

Annex G Chemical Warfare and the Defense of Baghdad

ISG investigated reporting that Iraq used a defensive doctrine during OIF that included the employment of a “red line,” beyond which the Iraqis would have used available WMD against Coalition forces. Since OIF, we have conducted numerous interviews of senior regime officials and military officers in an effort to confirm whether Iraq had weaponized CW ready to use or whether there was a “red line” concept that would have triggered a CW attack.

We believe that there was indeed a “red line” defense for Baghdad, but it was a simple multi-ring conventional defense that quickly broke down under Coalition assault, and not the coordinated, prepared plan depicted in prewar intelligence reporting.

- Evidence of strategic planning at the Diwan and flag-officer levels is lacking in any mention of CW.
- Many Iraqi Generals believed there was a secret plan to use CW, but we have found no evidence that the SSO—which was involved in past CW uses—was part of any planning for CW use.

Prior to OIF, historical reports describe Iraqi plans for defensive use of CW to disrupt or halt the advance of enemy troops and to disrupt enemy staging areas before their attack.

- As early as 1991, prior to Desert Storm, Saddam decided to use CW if Coalition forces crossed a parallel extending west from Al Amarah or if Iranian troops crossed the border into Iraq, according to reporting.

During the run-up to OIF, the Intelligence Community received additional information pointing to a “red line” around Baghdad that, if crossed by Coalition forces, would trigger an Iraqi CW attack.

- According to a Kurdistan Democratic Party (KDP) member, Saddam in October 2002 authorized the use of prohibited weapons at the discretion of four field commanders if US forces closed on Baghdad. One of the four field commanders was Kamal

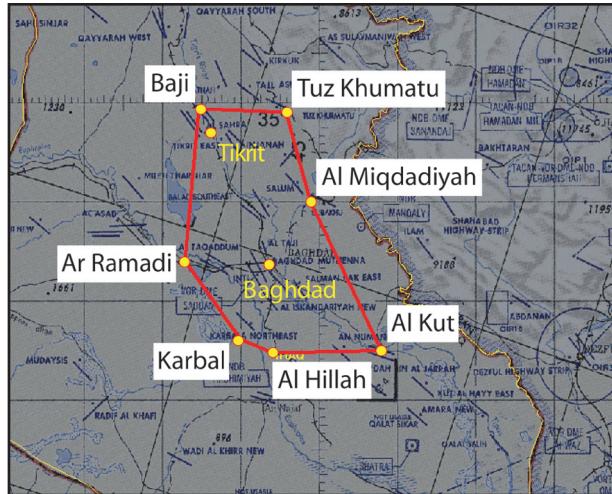


Figure 1. Red line for triggering CW use, October 2002.

Mustafa, the Republican Guard Secretary. The “red line” was described as a box around Baghdad encompassing the cities of Tuz Khurmatu, Bayji, Ar-Ramadi, Karbala, Al-Hilla, Al-Hillah, Al-Kut, and Al-Miqdadiah (see Figure 1).

- According to a senior Iraqi Ministry of Foreign Affairs official, in early February 2003, Saddam had decided to use CW against US troops in the event of war.
- Reportedly in a mid-February 2003 meeting, senior members of the Iraqi armed forces and Ba’ath party members discussed plans to release unknown chemical agents by remote detonation in six populated areas near the Saudi-Jordanian frontier and in western Iraq.
- According to a foreign government service, as of 16 March 2003, the 108th artillery battalion of the Baghdad Republican Guard Division in Al-Kut was under orders to use CW on Coalition forces if they approached Al-Kut. The battalion was reportedly equipped with CW shells, including mustard and unidentified binary agents, and was commanded by Col. Muhammad Ibrahim Sulayman.

Origin of the Red Line—The Sandhurst Approach

Information acquired from various military sources and documents indicates that Iraq developed a defense doctrine that included a directive to defend to the last by all means necessary once Coalition forces approached a red line. Sources report that Saddam’s Leadership Defense Plan was based upon a tactical doctrine taught to all Iraqi Officers, but we have not found evidence that the plan explicitly included a trigger for CW use.

- *The defensive tactical doctrine was originally taught to Iraqi Officers at the Royal Military Academy, Sandhurst, United Kingdom, in the 1950s, and later similar doctrines were taught to Iraqi officers at British-style training courses in Pakistan. The fundamental principles are based upon concentric defensive perimeters or layered defensive lines.*
- *The defenses usually consisted of four lines:*
 - 4th line (yellow)—line along which reconnaissance units usually deploy;*
 - 3rd line (green)—first line of defense against advancing units;*

—2nd line (blue)—first major fallback positions for the units stationed at the blue line—additional troops, supplies, and ammo stationed here;

—1st line (red)—innermost defense line or last line of defense and final fallback position for troops. Advancing forces would meet the heaviest resistance here, and it was the final staging area.

