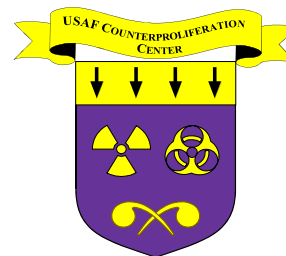


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USAF COUNTERPROLIFERATION CENTER

# CPC OUTREACH JOURNAL



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[Electronic Journal of the U. S. Department of State - Volume 7, Number 2, July 2002](#)

(Editor's Note: Hyperlink for referenced report follows article.)

Los Angeles Times

July 17, 2002

Pg. 1

## **Bush Sets Security Strategy**

By Edwin Chen and Nick Anderson, Times Staff Writers

WASHINGTON -- President Bush on Tuesday unveiled the government's first blueprint to protect the American homeland against terrorists--"a comprehensive national strategy" that would employ high-tech wizardry and revamp the federal bureaucracy to help the country better defend itself against "the true threats of the 21st century."

Under the plan, state-of-the-art sensors would be deployed to detect nuclear and biological threats, and "red teams" of covert agents would analyze America's defenses from a terrorist's perspective to pinpoint weaknesses.

All states also would follow a minimum standard for issuing driver's licenses to prevent terrorists from exploiting differing regulations. (In Virginia, for example, until shortly after Sept. 11 an applicant could get a license merely by having another person vouch for his or her home address; Florida had no residency requirement at all.) The anti-terrorist capabilities of agencies from the FBI to the Coast Guard also would be beefed up.

The "National Strategy for Homeland Security" also calls for a detailed review of critical infrastructure--such as the nation's energy, water, agriculture, finance and telecommunications sectors--and a meticulous plan to safeguard such facilities.

The plan was drawn up by the White House Office of Homeland Security, headed by Tom Ridge. Some of the changes can be accomplished administratively, while others will require congressional approval.

In a sobering warning to the private sector--already reeling from an economic downturn, a declining stock market and a spate of corporate scandals--Bush's blueprint cautioned that security spending by businesses could double from the pre-September tab of \$55 billion a year. The federal government's expense for homeland security is also rising, to \$38 billion under Bush's proposed fiscal 2003 budget from \$29 billion now.

Under the blueprint, Washington stands to gain significant new powers, from establishing a network of national laboratories to study anti-terrorist techniques to giving the president broad authority to reorganize the government without explicit congressional approval.

But Bush made no mention of that as he formally presented his plan during brief remarks in the Rose Garden, with key lawmakers of both parties behind him.

"Protecting Americans from attack is our most urgent national priority, and we must act on the priority," the president declared.

He also warned that this was "an exceedingly complex mission."

The 76-page plan represents an unprecedented effort to ensure greater security from terrorist attacks, a broad step beyond such post-Sept. 11 actions as stockpiling medicines and improving aviation security.

In issuing the report, Bush reminded the public that America remains "a nation at risk to a new and changing threat."

The blueprint is organized around Bush's June 6 proposal to create a Cabinet-level Department of Homeland Security, drawing under one roof nearly 170,000 employees from 22 agencies scattered throughout the government. An example would be changing the rules that now limit the use of U.S. troops for homeland security.

The Bush plan mentioned three circumstances under which troops could be used: in combat air patrols and maritime defense; in response to attacks; and in "limited scope" missions led by other agencies, such as the recent Winter Olympics in Salt Lake City.

Federal statutes now prohibit military personnel from enforcing the law within the United States, except as expressly authorized by the Constitution or an act of Congress. (For example, Navy ships have been used in the effort to interdict drug smugglers, with Coast Guard personnel on board to perform the law enforcement functions.)

However, the Bush report states, "[t]he threat of catastrophic terrorism requires a thorough review of the laws permitting the military to act within the United States in order to determine whether domestic preparedness and response efforts would benefit from greater involvement of military personnel and, if so, how."

Sen. Carl Levin (D-Mich.), chairman of the Senate Armed Services Committee, said he would not object to reviewing the "Posse Comitatus" law, which dates to 1878. But he cautioned: "We've done very well by separating the military from law enforcement. There would be a heavy burden for those who want to change" that.

However, Sen. Joseph I. Lieberman (D-Conn.) said a change in the law restricting domestic military operations is "definitely worth considering. I've been an advocate of the military having a more active role in homeland defense." Lieberman, who is a leading sponsor of homeland security legislation, and other lawmakers noted that many of the Bush proposals are not new. For example, the blueprint released Tuesday restated the administration's call for "smart

borders" to identify both potential terrorists and dangerous cargo at ports of entry, while expediting the flow of legitimate travelers and goods. Among the new tools the president seeks would be biometric technologies, which could include identification through iris patterns or facial measurements, to help verify the identity of foreign visitors.

The plan also identifies as "critical missions" such responsibilities as tracking terrorists around the world, keeping closer tabs on foreigners who enter the country legally and improving communications among intelligence-gathering agencies and between firefighters and rescue workers.

In seeking more authority to reorganize the executive branch, Bush is asking Congress to create the new department and grant him executive powers to make such changes in the future without congressional authorization.

Recognizing the need for flexible presidential management authority, Congress in 1932 passed legislation permitting the chief executive to reorganize the executive branch to reduce expenditures and increase efficiency. That authority lapsed in 1984.

By releasing the blueprint, Bush was attempting to defuse criticism that his administration is advocating the most significant government reorganization in more than 50 years--since the creation of the Defense Department and the CIA--without explaining in detail why it is needed.

"We've got a strategy now, and we've had a little bit of time to study these things. That's important," said Sen. Fred Thompson (R-Tenn.), who is working with Lieberman on a Senate bill.

But Rep. Robert Menendez (D-N.J.) complained that the strategy comes too late for lawmakers already immersed in the complex details of reorganizing the government. Had it arrived before Bush's June 6 announcement, Menendez said, "the dialogue would have been much better enriched."

In his Rose Garden statement Tuesday, Bush expressed hope that both the House and the Senate would take up his proposal before leaving for their August vacation.

To that end, a nine-member panel of House leaders continued hearings aimed at developing compromise legislation for a House vote next week.

But after meeting with the president, lawmakers emerged less than certain about the timetable for creating what would be the 15th Cabinet department.

House Speaker J. Dennis Hastert (R-Ill.) said: "We'd like to have it done by Sept. 11. However, we're not going to let haste get in the way of getting a good piece of legislation."

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## **The National Strategy For Homeland Security: Office of Homeland Security**

<http://www.whitehouse.gov/homeland/book/index.html>

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Global Security Newswire (www.nti.org)

July 16, 2002

### **Pentagon Trying To Profile Potential WMD Users**

By Bryan Bender, Global Security Newswire

WASHINGTON — In an unusual step to pre-empt WMD attacks, the U.S. Defense Department is conducting a secret psychological profile program to help determine the types of unconventional weapons that potential terrorists would probably use to cause mass casualties, according to defense officials and documents.

The study into "the understanding of decision-making strategies of potential users of unconventional weapons of mass destruction (UWMD)" is utilizing a proprietary profiling method called Biocom, a July 2 summary of the project says.

The Evolutionary Services Institute, a Bethesda, Md., consulting firm specializing in organizational change and information systems design, developed the method, according to the summary.

The Pentagon is tapping the institute and its founder and director Lawrence DeBivort to use psychological and social analysis to help pinpoint the most likely technologies for unconventional attacks.

