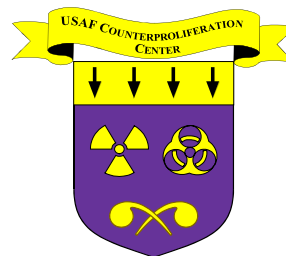


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Washington Times

April 5, 2003

Pg. 1

Coalition Still Wary Of Chemical Weapons

By Bill Gertz, The Washington Times

The potential for Iraq to use chemical or biological weapons on coalition forces on the outskirts of downtown Baghdad remains high, despite several tactics used by U.S. forces to incapacitate the threat, U.S. military officials said yesterday.

"Logically, now that we are at Baghdad airport, they wouldn't use chemical and biological weapons because we are right amongst their populations," said Army Maj. Gen. Stanley McChrystal, deputy director for operations at the Joint Staff.

"But they have not fought logically from the beginning, and so we in no way discount the possibility they will," he told reporters at the Pentagon yesterday.

In Qatar, Army Brig. Gen. Vincent Brooks said that Iraqi forces may have placed chemical or biological weapons in the Baghdad area, "either delivery systems or, potentially, storage systems."

U.S. troops near Baghdad yesterday found thousands of boxes with vials of an unidentified liquid and powder, and manuals on how to wage chemical warfare. And in western Iraq, U.S. Special Forces found a training school for using chemical arms.

A senior U.S. official familiar with initial testing said the materials were believed to be explosives.

"Initial reports are that the material is probably just explosives, but we're still going through the place," the official told the Associated Press, speaking on the condition of anonymity.

A second site nearby also had liquid-filled vials and white powder that are being tested. Intelligence officials have said Iraq's arsenal includes the nerve agent VX and the biological agent anthrax.

Gen. McChrystal said protective measures used by troops, including special suits and masks, will limit the effectiveness of any chemical or biological strikes.

"They can be a terror weapon. They can be a nuisance. They can slow certain elements. But they never had the potential to change the operational outcome to stop the movement of forces," he said.

At Central Command in Qatar, Gen. Brooks told reporters that Special Forces troops discovered the chemical-arms training school in western Iraq.

"We know that the Iraqis have conducted chemical training," the command's spokesman said. He noted that the site did not house weapons of mass destruction.

Gen. McChrystal, a Special Forces officer, said three methods have been used to deter Iraq from beginning a chemical campaign.

Senior defense officials have begun "information operations" to warn Iraqi commanders that they will be charged with war crimes if deadly poison gas or germ weapons are deployed. The warnings have been made in airborne radio broadcasts, leaflet drops, public statements and e-mail messages, defense officials said.

Gen. McChrystal said a "big component of deterrence" is identifying Iraqi military leaders capable of issuing orders to deploy chemical or biological weapons and letting them know they will be treated as war criminals.

Coalition military forces also have conducted attacks on suspected chemical and biological weapons-delivery systems, including short-range artillery rockets and artillery tubes.

The Army Tactical Missile System, which is a short-range missile, and the Multiple Launch Rocket System have been key to such efforts, Gen. McChrystal said, describing the Army weapons as "long-range shooters."

The third tactic has been the use of special-operations commandos to conduct covert raids to destroy rocket systems and long-range artillery behind enemy lines, he said.

Hundreds of Special Forces troops operating in western Iraq have been hunting Iraqi missile launchers in the area with success. So far, Iraq has not fired a single ballistic missile at Israel or Jordan, unlike in the 1991 Persian Gulf war, when several Iraqi Scuds attacked Israel from launchers hidden in the Iraqi desert.

"We believe they have capability in both of those modes to launch chemical and biological weapons," Gen.

McChrystal said of the Iraqis.

Another element has been what the military calls "time-sensitive targeting."

"That's a series of aircraft in the air, and every time a sensor of any kind, be it a person on the ground or a collection asset like a Predator, identifies one, those aircraft are there for the express purpose of attacking that immediately,"

Gen. McChrystal said. "And that has a destruction and a deterrence capability to it."

To deal with missiles armed with chemical or biological arms, the military has used Patriot antimissile batteries, which have scored perfect hits on the 15 short-range ballistic missiles fired in the conflict. The use of Patriots, a new version known as PAC-3, prompted the Iraqis to shoot a Chinese-made Silkworm antiship cruise missile at Kuwait City.

Other remaining threats include the use of car bombs, such as the one that killed three U.S. soldiers Thursday at a checkpoint in Iraq, he said.

Gen. McChrystal said the Iraqis also "could have in fact left chemical and biological weapons at locations that have been bypassed" by U.S. troops on their way to Baghdad.

"So we've got to be ready for the entire spectrum of capability," he said.

Last week, U.S. Marines found a stockpile of 3,000 Iraqi chemical-warfare suits, gas masks and antichemical-weapons injectors near Nasiriyah, in southern Iraq.

<http://www.washtimes.com/national/20030405-51183924.htm>

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Washington Post

April 5, 2003

Pg. 20

Troops Uncover Vials Of Powder

Army Investigates Cache Including Unknown Substance, Chemical Warfare Manuals

By William Branigin, Washington Post Staff Writer

MUSAYYIB, Iraq, April 4 -- U.S. Army troops searching for chemical weapons along the Euphrates River discovered chemical warfare manuals and vials of white powder today and called in experts to determine what it was.

At Latifiyah, a town 15 miles north of here, units of the 3rd Infantry Division 2nd Brigade's 3rd Battalion, 15th Regiment took over an Iraqi air defense complex bordering a series of huge walled compounds about six miles in circumference. At the southern edge of the compound, officers investigated an arms cache that contained gas masks and vials of the unidentified white powder.

Lt. Col. Stephen Twitty, commander of regiment, said "thousands of vials of white powder" were found, along with manuals, in what he described as a "chemical facility" of some type that Army experts were investigating.

The Bush administration repeatedly has charged that President Saddam Hussein's military has manufactured and deployed weapons of mass destruction, including chemical weapons. But despite dispatching trained U.S. search teams to suspicious sites, none has been found since U.S. and British forces invaded the country March 20.

Maj. Roger Shuck, the battalion's operations officer, said the find also included injector kits, made in Turkey, for atropine, a drug designed to counter the effects of nerve agents. He said documents found with the cache were locked in a safe and are now being examined.

On a parched plain south of the huge walled compound, Capt. Dan Hubbard, a tank commander in the 3rd Battalion, displayed a sample of the cache, including several different types of gas masks, a decontamination kit and two vials of white powder, along with arms and ammunition.

"We're still trying to find out exactly what they are," he said of the vials of powder. Accompanying documents in Arabic were found in a room with fuses and mortars, said Hubbard, 34, of Elizabethton, Tenn.

The discovery of the arms cache followed a battle Thursday night and this morning in which M1 Abrams tanks and M2 Bradley Fighting Vehicles of the 3rd Battalion destroyed five Iraqi T-72 tanks, one T-62 tank and three BMP armored fighting vehicles, killing 40 Iraqi soldiers.

While the 3rd Infantry Division's 1st Brigade was consolidating control of Saddam International Airport on the southwestern edge of Baghdad, the 2nd Brigade sought out Republican Guard armor in this town on the Euphrates and at points farther north. In what one sergeant described as a "turkey shoot," a company of Bradleys and four OH-58 Kiowa helicopters armed with Hellfire missiles searched for Iraqi tanks and BMPs.

The Iraqi armor was concealed here in Musayyib, a town bordering a bridge over the Euphrates on an expressway about 40 miles south of Baghdad. The mission to take it out, aimed at securing a supply route from southern Iraq over the river toward Baghdad, resulted in destruction of one tank and 13 BMPs, officers said.

At the air defense site on the eastern side of the bridge at Latifiyah, U.S. soldiers moved into observation posts built on mounds of earth 50 feet high. They also sorted through a barracks complex that was damaged by airstrikes.

Abandoned Iraqi military equipment was strewn over the complex, which has a commanding view of the bridge. In addition to the observation posts on man-made hilltops, the air defense site was protected by a series of bunkers and

trenches. Among the items left behind were boxes of ammunition marked "GHQ Jordan Armed Forces" and "Dir of Png and Org Amman Jordan."

At another Iraqi air defense site farther to the south, soldiers of the Bravo Company, 3rd Battalion, 15th Regiment went to great lengths to destroy four anti-aircraft artillery pieces abandoned on a dirt plain amid wheat and onion fields. The soldiers planted thermite grenades in the weapons, ran over them with a bulldozer, then finished the job with a 56-ton M88 recovery vehicle.

Officers said they recovered more than 6,200 artillery rounds and 1,600 crates of machine gun ammunition near the site. All afternoon and into the evening, booms reverberated across the landscape and huge flashes of flame lit up the sky as demolition experts blew up arms caches in a number of different locations.

By late afternoon, Bravo Company got the order to venture into Musayyib to seek out remnants of the 14th Mechanized Brigade of the Republican Guard's renowned Medina Division. Twitty said he wanted the area cleared so that the remnants could not threaten a supply route north.

As the company's Bradleys maneuvered through the narrow streets, they encountered BMPs covered with tarps and palm leaves to camouflage them; some were even hidden inside buildings that had walls knocked out to accommodate them.

After the U.S. barrage, the smell of burning rubber filled the air as smoke billowed from some of the destroyed vehicles. Secondary explosions of ammunition aboard them sent metal shooting in all directions. At one point, a secondary explosion on a tank that was struck with a Hellfire missile sent a concussive wave through a nearby Bradley that felt like an artillery round had dropped next to it.

As the firing continued, the Bravo Company commander, Capt. Ronny Johnson, grew concerned that a friendly-fire incident could do what the Iraqi armor could not. He shouted orders on the radio to make sure each Bradley knew where the others were.

A crowd of civilians formed, their intentions unclear. Unsure whether they were onlookers or had other motivations, Johnson ordered a Bradley to fire a warning shot above their heads with its machine gun, and the crowd quickly dispersed. The company pulled out of Musayyib soon afterward. With all the Bradleys and other vehicles and personnel accounted for, the unit rolled back its temporary camp at the air defense site tucked away amid the wheat and onion fields.

<http://www.washingtonpost.com/wp-dyn/articles/A30074-2003Apr4.html>

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New York Times

April 5, 2003

News Analysis

U.S. Forces Have Searched Few Iraqi Weapons Sites

By Judith Miller with Douglas Jehl

KUWAIT, April 4 — Two weeks into the war against Iraq, the United States has searched fewer than a dozen of several hundred sites on a high-priority American list of those suspected of housing weapons of mass destruction, defense officials said today.

The officials in Washington said they expected to intensify their search in the days ahead, as American forces gained control of a wider swath of Iraqi territory, including the area around Baghdad where most of the suspect sites are concentrated.

But none of the searches to date have uncovered any evidence of the illicit weapons, and Pentagon officials sought today to dampen expectations that any might be found soon. They said the military's main focus remained on fighting, with the search for the weapons taking a distant second place, adding that searching even the highest priority sites might take weeks or months to complete.

