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Established here at the Air War College in 1998, the USAF/CPC provides education and research to present and future leaders of the Air Force, as well as to members of other branches of the armed services and Department of Defense. Our purpose is to help those agencies better prepare to counter the threat from weapons of mass destruction. Please feel free to visit our web site at www.au.af.mil/au/awc/awcgate/awc-cps.htm *for in-depth information and specific points of contact. Please direct any questions or comments on CPC Outreach Journal to Lt Col Michael W. Ritz, ANG Special Assistant to Director of CPC or Jo Ann Eddy, CPC Outreach Editor, at (334) 953-7538 or DSN 493-7538. To subscribe, change e-mail address, or unsubscribe to this journal or to request inclusion on the mailing list for CPC publications, please contact Mrs. Eddy.*

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Monday, April 08, 2002 - 12:00 a.m. Pacific

Smallpox vaccine plan gets officials' attention

By Warren King
Seattle Times medical reporter

Public-health officials have a nightmare about a bioterrorist attack with smallpox: Terrorists intentionally infect themselves with the deadly, highly contagious virus and go walking and coughing among large crowds across the nation.

It is not always obvious when a person with smallpox is most infectious, so the potential for an epidemic to catch hold and rapidly spread in such a scenario is very real. Thus, a burning question among disease experts is who should be vaccinated against the disease and when.

"It is probably one of the biggest public-health decisions of our time — whether to re-institute widespread immunizations or immunize just segments of the population," says Dr. Jeff Duchin, director of communicable disease control for Public Health — Seattle & King County.

Major immunization strategies will be the topic of a forum Thursday at the BioDefense Mobilization Conference in Seattle. More than 400 public-health officials, emergency personnel and commercial vendors of germ-detection devices are expected at the three-day meeting beginning tomorrow at the Westin Hotel.

Public-health leaders have called for a national dialogue on immunization strategies against smallpox, considered a viable bioterrorist agent but not a highly likely one.

Some of the best laboratories in the country, including one at Harborview Medical Center, also are developing tools to quickly diagnose smallpox. They would supplement the Centers for Disease Control and Prevention's diagnostic laboratory in Atlanta.

"You've got to be ready, because nothing is impossible anymore, as we have seen," said Dr. Robert Coombs, UW associate professor of laboratory medicine and a Harborview virologist. "Nationally, we need more capability for testing."

The smallpox virus is passed to others through direct contact or through tiny droplets of saliva, expelled when coughing or even speaking. It incubates for seven to 17 days before a rash appears at about the time the person becomes highly contagious.

Fever, headache and vomiting ensue and dark, festering sores soon begin to spread across the body. Death occurs in about 30 percent of the unvaccinated.

A smallpox vaccination will protect an exposed person if it is given within four days of the exposure.

Who should get vaccine

The debate about the smallpox vaccine centers on who should receive the protection now.

Should massive voluntary vaccinations be given now, even though the vaccination itself is fatal in about 1 to 2 cases per million? Should only the highest risk, emergency health-care personnel receive the vaccine now? Or should health officials vaccinate only the contacts of those diagnosed with the disease?

The position of the CDC — the current national policy — is that in the case of an attack there will be "ring vaccinations": Patients with suspected or confirmed smallpox are isolated and their contacts are vaccinated and closely watched, including under quarantine, if necessary. The strategy worked well in the worldwide smallpox-eradication program of the 1970s.

Critics of the approach insist that a bioterrorist attack likely would be launched at multiple sites around the country. A ring vaccination program could not keep up with the spreading epidemic, the critics insist.
Other health officials have called for massive, voluntary immunizations. They say that trying to vaccinate in the middle of a spreading epidemic would be extremely difficult, that infected people may be contagious before it is obvious, and that 61 percent of those in a national survey said they would volunteer to be vaccinated.

More vaccine available

Prospects for the availability of the vaccine also have greatly improved. Aventis Pasteur, a drug company, announced March 29 that it has 85 million doses of the vaccine that have been in storage for years but which tests show are still effective. The company said it will donate the vaccine to the federal government.
In addition, federal researchers said recently the 15.4 million vaccine doses it has stockpiled can be safely diluted five-fold. And the federal government has contracted with two companies to produce 209 million more doses by the end of this year.
"Widespread, voluntary vaccination before exposure will greatly reduce the number of victims, if an attack occurs, and it will be much easier to protect unimmunized persons through additional ring vaccination," Dr. William Bicknell, of the Boston University School of Public Health, said late last month in the New England Journal of Medicine.
Many public-health officials, however, are firmly against massive immunizations because of the vaccine's side effects.
Bicknell estimates that based on 1968 smallpox immunizations — before all immunizations in the U.S. were stopped in 1971 — about 180 deaths would occur with nationwide vaccinations. But many more people today are vulnerable to the side effects because their immune systems are suppressed from HIV infection and cancer chemotherapy. The CDC estimates as many as 280,000 may be unaware of their HIV infection.
Duchin, of Public Health — Seattle & King County, and many other public-health experts believe there is a low likelihood of a smallpox attack. But should there be an assault, they say, it is crucial for "first responders" to be immunized ahead of time.
These include public-health workers and hospital personnel most likely to see the first cases of the disease.
"There needs to be some cadre of the pre-immunized to provide us with the ability to handle this," said Duchin.
Without protection, he said, the first responders would be afraid to care for those who are infected or exposed. That vulnerability would allow the disease to rapidly spread out of control, he said.
National health leaders say the issue of when to vaccinate should be discussed more vigorously and openly.
Even a small outbreak of smallpox, however small, could generate panic and demand for immediate universal, voluntary vaccination, some say.
"Since sufficient stores of smallpox vaccine will soon become available, an open and public dialogue on the advantages and disadvantages of universal voluntary vaccination, as well as on the smallpox response plan of the CDC, should be initiated before any attack occurs," said Dr. Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases, in the New England Journal of Medicine.
"Given the fears about bioterrorism, such an approach will strengthen the confidence of the public in a process that is designed to safeguard their health."
Whatever the immunization approach, Coombs, of Harborview, says a quick, effective diagnostic test is crucial to stopping the spread of the disease in the case of an attack. Having local and regional testing sites, in addition to the CDC's lab, could help speed detection of an attack, he said.

Improving virus detection

Coombs and his colleagues are perfecting techniques already known to work in identifying viruses.
First, a sample of saliva, blood or a swab from a skin lesion is examined under a powerful electron microscope to see if any virus in the pox family can be detected, including smallpox and chicken pox. Then it is "amplified" through a laboratory technique to pin down the specific type of virus.
Numerous laboratories around the country are capable of doing the testing, Coombs said. In time, he said, it is likely that state health departments also will be set up to diagnose the disease.
Duchin said a coordinated approach, with the CDC certifying labs, is essential. "We all need to be on the same page," he said.
http://seattletimes.nwsource.com/html/localnews/134433112_smallpox08m.html

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Nerve gas protection found wanting

CDC report focuses on danger to people in two states from Umatilla Depot weapons
Monday, April 8, 2002
THE ASSOCIATED PRESS

HERMISTON, Ore. -- Stored at Good Shepherd Medical Center is a white steel box with this label stamped in red ink: "Nerve agent antidote."

Much of it is well past its original expiration date, and a recent report from the national Centers for Disease Control and Prevention questions whether the antidote is any good.

That is only one problem the CDC pointed out after a review of area preparedness for a potential accidental release of nerve agents stored at the Umatilla Chemical Depot, one of America's leading storage areas for chemical weapons of mass destruction.

CDC evaluators found coordination between Oregon and Washington health officials to be unclear, and said this was troubling because "there is a significant likelihood that patients will need to be transported to hospitals in Washington for care. There is an even greater likelihood that many people will spontaneously evacuate to Washington."

Also, last week, the state of Oregon noted that the Army had missed a March 25 deadline for an independent engineering report on the depot's $1.2 billion incinerator.

The report was due two months before a May 25 test burn scheduled at the depot's incinerator. Rick Kelley, a spokesman for Washington Demilitarization Co., the military contractor that built the incinerator, said it was not aware any deadlines had been missed.

Non-toxic material is to be burned in the test run before the unit is used to destroy 4,000 tons of deadly nerve and mustard agent. The Army plans to begin actually burning nerve agent here next February.

Under an international treaty, the materials must be destroyed by 2007, though the treaty allows for a one-time, five-year extension.

In the case of the outdated antidote, the Army contends the material is still good, despite original expiration dates going back as many as 12 years. Army officials simply slap labels with a new expiration date -- March 2003 -- over the old ones, the Tri-City Herald of Kennewick reported in yesterday's editions.

The Army provided the antidote atrophine to Good Shepherd Medical Center for use in the event of an accidental release of deadly GB sarin agent. There are 1,014 tons of GB sarin stored at Umatilla, along with 2,340 tons of mustard agent and 364 tons of VX agent.

The Army gave the hospital a letter saying its atropine is still usable, but CDC officials are skeptical. The reason expiration dates exist is because a medicine's potency can decrease over time, CDC spokeswoman Susan McClure noted.

"We would not recommend using expired medicine in any case," McClure said. "Few (medical) agencies would find this acceptable. And there are liability issues should expired medicine be used."

Ken Franz, hospital manager of emergency services, shares those concerns.

"I just don't know why the Army doesn't replace this. It's so cheap," he said of the antidote, which costs $3 or $4 per vial. "It's not a bizarre chemical. Hospitals routinely keep it on hand."

The Army's letter to the CDC says the material "is tested annually by the manufacturer and the stability test date is evaluated by the (Food and Drug Administration).... The following is suitable for issue and use 12 years from the manufacturer's date."

Overall, CDC officials said they were impressed with the region's preparedness level.

They agency's evaluators said they "felt that the surrounding communities had completed most of the steps necess

http://seattlepi.nwsource.com/local/65609_chemdepot08.shtml

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InsideDefense.com
April 9, 2002

DOD Envisions Seamless Shift Of Homeland Defense Roles To Northern Command

Senior defense officials told a Senate panel today that plans to create a U.S. Northern Command responsible for protecting the homeland are well along, and a "seamless" shift of homeland defense capabilities is expected once NORTHCOM is established.

U.S. Joint Forces Command chief Army Gen. William Kernan testified that the plan to switch JFCOM's maritime and land-security missions to NORTHCOM "is going along very well. Both Joint Forces Command and NORAD, collectively, have worked together to form an implementation plan," he told the Senate Armed Services Committee.

The North American Aerospace Defense Command will also probably shift to NORTHCOM oversight, allowing the new command to consolidate military homeland security under one commander. When directed by President Bush, NORAD and JFCOM "will put together the transition team, [and] allow that system to start standing up," Kernan said today.

"In the interim, we will maintain the responsibility to do the land and maritime security of the homeland, and NORAD the aerospace piece. It will be a seamless transition to NORTHCOM when they're ready to accept the mission," Kernan added.

Air Force Gen. Ed Eberhart, dual-hatted as NORAD and U.S. Space Command chief, has said Canada will probably figure prominently in the new command.

"I think everyone agrees, whatever we do, we need to do with [Canada] because of the common border" and air and sea approach routes, Eberhart said Feb. 6. Further, the two nations' military ties through the air defense command must be maintained, so "you don't want to undo NORAD" through the creation of the new command, he said.

Eberhart testified before the Senate last month that, because of NORAD, Canada needs to be a "full-fledged" partner in NORTHCOM.

But Deputy Defense Secretary Paul Wolfowitz was noncommittal when asked today when NORTHCOM's establishment and missions will be announced, or where the new command will be headquartered. When queried by Senate Armed Services Committee ranking member John Warner (R-VA) for specifics on a date for establishing the new command, Wolfowitz replied "I would hope fairly soon."

Similarly, asked if a decision had been made about where NORTHCOM should be headquartered, Wolfowitz said, "That's also being studied."

NORAD is based in Colorado Springs, CO, while JFCOM is headquartered in Norfolk, VA.

Asked by Sen. Daniel Akaka (D-HI) how the loss of some missions to NORTHCOM will affect JFCOM's role, Kernan said he anticipated minimal change. The command, now tasked with leading Pentagon joint experimentation efforts, would still organize, train and equip troops for homeland defense missions -- but operational responsibilities for homeland and maritime defense would simply shift to NORTHCOM, he said.

"I don't envision any change in [function] at all," Kernan noted. "What I do see is Joint Forces Command divesting its responsibilities of land and maritime security" to the new command, he said.

"Joint Forces Command will still have the responsibility to provide trained and ready forces for the homeland security, and that would be obviously under the command of Northern Command, [with] overarching responsibility for homeland defense," he said.

-- Adam J. Hebert

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InsideDefense.com
April 9, 2002

NORTHCOM Plan Complete, Awaits Rumsfeld's Signature

The chairman of the Joint Chiefs of Staff has submitted his plan for a Northern Command focused on homeland security to Defense Secretary Donald Rumsfeld, and defense sources suggest Air Force Gen. Ed Eberhart, the top officer at NORAD, is the principal candidate to lead the new organization.

The plan, which has been briefed to the chairmen and ranking members of the four congressional defense committees, had not been authorized by Rumsfeld at press time (April 9). However, sources said approval from Rumsfeld and President Bush is expected swiftly. A public announcement on the details of the plan and NORTHCOM's commander-in-chief is expected within a week, these sources added.

Defense officials said the command would likely be based in Colorado Springs, CO, which hosts the headquarters of the North American Aerospace Defense Command, U.S. Space Command and Air Force Space Command -- all housed at Peterson Air Force Base. The Army's Ft. Carson is also located nearby.

Eberhart heads NORAD, SPACECOM and Air Force Space Command (AFSPC). However, Gen. Lance Lord, former assistant Air Force vice chief of staff, is slated to assume command of AFSPC April 19.

Army Vice Chief of Staff Gen. John Keane had been considered among the leading candidates for the NORTHCOM slot, as reported by Inside the Army. Defense sources now suggest he may be in the running to lead U.S. Southern Command, which operates primarily in Central and South America.

Eberhart declined to comment on the status of the plan during an April 9 press conference at the 18th National Space Symposium in Colorado Springs. He did note that the location of NORTHCOM has generated significant discussion.

"I think the proximity to [Washington,] DC, is one of the factors, but it is not the overriding factor," he stated, referencing the monumental task before the new CINC of coordinating with the droves of government agencies and offices that contribute to homeland security.

The establishment of NORTHCOM is expected to have far-reaching ramifications for a number of other commands. The CINCs leading Pacific Command, Joint Forces Command and Southern Command each control operations in slices of North America and officials are considering a restructuring of those boundaries as part of a revision to the Unified Command Plan, according to some defense sources.