Reporting indicates that the multiline defense was attempted by some Iraqi forces defending against Coalition advances during OIF, with poor results:

- *The 34th Infantry Division used the method in defending the Khanaquin Border Crossing—however, Coalition forces moved so rapidly and so many Iraqi soldiers deserted that the situation quickly became chaotic, and the notion of falling back to a stabilized line or lines was impossible.*
- *In addition, the 5th Mechanized Division used this doctrine in its defense of Kirkuk, but its lines successively collapsed under Coalition air assault.*

Late 2002–Early 2003: Struggling To Generate a High-Level Defense Strategy

Available evidence indicates that the Iraqi Pre-OIF defense strategy evolved over a rather short time, from mid-2002 through the end of that year, and transitioned to the level of detailed tactical planning only shortly before OIF (see Chapter 1, Regime Strategic Intent).

- Even as Coalition forces built up around Iraq, Saddam continued to believe that they would not invade or attack Iraq; this belief was dispelled only by the beginning of OIF itself;
- Saddam perceived his armed forces to be stronger than they were and thought a Coalition invasion, if it did occur, would never penetrate as far as Baghdad;

- In fact, Saddam believed that a popular uprising would occur as the Coalition invasion progressed;
- Saddam’s inner circle reinforced his faulty perceptions out of fear of Saddam’s reaction.

High-Level Discussions Began in Earnest Only in Mid-2002 on a Regime Defense Plan. Starting in mid-2002 through OIF, the Intelligence Community received reporting that the Iraqi regime intended to use CW if Coalition forces invaded Iraq or threatened Baghdad. Iraq’s layered defense plan reportedly included the use of chemical weapons once Coalition forces crossed the defensive “red line.” Discussions about the deployment of WMD reportedly took place at various military levels, according to multiple reports.

- In August 2002, reporting indicated Saddam Husayn had selected a pool of approximately 100 experts and scientists to “solve Iraq’s problems” pertaining to the advancement, protection, and concealment of WMD programs. Rewards were reportedly provided to those scientists who came up with ideas for using WMD to thwart any potential US attack on Iraq.
- Reporting at various levels indicates WMD use was discussed; however, no source has been able to provide detailed plans how Iraq was going to use WMD against a Coalition invasion.

Reportedly both before and after OIF, planning an Iraqi defense strategy against Coalition forces underwent several stages. An initial plan appears to have been delivered by December 2002 and most likely underwent revisions until OIF.

- A senior Iraqi officer with direct knowledge of Iraqi war planning stated during OIF that at a meeting in December 2002, high-level Republican Guard Commanders and staff officers received the final orders on how Baghdad was to be defended from LTG Al-Rawi.
- Reporting prior to OIF from a senior active-duty Iraqi military officer indicated in early February 2003 the RG leadership was preoccupied with tactical defense planning against a possible Coalition attack. Defense plans were posited on three defensive lines, with the third and final line including Baghdad and its suburbs. Conventional training had been intensified by senior command, but there had been no increase in CBW training programs. Typical defensive chemical protection clothing and related materiel were provided, as were defensive chemical-warfare-related procedures.

Interrogations with several Iraqi division-level officers after OIF confirm that Saddam’s Defense Plan was based upon a layered defense doctrine. The innermost circle of defense was referred to as the “red line.” Once Iraqi troops retreated to the red line position, they were to “hold to the last” without further retreat, presumably ready to employ all available weaponry (see Figure 2).

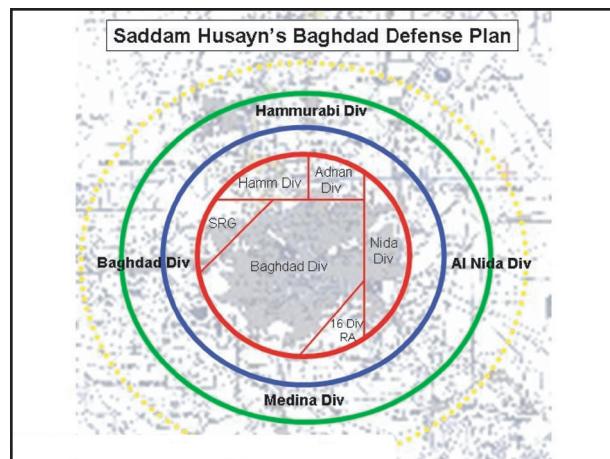


Figure 2. Schematic representation of “red line” and defense posture based on a senior Iraqi officer involved in pre-OIF war planning.