Debivort, who has a doctorate in international relations and teaches at the University of Maryland, is also the president of the International Society of Panetics, a term that combines the Greek word for "all" (pan) with "ethics." The society describes itself as dedicated to studying and helping "reduce the infliction of suffering by humans against other humans."

The society's founder, Ralph Siu, believed that to successfully address global problems, a "unified scheme" was needed to take into account the "physical," "chemical," "animate" and "human" manifestations of the international community.

"Some of the basic elements of our suggestion may be novel, controversial, and even a priori unacceptable for various good reasons to the leading and most respected authorities of the day," he wrote in 1987.

Project officials including Debivort, the leader, declined to discuss with Global Security Newswire details of the classified study such as the Biocom technology or the specific population to be profiled.

"It is fundamentally classified," a Pentagon official involved in the effort said. "It would be preferred that this work receive no more attention than that which is already provided."

While the details and method of the terrorist profiling project are being closely guarded, the International Society of Panetics said that the war on terrorism is a "clash of ideology, not cultures."

"Although the events of Sept. 11 have had their most direct impact on the United States, they have had an impact on all those, throughout the world, who saw the television image of the planes flying into the World Trade Center," says a statement on the society's Web site.

"To be sure, terrorists have been nonstate sources of egregious suffering in quite a number of countries for quite some time.

What was unusual about the attack on Sept. 11 were the number of casualties brought about by a single incident and the spectacular way in which the terrorists struck.

But even if the tragic events of Sept. 11 had not occurred, the time would have been ripe to rethink the question of how the international community can intervene to prevent groups with or without state authorization from inflicting egregious suffering on innocent bystanders."

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## **U.S. will pay for Alabama gas masks**

July 16, 2002 Posted: 5:19 AM EDT (0919 GMT)

BIRMINGHAM, Alabama (AP) -- The state will soon receive \$5 million from the federal government to buy gas mask-like safety gear for more than 30,000 people living near an incinerator that will be used to destroy Cold War-era chemical agents.

The Bush administration's decision was announced Monday, making Anniston apparently the first city in the nation where such gear has been distributed to the general population to guard against chemical agents. The money was requested by the state.

Residents would don the gear in case of an accident at the incinerator. Another \$2.1 million is being used to buy protective suits for public safety workers who would have to respond to an accident.

The Federal Emergency Management Agency said the state should have the money within days. However, officials in Calhoun County, where the incinerator is located, have said it will be difficult to purchase the hoods by this fall, when the Army plans to begin burning chemical agents.

Gov. Don Siegelman has filed suit to block the opening of the facility at the Anniston Army Depot. But his legal adviser, Ted Hosp, said the lawsuit might be dropped now that the money is on its way.

FEMA previously opposed purchasing the hoods because of safety concerns about distributing them to an untrained public.

The agency's regional director, Ken Burris, said FEMA approved the funding because of a plan submitted by Calhoun County that includes classroom sessions and hands-on training for anyone obtaining a hood.

"It's not optional," he said.

FEMA said it knows of no other U.S. city where such gear has been distributed to the general population. The incinerator will be used to destroy more than 2,200 tons of Cold War-era chemical agents.

In Washington, about 20,000 similar hoods are being distributed on Capitol Hill in case of a terrorist attack involving chemical weapons or biological agents. Congressional employees are undergoing one-hour training sessions.

Anniston is located about 50 miles east of Birmingham.

<http://www.cnn.com/2002/US/07/16/incinerator.hoods.ap/index.html>

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## **Worker at Utah chemical weapons incinerator exposed to agent**

**By Matthew Creamer**

**Star Staff Writer**

**07-17-2002**

Army officials have confirmed that a worker at Utah's chemical weapons incinerator came into contact with nerve agent vapor early Monday, the first confirmed exposure in that facility's history.

The employee, whose name and age were withheld, already has returned to work, though in a limited capacity.

Blood tests taken after agent monitors sounded in the room where he was working indicated an exposure to sarin, a lethal agent that attacks the nervous system.

The incident has launched at least two investigations, one by the contractor, EG&G Defense Materials, and one by the Army. While the Army has not admitted to any previous exposures at the Tooele incinerator or the stockpile it was built to destroy, an employee at the prototype incinerator facility on Johnston Atoll in the Pacific Ocean was burned by mustard agent in 1993.

Incinerator opponents, who have alleged a history of Army cover-ups regarding exposures and agent releases, blasted the program.

"Incineration has failed to protect workers," said Jason Groenewold, director of Utah's Families Against Incinerator Risk. "The best way to ensure the safety of workers is to use a safer disposal technology."

Monday's incident happened as the incinerator's staff is changing over equipment to prepare the facility to begin processing VX nerve agent, a more toxic weapon than sarin. The Tooele plant, a forefather of the incinerator built near Anniston, completed the destruction of the sarin stockpile in March. The plant currently is not processing agent.

The employee, who was accompanied by a co-worker, was exposed to the vapor during routine maintenance operations on the agent purge line. This blows leftover agent from the line that carries liquid agent into the furnace. At 8:23 a.m., as the workers opened the purge line, an alarm system in the room sounded, signaling the presence of agent in the air.

"There was residual agent in there they weren't aware of," said Chuck Sprague, public affairs officer at the Tooele incinerator.

Both employees, who were wearing coveralls with a charcoal respirator, stopped work and put on their gas masks. They left the room and, with two other workers who had been observing from an adjacent room, went to the clinic. There, decontamination procedures that began shortly after the alarm sounded were continued, and the workers' blood was checked. The tests determined that the cholinesterase level in the blood of one of the workers was low, which is the Army's definition of contamination. The worker also had pinpointed pupils, a symptom of exposure. After a period of observation, the employee was put on non-toxic duties.

An official at the Anniston incinerator, which is expected to begin burning sarin-filled rockets later this year, said management and staff would learn from the incident.

"We are training our people to work very, very safely so we can consequently destroy the weapons very, very safely," said Mike Abrams. "I'd like to say we'll learn as much as we can from Tooele to give ourselves the opportunity to repeat the same scenario here."

Abrams added that Bob Love, the site project manager for Westinghouse, will take part in one of the investigations.

<http://www.annistonstar.com/news/2002/as-nation-0717-mcreamer-2g16x5355.htm>

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Newport News Daily Press

July 16, 2002

## **Tech Researchers Looking Into Gulf War Illnesses**

By Kevin Miller, Associated Press Writer

BLACKSBURG, Va. -- Virginia Tech researchers are once again delving into the mystery of Gulf War Syndrome, this time evaluating whether the uranium used in some high-tech ammunition, when combined with battlefield stress, could cause nerve damage.

Depleted uranium ammunition, which is used by U.S. and NATO forces against heavy-armor vehicles such as tanks, has come under fire in recent years from European officials who are concerned that the uranium may increase the risk of cancer in soldiers who come in close contact with the munitions or its residue.

Several European soldiers who served in Kosovo with NATO forces have reportedly died of cancer, and American veterans groups have speculated whether depleted uranium could be causing some of the myriad of physical problems experienced by thousands of U.S. personnel who served in the Persian Gulf War.

U.S. military officials as well as radiation experts have vehemently denied any link with cancer, saying that depleted uranium is far less radioactive than natural uranium and is not dangerous at the levels encountered by military personnel. Other critics, however, have suggested that depleted uranium may cause chemical poisoning in some circumstances.

