As of December 2008, this chronology is no longer being updated. For current developments, please see the Iraq Chemical Overview.

**2008-2004**

2-5 December 2008
A four person Iraqi delegation attends the 13th Session of the Conference of States Parties in the Hague. As Iraq has not yet completed its process of accession to the CWC its delegation was accorded observer status allowing it to attend the conference's plenary sessions.


29 September 2008
The Iraqi law on accession to the CWC is published in the Official Gazette of Iraq moving Iraq one step closer to accession to the Convention. At an unspecified point soon after this date the "Instrument of Accession" is signed and steps are initiated to deposit with the United Nations Secretary-General.


24-27 June 2008
Iraq requests and is granted the right to attend the 53rd Session of the OPCW Executive Council as an observer. [This continues an ongoing effort on the part of Iraq to actively involve itself in the work of the OPCW prior to completing the process of accession at the Convention.]


7-18 April 2008
An Iraqi delegation attends the 2nd CWC Review Conference in the Hague. As Iraq has not yet completed its process of accession to the CWC its delegation was accorded observer status.

12 March 2008
The Iraqi government announces its intent to take legal action against the suppliers of chemicals used in a 1988 CW attack on the town of Halabja in Iraq’s Kurdish north.

4-7 March 2008
Iraq requests and is granted the right to attend the 52nd Session of the OPCW Executive Council as an observer. [This continues an ongoing effort on the part of Iraq to actively involve itself in the work of the OPCW prior to completing the process of accession to the Convention.]

5-9 November 2007
A three person Iraqi delegation attends the 12th Session of the Conference of States Parties in the Hague. As Iraq has not yet completed its process of accession to the CWC its delegation was accorded observer status allowing it to attend the conference’s plenary sessions.

22 November 2007
The Iraqi presidential council approves the law on Iraq’s accession to the CWC which had been passed earlier by the Council of Representatives (Parliament).

29-31 October 2007
Eleven Iraqi officials attend a CWC implementation training course in Amman Jordan coordinated by the OPCW. This training session, intended to assist Iraq is its preparations for CWC accession is the fourth in a series. The primary purpose of the workshop was to work toward finalizing Iraq’s draft initial declaration and to review the progress made by Iraq towards joining the Convention. Participants agreed on a number of recommendations and actions to be taken by Iraq in order to finalize their initial declarations. [see also 11 December 2006, 6 February 2006 and 6 July 2005]

29-31 October 2007
Eleven Iraqi officials attend a CWC implementation training course in Amman Jordan coordinated by the OPCW. This training session, intended to assist Iraq is its preparations for CWC accession is the fourth in a series. [see also
11 December 2006, 6 February 2006 and 6 July 2005]

13-16 March 2007
The Executive Council of the OPCW invites Iraq to participate in its 48th Session as an observer. The action follows a request from Iraq, a State not Party to the CWC. The Council took the decision as part of the OPCW’s ongoing effort to encourage the universality of the Convention in the Middle East.

11-14 December 2006
Twelve Iraqi officials attend a CWC implementation training course in Amman Jordan coordinated by the OPCW. The officials, represented Iraqi stakeholder ministries including Defense, Foreign Affairs, Health and the National Monitoring Department of the Ministry of Science and Technology. The four-day intensive training course provided the Iraqi officials with the expert guidance, knowledge and skills needed to prepare mandatory declarations and to efficiently put in place the required regulatory measures to implement the Convention. The four-day intensive training course, which was a continuation of the February 2006 session provided the Iraqi officials with the expert guidance, knowledge and skills needed to prepare mandatory declarations and to efficiently put in place the required regulatory measures to implement the CWC.

5-8 December 2006
Three Iraqi representatives attend the eleventh session of the Conference of the States Parties to the Chemical Weapons Convention in The Hague as observers. Although Iraq has not yet acceded to the CWC it has publicly declared its intention of doing so and is making preparations for CWC implementation.

30-31 October 2006
The Iraqi government participates in the twenty-fifth Proliferation Security Initiative (PSI) interdiction exercise which takes place in international waters off the north-eastern coast of Bahrain. [Iraqi participation does not appear to include the deployment of military assets and may to be limited to an observation role.]

25-October 2006
An Iraqi government representative attends the Third OPCW Workshop to Promote the Universality of the Chemical Weapons Convention among States in the Mediterranean Basin, the Middle East, and neighboring regions held in Rome, Italy.
18 August 2006
As part of its ongoing process of preparation for accession to the CWC the Iraqi government requests that UNMOVIC provide it with copies of "certificates of destruction" of the chemical weapons-related material and equipment that had been destroyed under United Nations supervision. Iraq also requests a copy of the handover protocol signed in 1994 between Iraq and UNSCOM concerning the transfer of the Muthanna chemical warfare agent production site to the custody of Iraq. The protocol provides a full account of destruction activities conducted at Muthanna between 1992 and 1994 and sets out safety and security measures to be applied at the site. The documents are provided to the Iraqi government on 15 October 2006 after being edited to remove proliferation-sensitive content.

3 August 2006
The Iraqi Council of Ministers approves a Foreign Ministry recommendation that Iraq accede to the CWC. Following this decision, a bill for CWC ratification is proposed to the Council of Representatives (Parliament) for discussion and adoption at its next session which begins on 5 September 2006.

30 May 2006
In response to an April 2006 request by the Iraqi government for a copy of the full, final and complete disclosure relating to chemical weapons that was provided by the National Monitoring Directorate of Iraq in 1996 and after receiving instructions from the UN Security Council UNSCOM takes the following action. It "provide[s] the government of Iraq with the relevant sections of the "Currently accurate, full and complete declaration", transmitted by the National Monitoring Directorate in December 2002 and circulated to the Security Council, which is an updated document, having due regard to issues related to the disposition of proliferation-sensitive documents and materials." UNSCOM also annexes a nine-page overview of the chemical weapon program of Iraq to its regular quarterly report. [See 7 April 2006]

7 April 2006
The Permanent Representative of Iraq to the UN writes to the Acting Executive Chairman of UNMOVIC stating that Iraq intends to accede to the Chemical Weapons Convention. He also requests that UNMOVIC provide to the government of Iraq the full, final and complete disclosure relating to chemical weapons that was provided by the National Monitoring Directorate of Iraq to the United Nations Special Commission in 1996." [The clear implication

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of this request is that the Iraqi government intends to reduce the considerable burden associated with preparing its initial CWC declaration by submitting a copy of the earlier declaration submitted to UNSCOM.


14-17 March 2006
The Executive Council of the OPCW invites Iraq to participate in its 44th Session as an observer. The action follows a request from Iraq, a State not Party to the CWC. The Council took the decision as part of the OPCW's ongoing effort to encourage the universality of the Convention in the Middle East. The decision also noted the "special circumstances of the requesting State not Party, which has also clearly indicated its intention to join the Convention and is actively working towards that end."


9 March 2006
Speaking at the Middle East Institute in Washington DC, former CIA official, Mr. Paul Pillar, speculates that Iraq will be seeking WMD again within the next five to ten years. He explains this as a necessary reaction to threats posed to Iraqi security by regional neighbors possessing or seeking WMD themselves.


6-9 February 2006
In Amman, Jordan, the OPCW conducts its second in-depth implementation training workshop for Iraqi officials in preparation of Iraq's accession to the CWC. The training course focused on practical issues related to implementation of the Convention. The course addressed the specific requirements of the Iraqi Government to ensure that it would be able to effectively fulfill its obligations once Iraq accedes to the Convention. The first training course was conducted at the OPCW headquarters in The Hague in July 2005.


26 January 2006
Georges Sada, formerly second in command of the Iraqi Air Force, claims that in June 2002 Iraq transported WMD to Syria aboard several refitted commercial jets, under the pretence of conducting a humanitarian mission for flood victims. He says that two commercial jets were converted to cargo jets, in order to carry raw materials and equipment related to WMD projects. The passenger seats, galleys, toilets and storage compartments were removed and new flooring was installed. Hundreds of tons of chemicals were reportedly included in the cargo shipments. Sada says he obtained the information from two Iraq Airways captains who were reportedly flying the sorties. The allegations are included in Sada's newly published book, "Saddam's Secrets" which he is promoting in the United States.


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17-26 January 2006
Two Iraqi government representatives participate in the Foundation Course for National Authorities involved in the implementation of the Chemical Weapons Convention (CWC). The course was jointly organized by the Foreign and Commonwealth Office and the Ministry of Defence of the United Kingdom, and the OPCW. The course's purpose was to assist state party personnel in fulfilling their nation's obligations under the CWC.

15 December 2005
In an interview with the New York Sun, Lieutenant General (ret.) Moshe Yaalon, former chief of staff of the Israeli Defense Forces (IDF) claims that in the period preceding the 2003 invasion of Iraq "he [Saddam Hussein] transferred the chemical agents from Iraq to Syria.