- Interrogation of a senior Iraqi officer with direct knowledge of Iraqi war planning during OIF revealed that on 18 December 2002 the former RG High Level Commanders and Staff Officers met with former RG Chief of Staff LTG Sayf Al-Din Al- Rawi, Qusay Husayn, Former RG Commander, and Saddam Husayn to receive orders for the final Defense of Baghdad.
- According to the same source, Baghdad’s defenses would be based upon three defensive lines—units would fall back from one line to the next on orders from Saddam Husayn. The last line of this defensive plan was considered the red line, but, according to the officer, **CW was not part of the defensive strategy because Saddam had indicated in a meeting that he had none.** LTG Al-Rawi has eluded capture, and we have not been able to corroborate this information or confirm this meeting.
- Interrogations with Former Staff Maj. Gen. Salih Ibrahim Hammadi Al-Salmani—head of the Baghdad division of the Republican Guard during OIF—indicated that all Iraqi forces were given a preestablished red line to defend. Consistent with Sandhurst teachings, the red lines were established by HQ and were the final defensive fallback position where troops were to fight with the strongest resistance.

By April, the regime was nearing its end, and the discussions it had were no longer useful:

- Latif Nusayyif Al-Jasim Al-Duri—former member of the RCC and Deputy Secretary of the Ba’ath Military Bureau—indicated that at the last meeting he attended with Saddam and leading military and political figures in April 2003, Saddam was still asking “what kind of weapons preparations were accomplished and if any more were needed.”
- Al-Duri claimed that preparations for missiles and CW were not discussed but noted that the meetings were brief, which was unusual for revision and fine-tuning of a last-ditch defense plan. Other attendees regarded this as the farewell meetings rather than a planning meeting. Tariq Aziz also substantiated the fact that the last meeting with Saddam still did not include in-depth tactical discussion or presentation. This lends credence to the fact that the defense plan never came together at the tactical level (see Figure 3).

Figure 3 denotes Former Staff General Salih al-Salmani’s impression of the red-line doctrine for the defense of Baghdad (the graphic provides an approximation of the layered defense structure). This graphic is a similar to Figure 2 on the previous page in denoting the layered defense and red line.

Flag-Level Opinion—No Knowledge of CW Plans, but Conventional Wisdom Expects It

At the same time as policymakers at the Presidential level were trying to generate a plan for defense against the Coalition, generals and high-level defense officials believed that a plan for CW use existed, even though they themselves knew nothing about the details.

Several high-ranking Iraqi military officials claimed CW was not part of an organized Iraqi Defense Plan but kept open the possibility that discussions took place in closed venues at higher levels. This suggests that Iraqi conventional wisdom agreed that CW was part of a secret plan, even in the absence of direct evidence:

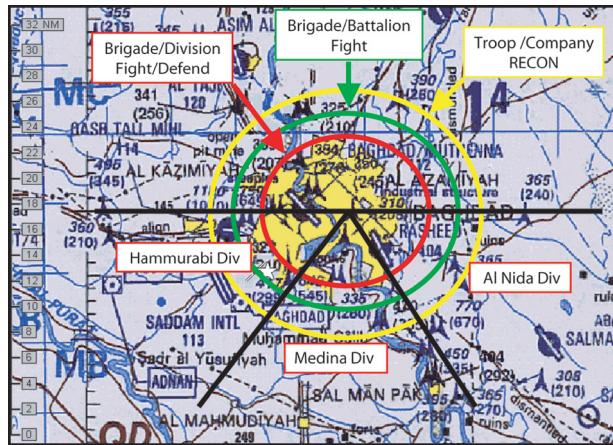


Figure 3. Former Staff General Salih al-Salmani’s impression of the red-line doctrine.

- A major contributor to the Iraqi Defense Plan, former Defense Minister Sultan Hashem Ahmad Al-Tai, was captured by Coalition forces in September 2003. The Minister asserts that at no time was WMD discussed in strategy meetings to lay out an Iraq Defense Plan but does not rule out the possibility that discussions ensued at higher levels.
- Sultan Hashem was never directly asked if the red-line doctrine included the use of CW; however he firmly asserts that WMD use was not a topic of the defense plan and would have been a topic for a different, compartmentalized forum. Hashem also noted the large number of people who were shocked when Saddam announced in December 2002 in an open forum that Iraq did not possess WMD.
- After OIF, the commander of the Iraqi military’s chemical corps, Gen. Amar Husayn al-Samarrai informed the US that Iraqi leaders had intended to concentrate their forces around the critical cities of Baghdad, Basrah, Mosul and Tikrit, with each city surrounded by several defensive layers. Samarrai was not aware of any offensive strategy to use CW against Coalition forces but indicated his job was to make sure the Iraqi military was fully equipped to handle a coalition chemical attack.

Investigation Into Nontraditional CW Use—The Fedayeen Saddam

Traditional tactics in the deployment of CW would have been under the control of Saddam and Qusay Husayn with the SSO and RG delivering and deploying the munitions either by missile (with heavy MIC assistance), mortar, or artillery. However, ISG also investigated whether there was any evidence of CW use planned by the two most skilled groups in unconventional/nontraditional tactics and methods, the Saddam Fedayeen and the IIS, specifically the special operations elements of M14 cooperating with M16 technical experts.

There are no indications from the limited intelligence available that Fedayeen doctrine included the use of CW if a red line was breached. There is some evidence to indicate that ‘Uday wanted to deploy CW, but was unable to obtain them.