The Virginia-Maryland Regional College of Veterinary Medicine in Blacksburg received more than \$660,000 to study depleted uranium's chemical effect on the body during both short- and long-term exposure. The researchers will also introduce stress into the equation to see if the toxic effect is greater.

"Our feeling is radiation will not be the major issue in this study, just the chemical toxicity," said Bernie Jortner, co-director of the vet school's Laboratory for Neurotoxicity Studies, which is conducting the research. "We're pretty much interested in the parts of the brain it is going to."

Laboratory rats will be given doses of depleted uranium and then stressed by forced swimming. Researchers believe that stress may influence the body's reaction to chemicals in a variety of ways, including removing some of the natural barriers that block toxins from reaching the brain during times of low stress.

"Stress may contribute to the symptoms of Gulf War Illness but alone cannot be responsible for all of the symptoms, as virtually every participant in the operation experienced stress, but not all veterans developed illness," the Tech researchers wrote in the grant proposal. "Therefore, the ability of stress to exacerbate the effect of other toxicants must be evaluated."

This is the vet school's third grant to study the neurotoxicity of chemicals used or present during the 1991 Persian Gulf War. Pentagon officials resisted for years any suggestion that Gulf War veterans were more susceptible to certain illnesses. But late last year, military officials announced results of a study showing Gulf War veterans were twice as likely to come down with Lou Gehrig's disease. Other similar studies are under way.

Tens of thousands of Gulf War veterans have complained of illnesses, including memory loss, anxiety, fatigue, nausea, and chronic muscle and joint pain.

Depleted uranium is the metal left after much of the radioactive material has been removed from uranium ore. Depleted uranium is considerably denser than other metals, making it an effective material for armor-piercing munitions. Critics worry that dust or shrapnel left over from the detonated munition can cause health problems. Jortner said that while the toxicity of uranium has been well established, the chemical dangers of depleted uranium are not well known. In a previous study, researchers found elevated traces of uranium in the urine of Gulf War veterans who still had shrapnel from depleted uranium rounds in their bodies. The veterans also performed poorer on neurocognitive tests than others.

Jortner and his colleagues, including Gulf War expert Marion Ehrich, are completing a three-year study of the neurologic effects of two chemicals used during the Persian Gulf War. Jortner said rats suffered serious nerve damage from the chemicals, especially during the long-term exposure.

Jortner said it is clear from research that some of the Gulf War illnesses were caused by chemicals. The trick is figuring which chemical or, more likely, what combination of chemicals is causing each problem.

"It's not a single thing, it's a whole spectrum of illnesses that are affecting the guys that were over there," Jortner said.

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## **Mail-Order Molecules Brew a Terrorism Debate**

**Virus Created in Lab Raises Questions of Scrutiny for DNA Suppliers**

*By Rick Weiss*

Washington Post Staff Writer

Wednesday, July 17, 2002; Page A01

The orders arrive by fax and e-mail 24 hours a day from pharmaceutical companies, government agencies and academic scientists. And every day at Integrated DNA Technologies, an army of machines responds by producing hundreds of batches of microscopic merchandise: custom-designed snippets of genetic material.

Until recently the Coralville, Iowa, company prospered in quiet anonymity, spewing out for scientists round the world various made-to-order pieces of DNA, the molecular code upon which so much biotechnology research depends today.

But last week's announcement that scientists in New York had used the company's mail-order molecules to make polioviruses from scratch has prompted questions about whether the DNA synthesis industry deserves closer scrutiny, and whether strategies for preventing the proliferation of biological weapons need to be rethought. For decades the United States and other nations have sought to limit the risk of biological warfare and bioterrorism by placing controls on the cultivation and shipment of dangerous microbes. The new work threatens to undermine that approach by proving for the first time that potentially deadly viruses can be built from the ground up. If infectious agents can be made from off-the-shelf smidgens of DNA that are individually benign, then government regulators, law enforcement agencies and even DNA synthesis companies may have no way of knowing when someone is building a biological bullet.

"The customer gets to design the sequence they want manufactured and there is a limited ability for us to know what people are going to do with it," said Roman Terrill, vice president of legal and regulatory affairs at Integrated DNA Technologies.

Indeed, Terrill said, with perhaps \$10,000 and a few months time, motivated scientists could manufacture the genetic components of a deadly virus. "You could buy your own used DNA synthesizer," he said, "and make whatever you want in the comfort and privacy of your own garage."

Integrated DNA is one of about a half-dozen major U.S. manufacturers of small DNA strands, which are known in the trade as oligonucleotides or "oligos." The bigger companies, including Qiagen Operon of Alameda, Calif., Invitrogen of Carlsbad, Calif., and Sigma-Genosys of Woodlands, Tex., make thousands of customized oligos each day.

Each oligo typically consists of about 25 or 30 units of DNA, representing a tiny fraction of an organism's entire genome (a full viral genetic code can be tens of thousands of units long or more). Scientists generally use the oligos as molecular tools to help them find genes in various organisms or to trigger biological chain reactions that allow them to mass produce DNA strands in test tubes.

Because they are so small, most individual oligos lack any "fingerprint" that might identify them as part of something dangerous. But it was just such oligos that Eckard Wimmer and two colleagues at the State University of New York in Stony Brook painstakingly stitched together into a full length, 7,741-unit poliovirus genome, which spontaneously began making infectious polioviruses.

The feat arguably fell short of creating life from scratch because most scientists maintain that viruses are not truly alive. But the implications were clear.

"If you can go from a viral DNA sequence on paper to an infectious agent using things you can order out of catalogues, obviously that has big implications for bioterrorism," said Mildred Cho of the Center for Biomedical Ethics at Stanford. Two years ago Cho chaired an expert panel on the implications of creating novel life forms. In fact, it was the Department of Defense that funded the three-year research effort as part of a program to devise protections against "unconventional pathogens." In a statement, the department said Friday it did not believe that the techniques could be used to build viruses with greater bioterror potential, such as smallpox. But others disagreed.

"With a little more advancement in technology you could probably make something more complex than polio," said Jim Cornette, a retired Air Force colonel with a doctorate in biochemistry who served in the Defense Intelligence Agency and was involved in biodefense planning during Operation Desert Storm. "Smallpox is probably just two or three years down the road, maybe less," said Cornette, who now lives in Florida. "Then what about the things that are 'none of the above?' Something dangerous but totally new?"

Several scientists said in interviews they would be reluctant to see new layers of oversight slapped on oligo makers, which have become to the biotechnology industry what silicon chip makers are to the computer industry. But many suggested the time was ripe for a public discussion about how best to prevent nefarious use of the science.

Today most biodefense efforts focus on disease-causing organisms themselves, rather than the genetic instructions for making them. Federal regulations restrict shipments of dangerous microbes and toxins listed by the government as "select agents," but those rules do not apply to shipments of their DNA components, at least within the United States.

DNA exports are more strictly regulated, with the Commerce Department requiring licenses for overseas shipments of DNA deemed a threat to national security. But those rules are open to interpretation and are easily flouted, scientists inside and outside the government said.



When Terrill of Integrated DNA wanted to learn more about the export rules last year, he went to the Commerce Department's Bureau of Exchange Administration (renamed in April the Bureau of Industry and Security), which oversees and enforces export rules for "dual-use" technologies, including microbial DNA strands. He learned that the bureau restricts exports of genetic sequences "associated with pathogenicity," which means the ability to cause disease.

