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Atomic agency warns of nuclear terror risk
By Clive Cookson in London
Published: October 31 2001 21:52 | Last Updated: October 31 2001 22:33
The September 11 suicide attacks have shown that the world faces a serious risk of nuclear terrorism, the International Atomic Energy Agency warned on Wednesday.
It said the threat was most likely to come from the explosion of a conventional "dirty bomb" that would spread radioactive materials. Making such a bomb could expose the terrorists to life-threatening radiation.
"The willingness of terrorists to sacrifice their lives to achieve their evil aims makes the nuclear terrorism threat far more likely than it was before September 11," said Mohamed El Baradei, IAEA director general.
"We have been alerted to the potential of terrorists targeting nuclear facilities or using radioactive sources to incite panic, contaminate property and even cause injury and death among civilian populations," he said.
The IAEA will hold a special meeting of experts on nuclear terrorism on Friday at its headquarters in Vienna. It is preparing a series of anti-terrorist initiatives, including measures to track down and dispose of surplus radioactive sources.
Although the most spectacular act of terrorism would be to set off a nuclear explosion, IAEA experts believe it is "highly unlikely" that al-Qaeda or any other terrorist network has the expertise or enough uranium or plutonium to make its own atomic bomb. Nor do they believe rumours that terrorists might have obtained "suitcase bombs" - capable of one-kiloton explosions - from the nuclear arsenal of the former Soviet Union.
According to the IAEA, terrorists are much more likely to use a "dirty bomb" that spreads radioactive material through a conventional explosion. There are tens of thousands of highly radioactive sources around the world, generating radiation for industry, medicine and research. Often they are left virtually unprotected against theft.
"A large source could be removed quite easily, especially if those involved have no regard for their own health," said Abel Gonzales, IAEA director of radiation and waste safety. "The effects of a dirty bomb would not be devastating in terms of human life but contamination in even small quantities could have major psychological and economic effects."
An example of the danger was the accidental contamination of Goiânia in Brazil with a medical radiation source, caesium 137, that was stolen and broken up for scrap in 1987. Four people died, 14 received dangerous irradiation, 249 were contaminated and 110,000 required radiological monitoring.
http://news.ft.com/ft/gx.cgi/ftc?pagename=View&c=Article&cid=FT3KALWNHTC&live=true&tagid=IXLYK5HZ8CC
This agreement would not scrap the Anti-Ballistic Missile Treaty, which U.S. officials said remains the ultimate goal of negotiations with Russia, but would allow the administration to move ahead with the vigorous testing and development program it hopes to begin early next year.

"Testing will go on, but there will be no announcement of a U.S. withdrawal from the ABM treaty," one official said. "That would be associated with a decision to deploy a system which will come later."

Under this interim arrangement, both countries would also set goals for slowly reducing the number of strategic warheads to between 1,750 and 2,250 each, officials said. This would be lower not only than the 3,000 to 3,500 warhead levels set under the START II treaty, but also the proposed ceiling for a START III pact that was reached by Presidents Bill Clinton and Boris Yeltsin in 1997. Implementation of START II, which was signed in 1993 by Bush's father and Yeltsin, was to have been completed by December 2007.

Each country now has more than 6,000 strategic warheads on land- and submarine-based missiles and long-range bombers, but Russia's arsenal is expected to decline sharply in the years to come because of obsolescence and lack of money.

The agreement would represent a substantial breakthrough nine months after Bush came into office and made missile defense his top foreign policy priority in the face of adamant Russian opposition to dropping the 1972 ABM pact. It would further underscore how far the two former Cold War adversaries have moved in transforming their relations, especially after the Sept. 11 terrorist attacks opened new areas of cooperation.

But preparations for the summit have also brought to a head the debate within the Bush team about how to achieve the goal of setting aside the ABM treaty -- which prohibits a missile defense system of the type Bush envisions -- while trying to accommodate Putin's stated interest in reducing strategic nuclear weapons.

Bush and Putin will meet here Nov. 13 and then travel to Bush's ranch in Crawford, Tex., for two additional days of talks.

Though an interim deal within the context of the ABM treaty now seems likely, some key officials in the Pentagon and their allies elsewhere in the administration have continued pressing for the United States to withdraw from the pact sooner rather than later. The final shape of the upcoming agreement has yet to be cast and different members of the administration are still debating whether to accept a deal that substantially loosens the treaty's testing restriction or to push for complete freedom to test, according to current and former officials familiar with the discussion.

"This has been subject to debate for quite some time and there's renewed interest given the fact that Bush has an opportunity to see Putin shortly," said an administration official. "It's an opportunity to move the agenda one way or another."

The internal administration efforts to influence the U.S.-Russia negotiations, one official said, were behind the announcement last week by Defense Secretary Donald H. Rumsfeld that the Pentagon would delay radar tests involved in the missile defense program. Rumsfeld opened a Pentagon news briefing by saying that the tests, scheduled for Oct. 24 and Nov. 14, were being put off because the radars to be used to monitor missile and rocket firings could be seen as violating the ABM treaty.

Although this announcement was widely interpreted in the American and Russian media as meant to avoid a showdown with Moscow ahead of the summit meeting, U.S. officials said Rumsfeld did not have this in mind. Instead, officials said, he was trying to promote his goal of withdrawing from the treaty entirely as soon as possible by showing that the pact was already inhibiting the American testing program.

Defense officials pointed out that the two tests had already been delayed for technical reasons unrelated to the ABM treaty. Moreover, Rumsfeld made his statement a month after the Ballistics Missile Defense Organization, the Pentagon office responsible for developing a missile shield, had been informed in an internal memo dated Sept. 24 that the radars involved in the tests could not be used in a fashion that violates the treaty.

Asked by reporters Monday whether his comments had been misleading, Rumsfeld said, "If one of those tests is canceled or has been canceled for technical reasons, so be it. All I know is, at the time I was asked what should they do, I said, 'Do not violate the treaty.' And if later there was a technical reason and we could not have used the radar anyway, that's life."

Senior administration officials said Rumsfeld and others who want to see the treaty quickly scrapped have been the most vigorous advocates of interpreting the ABM treaty strictly. This allows them to make the case that the pact is already constraining the testing program and must go.

Others in the administration, including national security adviser Condoleezza Rice, have sought to depict greater room for compromise, saying for instance that Russia had said it does not see missile tests as a threat. Although Rice had argued in the summer the need for "maximum flexibility" from the treaty, she has stressed in recent days that Bush has the more modest short-term goal of ensuring that the pact does not constrain the testing and evaluation of missile defense technologies.
After meeting Russian Foreign Minister Igor Ivanov in Shanghai last month, Secretary of State Colin L. Powell said, "I have had some discussions with Russian colleagues of mine who suggest we can probably do more testing than we think under the treaty. . . . We are looking at that."
The group within the administration that includes Powell and Rice wants "to do everything we need to do on our timetable and accomplish all the other objectives with Russia all at the same time," a senior official said. Noting that no missile defense architecture exists and therefore a deployment decision on any shield remains years off, another senior official said, "You could argue we shouldn't get rid of the treaty now and give the Russians an understanding." The official added: "We're working through all the issues now."
The prospect that the administration would reach an interim deal with Russia short of full withdrawal from the ABM treaty has grown in recent weeks. At his meeting with Putin in Shanghai last month, Bush refrained from giving a deadline for a pullout from the treaty. After the meeting, both leaders sounded upbeat about the chances of reaching a deal.