7-11 November 2005
Four Iraqi representatives attend the tenth session of the Conference of the States Parties to the Chemical Weapons Convention in The Hague as observers. Although Iraq has not yet acceded to the CWC it has publicly declared its intention of doing so and is making preparations for CWC implementation.

15 October 2005
The permanent Constitution of Iraq is ratified by popular referendum. Article 9, paragraph 1 (e), provides that "the Iraqi Government shall respect and implement Iraq's international obligations regarding the non-proliferation, non-development, non-production, and non-use of nuclear, chemical and biological weapons and associated equipment, materiel, technologies and delivery systems for use in the development, manufacture, production and use of such weapons".

6-9 July 2005
The Organisation for the Prohibition of Chemical Weapons (OPCW) conducts an implementation training workshop for nine representatives of the Government of the Republic of Iraq at the OPCW's Hague headquarters. The training course was structured to provide the Iraqi participants with the expert guidance needed to prepare obligatory declarations, establish and efficiently operate a National Authority, enact national implementing legislation and put in place the required regulatory measures to eliminate chemical weapons and to prevent their spread in accordance with the CWC. In a statement at the opening of the training course the Ambassador of the Republic of Iraq to the Kingdom of the Netherlands, H.E. Mr Siamand Banaa, stated "that his Government and the States Parties to the CWC shared a common desire and purpose in seeking to accede to the CWC, in particular to

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ensure that the horrors of chemical warfare will never occur again in Iraq, and stated that Iraq, which had suffered greatly from abuses of chemical weapons, will take a leading part in the OPCW in the future."


13-15 June 2005

An Iraqi government representative attends the "Second OPCW Workshop to Promote the Universality of the Chemical Weapons Convention among States in the Mediterranean Basin, the Middle East, and Neighboring Regions" in Nicosia, Cyprus.


27 April 2005

The Iraq Survey Group (ISG) publicly releases the *Addendums to the Comprehensive Report of the Special Advisors to the DCI on Iraq’s WMD*. On the question of purported transfers of Iraqi WMD to Syria the report says: "There was evidence of a discussion of possible WMD collaboration initiated by a Syrian security officer, and ISG received information about movement of material out of Iraq, including the possibility that WMD was involved. In the judgment of the working group, these reports were sufficiently credible to merit further investigation. ISG was unable to complete its investigation and it is unable to rule out the possibility that WMD was evacuated to Syria before the war. It should be noted that no information from debriefing of Iraqis in custody supports this possibility." The report concluded that "based on the evidence available at present, ISG judged that it was unlikely that an official transfer of WMD material from Iraq to Syria took place. However, ISG was unable to rule out unofficial movement of limited WMD-related materials."


26 April 2005

The Secretariat of the Iraqi Council of Ministers authorizes the establishment of a multi-agency committee chaired by a representative of the Ministry of Foreign Affairs to consider the question of Iraq's accession to the CWC.


17 January 2005

US intelligence and congressional officials say they have not seen any evidence that WMD components or equipment were moved from Iraq to Syria, Jordan or elsewhere before or after the March 2003 US invasion. In a separate statement Charles Duelfer, head of the Iraq Survey Group (ISG) says: "What I can tell you is that I believe we know a lot of materials left Iraq and went to Syria. There was certainly a lot of traffic across the border points.

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But whether in fact in any of these trucks there was WMD-related materials, I cannot say."

14 January 2005
White House spokesman, Scott McClellan, rules out the possibility that Iraqi WMD may have been moved to Syria.

29 November-2 December 2004
An Iraqi representative attends the ninth session of the Conference of the States Parties to the Chemical Weapons Convention in The Hague as an observer. Iraq has neither signed nor ratified the Chemical Weapons Convention.

13 October 2004
UNMOVIC remains concerned about the destruction of WMD sites and facilities in Iraq and the subsequent disappearance of dual-use equipment. It recommends that Iraq set up an inventory system to track the location and condition of such equipment and indicates that UNMOVIC is ready to assist in this effort. Iraq had no immediate comment on UNMOVIC's concerns, but the US State Department, which has been helping Iraq set up methods to restrict the movement of these materials, said that Iraq has put new export controls in place to prevent WMD materials or technology from leaving Iraq.

8 October 2004
Charles Duelfer, head of the Iraq Survey Group is quoted responding to a question about the possibility that Iraqi WMD were transferred out of Iraq prior to March 2003. He says: "We cannot yet definitively say whether or not WMD materials were transferred out of Iraq before the war. Neither can we definitely answer some questions about possible retained stocks though, as I say, it is my judgment that retained stocks did not exist." [By excluding the possibility of retained stocks of WMD, or new production prior to March 2003 Duelfer also excludes the possibility that WMD were transferred to Syria or any other country.]

30 September 2004
The Iraq Survey Group releases its final report on Iraq's Weapons of Mass Destruction. The report finds that Saddam Hussein intended to resume WMD programs after UN sanctions were lifted. The ISG determined that Iraq probably destroyed its chemical stockpiles in 1991 and there were no indications that Iraq had resumed chemical weapons production. However, Iraq’s chemical industry was re-organized in the mid-1990s to preserve the Iraqi chemical weapons knowledge base.

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23 September 2004
Abu Musab al-Zarqawi and his followers threaten to behead a British contractor, Ken Bigley, unless Iraqi female prisoners are released. This demand focuses attention on two imprisoned women scientists: Dr. Rihab Taha, also known as "Dr. Germ", who was in charge of an Iraqi facility that weaponized anthrax, botulinium toxin, and aflatoxin and believed to have designed the Iraqi biological weapons program; and Huda Salih Mahd Ammash, also known as "Mrs. Anthrax" and "Chemical Sally", who was the only woman to serve on Saddam Hussein's Revolutionary Command Council. Although the Iraqi Ministry of Justice is not opposed to releasing these women, the US authorities are still refusing to release them.


20-22 September 2004
An Iraqi representative attends the "Second Asian National Authorities Meeting" in Beijing, China.


27 August 2004
UNMOVIC reports that significant amounts of Iraqi WMD related items have been exported from Iraq as scrap metal and are showing up in scrapyards in many countries, most notably Jordan and the Netherlands. These items include SA-2 missile engines and chemical dual-use items that still had UN tags attached to them. UNMOVIC estimates that the export of these items began in June 2003 and continued until June 2004. Through the use of satellite imagery, UNMOVIC has determined that several sites previously monitored by them before Operation Iraqi Freedom have been looted and razed. With the exception of the items that have turned up in scrapyards, the status of the dual-use equipment and materials contained at these sites is unknown.

UNMOVIC comments on the likelihood of chemical munitions being found in Iraq by coalition forces. It states that it is not surprised that some chemical munitions have been found since large amounts of munitions had been produced and deployed in Iraq since the early 1980s and not all of them had been accounted for. UNMOVIC further states that the condition of newly discovered chemical munitions could range from highly degraded to very pure.

UNMOVIC also assesses Iraq’s remotely piloted and unmanned aerial vehicle (RPV/UAV) programs based on inspections conducted in the 1990s and 2003. They state that although they had concerns about the ability of some the RPV/UAVs to fly beyond the allowed range, the vehicles were unable to effectively deliver chemical or biological agents. While Iraq’s RPV/UAVs technically could have been modified to carry small amounts of chemical or biological agents, the quantities would not have been large enough to make an effective military weapon. In addition, no technical evidence was ever found by UNMOVIC indicating that the Iraqis had tried to develop such modifications.
17 August 2004
The US CIA is reported to have discovered that in the weeks before the war, Saddam Hussein replaced Iraqi border guards with trusted intelligence agents who supervised moving truckloads of contraband materials into Syria. Although officials caution that the new information is "not considered concrete evidence Saddam shipped chemical and biological agents to Syria before the US invasion," there is a clear intention to raise the possibility that this transfer did occur.

12 August 2004
The Iraqi Minister for Foreign Affairs writes to the Director-General of the Organization for the Prohibition of Chemical Weapons (OPCW), a letter of reply in which he affirms "Iraq’s commitment to the conventions and treaties on the non-proliferation of weapons of mass destruction and its intention to accede to the [Chemical Weapons] Convention as soon as an elected Iraqi Government [is] established."

14 July 2004
The Butler Report is issued in Britain. This report mostly reviews the reliability and quality of intelligence provided to the UK government prior to the 2003 war with Iraq. The report says that the September 2002 dossier of the Joint Intelligence Committee in Britain omitted several caveats qualifying British intelligence on Iraq. For example, the dossier claimed that Iraq could deploy chemical or biological weapons within 45 minutes, but did not mention that this claim only referred to short range munitions and came from only one source. The report also says that Iraq did not have significant stocks of chemical and biological weapons or developed plans to use such weapons.

3 July 2004
The Coalition Press Information Center in Baghdad reports that the 16 122-millimeter rocket rounds found by Polish troops on 23 June have tested negative for chemical weapons agents. They went on to say that two other 122-millimeter rounds found by Polish troops on 16 June tested positive for sarin, but were in a very degraded state and not militarily useful.