"The problem is the bureau has not released those sequences, so . . . we would have to decide for ourselves whether a sequence is associated with pathogenicity," Terrill said. "But how pathogenic? And what does 'associated' mean? The phrase is difficult to get a grasp on. It's not really a scientific term. It's a lawyer's term."

Moreover, Terrill learned, the 370-person agency has only one microbiologist on staff to deal with the hundreds of biological export applications the agency receives annually.

That employee was away and not available to be interviewed this week. But another Commerce Department official, speaking on condition of anonymity, confirmed that it is "the responsibility of the exporter" to determine if a genetic sequence falls under the bureau's rules.

The official said the bureau engages in "outreach activities" to educate academic and commercial scientists about the export restrictions. But the official also acknowledged that many scientists -- especially university-based researchers -- have a tradition of sharing DNA freely through the mail, making enforcement difficult.

In any case, scientists said, rules that focus on "pathogenic" DNA sequences are meaningless in an era when manufacturers can make pieces of DNA that are individually benign yet can pose a serious threat if properly assembled.

"I don't know how you could overcome that problem," the Commerce Department official said. "You could get one part [of the sequence] from one company and another part from another company and completely circumvent the law."

Some experts have begun to consider whether manufacturers themselves should be brought under some kind of oversight. "We propose that . . . those companies that produce the oligos should be asked to routinely check the sequences against those of known pathogens," said Wimmer, the scientist who led the polio project.

Several computer programs, most notably one known as BLAST, can quickly scan the genetic sequence of a large piece of DNA and report whether it is similar to other known sequences, such as ones encoding parts of a virus or toxin. But company officials said they were not enthusiastic about taking on the cost or legal responsibility of fingering potential perpetrators.

In any case, said Garry Merry, corporate vice president of genomic services at Qiagen Operon, a scientist could evade BLAST's eyes simply by ordering DNA components small enough to be completely generic, then assembling them later. "You could do it," Merry said, "and we couldn't tell."

As an alternative, some are calling for extra layers of institutional review for researchers who, like Wimmer, propose combining genetic components to make viruses or other dangerous entities.

"I would argue there needs to be more oversight in terms of getting approval," said Arthur Caplan, a University of Pennsylvania ethicist who sat on Mildred Cho's expert panel. "Are we going to be seeing this kind of thing done in a science fair soon? I'm in favor of tighter controls."

Craig Venter, president of the Center for the Advancement of Genomics in Rockville who last week called the polio work "irresponsible science," said the nation might need a special advisory committee to publicly review all such studies in advance, just as a National Institutes of Health panel reviews proposed gene therapy experiments as a way of watching for trouble and reassuring the public. Without such openness, Venter said, "this kind of work can set science back in the public eye."

But while institutional or government review may bring more oversight to legitimate research, others said, it's unlikely to deter those who wish to keep their work secret. And with the biotech revolution now 30 years old -- and trade in aftermarket equipment burgeoning -- deterrence may be difficult.

"You can buy an old synthesizer and some raw ingredients and no one would have any idea what you're doing or what you're making," said Terrill of Integrated DNA. With an old machine, he said, "it might take you a week longer. They're big and clunky. But a week isn't that long."

<http://www.washingtonpost.com/wp-dyn/articles/A15929-2002Jul16.html>

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Insight Magazine  
August 5, 2002

## **Picture Profile**

# **Tending To Russia's Nuclear Family**

By Brandon Spun

Unemployment can be rough, especially for a Russian nuclear scientist of the Cold War era. When that era came to an end, so did the careers of thousands of highly specialized workers. But while both Russians and Americans lost jobs, American nuclear scientists had advantages: favorable laws, good communications and infrastructure, easy access to the job market and a relatively strong economy, to name a few.

The American scientists also were not confined to the "closed cities" spread across Russia from Moscow through Siberia and overseen by MINATOM, the Russian Ministry of Atomic Energy. Since their construction in the 1940s, these weapons-design and production sites have been surrounded by guards and gates and closed to the outside world, with special permission required to enter or leave them.

The closed Soviet cities were self-sustaining communities, dedicated to the production and design of modern weapons. The cities protected the privilege and economic well-being of the Soviet scientists, engineers, technicians and their families who lived and worked behind their walls. These cities boasted an estimated total population of 800,000, many of whom lost their jobs in the end.

An unemployed nuclear scientist is a potentially dangerous person whose skills and know-how might be bought by the highest bidder, including such rogue nations as Iran, North Korea and Iraq. The Nuclear Cities Initiative, a joint project between the U.S. Department of Energy and MINATOM, was created to deal with unemployment issues involving Russian nuclear scientists, with the idea being to make sure that Russia finds a place for these workers — lest they sell their skills to rogue states.

The American project manager for the Nuclear Cities Initiative is David Zigelman, with whom Insight talked recently.

### **Insight: Why are unemployed Russian weapons scientists our business?**

David Zigelman: These scientists were making \$1,000 to \$12,000 a year. It was not a lot by our standards, but they were taken care of by their government. They lived quite well, but that no longer is the case.

The Russian government doesn't have the money to continue paying these people, and neither Russia nor the U.S. wants them working for, say, North Korea, Iran or Iraq. So our partnership began about three to five years ago, after peace broke out.

This work is important because a country like the People's Republic of China might offer one of these scientists \$500,000 to help develop a weapon. That's a strong incentive, especially to desperate men in an unemployment line. So we must find commercial jobs for them at \$50,000 to \$100,000 a year or risk their defection.

These people need our assistance because moving out of those cities means they suddenly will have to pay rent for the first time in an economy that no longer needs their services.

### **Insight: Where do you come into this scheme of things?**

DZ: I was working at Savannah River for Westinghouse where we made nuclear materials. In 1998 the Department of Energy [DOE] recruited me for the Nuclear Cities Initiative. I had experience in downsizing, economic diversification and business development.

But I never would have believed it if I had been told I would be working with Russians on a project like this. It's an opportunity few have, especially those who don't speak Russian.

I help these scientists formulate new projects. Often they believe that, because they have the technology and capability to make a product, that product will be valued in the marketplace. They take an engineering approach, a supply-side approach, but the market is driven by market forces. One cannot push a product down a buyer's throat. I also help get funding from the DOE for the projects we develop together and for the commercial partners with whom we work. I help develop the partners, contracts, publicity and follow the basic execution of each project. One big project was the establishment of a major telemedicine center.

### **Insight: What is your relationship with the Russians?**

DZ: It depends which Russians. In the closed cities, they call me the "Godfather." I go to a city and sit down at the end of a table while group after group comes and pitches projects. I have become their sugar daddy. It's like the movies: "Godfather, I need money for this; Godfather, I need money for that."

I travel to these cities about three or four times a year. I would like to spend a lot more time there but usually it is difficult to get into them, and I only have a few weeks each year to do this. Sometimes you get permission and sometimes you don't. It's strange because you'd think a sugar daddy would always be welcome.

One trouble is that MINATOM, the Russian DOE, gives us static. We have a rocky relationship at times and can get tangled up in pissing contests. Luckily one group will recognize the importance of the program when another views us as a threat.

One faction probably still believes we're spies. But inside the cities our relationship is fine. In the news, President George W. Bush and Vladimir Putin seem the best of friends, but there still are bureaucrats exercising their authority to use or not use a rubber stamp. This relationship is, after all, a radical change.

