Persian Gulf War
Illnesses Task Force

Khamisiyah: A Historical Perspective on Related Intelligence

9 April 1997

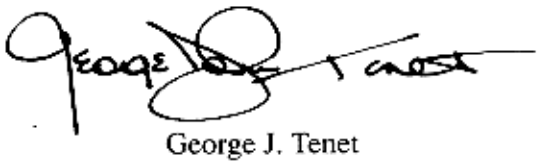
Introductory Note From the Acting Director of Central Intelligence

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.

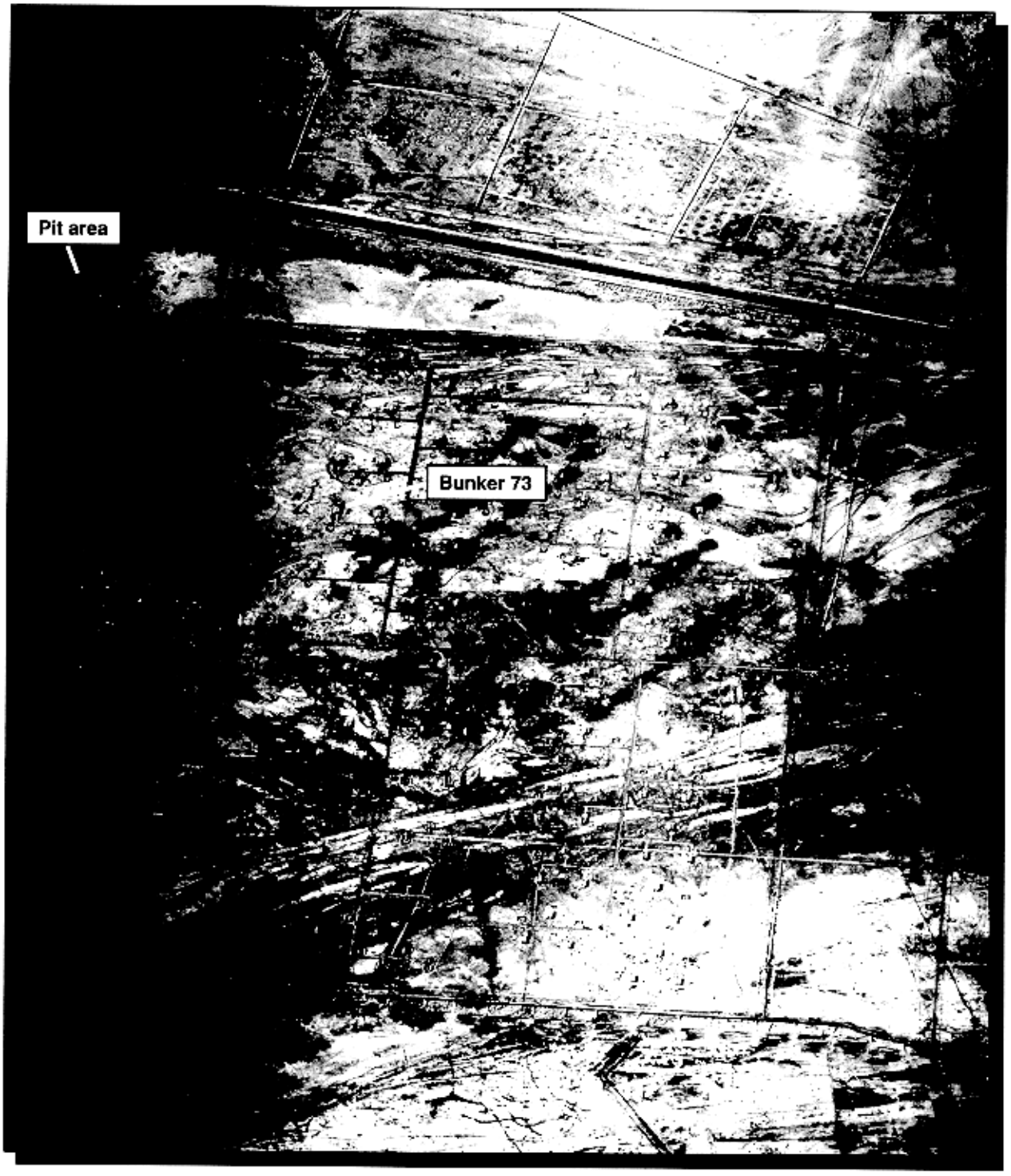


Figure 2. *Predemolition photo of Khamisiyah ammunition storage area showing Bunker 73 and pit area. Darkened areas indicate bomb craters.*

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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]

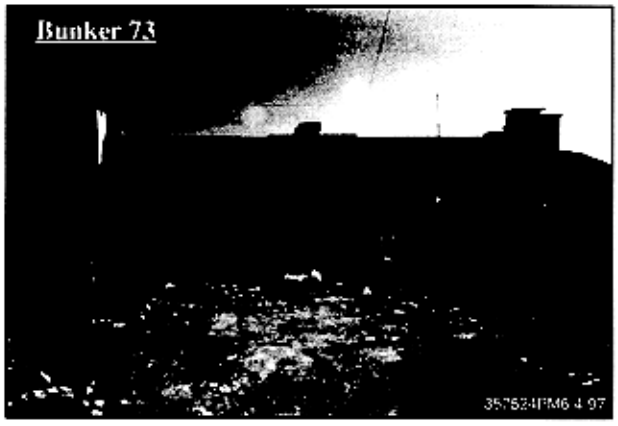
The first known reference to the depot using the Iraqi name Khamisiyah occurred in intelligence reporting in April 1982, when the "Al Khamisiyah ammunition depot" was mentioned in connection with the transfer of munitions in support of Iraqi military operations during the Iran-Iraq war. [2] This report 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]

[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.