23 June 2004
Polish troops find and buy 17 chemical 122-millimeter warheads and two 82 millimeter mortar bombs, all of which believed to contain cyclosarin. In addition, Polish military intelligence had received information that Iraqi terrorists

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were offering $5,000 per chemical warhead. Initial indications are that the warheads were produced before 1989.

14 June 2004
Some US experts disagree with the assessment that the people making the sarin bomb, which exploded on 17 May, did not realize the shell contained chemical agents. These experts point out that other similar homemade bombs found in the same area as the sarin bomb typically are constructed by drilling out the old artillery shell and placing the detonator inside the shell. However, in the case of the sarin bomb, the shell was not drilled and the detonator was simply placed next to the shell.

Early June 2004
Polish troops find two warheads in an Iraqi bunker that test positive for cyclosarin nerve agent. Further testing is conducted in Baghdad and the US.

28 May 2004
UNMOVIC comments on the unclassified portion of Charles Duelfer's testimony to the US Congress on March 30, 2004, saying that Iraq purchased both biological and chemical dual-use equipment between 1999 and 2002, but there is no evidence that it was used in prohibited weapons programs. Most of the materials bought were declared to UN monitors properly.

17 May 2004
Brigadier General Mark Kimmitt confirms that an artillery round filled with sarin was found in Baghdad by a US convoy. The artillery round was rigged as an explosive device and partially detonated before being disarmed, resulting in minor injuries to two members of the explosive ordnance team from sarin exposure. Kimmitt comments that the people who rigged the bomb probably did not realize the shell contained chemical agents.
—Paul Kerr, "Chemical munition found in Iraq," Arms Control Today 34 (June 2004), p. 43.

30 March 2004
Senator Carl Levin issues a statement that the publicly released testimony of Charles Duelfer to Congress on 30 March 2004 creates a misleading impression that there is WMD in Iraq, while the classified testimony casts doubts on that conclusion.

30 March 2004
The CIA releases the unclassified portion of testimony by the new head of the Iraq Survey Group (ISG), Charles Duelfer, before the US Congress. Regarding chemical weapons, Duelfer says that the ISG has new information on

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Iraq’s dual-use facilities and research projects and their potential to be quickly converted to weapons programs. He states that Iraq had such facilities and also had plans to build new facilities, including plans to build chemical facilities capable of producing substantial quantities of chemicals every month. Although most of the chemicals in this plan were only commercial use, a few were dual-use, including DCC, which can be used as a stabilizing agent for VX nerve agent.


27 February 2004

UNMOVIC releases a summary of Iraqi chemical and biological munitions. Through the 1990s Iraq declared and subsequently destroyed 155-millimeter artillery shells filled with mustard agent, 122-millimeter rocket warheads filled with Sarin nerve agent, and sub-munitions for cluster bombs filled with chemical agent simulant. Iraq considered, but did not implement, development of chemical warheads for the 107-millimeter rocket and 540-millimeter rocket. In addition, UNMOVIC discovered unusual components indicating possible chemical munitions development and implementation for 81-millimeter rocket warheads, cluster warheads for a 200-millimeter rocket, and sub-munitions for the Nasr-28 cluster bomb. UNMOVIC was not able to complete investigations on these components prior to its withdrawal from Iraq.


25 January 2004

There are suspicions that Iraq's CBW materials may have been moved to Syria. "We are not talking about a large stockpile of weapons," he said. "But we know from some of the interrogations of former Iraqi officials that a lot of material went to Syria before the war, including some components of Saddam’s WMD program. Precisely what went to Syria, and what has happened to it, is a major issue that needs to be resolved." There is no physical evidence to support this contention.


23 January 2004

Dr. David Kay resigns his position as head of the Iraq Survey Group. In public statements he explains that he resigned because he concluded that WMD would not be found in Iraq: "I don't think they existed. What everyone was talking about is stockpiles produced after the end of the last Gulf War and I don't think there was a large-scale production programme in the 90s." David Kay criticized the intelligence that led to the war in testimony to the Senate Armed Services Committee, saying "we were all wrong and that is most disturbing." Kay does state that even if Iraq did not have weapons stockpiles, this does not mean that it wasn't dangerous.

2003-2000

2 October 2003
David Kay delivers to Congress a statement on the progress of the Iraq Survey Group. He reports that much has been found concerning the intent of Saddam to restart both his illicit programs. He also reports that stockpiles of chemical weapons have not been found.

18 July 2003
Declassified excerpts from the October 2002 National Intelligence Estimate are released by the White House. These excerpts contain 40 "distinct caveats or conditions on the intelligence judgment" which were usually dropped in other official publications and statements.

June 2003
The Iraq Survey Group (ISG) is created to search for WMD in Iraq. It is composed of approximately 1,400 WMD specialists and is led by David Kay, a former top UN weapons inspector.

30 May 2003
UNMOVIC reports on the findings of its inspections in Iraq. Highlights of this report include a VX destruction study, mobile chemical weapons production laboratories, and destruction of chemical agents and munitions. A VX destruction study was conducted to attempt to verify Iraq's claims of unilateral destruction of VX nerve agent and its precursors in 1991. In the study, Iraq provided additional documentation and scientific soil sampling of the alleged dump site at Muthanna State Establishment. The study failed to conclusively prove the destruction of the VX agent and also did not address other unresolved issues such as knowledge retention of the VX program. However, the study did provide valuable information which would be useful in future sampling missions. UNMOVIC inspected several suspected mobile chemical weapons production facilities in Iraq. Inspections were made based on intelligence provided by other governments. Several sites had seed-processing equipment that looks similar to chemical weapons production equipment, but no evidence of mobile chemical weapons production activity was found. UNMOVIC requested and received declarations and pictures from Iraq on all its mobile facilities. These facilities were then randomly tested by UNMOVIC during regular inspections, but no evidence of chemical weapons production was found. In addition to inspections, UNMOVIC destroyed fourteen 155-millimeter shells containing 49 liters of mustard gas, destroyed 500 ml of thiodiglycol, tagged 18 122-millimeter chemical warheads for destruction, and determined that Iraq should destroy eight pieces of chemical equipment at Al Fallujah and Al Qaa Qaa. The destruction of this equipment was not completed before the inspectors left Iraq.
—Thirteenth quarterly report of the Executive Chairman of the United Nations Monitoring, Verification and

19-20 March 2003
US and Coalition forces commence Operation Iraqi Freedom, a military invasion of Iraq, on 20 March at 4 am in Baghdad (8 pm on 19 March in Washington, DC).

18 March 2003
UNMOVIC inspectors withdraw from Iraq following a notification from the US administration of the imminent invasion of Iraq.

7 March 2003
Hans Blix reports to the UN Security council on the progress of the UNMOVIC disarmament mission in Iraq. He reports that there was initial period of reluctant cooperation by the Iraqis but that there now seemed to be an acceleration of cooperative initiatives including the acceptance of disarmament of its al-Samoud 2 missiles.

28 February 2003
After three months of inspections, UNMOVIC observes that Iraq has been very helpful in matters relating to inspection "process" but has been less forthcoming in substantive matters and notes that Iraq could have made greater efforts to either find and produce remaining WMD stockpiles or show credible evidence of their destruction.

February 24, 2003
Dan Rather interviews Saddam Hussein concerning the many aspects of Iraq's alleged illicit weapons programs and the impending military confrontation. Hussein denies that Iraq is in breach of Security Council resolutions.
—Dan Rather Interview with President Saddam Hussein, 24 February 2003.

19-20 February 2003
The Independent reports on 19 February that three giant cargo ships, which are suspected of carrying Iraqi weapons of mass destruction, are being tracked by US and British intelligence. However, the following day, a report by The Guardian says that the US Navy is boarding approximately six ships per day in search of Iraqi WMD, but so far has only found small amounts of drugs and unauthorized guns. Also in the report, David Osler, an editor of Lloyd's List maritime journal, notes that chemical weapons do not take up much space and safe storage of

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missiles on a commercial ship would require large-scale adaptations.


5 February 2003
United States Secretary of State Colin Powell presents US intelligence on Iraq's weapons programs to the U.N. Security Council.


7 December 2002
Iraq provides UNMOVIC with an updated full and complete declaration as required by Resolution 1441 describing its proscribed weapons programs and other chemical programs. The declaration consists of more than 12,000 pages, but with the exception of non-weapons related biological declarations and missile development declarations, UNMOVIC finds very little new information.


27 November 2002
The first UNMOVIC team begins inspections in Iraq.


16 September 2002
Iraq announces that it will allow the return of UN inspectors without conditions.


12 September 2002
President Bush addresses the United Nations General Assembly, expressing that "if Iraq's regime defies us again, the world must move deliberately...the Security Council resolutions will be enforced...or action will be unavoidable."


September 2002
A declassified DIA study purports that Operation Desert Storm and UNSCOM destroyed a "substantial amount of Iraq's chemical warfare agents, precursors, munitions, and production equipment," but "nevertheless, we believe Iraq retained production equipment, expertise and chemical precursors and can reconstitute a chemical warfare program in the absence of an international inspection regime."