**Insight: How important are these scientists and engineers? Are their minds as potentially threatening as the raw materials on which they might get their hands?**

DZ: The U.S. spends \$5 million to \$6 million on managing the semi-obsolete products that are a threat to nuclear proliferation. When the Iron Curtain fell, all the satellite countries sent Russia their nukes because they didn't want them. This included nuclear submarines, spent cores, bombs and other nuclear materials. It is obviously important to get these things off the Russian market. But Russia did not have the money to safely guard and secure them.

This is not the whole story. There are other things to worry about. People say that given the right materials anyone can make a nuclear weapon with plans from the Internet or magazines like Popular Science. Well, you could make a crude device, a dirty bomb, for instance, but to make something deliverable in a missile or a payload for a bomber, you need to make the device as small as possible. In that case, materials are not all there is to the equation. You might make a bomb, but without the scientists you would never get fusion.

**Insight: What is the future of the Nuclear Cities Initiative?**

DZ: Hopefully, I will be retired in 10 years. But, in one form or another, assuming we don't go hostile with one another again, there should be a nonproliferation program for the next 20 years. It's important because, even if you dismantle [the weapons], you still have to do something with the raw materials and information which could be used to construct weapons.

Also, the old ICBM [intercontinental ballistic missile] treaty just isn't applicable any longer. Once there were 6,000 warheads aimed at both countries. Even now, with the reconstructed treaties, there still are around 1,500.

Unfortunately, it costs money to build weapons and even more to disarm them.

**Insight: Why was the end of the Cold War so devastating for the Russian scientists and technicians?**

DZ: There have been two nuclear industries worldwide — the commercial sector and the military. The commercial was hit hard by Chernobyl in the U.S.S.R. and Three Mile Island in the U.S. Then the military downsized at the end of the Cold War. In the United States there have always been people moving back and forth between the two, because they often involve the same companies. So the result wasn't too dramatic here when the weapons race wound down. Also, environmental-restoration projects here helped because factories in Rocky Flats [Colo.], Washington [state] and Ohio utilized many of these employees.

None of this was the case in Russia. People didn't have the mobility or flexibility. For instance, some scientists here just went into the national labs or into teaching, while in Russia this was regarded as impossible for reasons of national security.

**Insight: What is the sense you get from these people? How are they handling the shift? Do you believe some will leave and defect?**

DZ: Some want to go back and start making weapons again. Many are just very uncomfortable. Change is difficult. These scientists were recruited out of high school as being the best and put in special colleges with the understanding that they would be part of an elite force working in closed cities.

Working in those cities meant working for the protection of the motherland — a great honor — and it meant both security and prestige. Now they must find commercial jobs, some as menials manufacturing plastic dinnerware.

When suddenly one does much less important work, it can seem degrading. Many yearn for the good old days.

I am not sure if any will defect. But they wouldn't have to leave the cities to do so. Many have Internet access in their homes and could do work online.

#### **Personal Bio**

David Zigelman: Recruiting Russian scientists for marketplace projects.

Currently: American project manager for the Nuclear Cities Initiative.

Born: Dec. 26, 1948; Heidenheim, West Germany.

Family: Single.

Education: New York University, Bachelor's degree in aerospace engineering; Washington University of St. Louis, master's degree in mechanical engineering.

Employment: U.S. Navy aerospace program; manager of low-level radioactive waste marketing at Westinghouse.

Hobbies: Golf, reading.

Favorite reading: Tom Clancy novels, particularly The Hunt for Red October. Also the novels of John Grisham.

Favorite movie: West Side Story.

Favorites in Russia: Fresh sturgeon, Moscow, the Kremlin and "the gifts accumulated there over the ages."  
*Brandon Spun is a free-lance writer for Insight magazine.*

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Global Security Newswire (www.nti.org)  
July 12, 2002

## **South Asia: ABM Treaty Demise To Affect China, India And Pakistan**

By Bryan Bender, Global Security Newswire

WASHINGTON — The U.S. termination of the Anti-Ballistic Missile Treaty with Russia could have dramatic repercussions for the security situation in South Asia, according to regional experts. The balance of power between China, India and Pakistan may be increasingly difficult to stabilize as the three countries adapt their nuclear and missile development plans to a new global security environment, they said.

In a collection of essays published by this week by the Henry L. Stimson Center, several experts based in South Asia speculated how the three states would probably react to any U.S. deployment of national and theater missile defense systems and what effect their actions would have on regional security. While the viewpoints differ — corresponding in large part to each author's home country and its stated policy toward the U.S. move — a common theme emerges throughout.

China, India and Pakistan have no formal constraints on their nuclear and missile programs and, unlike the United States and Russia, they lack parity in nuclear and missile capabilities, the experts agreed. In addition, the three have declined any significant transparency over their respective programs.

At best, informal arrangements might help forestall a destabilizing nuclear and missile arms buildup in the region, but U.S. missile defense plans are likely to accelerate nuclear and missile competition in the region and breed further distrust in coming years, most of the experts agreed.

"China, India and Pakistan are enmeshed in a three-cornered interaction that will not be easy to stabilize," wrote Michael Krepon, an arms control expert at the Stimson Center, in the collection, *The Impact of U.S. Ballistic Missile Defenses on Southern Asia*, published Wednesday. "They make a triangle of three unequal sides — an inherently unstable geometric form."

### **Threat to Deterrence?**

The United States formally backed out of the 1972 ABM Treaty last month to enable it to deploy comprehensive missile defenses (see GSN, June 14). Russia's nuclear deterrent — which may consist of thousands of strategic warheads even after the recently signed arms treaty is in effect — is expected to remain intact in the face of U.S. plans to field only limited defenses (see GSN, July 9).

The same cannot be said, the experts said, about China, India and Pakistan, which have "minimalist" nuclear weapons and ballistic missile inventories. Their deterrent value might be eroded — if not militarily, then politically — in the face of proliferating missile defense systems or a weapons buildup to overwhelm those defenses. For example, a nuclear or missile buildup undertaken by China to strengthen its deterrent against the United States might set off a chain reaction in the region.

In addition, the distinction made in the United States between national and theater missile defenses — one designed to protect U.S. territory from long-range missiles and the other intended to prevent short-range missiles from striking U.S. forces overseas — does not apply to the region, the experts said. Indeed, theater missile defenses are national missile defenses in South Asia because China, India and Pakistan do not require intercontinental ballistic missiles to attack each other.

Recently, tensions between the three have been high (see GSN, July 10). India has continued to clash with Pakistan over Kashmir. It has jockeyed with China over disputed border areas including Tibet. China and India both have been developing advanced navies (see GSN, Feb. 1 and June 11) and preparing for a regional competition for command of the high seas. Meanwhile, China has been the prime supplier of missile and nuclear technology to Pakistan, and any Chinese developments in the nuclear and missile arena are likely to make their way to its allies in Islamabad, the experts said.

"Nuclear weapons and missile programs now overlay these neuralgic issues, making it even harder for national leaders in China, India and Pakistan to create and sustain a stable strategic environment," according to Krepon.

"Chinese, Indian and Pakistani nuclear requirements will be derived from an interactive set of conditions that are

subject to change based on domestic and external factors. Prospective missile defense deployments add one more external factor to this mix."

### **The "Cascading" Effect**

U.S. deployment of missile defenses would affect all three countries, according to the report, destabilizing actions on the part of one would probably ignite a chain reaction.

For example, Krepon said, "Beijing's calculations of nuclear sufficiency will reverberate in New Delhi, and India's recalibrated nuclear requirements will reverberate in Islamabad."