- According to reporting prior to OIF, in mid-March 2003, ‘Uday Saddam Husayn sought CW agents from OMI and tasked Muhammad Khudayr Al-Halbusi Al-Dulaymi—then director of IIS M-14—who asked Imad Hussayn ‘Abdallah ‘Al-‘Ani (the father of Iraq’s VX program), to provide an unspecified CW agent. Dulaymi dispatched a courier who communicated the message to Al-Ani. Al-Ani asked for two weeks to study feasibility as a delaying tactic and replied after two weeks that OMI facilities were not capable of producing CW agents and the required chemical precursors were not available in Iraq. However, after OIF Muhammad Al-Dulaymi was interrogated on 17 July 2004, he asserted that ‘Uday Husayn never contacted him requesting chemical weapons.

- At the onset of OIF (late March), according to a foreign government service, an Iraqi security official indicated that Iraq’s chemical weapons munitions had been removed from Baghdad as a result of the coalition air attack. He contends the bombing in late March 2003 resulted in the inability to prepare chemical weapons immediately against Coalition forces.

- Preliminary searches of the recovered documentation do not reveal written or recorded official documents regarding an Iraqi defense doctrine and execution orders for CW.

Post-OIF Reporting on Red Line

Interrogations, interviews, and documents obtained after OIF have confirmed that the “red line” was indeed part of regime planning, but they have not revealed a plan by Iraq to use CW at a pre-positioned red line. Information from numerous military officials indicates that Iraq was not able to use chemical weapons at the time of OIF, although ISG has not been able to locate and debrief some of the key Iraqi military commanders. Exploitation of military sites within the identified “red line” revealed no large cache of chemical weapons or indications that large amounts of chemical weapons were present (for further information, see Annex C).

- Reporting prior to OIF that Saddam in early October 2002 authorized the use of prohibited weapons at the discretion of four field commanders was contradicted by one of the field commanders who surrendered to Coalition Forces in May 2003. Former Staff Gen. Kamal Mustafa claims he did not have WMD at the time of war and indicates that the ‘red line’ plan did, in fact, exist but was simplistic in nature.

- According to the reporting, “special weapons” could have been employed dependent on certain conditions, such as climate and troop disposition, once Coalition forces breached this red-line perimeter. There were no indications of chemical weapon use when Coalition forces breached this zone, although sand storms and high winds, or dispersed troop formations, might have prevented the use of CW.

- During OIF, reporting from a former senior Iraqi Special Security Organization Officer with direct access indicated in early March 2003 the Iraqi Regime planned to defend Baghdad by establishing seven rings of defense. The source believed that “extreme defense measures” would be employed, and these measures would include WMD under the control of Qusay Husayn. The former officer also believed the defense plan was impenetrable and never executed because of a breakdown of the Iraqi military.

No Evidence of Red Line Defense Plan With CW Use at the Unit or SSO Level

Traditionally, the RG Deployed Chemical Weapons Under Ad Hoc Control of the SSO. Past doctrine would have the SSO deliver unmarked chemical weapons to the RG, who would fire the weapon at a location dictated by an SSO officer. We assess RG Commanders were not aware of SSO intentions prior to the chemical weapons use. This notion supports a CW use concept that would have been compartmentalized and therefore not discussed at most defense planning meetings.

Available evidence is not consistent, however, with a compartmented CW use program involving SSO assets:

- Pre-OIF reporting from the Kuwait government service from a source with good access indicates that, as of 16 March 2003, the 108th artillery battalion of the Baghdad Republican Guard (RG) division in Al-Kut was under orders to use CW on coalition forces if they approached Al-Kut. The battalion, commanded by Col. Muhammad Ibrahim Sulayman, was reportedly equipped with CW shells, including mustard and unidentified binary agents. However, this source was contradicted during OIF by a senior RG artillery officer with direct and indirect knowledge of information on the use of chemical weapons use for the 108th artillery battalion, who asserted that the 108th did not receive any chemical weapons.
- Another source claimed that, unlike the Iran-Iraq war, SSO personnel did not deliver ammunition during OIF, and the SSO officer attached to the 108th, CPT Jamal Al-Tikriti, did not bring chemical weapons with him.

Post-1991 to OIF, a senior scientific advisor to Saddam through interviews conducted after OIF shed light on the launch procedures for modern Iraqi missiles. He asserted that, because of the complexity and prototype nature of the new systems, technicians from the Military Industrial Commission (MIC) would be heavily involved in missile preparations, aiming, and launching. RG and SSO involvement would be unlike pre-1991 doctrine. The military would only provide the target by direction from “a single location.”