If the president does tap Eberhart to run NORTHCOM, U.S. Space Command would also feel the impact in the form of an empty four-star position. Some in the defense community have expressed concern over the effect a new four-star billet would have on its ability to staff existing slots of that grade. Some defense sources said a possible merger of U.S. Strategic Command, which executes the nuclear deterrence mission, and SPACECOM could mitigate the need for another four-star commander.

Eberhart declined during the press conference to provide details on a possible merger, but he noted that Pentagon officials are examining it as an option.

"I think there are several things at work here. I think the secretary is concerned about the size of staffs and the number of general officers. So, if he can in fact put commands together and it makes sense, I think he would be receptive to that," the general said. "Both commands are global in nature. They don't have any area-of-responsibility boundaries. So, I think it is one of these things that will continue to be looked at by the cooperative efforts of the staff of Strategic Command, U.S. Space Command, the Joint Staff, [and] the OSD staff."

Eberhart added that a "graybeard panel" comprised of retired general officers also is evaluating the possibility of a STRATCOM-SPACECOM merger "to see what the value added would be."

The fusion of STRATCOM and SPACECOM could integrate a number of global missions under the leadership of one general officer, defense sources suggested. SPACECOM is still refining its young computer network operations mission. And, although an agent to handle the information operations mission has not been named, SPACECOM officials have been supporting regional CINCs as they draw up battle plans for the war on terrorism, Eberhart said. Those responsibilities -- coupled with STRATCOM's nuclear forces -- could lead to a command focused on various aspects of deterrence, other defense sources suggested.

Questions still remain regarding the status of NORAD and how it would interface with NORTHCOM. NORAD is a bi-national partnership between the United States and Canada, and officers from both nations staff the command. Canada is well-placed to be an integral partner in a larger NORTHCOM effort.

Such an alliance, however, could require a commitment of forces from Canada, which has limited resources, to help provide a more robust defense of coastlines, for example. Additionally, NORTHCOM's potential involvement in missile defense could affect the country's relationships with allies that are hesitant to accept U.S. plans for development of a missile defense shield.

Eberhart acknowledged the tough choices ahead for Canada and suggested questions remain about whether the officer leading NORTHCOM would also command NORAD.

"I think the conventional wisdom right now says that the individual will be dual-hatted as [CINC] NORAD unless the Canadian government, or maybe until the Canadian government, decides that they are going to play full-up in NORTHCOM -- not just air defense, as they have since 1958, but in land and maritime defense," the general said. "If they decide to do that, I think you would probably see a command relationship, much like you see at NORAD today, where you have interspersed at NORAD Americans and Canadians."

-- Amy Butler and Erin Q. Winograd

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Vanity Fair
May 2002
Pg. 120

Iraq's Arsenal Of Terror

After surviving torture, another high-level defector has escaped Iraq. In this exclusive report, he details Saddam's progress toward truly frightening capabilities: "dirty" bombs that spew radioactivity, mobile bio-weapons facilities, and a new long-range ballistic missile

By David Rose

January 2000: a chilly afternoon in Baghdad. At the downtown headquarters of Iraq's Military Industrial Commission, the body responsible for arms development and purchase, its then chairman, General Amer al-Saadi, gathered 13 government officials around the boardroom table: scientists, soldiers, spies. More than a year had passed since the Iraqi president, Saddam Hussein, expelled the inspectors from the United Nations Special Commission (UNSCOM), the U.N. program designed to prevent Iraq from acquiring weapons of mass destruction. "Now we're a free country again," al-Saadi said. "We can do whatever we wish. We want you to work with full force, and you'll be in a race against time. You have to win this race. Everything you need, material or logistic, is available to you."

Al-Saadi, a plump, white-haired man in his early 60s, spoke for three hours. The course of the race, he said, was still unknown. Its finish line, however, was clearly fixed. What al-Saadi called "the Motherland" would win if those in the room reached their goal—a new generation of long-range ballistic-missile system, equipped to deliver chemical, biological, and eventually nuclear warheads.

Twenty-six months after al-Saadi's address, in March 2002, a man who says he was present—a man who has since escaped Iraq—is in a hotel in a Middle Eastern capital describing it for Vanity Fair.

This defector has disclosed new details of Iraq's programs for building missiles and weapons of mass destruction. Iraq is close, he says, to achieving a long-range missile capable of hitting the capitals of Turkey, Egypt, Cyprus, Iran, and Saudi Arabia. He has supplied new information about how the country has built a network of front companies, controlled by its intelligence service, to evade Western sanctions, and identified seven sites where chemical and biological weapons are designed, manufactured, and tested, and an eighth where nuclear weapons are again being developed. With evident pride, he describes the success of his scheme to build a fleet of virtually undetectable mobile biological-weapons trucks, indistinguishable in appearance from the vehicles used to carry chilled or frozen food.

On a map he traces the course of four specially reinforced roadways, in all about 500 miles in length, on which Iraq can turn its existing missiles into moving targets, firing them from mobile launchers in the event of war. The defector also describes Iraq's support for Hamas, the Palestinian terrorist group responsible for suicide bombings in Israel, and his journey to Africa to buy highly toxic radioactive material with which to build a "dirty," radiological bomb.

In the weeks before our interviews, this man, who left Iraq a year and a half ago, was debriefed in at least four lengthy sessions by U.S. officials from the Defense Intelligence Agency. He is hoping to find sanctuary for himself and his family. Meanwhile, Vanity Fair has copied and translated some of the documentation he supplied to his U.S. interrogators. It includes the paperwork produced to establish his cover as a journalist and a 22-page report on military radar systems from the organization to which he once belonged—Iraq's security and intelligence service, the Mukhabarat.

Although Vanity Fair cannot independently verify all the defector's claims, experts on Iraq say they are consistent with other established information and appear to be credible. Charles Duelfer, the former deputy chairman of the UNSCOM mission in Iraq, who continues to monitor the region at the Center for Strategic & International Studies in Washington, has reviewed all the defector's testimony at the request of Vanitv Fair. He says, "I haven't found anything to make me disbelieve him. What he describes is consistent with what we know about how Iraq operates, both in terms of building weapons of mass destruction, and in terms of its efforts to procure the necessary equipment and materials. His evidence tells us that Iraq's weapons-of-mass-destruction program has only accelerated since UNSCOM was expelled from the country in 1998."

A tall, slim man in his late 30s, the defector says he was trusted with sensitive positions early in his Mukhabarat career. Although an interpreter is present to ensure accuracy throughout our interviews, he speaks passable English, and often answers my questions without waiting for their Arabic translation. After he graduated from Baghdad's School of National Security in 1986, he says, his first job was with the division responsible for government

ministers' security—in the sense not of providing them with personal protection, but of keeping them under surveillance for the least sign of dissent. In 1992, he says, he was transferred to what Iraq called the Directorate for Secret Organizations and Relations—the department which, among other functions, provided support and training for terrorists from abroad.

There were two foreign groups for which he was personally responsible, he says. The first was the Iranian opposition force, the Mujahideen e-Khalq, which during the l980s maintained at least 20,000 fighters inside Iraq, where it helped suppress the 1991 Shi'a uprising. The second was the Popular Front for the Liberation of Palestine, which carried out a long string of murders and hijackings up until the early l990s. Its founder, George Habash, was a visitor to Baghdad, the defector tells me, and at least 50 of his colleagues lived there. However, by the early 90s, the Popular Front's place in the terrorist pantheon was being usurped by a still more deadly formation—Hamas, perfecters of suicide bombing.

Evidence of links between Iraq and Hamas has surfaced before. It is known that Saddam sends $10,000 to the family of each "martyr" who kills himself in a suicide attack. In an official communiqué, Hamas refers to "brotherly Iraq," and during the lull in Palestinian-Israeli violence that followed the 1993 Oslo peace accords, Hamas threatened to kill civilians in Israel if the U.S. made any move against Iraq. The defector's testimony reveals the true depth of the Iraq-Hamas connection. It places Iraq squarely on the front line of President Bush's war on international terrorism: even without the added factor of weapons of mass destruction, this might be held to justify a U.S. attack.

Hamas had a subdepartment all its own in the foreigners' directorate, he says, and throughout the time he worked there, the Mukhabarat provided Hamas with a full-time office in the Karrada Dakhil district of Baghdad. A stream of Hamas fighters learned skills in Iraq, with successive classes of between 5 and 30 students trained at the Salman Pak terrorist camp, south of Baghdad, and at a similar facility in the Diyala district of northeastern Iraq. In those locations, in addition to the normal curriculum of sabotage, assassination, and train and airplane hijackings (see "Inside Saddam's Terror Regime" in the February 2002 issue of Vanity Fair), a fellow Mukhabarat officer gave Hamas members instruction in a further specialty: suicide bombing. "Many weapons were being supplied to Hamas," the defector says, "guns, ammunition both heavy and light, detonators, and explosives. It was Iraq which trained Hamas in how to make bombs."

The defector says he was ordered to embark on a very different kind of mission in October 1994. Before the Gulf War, Iraq had come close to building an atomic bomb: under a fast-track scheme Saddam had sponsored, it would have rushed out a crude device using fuel from its nuclear reactors. In his book Saddam's Bombmaker, published in 2000, Khidhir Hamza, Iraq's former nuclear-program chief, states that while this bomb would have been too heavy for a missile warhead, it could have been used "for a demonstration test, or, as we discovered to our horror, Saddam's plan to drop one unannounced on Israel." But Iraq's Gulf War defeat and the consequent imposition of the UNSCOM inspectors caused a series of reverses. The U.S. destroyed Iraq's last uranium reactor in 1991.

The defector's 1994 mission was apparently undertaken to help remedy this deficit. He shows me his passport: the stamps confirm he left Iraq for Amman, the capital of neighboring Jordan, on October 17, 1994. In all, he says, there were three in his party: himself, a Mukhabarat colleague, and a scientist.

In Amman, the embassy liaison officer, a Mukhabarat operative, gave the three men new passports. They traveled to Khartoum, the capital of Sudan, and changed passports again: now they were supposedly businessmen from the United Arab Emirates. Next stop, by the Italian airline Alitalia, was Rome. From there they flew to Algiers, and thence, finally, to Dar es Salaam, Tanzania.

Joined there by more Iraqis, they drove into the bush to an isolated house, where they were met by five Eastern Europeans: Russians, the defector believes, or possibly Ukrainians. "They had a trunk made of heavy metal, about a meter long, so heavy they could barely lift it. They had a sports bag and took out gloves, face masks which were like gas masks, and a small electronic gadget. They opened the trunk, and the scientist bent over it. Inside were what looked like pieces of black rock, glittery." Some were the size and shape of fingers; others looked like lumps of coal. The scientist examined them with a handheld device. The defector says that unlike a Geiger counter, this made a bleeping sound when placed near the material. Satisfied, the scientist ordered that the trunk be resealed. He treated his hands, his face, and the trunk with decontaminants, the defector recalls. One of his colleagues opened his briefcase. Inside were neat stacks of $100 bills. He handed the case to the Eastern Europeans.

"The Ukrainians left first," the defector says. "Then four Iraqis I'd never seen before entered and left with the trunk. We went to the airport and back to Amman via Tunis, Brussels, Rome, and Khartoum. We changed passports again at the embassy. Later I was told the merchandise had reached Baghdad safely."

The defector admits he is no technician, and some nuclear experts are skeptical of certain details in his account. But according to the same experts, the "fingers" of black material sounds like a description of spent reactor fuel rods cut into sections, which could be used to build a "dirty," radiological bomb—a conventional explosive surrounded by a layer of radioactive material, designed to spew across a wide area. Charles Duelfer, the former UNSCOM deputy

chairman, adds, "The defector's description is consistent with what we know about Iraq's attempt to continue its nuclear program. Iraq has demonstrated it is interested in building dirty weapons of this kind." Iraq unsuccessfully tested at least one such bomb in 1987-88, in the closing stages of the Iran-Iraq War.

Far easier to build than a full-fledged nuclear device, a dirty bomb would kill its victims slowly: those who survived the initial blast would be at risk of developing cancers after inhaling or swallowing the radioactive wrapping, which the explosion would reduce to fine particles of dust. A dirty bomb could also be delivered to its target in many ways. A small device might be detonated inside a suitcase or lodged beneath a car; larger bombs could be fired from a missile or dropped from an airplane.

As the Monterey Institute of International Studies noted last year, a dirty bomb planted by a terrorist in a city such as New York would cause a "nuclear panic" out of all proportion to the number of its victims, although it would kill far fewer than the 100,000 who might be expected to die immediately in the event of a small atom-bomb blast over Lower Manhattan.

The man seated before me says that, in September 1996, he was promoted and moved to a new posting, attached to a special commercial department of the Military Industrial Commission. Iraq's weapons-development-and-procurement programs were in a state of upheaval. Their former overseer, Hussein Kamel, Saddam's son-in-law and formerly one of his confidants, had fled to the West, where he gave intelligence agencies many damaging details of Iraq's secret programs. Then, apparently feeling homesick, Kamel had unwisely chosen to believe Saddam's promises that all would be forgiven if he would only return. He was murdered together with his father, two brothers, his sister, and her two young children after a long gun battle at a brother's home in Baghdad. Kamel's wife, Saddam's daughter, survived. His mother was killed two years later. Henceforth, weapons acquisition came under the direct control of Saddam and his son Uday.

That summer, this new defector says, the Mukhabarat began to form and operate a network of commercial companies. It had three purposes. The first was to raise currency to buy military hardware abroad through what amounted to a huge money-laundering scam that would take advantage of the U.N.'s "food for oil" program. Under the program, Iraq is allowed to import a limited range of nonlethal items paid for in kind with oil. The Mukhabarat's firms, which had branches in Iraq, Jordan, and the United Arab Emirates, sold these items—trucks, cars, food, building materials, and electronics, as well as more obscure goods such as spare parts for flour mills. No matter if the people of Iraq were further impoverished as a result: just one of the thousands of individual deals concluded in this way might raise as much as $20 million for arms procurement, the defector says. He gave me a list of 10 firms, together with the names of some of their directors and office addresses. He believes they are all still in business. The network is controlled by Saddam's son Uday, who takes a personal commission on every deal. "To import or export anything in Iraq, you need a license from [Uday's office at the Iraqi] Olympic Committee," the defector says.