"U.S. missile defense deployments and transfers could prompt cascading military requirements in China and around the periphery of Asia," he said. These include "accelerated growth in nuclear stockpiles, missile inventories and conventional capabilities. A trickle-down effect on South Asia is already underway, but it has yet to become a cascade."

China's close cooperation on nuclear and missile technology with Pakistan could be another complicating factor. Even if India chose not to react to a Chinese buildup, any new technical assistance to Islamabad could force India to accelerate or expand its efforts.

### **China as Pivot**

The authors of the essay collection agreed that the outcome would depend largely on China, which is currently the strongest military power in the area with the largest nuclear and ballistic missile forces. China has been the most vocal opponent of U.S. missile defense plans and has been particularly concerned by the prospect of the United States transferring missile defense technology to Taiwan. Distrustful of U.S. assurances that its defenses would not erode Beijing's nuclear deterrent, China may be compelled to accelerate its nuclear enhancement efforts to avoid any such erosion, the experts said.

Krepon argued that while China's actions to counter U.S. defenses would have only a limited effect on the U.S.-China equation, they "could be compelling on the subcontinent."

Another of the experts, Arvind Kumar of the National Institute of Advanced Studies in Bangalore, India, argued that China's nuclear and ballistic missile programs could be accelerated as a result of the U.S. national missile defense system, including introducing multiple-warhead missiles. The transfer of missile defenses to Taiwan, meanwhile, could serve the same purpose, prompting China to expand its arsenal of short-range missiles, which could theoretically also hit targets in India.

These scenarios would in turn prompt India to improve its nuclear command and control structure and mate its nuclear weapons with delivery systems to ensure a more credible nuclear deterrent, according to Kumar. To have such a credible deterrent against China, India would need a nuclear force in the "low hundreds" of warheads, Kumar said.

"India is not reassured by China's no-first-use guarantee, or its claims that its nuclear arsenal is purely defensive and not on hair-trigger alert, because of a lack of transparency in China and the absence of reliable warning systems in India," Kumar wrote. "India needs a better sense of Chinese behavior and intentions, which would in turn help India in shaping its strategies and planning for its force structure."

Krepon said he believes that the trickle-down effect from U.S. missile defense plans is already underway.

"The extent of acceleration will depend, in the first instance, on decisions taken in Washington and Beijing," he said.

### **India Supports Missile Defenses**

India sits apart from its neighbors as one of the only vocal supporters of the Bush administration's decision to scrap the ABM Treaty, construct wide-ranging missile defense systems and share some of this technology with allies. According to Rajesh Masrur of the Center for Global Studies in Mumbai, India, New Delhi's support for U.S. missile defenses is based on a deep-rooted cultural aversion to nuclear weapons and longtime opposition to the doctrine of mutually assured destruction. He argued that it therefore makes sense for India to support U.S. missile defenses and to aspire to have a limited missile defense of its own (see GSN, May 16). He said he does not envision a major Indian buildup of weapons, regardless of what China or Pakistan might do.

"India has long accepted the nuclear gap between itself and China," according to Masrur. "The widening of the gap will not make much difference. China will still be vulnerable to an Indian strike as and when Indian capacity develops. The number or relative sophistication of Chinese forces does not matter."

On the other hand, other experts point out that India has yet to codify its nuclear force structure goals and strategy.

"While India has embraced the concept of minimal, credible deterrence, the size and scope of the of the Indian nuclear deterrent are not fixed," wrote Lawrence Prabhakar, of Madras Christian College in Chennai, India. "India's commitment to nuclear minimalism could be challenged by developments in China and Pakistan, as well as by prospective U.S. missile defense deployments."

### **Pakistan Watching India**

Unlike India, Pakistan has opposed U.S. missile defense plans and seen India's aspirations for a missile defense as an effort to increase its military and political dominance. An Indian missile defense system would probably cause a buildup by Islamabad, according to Mutahir Ahmed of the University of Karachi.

"In response to Indian acquisition of missile defenses, China and Pakistan are likely to engage in nuclear buildups and to continue established patterns of strategic cooperation," Ahmed said. Pakistan might "be compelled to respond to Indian ambitions by increasing military cooperation with China and keeping its nuclear option open as the last resort in a war against India."

The world's hottest nuclear flashpoint — and the cause of three previous wars — is the disputed territory of Kashmir, which nuclear-armed India and Pakistan both claim as their own, Ahmed said.

"New Delhi's deployment of missile defenses could jeopardize improved relations between India and China ... and make the resolution of the Kashmir dispute more remote," he wrote.

### **Prospects for Treaties Remote**

The prospects for reaching any formal agreement to reduce the spread of nuclear and missile forces in South Asia are considered low, according to the report. China, India and Pakistan have been opposed to the degree of transparency necessary for such agreements, the experts said.

"Cold War models of nuclear risk reduction are only partly relevant to Asia," Krepon wrote. "The Hot Line agreement and other accords to prevent dangerous military practices could certainly be adapted to meet Asian circumstances. But the stabilizing aspects of strategic arms limitation and reduction accords, especially their codification of equality and intrusive monitoring provisions, are unlikely to be applicable to this region."

The best hope for stabilizing the region, Krepon argued, is for the United States to avoid weakening China's nuclear deterrent. "If future U.S. administrations do not seek the negation of China's strategic deterrent, cascade effects on the subcontinent could be greatly reduced."

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## **Pentagon Considers Weapons Sites**

Wed Jul 17, 11:22 AM ET

By ROBERT BURNS, AP Military Writer

WASHINGTON (AP) - The Pentagon ( [news](#) - [web sites](#) ) is exploring new ways of attacking underground sites containing chemical or biological weapons, including the use of a deep-penetrating warhead that would encapsulate its target in a hard or sticky foam rather than blow it up, a senior official said Wednesday.

Stephen Younger, director of the Defense Threat Reduction Agency, told reporters the goal is to find a way of denying an enemy such as Iraq the use of their chemical or biological weapons without blowing them up and possibly allowing some of the harmful agent to escape into the atmosphere.

An attack by conventional means, with a high-explosive warhead, would be especially problematic in cases where the chemical or biological agents are stored in a highly populated area or in the vicinity of U.S. ground troops. An explosive warhead might not destroy all of the agent material.

"It's not as simple as blowing it up," Younger said. "What you really want to do is deny the use of that material to an adversary."

Another idea, besides the use of a hard or sticky foam, is a weapon that would disperse flammable material inside the site, creating a fire hot enough to fully burn up the agents, Younger said.

"It's still in the concept stage," with a focus on what kind of neutralizing material would work best, he said.

"The thing that has changed over the past few years is a recognition that the component technologies are there — the basic research has been done," he added. "What's required now is the development" work. In some cases "it might not be years" before this capability is available, he said.

This work is part of a broader effort by Younger's agency and other elements within the Defense Department to give the military more options for dealing with the problems posed by weapons of mass destruction. It's a problem the Pentagon faces in the case of Iraq, which the Bush administration believes has or is actively developing chemical, biological and nuclear weapons.

Younger said his agency also is developing devices that could detect the presence of chemical and biological agents at longer distances, so that U.S. or allied troops could know in advance whether an area they intended to attack was contaminated.

He said the Pentagon also is considering putting a conventional warhead on intercontinental-range ballistic missiles. This would represent a major departure from the decades-long practice of arming globe-girdling missiles only with nuclear warheads.