An essential part of a new understanding with Russia would be an agreement over levels of offensive weapons. In a campaign speech on May 23, 2000, Bush said he wanted to reach "the lowest number of nuclear weapons consistent with our national security needs including our obligations to our allies."
The strategic warhead reductions now envisioned would be accomplished over a long period, in part because the Russians do not have the money to carry out the costly destruction of land- and sea-based intercontinental ballistic missiles, nor the facilities to store the weapons-grade uranium and plutonium from the warheads. Under START II, reductions down to the 3,000 to 3,500 level are not supposed to be accomplished before the end of 2007. "We are already on the downslope dismantling the first of the 50, 10-warhead, Peacekeeper ICBMs and cutting the number of Trident ballistic missile submarines down from 18 to 14," said a U.S. official involved in the nuclear weapons program. "The question is how fast we go down," he said, "since the Russians will go much slower."

Staff writers Bradley Graham and Steven Mufson and researcher Lynn Davis contributed to this report.

New York Times
November 1, 2001
Pg. 1

Pakistan Atom Experts Held Amid Fear Of Leaked Secrets
By John F. Burns
ISLAMABAD, Pakistan, Oct. 31 — Pakistan has arrested three of the country's leading nuclear scientists and held them for questioning for most of the last week in connection with American concerns that nuclear weapons technology could have found its way into the hands of Osama bin Laden and the Taliban rulers of Afghanistan, officials in Pakistan said today.

They provided no details, and would not say whether they had turned up information to confirm American concerns. Nor would they comment on Pakistani newspaper reports that officials of the Federal Bureau of Investigation and the Central Intelligence Agency were involved in questioning the men.

On Tuesday, a spokesman for President Pervez Musharraf, Pakistan's military ruler, described reports that the men had been "handed over" to American investigators as "absolutely baseless and incorrect."

Asked about the arrests and the general issue of the safety of nuclear weapons in Pakistan, Colin L. Powell, the secretary of state, said today in Washington, "I discussed this issue with President Musharraf when I was in Islamabad, and I'm confident that he understands the importance of ensuring that elements of his nuclear program are safe and secure."

Referring to General Musharraf, Secretary Powell added, "And he knows that if he needs any technical assistance on how to improve that security level, we'd be more than willing to help in any way we can."

The Pakistani officials confirmed that one man who has been questioned is Sultan Bashiruddin Mahmood, a former top official of Pakistan's Atomic Energy Commission who has been identified in Pakistani newspapers as having been involved in the development of the atomic bombs Pakistan tested in its western desert in May 1998 after similar tests by India earlier that month.

The other arrested men were identified as Mirza Yusuf Baig and Abdul Majeed, also senior scientists with the Atomic Energy Commission. Dr. Majeed was said to have retired from the commission, while Dr. Baig's status was unclear.
Pakistani newspaper reports quoted the families of the three men as saying that they were originally picked up on Oct. 23. An Islamabad newspaper, The Pakistan Observer, regarded as having strong links to Pakistan's military intelligence agency, Inter-Services Intelligence, said Dr. Mahmood had been released on Friday and rearrested on Sunday. It said he had been "in a very precarious mental and physical health" in the two days he spent at home, and had feared for his life when he was led away on Sunday.

Dr. Mahmood retired from the atomic research establishment shortly after the 1998 tests. At the time, the move was ascribed to his public criticism of suggestions that Nawaz Sharif, then the prime minister, might sign the treaty banning the spread of nuclear weapons.

But officials said today that there had been American pressure to remove the scientist after American intelligence officials learned that he had sympathies for Islamic militant groups, including the Taliban.

Since then, Pakistani newspapers have reported, Dr. Mahmood founded a private organization engaged in "relief, rehabilitation and reconstruction" work in Afghanistan, with activities that have been concentrated around Kandahar, the city that is the spiritual headquarters of the Taliban. He has traveled several times to Afghanistan, and the officials said the precise purpose of these visits was one focus of his interrogation.

Western intelligence officials said they had indications that Mr. bin Laden had made unsuccessful attempts to procure fissionable materials for nuclear weapons beginning at about the time of Pakistan's nuclear tests.

Publicly, officials on General Musharraf's staff have played down the case, saying that the three men had nothing to do with nuclear weapons.

Dr. Mahmood retired from government service in 1998, Maj. Gen. Rashid Qureshi, the spokesman for General Musharraf, said at a daily Foreign Ministry briefing for reporters on Tuesday. He said Dr. Mahmood had been operating a nongovernmental organization and in the course of his duties had traveled to Afghanistan.

He added: "There were certain questions that needed to be asked and those have been asked. The report about his handing over to the C.I.A. or F.B.I. or any other agency is absolutely incorrect and false. Presently, he is not under arrest at all and he is in hospital."

But members of the scientists' families denied today that the men had been released, saying they had no access to them and demanding that the government tell the truth about the arrests. "Speaking lies on such a sensitive issue is not going to serve any purpose," the wives of the scientists declared.

Other Pakistani officials said that the case was sensitive and that official denials should not be taken at face value. "What other nuclear program does Pakistan have, other than a nuclear weapons program?" one official said.

The official recalled receiving instructions in the mid-1990's to deny, in official contacts with American officials, that Pakistan was developing nuclear weapons, at a time when the country already had assembled nuclear bombs. "It's just one of those things you can't be absolutely straightforward about," he said.

Washington's concerns about the security of Pakistan's nuclear weapons program heightened after the Sept. 11 terrorist attacks. General Musharraf's pledge to support American military operations against the Taliban and Mr. bin Laden touched off a wave of protests by Islamic militant groups in Pakistan.

American officials flew to Pakistan to discuss ways of preventing Pakistan's small arsenal of nuclear weapons, said to number fewer than 20, from falling into the hands of extremists if the government was toppled by Islamic militants within the army.

But until the arrests of the scientists last week, American concerns appeared to focus on the Pakistani weapons themselves, more than on the weapons-building expertise that could be transferred to the Taliban or Al Qaeda.

Officials in Washington have said that discussions about the Pakistani nuclear program have centered on providing technology that would make it more difficult for rogue elements to use the weapons if they got possession of them.

In their appeal today to General Musharraf, the wives of the scientists said Dr. Mahmood, the most senior of the three, had a heart attack on Tuesday while undergoing "intensive inhuman interrogation."

"As you are aware, they are eminent nuclear scientists who have served this country to the best of their abilities," the letter to General Musharraf said. "They do not have any association with any terrorist or anti-Pakistan organization."

Washington Post
November 1, 2001
Pg. 1

Experts Warn Bioterrorism Could Expand

N.Y. Hospital Worker Dies of Anthrax
By Michael Powell and Ceci Connolly, Washington Post Staff Writers

Public health officials scrambled yesterday to investigate the mysterious infection and death of a New York woman from inhalation anthrax, as experts warned Americans that the wave of bioterrorism could expand in coming days. Kathy Nguyen, 61, a hospital worker from the South Bronx, died yesterday morning at a New York hospital, three days after doctors placed her on a ventilator. A second worker at Manhattan Eye, Ear and Throat Hospital, where Nguyen worked, has been tested for skin anthrax, but no trace of spores has been found at the hospital. Investigators say they may have pulled some anthrax spores off Nguyen's clothes.

The lack of fresh leads, even as 1,000 detectives, FBI agents and medical investigators combed through offices and homes, frustrated officials. Jeffrey Koplan, director of the Centers for Disease Control and Prevention, spoke of Nguyen as the latest "murder victim in New York."

Top health officials warned that the anthrax attacks are still escalating. And experts who track anthrax caution that the terrorists appear to be sophisticated scientists -- not basement experimenters following a poisonous recipe for the first time.

Among 16 anthrax cases that have resulted in four fatalities nationwide, Nguyen's death is the first to have no link to the news media or the Postal Service -- where the disease is presumed to have spread through letters contaminated with millions of anthrax spores. She was also one of two anthrax cases this week that involved Americans who did not routinely deal with mail on the job.