The companies' second purpose, he says, was smuggling. "Why do you think televisions and refrigerators imported from Jordan go to Iraq via Dubai?" he asks. The reason, he says, is that in a Mukhabarat front-company warehouse in the United Arab Emirates Iraqi agents open their casings and stuff them with items banned under U.N. sanctions, such as fiber-optic cables and electronic components destined for military use. Finally, the front firms were used to buy military equipment and raw materials.

The defector says his job within this network was control and liaison: to watch what the companies were doing and, after collecting shopping lists from the Iraqi military and the Military Industrial Commission, to tell them what to do. "I might be in a meeting with the commission. They'd say they needed missile covers, carbon fiber, supercomputers, missile ignition systems, electronic parts, thermal lenses for radar receivers, fuel for missiles." In flagrant breach of U.N. sanctions, this man and his colleagues would try to ensure that these needs were met.

His cover—what Iraqi spies call their "legend"--was elaborate. The Mukhabarat had established a weekly business newspaper, al-Iqtisadi, purely as a way of providing camouflage for its agents' activities. The paper—which is on sale in several Arab countries—is produced by an editorial group in Baghdad. Like most of its supposed journalistic staff, the defector never wrote a word. The paper gave him freedom to travel, a pretext for applying for foreign visas, and a plausible reason for making visits to Iraqi businesses abroad.

His letter of credentials, signed by the paper's supposed editor, Muhammad Jafar Dawood, states: "Al-Iqtisadi weekly newspaper authorizes [name withheld] to contact Jordanian ministries, companies and establishments to conduct interviews and write reports and collect subscriptions and commercial advertisements. He is also authorized to receive cash and cheques in his name which he endorses and cashes according to official receipts issued by al-Iqtisadi newspaper. We appreciate your assistance to facilitate his mission."

Charles Duelfer, the former UNSCOM deputy chief, says the defector's information about front companies is new, credible, and important. Equally significant, in his view, is the defector's testimony about biological weapons. Despite his relatively junior rank—the equivalent of a major—he apparently had access to the most secret parts of Saddam's schemes for mass annihilation. In the summer of 1996 he found himself at a meeting with Dr. Rehab

Taha, also known as "Dr. Germ," a female scientist in charge of Iraq's biological weapons. At this time, UNSCOM had not yet been expelled, and he came up with a plan to enable these weapons and development programs to evade detection, then and in the future. "They had the same problem as any stationary facility," the defector says. "I suggested we go for mobile units."

He says he and Dr. Taha wrote a report for Saddam, who rapidly approved it. He organized the purchase of eight heavy Renault trucks from France—a perfectly legal deal carried out through Iraq's Ministry of Commerce. At the secret al-Iskandariyya facility in the Hilla Province, engineers converted them into factories of mass destruction. "They look like meat cars, yogurt cars," he says. "And inside is a laboratory, with incubators for bacteria, microscopes, air-conditioning." It was a good idea, I say grimly. The man beams and says in English. "Thanks a lot!" Yet he got no reward for his ingenuity, he complains. "Had I been a Tikriti [a member of Saddam's tribe, from the area north of Baghdad], I would have been given a new Toyota."

Much worse than mere ingratitude was to come. One day in 1997, he says, he was with a friend, buying a present for his wife, when the store owner, a devout Shi'a Muslim, asked him to use his official connections to secure permission for printing a religious newspaper and theological texts. A religious man himself, he saw no political danger in helping out, and he obtained permission from the Ministry of Information. But in the paranoid climate of Iraq, the Mudiryat al-Amn al-A'ma, archrival to the Mukhabarat, believed that the Shi'a printing scheme was really a conspiracy to topple Saddam. The defector was one of 29 supposed plotters arrested in September 1998. He says he was tortured and interrogated for the next six months.

He shows me some of the scars. On his left eyelid is a bump where he says the Mudiryat al-Amn al-A'ma's Russian-trained chief torturer, known as "the Shuffler," attached a crocodile-clip electrode. Another was clipped to his genitals. His feet and ankles bear scalpel scars: he says that after puncturing his veins his tormentors used bands to compress his thighs to squeeze the blood from his legs. He says he also endured sexual abuse. For a time, he was held in a cell once occupied by the British journalist Farzad Bazoft, who was executed on trumped-up spying charges in 1990.

On the wall, Bazoft had scrawled his name and a warning: DON'T SPEAK. THERE'S A MICROPHONE HIDDEN IN THE WALL.

On several occasions, the defector says, he was tied by his arms in a standing position to the bars of his cell. "You could stay like that for 10, 15 days, for everything, eating, drinking, and ... you know." There were psychological techniques: he was shown a video of children aged from 5 to 10 being tortured, with the threat that the same fate might await his own family if he failed to confess.

But he says he didn't confess, and by the middle of March 1999 his interrogators were satisfied he was telling the truth. He spent another three months in much more comfortable conditions, in order to allow him to recover from his injuries, and in July he was released. The Mukhabarat gave him a month's leave. And then, entrusted with the most sensitive tasks of his entire career, he went back to work. Khidhir Hamza, the nuclear scientist, says such treatment is common in Saddam's Iraq: some of his colleagues in the nuclear program also got their jobs back after being tortured. "As long as they find nothing, it's normal," he says. "Maybe they give you some kind of gift to make it up to you."

The regime assumes that brutalizing its servants in this way will keep them loyal through a mixture of greed and fear. "They believe that if you're jailed and you come out clean they can use this as a warning," the defector says. In his case, the worm turned. Freed from jail, he resolved to gather as much information as he could and, when the opportunity arose, to flee.

Before his incarceration, most of his work was concerned with the Mukhabarat front companies' efforts to raise hard currency. Now his focus shifted, and he says he found himself indoctrinated into Iraq's deepest secrets: its attempts to renew its arsenal of weapons of mass destruction, and build a new long-range-missile system with which to deliver them. Before the Gulf War and the arrival of UNSCOM, he says, the facilities which had worked to achieve these ends were concentrated in industrial areas near Baghdad. Now they are widely dispersed. Missile development and testing takes place at the Saad 23 compound at al-Falluja, the defector says, while at Hatteen, near al-Musayyib on the road south from Baghdad, Saddam's experts work to develop missile fuel. He lists the other facilities of which he has personal knowledge: electronic guidance systems at al-Harith, in the Kadhimiyya district of Baghdad; missile bodies at Abu Ghraib, south of al-Harith; a chemical-weapons factory at Samarra: a biological laboratory at Waziriyya, a suburb of Baghdad; heat-resistant foils and coatings at Ur, the birthplace of the prophet Abraham, in southern Iraq; chemical warheads at alMusayyib; warhead propellants and covers at the Taiq factory near Taji. Charles Duelfer says the defector's list is "highly credible" and tallies with other information he has in his database, which goes back to the time of UNSCOM's mission.

Like many who have escaped Iraq in the last decade, the new defector has been brought to the notice of Western intelligence agencies by the Iraqi National Congress, the opposition group funded by the U.S. State Department,

which has its headquarters in London. At the end of 2001, it also arranged the defection of Adnan Ihsan Saeed al-Haideri, a building contractor whose firm worked on several Iraqi weapons-of-mass-destruction sites, who has now been given refuge in the West. Nabeel Musawi, an Iraqi National Congress agent, says much of the information provided by the two defectors is mutually corroborating. "Neither man knows what the other has told us," he said, "but they're saying the same thing about weapons types and where they're being made."

According to the defector I interviewed, Iraq's renewed attempts to acquire nuclear weapons are concentrated on a project code-named al-Bashir at Fahama, a populous residential area of Baghdad. There, he claims, scientists—some of them foreigners, from countries including Ukraine—have examined the possibility of re-creating the small, 20-megawatt "Isis" reactor the U.S. destroyed in 1991. The former Iraqi nuclear scientist Khidhir Hamza says that such a reactor, based on the model which enabled India to build its atomic weapons, would produce enough plutonium to build a bomb in approximately two years. However, he believes it unlikely that Iraq would rebuild Isis, saying a more probable route is through using techniques for enriching uranium in which Iraq is already skilled. If it were to acquire the necessary machinery, he says, Iraq already has the knowledge and equipment to use the resultant weapons-grade uranium 235 to produce an atomic bomb.

The defector says that, had he not decided to flee Iraq, his next mission would have been an attempt to procure items for the al-Bashir nuclear project. However, most of his final year as a Mukhabarat officer was spent working on the next generation of Iraqi ballistic missiles. His particular task was a top-secret program, codenamed Tammooz.

The terms of U.N. cease-fire resolution 687, which ended the Gulf War, allow Iraq to possess missiles with a maximum range of 93 miles—not far enough to hit any significant target outside its borders, with the exception of al-Kuwait, the capital of Kuwait. It is already known that up to 40 longer-range "Hussein" missiles, an adapted form of the Scud B system used against Israel during the Gulf War, survived the inspections of the 1990s. The defector says they are hidden around the country on mobile launchers in hangars and on farms with trees to conceal them from aerial surveillance. In the event of war, they would be rolled out along the four specially reinforced roads. These he traces on the map: the highway south from Baghdad to al-Hilla, and the roads from al-Hilla to al-Nasiriyya, from Baghdad east to al-Falluja and al-Ramadi, and, in the south, from alKut through al-'Amara to Basra. The missiles can be fired "from anywhere on these lines," he says. "The roads are reinforced with rocks under the asphalt, and renewed three times in a 21-month cycle."

However, deadly as a Hussein missile equipped with a biological or nerve-gas warhead might be, its range is limited to about 400 miles. And this can be achieved only at a stretch: the unmodified Scud will fly no farther than half this distance. With such a weapon, Iraq can hit Israel, as it proved in 1991, but other targets remain beyond its reach. The new Tammooz system, the defector says, has been designed with an initial range of 600 to 700 miles, far enough to hit Riyadh, Saudi Arabia; Ankara in Turkey; Cairo and Alexandria in Egypt; Nicosia in Cyprus; and Teheran, capital of Iraq's historic enemy, Iran. Later models may extend this by up to another 500 miles—far enough to reach targets across a swath of southern Europe.

By the summer of 2000, the defector says, the Tammooz project was about halfway complete. The first and second stages of the rocket had been built and tested, using steel and carbon fiber imported illegally through the Mukhabarat's front-company web. If Iraq had managed to acquire the supplies it needed, he says, it might have been ready to test a finished missile by the middle of 2001. Traveling via Amman, using his journalistic cover, the defector arrived in Dubai on a mission designed to achieve that end on August 18, 2000. His assignment there was to make all the necessary arrangements for a visit he was scheduled to pay later that month with four Iraqi scientists to Beijing, China, in order to try to buy the outstanding Tammooz components.

In Dubai, he met his Mukhabarat contact, who took him to the Hotel InterContinental Dubai. An hour after checking in, he departed. And then he disappeared.

The defector gazes out the window, then holds his head in his hands. Sometimes his fear is palpable. Did I think he had done the right thing by defecting? he asks. "I'm walking a way I don't know where," he says. "Maybe my road is dangerous." He sighs. "Maybe somebody will save me." At the time of this writing, the opposition Iraqi National Congress is working to rescue members of his family who remain inside Iraq. "I trust my friends in the I.N.C.," he says, "but I'm so alone here."

It was the Iraqi National Congress that organized my interview with this defector--just as it had introduced me in Beirut to the former terrorist trainer Abu Zeinab al-Qurairy, whose story was published in this magazine's February 2002 issue. As I have come to know its operatives across the Middle East, it seems to me they resemble nothing so much as the Underground Railroad, the clandestine network which rescued slaves from the American South before the Civil War. In Washington, State Department officials have criticized the Iraqi National Congress, suggesting it amounts to little more than a bunch of pampered exiles with no real presence or support in Iraq and the surrounding region. My own dealings with it make me question that view. My impression is of a highly organized and motivated

group that is able to cross borders to retrieve documents and human beings without detection—and with a network of safe houses, agents, and sympathizers inside Iraq who are prepared to run considerable risks.
As the defector and I spoke, over two long days in March 2002, the debate in the West on what, if anything, to do about Iraq and Saddam Hussein was feverish. Once President Bush had described Iraq as part of an "axis of evil" in his State of the Union address, some kind of intervention seemed inevitable. At the same time, there were powerful voices urging restraint: in the liberal media; in the capitals of Europe; in the State Department and C.I.A.
The defector's information only intensifies the dilemma posed by the persistence of Saddam Hussein. This account of the ease with which Iraq appears to have evaded U.N. sanctions to date does not make one confident that the so-called smart sanctions now being proposed as a means of curbing Saddam's military ambition are any more likely to be effective. At the same time, Saddam's alleged willingness to use a nuclear weapon against Israel before the invasion of Kuwait suggests that the global strategic threat that his possession of weapons of mass destruction represents is not theoretical, but real.
But how far have the Tammooz missile and other programs progressed? How effective are his chemical and biological weapons? How ready are his regime's servants to activate a strategy that might see the Middle East afflicted with biblical destruction in the event of a U.S. attack? On an accurate Western assessment of such questions much may depend.
In a guarded hangar at Saddam International Airport, according to the defector, Hussein keeps a private jet and helicopter in constant readiness: their purpose is to facilitate his flight from Baghdad when the day of reckoning comes. It remains to be seen, assuming he can find someplace willing to let him land, whether he will choose to use that option or to burn in the fire which may now be very near.

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London Daily Telegraph
April 10, 2002

Nuclear Warning Angers China

By Colin Joyce in Tokyo
China reacted angrily yesterday after a senior Japanese politician said that bullying by Beijing could prompt Japan to produce thousands of nuclear warheads at short notice.
Ichiro Ozawa, the leader of Japan's opposition Liberal Party, said in a speech: "We have plenty of plutonium in our nuclear power plants, so it's possible for us to produce 3,000 to 4,000 nuclear warheads if we get serious, we will never be beaten in terms of military power."
China branded the comments as irresponsible. A foreign ministry spokesman said the remarks "contradicted hopes for peace and long-term friendship between the two countries and peoples". The timing of the speech has caused particular embarrassment to Japan, coming just days before a visit to China by prime minister Junichiro Koizumi, who is expected to meet China's prime minister, Zhu Rongji.
The remarks also coincided with a visit by China's parliamentary chief, Li Peng, who was in Japan to mark the 30th anniversary of the restoration of diplomatic relations between the two countries.

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Washington Times
April 10, 2002
Pg. 13

Moscow Slams U.S. Over Disarmament Cutbacks

By Nicholas Kralev, The Washington Times
The United States and Russia were at odds yesterday over a U.S. decision to curtail some disarmament projects because of concerns about Russian compliance with treaties banning biological and chemical weapons.
Moscow expressed "bewilderment" with Washington's decision, which it called "incomprehensible," and insisted it is observing both pacts.
It also accused the United States of undermining the disarmament efforts both sides have been waging for years.