One of the problems with putting a non-nuclear warhead on an intercontinental ballistic missile, or ICBM, is that its launch would immediately raise fears — especially in Moscow — that the United States was starting a nuclear war. Younger acknowledged there are political problems with the idea, which he said was still on the drawing board. One use for such a weapon, he said, might be a situation in which U.S. intelligence determined that a Scud missile armed with a biological warhead was about to be launched and there were no U.S. attack aircraft close enough to attack before the missile was fired. An ICBM launched from a U.S. submarine could be the answer because of its great speed.

[http://story.news.yahoo.com/news?tmpl=story2&cid=542&ncid=716&e=6&u=/ap/20020717/ap\\_on\\_go\\_ca\\_st\\_pe/new\\_weapons\\_1](http://story.news.yahoo.com/news?tmpl=story2&cid=542&ncid=716&e=6&u=/ap/20020717/ap_on_go_ca_st_pe/new_weapons_1)

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## **Homeland Security: New Department Could Improve Coordination but Transferring Control of Certain Public Health Programs Raises Concerns,**

statement for the record by Janet Heinrich, director, health care --- public health issues, before the Senate Committee on Health, Education, Labor, and Pensions.

GAO-02-954T, July 16.

<http://www.gao.gov/cgi-bin/getrpt?GAO-02-954T>

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## **Homeland Security: Critical Design and Implementation Issues for the Department of Homeland Security,**

by David M. Walker, comptroller general of the United States, before the House Select Committee on Homeland Security.

GAO-02-957T, July 17.

<http://www.gao.gov/cgi-bin/getrpt?GAO-02-957T>

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Los Angeles Times  
July 18, 2002

## **U.S. Studies Foam Bombs Among Options To Isolate Chemical Weapons**

By John Hendren, Times Staff Writer

WASHINGTON -- Defense researchers are pursuing novel ways to disable chemical and biological weapons, including a missile that would isolate weapon storage sites by coating them in an impenetrable foam.

The foam bomb is one of several weapons on the drawing board that could include toxic or other materials loaded on an earth-penetrating warhead. The idea is to neutralize, rather than blow up, underground storage sites for weapons of mass destruction, Stephen M. Younger, director of the Pentagon's Defense Threat Reduction Agency, said Wednesday.

The approach would enable U.S. forces to isolate chemical and biological weapons in urban areas without bombing them, which carries the risk of releasing chemical or biological agents into the atmosphere, endangering soldiers and civilians. Work on the concept comes as the Bush administration weighs an invasion of Iraq that, military analysts say, would leave President Saddam Hussein with little to lose by unleashing weapons of mass destruction on an invading U.S. army whose goal would be his removal.

Defense officials also voice concern that terrorists could team up with Iraq or other nations with the capacity to develop chemical, biological, or even nuclear weapons. Iraq, listed by the State Department as a state sponsor of

terrorism, is believed to have furthered its research into chemical and biological weapons since the Gulf War and has shown a keen interest in developing nuclear weapons, Younger said.

U.N. weapons inspectors believe Hussein has placed arsenals of the taboo weapons beneath hospitals in urban Baghdad. Some of the devices under consideration by the Pentagon could kill organic agents in an enclosed space with intense and extended heat. Among the more controversial weapons are nuclear-tipped missiles designed to penetrate deep into the earth.

Some concepts remain years away, likely too late for an invasion of Iraq. But Younger suggested researchers are close to beginning development on others.

"The component technologies are there. The basic research has been done," Younger said. "It may not be years [away] in some cases."

But he said more work needs to be done on key technologies allowing soldiers to detect chemical and particularly biological weapons at a safe distance.

Detection of chemical and biological weapons has improved since the Gulf War and soldiers deployed in Iraq would be given chemical suits and probably vaccines for smallpox and other diseases. Yet the risks are "still unacceptably high" for soldiers, Younger said, largely because reliable detection systems that can pinpoint multiple agents at a distance are still being developed.

Younger's agency, based at Ft. Belvoir, Va., is charged with developing ways to deter nuclear assaults and reduce the threat from all types of weapons. The agency, part of the Department of Defense, has also been consulted for domestic strategy as the Bush administration creates the Department of Homeland Security.

One common theme is the need for weapons that penetrate deep into the ground.

"Deeply buried, hardened targets are sort of the target of choice right now," said Clark Murdoch, a former Air Force director for planning who is now with the Center for Strategic and International Studies, a foreign policy think-tank. That priority stems not only from intelligence on the location of weapons sites in Iraq but experience in the war in Afghanistan. U.S. warplanes, targeting pro-Taliban fighters hiding in caves and tunnels, dropped the first earth-shuddering thermobaric explosive, the BLU-118, in the mountains in March. The device sends a slow-release pulse of destructive energy deep below the earth surface.

Classified documents call for exploring the development of nuclear-tipped missiles. While the concept has been criticized for its potential to lower the threshold for nuclear attacks or to launch a new nuclear small arms race, defense officials think modifying weapons might be less controversial.

Under one scenario, for example, a B-61--a bomb that can be modified to deliver varying amounts of explosive power--could be used to penetrate underground bunkers.

"The B-61 warhead is the only nuclear weapon at this time that's configured for any kind of penetration before it explodes," Murdoch said.

But military analysts say it remains unclear how deep such a weapon would have to go to reduce the spread of radiation to acceptable levels.

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Washington Times

July 18, 2002

Pg. 4

## **U.S. Eyes Nondestructive Warheads**

By Associated Press

The Pentagon is exploring new ways of attacking underground sites containing chemical or biological weapons, including the use of a deep-penetrating warhead that would encapsulate its target in a hard or sticky foam rather than detonate it, an official said yesterday.

Stephen Younger, director of the Defense Threat Reduction Agency, told reporters the goal is to find a way of denying an enemy such as Iraq the use of their chemical or biological weapons without detonating them and perhaps allowing some of the harmful agent to escape into the atmosphere.

An attack by conventional means, with a high-explosive warhead, would be especially problematic in cases where the chemical or biological agents are stored in a highly populated area or in the vicinity of U.S. ground troops. An explosive warhead may not destroy the agent.

"It's not as simple as blowing it up," Mr. Younger said. "What you really want to do is deny the use of that material to an adversary."



Another idea, besides the use of a hard or sticky foam, is a weapon that would disperse flammable material inside the site, creating a fire hot enough to destroy the agents, Mr. Younger said.

"It's still in the concept stage," with a focus on what kind of neutralizing material would work best, he said.

"The thing that has changed over the past few years is a recognition that the component technologies are there — the basic research has been done," he said. "What's required now is the development." In some cases, "it might not be years" before this capability is available, he said.

This work is part of a broader effort by Mr. Younger's agency and other elements within the Defense Department to give the military more options for dealing with weapons of mass destruction. It's a problem the Pentagon faces in the case of Iraq. The Bush administration believes that country has or is developing chemical, biological and nuclear weapons.

Mr. Younger said his agency also is developing devices that could detect the presence of chemical and biological agents at longer distances, so that U.S. or allied troops could know in advance whether an area they intend to attack is contaminated.

He said the Pentagon also is considering putting a conventional warhead on intercontinental-range ballistic missiles. This would represent a major departure from the practice of arming globe-girdling missiles only with nuclear warheads.

One of the problems with putting a non-nuclear warhead on an intercontinental ballistic missile, or ICBM, is that its launch would raise fears — especially in Moscow — that the United States was starting a nuclear war.

Mr. Younger acknowledged political problems with the idea, which he said was still on the drawing board.