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

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

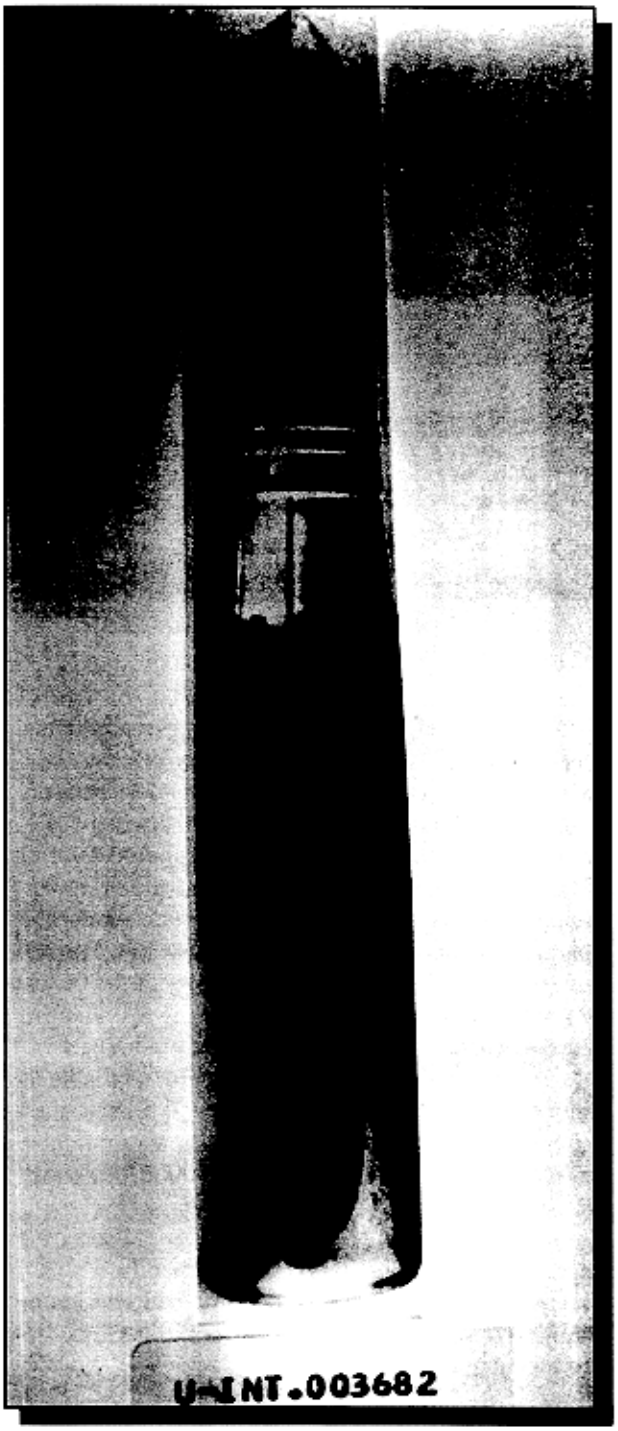


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Figure 4. *Some Iraqi munitions at Khamisiyah—such as this high-explosive squash head (HESH) round—had colored markings but were readily identified as non-CW munitions.*

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-a-vis Iraq.