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**29 January 2002**
President Bush lists Iraq in his "Axis-of-Evil" State of the Union Address. He also states that "the Iraqi regime has plotted to develop anthrax, and nerve gas, and nuclear weapons for over a decade."

**Early March 2001**
A classified report by UNMOVIC, which is based on analysis of information inherited from UNSCOM, states that Iraq could still have mustard agent and shells to deliver it.

**28 February 2001**
U.S. officials say that Iraq and Sudan are engaged in a joint effort to develop chemical and biological weapons in the Sudan. It is also reported that Iraq has exported technology and expertise in non-conventional weapons to Libya and Sudan.
—"Iraq Exports WMD Expertise to Arab Allies," *Middle East Newsline* 3(84), 28 February 2001.

**26 February 2001**
The BND leaked new details on the Iraqi chemical weapons program. According to the report, the al-Mamoun plant is actively producing ammonium perchlorate, which is one of the main components needed to make solid fuel for long range missiles and solid rocked boosters. The equipment for the factory was bought by a Delhi company known as NEC Limited, which is on the German Economics Ministry's list of businesses involved in arms proliferation.

**15 February 2001**
According to an internal U.N. report, several facilities making chlorine to purify water supplies and "huge imports" of the chemical financed by the U.N.'s oil-for-food program "...are probably being diverted for use as precursor chemicals in the manufacture of weapons."

**30 January 2001**
The Iraqi Vice President Taha Yasin Ramadan and his delegation visit the Arab Company for Pharmaceuticals Industries, Tamico, in Damascus. They tour the company's facilities, which produce over a 100 medicines, as well as vaccines and baby food.

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26 January 2001

The Vision Television of Islamic Intifadah announces that the Iraqi regime intends to place chemical weapons at the disposal of the Iranian opposition group MKO (Mujahidin-i Khalq Organization).


22 January 2001

According to a new intelligence estimate, "Iraq has rebuilt a series of factories that the United States has long suspected of producing chemical and biological weapons...." The construction of two factories, located in an industrial complex in Falluja, is resumed, as well as the production of chlorine at a third factory in the same complex. Government officials say that all three factories were previously involved in producing chemical or biological agents. The Iraqi Trade Minister, Mohammed Mahdi Salih, denies the charges and responds in an interview with Al-Jazeera that, "Iraq has no weapons of mass destruction."


January 2001

U.S. DOD states that "Iraq retains the expertise, once a decision is made, to resume chemical agent production within a few weeks or months, depending on the type of agent."


19 November 2000

According to Western intelligence reports, Iraq has been stockpiling an arsenal of chemical and biological weapons in schools and hospitals. The items listed include 610 tons of precursor chemicals for the production of VX.


June 2000

An Iraqi opposition group, the Free Fighters Command, announces that they have mounted an attack on a secret arms cache in the Diyala region in eastern Iraq and seized a chemical agent that "the regime's forces used in artillery shells and missiles."


25 May 2000

The U.S. releases its investigation concerning accounts that an Iraqi helicopter may have dropped canisters

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containing a yellow chemical spray on the city of al-Nasiriyah in 1991. The U.S. Department of Defense finds no "conclusive evidence" that Iraq used chemical weapons against the rebellious Shiite population.

24 May 2000
Richard Butler says that he has evidence from his time in Baghdad that Saddam Hussayn kept weapons of mass destruction from the U.N. and that over the past 18 months he has used the absence of the U.N. to build up his arsenal of missiles and chemical and biological weapons.

17 May 2000
Head of U.K. Defence Intelligence says that "Iraq has the capacity to produce mustard and nerve agents within a few weeks."
—"Gulf Weapons Proliferation Unstoppable," Middle East Economic Digest, 23 May 2000, p. 4.

February 2000
Reportedly, an Iraqi defector says his unit delivered warheads to a secret site where they were loaded with chemicals and returned to a secret hiding place near Baghdad.

February 2000
In an interview with the German paper Sueddeutsche Zeitung, U.S. Defense Secretary William Cohen says that Iran, Iraq, and North Korea are trying to manufacture nuclear, chemical, and biological weapons and are trying to build missiles capable of carrying these weapons. According to an Iraqi defector, the warheads contained Sarin and Cyclosarin (GF).

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
25 October 1999

*U.S. News & World Report* reports that intelligence sources are concerned about the presence of two Russians at a pesticide plant in the al-Saklawiyah region in the western al-Anbar province in Iraq. The Russians, who identify themselves as civilian agricultural advisers, are reportedly former subordinates of retired Gen. Anatoly Kuntsevich, the former deputy commander of the Russian Army Chemical Corps, and are experts in third generation nerve agents, "the Novichoks".


August 1999

Saddam Hussayn deploys troops wearing gas masks and special white uniforms, designed as personal protection equipment against chemical weapons, around Najaf. Following the deployment, fears rise that the government will use chemical weapons in case of local uprising.


June 1999

According to an unconfirmed report cited by *Foreign Report*, twelve senior Iraqi chemical weapons scientists arrive in Sudan to check the quality and conditions of storage of Iraqi CW arsenal hidden in Sudan. According to the report, the CW materials were smuggled from Iraq to Sudan in recent years in order to prevent UNSCOM from detecting and destroying it. Yugoslav equipment for early warning and protection is used.


26 October 1998

A U.N. report, prepared by an international panel of arms experts and submitted to the Security Council, confirms that fragments of shells uncovered at a weapons demolition site in Iraq had traces of the nerve agent VX. In an accompanying letter, Richard Butler noted that "the existence of VX degradation products conflicts with Iraqi declaration that the unilaterally destroyed special warheads had never been filled with chemical warfare agents."

According to the report, the second sets of test performed at U.S. labs found no chemical warfare products. In the third series, the Swiss laboratory found nothing and the French laboratory detected the presence of a decomposing nerve agent product in one sample.


26 October 1998

Both U.S. and French scientists confirm that samples taken from an Iraqi weapons demolition site near Nabai show traces of VX agents. This is a challenge to the declarations made by Iraq that it had never filled these warheads with agents.


Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
7-8 October 1998
According to weapons experts and diplomats, tests performed in French laboratories on Iraqi missile warheads appear to have found traces of chemicals related to VX. According to diplomats, France is delaying the disclosure of the information.

29 September 1998
The Washington Post reports that tests performed in Swiss and French laboratories on Iraqi missile warheads have found no evidence of VX.

5 August 1998
Iraq officially suspends all inspections by UNSCOM.

10-15 July 1998
At Iraq's request, UNSCOM holds an international expert meeting in Baghdad regarding the results of the tests in the U.S. laboratory. Iraq continues to insist that VX has never been weaponized.

July 1998
General Wafiq al-Sammarai, former head of Iraqi Military Intelligence, tells the Independent newspaper that Iraq used VX against Iranians during the Iran-Iraq war. According to al-Sammarai Iraqi engineers aided by German scientists succeeded in producing VX in late 1987, which was stored at al-Tharthar, a facility northwest of Baghdad.

June-July 1998
UNSCOM collects additional samples from other missile warhead remnants in order to collect more data on the filling of the warheads. Samples are sent to laboratories in the U.S., France and Switzerland.

6-July 1998
"VX disulfide...and stabilizer" are discovered on Iraqi missile warhead fragments. Chemical tests are performed at the U.S. Army's Aberdeen Proving Ground lab in Maryland on missile fragments recovered from Al-Nibai, the site where Iraq unilaterally claimed to destroy and bury its special warheads in 1991. While Iraq admitted producing VX, weaponization was denied. Following these reports, Iraq's U.N. Ambassador Nizar Hamdun denies the accusation, suggesting inherent flaws in the U.S. tests, and demands more tests at labs in different countries. Iraq's U.N. mission says in a statement that the results "cannot be accurate since VX was not used in any kind of munitions in Iraq due to continuous production failure." Although Richard Butler describes the original findings as "utterly unambiguous," the U.N. agrees to send the parts to laboratories in France and Switzerland for further

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testing.

[Note: The tests at Aberdeen were conducted specifically at Edgewood Chemical Biological Forensic Analytical Center]


10 June 1998
U.S. Army laboratory at Aberdeen completes an analysis of warhead fragments recovered from a destruction pit at al-Taji in March. According to the analysis, "significant amounts" of "VX disulfide...and stabilizer" were found in the samples.


April-May 1998
U.N. weapons inspectors excavate warhead fragments from a weapons dump in Nibai, the site where Iraq claimed it unilaterally destroyed its missiles and send the recovered munition pieces to a U.S. Army laboratory at Aberdeen, Maryland for analysis. The purpose is "to verify Iraq's declarations on the filling of the special warheads."


29 April 1998
Richard Butler says today that experts discovered active mustard agent the prior month in artillery shells found at an Iraqi ammunitions depot in 1996.


April 1998
An Iraqi opposition group states that Iraq is hiding chemical and biological weapons in farms located 30 km outside of Baghdad. Reportedly, the weapons are hidden underground in order to escape satellites and ground penetrating radar.