One use for the weapon, he said, might be if U.S. intelligence determined that a Scud missile armed with a biological warhead was about to be launched and no U.S. aircraft were close enough to attack before the missile was fired.

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Denver Post

July 15, 2002

Pg. 1

## **Homeland Command Won't Bring All To Colo.**

By Bill McAllister, Denver Post Washington Bureau Chief

NORFOLK, Va. - Two of what are likely to be the most visible elements of the Pentagon's new homeland security military command will remain on the Virginia coast - far from the command's Colorado base.

The military's efforts to help civilian authorities cope with the aftermath of terrorist attacks or natural disasters already are handled in Norfolk at the home of the Navy's Atlantic Fleet and will remain in Norfolk even after the new U.S. Northern Command opens in Colorado Springs on Oct. 1. The Colorado Springs command will oversee those efforts and work to prevent terrorists from ever reaching U.S. shores.

Military officials said there are more potential terrorist targets on the East Coast, and Air Force Gen. Ralph 'Ed' Eberhart, who will run the new command, has endorsed their plans to stay in Norfolk.

'He doesn't want to reinvent something that's already working,' said Marine Corps Col. Gene Pino, chief of staff for the Homeland Security section of the Joint Forces Command based in Norfolk.

Norfolk has been the site of the Defense Department's major homeland-security planning staff, which has supervised everything from the military's role at the Salt Lake City Olympics to fighting a deadly poultry virus on the East Coast. It will stay in Virginia, as will the Joint Task Force-Civil Support, which would help communities hit by chemical, biological, high-yield explosives or nuclear weapons.

Those units are expected to grow from about 125 to about 233 people in the coming fiscal year - twice the 100 people that Eberhart told the Senate Armed Services Committee will join him in Colorado Springs on Oct. 1. A spokesman for Eberhart confirmed that the commands will remain in Virginia at least for now, noting that 'Northcom's' formal structure in Colorado Springs has yet to be approved.

Sen. Wayne Allard, R-Colo., and others said they realize that some elements of the command will remain elsewhere.

'With time, it may well come to Colorado Springs,' Allard said of the Norfolk units. David Lucas, director of military programs for the Greater Colorado Springs Chamber of Commerce, forecasted 'a net gain' in federal employment when the U.S. Space Command moves to Nebraska and is replaced by the Northern Command.

Lucas said local officials expect Northcom ultimately will add 500 to 1,000 jobs. That's more optimistic than military officials who have said Northcom will ultimately bring about 500 jobs, compared to Space Command's 877 jobs.

Northcom won't need a large number of troops because it can borrow active and Reserve units from other commands, Pino said. The fact that we will not have assigned forces makes us smaller,' he said.

Even without the Virginia-based units, planners said, Northcom's Colorado Springs staff will have plenty to do. Its first year is likely to be focused on planning and training. To help orient the new staff, Pino has prepared a 236-page 'playbook' detailed down to the hour and date of required training. 'I mean, 'This class will be taught from 8 to 9 on this date.' That level of detail,' Pino said.

Northcom was created to make a single command responsible for the military's role in fighting terrorism within the United States. But some military experts in Washington fear that Northcom may bite off too much.

Michael O'Hanlon, a senior fellow on military issues at the Brookings Institution, said Northcom 'should primarily handle attacks by large objects or weapons against the United States - ballistic missiles, cruise missiles, hijacked airplanes, hijacked ships if they can be identified at sufficient distance.'

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## Al-Qaida Weapon Access Worries U.S.

Thu Jul 18, 1:56 AM ET

By *ROBERT BURNS, AP Military Writer*

WASHINGTON (AP) - Although U.S. troops in Afghanistan ([news](#) - [web sites](#)) turned up no evidence that al-Qaida had nuclear weapons, the Pentagon ([news](#) - [web sites](#)) still worries the terrorist network could get them from sources in other countries, a senior official said.

Stephen Younger, director of the Defense Threat Reduction Agency, said extensive searches in Afghanistan showed al-Qaida was interested in nuclear technologies, as well as biological and chemical weapons.

He said they had made little progress toward building their own bombs before U.S. forces intervened last fall, drove the Taliban regime from power and sent surviving al-Qaida leaders into hiding.

"Al-Qaida has been trying to get a weapons of mass destruction capability," he told a group of reporters Wednesday. "I think they had a limited infrastructure in Afghanistan to produce it indigenously.

"However, that doesn't mean that they don't have a different capability elsewhere," he added. Later he said this meant that al-Qaida leaders may have connections in other countries that already have the technological base for building nuclear weapons. They have the money to make such links, he said, and they have "access to people in countries with advanced technological capability."

Defense Secretary Donald H. Rumsfeld has publicly raised the possibility that Iraq could be such a supplier for al-Qaida or other international terrorist groups.

Al-Qaida's interest in biological weapons seemed to be focused mainly on anthrax, Younger said.

In light of the Sept. 11 attacks and concerns within the Bush administration that international terrorists might link up with Iraq to obtain weapons of mass destruction, the Pentagon is exploring new ways to neutralize or destroy biological and chemical weapons that might be stored underground.

Younger said one possibility is a warhead that would encapsulate a biological or chemical weapons facility with a hard or sticky foam rather than blow it up with conventional bombs.

Another possibility is a nonexploding warhead that spreads flammable materials to incinerate biological agents.

Both approaches are still on the drawing board. They would be alternatives to conventional high-explosive warheads, which might allow contaminants to escape, threatening civilians or U.S. troops.

"It's not as simple as blowing it up," Younger said.

Younger said that although the United States does not know what kinds of weapons Iraq may have developed since U.N. inspections ended in 1998, it is a "reasonable assumption" based on Saddam Hussein ([news](#) - [web sites](#))'s track record that the Iraqi president either has or is pursuing weapons of mass destruction.

Iraq claims it has no weapons of mass destruction.

The Pentagon is contemplating other unpleasant scenarios that could emerge in Iraq or elsewhere, Younger said.

One possibility: a U.S. satellite detects a Scud ballistic missile, possibly armed with biological agents, being readied for launch. What could the United States do to stop it if there were no U.S. strike aircraft nearby and ready?

In the future, an answer might be to strike with a non-nuclear intercontinental ballistic missile, which has the advantage of very high speed. For now, all the United States' ICBMs on land and at sea are armed with nuclear

warheads. To switch some to non-nuclear roles would create political issues; launching one in a crisis would raise fears in Moscow and elsewhere that a nuclear war was under way.

Younger's agency also is working on other kinds of advanced non-nuclear weapons. He said experiments have been done on arming a Hellfire air-to-ground missile with a thermobaric warhead, which ignites an explosive mist that sends a powerful shock wave through a cave or tunnel, annihilating everything and everyone inside.

Such a weapon is likely to be ready for use "in fairly short order," Younger said without being more specific.

At least one thermobaric weapon was used by the Air Force in Afghanistan, but it has never been developed in a warhead small enough to fit onto a Hellfire missile. Although the Hellfire normally is launched from a helicopter, some have been fired in Afghanistan from Predator unmanned drones.

[http://story.news.yahoo.com/news?tmpl=story2&cid=542&ncid=703&e=9&u=/ap/20020718/ap\\_on\\_go\\_ca\\_st\\_pe/al\\_qaida\\_weapons\\_2](http://story.news.yahoo.com/news?tmpl=story2&cid=542&ncid=703&e=9&u=/ap/20020718/ap_on_go_ca_st_pe/al_qaida_weapons_2)

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