"It's hard work, and it will take a long time," Victoria Clarke, the Pentagon spokeswoman, said at a briefing today in Washington.

A defense official who spoke on the condition of anonymity said the search had been slowed by the fact that until now, Iraqi forces had controlled the areas surrounding some sites, particularly near Baghdad and in Tikrit, a city north of Baghdad that is President Saddam Hussein's hometown.

"A lot of areas have not been accessible to us," the official said. "But as we pull the noose tighter, it opens a lot more areas to us."

Senior American officials have barely mentioned the hunt for Mr. Hussein's unconventional weapons in recent days. At an industrial site south of Baghdad today, United States troops found what were reported to be thousands of boxes of white powder, believed to be a nerve agent antidote. But preliminary tests showed it to be an explosive. Troops also discovered documents in Arabic that officers said might relate to Iraq's chemical warfare program. But military officials here said that special American teams with headquarters in the region had not been sent to the site. This suggests that the substances and documents, found at the Latifiya Explosives and Ammunition Plant Al Qaa Qaa, about 25 miles south of the capital, might be related to Iraq's efforts to defend itself against chemical weapons, rather than to an offensive chemical warfare program.

Since the war began, the unit charged with leading the hunt for Iraqi unconventional arms, the 75th Exploitation Task Force, has been spending much of its time training at a military camp in the north of this country and has conducted few forays into Iraq, much to members' frustration.

Senior administration officials insist that the goal of ridding Iraq of chemical, biological and other weapons of mass destruction remains a top priority. They deny that eliminating these weapons has slipped in importance as American troops encircle Baghdad, or that the justification for the war has shifted from disarming Iraq to ending widespread human rights abuses or preventing Iraqi-supported terrorism within the United States.

"Disarming Iraq of weapons of mass destruction remains a top priority," a senior administration official said in a telephone interview. "Nothing has changed."

But experts said that the administration's words and some of its recent actions had raised questions about whether its priorities have changed. Amy Smithson, a chemical weapons expert at the Henry L. Stimson Center in Washington, said in an interview today that administration officials might be less certain today than they were before the war began that their teams of experts would find such hidden stockpiles.

"They may be trying to dampen expectations because they are worried they won't find anything significant," Ms. Smithson said.

The administration's public representation of the issue has changed. On the second day of the war, Defense Secretary Donald H. Rumsfeld listed finding, securing and ultimately destroying what the administration asserted were Iraq's hidden weapons of mass destruction as second only in importance to the goal of toppling Mr. Hussein's government.

A week later, Ms. Clarke, the Pentagon spokeswoman, cited capturing and evicting "terrorists sheltered in Iraq" and collecting "intelligence on terrorist networks" before the goal of locating and destroying Iraq's hidden arsenals in a list of the administration's war objectives.

On Thursday, neither Mr. Rumsfeld nor Gen. Richard Myers, the chairman of the Joint Chiefs of Staff, mentioned eliminating weapons of mass destruction in their prepared remarks at a news conference. Even in answering questions, Mr. Rumsfeld addressed only the possibility that Mr. Hussein might use chemical weapons against his own people or coalition forces. Neither discussed American efforts to disarm Iraqi forces of such weapons.

Asked today about the search for the illicit weapons, Ms. Clarke said: "These are people who have used chemicals against their own people. The potential for them to do it again is real."

Still, she added: "Just in the name of managing expectations, we've said we've got a primary mission here, which is to finish the war, which we're continuing to do; and then a second primary objective, which is finding and destroying the weapons of mass destruction. But nothing new to report."

So far, American troops have found protective suits and gas masks — evidence of a defensive program — at ammunition depots and other military sites throughout the country. But they have not found traces of chemical or biological agents that could be used as weapons, officials acknowledged.

Out of more than 1,000 suspected illicit weapons sites in Iraq, officials at the Defense Intelligence Agency and other intelligence organizations have put together a list of several hundred sites to be given high priority in the search effort, defense officials said.

But among the handful of searches conducted so far — somewhere between six and a dozen, various defense officials said — few, if any, have been of sites at the top of the American list.

Some experts said the administration's priority on getting to the Iraqi capital was wise, since it was unlikely that weapons of mass destruction would be found in southern Iraq.

One former inspector said most suspect sites on the administration's list are located within 25 miles of Baghdad for security reasons and because Iraq's scientists preferred to live in the capital and commute to their jobs. Officials said they felt that interviews with those scientists would lead them to hidden stockpiles of the weapons.

"Iraqi scientists are the key in many respects," said Jonathan B. Tucker, a senior researcher at the United States Institute of Peace, in Washington. "They are key to finding such stockpiles of weapons and materials, and because of their expertise," he said.

<http://www.nytimes.com/2003/04/05/international/worldspecial/05WEAP.html>

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Los Angeles Times
April 5, 2003

No Smallpox Vaccine For Troops With Heart Risk

By Times Wire Reports

The military has decided to bar people with high risk of heart disease from being inoculated against smallpox after three deaths from heart attacks possibly linked to the vaccine.

The military will defer vaccinations for people with three or more risk factors, which include tobacco use, high blood pressure, high cholesterol, high blood sugar or a heart condition in a close relative under age 50.

About 350,000 military personnel have been vaccinated against smallpox, deemed a possible biological warfare threat.

<http://www.latimes.com/news/nationworld/world/la-war-briefs5.2apr05,1,1817997.story>

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New York Times
April 5, 2003

Court-Martial For Refusing Anthrax Shot

By Associated Press

FORT DRUM, N.Y., March 4 — The Army has court-martialed a soldier from the 10th Mountain Division for refusing to be vaccinated against anthrax and influenza, officials at Fort Drum said today.

Pvt. Rhonda Hazley, 36, a mechanic with 514th Maintenance Company, was convicted March 21 of disobeying the orders of an officer and a noncommissioned officer, said Col. Robert Caslen, the division's chief of staff.

The court martial reduced her rank to private. She also was ordered to serve 14 days confinement.

"This is a force-protection issue," Colonel Caslen said. "We expect service members to comply with administration of all mandatory vaccines. Service members who do not comply with these measures endanger their own health and place both their unit and mission accomplishment at risk."

Private Hazley, of East Dublin, Ga., refused the vaccine because she is breast-feeding her child, her friend Stephanie Ingram told WWTI-TV, a local television station. Private Hazley joined the Army in April 1999 and was assigned to Fort Drum six months later.

A reservist at Fort Drum, Kamila Iwanowska, 26, from New York City, also faces a special court martial for refusing to receive the anthrax vaccine, The Watertown Daily Times reported today.

A Fort Drum spokesman, Lt. Col. Bryan Hilferty, confirmed that Ms. Iwanowska refused the vaccine, but he could not say whether disciplinary proceedings had been brought against her.

Ms. Iwanowska, a recently naturalized Polish immigrant, objected because she feared that the vaccination could have adverse effects on her ability to have a baby, her lawyer, Lionel Hector, said.

"She's not opposed to going to Iraq," Mr. Hector said. "She's willing to do her job. She is just adamantly opposed to this particular vaccination."

<http://www.nytimes.com/2003/04/05/nyregion/05DRUM.html>

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Washington Post
April 5, 2003
Pg. 27

Romania Sends Troops To Kuwait At U.S. Request

BUCHAREST, Romania -- Romania said it sent troops trained in responding to chemical, nuclear and biological attack to Kuwait at the request of the United States.

"A section of the noncombat troops took off early on Friday aboard American planes from Timisoara air base," said Marcel Iliese, a spokesman at the base. A separate group of 15 Romanian troops went to the Persian Gulf in early March, Iliese said, and 70 more will be deployed later.

Romania has opened its airspace to U.S. aircraft serving in the Iraq war. About 1,000 U.S. troops are stationed at an air base near the Black Sea port of Constanta, acting as an "air bridge" for equipment and personnel going to the Gulf.

--Reuters

<http://www.washingtonpost.com/wp-dyn/articles/A32182-2003Apr4.html>

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Marines Find Chemical Suits, Labs at Atomic Energy Site

Further Analysis of Complex Sought

By Jonathan Finer

Washington Post Staff Writer

Monday, April 7, 2003; Page A23

NEAR SALMAN PAK, Iraq, April 6 -- Acting on a tip from local residents, Marines today raided an abandoned branch of the Iraqi Atomic Energy Commission south of Baghdad and found several laboratories, gas masks, chemical suits, vats of industrial chemicals and a map listing buildings that contained "radioactive material." Troops from the 1st Battalion, 7th Marine Regiment, scoured the fortified government complex, but a cursory inspection revealed ordinary levels of radiation and chemical contamination. Commanders said they saw enough to call in a "sensitive site exploitation" team to conduct a more thorough analysis.

"It could be nothing, but the obvious thing to do is clear the place and notify through the chain of command that we have found what may be a sensitive site," said the commander of the 7th Marine Regiment, Col. Steven Hummer, who visited the battalion to inspect the find. "The experts will be able to tell relatively soon."

In the midst of a war launched over allegations that Iraq possesses banned weapons, the Marines kicked in doors and rifled through offices, hoping to uncover what nearly three weeks of war have failed to produce: hard evidence that Iraq has a nuclear, chemical or biological weapons program. On Saturday, Army troops found vials of white powder near the town of Latifiyah in what was called a "chemical facility." Initial tests indicated the substance was not harmful.

It was not clear whether the site raided today had previously been visited by U.N. weapons experts during the several months of inspections that concluded in early March. After the 1991 Persian Gulf War, the U.N. inspectors exposed a covert Iraqi nuclear weapons program, but the latest inspections found no proof that it was re-started. A convoy of armored vehicles rumbled along a windy, one-lane road to a compound that looked like a rundown college campus, with several office buildings separated by green lawns and palm groves. The facility was bounded on all sides by 100-foot-tall earthen berms. The Marines did not unleash a barrage of artillery to prepare the area, as they have in most previous attacks, because they were concerned that explosions inside the compound could trigger the release of harmful contaminants.

Several hill-like cement bunkers covered in sand guarded the long, winding approach to a series of office buildings. When the Marines arrived, a tank plowed through the iron front gate, and more than 100 Marines streamed through in squads of roughly 14, each assigned to a different section of the compound.

Lt. Andrew Schoenmaker, the nuclear, biological and chemical weapons officer for Bravo company, which led the raid, followed one group of Marines toward a white-brick duplex office building with a gaping hole in the roof that appeared to have been caused by shelling or other weapons fire.

He stopped to search some barrels and then descended into a bunker, scanning its empty rooms with a flashlight, finding only a can of paint. Up ahead, a sergeant used a shotgun to blast open a second-floor entrance, and six Marines burst in, moving from office to office along a narrow corridor. Posters of Iraqi President Saddam Hussein adorned a wall in each room, and the floors were covered by torn oriental carpets.

"Sir, we have a gas mask in here!" shouted Cpl. John Rakestraw, from an office at the end of the hall.

