I spent an entire day with the new team at the Office of the Special Assistant of the Deputy Secretary of Defense for Gulf War Illnesses under

Dr. Bernard Rostker. With their full cooperation I asked for them to access my case file to make sure they had all the needed information from me. My previous reports could not be found in their database. We began a coordinated search to find where the breakdown had occurred.

In the meantime, I was asked into the office of Dr. Eric Berryman the public liaison for the team, where I proceeded called the hot line processing center in Monterey, California and file a new incident report. I did not reveal to the operator on the line where I was calling from, but did inform him of the past difficulties. He took my relevant information and assured me that my report along with all the others from that day would be sent to Washington automatically that night and that I should receive a letter confirming my report and a call back from an investigator from the team within a few days. I told him he was promising a lot and he informed me that someone from Washington had come out and briefed them and that I could expect a call within days. I asked him what to do if no one calls back and he said don't worry they call back everyone back now.

Later that afternoon the supervisor with the telephone call-back team supervisor informed me they discovered a separate file in California for Khamisiyah incident reports that had not been transferred to Washington. This file revealed 1,174 previously uninvestigated reports related to the operation. Those reports have now been forwarded to the appropriate investigators. After solving a systemic problem that had existed for some time, I truly felt the two-way communication between the Pentagon recommended by the PAC and promised by Dr. Rostker was beginning to bear fruit. I might also add that on April 8th I received a confirmation of my incident report with a case number. The letter was dated April 3rd, the day following my incident report. Two days after receipt of the letter I received a call from the investigative team following up on my report.

I was also given the opportunity to have a closed door meeting with the twenty or so veterans who comprise the investigative call back team. I was pleased to find they had copies of our self-help guides and had been finding our references helpful. We discussed primarily the trouble veterans were experiencing that I was aware of and they said they were receiving much of the same feedback: active duty Sgt. Majors, Captains and enlisted who were ill but afraid to come forward for fear of losing their careers; distraught wives of veteran's calling on behalf of their husbands who were about to lose their jobs because they could no longer perform their duties; newlyweds concerned about the potential of birth defects and wanting to know if they should risk trying to have a family; the mother who wanted to know why her son died at 35 from liver and pancreatic cancer; or the sister of a gulf vet who killed himself because of the chronic pain and the frustration he could no longer stand. "Can his wife and two little kids get compensated now that he is gone," she asks. We spoke for nearly an hour and I came away assured that this room full of fellow veterans would do all they could to make this team work. While they may not be trained investigators, as the PAC was quick to point out, they have shared our experiences and can understand the veterans they are dealing with. For further investigation of incidents, the reports are handed over to specialized case investigators for development.

Dr. Rostker tells me his team is addressing some 63 separate case scenarios at this time and nothing is being ruled out in the investigation. Every concern I voiced was being looked into and more. To evaluate this aspect, I met for 30 minutes with an investigator working on Khamisiyah. I relayed to him not only my experience in 1991 but also what I have learned since. We freely discussed all aspects of what is currently known about this incident and what is currently being investigated. We went over the current case narrative, where I pointed out what I believed to be errors and was assured these discrepancies had already been corrected for the next revision. It is my opinion that the incident at Khamisyah is being adequately investigated so far as this team has been tasked. The only

questions that remain unanswered are either still being investigated or have been delayed due to a lack of data.

I was told that most interaction between the team and the Department of the Army Inspector General's investigative team was mostly one way in that the team provided information to the IG, but the IG reviewed the teams' narrative for accuracy but did not add to it or relay any further information. I have been assured by the Inspector Generals' office to which I provided a sworn statement in November of 1996, that when its report is sent to the Secretary of Defense he would make public that information that he sees fit. It is my understanding that this will be done in short order. I concluded my inspection by meeting with Dr. Berryman at length and offered only these recommendations:

- Staff dealing directly with the Gulf veteran population should receive periodic training in areas of social work to include, but not limited to, general counseling techniques, stress management, crisis intervention and personal communication.

- Staff must be well versed in the history of the Gulf War, the subsequent illnesses, the experiences of Gulf War veterans, including the socio-economic impact on them and their families

- Staff should be well advised of the latest news, press releases, laws and regulations, benefits, services and programs available.

I was assured by Dr. Berryman as well as the supervisor of the team calling veterans that they have already provided instruction in the areas of risk management and stress management and will continue this course of education. The phone workers are required to read several days' worth of material related to the areas recommended above before fielding any calls.

Department of Defense Outreach

On the following Friday, Dr. Rostker held another of his monthly meetings with representatives of this nation's Veterans Service Organizations. The topic for this meeting that had been requested by the veterans previously, was the Health Consequences From the Use of Depleted Uranium During the Gulf War. Accompanying me was Dan Fahey, NGWRC Board Member and author of several reports[1] on this issue. Dr. Rostker gave a background briefing and showed the group a new training film to be used to inform military personnel of the potential hazards associated with the use of Depleted Uranium munitions and armor. The film was built upon lessons learned in the Gulf War and promises to be very useful in minimizing future exposure if widely disseminated throughout the Armed Forces. Dr. Rostker further reinforced the position of the military that the use of Depleted Uranium armor piercing munitions was proven in the Gulf War to be highly effective against enemy armor and would continue to remain in our inventory. Our concerns were the possible inhalation and or ingestion of DU dust particles, the latency period for the manifestation of health consequences associated with radioactive heavy metals, the methods of testing and lack thereof and possible areas of research.

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[1] "Radioactive Battlefields of the 1990's, The United States Army's Use of Depleted Uranium and It's Consequences for Human Health and the Environment", Military Toxics Project's Depleted Uranium Citizens' Network, Norway, Me January 16, 1996.

" Depleted Uranium, the Stone Unturned", Dan Fahey, San Francisco, Ca. March 1997

Although questions remain about the long term implications of the use of DU, the meeting by its very nature was productive and encouraging. I requested that the issue be looked into with the same diligence as Khamisiyah and Dr. Rostker assured me that all cases under consideration would receive the same level of investigation. I said to Dr. Rostker, I don't want to look back in five or ten years and say we told you so just like we did with the chemical incidents" and he replied, "You won't".