- A senior scientific advisor to Saddam through interviews conducted after OIF provided insight into the missile launching procedures. MIC technicians reportedly launched all available Al Samoud and Al Fat'h missiles. However, missiles experienced enough faults, due to their prototype status, that they required technicians to be on hand continuously to fix problems as they were detected. The MIC technicians then aligned-aimed the missiles and conducted the launch operations. The Iraqi military was responsible only for relaying the targets to the MIC-OMI technicians.
- All targeting information came from on location and field commanders had no say in the matter. Regarding WMD warheads and who would have control of the warheads (MIC, SSO or RG) the source states there were no WMD warheads.

Annex H

Summary of Key Findings at Captured Enemy Ammunition Consolidation Points

Exploitation of Captured Enemy Ammunition Supply Points

As of 27 July 2004, 9,758 Iraqi munitions caches had been found and scheduled for destruction. Coalition forces are almost finished with the process of consolidating the known caches into one of seven Captured Enemy Ammunition (CEA) Depots. In order to examine the maximum amount of munitions possible, ISG teams visited these CEA depots to exploit a broad spectrum of Iraqi munitions, possibly including WMD-capable projectiles, rocket, missiles, or bombs. In addition to the assessment and exploitation of munitions, the teams also provided the on site contractors with handouts explaining which munitions are of interest to ISG and how to contact ISG should any suspected munitions be found. The seven CEA depots are listed in Table 1.

A variety of munitions were exploited by ISG teams. Highlights include the Al Fat'h missile and the 81mm aluminum rockets, which figured prominently in the “aluminum tubes issue,” as well as many other types of munitions including cluster bombs, rockets, and artillery projectiles (see Figures 1 and 2).

An Najaf CEA Depot

An Najaf is located in central Iraq (approximately 120 km south of Baghdad). The An Najaf Depot contains 87 intact earth-covered bunkers; 42 destroyed warehouses, and approximately 99 revetments. An Najaf Depot covers an area of 5 km by 6 km and is secured by a 7ft barbed wire fence. The bunkers, located at the northern end of the depot, are in four major groups, each group consisting of five pentagon shaped sub-groups containing five bunkers each. The warehouses are located to the south in rows of seven warehouses by six rows for a total of 42 warehouses. All of the warehouses were destroyed by unknown explosions.



Figure 1. Al Fat'h missile.



Figure 2. 81mm rockets.

An Najif ACP is currently under the operational control of Foster Wheeler Tetra Tech.

- An item of interest found at this site was determined to be an Iraqi copy of the Spanish Fuel Air Bomb, and Surface-to-Air missiles. Bunkers, destroyed warehouses, and the revetments were exploited with no WMD weapons found (see Figures 3, 4, 5, and 6).

Table 1
Captured Enemy Munitions (CEA)

CEA Depot	Contractor in Charge of Site	Location MGRS	Location GEO
An Najaf	Foster Wheeler Tetra Tech	38S MA 14975 58003	N32.09.190 E044.05.540
Arlington	US Environmental	38S LD 53499 73957	N 34.59.858 E043.23.679
Az Zubayr	Foster Wheeler Tetra Tech	38R QU 58237 50953	N30.15.530 E047.40.210
Buckmaster	EODT	38S LD 63444 10878	N34.25.490 E043.30.490
Jaguar	US Environmental	38S LE 03320 51830	N35.41.447 E042.49.583
Paladin	EODT	38S LB 77958 77610	N33.13.829 E043.41.401
Taji	EODT	38S MC 31780 13636	N33.33.360 E044.15.540



Figure 3. Destroyed warehouses.



Figure 4. Al Fat'h missile in shipping container.



Figure 5. Iraqi fuel air bomb.



Figure 6. Bunker with 152mm artillery projectiles.

Arlington CEA Depot

Arlington CEA Depot is located north of Tikrit and about 200 km north of Baghdad and receives ammunition from the northern sector of Iraq. The Arlington Depot contains 100 intact earth covered bunkers, 79 intact and two destroyed warehouses, roughly 1,000 revetments, approximately 100 mud huts, and open storage. Arlington comprises an area roughly 2 km by 8 km surrounded by a 6-foot fence and guard towers. Arlington CEA Depot is currently under the operational control of US Environmental, Inc.

- The bunkers are located at the north end of the depot, the warehouses are to the south. Revetments are scattered though out the depot. Two of the warehouses were destroyed by unknown explosions presumably prior to OIF.
- All bunkers and revetments were neat, orderly, and easily exploited. Multiple types of munitions were found including airdrop bombs, cluster bombs, rockets, surface-to-surface missiles, and air-to-air missiles. Large quantities of ammunition were found including many types of rockets, RPGs, artillery projectiles of various caliber, and small arms. The majority of the munitions in the bunkers are stored in their original shipping containers. The warehouses contained large quantities of artillery projectiles, tank munitions, and limited quantities of antitank and antipersonnel mines. The revetments housed primarily 57mm munitions. All of the bunkers and warehouses were exploited.



Figure 7. Piles of 122-mm HE rockets.