"That's it, I'm going in," said Schoenmaker, climbing the stairs in a few bounding steps and hurrying toward the find. In an adjacent room he found boxes of black latex gloves, and Kleenguard brand coverall suits. He rifled through papers in a glass filing cabinet and found a typed sheet of paper with "heavy water" written in a margin. He got on the radio: "Don't touch anything," he told the Marines. "Hold in place, we have to get this stuff to higher [headquarters]." He moved on to another building where Marines wearing night-vision goggles found several laboratories containing metal storage drums and large quantities of white powder.

"Good work, gentlemen. That's a good find," said Schoenmaker as he examined a map of the compound -- found in one of the offices -- that listed buildings containing "radioactive material." It was unclear why the map was marked in English. A translator later determined that other buildings were marked for animal testing.

Rooms marked "Wear protective clothing" were left for specialists to search. Cabinets had been placed against some of the laboratory doors, making them harder to open. When one Marine kicked in a door, shattering a container of liquid, U.S. forces were told to leave the building until it could be inspected further for contaminants.

Chief Warrant Officer Carl Hinson, the battalion's nuclear, biological and chemical officer, walked through the complex with a small metal apparatus that could detect radiation and nerve and blister agents in liquid and vapor form. He found nothing out of the ordinary, he said, adding that solids or powders would need to be tested by others. As the Marines continued their search into the early evening, tanks roamed up and down the streets, while artillery shells rumbled to earth a few miles away. Snipers patrolled the massive berms.

Elsewhere, Marines found more gas masks, magazines for AK-47 assault rifles, Iraqi military uniforms, stacks of Iraqi currency and bags full of Iraqi flags. When Hummer, the regimental commander, arrived at dusk, he was escorted from building to building by a group of officers who explained what had been found in each structure. "I'm certainly not an expert and it's too soon to tell," Hummer told the group, adding that he was not sure when the outcome of any further investigations would be available. "We've done our part."

<http://www.washingtonpost.com/wp-dyn/articles/A43259-2003Apr6.html>

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Philadelphia Inquirer

April 6, 2003

Pg. 1

Pressure Builds For U.S. To Find Banned Weapons

By Howard Witt, Knight Ridder News Service

WASHINGTON - A war that President Bush launched expressly to rid Iraq of its weapons of mass destruction has yet to uncover any, and with each passing day the question grows more acute: Where are the huge caches of chemical, biological and nuclear materials Saddam Hussein is supposed to possess?

Much of the political, diplomatic and legal justification for the U.S.-led war rests on the assertion that Hussein is hiding weapons of mass destruction and has defied repeated U.N. Security Council demands to surrender them. If that proves not to be true, the Bush administration's diplomatic credibility would be shaken, the Muslim world would be reinforced in its belief that Washington is waging war against Islam, and U.S. leaders might even be vulnerable to legal challenges in international courts.

"We know we need to find this stuff," one State Department official said, "and we know that we will."

Pentagon officials remain confident that they will eventually find evidence of chemical, biological or nuclear weapons. They insist that they are still engaged in fighting the war and have scarcely had time to search for the banned materials, some of which Hussein's forces may have hidden in areas of Baghdad or Tikrit not yet under their control.

"Let's remember that this regime has been involved in a campaign of denial and deception for decades and has been very effective at it," Army Brig. Gen. Vincent Brooks said in Doha, Qatar, on Friday.

"And so we don't expect that we're just going to walk up on any WMD [weapons of mass destruction]. We'll have to do things that give us control of areas that let us, then do deliberate work. Our first efforts are to destroy the regime and cause its removal. Secondary efforts will be related to WMD."

Nothing definitive has been found, although American and British forces are operating in vast sections of northern, southern and western Iraq - where intelligence sources and Iraqi defectors had reported that parts of the deadly arsenal were located.

In one of the Bush administration's more dramatic public assertions, Secretary of State Colin L. Powell told the U.N. Security Council in February that, "We know... from sources that a missile brigade outside Baghdad was dispersing rocket launchers and warheads containing biological warfare agent to various locations, distributing them to various locations in western Iraq."

But Pentagon officials acknowledge that intense searches of suspected weapons sites by U.S. special forces in western Iraq have failed to find any such rockets or warheads.

A suspected chemical-weapons plant in the southern city of Najaf turned up empty. In northern Iraq, U.S. forces discovered equipment and recipes for concocting chlorine gas and the deadly poison ricin, but none of the materials themselves, in a camp used by a Kurdish Islamic militant group with uncertain ties to Hussein.

On Friday, U.S. troops reported finding thousands of boxes containing vials of unidentified liquid and powder, as well as manuals on chemical warfare, at two sites near Baghdad. Military officials said the materials required analysis by experts to determine their composition, but initial testing indicated they might be explosives.

U.S. and British troops also have come across stockpiles of protective chemical-weapons suits and injectors of atropine, a nerve gas antidote, at several sites abandoned by Iraqi forces. That is proof enough, Powell said, of Iraqi intentions.

"We have uncovered quite a bit of protective gear that the Iraqis have, which certainly suggested that they were prepared to fight in chemical environments," Powell told reporters recently in Brussels, Belgium. "So are we, but everybody knows and the Iraqis knew that we didn't have any chemical weapons to be used in a conflict."

But Iraq also fought a long war with Iran in which both sides used chemical weapons, experts noted, so the Iraqi protective gear also could have been intended as a defense against a future attack by its neighbor.

The Bush administration's confidence that Iraq has weapons of mass destruction is founded on several facts, including Hussein's use of them against Iran and Kurds in northern Iraq, and discoveries of extensive stockpiles by U.N. weapons inspectors after the 1991 Persian Gulf War.

Iraq contends that it has destroyed all of its remaining weapons of mass destruction. But when the most recent round of U.N. inspections ended last month, the inspectors said Iraq had failed to account for suspected weapons stocks that included 1.5 tons of VX nerve gas, 1,000 tons of mustard gas, as many as 26,000 liters of anthrax, at least 19,000 liters of botulinum toxin, and tens of thousands of artillery shells and bombs designed to deliver chemical and biological agents.

"The fact that we haven't found anything thus far is not necessarily indicative that we won't find anything at the end of day," said Jonathan Tucker, senior fellow at the U.S. Institute of Peace and a former U.N. inspector.

But it is also possible, noted Joseph Cirincione, a nonproliferation expert at the Carnegie Endowment for International Peace, that Hussein disposed of many of his deadliest weapons, choosing instead to retain the scientists and their expertise to reconstitute the weapons programs once the world turned its attention elsewhere.

"If it's all over and there's no weapons," Cirincione said, "then what we've basically done is occupy a foreign country for the wrong reason, and there will be a lot of questions about why we did this."

<http://www.philly.com/mld/inquirer/5570485.htm>

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Washington Times

April 6, 2003

Pg. 8

School Searched For Weapons

By Combined Dispatches

AZIZIYAH, Iraq — U.S. Marines were digging up a suspected chemical weapons hiding place at a school southwest of Baghdad yesterday, describing it as one of the most likely concealment sites discovered in a so-far fruitless hunt.

In Nasiriyah in southern Iraq, Marines reportedly found mustard gas and cyanide in the water of Euphrates River, believed to have been dumped there either by fleeing Iraqi soldiers or local factories that produced weapons of mass destruction.

Based on information from a local Iraqi who described himself as a former special-forces member, the Marines descended on the courtyard of a girls' school in Aziziyah, a dusty town 50 miles southeast of Baghdad, and began hacking through a plate of concrete with pickaxes and shovels.

The informant told the Marines that a team of Iraqi officials broke through the wall of the school two months ago to truck in material and buried it under new concrete — about the size of two tennis courts — in the course of three nights.

The gap in the wall clearly had been rebuilt.

Maj. Gen. James Mattis, commander of the Marine 1st Division, the main Marine ground force, flew in to view the dig as a sign of how seriously Washington is taking its hunt for the chemical and biological weapons it says Iraq has hidden.

"We don't have a clue what's here, but we're going to dig it up and see," Reuters news agency quoted Gen. Mattis as saying. "Local people grabbed a Marine's gas mask and pointed to this site."

The U.S. military says Iraqi forces and irregulars of Saddam's Ba'ath Party have been using local schools as weapons collections and headquarters posts.

"If I was going to hide something quickly, very hastily, with only a few days notice, then I'd do it like this," said Cpl. Eric Swithin, who specializes in detecting and dealing with chemical and biological weapons.

The suspected concealment would have occurred just before U.N. inspectors came to Aziziyah, local people said. Initial detection tests showed no chemicals around the courtyard slab.

The tests suggested the concrete was relatively fresh and had been laid over a layer of plastic sheeting to ensure an airtight seal. The large, blank concrete slab had no holes for building posts that would be expected if it were intended for the foundations of a school extension.

Earlier yesterday, an unidentified U.S. officer said that first tests of a white powder and liquid found Friday in thousands of boxes south of Baghdad indicated it was not a chemical weapon.

In Nasiriyah, the mustard gas and cyanide reportedly were discovered by the Marines' scientists who were testing the quality of water taken from the Euphrates before purifying it and distributing it to the residents of the city of 250,000 people.

A spokesman for the Marine unit based just outside the city described the quantities of chemical agents found as "significant," the London Sunday Telegraph reported.

"This stuff is just dumped in the Euphrates without any concern for the many people who drink and wash with water from the river," he said.

It follows the discovery of hundreds of gas masks and chemical warfare suits at a military base near the city.

That site was deserted yesterday except for a few American soldiers examining the contents of the armory, picking their way carefully through grenades and a huge amount of other explosives packed in boxes or strewn in and around the storerooms.

<http://www.washtimes.com/world/20030406-15015960.htm>

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Wall Street Journal

April 7, 2003

Marines Report Discovery Of Iraq Weapons Disposal

Cyanide, Mustard-Gas Agents Uncovered in Euphrates River

By John J. Fialka, Staff Reporter of The Wall Street Journal

WASHINGTON -- U.S. forces haven't turned up caches of chemical or biological weapons as they have overrun more suspected weapons-making facilities in the drive toward Baghdad. But they say they are finding evidence that Iraqis have destroyed or disposed of them.

Marines raiding a Baath Party headquarters Sunday in Salman Pak, which United Nations inspectors said in 1997 was the scene of experiments with biological weapons, including anthrax, found what an interpreter described as a manual on how to fool U.N. inspectors. Friday, a Marine unit drawing drinking water from the Euphrates River near Nasiriyah said it found concentrations of cyanide and mustard-gas agents in the water, apparently dumped there by Iraqi forces that formerly held the city 200 miles south of the capital.

According to U.S. officials familiar with the search, there are at least three teams of experts with some mobile lab equipment already in the battlefield looking at suspected sites -- but they don't expect to find anything there. The teams include an Army-led task force of specialists, including some from U.S. Department of Energy laboratories; a separate Army Special Forces unit; and a unit headed by the CIA.