This was by no means our first encounter with Dr. Rostker and his team. They sought out our organization and have included us in all of their outreach to date including frequent updates, special appearances and the inception and planning of a series of town hall meeting with Dr. Rostker in the coming weeks. We are encouraged by the speed at which Dr. Rostker has made necessary changes. From what I have personally seen so far this facet of the investigation is headed in a positive direction and has already produced profound and tangible results when compared to the efforts of the past. We look forward to maintaining this mutually productive relationship and hope to foster more working relationships such as this with other agencies as well.

VA and DOD Health Programs

The recent regulation change made by Secretary Brown is without doubt a positive step in the right direction as many thousands of claims have been in the past, denied compensation under the two year rule.[2]

Unfortunately, those claims will be now subject to a third review because of prior admitted mistakes made by the VA. If a claim for a Gulf War veteran was filed today, it could take as long as two years to have it reviewed. That also includes veterans who filed as far back as 1992, 1993, 1994 and 1995. And what about the active duty veteran who has been on medical hold for more than two years while the Army stalls on his case until he is forced to take a token discharge and low rating just to be told that he will then have to go to the VA with his claim?[3]

This soldier will have his career cut short, become a civilian too ill to work and without the ability to obtain health insurance because of a pre-existing service-connected illness. He will not be eligible for Social Security disability until he has been unable to work for a year. It is not difficult to imagine the psychological and socio-economic hardship placed upon his family, especially if one of the family members is ill as well or has a child with birth defects. If the veteran did not have a stress-related disorder from service in the Gulf, it may be logical to assume that the veteran could by now be experiencing at a minimum sub-clinical depression known to be associated with those who suffer chronic debilitating diseases.

The following is an e-mail message I received while writing this testimony,

> "My wife has had three miscarriages since Desert Storm, Female problems that OBGYN Doctors and Specialist can't figure out or fix, and my daughter was conceived after Desert Storm and she is deaf. (My two children born before Desert Storm are fine!) Who do I talk to about this, where do I go for help?!!!!!"

This exemplifies a continued problem that exists in the area of outreach to the veteran community. Many veterans are still unaware of DOD and VA registry examinations, or have little understanding of their purpose. Those veterans who do go through the phase I protocol examination still do not receive appropriate follow-

[2] Evidence Considered in Persian Gulf War Undiagnosed Illness Claims, United States Government Accounting Office, Washington, DC May 1996. GAO/HEHS-96-112

[3] Personal interviews with Ft. Bragg and Ft. Campbell soldiers, March 1997.

up treatment at some facilities. The VA Persian Gulf Health Registry and the DOD Comprehensive Clinical Evaluation Program have no system in place to update a veterans' code sheet that is on file in the respective databases. As a veterans' illnesses may progress and any treatment or diagnoses is given, the registries do not get updated. Therefore, grossly inaccurate hypotheses are concluded from incomplete data in the registries. These flawed hypotheses are then used to guide future research directives.

Legislation providing treatment for Gulf War veterans has been extended through to 1998, however, with the recent extension of the presumptive period to ten years the access to care must also be extended. While 74,000 Gulf War veterans have sought out VA Vet Centers, many remain unaware of the services available. Through my research I have found only four out of 202 Vet Centers that hold regular meetings for Gulf War veterans.[4] Therefore, we offer the following recommendations:

- That Public Law 103-210 authorizing the Department of Veterans Affairs to provide health care services on a priority basis to Persian Gulf War veterans be extended to at least December 31, 2001, to coincide with the extension of the presumptive period for claims.

- That both the Department of Defense and Veterans Affairs send letters to every Persian Gulf War veteran regardless of whether or not they are currently in any registry advising them of services and benefits available to veterans and their families. This has not been done since 1994.

- The VA and DOD engage in out reach to veterans through public service announcements, media advertisements, teleconferences, town hall meetings and other like means to promote programs, studies and registry information access via 1-800 numbers and facility, as well as Internet addresses.

Compensation and Benefits

The Environmental Support Group (ESG) for years has been tasked with determining unit locations for the purpose of determining a soldiers presence at an incident relevant to their PTSD claim. For years this team has been criticized for shoddy work. They were recently tasked with developing the Persian Gulf Unit Locator Registry however this has been deemed by the PAC as a totally useless tool in the investigation of exposures in the Gulf. In fact they place the entire Battalion of the 37th Engineers as being directly on top of Bunker 73 per grid coordinates reported. However, this office and their flawed data continues to be a source of determining PTSD claims for all generations as well as for Gulf veterans. Even in performing this duty alone there are reports of serious delays of years in processing claims.

CIA Downwind Hazards Modeling

The CIA maintains that on March 4th when 43 bunkers were blown including bunker 73 that the winds blew the fallout over a swamp to the northeast away from US troops. However I have an excellent color photo that clearly shows that the flag on the humvee of the commander of the 37th Engineers is blowing Southeast directly toward US Forces in Iraq, Kuwait and Saudi Arabia. I have given this photo to the PAC and Department of Army

[4] Electronic mail survey conducted by Kansas City, Mo. Vet Center, December, 1996

Inspector Generals' office. When I showed this to the PGIIT investigator we shared a good laugh.

James Tuite, III has proof that the fallout from allied bombing of chem/bio agent factories and storage facilities blew into northern Saudi Arabia triggering a rash of alarms to include the Czech detection's. This evidence has been presented in many forums and has yet to be refuted by DOD or CIA. The DOD now maintains these detection's as credible but offers no explanation as to the origin point. DOD still maintains the wind was blowing east toward the mountains and Iran throughout this period.

I would like to cite several quotations from the recent PAC hearing March 18, 1997, in Salt Lake City, Utah. In regard to the analysis of downwind hazards modeling conducted thus far. Dr. Brown of the PAC states,

> "...I don't think you'd have the luxury of playing around with data like this to try and achieve this kind of perfection in the civilian sector and to me it looks strange that civilians get significantly better protection, significantly better access to information about potential exposure, potential risk than our veterans did in an analogous situation after the war."

Mr. Baldeschuieler of the PAC remarked, "So you assume the lifetime [of sarin] is infinite...which certainly makes the whole analysis absurd."