President Bush warned business leaders yesterday that the United States is "still being attacked." And White House spokesman Ari Fleischer acknowledged the fear that comes with trying to combat an invisible threat from an unknown enemy.

"I think for the American people it's frightening, it's scary," Fleischer said. "We do not know how she contracted the anthrax."

In New York, Mayor Rudolph W. Giuliani emphasized that the anthrax that infected Nguyen, however terrible, appears isolated to a single hospital and one or two victims. He said investigators may have found traces of anthrax bacteria on the clothing Nguyen wore when she was admitted to the hospital Sunday, including -- according to preliminary tests -- her shirt, sweater and jeans.

"No one can assure anyone that we're all perfectly safe," Giuliani said. "All I can do is give you the facts."

Police Commissioner Bernard Kerik said investigators are looking beyond the hospital, to Nguyen's home and, more remotely, the subways: Nguyen rode the No. 6 train down the East Side of Manhattan to work each day.

The U.S. Postal Service, meanwhile, swiftly closed another central mail-processing facility, this one in southern New Jersey, after learning late Tuesday night that a worker there tested positive for skin anthrax. The infected man lives in Delaware.

"He is not hospitalized. He's okay. We are very comfortable the exposure has not occurred in Delaware," said Ulster Tillman, director of the state's Division of Public Health.

Investigators swept through the processing and distribution plant located about 35 miles south of the contaminated Hamilton Township site, where three letters containing anthrax spores were postmarked. No tainted letters have surfaced with the Bellmawr postmark, although health and postal officials have long speculated that more contaminated letters remain to be found.

Meanwhile, public health officials struggled to make sense of the latest cases, with experts offering several theories. The leading theories tend to fall along two lines: One holds that anthrax is likely being spread through new pieces of contaminated mail; the other is that terrorists are experimenting with new avenues of attack.

If tests reveal new cases of anthrax at the small, 28-bed hospital where Nguyen worked, it might suggest fresh, direct exposure to the diseases, as opposed to cross contamination from an existing piece of mail. But the search for new infections is more difficult because Nguyen's co-workers are already taking antibiotics, which could mask the presence of anthrax.

The recent case of the woman in New Jersey, a bookkeeper who came down with skin anthrax, appears to worry officials less. They note that she worked close to a post office contaminated with particularly finely milled spores, and that spores might have passed from envelope to envelope.

"The cutaneous anthrax part of it is compatible with cross contamination," said Anthony S. Fauci, director of the National Institute of Allergy and Infectious Diseases. "The case in New York City is clearly much more perplexing, because at this point, there really is no apparent connection."

"And the inhalation component of it makes it even more perplexing."

Indeed, the closer scientists look at the spores that have traveled through the mail, the more impressed and concerned they have become. Alan Zelicoff, senior scientist at the Center for National Security and Arms Control at the Sandia National Laboratories in Albuquerque, said investigators need to begin to focus less on the microbiology than the physics, which is impressive.
"We didn't think that anybody could come up with the appropriate coatings for anthrax spores to make them float through the air with the greatest of ease," Zelicoff said, adding that exposing 28 people with a single opened envelope "is no mean trick."

And C.J. Peters, director of the Center for Biodefense at the University of Texas at Galveston, said that someone who has learned to produce two grams of anthrax spores milled to one to five microns -- as was true of the spores mailed to Senate Majority Leader Thomas A. Daschle (D-S.D.) -- could just as easily produce two kilograms of the stuff.

He sees the potential for a grander terror.
"With two grams of finely milled anthrax," Peters said, "if you can disseminate it in a closed system like a subway or building, you could infect hundreds of thousands of people."

The anthrax crisis has forced scientists and health officials to reconsider other verities as well, including the number of spores it takes to cause inhalation anthrax. Sen. Bill Frist (R-Tenn.), the Senate's only physician, who has steeped himself in bioterrorism, said no case has so alarmed him as the death of Nguyen. And he suggested that scientists discard the existing assumption that it takes 8,000 to 10,000 spores to infect someone.

"I'd throw it out the window," Frist said.

Scientists and public health officials have said in recent days that they believe that age, health and even how deeply a person breathes could affect whether they become infected. A 1993 study by the Office of Technology Assessment concluded that "1,000 spores or less can produce fatal pulmonary anthrax in some" people.

More important than the number of spores may be the bacteria's ability to travel through the air and into the lungs. "If you're far away or the wind has dispersed it significantly, it gives you a considerable advantage," said Stephen S. Morse, director of the Center for Public Health Preparedness at Columbia University.

For now, officials find themselves less certain about a disease that, although treatable, has the potential to cause many more deaths.

"In hindsight, this has been an escalating event," said Mohammad Akhter, executive director of the American Public Health Association. "We will continue to see new cases of anthrax disease. We do not have a complete handle on who was exposed."

The answers to those questions are as eagerly awaited in the South Bronx, where Nguyen lived, as on Capitol Hill.

Anna Rodriguez, the former manager of the West Farm Estates apartments where Nguyen lived for more than two decades, recalled a woman who always smiled, and brought along doughnuts and coffee whenever she came to the office.

"We loved this woman; she would give us hugs and kisses," Rodriguez said. "I hope that someone comes back and gives us some answers."

Staff writers Christine Haughney, Robert O'Harrow Jr. and Dale Russakoff contributed to this report.

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Pg. 1

Assessing Risks, Chemical, Biological, Even Nuclear
By William J. Broad, Stephen Engelberg and James Glanz

Since being jolted by the terrorist attacks of Sept. 11 and the persistent, mysterious spread of anthrax, the government has been struggling to discern what weapon, if any, might be aimed at the nation next.

Government analysts have been forced into broad agreement that the threat of terrorists wielding mass-casualty weapons — chemical, biological or even nuclear — is more serious than they had believed. At the same time, they say a widespread attack with any of these sophisticated weapons would be difficult to achieve.

But there is little precision behind these judgments, and officials acknowledge that the next attack by Al Qaeda or some other group could well involve conventional weapons — truck or car bombs.

The assessment of threats, the effort by government analysts to forecast the behavior of unseen enemies, even unknown ones, is at best an imprecise art that depends largely on the quality of the intelligence from which it is drawn. Many agencies do it, and they often disagree.

"Can we assess threats? Yes, we can and we've done so in the past. We've figured out things that people might try do to us and closed them off," said Kenneth M. Pollack, deputy director of national security studies at the Council on
Foreign Relations and a former official at the Central Intelligence Agency. "But ultimately, when you have a very creative group of people like Al Qaeda, they are capable of surprising us."
"We may come up with a thousand scenarios of what they can do to us," Mr. Pollack said. "But the only one that matters is the one that the Al Qaeda person comes up with."
Nonetheless, a host of officials, from the intelligence agency to the Federal Bureau of Investigation to the Pentagon, are trying to deliver the analysis that would help both fend off attacks in the near future and defend against longer-term threats.
The possibilities are almost limitless. The Japanese Aum Shinrikyo cult tried several attacks with germ weapons, including anthrax, before turning to the nerve gas sarin, which they released in the Tokyo subways in 1995, killing 12.
Experts say that chemical weapons offer terrorist groups a chance to inflict mass casualties and spread panic, much as the release of a small amount of anthrax has stirred panic among a jittery public.
John Bolton, the State Department's top arms control official, told reporters that he was significantly more concerned about the possibility of nuclear, chemical or biological attack since Sept. 11.
A group that would ram airplanes into the World Trade Center, he said, was "not going to be deterred by anything." "Had these people had ballistic missile technology, there is not the slightest doubt in my mind that they would have used it," Mr. Bolton said.
Osama bin Laden's Al Qaeda group is believed to have what one senior Pentagon official recently termed a "crude chemical and possibly biological capability." The group also attempted to obtain nuclear materials in the mid-1990's. That effort was not successful, but officials viewed it as a clear indication of Mr. bin Laden's intentions.
The quest to imagine the unimaginable can have side effects. Richard K. Betts, a Columbia University professor who served on the National Commission on Terrorism, noted that the practitioners of threat assessment can produce a haze of lurking dangers.
"Which of the three dozen 'out of the box ideas' do you decide to make the focus?" Professor Betts asked.
The terrorism commission, which produced its report in June 2000, reviewed the government's pre-Sept. 11 assessments of the terrorist threat. Professor Betts and others on the commission said they found much that could be improved with some low-cost steps.
"You can keep better track of who is ordering questionable biological agents," he said. "You can keep track of what foreigners are in this country working in sensitive industries."
There are, of course, limits to what can be accomplished with better threat assessment. "You can invest more to find out what kinds of threats are developing, but you're talking for the most part about reducing the odds at the margins," Professor Betts said. But in the business of forecasting terrorist threats, he said, even that would be valuable.