More experts, including technicians skilled in how to safely destroy these weapons, will head toward the sites once the shooting stops. But those are described as starting points for a search for what happened to anything cleared out to avoid U.N. inspections. Weapons experts and U.S. officials said the effort will be broader than the U.N. inspections that focused on potential production sites.

Once the Hussein regime is defeated, scientists and technicians who worked there might be able to point to other, unsuspected hiding places, U.S. officials say. Another source of information will be former members of Mr.

Hussein's Special Security Organization, which moved and protected weapons-related material.

David Kay, a former U.N. weapons inspector who is closely following the search, estimates there are about "400 priority sites." Some of them have never been inspected, he said, because the U.S. worried that disclosing them to U.N. inspectors might also disclose intelligence sources and methods. "My guess is there are about 3,000 to 5,000 people across all the weapons programs that we want to talk to," he said, adding that "this time the interviews won't be optional." He thinks the U.S. will offer rewards for cooperation, including amnesty or reduced sentences for potential war-crimes charges, to scientists who can point to hidden caches of weapons, documents or production facilities in the California-size country.

Brig. Gen. Vincent Brooks, spokesman for the U.S. Central Command, said "we certainly anticipate that there have been deliberate efforts to bury, hide, move or disperse" evidence of weapons of mass destruction. Once the fighting

subsidies, he said, U.S. specialists will seek Iraqi scientists, technicians and others to aid them in the search. He and other officials didn't have any comment on the finds Sunday and Friday, pending further investigation. Producing credible evidence of Iraq's clandestine weapons program is important for the U.S. because President Bush made them a major premise for the war on Iraq.

The most urgent part of the probe, Mr. Kay said, will be to find any weapons before they can be transferred to outside terrorist groups or groups inside Iraq who might try to use them to seek power in the future. Mr. Kay, a senior analyst for the Potomac Institute, a Washington research group, led some of the earliest U.N. inspections after the 1991 Gulf War.

U.S. units have overrun large caches of Iraqi artillery shells and other weapons. They may already have possession of shells loaded with chemicals or biological agents and don't know it, he said. "They won't be able to identify them until they take time to go through them," because Iraq's military often doesn't designate them with special markings. Dr. Richard Spertzel, a U.S. microbiologist who helped uncover Iraq's biological-weapons program in 1995, said that after the Gulf War Iraqi technicians dug pits, threw in biological and chemical warheads, and covered them with tarpaulins and sand. "If they've done the same thing it, could take months to find them. "

Ken Alibek, a microbiologist who was formerly deputy chief of the Soviet Union's biological-weapons program, noted that Iraqi records could show what countries may have aided weapons programs. "The U.S. must protect this material from being destroyed," he said.

-- *Michael Phillips contributed to this article.*

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MSNBC.com

April 4, 2003

Positive Test For Terror Toxins In Iraq

By Preston Mendenhall, MSNBC

Preliminary tests conducted by MSNBC.com indicate that the deadly toxins ricin and botulinum were present on two items found at a camp in a remote mountain region of northern Iraq allegedly used as a terrorist training center by Islamic militants with ties to the al-Qaida terrorist network. The field tests used by MSNBC.com are only a first step in the evidentiary process and are typically followed by more precise laboratory testing that MSNBC.com has not conducted. U.S. intelligence agents were conducting their own tests in the same area and had not yet released their results, according to officials in northern Iraq.

MSNBC.com conducted the tests over a two-day period at Sargat, an alleged terrorist training camp a mile from the Iraq-Iran border. MSNBC.com purchased the test kits commercially. The field tests, developed by Osborn Scientific Group in Lakeside, Ariz., are regarded by some experts as very effective and have been used by U.N. weapons inspectors and federal government agents around the Sept. 11, 2001, attack site in New York City.

The Sargat camp, set back in an isolated valley and surrounded by snow-capped peaks, was home to the radical Islamic militant group Ansar al-Islam, which counts among its some 700 followers scores of al-Qaidafighters.

In a Feb. 5 speech to the U.N. Security Council, U.S. Secretary of State Colin Powell showed a satellite photo of the Sargat camp and described Ansar al-Islam as "teaching its operatives how to produce ricin and other poisons." U.S. officials have repeated the allegations in recent weeks.

In an operation timed to coincide with the war on Iraq, U.S. special operations forces have targeted Ansar al-Islam's militants in northern Iraq. Hundreds of Islamists, including al-Qaida fighters who took refuge in northern Iraq after the fall of the Taliban in Afghanistan, have been killed.

Although U.S. officials for months have leveled charges that the Ansar al-Islam and al-Qaida militants were producing poisons in northern Iraq, it wasn't until this week that specialist U.S. teams were able to gain access to the Sargat camp to test for traces of biological and chemical weapons.

Experts believe the Islamic group was producing the substances in the camp. Both toxins can be created from everyday products and simple procedures.

TERRORISTS TEMPTED BY TOXINS

MSNBC.com's samples of ricin and botulinum, two deadly biological agents, were taken from the soles of a boot and a shoe recovered from the Sargat camp. The facility has been flattened by several Tomahawk cruise missiles, fired as part of the U.S. campaign against Ansar al-Islam.

The thick rubber boot twice tested positive for ricin, a toxin derived from castor beans. Ingesting a pinch of ricin, which causes shock and respiratory failure, can kill a human being within 72 hours. There is no cure.

A black running shoe, shredded by the U.S. bombing, tested positive for botulinum. U.S. officials say terrorists have a particular interest in botulinum and ricin toxins, which may be delivered through release in food and water. Botulism, the illness resulting from botulinum ingestion, is a muscle-paralyzing disease that can cause a person to stop breathing and die, according to the U.S. Centers for Disease Control.

Since Sept. 11, 2001, law enforcement officials have seen an increase in attempts to produce deadly toxins like ricin and botulinum.

In Britain, anti-terrorism authorities in January charged four men with producing deadly agents after they found traces of ricin in a north London apartment. More than a dozen arrests have been made in the investigation.

On Thursday, the FBI issued a warning to Americans that deadly agents such as ricin and botulinum could be used to contaminate the nation's water or food supply.

And in France, police are on alert after recently finding traces of ricin in flasks in a train station locker in Paris.

The territory of northern Iraq where the traces of ricin were detected is not under the control of Iraqi leader Saddam Hussein.

Baghdad admitted to U.N. weapons inspectors in the 1990s that it had successfully weaponized ricin, botulinum and anthrax. There is no immediate evidence that suggests Saddam's regime provided the easily produced toxins to Ansar al-Islam or al-Qaida.

A test for anthrax at the Sargat camp gave a negative result.

WIDELY USED TEST

The Osborne tests are widely admired by experts, according to Dr. Sue Bailey, an NBC News analyst and former assistant secretary of defense for health issues during the Clinton administration. Known as "BioWarfare Agent Detection Devices," they were used by U.N. weapons inspectors in Iraq before their departure ahead of the U.S.-led war against Saddam.

Dr. Robert Bohannon, the inventor of the test, said in a telephone interview that numerous U.S. federal agencies employ the tests in the field. He said the tests were developed to give a rapid "yes-no" result in the aftermath of the 9/11 attacks on New York and Washington, when several U.S. federal agencies realized they required effective and rapid field tests to detect chemical and biological agents possibly used by terrorists.

"To swab a boot is perfectly acceptable," Bohannon said. The Osborn Scientific Group's test is widely used by federal agencies as a first step in the "evidentiary chain," Bohannon said. "It will tell you very, very fast if it's got a credible amount of material."

Bohannon, a former U.S. military scientist at the Dugway Proving Ground in Utah, said government experts would likely also subject their samples to a gas chromatography mass spectrometer, an apparatus that gives a breakdown of the elements and composition of the sample. The GCMS is also used to analyze urine samples for the presence of drugs.

In recent days, specialist chemical-biological survey teams have collected samples from camps used by Islamic militants in northern Iraq. At least two teams visited the Sargat camp, taking similar rapid field tests and collecting samples to be sent to the United States for further analysis, according to U.S. special operations forces officers speaking on condition of anonymity in northern Iraq.

U.S. special operations forces officials said this week they had found recipes for ricin and other toxins at camps in northern Iraq.

In several visits to the Sargat camp, MSNBC.com uncovered material that could be used for terrorist purposes, including a list of chemical elements frequently found in explosives.

The list, written in Arabic, also includes notations on where chemicals such as nitric acid, which can be used to make components of the explosive Semtex, can commonly be found.

MSNBC.com's Preston Mendenhall is on assignment in northern Iraq. Greg Mathieson contributed to this report.

<http://www.msnbc.com/news/895185.asp>

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Wall Street Journal

April 8, 2003

Pg. 1

U.S. Has 2 Chemical-Arms Issues: Finding Them, Convincing World

As Suspect Materials Appear, Officials Debate Involving U.N. in the Process of Verification

By Carla Anne Robbins, John J. Fialka and Dan Morse

Even as they try to hunt down Saddam Hussein in Iraq, American forces are rapidly confronting two tasks of enormous importance: finding any weapons of mass destruction, and convincing the world the finds are real.

The weapons search is a critical one for the Bush administration, which went to war charging that the Iraqi leader had hidden huge amounts of chemical and biological weapons and could pass them on to terrorists. If the U.S. doesn't make any undisputed discoveries of forbidden weapons, the failure will feed already-widespread skepticism abroad about its motives for going to war.

Late Monday, U.S. forces dropped four bunker-buster bombs on a building in a residential district of Baghdad, in the latest effort to kill Mr. Hussein and his two sons. A U.S. official said the intelligence that led to the attack appeared to be strong but that there was no confirmation that Mr. Hussein had been killed.

Reports also began circulating Monday that U.S. soldiers had found suspicious materials that could be chemical weapons. In the most significant of those, soldiers from the Army's 101st Airborne Division found barrels of suspected nerve agents at a site about 10 miles east of Karbala.

An Army colonel there described the facility as a paramilitary training installation with an obstacle course and a shooting range. Members of an antitank unit happened upon the site, about 55 miles south of Baghdad, during a mission to secure a nearby bridge. After barrels containing unknown substances were discovered at the site, an initial test indicated the presence of toxic chemicals, possibly weapons. A second test showed them to be pesticides of some sort. Then, a mobile chemical-weapons system was dispatched, and it recorded a positive for a nerve agent, possibly VX.

Separately, soldiers just north of Karbala found a big warehouse near an airfield with well over 500 artillery shells, many with hollow tips, possibly indicating that they are chemical-weapons delivery munitions. One of the shells was dated 2001. Earlier, the U.S. has made other, repeated discoveries suggesting that Iraq was preparing to use forbidden weapons, such as huge stockpiles of gas masks, protective suits and nerve-agent antidotes.

U.S. officials note that the hints of chemical agents are preliminary and unconfirmed and that tests in the field have produced false-positive readings before. Defense Secretary Donald Rumsfeld, speaking at the Pentagon, offered his own words of caution, saying no reports of chemical or biological weapons finds had been confirmed. "We have to recognize that almost all first reports that we get turn out to be wrong," he said.