In fact Dr. Jeff Grotte from the Institute for Defense Analyses which serves as the "independent panel of experts" reviewing the modeling states,

> "In the absence of source data in particular it's going to be difficult because we simply don't know how much has been released and that of course, along with the meteorological, is crucial to this job." Furthermore, "There are some problems with the meteorological data as well..." And finally, "What I think we won't be able to do is be entirely definitive and say at this point there was exposure and at this point there was not except in a very general way."

CIA down wind modeling hazards are unrefined, subjective, lacking in critical data and not good empirical science. They have stalled since August of last year saying they had to get a peer review done before modeling could be released. In testimony before the PAC last month in Utah they admitted they had no more of an accurate model than they did last year. Basically their "science" is garbage in and garbage out due to a lack of reliable data. In light of these serious failings we offer the following recommendations:

- This matter must be investigated by entities other than the PAC. Any further research pertaining to plume analysis should no longer the responsibility of the CIA and if possible be conducted by an outside, independent university or scientific agency research program.

- In light of numerous reports of releases and possible exposures, theater- wide contamination from environmental hazards must be assumed. A veterans' claim must not determined based on flawed data from plume modeling and unknown or false personnel locations.

Access to Gulf War Records

Irrespective of the past unwillingness and or incompetence in relation to documents relating to possible exposure from chemical and biological agents, it has come to my attention that a potential problem gaining access to records has recently arisen. Since the issue of illnesses related to service in the Persian Gulf arose, Gulf War veterans have used the Freedom of Information Act of 1974 (FOIA) extensively to obtain thousands of pages of documentation. For instance,

the CENTCOM NBC logs were first obtained by a veteran through the FOIA. Documents are obtained by requesting specific inquiries directed to the appropriate offices known to hold said information. However, the U.S. Total Army Personnel Command; Gulf War
Declassification Project; 5111 Leesburg Pike, Suite 401; Falls Church, VA as reported in the Ft. Riley post in March is now conducting a concerted effort to visit everywhere that Gulf War documents could be stored.

> "During these searches, teams found records in 30 percent of the units they visited, netting about 100,000 pages. The search teams will look for daily journals, situation reports, after action reports, Tactical Operations Center Logs and any other documents which could help shed light on the illnesses.
>
> The GWDP provides potentially health-related documents to Defense Department Researchers and Investigators who are searching for possible causes of veterans illnesses."

Upon speaking with an active duty Army Staff Sergeant from Ft. Campbell, KY, he informed me that he had been to the 101st Airborne Division library some months ago and had been given access to thousands of declassified documents for his research. This soldier returned to the library just last week at my request and found the files had all been removed. He was told that a team had come in December, 1996 and took them.

> "the U.S. Total Army Personnel Command's Gulf War Declassification Project will dispatch teams from Washington, DC to search for Gulf War Records at Forces Command and Training Doctrine Command Installations. Teams will visit Fort Riley April 21-25. Searches also will be conducted at National Guard and Reserve units within a 25 mile radius of Ft. Riley.
>
> The GWDP teams conducted their initial site visits to Fort Campbell, KY, Ft. Hood, TX, Ft. Bragg, NC; and Ft. Carson, CO and in Europe. The GWDP personnel met in March with representatives from FORSCOM, TRADOC, ARMY MATERIAL COMMAND and National Guard Bureau to outline the procedures for site visits."

Documents pertaining to possible exposure hazards in the Gulf War are being removed from their respective custodial units without reference or accountability. This information will no longer be accessible to the public as there is not reference as to where the information has gone or how to retrieve it. These documents are now in the custody of the same team that conducts declassification and displaying of such documents to the GulfLink Internet web-site. One would be led to believe this forum would lead to better access and dissemination of these documents. However, as this team is fully aware the scanning device being used is scrambling the original text of these documents into a format that is useless when conducting a keyword search. The original scan of the document must be manually accessed. This practice renders much of the information inaccessible and technically hides Gulf War related material on the Internet site in "plain sight" in order to appear to have posted declassified documents to GulfLink. Even if found this "electronic" format of the original document is degraded and non reproducible.

This is a deliberate attempt to restrict access to public documents in an effort to obstruct research being conducted by Gulf War veterans concerning their own health. (Exhibit A) Having one single DOD office in possession of all Gulf War related documentation will now make it virtually impossible to request documents through the Freedom of Information Act. This will also lead to an even more tightly controlled access to potentially "embarrassing" or "damning" information.

In conclusion, a number of positive measures are now being taken to intensify this governments' assessment of Gulf War veterans illnesses. However, much remains to be done and seen.

These maladies are afflicting nearly one out of seven Gulf War veterans and their families. One third of Gulf War veterans remain on active duty and many more serving in Reserves and National Guard units. They are too afraid to come forward with their health concerns and information relating to their service in the Gulf.

We must add that to the more than 100,000 that have come forward for health screenings, 85% of which are symptomatic. The most recent study completed on mortality and morbidity in this group was based on 1993 data. Yet, this study was touted as the definitive study by the VA only this past fall.

Due to years of denials, studies and research that has been completed to date rarely if ever considered the possibility of exposure to chemical or biological warfare agents,. We must go back through ever study, test, survey, protocol, exam, investigation and take into account what we now know. At the same time we must move forward with what we do know in an open, positive and focused manner.

There are and have been six Senate and House Committee investigations, Inspector Generals of the Army and CIA, Special Assistants to the Secretary of Defense, CIA and the President. A Presidential Advisory Committee, the Institute of Medicine, the Center for Disease Control, the Defense Science Task Board, the Persian Gulf Veterans Coordinating Board, the Persian Gulf Expert Scientific Committee and over one hundred studies being conducted. Yet, the only thing anyone agrees upon is that we were under stress in a war.

Veterans and their families, DOD and civilian contractors and all those that now suffer these ailments are now under more stress than when they were in the Gulf. These people need proper medical treatment and compensation. Most of all right now, they need answers to their ever lingering questions.

DEPARTMENT OF VETERANS AFFAIRS
Veterans Benefits Administration
Washington DC 20420

FEB 21 1997

In Reply Refer To: 213B

Mr. Carl F. Stout
Executive Director
Vietnam Veterans of America, Inc.
1224 M Street, NW
Washington, DC 20005

Dear Mr. Stout:

Attached is a copy of the monthly report of the number of PGW Compensation claims processed at Area Processing Offices and pending development at Regional Offices.