**Biological Agents**

All germ weapons are not created equal. Some are like sticks of dynamite — deadly if exploded in a crowd but otherwise limited in destructive power. Some can spread like fire through a dry forest. Most are hard to make, use and control, which limits their appeal to terrorists.
The United States and the Soviet Union, in their forsaken programs to make germ weapons, focused their bulk production of deadly biological agents on 10 kinds of bacteria, viruses and toxins.
Today, the Centers for Disease Control and Prevention lists 36 classes of "select agents" — potential weapons whose transfer in the scientific and medical communities is regulated to keep them out of unfriendly hands. There are 13 viruses, 7 bacteria, 3 rickettsiae (micro-organisms that have traits common to both bacteria and viruses), 1 fungus and 12 biological toxins.
Of these, experts agree, the smallpox virus is in a class by itself. Ancient and vicious, the virus killed more people over the ages than any other infectious disease, up to a half billion in the 20th century alone. It is highly contagious and can spread rapidly.
In one of the great triumphs in public health, smallpox was eliminated from the world in 1980, and today, stocks of the virus are known to exist only in the United States and Russia. But experts suspect its presence in clandestine stockpiles.
Because vaccination for smallpox has been abandoned and immunity is not lifelong, most people today are believed to be vulnerable to the disease.
"It's my personal nightmare," said Al Zelicoff, a physician and smallpox specialist at the Sandia National Laboratory in Albuquerque, N.M.
Anthrax bacteria, while more deadly, must be formed into tiny particles of just the right size to penetrate deep into a person's lungs. But even when infection sets in, the disease cannot pass from person to person.
Because anthrax cases are so rare in developed countries, much about it remains unknown. Even now, doctors are revising treatment regimens and mortality estimates based on the experiences of anthrax patients in the recent outbreaks in the United States.

Among the other potential biological weapons are these:

PLAGUE -- The contagious and often fatal bacterial disease produces high fevers, headaches, glandular swelling and pneumonia.

BOTULINUM -- A toxin that is the most poisonous compound known to science, it paralyzes muscles and lungs and kills quickly by suffocation.

Q FEVER -- The relatively mild disease can produce crippling chills, coughing, headaches, hallucinations and fevers up to 104 degrees.

EASTERN EQUINE ENCEPHALITIS -- It causes fever, headaches and seizures and is fatal in up to 70 percent of cases.

YELLOW FEVER -- Characterized by chills, muscle pain, stomach bleeding, dark vomit, and yellow skin due to liver failure and bile accumulation, the mortality rate is up to 10 percent.

MARBURG VIRUS -- One of the bleeding diseases, like Ebola, it causes high fevers and kills one in four victims. Despite a history going back ages, and despite occasional grim successes, germ weapons have never played decisive roles in warfare or terrorism. One reason is that it is difficult to acquire and use the complicated gear needed to make and scatter deadly pathogens. Another is the risk of a boomerang effect in which attacker becomes victim.

With the recent anthrax outbreaks, experts have had to recalculate their assessment of the threat of widespread biological terrorism. Many still feel that such an attack would be difficult to mount.

"There is an ocean of difference between learning how to steer a jetliner into a building and overcoming the technical hurdles in the dispersal of a biological agent to cause mass casualties," said Dr. Amy E. Smithson, an expert on biological and chemical weapons at the Henry L. Stimson Center, a private group in Washington.

The Congressional investigators of the General Accounting Office, in a September 1999 report, looked at a dozen biological agents and found that their use by terrorists was mostly possible or potential — not likely. For instance, it said bleeding disease agents like Marburg were unlikely "due to difficulty in acquiring pathogen, safety considerations and relative instability."

With smallpox, the investigators found that its use was questionable "due to limited access to the pathogen," even while agreeing that an outbreak would have devastating effects.

Many experts contend that no state possessing the virus would give it to a terrorist because of the danger of starting a global epidemic that would kill indiscriminately, especially in the developing world.

"Societies that harbor terrorists might be at greater risk than we are," said a top federal adviser on biological terrorism who spoke on the condition of anonymity.

Dr. Brad Roberts, a terrorism expert at the Institute for Defense Analyses, a private group in Alexandria, Va., that advises the Pentagon, said that doing careful threat assessments was almost impossible because of the lack of concrete information about terrorist capabilities, and that in that vacuum appraisals have often tended to be alarmist.

"This is not a classic military or criminal problem, which is to say we can't possibly see everything we need to see to know what the threat is," Dr. Roberts said. "All we can see is a catalog of vulnerabilities so long as to be overwhelming."

Chemical Perils

Chemical weapons are typically less likely than germ weapons to cause widespread death and illness, but experts say they are easier to make and deploy. For that reason, the experts regard them as worrisome.

Still, as with germ weapons, obtaining the requisite raw materials can be difficult, as is pulling off successful attacks. Fickle winds can easily blow toxic mists off target.

Because of the many potential snags, some experts see terrorist strikes on chemical plants and transportation links as an easier way to release noxious clouds that could injure or kill many people.

Dr. Smithson of the Stimson Center recently told a subcommittee of the Senate Committee on Governmental Affairs that roughly 850,000 American facilities, many in or near major cities, use hazardous or extremely hazardous chemicals.

"My main chemical terrorism concern relates to the possible sabotage of these industrial facilities," Dr. Smithson said, adding that new safeguards and precautions were attempting to deal with that danger.

But some potential ingredients for chemical weapons are available on the commercial market, avoiding the need to make them. Chlorine, phosgene and hydrogen cyanide are examples, all noxious if inhaled but limited in killing power. Small doses tend to produce no effects or nausea. Medium doses produce dizziness. Large doses can end in convulsions and death.
Far more deadly are nerve agents, small amounts of which can penetrate the skin or lungs to disrupt the body's nervous system and stop breathing. They are also technically more difficult for terrorists to acquire or make, the General Accounting Office pointed out in its 1999 study.

Examples are tabun, the first nerve agent ever produced; sarin, which the Aum Shinrikyo cult used in 1995; and soman, a colorless liquid with a fruity smell. VX gas, which Saddam Hussein of Iraq made in large quantities, is deadly but very hard to synthesize.

The Congressional investigators noted in their 1999 study that developing nerve agents requires multiple precursor chemicals and several manufacturing steps, some of them difficult and hazardous.

Moreover, the Congressional investigators said, "careful temperature control, cooling of the vessel, heating to complete chemical reactions, and distillation could be technically infeasible for terrorists without a sophisticated laboratory infrastructure."

Experts agree that spreading a chemical agent in a closed environment, such as a subway, would be most effective. Outdoor dissemination is much harder. Attacks can be disrupted by sunlight, moisture and wind, and some chemical agents are easily evaporated or diluted. As a result, experts agree that it is generally hard to use chemical agents outdoors with precision.