With the issues so critical, U.S. officials are struggling to resolve an internal debate over how best to verify for the world any discovery of chemical or biological weapons.

British Prime Minister Tony Blair and, at times, top aides at the State Department have been arguing for some role for international inspectors -- though perhaps not chief United Nations weapons inspector Hans Blix, who plans to step down in June. But so far the administration debate appears to be tilting toward top officials at the Pentagon and some in the White House, who are just as fiercely opposed to inviting U.N. inspectors back to Iraq.

Those officials argue that international inspectors were too lax in the past. If the hunt for chemical and biological weapons isn't done quickly and securely, the officials warn, weapons could leak out of a chaotic Iraq to terrorists or to some of Iraq's more unsavory neighbors.

Those who oppose bringing in international inspectors also have played to President Bush's anger at the U.N. because of the Security Council's refusal to sanction the war. "We know that there are people out there who will say the U.S. is planting evidence," says a senior U.S. official. "But I don't think there's anyone who could seriously argue right now that we go back to the U.N."

Some U.N. inspectors are making clear they won't cede their role without a fight. Mohamed ElBaradei, chief of the International Atomic Energy Agency, declared last week that his group "is the sole body with legal authority to verify Iraq's disarmament." The world, he said, "has learned over three decades that only through impartial, international inspections can credibility be generated. Iraq is no exception to that requirement." Mr. ElBaradei indicated he expects to go back to Iraq "with full authority" after the war.

In any case, many outside experts stress the need for the U.S. to find a credible path for verifying any finds. The U.S. has "got to show" the world "independently verified evidence of the presence of these weapons," says David Kay, who led some of the early inspections teams into Iraq after the first Gulf War, and who has been a critic of the more-recent U.N. efforts. He adds, "We have to communicate this credibly to places like the Middle East, where some people still think we or Israel's [intelligence services] staged the attack on the World Trade Center."

Continuing Debate

While the debate continues both inside the administration and out, the U.S. already has at least three small teams of weapons experts working inside Iraq. The main mobile lab is an Army-led unit called the 75th Exploitation Task Force, which includes civilian as well as military scientists.

After the discovery of suspect barrels near Karbala, soldiers on the scene called in a mobile lab known as a Fox Nuclear, Biological and Chemical Reconnaissance System. The three-person crew of the six-wheeled sealed

laboratory can use the lab's probe to grab samples of air, water, soil and other substances without endangering the crew, immediately testing the samples for signs of weapons of mass destruction.

Even before specialized units can get to suspected sites, individual Army units could detect any nerve gas with hand-held electronic devices or chemically sensitive paper, which can signal a gas's presence. But those tests aren't "deeply analytical," says Terence Taylor, a former U.N. weapons inspector who heads the Washington office of the London-based International Institute of Strategic Studies.

The chemical units using The Fox armored vehicle back up the front-line troops. They can analyze air samples to detect more than 60 dangerous chemicals. They also have filtered air, so their crews can enter dangerous areas. But for the politically sensitive task of making the first finding of prohibited materials in Iraq, Mr. Taylor says, most experts would want verification from a reputable laboratory -- and preferably more than one.

In the months before the war, Pentagon officials -- working with the Defense Intelligence Agency and the Central Intelligence Agency -- developed their own detailed plans for the weapons hunt. These cover a host of operations: testing material in the field, getting samples out of Iraq for more analysis, publicizing the finds and destroying the weapons on site. The U.S. currently has a few dozen experts on the ground, drawn from the Army Special Forces, the Energy Department and the CIA. The plan envisions that as many 2,000 government experts and private contractors eventually will be involved in the effort in a postwar Iraq.

America's interests stretch beyond what Iraq has stockpiled. The U.S. wants to find out what countries may have supplied Iraq, and to which groups, if any, Iraq may have transferred weapons. For those tasks, the most useful avenues may be reviewing captured documents and interviewing Iraqi scientists and bureaucrats.

The Bush administration is aware of the international skepticism and the need to exercise caution. Mr. Rumsfeld said Monday that U.S. forces in the field are setting up a "chain of custody" for any suspected materials, to document who handles them after discovery and to ease doubts that they could be tampered with along the way. For many Americans, the question of whether Mr. Hussein was hiding chemical or biological weapons has long been overtaken by concerns about the safety of U.S. troops and a desire to see the war over soon. But for some of America's closest allies in Europe and the Middle East, the question of whether weapons are found will go a long way toward determining whether the bitterness over President Bush's decision to go to war without U.N. blessing will subside in weeks ahead.

Without a weapons find, questions about the war's legitimacy would likely remain. However, even if weapons of mass destruction aren't found immediately, that doesn't mean they never will be; the search is expected to continue long after Mr. Hussein is deposed.

In addition, allies' anger could be dissipated, to some degree, if the Iraqi public gives American troops an effusive welcome once the Hussein regime is clearly finished.

Even as attention turns increasingly toward possible stockpiles of chemical and biological weapons, some U.S. commanders in the field seem to be leaning increasingly toward the view that Iraq won't use the weapons in the war. Some commanders are even allowing their troops to strip off their suits, as temperatures in the field soar over 95 degrees.

Courting Opinion?

Iraq's failure so far to use chemical or biological weapons may be rooted in a belief that international opinion may stop the war at some point. Or the Hussein regime may believe international opinion would turn against it if such weapons were used.

Other military analysts think it's more likely that Iraqi commanders either have lost communications with Baghdad that might have carried the order to launch -- or have taken to heart U.S. warnings that they'll face trial as war criminals if they participate in a gas attack.

Retired Brig. Gen. Walter Busbee, a former chemical-weapons officer, says the speed of the U.S. advance toward Baghdad may also have overwhelmed Iraqi planners. "It was so fast, it may be they couldn't get weapons and shooters together at the same time," he says.

Gen. Busbee adds that repeated U.S. discoveries of large stockpiles of Iraqi protective gear are proof Iraqi commanders were planning to use the banned weapons. "When you open warehouses and see new masks, new protective suits, nerve-agent antidotes -- these weren't left over" from the Iran-Iraq war. "They were prepared to use chemical weapons."

It's also possible that before the resumption of U.N. inspections last fall, the Iraqis destroyed all their weapons, while retaining dual-use production facilities. In any of these cases, the U.S. may have to wait until after the war to interview Iraqi officials and scientists to find out what Iraq had hidden.

Robbins and Fialka are in Washington; Morse is with the U.S. Army in Iraq.

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Allies See Signs Of Deadly Agents

Chemicals found at training site

By Paul Martin, The Washington Times

CAMP AS SALIYA, Qatar — Coalition forces who overran a training facility in central Iraq have uncovered 14 large barrels of chemicals that initial tests indicated contain deadly substances including nerve agents sarin and tabun, as well as mustard gas.

More extensive tests are being conducted today in Iraq. Should they prove positive and be confirmed in another round of tests in Maryland, this would constitute the "smoking gun" for which U.N. inspectors searched in vain before military action began.

Defense Secretary Donald H. Rumsfeld urged caution, saying at a briefing that previous information had appeared "perfectly good but was wrong."

He added, "Let the thing play itself out, and we'll know."

The barrels, found three days ago, were camouflaged under netting in a trench within a small agricultural complex that served as a secret training center for paramilitaries north of Nasiriyah.

Close by was a compound where a large cache of weapons was found, along with an ambulance stripped out for use in smuggling fighters, brand-new chemical suits and boots, and other barrels that contained pesticides.

The paramilitaries could have been practicing with the pesticides for later use of the more deadly chemicals, though literature left at the site described how to use the pesticides against mosquitoes from the nearby Euphrates River.

Coalition soldiers who had carted away the pesticides later complained of nausea, and a few had rashes, but they recovered and the illness was attributed to the effects of 48 hours of nonstop movement and fighting.

The soldiers who later unearthed the 14 barrels of suspected deadly agents wore protective clothing and masks and had not become sick. None of the soldiers displayed the telltale dilated pupils of a person affected by nerve gas, said Gen. Benjamin Freakley.

Experts have told The Washington Times that the barrels could have been brought out as a defense line and fired on by retreating Iraqis to create a cloud of deadly gases for the advancing coalition forces.

The site would have been unknown to U.N. inspectors because of its disguise as an agricultural facility, the general said.

Iraq said it had no more chemical or biological stockpiles in its 12,000-page declaration to the United Nations two weeks after Resolution 1441 unanimously demanded a full accounting of Iraq's chemical, biological and nuclear programs and stocks.

In another development, an embedded National Public Radio journalist was told by a U.S. lieutenant colonel that weaponized missiles containing chemical warheads had been discovered. The officer said he had read the report on the top-secret military wire, available to field commanders.

If true, this would be the more dramatic of the two finds. A Central Command source said he could not comment on the report because he was not authorized to discuss "operational matter."

Britain's top commander in the coalition, Air Marshal Brian Burridge, said that "the whole war has been predicated on there being weapons of mass destruction, and we are in no doubt that they are [there]."

He said locals would soon start talking about any unusual movements by regime agents. "We know the regime took great steps before the inspectors came to disperse these weapons and stockpiles," he said. "We shall find them."

Brig. Gen. Vincent Brooks, in his daily briefing at Central Command, explained the lack of obvious success so far in finding chemical and biological weapons programs. He said the coalition's main focus had been on damaging any missile systems that could deliver unconventional weapons.

"We've taken away some of those means, and we've taken away some of the will by our leaflet drops, by our messages and by our military action," he said.

There has been intense international interest since it was revealed yesterday that the first samples, tested by a mobile laboratory called a Fox vehicle, had proved positive.

The process of where to search and how to test is supervised by three officers sitting next door to Gen. Tommy Franks in the Joint Operational Command.

The most senior is Capt. William Valentin, who is from Texas. His colleague, Master Sgt. Ricardo Soto, also has long experience. He was a U.N. inspector in Iraq, where in 1994, he detected and destroyed chemical weapons.

Last night, he said the testing would take two days, and if the initial positive finding was confirmed, samples would be flown to the Edgewood Chemical Biological Center in Maryland.

Great caution was being taken with the samples at all stages, he said, because "it's almost as if you are dealing with evidence."

"I will wait for a lab analysis before I start jumping up and down on my desk," he said.

Earlier reports about chemical-weapons finds have been false alarms. Last week, troops searching a military complex south of Baghdad found a white powder, but it turned out to be an explosive.

Iraq acknowledged making 3,859 tons of sarin, tabun, mustard and other chemical weapons, though U.N. inspectors suspected that Iraq could have made much more. Iraq used mustard gas and sarin against Iran during the 1980-88 war and later used the chemicals against Kurdish Iraqis.

Sarin and tabun are related nerve agents that can kill when absorbed through the skin or inhaled as a gas. They kill by causing convulsions, paralysis and asphyxiation. Mustard gas begins dissolving tissues on contact and is particularly harmful to the eyes and lungs.