Beginning with the report for January 1997, this report will be sent each month to Senator Rockefeller, Area Offices, Area Processing Offices, Regional Offices and major service organizations.

If you have questions concerning this report, you may contact Lorna Fox of the Procedures Staff (213B) at (202) 273-7223.

Sincerely yours,

for Kristine A. Moffitt, Director
Compensation and Pension Service

Enclosure

FACT SHEET ADDRESSING THE INQUIRY FROM THE HONORABLE JOHN D. ROCKEFELLER IV

INFORMATION AS OF JANUARY 1997

ISSUE: The Senator has asked for a monthly report on the number of allowed, disallowed and pending Persian Gulf War veterans' disability cases in which the veteran attributes environmental agents as the cause for the claimed disability, broken down by area processing office.

PGW THEATER COMPENSATION CLAIMS

Total Claims	84,306	
Total Determined to be SC	65,202	(77%)
Receiving Compensation	27,383	(32%)
SC Zero Percent	37,819	(45%)
No SC Disability	19,104	(23%)

ENVIRONMENTAL HAZARD CLAIMS PENDING

CLAIMS PENDING AT THE AREA PROCESSING OFFICES

Eastern Area	973
Central Area	2,427
Southern Area	5,898
Western Area	1,370
TOTAL	**10,668**

CLAIMS PENDING DEVELOPMENT

Eastern Area	748
Central Area	504
Southern Area	1,847
Western Area	1,102
TOTAL	**4,201**

(January 1997)

ENVIRONMENTAL HAZARD CASES RATED

AREA	TOTAL CASES	SERVICE CONNECTION GRANTED	DISALLOWED
Eastern	1,733	207	1,526
Central	2,578	308	2,270
Southern	5,296	490	4,806
Western	1,838	477	1,361
NATIONAL	**11,445**	**1,482**	**9,963**

UNDIAGNOSED CASES RATED [NOTE: This is a subset of Environmental Hazard cases.]

If all issues in a case cannot be granted under 38 U.S.C. 1110 (direct causal basis), 38 U.S.C. 1112 (presumptions) or 38 U.S.C. 1153 (aggravation), it is then considered under Public Law 103-446 for undiagnosed conditions.

AREA	TOTAL CASES REVIEWED	S/C GRANTED UNDER PL 103-446	S/C NOT GRANTED UNDER PL 103-446
Eastern	1,443	87	1,356
Central	2,384	110	2,274
Southern	4,932	194	4,738
Western	1,598	278	1,320
NATIONAL	**10,357**	**669**	**9,688**

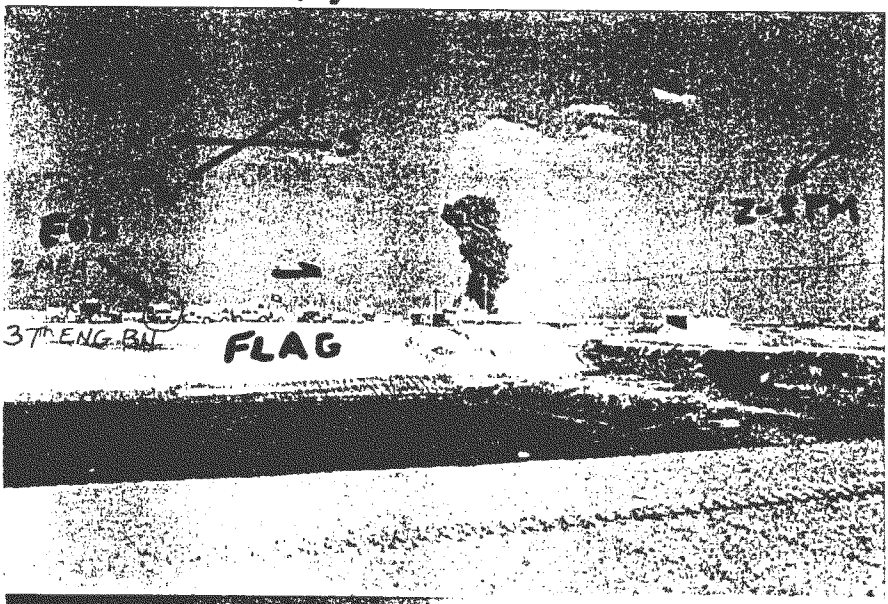
DISTRIBUTION OF CASES WHERE S/C WAS NOT GRANTED UNDER PL 103-446:

REASON for DISALLOWANCE	EASTERN	CENTRAL	SOUTHERN	WESTERN
Diagnosed illness	253	343	348	432
Illness not chronic	71	48	78	60
Due to other etiology	10	9	28	15
Not manifest on active duty or during the presumptive period	493	1,583	3,024	286
Not shown by evidence of record	524	270	1,233	477
Undiagnosed condition -- less than 10%	5	21	27	50
TOTAL	**1,356**	**2,274**	**4,738**	**1,320**

Area numbers may change based on movement of veterans between jurisdictions.

(January 1997)