26 March 1998
A 70-member team of U.N. weapons inspectors, accompanied by 20 diplomats, conducts the first inspection of eight palaces of Saddam Hussayn at Radwaniyah Palace. No inspections have previously been permitted at these

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sites. Each of the 1,058 buildings inside Hussien’s eight presidential compounds are inspected in eight days, but no new evidence of banned materials is found.


9 February 1998
Britain's Defence Secretary George Robertson tells MPs that Iraq has built up stocks of the nerve agent "Agent 15". [Note: Agent 15 is thought to be an analogue of BZ, an incapacitating agent.]


February 1998
At the request of the Iraqi government, experts hold technical evaluation meetings (TEMS) in Baghdad to assess Iraqi claims to have eliminated all its chemical arms and ballistic missile warheads. Two panels of experts from nine countries conclude that Iraq could have a clandestine stockpile of chemical weapons and has not met the requirements for disclosing all information on its weapons of mass destruction.


January 1998
UNSCOM investigates suspicions that Iraq had tested chemical and biological weapons on prisoners. Tariq Aziz, the Iraqi deputy Prime Minister, calls the allegation "a sheer lie." He says, "It is a pretext used to enter a site." No conclusive evidence has been found concerning the prisoner issue.


January 1998
Saddam Hussayn calls for a freeze on all weapons inspections.


1998
Iraq is further developing its aerial delivery platforms to include remotely piloted vehicles, modified L29 trainers (tandem seat, single engine primary jet trainer), and Polish M-18 Dromader agricultural crop-sprayers. It is asserted that Saddam Hussayn’s eldest son, Udai, has developed a front "cloud seeding" program. [Note: cloud seeding is the method of dispersing silver iodide particles into clouds from aircraft, which stimulates rain.]
November 1997

Iraqi soldiers receive treatment at the Hilla Hospital in southern Baghdad for severe injuries received while moving containers filled with unspecified chemicals out of Baghdad. Doctors treating the soldiers are convinced the injuries were consistent with being exposed to agents used to manufacture chemical weapons.


29 October 1997

Iraq expels six American weapons inspectors working for the U.N. Their fellow inspectors depart are withdrawn on November 13.


27 October 1997

The Executive Chairman of UNSCOM, Richard Butler, sends a letter to Deputy Prime Minister Tariq Aziz, suggesting the agenda for forthcoming meetings in Baghdad. The letter proposes that Iraq address important outstanding issues, including warheads, VX and the biological weapons area.


11 October 1997

In his first report to the U.N. Security Council since taking office, Richard Butler concludes that Iraq is withholding some data on chemical weapons.
[Note: On 1 July 1997, Richard Butler, formerly Australia's Ambassador to the U.N., succeeded Rolf Ekéus of Sweden as Chair of UNSCOM.]


October 1997

UNSCOM completes the destruction of additional, large quantities of chemical weapons related equipment and precursors chemicals. Iraq had previously denied that part of the equipment had been used for CW production. Only in May 1997, on the basis of UNSCOM's investigations, did Iraq admit that some of the equipment had indeed been used in the production of VX.


July 1997

U.S. Customs intercepts a shipment of 34 light, fast, and highly maneuverable military helicopters destined for Iraq. The helicopters were smuggled through Canada via a front company in the Philippines. 16 of helicopters these were modified to disperse chemicals.

18 April 1997
Rolf Ekéus addresses the U.N. Security Council, reporting that Iraq is still not cooperating fully with the U.N. to dismantle its programs to produce biological, chemical, and nuclear weapons.

1 November 1996
The *Washington Times*, quoting U.S. intelligence documents that were placed on the Internet, reports that before and during the Gulf War, Iraq hid chemical and biological weapons in Iran using camouflaged trucks. Once in Iranian territory the trucks were turned over to the Iranian Revolutionary Guard Corps (IRGC).

June 1996
Iraq provides third "Full, Final and Complete Disclosure" of its prohibited chemical weapons program. The progress achieved in verifying this disclosure, and subsequent attachments presented by Iraq, is described in the Commission's October 1997 report to the U.N. Security Council.

October 1995
Saddam's son-in-law Hussayn Kamil identifies U.N. envoy's interpreter as an Iraqi spy.

8 August 1995
General Hussayn Kamil, Minister of Industry and Minerals and former Director of Iraq’s Military Industrialization Corporation, with responsibility for all of Iraq’s weapons programs, leaves Iraq for Jordan. Iraq claims that Hussayn Kamil had hidden from UNSCOM and the IAEA important information on the prohibited weapons programs. Iraq withdraws its third biological "Full, Final and Complete Disclosure" and admits a far more extensive biological warfare program than previously admitted, including weaponization. Iraq provides UNSCOM and the IAEA with large amounts of documentation, hidden on a chicken farm ostensibly by Hussayn Kamil, related to its prohibited weapons programs which subsequently leads to further disclosures by Iraq concerning the production of the nerve agent VX and Iraq's development of a nuclear weapon. Iraq also informs UNSCOM that the deadline to halt its cooperation is withdrawn.

Summer 1995 (between June and August)
UNSCOM believes that a number of political prisoners had been transferred from the Abu Ghraib Prison to a secret site in western Iraq, where they were subjected to tests with chemical and biological agents under the supervision of a special unit from the Military Industrial Commission. According to a weapons inspector, there was "credible evidence" that prisoners were taken from the Abu Ghraib to al-Salman.

**March 1995**

Iraq provides the U.N. its second "Full, Final and Compete Disclosure" (FFCD) of its chemical weapons program.


**1995**

General Wafiq al-Sammara’i, former head of Iraqi Military Intelligence defects and reveals that President Hussayn is concealing more chemical and biological weapons than was released to U.N. inspectors. This includes a possible "'255 containers' of biological materials- 230 with powder and 25 with liquid."


**June 1994**

UNSCOM completes the destruction of large quantities of chemical warfare agents and precursors and their production equipment.


**May 1994**

UNSCOM declares that all known Iraqi chemical munitions, agents and precursors have been eliminated.


**1994-1995**

According to Professor Hussayn al-Shahrastani, an Iraqi nuclear scientist Iraq dumps barrels containing biological weapons and banned chemicals in the Euphrates and Tigris Rivers and uses explosions to destroy chemical weapons in isolated wastelands. The purpose of this action was to prevent U.N. inspectors from discovering them.


**1994-1995**

A CW production facility is shipped to Iraq in 23 shipments under the guise of a pesticide production plant. The Baghdad-based al-Eman Establishment for Trade Investment is used as a front by the Iraqi intelligence service. Some of the shipments "may have transported toxic precursor chemicals."


**May 1993**

Physicians for Social Responsibility (PSR) obtains samples from clothing and sail at Birjinni, where Sarin-containing bombs were allegedly detonated against civilians. Samples (transferred under strict chain of custody guidelines) were able to detect Sarin degradation products, thereby verifying use of Sarin.


**Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.**
May 1993
Iraq buries banned chemicals and biological material in al-Karkh Cemetery, 25 km from Baghdad. According to Muhammad Ibrahim al-A'zami, a former Iraqi police officer who fled to Germany, the materials are placed inside nine “well-built and tightly sealed coffins” and placed under guard. In February 2001, al-A'zami visited the cemetery and discovered that the nine graves had been leveled and the guards disappeared.

July 1992
UNSCOM begins the destruction of large quantities of Iraq's chemical weapons and production facilities.

June 1992
Iraq provides the U.N. its first "Full, Final and Compete Disclosure" (FFCD) for its chemical weapons program.

19 March 1992
Iraq declares the existence of previously undeclared chemical weapons and associated material. Iraq reveals that most of these undeclared items were unilaterally destroyed in the summer of 1991, in violation of resolution 687.

1992
Stockholm International Peace Research Institute (SIPRI) analysts conclude that information about Iraq's CW program is, at best, uncertain. There are strong doubts with regard to the “quality and quantity” of Iraqi CW agents, whether they were ever mounted on SCUD missiles, and whether missiles are a militarily-effective means of CW delivery. There is some information with regards to suspected CW production facilities. Most of the Iraqi CBW research and development is believed to have been conducted at the Saad 16 complex, at al Kasha and at Salman Pak. According to SIPRI, "CW precursor production was carried out at Baiji, al Fallujah and Musayyib, and CW production took place at Samarra, Badush and possibly al Qaim. A munition filling facility was located 2 km from Samarra, and artillery casing production took place at al Iskandriyah."

End 1991
In late 1991, Iraq claims that it possessed 46,000 chemical-filled munitions. UNSCOM suspects the number is much higher, and by the end of the year Iraqi personnel (under UNSCOM supervision) were made to destroy almost 12,000 of an estimated 75,000 unfilled munitions. According to UNSCOM executive chairman Rolf Ekéus, Iraqi filled munitions included "different types of aerial bombs, artillery rockets and shells."