<http://www.washtimes.com/world/20030408-63013423.htm>

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London Daily Telegraph

April 8, 2003

Rockets Found 'With Chemical Warheads'

By Neil Tweedie in Qatar

American forces hunting for Saddam Hussein's weapons of mass destruction were reported to have discovered rockets armed with chemical warheads yesterday.

The find was made by members of the 1st Marine Division, who were said to have found 20 BM21 rockets with sarin and mustard gas warheads at a site near Baghdad.

Also boosting hopes that the United States may be able to find the "smoking gun", US troops seized drums containing suspicious materials at an agricultural compound near Hindiya.

Those materials are to be tested in America over the next few days, the Pentagon said last night, although there was speculation that the 10 25-gallon drums and three 55-gallon drums buried in bunkers four to six feet deep may contain only pesticides.

Laboratory tests in the US were needed to confirm whether the drums found south of Baghdad contained chemical weapons or pesticides, Pentagon officials said.

"This could be either some type of pesticide, because this was an agricultural compound," said Gen Benjamin Freckly. "On the other hand, it could be a chemical agent, not weaponised."

Donald Rumsfeld, the US defence secretary, said time was needed to verify what the material was.

The material at the agricultural compound was found after US troops were evacuated from the warehouse after some began vomiting. More than a dozen men of the 101st Airborne Division, together with journalists and prisoners of war, were decontaminated after displaying a range of symptoms.

Suspicious materials were also found at a military camp near Karbala but tests proved that there was no evidence of chemical weapons being present at that site.

A US source at Central Command in Qatar said an average of three reports a day were received about suspected WMD sites and none had so far proved correct.

<http://www.telegraph.co.uk/news/main.jhtml?xml=%2Fnews%2F2003%2F04%2F08%2Fweap08.xml>

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Washington Post

April 8, 2003

Pg. 23

Fate Of 'Chemical Ali' Remains In Question

Officials Wonder if Top Aide to Hussein Is Dead

By Peter Baker, Washington Post Foreign Service

MARINE COMBAT HEADQUARTERS, Iraq, April 7 -- Since the first night of the war in Iraq, U.S. commanders have been trying to find and kill Ali Hassan Majeed known as "Chemical Ali" for ordering the use of poison gas

against ethnic Kurds 15 years ago. Time and again over the last 18 days, U.S. forces have bombed and raided houses where they thought he was staying, only to turn up empty-handed.

Over the weekend, an informer told U.S.-British forces that Majeed could be found at an office compound in Basra, the country's second-largest city then under siege by British forces. Majeed, a cousin of President Saddam Hussein and his military commander in the south, might have chemicals with him, the informer said. In swooped the F-16 jets, and the buildings exploded into fireballs.

This morning, British officers said they found Majeed's body.

By this evening, however, British forces said they believed Majeed might have survived the attack. But Defense Secretary Donald H. Rumsfeld and other U.S. officials in Washington said they believed he was dead. Given Majeed's success in eluding his hunters, U.S. officers in Iraq remained more cautious.

"Until they do a DNA, I'm not going to speculate," said an exasperated Col. Larry Brown, operations chief for the Marines in Iraq. "The guy has been like Freddy Krueger -- we've killed him five times already."

Majeed has long been one of the most influential members of Hussein's inner circle and, according to human rights groups and opponents of the Iraqi government, one of its most brutal. In addition to leading the 1988 campaign in northern Iraq against the Kurds, in which an estimated 100,000 people were killed, Majeed also played a central role in suppressing the 1991 rebellion of Shiites in southern Iraq after the Persian Gulf War.

"There were concerted efforts to track him and kill him," said Lt. Col. Jamie Martin, the chief British liaison at Marine headquarters. "He's a very powerful figure of the regime, and his reputation for ruthlessness [was well known]. As with Saddam, his personal control has been quite a key function in what resistance there has been."

"We felt he had his finger on the button and if he said, 'Deliver chemical weapons,' chemical weapons would be delivered," said Lt. Col. David Pere, senior watch officer at the Marine headquarters. Pere has overseen several attempts to kill Majeed and said the hunt alone has been enough to sideline the Iraqi commander. "We felt if we could take him out, we would reduce the possibility of chemical attack. And two weeks later, there's been no chemical attack, and he's been on the run."

While U.S. military officials announced publicly that they had targeted Hussein in the initial barrage of Tomahawk missiles that kicked off the war, they did not mention that they were trying to hit Majeed as well.

When they missed, they tracked him through intelligence to a house in Amarah, north of Basra, two nights later and sent in F/A-18 Hornets to bomb it. U.S. officials initially thought they had succeeded that time, and one officer jubilantly declared, "We think he's no longer breathing air."

Not the case, they discovered; a week later, they thought they had found him again in Ash Shattra, a small town north of Nasiriyah. They launched a commando raid but came up empty again.

The Basra strike occurred when a source told the U.S.-British commanders that Majeed would be returning to a complex of office buildings on the riverfront early Saturday morning, along with a general and two colonels, according to U.S. and British officers. "We set up a strike for later that morning," Maj. Bryant Sewall, a U.S. Marine liaison officer working with the British, said. "We made a positive ID on the target that was described."

The officers first requested JDAM precision-guided bombs, but that was rejected because of fear of collateral damage, so instead a pair of F-16 jets dropped a half-dozen 500-pound laser-guided bombs. Sewall, studying satellite imagery accurate to a meter, talked in the pilots to the target and "cleared them hot."

Sewall said he believed the strike got Majeed. There is "no credible evidence he's still around," he said, and people in Basra are "totally and completely convinced he was in there and is dead." A British officer, Maj. Andrew Jackson, told the Associated Press that Majeed was dead.

But later in the day, other officers backtracked. British troops received a tip that Majeed was alive and began to pursue him again. "The Brits say they have him cornered," Pere said, "so when they said a couple days ago that it was 99 percent [certain that he was dead], I guess the 1 percent was right."

Susan B. Glasser in Kuwait City contributed to this report.

<http://www.washingtonpost.com/wp-dyn/articles/A52106-2003Apr7.html>

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Philadelphia Inquirer

April 8, 2003

U.S. Sounds Alarm On Russia's Chemical, Biological Arms

By Alex Rodriguez, Knight Ridder News Service

MOSCOW - Much of Russia's huge stockpile of nerve gas, weapons-grade nuclear material and biological agents has yet to be safeguarded from terrorists and so-called rogue states because Moscow will not allow U.S. experts to visit the sites to devise security upgrades, a U.S. government report warns.

Russia has the world's largest storehouse of chemical weapons - 40,000 metric tons - as well as 600 metric tons of weapons-grade nuclear material, up to 25,000 nuclear warheads, and an extensive biological-weapons infrastructure left over from the Soviet era.

After the Soviet Union dissolved in 1991, Moscow agreed with Washington that its stockpiles of weapons of mass destruction should be secured against the threat of theft by terrorists or by corrupt insiders willing to sell it.

But Moscow has grown reluctant to grant the United States access to hundreds of nuclear, chemical and biological sites scattered from Russia's Arctic coast to the border with Kazakstan, according to a report by General Accounting Office inspectors.

At some sites, the shortcomings were obvious. In one biological-weapons lab, GAO inspectors found dangerous pathogens kept in rooms secured only by small padlocks and a doorjamb sealed with wax and string. At another, concrete perimeter walls were crumbling after years of neglect.

U.S.-financed improvements in security "continue to face significant resistance and lack of cooperation from the Russian government," the report by the congressional watchdog agency said. "In some areas, such as securing many sites in Russia's nuclear-weapons complex, Moscow has been unwilling to allow meaningful work to take place, despite years of U.S. efforts," the report said.

The United States had hoped to improve security by 2008 at all 133 buildings that store Russia's weapons-grade nuclear materials. But the U.S. Energy Department, which is performing the work, has been allowed to upgrade 14 buildings. Russia's Ministry of Atomic Energy has denied access to the others for the last two years.

A ministry spokesman said Russia was protecting its national security interests. He said security at sites that stored weapons-grade nuclear materials was adequate and no worse than at U.S. sites that store the same material.

Defense analysts say such nuclear material is coveted by terrorists and criminal groups because amounts as small as 17 pounds of plutonium or 55 pounds of weapons-grade uranium can be used to build an atomic bomb.

The report also criticized plans by the U.S. Defense Department and the Russian government to improve security at just two of the five sites where nerve gases, such as VX and sarin, are stored. A single drop of either is enough to kill a person.

Last summer, the Defense Department began installing new fencing, sensors, cameras and alarms at Kizner and Shchuchye, where nerve gas in small artillery shells is stored. Each shell is light enough to be carried by one person. The Defense Department has regarded the three other sites as having lower priority because the lethal agents are stored in much larger containers. The report counters that more than two-thirds of Russia's nerve gas is stored at those sites.

Russia's chemical weapons are expected to be destroyed at a plant under construction in Shchuchye. The General Accounting Office estimates it will take 40 years to eliminate them.

U.S. attempts at upgrading security have been least successful at biological-weapons laboratories, the report said. The Soviet biological-weapons program was the world's largest, employing 60,000 people at more than 50 locations. Then-President Boris N. Yeltsin shut the program in 1992, but strains of anthrax, smallpox and other pathogens remain stored at dozens of sites across Russia.

The report said the United States had been allowed to improve security at only two Russian biological-weapons facilities. Russia refuses to provide an inventory of similar plants.

The major threat at biological-weapons sites is the smuggling of vials of pathogens by laboratory workers, the report said. But interest among Russian officials in improving security at biological-weapons sites is low, it continued.

"Officials at the Russian biological sites we visited stated that they knew their staff well, and would notice if an individual posed a security threat because laboratory staff live and work in close quarters," the report stated.

While the United States has spent \$1.8 billion since 1992 on improving security at Russian sites housing weapons of mass destruction, Russians say the need for improvements is not as vital as the United States suggests.

There have been no major cases of theft from Russian weapons sites in the last few years, said Andrei Fedorov, an analyst with the Moscow-based Council on Foreign Defense Policy. Fedorov said that helped explain the government's complacency toward security at its chemical, biological and nuclear sites.

"There's a general principle in Russia," he said. "Let it lie, don't touch it, and everything will be OK."

<http://www.philly.com/mld/inquirer/news/nation/5581711.htm>

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Philadelphia Inquirer
April 8, 2003

Vehicle Can Ferret Out Battlefield Chemicals

By Tom Infield, Inquirer Washington Bureau

WASHINGTON - It can swim or run on dry land, is built to deflect bullets, and comes dressed in camouflage garb. With its machine gun on top, the Fox looks like a junior version of any other armored vehicle.

Underneath the hard shell lies \$1 million in high-tech equipment worthy of a university chemical laboratory. The speedy little Fox - at 20 tons, a mere third the size of a tank - is the most sophisticated tool in the U.S. inventory for the detection of chemical weapons on the battlefield.