Mar. 4, 1991



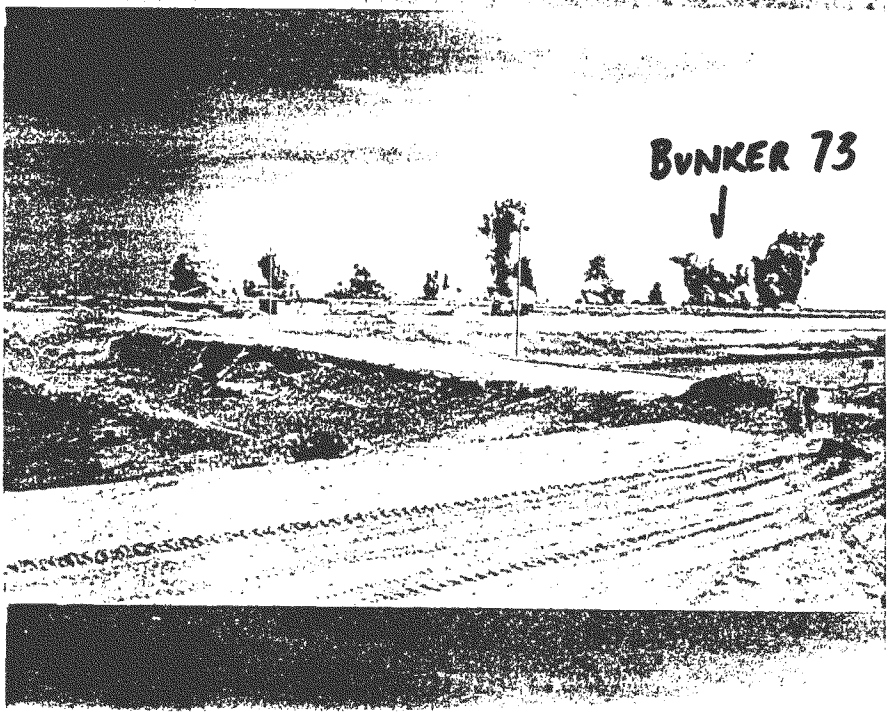
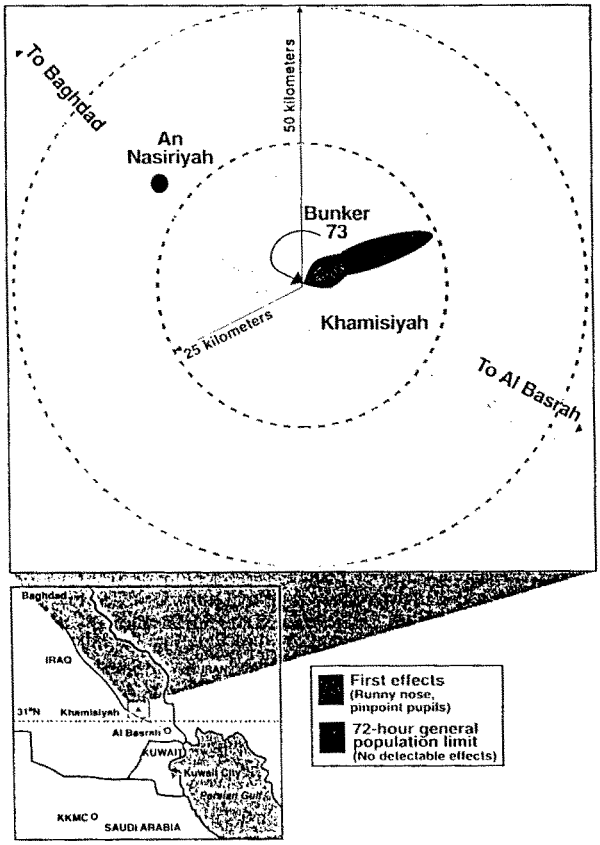


Figure 2-3—Possible Contamination from Site-specific Demolition Activities, Khamisiyah



CIA modeled a 25 kilometer downwind footprint for the demolition of Bunker 73 at Khamisiyah, Iraq. Releases from the Khamisiyah pit area could enlarge the presumptive exposure area identified by the Committee. DOD is attempting to notify all troops who were within 50 kilometers of Khamisiyah between March 4-13, 1991, and inform them they could have been exposed to low levels of chemical warfare agents.

Subject = MEMO 14 FEB 91 USE PF INSECTICIDES

Folder Title = DAILY STAFF JOURNALS 1CD 14 -28 FEB 91

Parent Organization = VII CORPS

Unit = 1ST CD

EXHIBIT A

Box ID = BX001121

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SUBJECT: Use of T-nae@@tl-(;ide5

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Item # 14 150025 Feb 91

AFUA-CML 14 February

MEMORANDUM FOR COMMANDERS

SUBJECT: Use of Insecticides

1. The use of insecticides in and around troop living areas strongly discouraged.

2. Malathion, Parathion, and many locally procured insecticides kill insects by the same mechanism that causes human injury chemical warfare nerve agents. Soldiers who have had enough exposure to these insecticides may die or put themselves at of severe injury after an actual nerve agent exposure.

3. When using insecticide, follow good safety precautions:

a. Train soldiers to handle and use insecticides safely

b. Rotate spraying duties among soldiers so that one soldier does not accumulate a high dose of insecticide in hi body.

4. Unit preventive medicine personnel/field sanitation team are qualified to safely handle and use insecticides. Consul these teams when insecticide is scheduled for use.

4. Point of Contact is the 1st Cavalry Division Chemical Section, 582-6634.

JOSEPH C. HUBER
LTC, CM
Division Chemical Officer

1 .USS

Subject: SITREP 11 MAR 91

Unit: ARCENT

Parent Organization: CENTCOM

Box ID: BX000443

Folder Title: COMMAND REPORTS ARCENT SITREPS 1-22 MAR 91

Document Number: 14

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CLEARED
FOR OPEN PUBLICATION

JUN 23 1997

DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE

House Committee On Veterans' Affairs Questions for the Record
April 16, 1997

Questions from the Honorable Luis Gutierrez

1. **Reports vary, but some scientists have found that as many as 46% of the Mission Objective Protective Posture (MOPP) gear was defective during the Gulf War. Has DOD since replaced this equipment?**

Answer:
The Mission Oriented Protective Posture (MOPP) gear used in the Gulf War was not 46% defective. In fact the GAO (GAO/NSIAD-92-116) reported that the suits and masks used during Desert Storm provided adequate protection. Nevertheless, the Department has been vigorous in its efforts to get the new M40/M40A1 masks into the inventory to replace older M17 masks. Further, the standard chemical protective suit is being replaced with the new JSLIST suit which is now in production and will be entering the inventory this year. To further promote our military forces readiness, DoD has developed and is fielding the M41 Protection Assessment Test System (PATS) which enhances operational capability by validating proper fit of the mask to the face of the individual. The PATS is a new capability that provides a simple, rapid, and accurate means for forces in the field to validate the adequacy and integrity of the protective mask fit.