"Such actions can have the most negative impact on achieving mutual trust and can be reflected in the two countries' cooperation in liquidating weapons of mass destruction and in the sphere of nonproliferation," said Foreign Ministry spokesman Alexander Yakovenko in a statement.
But U.S. officials brushed aside the harsh words and said the Russians "seem to have received the message" that the Bush administration is serious about complying with the biological and chemical weapons conventions.
At stake are some military exchanges and U.S. help in preventing the theft of Russian nuclear warheads. Such programs are part of a $370 million effort initiated by Congress in 1991 under the Cooperative Threat Reduction Act.
Under current law, the U.S. government has to certify each year whether Russia is committed to abiding by existing arms control agreements.
A State Department official said the administration had requested that Congress adopt legislation to allow a waiver of the annual certification requirement.
The waiver option would still allow the administration to show concern over Moscow's commitment but would not block funds for disarmament projects.
Until then, however, "new funds may not be obligated, and we are not signing any new contracts with private vendors that provide hardware and services," the official said in an interview.
"Ongoing projects will continue until the contracts expire," and they will not be renewed until either the waiver comes into force or the administration is satisfied with Russian compliance, he said.
The administration informed Moscow of its decision several weeks ago, the official said, but it didn't become public until an article about it appeared in the New York Times on Monday.
The decision was prompted by a series of recent actions by Moscow, including its refusal to share a bioengineered strain of anthrax developed by Russia's scientists despite repeated promises to do so, the paper said.
Russia has also declined to provide a complete history of the decades of secret work on biological and chemical weapons during the Soviet era.
But in Moscow, Mr. Yakovenko dismissed those accusations and said any problems between the former foes should be discussed before making decisions with serious consequences.
"One gets the impression that the American references to Russia's supposed nonfulfillment of its international obligations are being used basically in order to distract attention from the United States' own actions," he said.
Daryl Kimball, executive director of the Arms Control Association, said it is vital that Russia and other states comply with chemical and biological weapons agreements, but it is not in the U.S. security interests to "stymie efforts to safeguard nuclear stockpiles in Russia."

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Seattle Post-Intelligencer
April 8, 2002

Weapons Labs Given A New Mission

Los Alamos and Sandia have been revved up again to develop anti-terrorism devices

By Sue Major Holmes, The Associated Press
LOS ALAMOS, N.M. -- With the demise of the Soviet Union, America's nuclear weapons laboratories lost much of their mission.
The United States and Russia agreed to cut back stocks of nuclear warheads and ratchet down the targeting of each others' cities. They even stopped testing new bombs.
But after Sept. 11, the Department of Energy's aging weapons labs -- Los Alamos National Laboratory is almost 60 years old -- got a new vocation: developing counterterrorism gear.
The two New Mexico weapons labs, Los Alamos and Sandia, have embarked on projects including collar cameras for rescue dogs, explosive-sniffing robots and anthrax-killing foam.
Now it appears their old expertise, nuclear bombs, may also be returning to vogue.
The U.S. military has asked Sandia and Los Alamos to design a new bunker-busting nuclear bomb, one that can destroy underground command-and-control centers or stockpiles of chemical or biological weapons.
The Bush administration's new Nuclear Posture Review, leaked to the news media in February, fingered Russia, China, Iran, Iraq, Libya, North Korea and Syria as countries that could conceivably be targets for such new nukes.

For the two weapons labs in New Mexico, the first impetus to jump into anti-terror technology stems from an attack closer to home.
After the 1995 Oklahoma City bombing -- in which two Americans were convicted and one executed -- lab scientists began girding for the possibility that terrorists might someday build, buy or steal a nuclear bomb.
Government logic postulated that scientists who design America's bombs know the best way to detect nuclear or other hazardous materials and somehow prevent a terrorist-mounted nuclear assault.
The labs' scientists have hatched several anti-terrorism projects, including:
A device that physically dismantled and preserved evidence of a bomb that authorities say airplane passenger Richard Reid carried in his shoe in December.
A method of pinpointing genetic strains of anthrax and other deadly germs through DNA analysis.
An anthrax-killing foam used to decontaminate buildings in Washington, D.C., and New York.
Tiny cameras on rescue dogs' collars used in search missions in the wreckage of the World Trade Center.
The Sand Dragon Robot, a wheeled metal device fitted with an explosives-sniffing sensor.
Air monitors at the Salt Lake City Olympics that checked for signs of a bioterrorist pathogen.
An early warning computer network for public health officials to spot trends in infectious diseases.
New Mexico's two weapons laboratories each enjoy $1.6 billion budgets and provide a combined total of some 14,000 jobs -- big numbers in one of the poorest states in the country.
For people here, the war on terrorism has meant employment.
Sandia hired more than 600 people last year and officials expect to add a similar number this year. Los Alamos is expected to hire 1,000 workers this year.
The Bush administration's push in counterterrorism is already showing up in lab budgets. This year, Los Alamos has about $100 million for research and development into such technology. Los Alamos Director John Browne expects that to increase to $116 million in fiscal year 2003.
Research on "bunker-busting" nuclear bombs is expected to bring $15 million a year for three years to the two New Mexico labs and the nation's third weapons lab, Lawrence Livermore in California.
Los Alamos began in 1943 as a top-secret project to develop the world's first atomic bomb.
Sandia, its design and engineering stepchild, traces its beginnings to a bunch of engineers in prefab buildings surrounded by junked World War II planes in the Albuquerque desert.
It became a separate lab in 1949.

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USA Today
April 9, 2002
Pg. 3

'Thousands' Could Be Anthrax Suspects

Investigators say mastermind of attacks may be a top scientist

By Kevin Johnson, USA Today
WASHINGTON — Potential suspects with the scientific expertise to carry out last year's deadly anthrax attacks are believed to number in the "thousands," far more than the dozens previously reported, a senior federal law enforcement official said Monday.
Continued study of samples of the deadly bacteria has convinced investigators that initial suspicions that the attacks that killed five Americans last fall were carried out by a disgruntled lab employee with limited scientific know-how now must be revised.
The sophisticated nature of the anthrax, especially a finely milled sample mailed to U.S. Sen. Patrick Leahy, D-Vt., last November, has led investigators to focus on the laboratories capable of turning out such specimens.
There may be hundreds of such labs in the country, the FBI has concluded.
Federal authorities said Monday that the investigation remains focused in the USA, though they have not ruled out the possible involvement of a foreign laboratory or researchers.
Earlier this year, investigators believed that the anthrax attacks likely were carried out by a person of lesser professional expertise, perhaps a technician or researcher with access to the bacteria and only basic knowledge about how to handle it without infecting oneself.

For a time, investigators studied personnel records of present and former lab workers, searching for persons with a motive to mail the deadly powder.
Authorities say they do not expect the case to be solved soon.
Five Americans believed to have been exposed to anthrax-tainted mail in Florida, New York City, Washington, D.C., and Connecticut died after being infected last October and November. Another 22 recovered from anthrax infections.
Of the thousands who may possess the knowledge to handle the bacteria, authorities declined to say exactly how many have drawn closer scrutiny. Federal officials continue to say it is unlikely that the anthrax attacks were linked to the terrorist strikes on Sept. 11. The Leahy anthrax continues to receive special attention from investigators. It caused no injuries but was said to be potentially even more deadly than samples that were mailed a month earlier.

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International Herald Tribune
April 9, 2002

Russia To Resume Nuclear Shipments

By The Associated Press
MOSCOW--After months of debate over prices, Russia will resume shipments of nuclear fuel from Soviet-era weapons to the United States this month for use in U.S. power plants, Russia's nuclear energy minister said Monday.
The shipments are part of a U.S.-funded program to keep nuclear materials out of terrorists' hands.
The program appeared to be in jeopardy after the previous contract for the fuel expired at the end of last year.

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Insight Magazine
April 29, 2002

Troops Vulnerable To Missile Attack

By Marvin Leibstone
It has been more than 10 years since Operation Desert Storm, when Iraqi leader Saddam Hussein fired Scud missiles against targets in Israel and Saudi Arabia, yet the number of deployable U.S. systems to counter even a modest barrage of modernized theater ballistic missiles will be far from adequate for some time.
Today's forecast is that Iraq, Iran and North Korea -- President George W. Bush's so-called "Axis of Evil"-- soon will be maintaining more than 1,000 Scud-type missiles each, while U.S. systems to counter an attack in likely war zones with greater than 98 percent "hit" assurance are just emerging from development.
Though delivery of U.S. theater ballistic-missile defense systems had started under former president George H.W. Bush before the 1991 Iraqi Scud attacks, their subsequent slow pace of development can be traced to a Clinton White House which, by denial and indifference to the severity of the threat, opened the door for those in position to strike U.S. forces with ballistic missiles.
Not that the Clinton security team did nothing, say defense experts. Rather, it waited three years after Desert Storm before it selected a design for the badly needed antimissile system, a roughly $2.1 million per unit Patriot Advanced Capability-3 (PAC-3). Then it sat on its hands while Lockheed Martin took more than seven years to roll out the first operational PAC-3, ironically in September 2001.
The Clinton plan called for U.S. forces to have more than 2,000 PAC-3s in U.S. Army inventories within a decade. Right now, the Army has less than 50 -- barely one-fifth of what Pentagon experts say is needed to match the strike inventory of likely adversaries.
According to an industry source, "With faster system selection, better funding during the Clinton years and an earlier green light for production from a Clinton-softened Pentagon, many more PAC-3s could have been fielded by now, as much of the PAC-3 is built from available parts."
Army units at war today have to rely on the PAC-2 configuration to counter Scuds and similar missiles carrying conventional, nuclear or chemical warheads. The PAC-3 is more accurate, using a kinetic warhead that strikes

incoming missiles like a bullet hitting a bullet. Exact PAC-2 and PAC-3 ranges are classified data, but each is capable of intercepting enemy missiles far from war zones being protected.

What no one in the know even bothers to deny anymore is that, in light of missile-system advances that have taken place around the world since 1991, the Clinton administration rolled the dice with the lives of U.S. troops and mission success. The potential consequences of this neglect will diminish with each PAC-3 that the Army receives, say Pentagon insiders. But, short of a production miracle, the needed antimissile capacity won't be in hand for several years until the Army has more than 1,000 PAC-3s.

Why the delay? Clinton-era strategists were confident that U.S. airpower could pre-empt Scud deliveries by striking enemy launch systems. But this requires precise intelligence; it means identifying launch-site locations with precision easily thwarted by relatively primitive subterfuge, ranging from hiding the platforms in caves to moving them around on trucks.

True, as one intelligence-agency source put it, "Lots of target information comes from overhead satellites, unmanned aerial vehicles, surveillance planes, radar and audio technologies. But, to complete the job, human-intelligence assets are required, and hardly any exist today where they are needed most." Another analyst argues, "Lack of sufficient Clinton-administration backing for recruitment of more spies further harmed antimissile security by increasing, in turn, the need for more-powerful antimissile defense systems like the PAC-3, speedy development of which the Clinton people paid little attention to."

The excuses given for the slow antimissile progress during the Clinton era included not enough funds, the need for more research and testing, fear of rogue states responding by increasing their missile arsenals and maybe striking U.S. targets early on, the high priority Clinton advisers put on the war in Yugoslavia and the need for reform of systems procurement before big budget changes could be made.

Given the nature of the threat posed by the growing arsenal of theater missiles in the hands of likely adversaries, it is hard for critics to believe that any of these explanations is anything more than an excuse for the longtime opposition of Clinton liberals to antimissile platforms of any kind, a hangover from their polemical crusade to block homeland missile defense as a Star Wars fantasy.

As a practical matter, Pentagon sources insist, the theater-defense systems could and should have been deployed long ago. A Pentagon weapons-acquisition specialist tells Insight: "In most cases since World War II, the development through production cycle for major defense systems has been more than seven years, but for combat systems needed soonest it just doesn't have to take this long."

According to Pentagon policy sources, most of these reasons appear as logical steps along an illogical path taken by Bill Clinton, his National Security Council and his secretaries of state and defense. That route was supported by U.S. and allied studies of the mid-1990s that said neither Iraq, Iran, North Korea nor any other terrorist-supporting state or group could be in position to attack U.S. forces with mid- or long-range missiles for at least 20 years, for they lacked accurate systems to do the job. These studies raised the merest possibility that rogue scientists from Russia or China might help to develop or sell advanced equipment to these countries, enabling them considerably to improve range, accuracy and lethality of their missiles. But the Clinton team was encouraging high-tech trade with both Moscow and Beijing and did not emphasize this likelihood, further justifying the slowed PAC-3 development.

At the Pentagon, missile-defense advocates were waiting in line behind advocates for more fighter aircraft, surface ships and helicopters; all were fearing budget cuts. Those with a sense of urgency about rushing theater-missile defense systems to U.S. forces couldn't get a toe in the door at the White House or the Clinton-era Pentagon. Meanwhile, technologies and components from Russian and Chinese sources helped Iraq, Iran and North Korea field systems more formidable than the Scuds of the 1991 war to liberate Kuwait.

Also in the 1990s, advocates of theater antimissile systems were occupied with other attacks on the nation's defenses, say policy specialists in the defense think tanks. Was Clinton going to decide for or against a homeland missile defense? Would the Clinton administration keep cutting defense expenditures and equipment-procurement budgets? Should the U.S. Navy take the lead on theater ballistic-missile defense? Even its Aegis missile-defense system was under heavy attack from antimilitary activists who were part of the Clinton core constituency.

Military strategists couldn't plan and prioritize, say policy people, because the Clinton White House couldn't seem to make up its mind. This was the White House that twice delayed the decision to put the United States on track for a national missile-defense program, each time pushing the issue onto the next president's agenda.

Except for the decision to put U.S. forces into the former Yugoslavia and lead a NATO attack against the Belgrade regime, the Clinton White House tended to use U.S. military power mostly for domestic political purposes, say disgruntled policy insiders from that era. The beating that U.S. troops took in 1993 in Mogadishu, Somalia, when politicians prevented timely heavy support, fed the lawyering of military moves by the Clinton White House and what its critics called "paralysis from analysis."