When drums of suspicious chemicals were found yesterday by U.S. soldiers at a warehouse in Albu Muhawish, Iraq, two Fox vehicles, each with a three-man crew sealed inside, were sent in to make tests. Each reported positive readings for nerve and blister agents, although officials were uncertain if the material was weapons-grade.

Foxes also were dispatched over the weekend when more than a dozen soldiers from the Army's 101st Airborne Division experienced vomiting, dizziness and skin blotches after contact with a suspected weapons agent. Tests for sarin were inconclusive.

After nearly three weeks of war and a number of chemical-weapons scares, the coalition has no clear-cut case of finding chemical weapons.

Army Capt. Carlos Gonzalez, who trains the Fox crews at Fort Leonard Wood, Mo., said the Army and the Marines may have 10 or more of the vehicles at the front lines around Baghdad.

On the spot

Foxes carry much of the same detection equipment as other vehicles. What makes them especially valuable is the presence of a mass spectrometer, a costly piece of lab equipment that enables separation of a suspect substance into its chemical components.

Analyses can be done on the spot and reported to field commanders immediately.

Spectrum analysis enables precise identification in most, but not all, cases. The problem in battlefield identifications in recent days has been the fact that pesticides may act in similar ways to certain nerve agents and confuse telling them apart.

With their crews working in pressurized, air-conditioned compartments, Foxes can also go in close when a suspected hazard is found. They can drop markers on the battlefield warning troops to stay clear.

The Foxes are part of a complex system for the monitoring and detection of chemical, biological and radiological weapons.

Across the services, more than 15,000 officers and enlisted personnel have been certified as NBC (nuclear-biological-chemical) specialists. Their job is only partly to train soldiers in the field to shield themselves with their masks and protective coveralls. It is also to decontaminate those who may be exposed to hazards.

Advance warning

But no decontamination is necessary if soldiers are warned of hazards in advance and can avoid them.

To that end, military units have been issued equipment that ranges from a beta-radiation monitor the size of a Palm Pilot, to a sensor that looks like a charcoal grill (the M21 Remote-Sensing Chemical Agent Alarm) and can pick up airborne chemicals three miles from their source, to a germ-finding kit that rolls along like a U-Haul trailer on the back of a humvee.

Miguel Morales, a spokesman for the Army's Edgewood Chem-Bio Center at Aberdeen Proving Ground, Md., said that the equipment was "more sensitive" than during the first Gulf War.

The Fox itself dates back to the Gulf War in 1991, when Germany donated about 60 of the vehicles to the United States for protecting its troops. An updated version of the Fox went into production by the General Dynamics Corp., a major U.S. defense contractor, in 1998.

Gonzalez said U.S. troops had an edge over Iraqi soldiers not only in the quality of weapons but also in monitoring devices.

"This is an enormous advantage," he said.

<http://www.philly.com/mld/inquirer/news/nation/5581594.htm>

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Philadelphia Inquirer
April 8, 2003

How Chemical Agents Work - And Are Found

By Faye Flam, Inquirer Staff Writer

If Iraq has stockpiled the deadly chemical weapons sarin, tabun and lewisite, then standard lab equipment should be able to prove it definitively.

The Army's mobile Fox laboratory, now examining material in drums found in the Iraqi town of Albu Muhawish, probably uses a standard detecting instrument called a gas chromatograph mass spectrometer.

"If you've got one of those, you can absolutely nail it," said Ivan Oelrich, a physicist and research fellow at the Federation of American Scientists.

The apparatus sends a sample of a suspect chemical through a tube where different component molecules are separated out and then identified according to the time they take to travel over a specified distance.

Less-sensitive warning systems used in the field could have been triggered by an insecticide or some other stray compound, he said. Troops in the field are probably using instruments called ion mobility spectrometers. These identify different substances by the size of their component molecules.

During the first Gulf War, Oelrich said, many detectors were set off by the smoke and soot of burning oil wells.

Sarin and tabun are both nerve agents - discovered by the Germans before World War II. They are both part of a class of compounds called organophosphates, which include some pesticides.

The more lethal of the two, sarin, can kill people by seeping through the skin as a liquid. When it's exposed to air, it evaporates and can kill people through inhalation. Out in the open, these agents tend to dissipate quickly, so they are more likely to kill people if released in an enclosed space.

The most difficult aspect of making sarin is that it's so toxic that workers need to be thoroughly protected with gas masks, suits and gloves.

But sarin has cousins, such as tabun, which are less intensely toxic and therefore easier to manufacture. Tabun was the other agent the Army biological-chemical personnel reported detecting at Albu Muhawish.

Sarin is odorless and colorless, so people don't know they have been exposed until they develop symptoms, usually dizziness, muscle convulsions, vomiting and narrowed vision. Such symptoms begin within minutes of exposure.

Sarin interferes with signaling between nerves. Nerves don't actually touch one another but send signals through chemical messengers called acetylcholine and acetylcholine esterase.

The acetylcholine transmits signals from nerve to nerve, while the acetylcholine esterase acts as the off switch, telling nerves to stop firing.

Sarin disables this off switch so that nerves fire continuously. Victims die when they lose control of the diaphragm muscles they need to breathe. People can survive a nerve-gas attack if they get a dose of atropine.

The United States and the former Soviet Union both manufactured and stockpiled sarin. The United States is in the process of destroying those stocks.

Saddam Hussein used sarin against Iranian troops in the Iran-Iraq war of the 1980s.

The other suspected chemical weapon, lewisite, is a blister agent in the same class as mustard gas. Victims suffer massive blistering of the skin and severe irritation of the respiratory tract and eyes.

It does its deadly work by killing fast-dividing cells in the skin and mucous membranes - especially those in the eyes and respiratory tract. The first symptoms are burning in the eyes and airways and itchy skin.

<http://www.philly.com/mld/inquirer/news/nation/5581597.htm>

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New York Times

April 8, 2003

On-Site Identification Inexact

By William J. Broad

Identifying the exact makeup of toxic chemicals, especially in the field under less-than-ideal conditions, is a tricky process prone to raising false alarms, experts say.

Portable cards and kits for field testing often do not have the specificity needed to reliably pin down the precise nature of a tested substance. Equipment that produces the most reliable results is bulky and far from the scene.

Portable gear used by American troops is designed to err on the side of caution and as a result often registers false positives, or mistaken identifications, said Jonathan B. Tucker, a chemical-arms expert at the United States Institute of Peace, a research organization in Washington that works on conflict resolution.

Experts say two large, complex instruments lie at the heart of advanced chemical detection — the gas chromatograph and the mass spectrometer. The chromatograph breaks up chemicals into their components and the spectrometer identifies them by comparing them to libraries of known substances. With readings from both instruments, scientists can usually identify a chemical.

But in the field, in a quick analysis, nerve agents can resemble other chemicals, notably insecticides, Dr. Tucker said. For instance, tabun and sarin, potent nerve agents, were developed in Germany in 1936 and 1938 as insecticides.

Suspicions about Iraq run high because in the 1980's, experts say, it made tons of deadly chemical agents like mustard gas and nerve agents like tabun, sarin, cyclosarin and VX.

The agents vaporize at varying rates when exposed to the air and can spread in the wind. Some can also persist in puddles, a continuing threat.

<http://www.nytimes.com/2003/04/08/international/worldspecial/08DETE.html>

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Washington Times

April 9, 2003

Pg. 10

U.S. Probes For Iraqi Chemicals

By Bill Gertz, The Washington Times

U.S. military specialists are continuing to investigate chemicals and artillery shells found in Iraq to determine if they are part of President Saddam Hussein's arsenal of deadly nerve gas.

Army Maj. Gen. Stanley McChrystal, deputy director for operations on the Joint Chiefs of Staff, said yesterday that he had no official confirmation that U.S. troops had found artillery shells filled with a nerve agent.

Soldiers with the Army's 101st Airborne Division found about 40 rockets that are suspected of containing the nerve agent sarin and mustard gas, according to National Public Radio reporters with the division.

The rockets were found in a warehouse outside Baghdad and were described as weapons used with Iraq's Russian-made BM-21 multiple rocket launcher.

Gen. McChrystal said he had only seen news reports on what he said were 120 mm shells.

"For the other potential chemical and biological finds, we know that, in fact, there were some positive field tests [indicating chemical arms], but they were mixed," Gen. McChrystal told reporters at the Pentagon.

"There were some positive and negative [test results] in my understanding," he said. "And, in fact, we have taken samples out to get definitive testing. So at this point, it is something we're looking at closely, but no hard finding." In Qatar, a U.S. military official said tests were being conducted to determine if materials found at sites in central Iraq were banned weapons.

"Initial reports were 'yes, it could potentially be,'" Army Brig. Gen. Vincent Brooks said.

"We do not know enough at this point to say it should be discounted or that we have found some weapons of mass destruction for use," he said.

Earlier statements by allied military officials near Karbala, Iraq, said preliminary tests indicated that materials found in 14 barrels were chemical-warfare agents.

The barrels were found at an Iraqi military training camp in the town of Abu Mahawish on Sunday. U.S. chemical sensors indicated the presence of the nerve agents sarin and tabun, and the blistering agent lewisite.

Maj. Michael Hamlet with the 101st Airborne Division told Reuters news agency that the chemicals could turn out to be a "smoking gun" highlighting Iraq's hidden weapons program.

But Gen. Benjamin Freakly, also of the 101st Airborne, said substances at the Iraqi camp and at a nearby agricultural site, also in Abu Mahawish, might not be weapons. "This could be either some kind of pesticide," Gen. Freakly told CNN. "On the other hand, it could be a chemical agent — not weaponized, a liquid agent that is in drums."

Gen. Brooks said several mechanisms are used by the military to determine the presence of chemical arms, including a system that does testing and analysis on the spot.

"More detailed testing and analysis is required," Gen. Brooks said. "That's ongoing. Some samples have been moved, and we don't know enough at this point to say that it should be discounted or that indeed we found some weapons of mass destruction available for use. So at this point, we're simply remaining in waiting until we have additional information."

Several teams of chemical- and biological-warfare specialists are deployed in Kuwait and are taking part in analyzing the Iraqi chemicals.

<http://www.washtimes.com/national/20030409-32841796.htm>

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Bloomberg.com

April 8, 2003

U.S. Tactics May Have Blunted Iraqi Chemical Threat

By Tony Capaccio

Washington -- The swift U.S. and U.K. ground advance, constant airborne surveillance and political calculations may have blocked Iraqi commanders from using any chemical or biological weapons they might have, military officials and analysts said.

The Bush administration, in making its case for invading Iraq, said that Saddam Hussein's regime was stockpiling such munitions in violation of United Nations resolutions and was willing to use them. That threat hasn't emerged yet in battle.

"This is one of the most important dogs that hasn't barked," said Michael Eisenstadt, a military analyst for the Washington Institute for Near East Policy.