2. **Modeling has established that under the worst case scenario, chemical warfare emitted from Bunker 73 in Khamisiyah would not have reached American troops. The same has not been established for rockets filled with nerve agents (sarin and mustard) which your report states were probably detonated in the "pit area" on two different dates (10 and 12 March, 1991). You mention there are many unknown variables in determining possible exposure.**

   Question: What are the Persian Gulf War Illnesses Task Force plans for investigating possible exposure of troops from the demolition in the pit area?

Answer:
The DoD and CIA recently completed a series of small-scale demolition tests designed to assist in developing a model of the detonation of chemical weapons by U.S. soldiers at Khamisiyah, Iraq in March 1991. The results of the tests are expected to produce data that will assist us in answering two fundamental questions: 1) who may have been exposed to chemical agents at Khamisiyah, and 2) to what extent they may have been exposed. The test used 32 foreign-made 122mm rockets and warheads filled with the simulant triethyl phosphate, a substance which replicates the characteristics of sarin gas. The tests fundamentally examined how the rockets explode and how much material vaporizes or spills onto the ground. The CIA and DOD to include the Naval Research Laboratory, the Defense Special Weapons Agency and the Naval Surface Warfare Center will apply information derived from the tests to multiple models. Additionally, evaporation tests to determine how nerve agent evaporates from soil and wood are now being conducted at Edgewood Research and Development Center, Maryland and Dugway Proving Grounds, Utah. We expect the findings to be published by 21 July1997.

Questions from the Honorable Lane Evans

1. **Was the intelligence support on the Iraqi Chemical Weapons Program that the CIA provided to the Department of Defense satisfactory or unsatisfactory?**

Answer:
Intelligence support to the Department of Defense on the Iraqi chemical weapons program during Operations Desert Shield and Desert Storm was satisfactory. The Intelligence Community (IC) (which includes the CIA) communicated the potential Iraqi chemical weapons threat to our forces. The IC correctly identified production facilities, agents, and delivery systems, permitting effective planning and decisive combat operations that neutralized much of the CW threat. The IC also provided various lists of potential chemical weapons storage sites that were used in planning and targeting during

the war. Chemical weapons storage sites are difficult to identify; and DIA, the senior DoD intelligence agency, indicated in its analysis that CW could be stored virtually anywhere.

2. **If you believe the intelligence support was unsatisfactory, what is the basis for your conclusion? In what respects was this intelligence support provided the DOD by the CIA unsatisfactory?**

Answer:
Please see the response to question 1, above.

3. **What actions would you recommend CIA take to improve the intelligence support provided the DOD?**

Answer:
The IC, including the CIA, has already taken action to improve its capabilities to support military operations. For instance, the IC has created National Intelligence Support Teams that provide US deployed military forces with direct contacts to DIA, CIA, NSA, and other IC members. The CIA has created the Office of Military Affairs to help DoD-CIA interaction. Other IC improvements, especially in the areas of data management and communication, are underway. The IC understands that there will always be room for improving its support to US Forces. The IC continues to strive to provide intelligence that will enhance our capabilities against any potential battlefield opponent.

4. **Could the intelligence support provided the DOD by the CIA concerning the Iraqi Chemical Weapons Program been improved? And if it could have been improved, how could it have been improved?**

Answer:
In retrospect, there could have been some improvements. These improvements are underway. As an example, IC organizations are attempting to minimize stovepipe lines of communications and improve information sharing. We feel confident that the IC understands where improvements are needed and will continue to upgrade their support to war fighters. DIA remains the lead agency for improving national-level intelligence in support of combat operations.

5. **Your testimony refers to 25 cases of suspected or reported chemical detection. Are all of these cases related to the detonations at Khamisiyah, or did some of these cases come from other locations? Are we correct in believing that 25 cases appears to be an extremely small universe given the previous testimony of theatre veterans before this Committee?**

Answer:
Most of the cases of suspected or reported chemical detection are from locations other than Khamisiyah. Given the large number of reports of M8 alarm activations, it would be easy to draw the conclusion than 25 cases is an "extremely small universe...." However, the M8 alarms were set to go off with the slightest indication of chemicals and, therefore, they generated many "false positive" alarms. These false positive alarms caused service members to don their chemical protective gear until confirmatory tests could be conducted using Fox vehicles or M256 kits. The 25 cases generally are events that have been corroborated by logs, Fox vehicle reports, eye witness accounts, etc. which warrant further investigation.

6. **How many additional cases will be investigated by the directorate, and how will such an investigation be conducted?**

Answer:
We cannot predict how many additional cases will be investigated. As we receive credible evidence from veterans, document searches and other sources, we will initiate investigations to determine facts and to identify lessons learned. Additionally, as recommended in the PAC Final Report, we will investigate all reported Fox vehicle and

M256 positive detections. Attached is a slide which depicts our process for conducting an investigation (Tab A).

7. What is your process for validating these reports?

Answer:
We validate these reports by using a United Nations based chemical Incident Investigation methodology (Tab B).

8. Is it possible that U.S. troops destroyed stocks of chemical or biological weapons at any location other than, or in addition to, Khamisiyah? If so, what steps has DOD taken to determine whether similar activities took place elsewhere?

Answer:
Yes, it is possible that U.S. troops destroyed stocks of chemical or biological weapons at locations other than Khamisiyah, however, there are no indications that this occurred.

9. What is DOD's current policy with regard to providing field commanders information on possible production, storage and use of chemical and biological weapons? What was that policy and how effectively was it implemented during the Gulf War?

Answer:
DOD's policy is to provide our fighting forces with the information they need, when they need it, to effectively plan and execute their missions. As noted in responses to questions 3 and 4, DOD continues to strive to improve how it implements this policy. However, it must be noted that the doctrine, equipment, communication links, etc. for providing information to our fighting forces are not unique to chemical and biological issues.

10. Has DOD's policy with regard to providing field commanders information on possible production, storage and use of chemical and biological weapons changed as a result of Persian Gulf War lessons learned?

Answer:
Please see the response to question 9, above.

11. If DOD policy with regard to providing field commanders information on possible production, storage and use of chemical and biological weapons has not changed as a result of Persian Gulf War lessons learned, should it be changed, and how should it be changed?

Answer:
Please see the response to question 9, above.