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9 June 1991
"UNSCOM commences its first chemical weapons inspection."
[Note: No further details are given with regards to the inspection.]

16 May 1991
Iraq submits revised declarations to the U.N. These documents cover additional chemical weapons and a refinement of the missile declaration.

May 1991
The United Nations Special Commission on Iraq (UNSCOM) is formally established to "carry out immediate on-site inspection of Iraq's biological, chemical and missile capabilities, to provide for the elimination of these capabilities and to perform other functions assigned to it in part C of the resolution." UNSCOM relies on several sources of intelligence to conduct its mission. To identify questionable chemical weapons sites, UNSCOM bases its information on Iraqi declarations, outside government’s intelligence as well as data based on internal UNSCOM reports.

18 April 1991
Iraq provides its initial declaration under resolution 687. It declares some chemical weapons and materials.

6 April 1991
Iraq accepts resolution 687.

3 April 1991
U.N. Security Council Resolution 687 (1991), Section C, mandates that Iraq shall unconditionally accept, under international supervision, the destruction, removal or rendering harmless of its weapons of mass destruction, ballistic missiles with a range over 150 kilometers, and related production facilities and equipment. It also provides for establishment of a system of ongoing monitoring and verification of Iraq's compliance with the ban on these weapons and missiles. It requires Iraq to make a declaration, within 15 days, of the location, amounts and types of all such items.

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January 1991
Hussayn Kamil asks the Ministry of Defense to provide 31 trailers to forward-deploy munitions filled at the al-Muthanna State Establishment to the Ikhaidar and Nasiriyah depots in southern Iraq.

January 1991
Saddam gives orders to his commanders to launch chemical and biological weapons against enemy capitals and troops if Iraq is attacked by nuclear weapons. The decision is made to not use chemical or biological weapons against coalition troops and civilian populations due to the U.S. threat that, "any use of unconventional arms would provoke a devastating response." This quote was taken to mean nuclear retaliation.

1991
Iraq acknowledges holding 11,000 chemical weapons.

1991
Iraq claims to have destroyed the major part of its CW technical documentation.

25 September 1990
In an internal communication between the United States Consulate General in Jidda, Saudi Arabia and the State Department, it is reported that "Iraq had provided the Sudanese government with chemical weapons to use against the rebels in the south."

18 August 1990
Tariq Aziz says in an interview with an American television network, CBS, that Iraq will not use chemical weapons unless the U.S. uses nuclear weapons against it first.

9 August 1990
The Iraqi ambassador to Greece announces that Baghdad would use chemical weapons if it is attacked by the United States or Israel.
—Timothy V. McCarthy and Jonathan B. Tucker, "Saddam's Toxic Arsenal" Chemical and Biological Weapons in the

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
May 1990
Iraq conducts live firings of 122 mm rockets filled with CW agents.

17 April 1990
In a meeting with a delegation of U.S. senators, Saddam Hussayn says, "If Israel uses atomic bombs, we will strike at it with the binary chemical weapon..."

1 April 1990
In a speech to his senior military commanders, Saddam Hussayn boasts that Iraq has developed a "binary" chemical weapon.
[Note: There is significant debate as to whether this resembled a true binary weapon or something else.]

April 1990
Iraq flight-tests the al-Hussayn missile with a chemical warhead.

1990-1991
12-Frame bunkers (reinforced and compartmented bunkers, deriving their name due to their appearance) are found located in the al-Salman Pak BW facility and others, containing lighting arrestors and possible airlocks. These bunkers were also environmentally controlled and several contain refrigeration units. Bunkers of similar disposition have been found in other areas of Iraq and deemed possible BW agent or CW storage bunkers. Many bunkers were located in ammunition storage depots throughout Baghdad.
[Note: these storage facilities probably did not contain BW or CW agents or munitions when they were bombed, but their construction would have been suitable for CBW storage and possibly designed for just this purpose.]
—"Intelligence Related to the Possible Sources of Biological Agent Exposure During the Persian Gulf War", Office of the Special Assistant for Gulf War Illnesses, www.gulflink.osd.mil, August 2000.

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
1989-1980

November 1989
Iraq conducts weaponization tests with 122 mm artillery rockets.

1989
The Research and Development Center, known as Saad 16 in Mosul, is completed. It is equipped with facilities for the development of missiles and chemical weapons.

December 1988
A British laboratory finds traces of 1-4-Dithiane in soil samples taken from Iraqi Kurdistan, which supports allegations that Iraq used chemical weapons, specifically sulfur mustard, against its Kurdish population.

17 September 1988
A letter issued by the presidential council, signed by Hussayn Kamil, states, "The principal of deterrence is the best means for defense against the Zionist entity and we suggest in this respect the following: to continue to develop the chemical weapons with an attempt to acquire more lethal types of munitions in large quantities..."

15 September 1988
U.S. government officials say that the U.S. had intercepted communications by the Iraqi Air Force indicating that Iraq had used poisonous agents against Kurdish guerillas.

9 September 1988
The Turkish government says that its investigation produced no evidence that Iraq used chemical weapons against the Kurds.

8 September 1988
The U.S. State Department says that based on its information, it is convinced that Iraq used "poison gas" against Kurdish guerillas and condemns the action as "abhorrent and unjustifiable."
September 1988
According to Iraq's 1995 disclosure, it abandons its VX program.

25 August 1988
According to a staff report issued by the Senate Foreign Relations Committee in September 1988, Iraq uses chemical weapons against Kurdish guerillas and civilians in Kurdish towns and villages near the Turkish border. A report by Physicians for Human Rights from February 1989 also concludes that Iraq used lethal agents against Kurds in northern Iraq on this day.


20 August 1988
Cease-fire in Iran-Iraq war comes into effect, to be monitored by the U.N. Iran-Iraq Military Observer Group (UNIIOMG).

12-14 August 1988
A U.N. team visits Iran to investigate CW allegations. The team concludes that Iraq bombed the Sheikh Othman district in Oshnabiya with mustard agent.


20 July 1988
The U.N. releases a report describing their investigation. The team concludes that the Iraqis had used both sulfur mustard and a nerve agent against Iran in June.


9-12 July 1988
An U.N. team visits Iraq to investigate Iraqi allegations of chemical weapons use by Iran.


June 1988
Iraq employs both aircraft and artillery shells to deliver chemical warfare agents, including mustard, cyanide and nerve agents against Iranian forces deployed on Majnoon Island.


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3 May 1988
The village of Gop Tapa is bombed with chemical weapons by six Iraqi planes. [Note: The original source is the Iraqi Patriotic Union of Kurdistan so distortion is possible. The attack does coincide with the 1988 Anfal campaign in this area.] This report was filed in 2000 upon the discovery of mass graves around the village. "Mass Grave of Chemical-Attack Victims Found in Kurdish Region," Iraqi Patriotic Union of Kurdistan satellite TV, 11 November 2000, appears in BBC Worldwide Monitoring (British Broadcasting Corporation, 13 November 2000).

17-18 April 1988
VX is allegedly used against Iranian forces in the al-Faw Peninsula. The delivery systems are long-range artillery shells and aircraft. [This information is provided in 1998 by General Wafiq al-Sammarai a former head of Military Intelligence.]

8-11 April 1988
The U.N. team visits Iraq to investigate CW allegations at Halabja made by both Iraq and Iran. The team concludes that victims have been exposed to sulfur mustard.

April 1988
Iraq flies 15 Iraqi soldiers to England, Australia and West Germany for treatment of wounds it says they suffered from Iranian chemical weapons during the fighting in Halabja. Iraq has said 88 of its soldiers were wounded in the Iranian attack.

April 1988
Iraq uses 100 tons of Sarin on Iranian forces occupying parts of the Al-Faw peninsula. In the following months Iraq uses Sarin and other nerve agents against Iranian positions.

16-18 March 1988
As part of an ongoing military campaign, Iraqi forces use chemical weapons in an attack on Halabja, a Kurdish town of 45,000 in northern Iraq. The attack involves multiple chemical agents including mustard and the nerve agents Sarin, Tabun, and VX. Some sources also report cyanide use, although according to a Pentagon study of questionable reliability Iran is the party who used cyanide in the attack. It is estimated that approximately 5,000 people died in the attack.

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Early 1988
Iraq plans to build a major petrochemical complex at Musayyib that would be capable of hypothetically producing 420,000 tons per year of ethylene and 67,000 tons of ethylene oxide as well as other chemicals which are needed in the production of mustard agent. Techcorp is the government-owned company responsible for construction. Total estimated cost is about $2.5 billion, mostly financed by foreign loans.
—Middle East Economic Digest, February 17 1989, p. 17, Middle East Economic Digest, November 18, 1988, p. 17.

Late 1987
According to General Wafiq al-Sammarai, former head of Iraqi Military Intelligence, Iraqi engineers aided by German scientists succeeded in producing VX in late 1987.