**Nuclear Threats**

Nuclear terrorism may represent the darkest fear of all, simply because of the degree of destruction and huge number of casualties that are possible.

After Sept. 11, experts began taking a fresh look at studies that largely ruled out the possibility that terrorists could obtain a nuclear device, said David Albright, an expert on nuclear proliferation who is president of the Institute for Science and International Security in Washington, a nonprofit organization that works against the spread of nuclear weaponry.

"You'd always reach the point where you say, yes, a terrorist could theoretically do it," Mr. Albright said. "And you'd look at the terrorists and say 'Nah, they're not capable or they don't want to.' That's what's changed. Al Qaeda could do it, and they want to."

Advances in nuclear weapon design have made bombs simpler to build. But even so, any terrorist group attempting a nuclear attack would face major barriers.

Among those obstacles are a lack of an industrial base available to terrorist groups that would enable the fashioning of a weapon, and a reluctance on the part of any host country to risk nuclear retaliation.

And if terrorists did obtain a nuclear device, the United States has programs to detect and disarm any weapon within its borders.

Given the difficulties involved in building a nuclear device, a terrorist would probably prefer to buy or steal a complete weapon. One might be obtained from a rogue scientist in a nuclear-armed nation like Pakistan or Russia.

If that is not possible, then obtaining a relatively pure form of the fissionable material at the heart of a nuclear weapon is a more complicated possibility that would require building the rest of the weapon. Obtaining lower-grade material and refining it would be still more complicated.

Experts no longer believe that getting a complete weapon is impossible. Pakistan has tested nuclear weapons, probably Hiroshima-size bombs fueled by enriched uranium, and the country's military and intelligence services are salted with sympathizers of the Taliban. Pakistan recently arrested three of its senior nuclear scientists because of concerns over possible connections with the Taliban.

The Hiroshima bomb had the explosive equivalent of 15,000 tons of TNT. Robert S. Norris, a researcher and analyst at the Natural Resources Defense Council, said the Pakistani weapon is thought to weigh around 1,500 pounds and be far from compact. "It's your basic starter model," Mr. Norris said.

Russia is believed to have developed extremely small nuclear weapons — "suitcase" bombs — probably with yields equivalent to 1,000 tons of TNT or fewer. If those weapons were stolen or bought, Mr. Norris said, nuclear experts from the country of origin may be needed to detonate them.

Another possibility would be to obtain the grapefruit-like core of uranium from, say, the Pakistanis, which would be easier to smuggle out of the country than an entire bomb. It is no longer out of the question that Al Qaeda could somehow build the rest of the bomb, Mr. Albright said.

He said that if the terrorists could not get the core of a bomb, they might consider obtaining spent fuel rods from nuclear reactors in any number of countries. Concentrating the fissionable uranium from those rods would be a monumental task, but separating plutonium, which can also fuel a nuclear weapon, is just within the realm of possibility, Mr. Albright said.

"It's possible they could build a crude, plutonium enrichment plant," Mr. Albright said.

Over the years, countries have come up with simpler designs for nuclear weapons, making it much more likely that a shoestring operation inside Afghanistan could build one, Mr. Albright said.
Except for the suitcase bomb, any one of those weapons would probably have to be brought to the United States in a ship, perhaps hidden in a container on a freighter. The bombs could fit into a large van and, if exploded in downtown Manhattan, might cause tens of thousands to a hundred thousand deaths, Mr. Albright said. A cruder but simpler way to use radioactive materials as a weapon would be to construct a radiological bomb, sometimes called a dirty bomb. The idea is to kill and terrorize with radiation alone, by packing radioactive material around an ordinary explosive and detonating it above a city. The radioactive material could spread as a dust emanating from the explosion, falling on a wide area of a city, perhaps killing hundreds and requiring a cleanup that could run to billions of dollars. Without a cleanup, the material would cling to surfaces and contaminate the area for decades. These dirty bombs are much easier to engineer than nuclear bombs. But because of the known sympathies of many Pakistanis for Al Qaeda, one threat easily stands out, said Dr. Arjun Makhijani, president of the Institute for Energy and Environmental Research in Takoma Park, Md.

"There's so many vulnerabilities," Dr. Makhijani said, but "the most immediate danger relates to Pakistani nuclear weapons."

New York Times
November 1, 2001
Pg. 1

**U.S. Seeks Changes In Germ War Pact**

By Judith Miller

WASHINGTON, Oct. 31 — In the wake of anthrax attacks that have killed 4 and sickened some 12 others, the Bush administration is discussing new proposals with its allies that would make it a crime for individuals to buy, build or acquire a biological weapon for terrorist attacks. The proposals, intended to strengthen the 1972 treaty banning germ weapons, abandon a previous approach favored by many other countries that sought to require treaty members to create a new international organization to conduct mandatory inspections of plants in which germ weapons could be made. The administration opposed that approach, maintaining that it would have provided a false sense of security. Officials said the previous approach could not have been verified and countries determined to cheat would still have been able to do so.

Instead, the United States wants governments that have signed the treaty to pledge to open their countries to international investigations of suspicious outbreaks, according to a summary of the administration's proposal, the details of which have not been publicly disclosed. The White House is expected to discuss the measure soon, possibly as early as Thursday. Administration officials said the recent anthrax terrorism in the United States was helping to convince American allies of the advantages of the administration's approach.

"We strongly believe in the importance of the Biological Weapons Convention and the need to strengthen it," a senior administration official said. "But the anthrax attacks against Americans show that a treaty is not the be-all and end-all to stopping the spread of biological weapons or preventing and dealing with germ attacks." The official said the attacks showed that "access to enough Cipro also matters, and so do epidemiological investigations and punishing the people who did this."

Donald H. Mahley, the American representative to the protracted international talks in Geneva aimed at strengthening the treaty, and Avis T. Bohlen, assistant secretary of state for arms control, discussed the proposals with key legislators on Capitol Hill last month and with key European allies last week. This week Ambassador Mahley is discussing the package with Japan and Australia. The administration said that its ideas had been well received by several allies and that Britain had produced a list of suggestions for building on the American approach.

Two veteran European diplomats interviewed today confirmed that their governments were ready to work with the measures proposed by the administration. But both added that they still preferred the more sweeping approach that the administration rejected last summer and hoped that the White House would eventually endorse more of it.

"We are ready and willing to work with the Americans to bridge the gaps," said one of the diplomats. "But we hope this is only a first step and that it opens the door to more sweeping multilateral measures."
Arms control groups voiced similar reservations. "This is a good start," said Daryl Kimball, director of the Washington-based Arms Control Association. "But it doesn't do what the draft agreement that the administration rejected would have done."

Critics at home and abroad argued last summer that the White House's rejection of that proposed agreement, known as a protocol, showed that it was concentrating too much on new military programs and not enough on international treaties and prevention of the spread of weapons.

An interagency review within the administration had unanimously concluded that the protocol would have granted foreign inspectors too much access to American installations and companies.

The 1972 treaty, which 143 nations have ratified, prohibits the development, production and possession of biological weapons. But the treaty has always lacked a means of verifying compliance. The administration's rejection of the draft agreement last summer effectively torpedoed its prospects. Countries that have signed the treaty are to meet again to discuss ways of strengthening it in Geneva on Nov. 19.

The administration's new package, among other things, would require governments that have signed the accord to pass laws to criminalize violations of the treaty by individuals and to make violators subject to extradition. It would also, according to the summary, require signers to "adopt and implement strict regulations for access to particularly dangerous micro-organisms," and report "any releases or adverse events that could impact other countries."

Countries would also have to "sensitize scientists to the risks of genetic engineering" and "explore national oversight of high-risk experiments." Additionally, they would have to adopt a "code of conduct" for scientists working with dangerous germs, and enforce "strict biosafety procedures" for all germ research.