12. Much attention has been placed on the loss of data concerning the recording of potential chemical weapons incidents. What lessons can DOD apply to the future in tracking and archiving this type of information?

Answer:
DOD is looking to standardize the record keeping requirements across all Services. There is a clear requirement to define what information is required to be reported and to establish archival requirements at all levels of command.

13. Have any individuals been identified as being responsible for the loss of classified data, such as command logs, involving the possible use of, or exposure to, chemical weapons agents?

Answer:
On March 3, 1997, the Deputy Secretary of Defense tasked the Department of Defense Inspector General (DoDIG) to conduct a full investigation into the loss of the chemical logs. We are looking forward to the DoDIG's report on its investigation and it would be inappropriate for me to comment before the report is released.

14. Is DOD reviewing other incidents, such as the Czech detections, to see if more information may be available on these possible occurrences?

Answer:
Yes, as noted earlier, my office is currently investigating several cases of possible chemical detection of which the Czech detection is one.

15. Please identify which of our allies has provided information to assist you in your investigation, and describe the nature and substance of the information that has been provided.

Answer:
The Czech Ministry of Defense has been very cooperative in response to our inquiries. On October 1, 1993, the Czech Ministry of Defense released a detailed report on the events surrounding their detections of chemical agents during the war. The French spoke to Senator Shelby's delegation in March 1994. In addition, we participated in a group interview session with a French physician from the Ministere De La Defense. Basic information regarding France's experience with health issues or concerns following the Gulf War was provided. An open dialogue has been established with the British Ministry of Defense. The UK has provided information regarding their investigation and experience with pesticides as well as their doctrine for military use of pesticides. We expect a continuing exchange of information with the UK. From 22 July to 5 Aug 1997, Dr. Rostker and a team will visit the Czechs, French and British on a fact finding mission.

16. Many of the Members of the Committee are unfamiliar with the role of analysts in collecting, evaluating and disseminating intelligence information. Could you please describe the duties of a CIA analyst, and outline for us how your review evaluated the work of analysts who were involved in the analysis of the Iraqi chemical weapons program during and after the Gulf War?

Answer:
Analysts of the Directorate of Intelligence, the CIA analytic arm, analyze and interpret information collected by the Directorate of Operations and the Directorate of Science and Technology, as well as information obtained from other sources, including open sources. They receive huge amounts of information, sometimes complementary but often conflicting and usually incomplete. They integrate this information, evaluate its reliability, and analyze it with regard to both immediate and long-term implications. Objectivity, experience, and insight all play important roles in the process.

This process is complete when the results of the analysts' work are sent to the policy makers. Using several formats, ranging from short daily reports, to videotapes, to extensive research papers, analysts pass their findings to a variety of consumers. These customers include the President and Vice President, appropriate Cabinet members, the National Security Council, Congress, and other policymakers in the Departments of State, Defense, Commerce, Energy, and Treasury as well as senior military officers of the various military commands.

17. How many analysts working on this issue during and after the war, and were all of these analysts who worked on this issue interviewed for your review?

Answer:
The Directorate of Intelligence had eight all-source analysts that were involved in analyzing the Iraqi CW and BW programs during the war. Two of the analysts were Iraqi military specialists, two were technical CW analysts, two were BW analysts and one military detailee. It is important to note, however, that all eight analysts had responsibilities in addition to reporting and analyzing the Iraqi CW or BW programs. The military analysts were responsible for analyzing all of Iraq's military capabilities and the technical analysts had other CW or BW programs to follow such as Libya, Russia, and North Korea.

Several of these analysts are members of the ADCI's Gulf War Illnesses Task Force. All individuals have been contacted by members of the task force, as appropriate, for background information as they prepare analytic assessments.

18. Considering previous CIA claims that it did not have information connecting Khamisiyah to chemical weapons activities, is it possible the agency may have information that could reveal additional incidents of possible troop exposure to chemical and/or biological warfare agents in the theatre of operations?

Answer:
We have learned a lot in our review of information on Khamisiyah and we have expanded our search efforts to see if we can discover any documents that would suggest troop exposures at any other sites. We have a large number of people conducting the searches. If and when we find anything else, that information will be publicly available.

19. The Presidential Advisory Committee's final report recommended that the CIA and DOD "Coordinate their analysis to ensure a complete record of the Gulf War." Is this recommendation being implemented? What is its status today? What had the CIA done in order to implement this recommendation?

Answer:
This recommendation from the PAC's Interim Report dated February 15, 1996, has been implemented. The CIA works closely with DoD and the Office of the Special Assistant for Gulf War Illnesses. The CIA has formed a Task Force to review intelligence concerning Iraqi chemical capabilities and has declassified documents that have added to the body of knowledge surrounding the events at Khamisiyah. Both DoD and CIA publicize the results of their investigations, make them available to the PAC, Congress and the public and place the results on GulfLINK.

20. Based on what you now know, as an intelligence professional, tell us what you personally believed happened at Khamisiyah in terms of the release of chemical and/or biological warfare agents and the exposure of U.S. servicemembers to chemical and/or biological warfare agents.

Answer:
I don't know yet what happened at Khamisiyah in terms of the release of chemical and/or biological warfare agents and the exposure of U.S. servicemembers to chemical and/or biological warfare agents. When the joint DoD/CIA modeling and plume analysis is complete, we will have a better understanding of the release of chemical agents and the potential exposure of U.S. servicemembers. To date, there has been no indication of biological warfare agents released at Khamisiyah or exposure of U.S. servicemembers to biological warfare agents.

21. What have we learned from the Gulf experience and what changes in policy, doctrine and technologies are needed to protect our forces in the future?

Answer:
There have been many lessons learned from our experiences in the Gulf War. As stated earlier, better maintenance of unit logs and definition of information to be reported is necessary. The Army is exploring state of the art methods for unit location reporting which is an absolute necessity. Additionally, in the medical area, the following improvements are being made: immunization—automated documentation and tracking; automated patient record in garrison and during deployment; computerized medical record; condensed medical record on dog tag/MEDITAG; medical surveillance (capture analysis and reporting of medical encounter data in-theater to inform decision makers of health threats/concerns); environmental sampling data; improved in-theater advanced environmental and microbiological laboratory capabilities; unit/individual deployment status; pre and post-deployment assessments of health status; and improved assessments of mental health status during and after deployments. We expect to identify specific policy changes and refinements as our investigation progresses. Development of such policy changes is a primary mission element of the Office of the Special Assistant for Gulf War Illnesses.