- The 142-inch long, 122mm crates are indicative of the Sakr-18 rocket. The team counted 120 long crates and inspected 29 of them. The other 92 crates were not checked due to safety concerns. That is, the 142-inch long crates were at the rear of a full bunker, with a 1-foot wide center walk space between munitions stacked 6 to 7 foot high. A random sample of the long crates was conducted by going four crates deep near the center of the 120 crates, stacked 9 crates high. After sampling the crates, the pile started to shift. With no room to escape if the crate piles collapsed, the team broke off the exploitation.

- No WMD Munitions were found, (see Figures 7, 8, 9, 10, 11, and 12).

Az Zubayr CEA Depot

The Az Zubayr CEA Depot (alternate spelling Ash Shuaybah) vicinity south of Basra. Az Zubayr contains 31 intact and 17 destroyed earth-covered bunkers, 29 open storage pads, and an open receiving area for captured enemy ammunition being received at this location. Ammunition is shipped from southern Iraqi cache sites. Az Zubayr encompasses an area roughly 2 km by 3 1/4 km surrounded by a 6ft fence and guard towers. Az Zubayr Depot is currently under the operational control of Foster Wheeler Tetra Tech.



Figure 8. Ammunition crates in bunker.



Figure 11. Example of a full bunker.



Figure 9. 155-mm smoke projectile.



Figure 12. Cluster bombs.



Figure 10. 3,450 155mm HE artillery projectiles.

- The 17 destroyed bunkers were completely leveled, with little of the foundations remaining. The west building is called the missile building and is largely intact, with unexploded ordnance buried under the floor. Large multi-roomed buildings were located near the bunkers to the east. Onsite contractors stated this area was originally the Naval Munitions School for the Iraqi navy. The longest bunker is 330 ft long, with both the entrance and the road network constructed below grade.
- Multiple types of munitions were found, including airdrop bombs, naval mines, torpedoes, and missiles. The destroyed bunkers were exploited, yielding evidence of two Silkworm missiles (both were tagged by a UN inspection team, however the label

number was unreadable. One of the open revetments contained over a 100 special 81mm green aluminum rockets. Presumably, these are missiles associated with so-called “aluminum tubes issue” (see the Nuclear Section of this report for more information).

- No WMD munitions were found (see Figures 13, 14, 15, and 16).

Buckmaster CEA Depot

Buckmaster CEA Depot is located in central Iraq 149 Km north of Baghdad. This depot is an extension of the Taji Depot and ammunition is shipped here from caches in central Iraq. Buckmaster comprises an area of nearly 5.5 km by 3 km surrounded by a 6-foot fence and guard towers. The bunkers are primarily located on the east side of the depot. Revetments and open storage are scattered throughout the depot, primarily from the center to the east edge boundary fence.

- Buckmaster Depot contains 100 earth-covered bunkers, 96 of which are intact. Four bunkers were destroyed by US ground forces during OIF. Hundreds of revetments, in addition to mud huts and open storage areas, are scattered randomly throughout the depot. Larger missiles, including 32 FROGs, are stored in the open, along with French Exocets and surface-to-air missiles.
- All bunkers were orderly and easily exploited, as were the revetments. This is in contrast to the other CEA Depots exploited. Multiple types of munitions were exploited, including air drop bombs, cluster bombs, Al Qa’qa’ 500 bombs, Al Fat’h missiles, tank munitions, rockets, surface-to-surface missiles, air-to-air missiles, RPGs, artillery projectiles of various caliber, and small arms. The majority of the munitions in the bunkers were stored in their original shipping containers.
- Munitions of interest were Iraqi Fuel Air Bombs and numerous Al Qa’qa’ 500 bombs along with several Al Fat’h Missiles.



Figure 13. Hoover device.



Figure 14. Destroyed bunker.



Figure 15. 155mm smoke projectiles.



Figure 16. Destroyed bunker.



Figure 17. 122-mm rockets.

- No WMD munitions were found (see Figures 17, 18, 19, and 20).

Jaguar CEA Depot

Jaguar CEA Depot is located 300km NNW of Baghdad and 80km SSW of Mosul. The Jaguar North Depot contains 80 intact and 20 destroyed earth-covered bunkers, several revetments, and large quantities of open storage for munitions being received from northern Iraqi cache sites. Jaguar North comprises an area roughly 2.5 km by 5.5 km surrounded by a 6-foot fence and guard towers. Jaguar Depot is currently under the control of US Environmental, Inc. To the southwest roughly 5 km are two areas called Jaguar South and Jaguar Middle with a total of over 1,400 earthen revetments and 40 destroyed warehouses comprising an area of roughly 5 km by 6 km, surrounded by an earthen berm and concertina wire. More wire was in the process of being installed at Jaguar South. The warehouses at Jaguar South are severely damaged due to explosions from either Desert Storm or OIF.