Another provision would require signatories to "accept international expert inspectors" if the United Nations secretary general decided that they should be sent, and create procedures for "international investigations of suspicious disease outbreaks" or alleged treaty violations.

The administration would also like to set up a "voluntary" mechanism for "clarifying and resolving compliance concerns by mutual consent." That would include exchanges of information, visits or other procedures.

Several critics noted that these procedures fall short of the inspections of suspected so-called dual use facilities long favored by many arms control advocates. The lack of mandatory inspections is troubling, one diplomat said.

Seth Brugger, managing editor of the Arms Control Association monthly, also said his group felt that creating a professional group of inspectors would help give the treaty teeth.

The administration has rejected both measures.

Col. David R. Franz, the former commander of the Army biological lab at Fort Detrick, who has inspected suspect installations in Iraq and Russia, said he felt the administration's approach would accomplish more than a mandatory enforcement scheme.

Officials said the Administration had not yet shared its proposals with Russia, a new ally in its war against terrorism.

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London Times  
November 1, 2001  

**Terrorists 'Could Make Atom Bomb By Raiding Hospitals'**

By Mark Henderson, Science Correspondent

Terrorists seeking radioactive material for use in a "dirty" atomic bomb could steal it from hospitals, which lack the security to prevent such a theft, the world’s nuclear watchdog said yesterday.

Isotopes that could be packed with explosives in a crude but deadly nuclear device are commonly used in cancer treatment, yet are rarely protected by adequate security, the International Atomic Energy Agency said.

Standards in many parts of the world are so poor that such radioactive sources are effectively "orphaned" of any regulatory control, and would be simple to steal. Many are currently unaccounted for, and may already have fallen into the hands of terrorists, the agency said.

Tens of thousands of radiation sources are used around the world in radiotherapy, with many more found in other medical, industrial and food irradiation devices.

Abel Gonzalez, the agency’s director of radiation and waste safety, said the lack of security surrounding them was almost an invitation to terrorists, particularly those who, like the September 11 attackers, would not be deterred by the great personal danger they would face by handling such material.
"Security of radioactive materials has traditionally been relatively light," he said. "There are few security precautions on radiotherapy equipment and a large source could be removed quite easily, especially if those involved have no regard for their own health.

"Moreover, in many countries, the regulatory oversight of radiation sources is weak.

"We are dealing with a totally new equation since September 11. The deadliness of handling intensely radioactive material can no longer be seen as an effective deterrent."

The potential effects of a dirty bomb, the agency said, are shown by an incident in Goiânia in Brazil in 1987, when a highly radioactive caesium-137 source was stolen from an abandoned radiological clinic by scrap-metal thieves. The 20-gramme capsule was cut into pieces, and the thieves handed sections to friends and family members to sell on. As a result, 14 people, four of whom died, suffered radiation burns and another 249 were contaminated. More than 110,000 people had to be monitored for exposure over the following months.

A dirty bomb detonated in a major city might be expected to have similar effects. The death toll might not be high, but the impact on the city would be great.

Western intelligence sources said that such an attack was possible but unlikely. "Of course this is something that terror groups could do, but the worry is that we are being unnecessarily alarmist about al-Qaeda’s likely tactics," one source said.

"The morbid fear is that even with a minuscule amount of radioactive material packed into a conventional bomb, it would cause mayhem with people for miles around afraid of being contaminated." Osama bin Laden may have access to such material in Afghanistan, he added. "There are hospitals in Kabul which had cancer and X-ray equipment that was provided by the Red Cross and other international organisations so it is on his own doorstep."

In Britain, security of medical radioactive sources is governed by the Radioactive Substances Act, which requires hospitals to keep a precise account of where its materials are. Access is tightly controlled, and all materials are shielded and inspected by the Environment Agency and the Health and Safety Executive.

"Every hospital must account for every source in its possession, and waste material must also be disposed of properly," Michael Clark of the National Radiological Protection Board, said.

Most radiotherapy devices in Britain rely on isotopes such as iridium-192 and iodine-131. These would cause serious contamination if used in a dirty bomb, but would be unlikely to cause large numbers of deaths. Some hospitals keep several hundred grammes of such material.

The IAEA, which is holding a symposium of experts on nuclear terrorism this week at its headquarters in Vienna, also gave warning of the dangers of an attack on a nuclear power station.

Mohamed ElBaradei, the agency’s director-general, said: "After September 11, we realised that nuclear facilities — like dams, refineries, chemical production facilities or skyscrapers — have their vulnerabilities. There is no sanctuary any more, no safety zone.

"We are not just dealing with the possibility of governments diverting nuclear materials into clandestine weapons programmes. Now we have been alerted to the potential of terrorists targeting nuclear facilities or using radioactive sources to incite panic, contaminate property and even cause injury or death among civilian populations."

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Washington Post
November 1, 2001
Pg. 3

**Preparations Are Stepped Up For Possible New Terrorism**

*Concern Focuses On Power Plants, Trucks and Bridges*

By Eric Pianin and Dan Eggen, Washington Post Staff Writers
While authorities try to cope with the anthrax outbreak, federal and state officials are taking steps to prepare for a possible escalation of terrorism that experts say could include truck bombings and attacks on nuclear power plants as well as hijackings.

Since the FBI issued its second national terrorism alert Monday, administration officials and congressional intelligence experts have studied myriad terrorist threats, including the outside possibility of the use of portable nuclear weapons. Concrete steps taken by state and federal officials point, in particular, to concern about assaults on power plants and utilities, truck explosions in tunnels and on bridges, and attacks on ships carrying hazardous materials.
"If you're asking for a scenario of things that could go wrong, it's a mighty long list," said Rep. Porter J. Goss (R-Fla.), chairman of the House intelligence committee and a former CIA officer.

Yesterday, the governors of Arkansas, Louisiana and Mississippi ordered National Guard troops to strengthen security at nuclear facilities in their states, following a recommendation from Tom Ridge, the homeland security director, according to a spokesman for Entergy Corp. in Arkansas.

In a conference call Tuesday, Ridge advised governors throughout the country to take such precautions if they had not already done so, according to the spokesman, Phil Fisher. The Federal Aviation Administration this week temporarily barred private aircraft from approaching 86 sensitive nuclear sites, including power plants and waste storage facilities.

The Treasury Department's Bureau of Alcohol, Tobacco and Firearms, meanwhile, has begun intensive inspections of all 9,500 mining and construction companies and others licensed to use explosives across the country. New York Gov. George E. Pataki (R) said that more than 1,500 National Guard troops patrolling in and around New York City will be armed for the first time by week's end.

Federal and local officials also remain concerned about the possibility that terrorists would attack ships carrying propane and other fuels. The city of Boston went to court in an attempt to keep liquefied natural gas tankers out of Boston harbor, but a judge ruled against the city on Monday -- just hours before the FBI issued its alert -- saying officials had failed to demonstrate a sufficient threat.

President Bush yesterday defended his decision to put the country on national security alert, telling business leaders that the United States was still under attack.

"I wanted our law enforcement officials to know we had some information that made it necessary for us to protect United States assets, to protect those areas that might be vulnerable. And that's exactly what's taking place today," Bush said.

"This is a very unusual period in American history, obviously. We've never been attacked like this before. We're still being attacked," he said.

The nation has been awash in special warnings and alerts since Sept. 11, many focused on the types of potential terrorist targets that have been used in previous attacks or identified as possibilities by intelligence officials.

One example is commercial trucks, which have been used by terrorists around the world as delivery vehicles for makeshift but highly effective bombs.