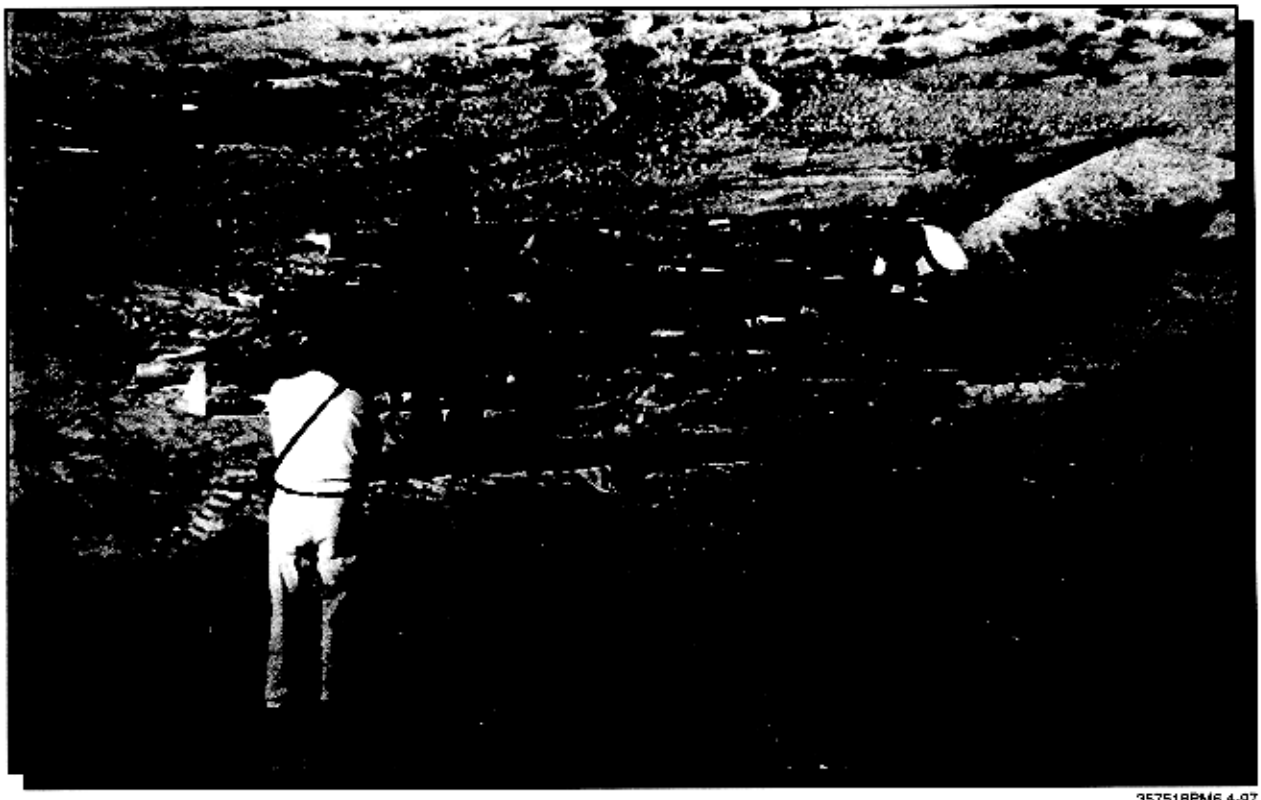

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Figure 6. *United Nations inspection, October 1991.*

> 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*]

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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.

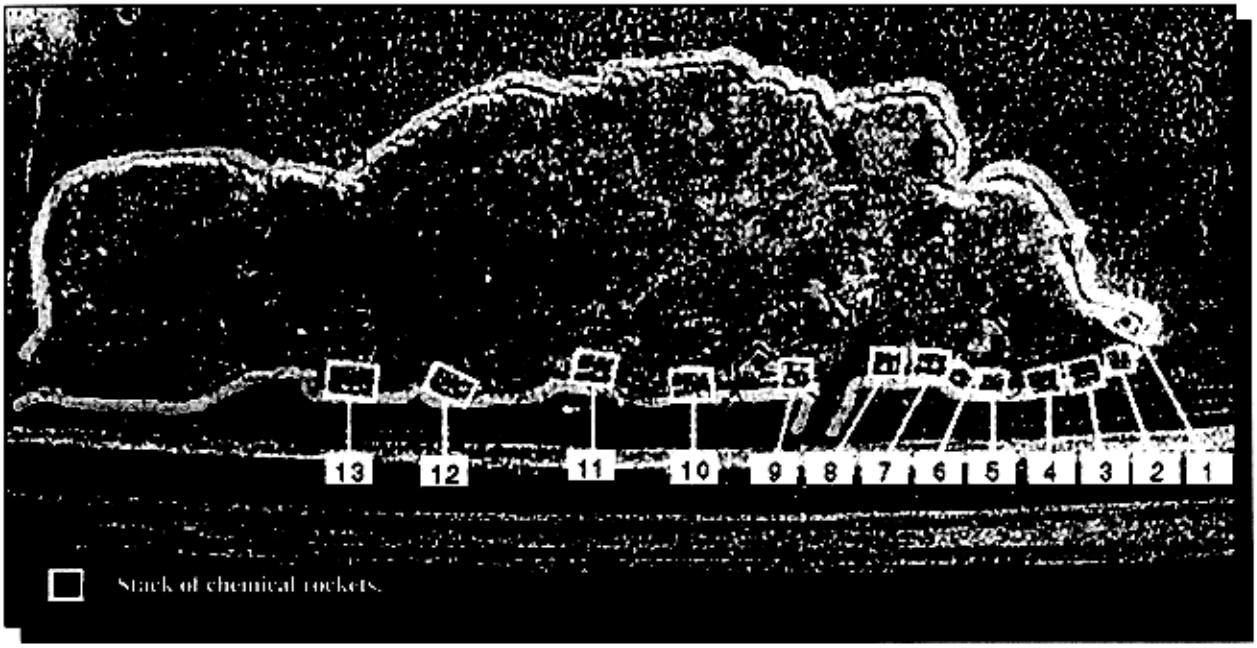

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Figure 8. *Predemolition photo of pit area near Khamisiyah.*

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