- Multiple types of munitions were exploited by the team, including air drop bombs, cluster bombs, rockets, and air-to-air missiles. Large quantities of diverse munitions types were identified, including rockets, RPGs, artillery projectiles of various caliber, and small arms. The majority of the munitions in the bunkers were not stored in their original shipping containers. Most of the bunkers were unorganized, with propellant, powder bags, fuses,



Figure 18. Fuel air 500 bombs.



Figure 19. Examining Al Fath.



Figure 20. Assorted bombs.



Figure 21. 122-mm rockets.

and projectiles being intermixed with broken white plastic shipping containers and discarded wooden shipping crates piled on the floor. In contrast, some bunkers were well-organized, with munitions neatly stacked. All bunkers contained a large mix of conventional munitions that appeared to have been stored for an extended time, due to the amount of dust accumulated on the crates and munitions.

- At Jaguar South and Jaguar Middle the warehouses were all destroyed, causing Unexploded Ordnance (UXOs) to be scattered around the area by the explosions. Several of the warehouses had indications that looters burned material around the base of 155mm artillery projectiles in order to remove the brass rotating band. Presumably several of the explosions resulted from the looters' activities. Artillery projectiles with red and blue bands were found in an open area between revetments in the northwest corner of the ASP. Munitions were also found in a water-filled wadi on the north side of Jaguar South, outside the perimeter.
- Munitions of interest were 122mm rockets, CG-250 Cluster Bombs, and Spanish BRI-400 Bombs.
- No WMD munitions were found (see Figures 21, 22, 23, and 24).

Paladin CEA Depot

Paladin CEA Depot is located 60km west of Baghdad. Munitions are shipped from central Iraqi cache sites. The Paladin Depot contains 51 intact earth covered bunkers, seven bunkers being described as large, two destroyed bunkers, hundreds of revetments, and open storage for captured enemy munitions received at this location. Paladin comprises an area roughly 4 km by 4 km surrounded by a 6ft fence and guard towers. The bunkers are located at the north corner, with the revetments scattered throughout the depot. Paladin Depot is currently under the operational control of EODT.

- The smaller bunkers were disorganized and the munitions were covered with dust and sand. Several types of munitions were exploited, including air drop bombs, cluster bombs, rockets, and surface-to-surface, surface-to-air, air-to-surface, and air-to-air missiles. Large quantities of artillery projectiles were found, of many types and various calibers: 20mm, 23mm, 30mm, 57mm, and 76mm projectiles were dispersed throughout the bunkers. One item of interest was a previously unseen 120mm smoke mortar projectile, later identified after searching DOD publications.
- The large bunkers were protected by a berm approximately 40 to 50 feet high. The front entrances had a drive through, and the bunkers featured an internal crane. An air handling system was incorporated into the side of the bunkers, suggest-



Figure 22. CG 250 cluster bomb with submunitions.



Figure 23. Spanish BRI 400 forefront.



Figure 24. Artillery projectiles.

ing that they once weapons that contain sensitive electronics and guidance systems. No indications were seen to indicate an air filtration system. These bunkers also had a central power junction shed (approximately 10-feet long, 6-feet wide, and 8-feet high). Some of the large bunkers held 122mm rockets, while others were empty.

- SA-2 missile containers were opened and the UN tag data was recorded for all SA-2s on site, with the exception of four that were physically inaccessible. The majority of these missiles were stored in their original shipping containers. One SA-2 was damaged and appeared to have been ejected from an exploded bunker.
- No al Samud or Al Fat'h missiles were identified, and no WMD munitions were found (see Figures 25, 26, 27, 28, 29, and 30).

Taji CEA Depot

Taji CEA Depot is located north of Baghdad and currently no longer accepts incoming munitions as a CEA Depot. This depot contains earth-berm warehouses, roughly 100 of which are intact and roughly 20 damaged or destroyed. Munitions were shipped to this depot from caches within the Baghdad area of Iraq. Taji Depot comprises an area of approximately 5 km by 3 km surrounded by a 6-foot fence topped with several strands of barbed wire and guard towers. Some of the perimeter around the bomb and missile yard also has a 6- to 8-foot high berm, 10 to 20 meters from the fence line. The warehouses comprise most of the area of the depot, with the bomb and missile yard in the southeast corner. Taji Depot is currently under the operational control of EODT.

- Numerous revetments are located throughout the depot, most of which were filled with small arms munitions up to 57mm Anti-Aircraft Artillery. The open storage area south of the warehouses is referred to as the bomb and missile yard.
- Air deliverable bombs up to 500 kg, larger missiles up to and including FROGs, and surface-to-air missiles are stored in the open.



Figure 25. 3,000-kg bomb.



Figure 26. 120-mm mortar smoke munition.



Figure 27. Air to air missiles.



Figure 28. Hastily stacked SA-2 missiles.



Figure 29. Small bunker with lightening protection.



Figure 30. SA-2 and Roland missiles.



Figure 31. 262-mm rockets.



Figure 32. FROGs.



Figure 33. Incendiary bomb.