Osama bin Laden's al Qaeda terrorist network has been particularly fond of explosives packed into trucks or cars, using the method in the first attack on the World Trade Center in 1993 and on the coordinated 1998 assaults on U.S. embassies in Kenya and Tanzania. A homegrown U.S. terrorist, Timothy J. McVeigh, used a rental truck to deliver the bomb that destroyed the Alfred P. Murrah Federal Building in Oklahoma City in 1995.

Since the Sept. 11 terrorist attacks on New York and Washington, the FBI and the Department of Transportation have warned the trucking industry to watch for suspicious activity in connection with hazardous chemicals, including radioactive waste and other substances that can be used to create weapons of mass destruction.

State and federal authorities in the United States have dramatically stepped up roadside inspections of tractor-trailers, especially those carrying hazardous materials, and Canadian officials are now asking for two forms of identification from truckers crossing the border, according to the American Trucking Associations industry group.

"We've been on high alert since September 11, and there is more focus on overall security in the industry," said Mike Russell, a spokesman for the trucking group. "We're transitioning to focus as much on security as on highway safety."

The ATF has temporarily halted its other regular inspections to focus on 9,500 mining and construction firms, fireworks factories and other companies that hold federal explosives licenses. The ATF is particularly interested in identifying any missing stocks, and has devoted a quarter of its agents to the task, an ATF official said.

The ATF and the FBI are still investigating the discovery of C-4 plastic explosive, along with a highly explosive, 1,000-foot strand of detonator cord, in a Greyhound bus locker in Philadelphia earlier last month. Authorities have determined that the cord was manufactured for military use, and have found no connection so far to the terrorist network blamed for the Sept. 11 attacks.

Nancy Savage, an FBI agent in Eugene, Ore., who is president of the FBI Agents Association, said the biggest concerns for investigators include airports, power plants and other key infrastructure points.

"Everyone expects additional attacks," Savage said. "We don't think they're going to give up now. That's why we're at war: We don't think they plan to give up anytime soon."

The FBI was particularly concerned in the weeks after Sept. 11 about crop-duster airplanes, which are fixtures in rural areas but which also could be used as part of a chemical or biological attack.

The presumed ringleader of the Sept. 11 hijackers, Mohamad Atta, showed interest in crop-dusters and how much poison they could carry, and even tried unsuccessfully this year to secure a U.S. government loan to purchase one. In
addition, one of the key suspects now in U.S. custody, Zacarias Moussaoui, had information about crop-dusters on a computer. The discoveries prompted the Federal Aviation Administration to twice ground crop-dusters at the FBI's request, and agricultural spraying companies have been asked to lock their planes and take other precautions since resuming flights. Attorney General John D. Ashcroft said yesterday that the threat level announced Monday has not abated. "I wish I could turn the clock back to before September the 11th," Ashcroft said. "I wish that we didn't have to talk about threats, I wish we didn't have to make announcements about threats. But the facts are different."

Staff writer Peter Behr contributed to this report.

USA Today
November 1, 2001
Pg. 10

Bush's Plan For Biodefense Falls Under Fire
By Kathy Kiely, USA Today
WASHINGTON — The Bush administration's plan for combating bioterrorism has come under attack from Democrats in Congress and outside experts who believe more is needed to shore up what one calls "the weakest link" in homeland defense. A $1.5 billion emergency funding request for the Department of Health and Human Services that the president sent to Congress last month includes $1.1 billion to purchase vaccines and antibiotics to counter the deadly germs bioterrorists might spread. But it includes no new money for inspecting the labs that make those germs and far less than state and local officials believe they need to detect them.

Outside experts say the proposed pharmaceutical stockpile is a good idea. But they insist the nation's leaders must do more. "We are not very prepared at all" for a bioterrorist attack, says Robert Shope, associate director of the biodefense center at the University of Texas Medical Branch at Galveston. "It is the weakest link in terms of domestic preparedness," says Juliette Kayyem, a counter-terrorism expert at Harvard University.

Shope and Kayyem, both of whom have served on national counterterrorism commissions, say the nation needs to improve the ability of state and local health departments to serve as early warning systems against any bioterrorist attack. "That's where the first response is going to come," Shope says.

Tom Milne, executive director of the National Association of County and City Health Officials, agrees. He calls the Bush budget "a mistake" and has asked his group's 1,100 members to lobby Congress for more money. Key Democrats in Congress are pushing for major increases to combat bioterrorism. "The crisis of the last couple weeks demonstrates the urgent need," says Sen. Edward Kennedy, D-Mass.

There's widespread speculation on Capitol Hill that Health and Human Services Secretary Tommy Thompson wanted more money but was overruled by the White House Office of Management and Budget (OMB). Wednesday, Rep. David Obey, D-Wis., told Tom Ridge, the White House director of homeland security: "I do not believe that either you or the president are being well-served by the decisions that are being made at OMB." Thompson spokesman Kevin Keane says his boss considers the president's proposed $1.5 billion budget for his agency "a good investment" but is willing to negotiate with Congress.

Other Capitol Hill Democrats want to expand inspections of laboratories that produce pathogens for scientific research. The inspection program was established 5 years ago after several people with criminal backgrounds obtained germs by masquerading as scientists. But lawmakers who helped create it believe it's hopelessly backlogged: Out of 250 labs that have registered with the Centers for Disease Control and Prevention, about 60 have been inspected.

"With such a low rate of inspection, it's difficult to assess the rate of compliance," says Rep. Ed Markey, D-Mass. The current CDC budget for lab inspections is $1 million a year. "It's absurd," Kayyem says.

Some officials question the effectiveness of lab inspections, because some pathogens, like anthrax, can be found in nature. Others say the CDC was reluctant to assume the role of enforcer. "I think they didn't want to take on another assignment, but now they have it," says former representative Thomas Bliley.

Now lawmakers on both sides of the aisle are calling for more inspections. "I think it's critical that these inspections are regular and that they're rigorous," says Rep. Jim Greenwood, R-Pa. "The lab that has the weakest security is the weakest link."
Maker Of Anthrax Vaccine To Reopen After Renovating Mich. Plant

By David Brown, Washington Post Staff Writer

The sole maker of anthrax vaccine, which has been unable to sell its products since 1998, may be ready to resume business late this month.

BioPort Corp. has been under orders by the Food and Drug Administration to not release vaccine because of problems involving cleanliness and sterility at its manufacturing plant in Lansing, Mich. However, Health and Human Services Secretary Tommy G. Thompson said earlier this week that the company's renovated and expanded plant may begin producing vaccine as early as Nov. 22.

Once production resumes, FDA officials will reinspect BioPort's production laboratories. If they meet government standards, as many as 5 million doses of quarantined doses of vaccine could be released for use.

Most of those stocks are earmarked for the Department of Defense. The military is immunizing an unspecified number of people in "special mission units" with vaccine made by BioPort's predecessor, Michigan Biologics Products Institute. Ultimately, however, it hopes to vaccinate 2.4 million active-duty and reserve service members, and civilians designated as "emergency essential."

In 1998 and 1999, about 400,000 military personnel were vaccinated against anthrax. The pace has slowed considerably since then because of the vaccine shortage.

When more vaccine becomes available, the Centers for Disease Control and Prevention will receive enough to immunize about 800 laboratory workers around the country, and possibly 200 other people responsible for collecting environmental samples at sites potentially contaminated with anthrax bacteria.

Government public health officials are debating whether to acquire a substantially larger amount of vaccine to immunize a much larger population of people at higher-than-usual risk of exposure to Bacillus anthracis, the bacterium that causes anthrax. Postal workers, firefighters, police officers and workers at private environmental testing companies are among groups that might be candidates for vaccination, according to sources familiar with the discussions.

The vaccine is made from the three toxinsthat B. anthracis produces and secretes into tissues and the bloodstream, where it causes illness or death. A full course of immunization consists of an initial injection, and injections at 2 and 4 weeks, and at 6, 12 and 18 months following the first shot.