1987
Iraqi aircraft attack 20 small villages with chemical weapons including mustard, Tabun and nerve agents.
[Note: It is not clear from the source whether the villages were located in Iran, the Kurdish strongholds in Iraq, or both]

3 August 1987
The United States expands its chemical exports embargo against Iraq in response to the continued procurement efforts by Iraq and its neighbors. The eight additional chemicals in this new extension are: n-diisopropylaminoethane-2-thiol, n-diisopropylaminoethyl-2-chloride, dimethyl phosphate (DMP), 3-hydroxy-1-methylpyperidine, phosphorus trichloride, 3-quincuclidinol, thionyl chloride, trimethyl phosphate (TMP). The four chemicals already embargoed and now subject to worldwide export licensing are: dimethyl methylphosphonate (DMMP), methylphosphonyl dichloride (DC), methylphosphonyl difluoride (DF), phosphorous oxychloride.
—"U.S. Expands Ban on Chemical Sales," The Journal of Commerce, 4 August, 1987, p.6A.

29 June 1987
Iran asserts that Iraqi warplanes dropped mustard agent on four residential areas of Sardasht, a predominantly Kurdish region of northwestern Iran. There are 10 civilian deaths and approximately 650 injuries.

March 1987- April 1988
Alcolac International Inc., a U.S. company, violates U.S. export law by selling thiodiglycol, a major ingredient in

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mustard, to Iraq. Alcolac pleads guilty to this violation in 1989.

April 1987
British officials refused a request to export hydrogen fluoride to the "Rayon State Establishment" for what was stated to be "[research and development] for a pilot scale production of a chemical product ... for the Iraqi state electricity organization." Hydrogen fluoride is a chemical used in the production of Sarin.

1987
The first Iraqi chemical attacks against civilian populations takes place. Attacks launched by Iraqi aircraft against 20 small villages in the Balasan Valley near Arbil.

1987-1988
VX becomes the focus of Iraqi CW agent research late in 1987. 250 tons of phosphorus pentasulphide and 200 tons of di-isopropylamine are imported, which are precursors for production of VX. Iraq claims that by September 1988, it had abandoned further attempts to develop VX.

1986
The administration of the Muthanna State Establishment is transferred from the Chemical Corps, which ran it since 1978, to the Special Office for Technical Industry (SOTI), the technical arm of the Special Security Organization (SSO), under Hussayn Kamil.

1986
The Dutch firm Melchemie is convicted by the Dutch government of export violations for attempting to export to Iraq phosphorus oxychloride, a precursor of the nerve agent Tabun.

December 1986
Iraq attacks Iranians with sulfur mustard in the area of Umm ar Rasas.
3 August 1986
General Dayya Abd-al-Wahab ‘Izzat, commander of the Iraqi Erbil Division, issues an order to take a semi-annual inventory of all "biological and chemical materials."
—The document was obtained by Human Rights Watch from the Kurdistan Democratic Party. Human Rights Watch in a letter to Rolf Ekéus, Chairman of UNSCOM, 29 December 1992.

March 1986
U.N. Secretary General Javier Perez de Cuellar formally accuses Iraq of using chemical weapons against Iran, citing the report of the U.N. experts.

February and March 1986
The U.N. sends four chemical warfare experts to Iraq to investigate continuing allegations of chemical weapons use.

February 1986
According to a U.S. intelligence report released in February 1998, Iraq attacks Iranian forces using mustard and the nerve agent Tabun, allegedly resulting in 8,000 to 10,000 fatalities.

February 1986
Iraq attacks Iranian forces in the area of the al-Faw peninsula with mustard and Tabun.

1986
The U.N. conducts a second investigation, which validates the conclusion from the first investigation that Iraq used Tabun.

Mid-1980s
East German specialists (from the now-disbanded Volksarmee) install a large chemical warfare training center in Iraq. The facility was established to train the Iraqi army in effective delivery of CW agents.

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**Late 1985**

Iraq has the capability to indigenously manufacture nerve agents.


**March 1985**

Iraq attacks Iranians in the area of Hawizah Marsh with mustard and Tabun.


**February 1985**

British authorities receive a request for insurance support for a British subsidiary of a West German company to design, build and commission a "Chlorine-Alkali-Electrolysis" plant in Iraq. The British government is not able to find substantial justification to block the contract.


**November 1984 - January 1985**

Dutch authorities obtain evidence that between November 1984 and January 1985 the Dutch company Melchemie BV had legally exported over 1200 tons of chloroethyl, dimethylamine, thiodiglycol, and 20,000 kg of phosphorous trichloride, all of which are used for the manufacture of chemical weapons.


**1985-1990**

According to Iraqi declarations, it constructed three facilities (Fallujah 1, 2, and 3) and new production facilities at the al-Muthanna State Establishment to produce the nerve agent precursor chemicals: PCI 3, POCI 3, SOCl 2 and trimethyl phosphate (TMP).


**3 August and October 1984**

German government experts inspect the al-Samarra plant.


**Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.**
10-11 April 1984
The United States, Britain, France, Japan, and later Australia, ban exports of certain chemicals to Iraq and Iran.

30 March 1984
The U.S. bans export of five chemicals suitable for weapons to Iraq and Iran.

26 March 1984
The U.N. issues its first report on the investigation of possible chemical weapons use by Iraq.

23 March 1984
The Paris daily *France Soir* reports that the Iranians who were recently sent abroad for medical treatment for burns were the victims of an explosion at the Iranian Petro-Chemical Center in Khobasht that took place on 18 February.

15 March 1984
In a press release Iraq denies that its Akashat Industrial Complex for Fertilizers produces chemical weapons. Iraqi Minister of Industry and Mineral Resources, Subhy Yassin, told the Iraqi News Agency that the facility produces phosphate for the production of chemical fertilizers.

13-19 March 1984
The U.N. conducts its first investigation regarding chemical weapons use. It confirms that mustard and Tabun were used.

12 March 1984
In a letter from the Permanent Representative of Iraq to the United Nations, Iraq denies use of CW, "those responsible in Iraq have confirmed the non-use of chemical weapons in the conflict with Iran."

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
March 1984
Reports surface accusing Italian and French firms of aiding Iraq with its chemical weapons technology. The firms deny the accusations.
—"Accusations Against Italian and French Firms for Supplying Chemical Warfare Technology to Iraq," Internal communication between the U.S. Embassy in Italy and the State Department, 14 March 1984.

Feb-March 1984
Iraqis attack Iranian forces the area of Majnoon Island with mustard.

21 February 1984
Iraqi military spokesman states, "the [Iranian] invaders should know that for every harmful insect there is an insecticide capable of annihilating it whatever their number and Iraq possesses this annihilation insecticide."
—"Iraqi Warning re Iranian Offensive," Memorandum from the U.S. Embassy in Iraq to the U.S. State Department, 22 February 1999, National Security Archive, box 7, record number 58480.

February 1984
U.S. Customs at New York's Kennedy Airport stop an order addressed to the Iraqi State Enterprise for Pesticide Production for 74 drums of potassium fluoride, a chemical used in the production of Sarin. The order was places by Al-Haddad Enterprises Incorporates, owned by an individual named Sahib al-Haddad.

February 1984
Iraq attacks Iran with mustard agent and may have used the nerve agent Tabun.

Early 1984
The Iraqi State Ministry of Pesticide Production places a second order for 500 metric tons of thiodiglycol with Phillips. The company, however, grows suspicious, cancels the order and notifies the Belgium government, which cancels Phillips' license to produce the chemical.
[Note: this is most likely the same case as reported in the "late 1983" entry.]

1984
According to Iraqi defector Khidhir Hamza, about 100 Shiite prisoners are taken to the plant at Al-Samara, were they are subjected to chemical agents.

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.

**1984**

Iraq begins to use Tabun in relatively small amounts. U.N. investigations after the 1984 attacks confirm that Iraq was using Tabun against Iran.


**1984**

Production begins of Tabun(GA) and Sarin(GB).


**Late 1983**

An order for 500 tons of thiodiglycol, 200 tons of trimethyl phosphate, 250 tons of phosphorous oxychloride and 200 tons of potassium fluoride is placed by the Iraqis with KBS Holland but was cancelled due to Dutch government pressure.

[Note: All of the agents listed above are used in the synthesis of CW agents.]


**3 November 1983**

Iran formally submits its first allegation of Iraqi chemical weapons use to the United Nations' Security Council.


**November 1983**

The Iraqis fire large quantities of mustard agent on the attacking Iranians at Penjwin.


**September 1983**

Iraq signs a second contract with a subsidiary of Karl Kolb for two larger pilot plants to produce chemical agents.


**August 1983 – Late 1986**

Saddam Hussayn holds exclusive authority to release chemical weapons. A request can be made by General Staff, corps commanders or division commanders, but all decisions have to be approved by Hussayn.


**Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.**
July 1983
Iraq uses mustard agent against Iranian forces in the fighting near Haj Umran. The attack fails due to unfamiliarity with the agent’s characteristics.