Figure 34. Fuel air bombs.

- The team exploited all missiles, rockets, and bombs in the open storage area and revetments within the bomb and missile yard. Surface-to-air missiles, rockets, and FROG missiles were neatly stacked. Multiple types of munitions were checked including airdrop bombs, cluster bombs, rockets, surface-to-surface missiles, surface-to-air missiles, and air-to-air missiles. The majority of SA-6 surface-to-air missiles were stored in their original shipping containers. The FROG missiles were stored in the open. A team also inspected eight Al Qa' Qa'a 250 bombs with the twisting weld—none of the Al Qa' Qa'a bombs were found with fill plugs.

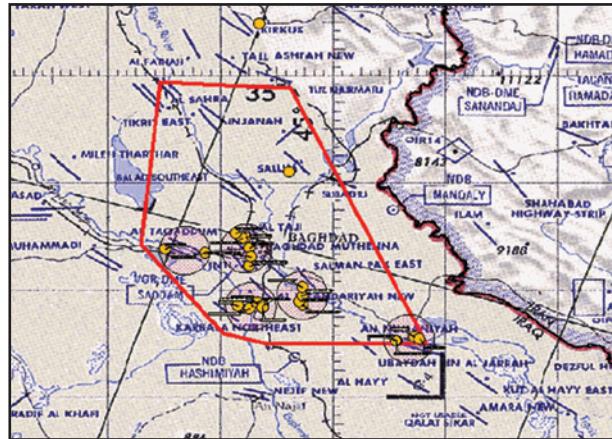
- Taji will eventually contain only small arms ammunition (82mm and less).
- Munitions of interest were FROG missiles, 262mm rockets, Iraqi Fuel Air Bombs, cluster bombs, and Qa' Qa'a 250 Incendiary Bombs.
- No WMD munitions were found (see Figures 31, 32, 33, and 34).

Annex I

Review of 24 Iraqi Ammunition Supply Points

Assessment of 24 Ammunition Sites Identified Within the Predetermined “Red Line”

ISG inspected Ammunition Supply Points (ASPs) and Captured Enemy Ammunition Points (CEAs) to determine whether caches of CW (chemical weapons) had been destroyed or were in storage. Iraq stockpiled or stored munitions at more than 10,000 sites. ISG chose to make use of the limited time available for inspection, focusing efforts on storage sites with the most potential for containing CW. In 2003, ISG formulated a methodology, beginning with sites near the so-called “Red Line” around Baghdad. (For information about the Red Line and its use in the defense of Baghdad, see Annex G). Of the 104 ASPs within the Red Line around Baghdad, ISG used indicators of CW—such as possible decontamination vehicles—to narrow the search to 24 sites. The results of that search—a single visit to each site that visually reviewed a majority



Location of 26 RG ASPs near units capable of firing 155mm CW artillery shell or 122mm CW rockets and a suspect decontamination vehicle. The “red line” is shown for reference purposes.

of the munitions on-site—were no caches of CW munitions and no single rounds of CW munitions. Although only a fraction of the hundreds of thousands of tons of Iraqi munitions were inspected, ISG has high confidence that there are no CW present in the Iraqi inventory.

Priority	Name	Coords
1	Kirkuk Bks FASP/Decon	352853N 044124E
2	Margiabah FASP Taji South	332922N 044135E
3	Shaykh Mazhar Barracks DIV and BDE HQ	325124N 0444432E
4	Margiabah Tactical FASP Southwest	332834N 0441209E
5	Al Musayyib BDE HQ A Ammo ORD Depot	324922N 0441559E
6	Iskandariyah Tactical FASP	325228N 0441941E
7	Ash Shuaybah (Zubayr) Ammo Stor Dpo East	302457N 0474151E
8	Shaykh Mazhar Tactical FASP	325316N 0444238E
9	Aradi Al Haswah Tactical FASP	332038N 0435227E
10	Abu Gharaib Revetment Field 1 SA-8 FASP	331313N 0441607E
11	Sabiat Tactical SAM FASP	332320N 0441613E
12	As Suwayrah Tactical FASP West	325610N 0444413E
13	Al Kut FASP Northwest	323325N 0454401E
14	Havy al Tayaran POL Depot and Storage Area	331828N 0441654E
15	Muhammed al Amir Tactical FASP	323126N 0453450E
16	Jurf al-Sakr FASP	325104N 0440954E
17	Ahmad al Husayn Tactical FASP	333125N 0440909E
18	Al Asriyah Tactical FASP South	325102N 0442300E
19	Muhammed al Amir Tactical FASP Southwest	323106N 0453417E
20	Saribadi Barracks Military Exchange	330126N 0444432E
21	Al Kut Barracks Northwest	323228N 0454629E
22	Al Haswah Tactical FASP South	324935N 0442318E
23	Al Miqdadiyah Ammo Depot	340550N 0443649E
24	Habbiniyah Ammo Depot	332221N 0433116E