From fear of repeating mistakes that led to the Mogadishu incident, decisions about defense programs and deployments forever were being stalled while Clinton appointees massaged this and that problem ad nauseam, critics say. Recommended plans for defense modernization were reviewed to death under Clinton, including a Donald Rumsfeld-led study confirming the desperate need for faster and more comprehensive antimissile development.
A Washington defense analyst puts it this way today: "About all that can be done for earlier best-possible protection of U.S. ground forces against Scud-type missiles is to surge production, giving the Army enough money to pay Lockheed Martin for wartime delivery of PAC-3s with longer day/night assembly-line activity."
There now are 5,000 U.S. soldiers in Afghanistan and about 60,000 in Central Asia and the Persian Gulf region. Speaking for the president recently, Defense Secretary Rumsfeld made clear that U.S. troops would not stay in Afghanistan for peacekeeping and risk escalation of the fighting, which could bring down missiles on the heads of unprotected U.S. soldiers. The bottom line here is that until enough PAC-3s are in place, U.S. forces either will have to pre-empt likely enemy missile strikes with airpower (there's little guarantee of success in this) or risk large numbers of deaths and casualties on the ground.
Marvin Leibstone is a free-lance writer for Insight specializing in defense issues.

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Jane's Defence Weekly
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US Homeland Security - On Guard In The USA

Following 11 September domestic defence of the USA is receiving unprecedented attention. JDW examines the moves under way

By Kim Burger, JDW Staff Reporter, Washington DC and Michael Sirak, JDW Staff Reporter, Washington DC
The scars of terrorism are found in the changes made by societies to counter it. In France, specially trained police patrol railway stations and nuclear plants. London has long gone without rubbish bins on its streets and underground transport system because of their potential to be used as bomb receptacles. Israeli airline El-Al is famous for its detailed and often lengthy security checks.
These signs are now apparent in the USA where a year ago the presence of armed guards in public places would have caused alarm. Since the 11 September attacks US military police clothed in camouflage sit in military vehicles with their gun sights fixed on civilian traffic passing by the Pentagon, determined the country's military headquarters will not again be made a terrorist target. Fighter jets fly over major cities, armed soldiers guard airports, and, for the first time, active-duty combat units have been put on alert to respond rapidly to domestic attacks anywhere in the country. Never before have such ground units been organised on a national scale for domestic missions.
The USA's realisation that it is vulnerable to a variety of attacks on its civilian population has motivated local, state and federal authorities to push for a national plan to prevent and respond to terrorism. The US Department of Defense (DoD), as part of this effort, is giving an unprecedented level of attention to domestic defence after decades of focusing on international threats. The military is just one player in a domestic mission largely handled by civilian agencies, but the armed forces will make crucial contributions in terms of manpower and expertise.
The USA's NATO allies recognise their vulnerability and are also reviewing their military capabilities to respond to 'global' terrorism. In the USA the precise role of the regular military and the National Guard - which has provided thousands of troops to domestic missions - will be determined in the coming months and years. However, while the US military's role at home has implications for its allies and other missions, any growth in this area will likely be tempered by the country's concern for civil liberties.
"We have recommended that the military specifically not be the first responder in any circumstance, although we believe that they should, in fact, be prepared and equipped and organised to come to the assistance of the states and the localities who, in fact, are the first responders, as necessary," said former Virginia governor James Gilmore, who headed a commission studying homeland security. "The role of the military has to be focused on its national mission of projecting power beyond the United States. That has been its traditional role." Second, when soldiers are seen patrolling the streets, "there's a feeling out there that you're being watched or that we are living in a different kind of state than we otherwise are used to living in", Gilmore added.
President George Bush created the US Office of Homeland Security after the 11 September attacks to lead the creation of a national counter-terrorism plan. Initiatives under way cover the entire spectrum of US law

enforcement, emergency response, immigration, transportation and national security. The office in March unveiled a new Homeland Security Advisory System, a national threat reporting system that is intended to improve communication of warnings and encourage government agencies to plan in advance. The DoD helped create the warning system, which is modelled on the military's use of force-protection levels.

The terrorist attacks came at a time when the DoD was struggling to adequately address potential national security crises on American soil. In the weeks after 11 September homeland defence was elevated to the DoD's number-one priority. The Bush administration is considering such things as building a system to protect against missile attacks and military officials are examining how to enforce quarantines, manage large numbers of casualties after an attack and assist with border security.

To support this work, President Bush has proposed spending $38 billion for homeland defence in Fiscal Year 2003. Within the DoD, $8 billion is earmarked for this purpose. This is a small portion of the overall $379 billion defence budget, but it represents a 47% increase in spending in that area. The DoD has budgeted a total $45 billion for homeland defence over the next five years.

"Some important homeland security functions are inherently military in nature, such as combat air patrols (CAP)," Steve Abbot, a retired admiral who is deputy homeland security adviser for the Office of Homeland Security, told Jane's Defence Weekly. Other functions "may demand unique military capabilities...The Department of Defense is the largest federal agency and the only one uniquely configured to surge in times of crisis. When those crises are domestic, our military may have a role to play in supporting agencies for which maintaining this kind of organic surge capacity is neither economical nor practical".

US troops have already contributed greatly to the security measures enacted when officials determined that further attacks were possible. US and Canadian aircraft fly CAP missions under Operation 'Noble Eagle', run by the North American Aerospace Defense Command (NORAD). At their zenith, the patrols involved more than 250 aircraft and 13,000 personnel daily. The DoD has deployed forces to secure the Winter Olympic Games and the Super Bowl, and National Guard troops are helping guard US borders with Canada and Mexico.

To some extent, the military's support of federal authorities is nothing new. The DoD has always been available to assist in domestic crises when overwhelmed state governments seek federal help. The National Guard, which can operate under state or federal control, has been deployed often for security missions as well as natural disasters. There are specialised units trained for weapons of mass destruction (WMD) responses, including the DoD's Joint Task Force - Civil Support and the National Guard WMD Civil Support Teams. "These guys were doing this all before for things like hurricanes, acts of God. What has changed since 11 September is that we have to be prepared to do these things for acts of Man," one senior US Air Force official said.

This has led the US armed forces to begin planning for the prospect of deploying significant numbers of troops at home. To co-ordinate this planning and to command such troops, the DoD intends to create a military command responsible for North America, dubbed Northern Command. In the meantime, US Joint Forces Command, which is currently responsible for land and maritime defence of the USA, in December earmarked US Army and US Marine Corps (USMC) units for rapid response to incidents occurring within US borders. The 'quick-reaction' companies and larger 'rapid reaction' battalions would provide general-purpose infantry forces to assist federal agencies and might work alongside specialised response units.

To date, most of the armed troops seen by citizens at home include the 53,000 plus National Guard troops that have been activated since September. While some are supporting the military campaign in Afghanistan, Operation 'Enduring Freedom', many are flying CAP missions, providing airport security and augmenting manpower at US borders. About 10,600 troops are operating under state control, while federal authorities command the rest.

In part because the National Guard has wide powers when operating under state control, US leaders view the reserve force as ideal for providing domestic security. "In many ways, such a role would return the National Guard more to what was envisioned by the founders of the country," said US Senator Dianne Feinstein in a 13 December hearing of the Senate Judiciary terrorism and government information subcommittee.

However, as US officials consider the long-term impact of dedicating resources to security at home, questions have been raised about whether support will be sapped from important military missions abroad. The same goes for the National Guard, which has a 'dual role' of serving state governments and the DoD as a strategic reserve force.

US defence officials say their new domestic activities augment their primary ways of protecting the USA: projecting power abroad and deterring attack. "Within the Department of Defense, we view our biggest contribution to homeland security as winning the 'war on terrorism' overseas," said Peter Verga, special assistant to Defense Secretary Donald Rumsfeld, at a 6 March House Armed Services military procurement subcommittee hearing. "Everything in the department that we do is, in fact, homeland security. The entire budget that we spend, all of our efforts overseas, are designed to secure the American homeland."

The emergence of international terrorism is leading US allies, particularly in Europe, to review their armed forces' capabilities to fight terrorism at home and abroad. The UK Ministry of Defence is adding a chapter to its 1998 Strategic Defence Review, addressing what capabilities and resources are required from the regular armed forces and the reserves (JDW 20 February). The NATO alliance as a whole is exploring how the military should best provide WMD protection and support in civil emergencies. NATO responded to the 11 September events by invoking Article 5 of its charter calling the attacks on the USA an attack on all members, and provided E-3 Sentry Airborne Warning & Control System aircraft to assist in surveillance over US skies.

"Military means alone are not sufficient to address the terrorist threat. But neither should their importance be underestimated. Indeed, the military is a potent and necessary part of the equation," said NATO Secretary General George Robertson at a NATO-Russia conference on the subject in January. France, Germany, the UK and other countries have also amended their codes or procedures to empower non-military domestic agencies to handle terrorists. However, concern for civilian authority has kept domestic responsibility for security largely in non-military hands.

In the USA, another pressure against a major deployment of military forces, or the military taking over the homeland security mission, is a 1878 law known as the Posse Comitatus Act. It is widely interpreted as a prohibition against federal forces enforcing domestic laws. Exceptions have been approved over the years, allowing the military to participate in counter-narcotic projects, for example. Some analysts say the law permits greater participation by armed forces in domestic security than has been practised. However, suggestions that military powers be expanded in the emotional aftermath of the 11 September attacks have garnered little public support.

Historically the armed forces have not been interested in domestic duties that detract from their international commitments. "[The] DoD uses 'posse comitatus' to stay away from missions they don't want to do," said Randall Larsen, director of the Anser Institute for Homeland Security in Washington, DC.

However, the DoD is clearly preparing to dedicate resources long term to create the new Northern Command. The funding increases generated by the country's interest in fighting terrorism may facilitate this. Those who study the threat of domestic terrorism have recommended the creation of a new command in the past. Because of the issues surrounding the use of armed forces on domestic soil, many advisers to the DoD argue a single commander could better plan for such a use of force and co-ordinate with other agencies. Others, however, have raised concerns that the command will unnecessarily take the military into a mission best left to civilian emergency and law-enforcement entities.

A number of significant issues must be resolved with the USA's neighbours, particularly Canada, to establish the continental command. The USA is considering making NORAD part of the Northern Command. Gen Ralph Eberhart, commander of NORAD and the US Space Command, said the USA and Canada are discussing expanding their NORAD relationship to include land and maritime co-operation. Canadian officials, however, are opposed to placing the country's armed forces under US command. A Canadian military spokesman said the government has not made an official decision on how to proceed and is awaiting specific information from the USA. The Northern Command is also expected to involve some co-operation with Mexico.

Despite additional funding, it is unclear how the DoD will support a new military command, and what the impacts will be on other activities. Already US military leaders are indicating that the 'war on terrorism' is straining forces. Gen Joseph Ralston, commander of the US European Command (EUCOM) and NATO Supreme Allied Commander Europe, told lawmakers on 20 March "we do not have the forces in EUCOM today to accomplish the missions" it is assigned. The command has not had an amphibious ready group or one of its aircraft carriers for months.

Operations in Afghanistan have also affected the US Pacific Command (PACOM), said Adm Dennis Blair, PACOM commander. "There are shortages of naval forces, of intelligence, surveillance and reconnaissance forces in particular that have to be made up for if we continue the current level of operations in the Central Command." Other military leaders have described "fraying" forces and called for additional personnel.

Air force leaders are seeking a way to ease the CAP missions now that airport security has improved. They are estimated to cost approximately $50 million per week. "It has a cost not only in terms of spare parts and fuel, but also wear and tear on airplanes - eating up the flight hours that they have been certified for," Gen Eberhart said. In March the DoD decided to phase out the continuous patrols and instead conduct random air patrols based on threat warnings.

The DoD, in a written response to questions about how homeland defence missions will impact on other operations, said missions are constantly under review to maintain a balance of resources. "The Department of Defense will realign forces, command structures and resources to protect the United States in every dimension, including land, sea, aerospace and computer network attack."

The National Guard embraces taking on the homeland security mission. However, it too is aware of the impact this could have on its other priorities, particularly providing the active-duty military with a reserve force. The guard is

tightly intertwined with state governments, and the heads of the National Guard in many states are also the lead emergency management officials. As such, officials also want to protect state control of the forces when not in use by the DoD. Leaders object to guard troops being activated for federal border patrol duties, which is outside their normal DoD missions. Although their presence on the border is intended to be temporary until border patrol agencies can hire more personnel, officials perceive 'federalising' troops sets a dangerous precedent.

In Congress, which has long shown great support for the National Guard, some lawmakers have proposed making homeland security the National Guard's top job while under state control and maintaining its status as a reserve force when needed by the DoD. There is interest in creating National Guard WMD Civil Support Teams for each state and providing each state with the latest communications and transportation equipment.

The US Coast Guard (USCG), another quasi-DoD asset, has significantly increased the number of security missions it has carried out in recent months and, as such, might be tapped for homeland security in the future. The coast guard falls under the US Department of Transportation in peacetime although it works closely with the US Navy. Its missions since September have included port security and watching sensitive facilities along the US coasts. There are proposals to put the USCG and other port and border agencies under the control of a new government agency in order to eliminate redundancy and improve co-ordination. It is unknown what effects this might have on the USCG's availability to the DoD.

Much of the DoD's participation in domestic security will not involve personnel. It is widely believed among US officials that the key to preventing future attacks is to find ways that the various local, state and federal agencies, as well as private entities, involved in managing the flow of people and materials into the country share information and co-ordinate their actions. One of the Office of Homeland Security's key goals is to produce "better shared access to what in the past has been looked at as 'information' not intelligence", Abbot said.

Creating a Foreign Terrorism Tracking Task Force is one example of work in this area. Its staff includes the Department of State, the Immigration and Naturalization Service, the Federal Bureau of Investigation, the Secret Service, the Customs Service, intelligence agencies and military support components, Abbot said. It is intended to block entry of suspected terrorists into the USA and track those already within US borders.

US leaders also expect the armed forces to share their experiences in counter-terrorism as well as technology. NORAD has established links with Federal Aviation Administration radars to improve the surveillance of US skies. NORAD continues to refine its communications capabilities and is deploying portable radars to cover 'blind spots' inside the USA. The air force is leading a four-year DoD advanced concept technology demonstration to develop a mobile command and control vehicle to improve near-term capabilities against low-level air threats.

The armed forces will also help train civilian communities. Several regional testbeds are planned for local, state and federal law enforcement and first responders to co-operate with the military in exercises and training. The sites would also allow for operational evaluation and integration of technologies and procedures.