Military officials in Iraq and Washington say U.S. troops still are on the alert for any chemical or biological attack. Defense Secretary Donald Rumsfeld and other administration officials have dismissed questions about the lack of clear evidence of such weapons, saying a thorough search will wait until after the hostilities are settled.

The U.S. is testing samples from at least two sites south of Baghdad where storage barrels that initially showed indications of nerve agents and mustard gas, according to reports from the New York Times and Cable News Network. Additional field tests determined some of the material was pesticide. A search for mustard gas at an ammunition storage site near Najaf earlier today was characterized by the U.S. Army as probably a "false alarm," Agence France-Presse reported.

Skepticism

Several reports of suspected chemicals in the war's early days later proved false or inconclusive, and Rumsfeld said it was too early to judge the most recent discoveries.

"We have to recognize that almost all first reports that we get turn out to be wrong," Rumsfeld said yesterday at a Pentagon briefing.

Some analysts question whether Iraq has or is capable of using chemical and biological weapons.

"Much of our intelligence on Iraq's stockpiles appears to have come from defectors," said Joseph Cirincione, a weapons proliferation analyst at the Carnegie Endowment for International Peace. "They may have exaggerated their stories or simply mistaken storage of gas masks for storage of poison gas."

U.S. Strategy

Military commanders instead credit U.S. strategy for blunting the Iraqi chemical weapon threat.

"There have already been a number of places where it could have been used and it was not," Brigadier General Vincent Brooks said yesterday at a U.S. Central Command briefing in Doha, Qatar. Part of that may be the result of deliberate attempts by the U.S. to influence Iraq's "decision-makers," he said.

That campaign started weeks before the war with repeated warnings from Rumsfeld that Iraqi commanders who ordered the use of chemical or biological weapons would face prosecution as war criminals.

"We think that's a big component of deterrence," said Major General Stanley McChrystal, vice chief of operations for the Joint Chiefs of Staff.

In addition, special operations forces raided command facilities in western Iraq that the U.S. suspects had authority over field officers armed with chemicals, McChrystal said. Rocket launchers and artillery pieces that might fire chemical or biological warheads were other targets of the special operations.

Surveillance

The Army and Air Force were able to coordinate such attacks using remote-controlled and other reconnaissance aircraft that are on almost constant patrol to quickly spot "time-sensitive" targets, he said.

Finally, the 3rd Infantry Division's 300-mile trek across central and southern Iraq in less than three weeks left few targets to hit with chemical or biological agents, analysts said.

"It's not clear to me they were in the position to ever use it because of the speedy advance and Iraqi uncertainty about the direction of the attacks," said Michael Moodie, president of the Chemical and Biological Agent Control Institute.

Iraq used chemical weapons against massed Iranian formations during their war in the 1980s, killing thousands. That tactical approach is virtually useless against fast-moving U.S. formations.

"To the extent they can see anything, they're saying 'where do we go with this stuff,'" Moodie said.

Little Effect

Even if the troops were hit, it would have little effect.

"If you hit a moving column of U.S. armor with anthrax, you know what happens?" Cirincione said. "They would continue to advance and kill you."

With U.S. troops surrounding Baghdad, "chemical weapons might slow us down but the U.S. tactic will not present optimal targets," said Stephen Cimbala, a professor of defense policy at Pennsylvania State University.

The Iraqi regime also may have a political motive that overshadows any perceived tactical advantage, analysts said. Hussein is pursuing a political-military strategy that depends on retaining western and Arab sympathy, Eisenstat said,

"I think he has a mythical belief that he will survive and not die in a bunker in Baghdad," he said.

"The political liabilities of Iraqi chemical weapons use -- demonstrating that Saddam lied when he claimed to eliminate these weapons, providing ex-post facto justification for the U.S.-led invasion -- would probably outweigh the marginal military benefit of a chemical attack," Jonathan Tucker, a former UN inspector and visiting senior fellow at the U.S. Institute of Peace.

"When confronted with imminent defeat, the regime might conceivably lash out with whatever weapons it still possess," he said.

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Washington Post

April 9, 2003

Pg. 31

U.N. Hopes To Verify Banned Weapons

VIENNA -- United Nations weapons inspectors should be asked to verify the existence of weapons of mass destruction in Iraq, the head of the U.N. nuclear watchdog agency said.

Mohamed ElBaradei, head of the International Atomic Energy Agency, was responding to a U.S. report that the military found suspect chemicals in Iraq, including 14 barrels at an Iraqi military training camp.

Military spokesmen said initial investigations indicated that the nerve agents sarin and tabun and the blister agent lewisite were present, but that further tests would be done to verify whether the substances were in fact constituents of banned chemical weapons.

"Any test results would have to be verified by the United Nations weapons inspectors to generate the required credibility," ElBaradei said through a spokesman.

--Reuters

<http://www.washingtonpost.com/wp-dyn/articles/A60095-2003Apr8.html>

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Milwaukee Journal Sentinel

April 8, 2003

UW, Harvard Scientists Developing Anthrax Antidote

By Marilyn Marchione

University of Wisconsin-Madison and Harvard University scientists have achieved a major milestone toward developing an antidote to the deadly anthrax toxin.

While more testing is needed, some say the work might offer the possibility of experimental use of the antidote if another anthrax attack were to occur.

In October 2001, as anthrax was being spread by mail, the researchers discovered a chemical door that the anthrax toxin uses to enter cells and then made a decoy substance to attract the poison to it instead of the cells.

Now they've discovered a second point of entry and made another decoy substance that's even more potent.

"It's about 25-fold better than the first one we had," said John Young, the UW cancer professor who led the research in Madison and will publish its results this week in the Proceedings of the National Academy of Sciences.

The work was part of anti-bioterrorism research that was fast-tracked and funded by the National Institute of Allergy and Infectious Diseases.

Although researchers still need to test the antitoxin decoys in animals and fine-tune them chemically, the decoys might now be a potential emergency treatment.

"This certainly approaches that," said Phillip Baker, who supervises grants for research on a host of biowarfare germs for the infectious diseases institute.

"It could be scaled up quickly," Young agreed. "The hope would be that it would be quick enough to be useful if a need came along like that."

Antibiotics can kill anthrax in the early stages of infection, but symptoms often aren't recognized until after the bacteria have started producing toxin that can rapidly cause death.

"Anthrax toxins have to get into cells to do their damage," so finding out how they do that and blocking it are what's needed in order to develop a successful antidote, Baker explained.

The UW and Harvard researchers now have found two points of entry, or receptors, on cells that allow the toxin to connect and be taken inside the cell. The decoys are free-floating chemical pieces of those receptors. When the toxin attaches to the decoy pieces, it is neutralized and is no longer capable of binding to and getting inside of cells.

"If you have two decoys like this it's better than one" because the anthrax germ might be engineered by a bioterrorist to make a toxin that can evade one mechanism, Baker said.

Test tube experiments have shown the decoys to be effective, and the Harvard team under well-known anthrax researcher John Collier has tested them in rats, although the results have not yet been published.

"All I can say is it shows promising results," Young said.

Similar experiments in people probably could never be done, aside from trying the decoys in an emergency situation, because it would be unethical to deliberately infect people with a deadly germ such as anthrax. But Baker said the lab experiments on human cells suggest encouraging things about their safety.

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Bloomberg.com

April 8, 2003

Northrop Laser-Guidance System Hunts For Iraq's Mobile Scuds

By Tony Capaccio

Washington -- Northrop Grumman Corp. has speeded delivery of a new laser guidance system to help U.S. fighter-bombers hunt for Iraq's mobile Scud missiles, according to Air Force officials.

Northrop Grumman's Rolling Meadows, Illinois-based Defensive Systems Division received a \$32 million contract last month for accelerated delivery of 24 Litening systems to be mounted on F-15E fighter-bombers. Sixteen systems were in theater when the war started March 19; seven arrived earlier this month and the last is due by April 15, a spokeswoman said.

Iraq fired 88 Scuds at Israel and U.S. troops in Saudi Arabia during the 1991 Gulf war. It hasn't fired any this time around, and the U.S. F-15Es and A-10s patrolling western Iraq haven't found any mobile launchers.

The Northrop system offers "more capability" than previous systems, said Capt. Dax Hayes, an A-10 pilot with the 74th Fighter Squadron, Pope Air Force Base, N.C., who is monitoring operations at the Air Force's Prince Sultan Air Base in Saudi Arabia.

"It's got a laser on it for providing precision munitions," Hayes said in a telephone interview. "It's also got a camera which allows you to get a little bit closer view of the stuff you are looking at on the ground."

The U.S. refined its missile-hunting techniques during four sessions last year at Nellis Air Base, General Mike Moseley, the top U.S. air commander of the Iraqi campaign, told reporters. The planes patrol in combination with the Predator drones and U2 reconnaissance planes and Northrop Grumman Joint Stars ground surveillance aircraft, he said.

20,000 Precision Weapons on Iraq

The Pentagon since the 1991 Gulf war has grown increasingly dependent on precision weaponry. Only 10 percent of aircraft in the first Gulf war were able to drop laser-guided munitions; today, nearly 90 percent of the Air Force and Navy aircraft can.

The coalition has dropped about 20,000 precision-guided weapons, officials told Pentagon reporters today. A third of them were Boeing Co. satellite-guided Joint Direct Attack Munitions; the rest were laser-guided bombs that require guidance systems, Hellfire anti-tank missiles or Tomahawk cruise missiles.

Northrop's Litening system was first used in combat in June 2000, patrolling the no-fly zone in Northern Iraq. F-16s of the Air Force Reserve Command have used Litening in Afghanistan.

Air Force Chief of Staff Gen. John Jumper ordered an accelerated evaluation of a new extended-range version for the F-15E fighter-bomber last year. The evaluation was completed in December and deliveries began in January. Marine Corps AV-8 Harriers supporting special operations forces hunting renegade Taliban and al-Qaeda fighters are already using the extended-range model. The Air Force last year qualified the new system for installation on A-10s.

24-Hour Use From 40,000 Feet

Northrop's system can detect targets by day or night and allows another aircraft or controllers on the ground to designate the targets. Litening has a better-quality video image than the existing Lockheed Martin Corp. Lantirn system, and it can detect and identify 30 percent to 40 percent more targets, officials said. Litening also can operate at as high as 40,000 feet.

Northrop Grumman and its industry partner, Rafael Israel Armament Development Authority Ltd., also have benefited from delays in a competing Lockheed Martin laser-guidance system called the Sniper. Those delays prompted the Air Force to buy alternatives like the Litening that have completed testing and are ready to be installed.

Northrop by December will have sold 260 Litening pods for \$450 million, said Mike Lennon, vice president of the company's targeting and surveillance business. Northrop Grumman has sold 70 of the upgraded laser systems to the Marines and Air Force.

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Bioterrorism: Adequacy of Preparedness Varies Across State and Local Jurisdictions.

GAO-03-373, April 7.

<http://www.gao.gov/cgi-bin/getrpt?GAO-03-373>

<http://www.gao.gov/highlights/d03373high.pdf>

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