22. Could you please outline your efforts to identify and contact those service personnel who may have been exposed to chemical munitions because of the demolition activities at Khamisiyah? How many service personnel do you believe may have been exposed to chemical weapons? How many have you contacted? How many have provided information?

Answer:
Initially, in October 1996, Deputy Secretary of Defense John White sent a letter to 50,000 service members notifying them of their potential exposure and encouraging them to enroll in the CCEP and DVA Persian Gulf Registry. Additionally, ongoing veterans outreach programs have encouraged all Gulf War veterans to enroll in one of the registries. We do not know how many service members may have been exposed to low level chemicals, but we believe the testing and modeling currently being conducted by DoD and CIA will give us a better estimate in the near future. In January 1997 a survey was mailed to 20,000 service members who we believed were within 50 km of Khamisiyah. To date, 6,954 veterans have filled out and returned surveys.

23. Dr. Rostker, you have stated before that the first and foremost mission of your office is to ensure that all of the people who served in the Gulf get the care that they deserve and that they need. Do you feel that your office is able to carry out that mission fully in light of the concentration of resources your office had made to address the Khamisiyah issue? To complete your stated mission successfully, what additional resources are needed and what is the current resource level of your office?

Answer:
Certainly, we were initially too focused on Khamisiyah. I have built the team to the right size with the right people so that now we are investigating a broad range of cases. I currently have 25 government personnel and 146 contractor personnel working on various aspects of the investigation. If new cases arise which require investigation and additional resources, I can hire the personnel required.

Congressman Evans to Department of the Army

1. Please outline the steps you took identifying veterans and soldiers who may have participated in demolition operations.

A. Identified units/teams that participated in the destruction of the Khamisiyah/Tall Al Lahm ammunition storage facility through review of operational logs, histories, files, and individual interviews.

B. Queried Office of the Deputy Chief of Staff for Personnel computer data bases for a listing, by Unit Identification Code (UIC), of those individuals assigned to those units/teams in February/March 1991. Cross-walked those listings against current active duty data bases, Army Personnel Center data bases for veterans, and the medical data base in the Comprehensive Clinical Evaluation Program/Persian Gulf War Registry, also in search of veterans.

C. Coordinated with National Guard and U.S. Army Reserve Inspectors General to locate specific individuals of interest believed to be currently assigned to Reserve Component organizations.

D. During interviews, asked those soldiers/veterans for assistance in identifying and contacting others who were involved in the demolition of the Khamisiyah facility. Specifically went down a by name listing with those soldiers/veterans being interviewed to determine which soldiers were actually there/involved in the destruction of the Khamisiyah facility vice those that were assigned, but not actually involved in the mission.

E. Obtained numerous listings of personnel in squads, platoons, and companies from soldiers/veterans being interviewed.

2. Based on your inquiry to date, do you expect to have enough variables to model likely exposure of American troops to chemical warfare from the series of detonations in the pit area as was established for the detonation of bunker 73?

The CIA conducted the modeling for the destruction of Bunker 73. The Office of the Special Assistant for Gulf War Illnesses is sponsoring testing that is expected to clarify the variables sufficiently to allow DOD/CIA to model the pit detonation. Testing/modeling is expected to be complete in July 97. We are customers of this effort and will review the results to see if they agree with the information we have available about this incident. More detailed information may be obtained by contacting the Office of the Special Assistant for Gulf War Illnesses.

3. We have been appraised by some in the intelligence community that the likelihood of finding the missing logs after so much elapsed time is not good. Please summarize what types of information you believe would have been collected in those logs (is there a standardized survey or set of reports maintained on a routine basis or anecdotal information updated on an episodic basis).

(a) Have any missing pieces been retrieved to date?

(b) What is your current assessment of the likelihood of retrieving all or portions of the logs?

On 3 March 1997, the Deputy Secretary of Defense tasked the Department of Defense Inspector General to pursue the issue of the missing CENTCOM chemical logs. With the permission of those we interviewed, we provided our information on this matter to the DOD Inspector General. In general, logs at command levels such as CENTCOM are normally a continuously working list of events and actions taken in response to those events. Since this is a joint service issue being worked by the Department of Defense, we recommend that all questions/interests regarding this subject be directed to the DOD Inspector General.

Congressman Evans to The American Legion

"Your written testimony indicates the American Legion believes that a variety of exposures may have led to different symptoms in different veterans from the Persian Gulf War. Outline for the Committee, if you will, what you believe are the top research priorities into Persian Gulf War illnesses."

The American Legion listed 10 risk factors in its written testimony that have been suggested as possible causes for Gulf War Illnesses (GWI) by veterans groups, the federal government and the scientific community. Most of those risk factors are being investigated for their role in GWI by the scientific research currently underway.

The American Legion has taken no formal position on which factors are more likely, or less likely, to play a role in GWI. That is a job for the scientists and medical doctors involved in the aforementioned research. The American Legion has, however, called for research gaps to be filled so all the risk factors can be properly investigated. It has not called for research to be focused on one or two possible causes.

Currently, the top research priorities for GWI appear to be the basic research into the causes of the illnesses. This research is very important, and will very likely determine which treatment methods should be utilized to "cure" GWI in the future. This ongoing research is time consuming, however, and it is investigating many different risk factors. It will be several years before all of the ongoing research is completed and the scientific community is able to thoroughly analyze its findings. In the meantime, Gulf War veterans are left feeling ill.

The American Legion has therefore called for the research priorities to include clinical studies that will investigate medical treatments that could alleviate the symptoms in ill Gulf War veterans before the basic research is completed. In other diseases without a known "cure," the U.S. health care model has evolved an approach over the last 30 years, namely randomized clinical trials of various possibly effective treatments in an attempt to weigh the benefits and costs. The logical approach to GWI is then to conduct randomized controlled trials comparing various approaches. If such clinical studies were funded, Gulf War veterans may have effective medical treatments offered to them sooner rather than later.

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