July 1983
KBS Holland BV supplies 500 tons of thiodiglycol, a chemical which can be used to produce sulfur mustard agent, for approximately £500,000 (≈$329,900 in 1983) to Iraq's State Enterprise for the Production of Pesticides (SEPP). KBS acquired the thiodiglycol from a Belgian subsidiary of Phillips Petroleum USA.

1983
Iraq tests some of the CW agents, produced in Akashat, on Kurds captured by Iraqi forces. Several prisoners reportedly died as a result of these experiments.

1983
The German Quast Company subcontracts to Kulb to provide reactor vessels, piping, and centrifuges for a pilot production plant in al-Samarra.
[Note: Centrifuges are generally associated with BW-related research as well as other legitimate activities. Though this entry does not necessarily point to any illicit transactions, it demonstrates existing scientific trade ties between the two states.]

1980s
Chemical development at al-Muthanna is supported by storage and precursor facilities Fallujah 1, 2 and 3 near Habbaniyah.

1982
Iraq signs a contract with West Germany to buy a large amount of equipment for the production of chemical weapons. No further details are specified.

1982-1983
Al-Muthanna becomes operational with five dedicated research and development sections, each pursuing its own program. The complex begins to mature into the leading chemical agent production and weaponization facility.

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
[Note: It is not clear from this report on what specific programs each section is working.]

December 1982
Iraq begins to use mustard agent against Iranian forces.

July 1982
Iraq uses riot control agents (CS) against Iranian troops.

1982
British sources sell 76 chemical protection suits to Iraq.

1981
Iraq signs a secret agreement with Egypt, under which Iraq reportedly gives Egypt $12 million to expand its CW capabilities. In return Iraq would assist Egypt with production and storage of CW agents, establishing chemical manufacturing facilities and help purchase raw materials for the production of CW agents.

1981
According to another source, production of the blister agent sulfur mustard (HD) reportedly begins.

1981
Production of phosphates begins at the Akashat phosphate mine near Syria capable of producing 1.7 million tons of phosphate a year.
[Note: This is followed by processing and support industrial complexes at al-Qaim, and fertilizer complexes at Baiji and Bara. These additions spanned the decade and represent the bulk of Iraq's phosphorus-based chemical industry which has the potential to be harnessed in the production of chemical agents for a CW program especially the production of nerve agents.]

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
16 November 1980
Iran publishes its first allegation of an Iraqi CW attack.

Sept 1980
Iran-Iraq war begins.

1980's
In a detailed policy paper for the Washington Institute for Near East Policy, W. Seth Carus outlines Iraq's existing chemical and biological weapons programs. Carus asserts that although Iraq was interested in CW since the 1960's, a conclusive effort was not underway until 1974 when a high-level decision to undertake a CW program was made. The Iraqi CW program was placed under the authority of the Ministry of Industry and Military Industries, headed by Saddam Hussayn's son-in-law Hussayn Kamil. Carus concludes that as a result of Iraqi efforts, the country was able to produce approximately 60 tons of sulfur mustard (HD) annually at a small plant near Sammara. Iraq imported the key precursor for producing sulfur mustard, thiodiglycol, from Western sources. According to Carus, Iraq developed the ability to indigenously produce its own thiodiglycol, which is a key component for CW and a dual use chemical. Iraq has also worked on nerve agents such as Sarin, Tabun and VX. Allegedly in the early 1980s West German firms helped build a pilot plant for producing Sarin and another for producing Tabun near Sammara. The nerve agent production program was relatively smaller in size, and hypothetical production stood around 100 tons of agent per year.

1979-1931

Late 1970s-early 1980s
Iraq initiates research into the production of CS tear agent at the al-Salman Pak site for the purpose of riot control, under the auspices of the Committee for National Security. Only a few tons of CS were produced at this site, whereas the military-scale production of the chemical was initiated at al-Muthana in the early 1980s. [Note: Salman Pak was mainly involved in Iraq's biological warfare (BW) program and is located approximately 30-40 kilometers southeast of Baghdad.]

Late 1970s
Development plans begin for a "commercial scale production facility" in the Iraqi desert under the codename Project 922. This facility is later named the al-Muthanna State Establishment (al-Muthanna) and operated under the name "Iraq's State Establishment for Pesticide Production." Al-Muthanna was assisted by "three separate

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storage and precursor facilities known as Fallujah 1, 2, and 3." Parts of these facilities were not fully complete when they were bombed by allied forces in 1991.


**Early 1979**

Iraq reportedly builds its first, crude, chemical warfare plant near the town of Akashat in northwest Iraq. The plant has a hypothetical production capacity of 2,000 tons per year. The British Department of Trade and Industry grants an export license for the protective clothing used by workers in the plant.

[Note: The type of agent produced at the plant is not specified. Furthermore, according to a CNS scientist, most of the calculations are overestimated by approximately 20-50%]


**1978**

The Al-Hazen Institute closes and the chemical weapons development programs are moved to al-Rashad and the al-Muthanna State Establishment.

[Note: The source does not indicate any particular reasons why the program moves to a different site but according to Iraqi sources, the al Hazen Ibn al-Haytham Institute is shut down and several workers, including the Chairman Major Ghazan Ibrahim, are arrested due to financial fraud. The Institute is closed due to poor management coupled with lack of appropriate facilities and equipment.]


**1976**

An unnamed Italian company in Milan reportedly helps Iraq build a chemical weapons plant under the cover of producing pesticides.


**1976**

The Iraqi Phosphate Company is established. The company is composed of phosphate mines and a chemical facility that includes "a processing plant, a sulfuric acid plant and a fertilizer plant." The fertilizer plant was bombed by Allied forces in the 1990 Gulf War regained its operational capability by November 1999. The Iraqi Phosphate Company's chemical plant also produces other products such as "sodium phosphates, silica gel, sodium floro-silicate (sic), ammonium chloride, and calcium phosphate."

[Note: Although there is no apparent direct link to a CW program, this facility's description goes to demonstrate Iraqi scientific capability.]


**1975-1981**

Iraq signs contracts with Karl Kolb GmbH for seven chemical pilot plants. The Hamburg-based company provided Iraq with several "heavy duty pumps and chemicals."

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1975
Reportedly, Iraq approaches the Pfaudler Company of Rochester, New York, regarding help in creating a relatively small "pesticide blending" production facility. Pfaulder is known for producing corrosion-resistant, glass-lined steel vessels, which are suitable for producing large amounts of toxic chemicals. The discussions break off in mid-1976 because Pfaudler tries to persuade Iraq to proceed first with a pilot plant, whereas Iraq insisted on constructing a massive plant to "blend organophosphate pesticides." Early in 1978 the U.S. government refuses to grant Pfaudler a license to export the machinery for building the plant, but the Iraqi's managed to acquire the drawings and technical specifications. Iraq then turns to Imperial Chemical Industries (ICI), which refuses to negotiate the proposal due to British export controls. As a result, Iraq turns to several European firms to finally purchase various equipment that it needed, and in 1975 Iraq builds a "nerve and mustard agent production facility" near Samarra. —Anthony Cordesman, "Creating Weapons of Mass Destruction, Armed Forces Journal International 126 (February 1989), p. 54; Adel Darwish and Gregory Alexander, Unholy Babylon: The Secret History of Saddam's War, (London: Victor Gollancz Ltd., 1991), p. 104.

1975

1974

1974-1977
A three-man committee made up of then vice-president Saddam Hussayn, Vice-Premier Adnan Hamdani and Chief of Staff, General Adnan Khairallah, head the Iraqi quest for weapons of mass destruction (WMD). They engage a Beirut-based consulting company called Arab Projects and Development (APD) to help in this endeavor. APD recommends that Iraq recruit foreign scientists and engineers, as it lacked an indigenous technical capability. As a result, between 1974 and 1977, Iraq enlists the services of over 4,000 scientific personnel from countries such as Egypt, Morocco, and Algeria, —Adel Darwish and Gregory Alexander, Unholy Babylon: The Secret History of Saddam’s War, (London: Victor Gollancz LTD, 1991), pp. 102-103.

1970s
Iraq starts research and development activities into production of chemical weapons. [Note: this date referring to the beginnings of an Iraqi CW program is different from the one noted by Cordesman in the entry above.]
1971
Research begins at a small site in Rashad, northeast of the capital Baghdad. Research on Mustard, CS and Tabun (GA) are pursued.

Late 1960s
Iraq’s chemical warfare program reportedly commences after the Iraqis note effective use of Egyptian CW against Yemen.

1964
The Iraqi Army Chemical Weapons Branch (CWB) is founded with the responsibilities for planning, transporting, using, and conducting defensive operations against chemical weapons. The CWB commander is also the leader of the Iraqi Chemical Corps.

1960s
According to Lieutenant General Nizar ’Abd al-Karim al-Khazraj, who was questioned by UNSCOM inspectors, the Iraqi army had been trained to operate in a chemical warfare (CW) environment since the 1960s.

8 September 1931
Iraq accedes to the Geneva protocol, banning the use of chemical weapons. Iraq makes a "no first use reservation," as do approximately 30% of States Parties to the treaty.

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