San Diego is one community vying for use as a national test site. "This region is uniquely suited for this task because of our multiple vulnerabilities to terrorist attacks and our diverse assets for homeland defence," said San Diego Congresswoman Susan Davis. The area includes US Navy and USMC facilities as well as a busy international border and nearby nuclear power plants. The DoD is also seeking industry input, including companies that have had experience in counter-terrorism in other countries. The DoD issued a broad agency announcement requesting proposals for homeland defence technologies, and received 12,500 responses. Many international and US companies responded to these requests, proposing products for DoD use, as well as systems that were developed with military requirements that could be applied to civilian use. Defence agencies, similarly, are considering how they might make systems available that could greatly enhance local law enforcement and rescue workers in a crisis.

Pennsylvania Congressman Curt Weldon chaired a hearing in March that included a demonstration of a variety of systems developed for the military that he would like to see shared with local and state emergency agencies. Even in natural disasters, such systems as thermal imagers could save lives by revealing the location of victims, he said. "Oftentimes, it's not having to go out and buy this [new for local authorities], it's knowing that it's available and where to go get it. And a lot of times what we've seen is the military develop absolutely incredible technology," Weldon said.

DoD officials do not anticipate ever taking the lead position in security at home. There is overwhelming support - among defence officials, lawmakers, advisers and other government leaders - for limiting the military's participation to providing support to the civilian agencies traditionally responsible for the job. Entities like the Federal Emergency Management Agency have been co-ordinating disaster response for years. Also there is recognition that it will always be the local and state authorities which are first on the scene of a threat or an attack, and will largely be in charge of any response.

However, seeing the threat first-hand - at the Pentagon, the World Trade Center in New York and the crash site in Pennsylvania - has changed the way the military approaches this duty.

"What I think is refocused is the reason we're doing what we're doing. What was brought home to us is because there is in fact a real vulnerability in the homeland," said a senior defence official involved in the discussions. "Just think about the psychological impact of a young pilot, who is flying an air CAP mission, understanding that he may at some point be called on to shoot down a civilian airliner" to prevent it from being used as a bomb, the official added. While the DoD has provided military support to civil authorities for years, 'it was something that didn't affect everybody in the military. But right now, I think everybody in the military is thinking, 'what if something happens in my local area, what would we do and how would we respond to it?'" It is a daunting task.

The role of National Guard goes under review

As the debate unfolds over the US military's role in homeland defence after 11 September, it is not a question of whether the National Guard will play an important role but rather the magnitude and scope of its contribution. "The guard has always been there for the country," said US Air Force Lt Gen Russell Davis, chief of the National Guard Bureau. "I think it is going to be very heavily involved in whatever we end up with as a strategy for [homeland defence]."

At the same time, Gen Davis said the overall goal is to empower local and state 'first responders' as much as possible, the military providing support when necessary. "Every mission is not a National Guard mission and every mission is not a military mission," he said.

Guard units form the militia of each state and territory. They have traditionally been the military's 'first responders', coming to the aid of local and state authorities during a crisis at the behest of a state governor. The guard also serves the dual role of supporting the active military.

In the civil support role, guard units provide civil engineering skills and medical evacuation capabilities and items like power generators, communications equipment and water purifiers. In 25 states the head of the National Guard component is also the state's emergency response director, facilitating civil-military co-ordination. These support services and activities are just as applicable in dealing with terrorist attacks as in mitigating the effects of natural disasters, say guard officials.

The guard, comprising about 350,000 army and 110,000 air force personnel, does operate some dedicated anti-terrorist units. It has 26 WMD Civil Support Teams (CSTs), with six more expected to be operational by early 2003. In addition to assisting civilian responders, these full-time, dedicated units, provide invaluable training to local 'first responders', guard officials say. Guard advocates, including some in Congress, support the creation of at least one WMD CST in each state and territory. Conversely, other homeland defence analysts believe funds would be better spent directly on the civilian 'first responders'.

These advocates also support the creation of dedicated homeland security forces, using a model similar to the WMD CSTs. The forces would serve as the channel of communications between the states' and the Department of Defense's (DoD's) nascent homeland command. Having a guard official as the deputy commander of this command would also serve this bridge function, these advocates say. Guard homeland defence units should have dedicated airlift capabilities, they add. These advocates say governors should retain control of guard units as much as possible under Title 32 authority, as they do in overseeing the guard's counter-narcotics activities.

Federalising these troops under Title 10 authority impacts guard combat training and would not allow the troops to fully assist civil authorities without violating the Posse Comitatus Act, which precludes federalised troops from performing law-enforcement activities. This issue has surfaced in the debate over using federalised guard troops to support civilian border control agencies.

Such moves are "simply not in our nation's interests", because they would significantly impact the DoD's combat force structure, said Maj Gen Timothy Lowenberg, adjutant general of the state of Washington.

Technologies that support the national effort

US Department of Defense (DoD) is sharing its expertise in counter-terrorism technologies with other government agencies by developing systems that support the national effort and by offering existing systems for civilian use. Eleven of the DoD's advanced concept technology demonstrations for Fiscal Year 2002 are intended for countering terrorism. One is a project to develop a command and control system for use in emergencies by 'first responders' and government agencies, featuring software programmable systems that will enable various agencies using different radios to communicate on the same network. A demonstration is planned with the city of New Orleans in April.

Information and communications technology is considered key to homeland defence. Many argue that better communication and data-sharing among government and private agencies is the most important thing the USA can do to prevent future attacks. The US Army draws attention to its Airborne Command and Control System as a way to improve interaction between civilian and military agencies and the US Air Force is developing unmanned air vehicles (UAVs) capable of hovering that might be useful for reconnaissance in cities.

Chemical and biological detection is another area of DoD expertise. The Defense Threat Reduction Agency (DTRA) is developing a biological agent detection system for urban areas in the USA, involving point detection and long-

range laser techniques. DTRA is designing a prototype for the Office of Homeland Security for deployment over a period of two to five years, said Stephen Younger, DTRA director.
The US Marine Corps-funded Center for Emergency Response Technology, Instruction and Policy at the Georgia Tech Research Institute is developing systems for use by 'first responders', including sensors for chemical-biological agent detection, tracking systems and a device capable of wireless transmission of patient information to a command post.
The defence industry is also marketing systems to both the DoD and other government agencies for use in homeland defence. This has included weapons systems for protection of critical infrastructure, the use of biometrics for identification, communications radios, sensor and radar systems and security cameras.
Additional reporting: Andrew Koch, JDW Bureau Chief, Washington DC

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Nuclear Sites Delay Tighter Security Plans

By Thomas Frank, Washington Bureau
Washington - Nearly three-quarters of the nation's nuclear reactor sites are seeking a delay in fully responding to tighter security regulations, a watchdog group said yesterday.
Edwin Lyman, scientific director of the nonpartisan Nuclear Control Institute, said the delays could mean the plants will not meet an Aug. 31 deadline to strengthen fortifications against a possible terrorist attack.
The Nuclear Regulatory Commission on Feb. 25 ordered reactors at the nation's 64 nuclear power stations to make about 30 security improvements, such as adding guards and extending perimeter barriers to prevent a truck bomb from causing a radioactive leak. The order marked a departure from the NRC's immediate post-Sept. 11 action when it suggested safety improvements but did not mandate them.
Reactors have until Aug. 31 to comply with the security upgrades and were supposed to give the NRC compliance plans by mid-March. But extensions of the mid-March deadline were sought by 47 of the 64 stations, including the Millstone Power Station on the Connecticut shore, 12 miles north of Montauk, according to documents reviewed by Lyman.
"If you have to do a computer simulation to assess whether your spent-fuel pool is safe from a truck bomb at the nearest vehicle barrier, then you can't say with confidence if the plant is safe," Lyman said.
William Dean, deputy director for the NRC division of inspection program management, said 29 of the reactors sought extensions to conduct a detailed engineering analysis that would determine whether security upgrades were needed.
"We expected many would ask for a delay," Dean said. No plant operator has asked to exceed the Aug. 31 deadline, but Dean said, "That's not outside the realm of possibility."
The NRC plans to give power companies more time to prepare their plans, Dean said, but is talking with those that have sought the longest extensions to make sure they meet the deadline.
Glenn Tracy, the NRC's director of nuclear security, said the agency plans to adhere to the deadline because it may order additional security improvements shortly afterward.
Tracy said the agency initially issued advisories, which reactors generally complied with, though "there was some variability to what plants were doing."

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Newark Star-Ledger
April 8, 2002

Scientists Take Lead In Anthrax Sleuthing

FBI looks to lab work to trace deadly mail

By Kevin Coughlin, Star-Ledger Staff
On a trail gone cold, the FBI is betting heavily on science to lead it to last fall's anthrax killer.

The FBI's hopes ride on an Army lab in Maryland that has just begun accepting anthrax samples subpoenaed from research facilities around the country in February.
Working with outside experts, scientists at the U.S. Army Medical Research Institute of Infectious Diseases at Fort Detrick will study these samples for any genetic similarities to spores mailed from Trenton to the media and U.S. Senate in September and October.
They also seek clues from any additives used to turn the spores into the free-floating powder that killed five people, snarled mail delivery and panicked a nation already reeling from the Sept. 11 attacks.
But microbiologists cautioned against expecting too much from the results, which authorities expect within weeks. Even if DNA tests yield solid leads, they said, genetic fingerprinting of microbes is too new -- and error-prone -- for confidence in court.
"If I were a defense attorney, I would raise questions about the error rate of DNA technologies," said Abigail Salyers, president of the American Society for Microbiology.
The problem may be intrinsic to genetic analysis, said Jill Trewhella, whose biosciences division at Los Alamos National Laboratory is assisting the investigation.
To study snippets of DNA, scientists must make copies, so they have enough material with which to work. And replication invariably introduces errors.
"What's the degree of certainty you can have comparing a DNA sequence or chemical signatures of different labs? This is not known. It's happening now," said Salyers, a professor at the University of Illinois-Urbana.
Salyers plans a conference in June to discuss forensics guidelines for bioterrorism investigations. She said her society also may offer FBI agents crash courses in microbiology.
FBI Director Robert Mueller has cited painstaking efforts to establish clinical tests and protocols that will stand up in court.
The bureau consulted with scientists from the National Science Foundation and federal Centers for Disease Control and Prevention, and tested procedures using anthrax substitutes.
"We have extremely top-of-the-line experts in pathogens, molecular biology and analytical chemistry," said Van Harp, who heads the FBI's investigation.
Still, he knows this is unknown terrain for forensics.
"Each day we're writing a page of a new book," Harp said.
A $2.5 million reward, more than 5,000 FBI interviews and appeals to the public have not flushed out the killer. Now, science takes center stage.
"We all agree that the scientific analysis will be the key to identifying the source of the anthrax, and putting the pieces together," said Kevin Donovan, former head of the FBI's Newark office and now leader of the bureau's New York operation.
Central to the sleuthing is a hunt for subtle variations in the DNA of the suspect anthrax that might distinguish it. Inevitably, changes occur over time. Authorities hope these can be traced to a specific laboratory. But anthrax is stubborn.
"The average mutation rate for (Bacillus) anthracis is really, really slow," said Trewhella , of Los Alamos National Laboratory.
One promising technique for studying anthrax, honed by Paul Jackson of Los Alamos and Paul Keim of Northern Arizona University, is called Multiple Locus Variable Number of Tandem Repeat analysis -- MLVA for short. Basically, it's a search for specific strings of DNA that repeat themselves. The number of repeated sequences may distinguish one batch of anthrax from another.
An even more detailed method screens for differences between single "bases" within a sequence -- variations called Single Nucleotide Polymorphisms, or SNPs.
Yet, finding these sequences and SNPs is a needle-in-the-haystack challenge: The molecular blueprint for anthrax consists of a DNA strand with more than five million bases.
Keim told a science conference in Las Vegas that he can tell apart five samples of Ames anthrax -- four from labs, one from a goat -- by telltale changes in their plasmids.
A plasmid is a secondary ring of DNA, containing genes that make anthrax toxic.
But another expert believes Keim will need help tracing the "craftsman" behind the attacks.
David Franz, former commander of the U.S. Army Medical Research Institute of Infectious Diseases, told a conference in February that the help is coming from a nonprofit lab in Maryland.
The Institute for Genomic Research (TIGR) began mapping the entire genome of the Ames strain about two years ago.
Then, the National Science Foundation hired TIGR last fall to sequence the anthrax that killed Florida photo editor Robert Stevens.

TIGR has shared its findings with the FBI, and soon will publish them in a scientific journal.
By comparing these two road maps -- the complete Ames genome and full genome of the Stevens sample -- scientists hope to discover more regions of the genetic haystack where differences may reside. Then, investigators can zero in on anthrax samples from labs in the U.S. and abroad.
Samples have been subpoenaed from 12 to 20 research centers nationwide, including the University of New Mexico and Louisiana State University.
While investigators are re-examining possible anthrax ties to the Sept. 11 terrorists -- two may have sought treatment for anthrax-like conditions in Florida last year -- their focus remains domestic.
The FBI still suspects a loner with insider ties to the U.S. military, who knew the Trenton area well enough to mail at least four tainted letters from there.
Letters sent to Democratic Sens. Tom Daschle and Patrick Leahy contained anthrax "'so highly developed" that it required expertise and a lab, Attorney General John Ashcroft told Fox News last month.
Scientists assisting the probe would not discuss it, but others described tools and techniques almost certainly being used.
Spores from the anthrax letters can be scrutinized for residues from the soupy broth of proteins, carbohydrates and vitamins used to grow the bugs. Such recipes may differ among labs, Salyers said.
Electron microscopes, liquid chromatography and mass spectrometers are used to identify materials, said Elaine Pagliaro of the Connecticut Forensic Science Lab. A flow cytometer from Los Alamos, meanwhile, could be 100 times faster than other DNA sequencing tools.
A powerful arsenal -- but nobody feels cocky.
"We're all learning," said the FBI's Donovan. He noted how scientists initially doubted cross-contamination of mail with anthrax -- a scenario now suspected of killing women in New York and Connecticut.
"There's a great deal of biology we don't understand," TIGR President Claire Fraser told a conference in Boston.
Franz, the Army's former top bug man, and a former weapons inspector in Iraq, agreed.
"In cases like this," he told reporters, "you need a break. Someone (who) saw something."

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Stratfor.com
April 9, 2002

China Downplaying Japan Nuclear Issue ... For Now

Summary -- The Chinese government has reacted quietly to recent comments by a Japanese opposition leader that Japan could quickly become a nuclear power if challenged by Beijing. But its public response belies China's deep-seated concern over Japan's future military evolution. Although Beijing looks at Japan as an emerging threat, its leaders are deliberately playing down the issue in the near term as they adjust to the post-Sept. 11 shift in U.S. foreign policy and focus on catching up with China's neighbors.
Analysis -- The Chinese government has offered only muted responses to comments made last weekend by a Japanese opposition leader, who said that Japan could quickly become a nuclear power if challenged by Beijing. China's official People's Daily ran just a brief article citing Liberal Party leader Ichiro Ozawa's statement, while Foreign Ministry spokeswoman Zhang Qiyue said the remarks "were provocative, representing an outdated cold war mentality just as the two countries were celebrating the 30th anniversary of the establishment of diplomatic relations," Xinhua news agency reported.
The apparent lack of concern masks Beijing's deep-seated fear by of a resurgent Japanese military in Asia. Yet this is a long-term issue, and right now Beijing has more pressing problems, including the drastic shift in U.S. foreign policy after Sept. 11. Beijing is downplaying the remarks and hoping to delay a confrontation with Japan while it focuses on strengthening its political, economic and military development.
The future of China and Japan is arguably one of the most important issues shaping the policies and actions of other countries in the region. China, the world's most populous nation, is facing massive social strains, economic change and political stagnation. Japan, the world's second-largest economy, is mired in a financial spiral that, by most accounts, should have already led to the country's financial collapse by now.
Tensions between these two unsteady giants threaten to upset the balance of power in Asia and ripple throughout the world. Both Beijing and Tokyo eye each other as competitors for regional economic and political power, and historical animosities still play a strong role in their bilateral relations.

China has long been concerned about the resurgence of Japanese militarism, a fear heightened most recently by Tokyo's assistance to Washington in the war against terrorism. For its part, Japan views China's sheer size and proximity as a potential security threat, and the economic boom in China -- at a time when Japan is rapidly fading -- only exacerbates Tokyo's concerns.

Ozawa reiterated such fears during a speech April 6, in which he said, "China is applying itself to expansion of military power in the hope of becoming a superpower ... following the United States," Japan's Kyodo news service reported. Ozawa cautioned that should China become too "conceited," Japanese people could get "hysterical." The result, he added, is that "if Japan desires, it can possess thousands of nuclear warheads …. If that should happen, we wouldn't lose [to China] in terms of military strength. What would [China] do then?"

The timing of Ozawa's statements was perhaps as potentially inflammatory as the content. This year marks the 30th anniversary of Chinese-Japanese diplomatic relations, and Li Peng, China's number-two leader and standing committee chairman of the National People's Congress, just wrapped up an official visit to Japan.

Furthermore, the speech came less than a week before Japanese Prime Minister Junichiro Koizumi is scheduled to visit China as a keynote speaker at the Boao Forum for Asia April 12, where he will also meet Chinese Prime Minister Zhu Rongji. Koizumi is slated to talk about regional economic cooperation and Japan's security role in Asia.

Under normal circumstances Ozawa's speech should have sparked a much larger outcry from Beijing. His comments were certainly not as strong as a 1999 statement by Shingo Nishimura, Japan's former vice defense minister, that Japan should have nuclear weapons. But Beijing's mild response -- offering little commentary in the state-run media and leaving a Foreign Ministry spokeswoman to make a public statement two days later -- is telling of the regime's current priorities and concerns.

Whereas a year ago, China was recognized as an emerging regional power capable of standing up to the United States, including detaining the crew of a U.S. surveillance plane, Beijing now is finding it extremely difficult to readjust to Washington's post-Sept. 11 foreign policy. China's worst fears of a unilateralist United States are apparently coming true, and Beijing is ill prepared to deal with it. The government's reaction to Ozawa's provocative statement must be viewed in this light.

Any talk of accelerating Japan's inevitable move away from its post-World War II pacifism raises serious concerns in Beijing, be it over the possibility of a nuclear Japan, advancements in Tokyo's H-2A rocket program or the deployment of Maritime Self Defense Force vessels to the Indian Ocean to back up U.S. military operations. By downplaying Ozawa's speech, Beijing hopes to brush the issue under the rug, particularly in Japan. The best-case scenario for China is that the comments do not stir further debate inside Japan on the issue of its future nuclear status.

This would allow Beijing the time it needs to catch up. As the Chinese government tries to decipher Washington's new global policy, and figure out how China fits into it, the regime is also preparing for a shift in leadership later this year. These pressing issues, coupled with the ongoing struggle to minimize the socially destabilizing effects of China's economic opening and reforms, are a priority for Chinese leaders. Although Japan's military remains a long-term strategic concern, Beijing wants to delay dealing with this as long as it can.

China is taking the same path with another key regional competitor -- India -- as with Japan. With both nations, Beijing has launched a conciliatory policy, seeking to accentuate economic cooperation while downplaying political and security differences.

Overall, China's shift in relations with Japan and India reflects its desire to buy time, to build up its own political, economic and military strength before pressing its strategic differences with its neighbors. Until China firms up its leadership transition and figures out how to relate to Washington's new foreign policies, Beijing will continue to walk a fine line in dealing with Japan and its other neighbors while never losing sight of the long-term strategic conflicts that may arise.

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Washington Times
April 11, 2002
Pg. 1

Al Qaeda Sought Nuclear Scientists

Professors hid radioactive matter

By Julian West, The Washington Times

KABUL, Afghanistan — Two Afghan nuclear scientists, in the strongest indication yet that al Qaeda was trying to construct a nuclear bomb, have revealed how the terrorist group attempted to recruit them.

The scientists disclosed how they had risked their lives by hiding radioactive materials, sufficient to make dozens of "dirty bombs," in the ruins of the old Aliabad mental hospital in Kabul and in the grimy basement of Kabul University's nuclear physics department.

Last week, a team of specially trained British soldiers equipped with state-of-the-art instruments were led to the caches by the two nuclear physicists.

What they found astounded them.

There was a broken radiotherapy machine, containing enough cobalt 60 to kill a man instantly, in the lead-lined cancer treatment room of the hospital.

In the basement of Kabul University, there were containers of solid and liquid radioactive material, some broken or with the lids off; chemical warfare agents; and instruments emitting radiation.

"We've been finding stuff that's far more potent and dangerous than even 'dirty bombs,' which are made of nuclear waste," said Capt. James Cameron, who heads an eight-member team from the Joint Nuclear, Biological and Chemical Regiment, based in Bury Saint Edmunds, England, which also monitors the activities of Iraq's Saddam Hussein from Kuwait.

The team is in Kabul to protect the international peacekeeping force.

Capt. Cameron said much of the material was left over from the Soviets, "who used far higher doses of radiation than we would." Some of the containers were damaged by the Afghan mujahideen in the early 1990s, he said.

"But al Qaeda and the Taliban never knew about it. The atomic scientists tore up their papers and never said a word," Capt. Cameron said.

Last week, the two Afghan scientists, Mohammed Jan Naziri, a professor of applied nuclear physics, and Jora Mohammed Korbani, a nuclear physics professor, revealed how they had concealed their knowledge from the Taliban.

They said that in 1996, when the Taliban militia first entered Kabul, they and some other colleagues on the faculty had gathered all the radioactive sources and instruments they could find from the university's laboratories and stored them in the nuclear science faculty's basement.

Because they had no radiometers and no protective clothing, the scientists moved the items as carefully as they could, storing them between sheets of lead. They then tore up their research documents and papers on atomic physics.

"We didn't really know how radioactive some of the sources were," Mr. Naziri said. "We just tried to protect them."

Initially, the Taliban came to the university and simply registered the names of all the professors in the nuclear physics department.

"They didn't understand anything about physics or what we were doing, but we knew they were looking for physics and chemistry experts," Mr. Korbani said.

Then, one day a man from Kandahar, the Taliban's heartland and Osama bin Laden's main base, came to talk to the scientists at the faculty.

Mr. Naziri said he refused to talk to the man, whom he described as "an Arab who spoke Pashtu and Farsi poorly." He said he asked the man for official letters of request from the Foreign Ministry or the university and told him he couldn't do anything without the Atomic Energy Authority's permission.

"We never saw him again," Mr. Naziri said.

Meanwhile, Mr. Korbani, who lost his job a year after the Taliban took Kabul, was approached by a mysterious aid agency called the "Chand Groupi," or "Multi Group," which operated out of a house in Kabul's Wazir Akbar Khan district, where bin Laden kept several safe houses and where many Arab al Qaeda fighters lived.

The agency operated separately but was linked to the Ummah Tameer-e-Nau charity, run by the renegade Pakistani nuclear scientist Sultan Bashiruddin Mahmoud, who the CIA has called "bin Laden's nuclear secretary." Mr. Mahmoud is currently under house arrest in Pakistan.

Although evidence found by the Sunday Telegraph last November — and more recently, the joint team headed by Capt. Cameron — in Mr. Mahmoud's house revealed that he was engaged in an experiment to float a helium balloon filled with anthrax over the United States, the Multi Group was clearly attempting to construct a nuclear bomb.

"They said to me, 'We know you're working for the faculty of nuclear science, and we need you,'" Mr. Korbani said. "They offered me a lot of money and said that they wanted me to find 100 other nuclear scientists and technicians and come to Karachi."

Mr. Korbani was then asked to write a paper on atomic energy.

"They told me, 'Pakistan has a very powerful atomic bomb, and we are very keen on bringing such a power to Afghanistan,'" he said. The men told him that people in Pakistan's tribal areas would pay for the program. "They kept calling me, but I never returned [the calls]. I knew it was too dangerous."
Capt. Cameron said there was little doubt that al Qaeda and the Taliban were attempting to make chemical weapons. If not for the Kabul University scientists, al Qaeda might have successfully constructed several "dirty bombs," he said.
Unlike a conventional nuclear bomb, in which atoms are split to produce a massive explosion, a dirty bomb is simply a conventional bomb wrapped in radioactive material.
A dirty bomb is much easier to produce because it requires only a conventional explosive plus some radioactive waste, such as spent fuel from a nuclear power plant or radioactive material used in medicine.
"The Taliban would have given their eyeteeth for the stuff these men were hiding, and if they'd found it, I hate to think what they'd have done," Capt. Cameron said.

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Washington Post
April 11, 2002
Pg. 2

Nuclear-Tipped Interceptors Studied

By Bradley Graham, Washington Post Staff Writer
Defense Secretary Donald H. Rumsfeld has opened the door to the possible use of nuclear-tipped interceptors in a national missile defense system, reviving an idea that U.S. authorities rejected nearly three decades ago as technically problematic and politically unacceptable.
William Schneider Jr., chairman of the Defense Science Board, said yesterday that he had received encouragement from Rumsfeld to begin exploring the idea as part of an upcoming study of alternative approaches to intercepting enemy missiles.
"We've talked about it as something that he's interested in looking at," Schneider said in an interview.
The Pentagon experimented with nuclear-armed interceptors in the 1950s and 1960s and, for a short time in the mid-1970s, deployed an anti-missile system that relied on them. But the notion of nuclear explosions going off high overhead to block incoming missiles proved unsettling for many people. And the prospect that ionized clouds and electromagnetic shock waves associated with the explosions could end up blinding radar on the ground and scrambling electronic equipment eventually helped kill the plan.
Since then, defense officials have focused on developing interceptors to destroy targets without the need for explosives, relying instead on the force of direct impact, a concept known as "hit to kill."
Driving the new interest in arming interceptors with nuclear devices is the problem of dealing with decoys and other measures that an enemy might use to confuse an interceptor, Schneider said.
The hit-to-kill approach depends on interceptors picking out the real enemy targets and homing in on them. By contrast, nuclear-armed interceptors need not distinguish actual targets from clusters of decoys but could rely on explosive power or radiation to wipe out everything in the vicinity.
One other arguable advantage of nuclear interceptors, Schneider suggested, is their potential for ensuring destruction of missile-borne biological warfare agents such as anthrax.
President Bush has made clear his interest in pursuing technological solutions to missile defense, removing long-standing constraints by deciding last December to withdraw the United States from the 1972 Anti-Ballistic Missile Treaty with Moscow.
The Pentagon has embarked on experimental anti-missile programs, including land- and sea-based interceptors as well as airborne lasers and space-based weapons, with the hope of having at least a rudimentary capability in place by fall 2004. But until now, defense officials had shied away from the nuclear option.
An extensive Pentagon review of missile defense alternatives undertaken in the first months of the Bush administration raised the possibility of nuclear-tipped interceptors, according to two officials familiar with the review. But the idea failed to make the list of programs worth funding.
Its return comes in the context of other recent signs of the administration's general readiness to consider broader uses of nuclear weapons. A Pentagon review of U.S. nuclear policy, concluded late last year, put new emphasis on

possible nuclear strikes against Third World adversaries and backed development of low-yield nuclear bombs to hit hardened or deeply buried targets.
Russia, which built a missile defense system around Moscow in the 1960s that survives to this day, relied from the start on nuclear-armed interceptors. Although U.S. defense experts regard the Russian system as anachronistic, Russian military officials worry that the United States will eventually adopt the nuclear approach, according to Pavel Podvig, editor of an authoritative book about Russian strategic nuclear forces published last year by the Center for Arms Control Studies in Moscow.
"They believe strongly that you cannot get an effective missile defense system using hit-to-kill," Podvig said.
The Defense Science Board, set up in the 1950s, is a senior advisory body that reports to the secretary of defense on technological, operational and managerial matters. One of its task forces already is looking at some aspects of missile defense, including command and control systems, international cooperation and countermeasures such as decoys. Schneider said he plans to initiate the review of nuclear interceptors and other alternatives to hit-to-kill after the task force completes its study this summer.
"The issue hasn't been looked at for about 30 years," said Schneider, a consultant and undersecretary of state for security assistance under President Ronald Reagan. "The last test involved a four-megaton device on a Spartan interceptor in 1971."
Richard L. Garwin, a senior fellow at the Council on Foreign Relations and prominent missile defense skeptic, said nuclear interceptors still pose several significant technical problems.
"When you actually look at the question, you find that it takes a very large warhead – more than a megaton – to destroy anthrax spores in bomblets that may be spread over a distance of five kilometers or more," he said.
"Worse, there are hundreds of civilian satellites as well as many U.S. military satellites vital to our national security that would be imperiled by nuclear explosions. And there are electromagnetic pulse vulnerabilities in an advanced society such as ours that would occur to any point within line-of-sight of the nuclear explosions."

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Inside The Pentagon
April 11, 2002
Pg. 1

Rumsfeld Weighs Giving NORTHCOM Control Over All U.S.-Based Forces

In a series of briefings slated for this week and next, Defense Secretary Donald Rumsfeld is weighing proposals to give the military chief of the new U.S. Northern Command operational control over all forces based in the continental United States, military officials tell Inside the Pentagon. Such a move would effectively strip the existing U.S. Joint Forces Command of that responsibility and hand it to a brand new military organization charged with guarding the U.S. "homeland" from land, sea or air attack.
Northern Command -- dubbed NORTHCOM in Pentagon shorthand -- will almost certainly be situated in Colorado Springs, CO, military officials say. Virtually all the options being presented to Rumsfeld for decision bypass earlier suggestions that the new command be based in the Washington, DC, area, according to these key sources.
Some had argued that a capital-region location for NORTHCOM would allow the military to more effectively coordinate with the Cabinet-level civilian homeland security director and with federal civil agencies that, in almost every case, would take a lead role in homeland security matters.
But the notion that the new military command should be located in the vicinity of the vast command and control apparatus of the North American Aerospace Defense Command -- built during the Cold War inside Colorado Springs' Cheyenne Mountain to stand watch for a potential Soviet bomber attack -- has apparently prevailed with the defense secretary and his top deputies. It appeared early this week that none of the services would strongly oppose the decision on location, despite earlier qualms in the Army and elsewhere.
"I think the proximity to [Washington], DC, is one of the factors, but not the overriding factor," Gen. Ed Eberhart, the commander of NORAD and the U.S. Space Command, said April 9. InsideDefense.com reported his comments from a press conference in Colorado Springs.
NORAD played a key role in fielding an air defense response in the minutes following the Sept. 11 terrorist attacks on New York and Washington, coordinating closely with civil authorities at the Federal Aviation Administration.

But, pending the creation of NORTHCOM, no single command has yet been given responsibility for handling all manner of air, sea and land threats to the United States. That is a problem the Pentagon civilian and military leadership have sought to rectify since the very first days following the September attacks (ITP, Sept. 20, 2001, p1).
All options going to Rumsfeld this week for a final decision have NORAD subsumed by U.S. Northern Command, with the NORTHCOM chief likely "dual-hatted" as the NORAD commander. That arrangement would allow for Canada to play a continued key role in continental defense, and would leave room to include Mexico as well, as is intended, defense sources said.
How a new NORTHCOM commander-in-chief, or CINC, would perform sea and land defense responsibilities is not quite as clear yet, nor is it certain how much control the homeland security chief will have over U.S.-based forces.
Currently, Joint Forces Command, or JFCOM, retains responsibility over maritime and ground threats to the United States. And JFCOM, which controls more than 80 percent of air, land and naval forces based in the United States, has been the command to which all other regional combatant commanders-in-chief must go to utilize these forces in their respective areas of responsibility.
Rumsfeld may opt to leave JFCOM's force allocation responsibilities unchanged.
But some defense officials argue that in a crisis -- should the United States come under another surprise attack like the one last fall -- the NORTHCOM chief should have defense forces at his immediate disposal. Having to work through another layer of command at JFCOM could involve unnecessary delay and complication -- and potentially lives lost.
On the other hand, were NORTHCOM to "own" U.S.-based forces, there is serious concern in the military that this CINC might husband substantial numbers of vital units for his own homeland security mission, even if there are more pressing needs for the same forces elsewhere around the globe.
For example, if the U.S. Central Command chief asked the NORTHCOM commander for an infantry brigade, would he necessarily get it? After all, it could almost always be argued that defense of the U.S. homeland takes priority over military needs abroad.
The counter argument is that the Joint Staff effectively serves a mitigating role in vetting CINC requests for forces, and as such would not allow NORTHCOM to hoard forces that were required for foreign operations. But this role for the chairman of the Joint Chiefs of Staff is more de facto than de jure, and the potential exists for one CINC to strongarm another, military officials say.
Another lingering question is how forces might organize, train and equip for the homeland security mission. Many experts believe that while the military may play a critical role in protecting the U.S. public from attack, it is important that this function remain the principal domain of civil agencies like the FAA, Customs Service and FBI.
"The civilians are in charge of the homeland security mission," said retired Air Force Col. Randall Larsen, in an April 9 interview. "The Department of Defense will support the lead federal agencies, and [the military will] play a small but important role inside the United States. But emphasize 'small.'" Larsen is director of the Institute for Homeland Security at ANSER, a private consulting firm.
Military officials working the issue at the Pentagon echo Larsen's view, but at the same time want to ensure the armed forces of the future are much better prepared to defend against domestic attacks than they were on Sept. 11.
Going into the briefings for Rumsfeld early this week, there were five very different options for command arrangements below the level of the four-star NORTHCOM commander-in-chief. One military official described each of the options as "fairly complicated command structures," noting that with more time, more efficient arrangements might have been drawn up.
But the Pentagon's senior leadership has grown weary of discussing NORTHCOM organizational options over the past several months, and that factor may, in part, prompt Rumsfeld to make a final decision on the details within the next week, officials say. After initially agreeing on what was needed, the Joint Chiefs of Staff became bitterly divided several months ago over the details of how best to manage homeland defense.
Many of those disagreements have since abated as the contours of a final decision have emerged, defense officials say.
For his part, the defense secretary has put great stock in capping the quantity of unified commanders and their headquarters staffs, and is determined not to further bloat the military bureaucracy in creating a new command for homeland security.
Rumsfeld decided in January to create a new NORTHCOM rather than simply assign the mission to an existing command, a story ITP broke in the Jan. 17 issue. But "the idea is to get fewer CINCs, not more," said one issue expert this week.
At several Pentagon meetings leading up to the impending decision, Rumsfeld has repeated his commitment that "not a single new staff officer will be created out of this move," this source said.

That perspective has the support of at least one former member of the Joint Chiefs. "We should see if we could [stand up NORTHCOM] without creating any new commander, and maybe even reduce the number of commands in the process," former Air Force Chief of Staff Gen. Merrill McPeak told ITP late last year.
At the same time, there is much talk of merging two existing combatant organizations -- U.S. Space Command and U.S. Strategic Command -- a proposal that has been considered for several years but, until now, shelved. Defense officials said Rumsfeld's interest in consolidating headquarters staffs to offset NORTHCOM's creation has moved this idea once again to the front burner.
"I think the secretary is concerned about the size of staffs and the number of general officers," Eberhart said at this week's news conference. "So, if he can, in fact, put commands together and it makes sense, I think he would be receptive to that."
Eberhart added that "both commands are global in nature. They don't have any [regional] area-of-responsibility boundaries." He said the Office of the Secretary of Defense and Joint Staff are continuing to study the possibilities along with the Strategic and Space commands.
The "short list" for NORTHCOM's first commander reportedly includes Eberhart (ITP, Jan. 17, p1). Sister publication Inside the Army has reported that Army Vice Chief of Staff Gen. John Keane has also come under consideration.
Another possible change in the command plan is that U.S. Southern Command, which takes primary military responsibility for the war on drugs, could disband. Under discussion is a proposal to merge its responsibilities sometime down the road with those of Northern Command, creating a pan-continental organization called "America's Command" (ITP, Dec. 6, 2001, p1).
In the nearer term -- to bolster NORTHCOM's ability to protect the entire United States -- boundaries between regional CINCs' areas of responsibility may be adjusted, ITP reported last December. Control over forces operating off the Atlantic and Pacific coasts may be moved from other unified commands to NORTHCOM's domain under a new version of the Pentagon's Unified Command Plan.
While military command arrangements have traditionally been the purview of the top uniformed officers, Rumsfeld is reportedly exercising a particularly strong hand in decisions about revising the Unified Command Plan, the central Defense Department document in which the roles of all the various unified commands are described. The defense secretary is "running the show," even as he is consumed daily with ongoing counterterrorism planning and operations, said one military official.
-- Elaine M. Grossman

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Washington Times
April 11, 2002
Pg. 14

Blair: Time Not Right To Take On Saddam

LONDON (Agence France-Presse) — British Prime Minister Tony Blair said yesterday that the time was not right for military action against Iraq, but that the threat posed by possible weapons of mass destruction would be confronted in a "measured" way.
"The time for military action has not yet arisen," Mr. Blair told Parliament, three days after he warned of possible military action to topple the "brutal, repressive" regime of Iraqi President Saddam Hussein after a two-day summit with President Bush in Texas.
The United States and Britain are calling on Baghdad to let in United Nations arms inspectors to verify that it no longer has weapons of mass destruction.
"There is no doubt at all that the development of weapons of mass destruction by Saddam Hussein poses a severe threat, not just to the region but to the wider world," Mr. Blair said.
"Simply turning our backs on the issue of weapons of mass destruction is not an option.
"That is why I think it is so important that we stand with the U.S. in saying that this issue is an issue that has to be confronted and will be confronted," he said.
Mr. Blair told lawmakers that the whole region would be a better place without Saddam.
"However, the method of doing this [toppling Saddam] is something that is open to consultation and deliberation," he said.

"When the judgments are made, I've no doubt at all that this House and the whole country will want to debate the issue thoroughly."

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Christian Science Monitor
April 10, 2002
Pg. 1

Easy Theft: Radioactive Bomb Parts

Stolen commercial radioactive devices could be used to make 'dirty bombs.

By Abraham McLaughlin, Staff writer of The Christian Science Monitor

WASHINGTON -- As he swung open the back door of his pawnshop recently in Prichard, Ala., there it was: a silvery, lunch-box-sized industrial device with yellow stickers that blared "CAUTION RADIOACTIVE."

"It was just sittin' in a five-gallon bucket," says the shop's owner in a syrupy drawl. Police determined the device - used by repair crews to check for cracks in pipe welds - had been stolen from a pipeline-company truck six months earlier in nearby Mobile.

But the unusual thing about this story isn't that the device was stolen. It's that it was found.

That's because roughly 2 million small-but-valuable radioactive contraptions are used in the US in everything from construction to healthcare to scientific research. And every year, hundreds of them are lost, stolen, even abandoned. Most are never retrieved, and 30,000 are unaccounted for, according to some estimates.

In the post-Sept. 11 era, that's giving experts cause for concern: If these devices can turn up at an Alabama pawnshop, they could just as easily be hoarded by terrorists to create "dirty bombs" - conventional explosives laced with radioactive material.

"If you were going around snatching these smaller devices over a period of years and putting them all in a truck bomb, it could be as powerful as a bomb with a single, big radiation source," says Edwin Lyman, of the Nuclear Control Institute in Washington.

Clearly, not all small radioactive items would work as dirty-bomb ammunition - the radiation many emit is extremely weak. Still, terrorists could create a dangerous weapon by combining several dozen minor sources with a simple explosive, says Friedrich Steinhausler, a Stanford University nuclear physicist.

The damage from a "dirty bomb" would depend on many things, including the strength of the explosive, the amount of radioactive material, and how far winds would spread the toxic particles. Experts say such bombs could cause fatalities in the immediate area of detonation - and a range of health complications in a wider area. Their real insidiousness would be in the low or moderate levels of radiation spread, possibly requiring whole sections of a city to be abandoned for years.

That's because radiation cleanup is, at best, expensive and difficult - sometimes impossible. In all, rather than being a "weapon of mass destruction," a "dirty bomb" is more like a "weapon of mass disturbance," says Dr. Steinhausler.

Authorities respond

The threat has rattled federal regulators. The Nuclear Regulatory Commission (NRC) is reviewing how the devices are monitored.

"We're looking at requiring licensees to increase security," says John Hickey, chief of the NRC division that oversees the devices.

But new measures might only include better locks and stronger storage facilities, and some critics worry that isn't enough. In general, they fault the NRC for overlooking the smaller radiation devices and focusing instead on safety at higher-profile nuclear plants.

The devices in question include practically harmless emergency-exit signs that rely on radioactive isotope for power - rather than electricity, which can fail. If broken open, these could expose a person to radiation less intense than a dentist's X-ray. By contrast, the pencil-sized rods used to irradiate food are so dangerous that direct exposure could be quickly fatal, say experts. (This also makes stealing them very difficult.)

As for the pawnshop item, it contains a piece of iridium-192 that's smaller than a pea. The iridium is shielded by depleted uranium to keep radiation from escaping. To use the device, crews put the radiation source on one side of a pipe and a special film on the other. The radiation creates an image that shows hidden cracks or other weaknesses. Experts say if a person stood within one foot of that unshielded iridium nugget for two hours, they could receive a fatal radiation dose.

The sheer number of such devices in use in the US makes detailed tracking tough - and mishaps common.
* On March 15, a $ 6,000 radioactive moisture-density gauge - used to determine if fresh concrete has fully dried - was reported stolen from a Maryland construction site. Such devices typically contain several grams of cesium-137, a highly radioactive material especially dangerous because it can persist in the environment for centuries and can work its way into the food chain. These devices - more than exit signs, for instance - are what worry authorities. They contain enough material to be dangerous, especially if combined with other similar sources. Yet they aren't so toxic - like food-irradiation rods - as to require complicated equipment or advanced knowledge to handle.
* In February, a Wisconsin paper manufacturer discovered it had mistakenly shipped a radioactive device used to measure paper-pulp density to China, according to NRC documents. An executive scrambled and arrived ahead of the shipment. But when he was at lunch, the shipment's containers were unloaded, and only a frantic search led to the device. Apparently the initial confusion in Wisconsin was caused because the device was coated in paper mulch that obscured warning labels.
* In 1998, 19 vials of cesium-137 disappeared from a Greensboro, N.C., hospital, where they're used in medical treatments. Because it happened around the time of the Final Four basketball tournament, concern about terrorism was high. So the federal government tasked its Nuclear Emergency Search Team with finding the vials, which were never retrieved.
* In 1996, two stolen industrial cameras were sold to scrap-metal dealers in Houston. After one was broken open, 11 adults and two children were exposed to high radiation levels that experts say significantly boosted the risk of later medical complications.
Converting items like these into "dirty bombs" is a real possibility - mostly because it requires only simple scientific knowledge, say experts. "It's high school science, not rocket science," says Stanford's Steinhausler.

But easier to track

One small upside of the radioactive materials in commercial use is that they're typically easier to detect than more-potent elements like plutonium. When covered with simple tinfoil, plutonium is nearly impossible to detect, for instance. But even when shielded by lead, cesium-137 can be tracked by sensitive detectors.
Finally, much of the problem comes down to economics. For instance, it currently costs about $ 400 per cubic foot to dispose of materials like cesium-137, says Lyudmila Zaitseva of Stanford's Institute for International Studies. That's roughly 10 times the amount of fines for improper disposal of the material. The lack of high fines, she says, can lead to shoddy tracking - even deliberate abandonment.
Separately, Dr. Lyman observes that boosting the security of these devices would add to already high costs in construction, healthcare, and other fields. Whether it's worth it, he says, "is a tough societal question."

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