Studies in the 1960s among 800 goat-hair mill workers showed the vaccine was 93 percent effective in preventing skin anthrax infection. Too few inhalational cases occurred to assess its effectiveness in preventing that frequently fatal form of the disease. However, studies in rhesus monkeys show that vaccine protects against inhalational infection. Veterinarians, anthrax researchers and military personnel have received the vaccine since it was first licensed in 1970, although it is not available to the general public.

Staff writer Ceci Connolly contributed to this report.

Substance Discovered At Weapons Center

By Times Wire Services

About 800 employees of the China Lake Naval Weapons Center in Ridgecrest were sent home after a substance that couldn't be identified was found in a laboratory mail room.

The substance was found at 3:20 p.m. in the Michelson Laboratory, center spokeswoman Doris Lance said. Test results were expected within 24 hours, she said.
Michelson employees were told not to return to work until notified. Other base employees remained on their usual schedules. Lance said she didn’t know what the material looked like or where in the mail room it was found, but FBI agent Nick Rossi of the bureau's Sacramento office said he believed it was discovered on equipment.

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November 1, 2001
Pg. 10

**U.S. Fears Bin Laden Got Nuclear Help**

By Bill Nichols, USA Today

WASHINGTON — Pakistan's recent detention of two prominent Pakistani nuclear scientists with ties to Afghanistan's Taliban regime has set off alarms within the Bush administration and among nuclear experts. Their worry: The possibility that the scientists, one of them a pioneer in Pakistan's nuclear energy program, might have helped Osama bin Laden and his al-Qa'eda terrorist network develop nuclear weapons.

"It's very intriguing and obviously raises the question of: Did they provide anything?" says David Albright, president of the Institute for Science and International Security and a leading authority on Pakistan's nuclear program. "We think this case should be investigated much more thoroughly than I think the Pakistanis would like to."

U.S. officials say there is no definitive intelligence on whether bin Laden has any nuclear capability. But, in a 1999 interview with ABC, bin Laden said he considered his quest for such weapons his "religious duty."

U.S. officials say he has made numerous attempts over the years to purchase nuclear material:

* The London Sunday Times reported in October that British officials are investigating claims that al-Qa'eda representatives tried to buy spent nuclear fuel rods from a Bulgarian nuclear plant.
* Jamal Ahmed al-Fadl, a prosecution witness who testified against bin Laden last year in a case concerning the 1998 bombings of U.S. embassies in Kenya and Tanzania, said he tried to help al-Qa'eda obtain enriched uranium from Sudan in 1993-94.
* U.S. officials remain concerned about the sale or theft of so-called suitcase-size nuclear devices designed by the former Soviet Union.

Because of this history, U.S. officials are closely monitoring the Pakistani case, which began when authorities picked up Sultan Bashiru-Din Mahmood and Abdul Majid last week for questioning about their ties to Afghanistan. Pakistani officials said their interest in the two men had nothing to do with concerns about them passing nuclear secrets.

A Pakistani diplomat in Washington said Mahmood is being questioned about his work with a relief group that has operated in Afghanistan with the backing of Taliban leader Mullah Mohammed Omar.

"There are certain questions that we need to ask him," Major Gen. Rashid Qureshi, a spokesman for President Pervez Musharraf, said in Islamabad on Tuesday.

Mahmood was released last weekend but taken back into custody Monday. His family said Wednesday that he has been hospitalized after suffering chest pains.

Majid is a junior colleague of Mahmood and is seen as a lesser security risk, U.S. officials say.

Pakistani authorities said neither man was involved in Pakistan's nuclear weapons program, but instead with nuclear reactors. Pakistan is believed to have enough fissionable material for 30 to 50 nuclear bombs or warheads and 10 or more reactors or other nuclear facilities, according to U.S. estimates.

U.S. officials say privately that they believe Mahmood has played a more prominent role in nuclear weapons design than Pakistan has indicated.

Mahmood, according to U.S. experts, took early retirement from the Pakistan Atomic Energy Commission in 1998 and has since devoted his time to welfare work, particularly within Afghanistan.

Administration officials continue to receive assurances from Musharraf that Pakistan's nuclear arsenal and the scientists who oversee it are uncompromised.

Secretary of State Colin Powell said Wednesday he is confident that Musharraf "understands the importance of ensuring that all elements of his nuclear program are safe and secure."

Still, the murky nature of the detentions has unsettled many experts. Press reports in Pakistan, citing Pakistani intelligence sources, say Mahmood also has been questioned by U.S. intelligence officials. A CIA spokesman would not confirm or deny the reports.
Daryl Kimball, executive director of the Arms Control Association, says it's hard to draw a clear link between al-Qa'eda and Pakistan's nuclear program. "But what it does indicate is a continuing concern at the official level in Pakistan about the safety and security of that arsenal," he says.
Experts say bin Laden would face huge technological obstacles in building a nuclear bomb, but a small-scale device would be within al-Qa'eda's reach if it could buy or create nuclear material.
Analysts say bin Laden also might be able to build a "dirty bomb" that wouldn't cause a nuclear explosion but could spread enough radioactivity to kill thousands in an urban environment.

Contribution: Paul Wiseman in Islamabad

London Daily Telegraph
November 1, 2001

Saddam 'Still Ready To Use Germ Warfare'
By Bruce Johnston in Rome

Saddam Hussein still wants Iraq to become a world power and is prepared to use biological weapons to achieve that, according to the diplomat who knows his military capabilities best.

Rolf Ekeus, who for six years was president of the Special UN Commission with the task of verifying that Iraq had renounced arms of mass destruction, said Saddam still wanted to dominate the Middle East.

His scientists had the knowledge to help him realise his dream, said Mr Ekeus and apart from anthrax, they had found ways to isolate and develop deadly viruses.

He said that while Iraq had denied having anything to do with the anthrax attacks in the US, and while the spores might have come from a Russian or American laboratory - the facts suggested that Saddam may be behind them.

"For more than four years Baghdad denied, formally and in writing, the existence of a project to develop biological weapons," Mr Ekeus told an Italian newspaper. "It was only when, after inspections, research and tests, we managed to find scientific proof that there was a project after all, that they admitted its existence.

"The main research centre in al Hakam was hidden in the desert, protected by fencing and walls. It was made up of a lot of buildings, with laboratories and a great deal of sophisticated equipment.

"We razed it to the ground in 1996." That did not mean that Iraq's germ warfare capacity had been wiped out, he said. "In al Hakem we found a milling machine capable of refining anthrax for military purposes, and we destroyed it. But there was the suspicion that there was another which we never found.

"Moreover, despite the embargo, not only does Saddam have no problems with money, but he is awash in it. And people who have no cash worries usually find a seller. "And since December 1998, when the inspections stopped, there is no one who can check and see what is going on. Not to mention research into viruses.

"We found that they had experimented on camel pox, a sickness of camels similar to smallpox. Another project that greatly interested them was the poisoning of lakes and aquaducts." Asked if bin laden and Saddam could be working together, Mr Ekeus said that the two men had "clearly different objectives".

But he added: "Let's not forget the Molotov-Ribbentrop pact. Stalin and Hitler had diametrically opposed strategic objectives, but that did not stop them becoming allies in 1939, because at that time they shared certain tactical objectives.

"Bin Laden and Hussein are both at war with America, and they share the same immediate objective. To drive the Americans out of the Gulf. And on this point, Saddam said exactly the same thing as bin Laden. Word for word." Mr Ekeus, now the OSCE High Commissioner for Ethnic Minorities, said: "Saddam continues to repeat that he is the one who is winning. And I think that for him, things are actually going rather well. In the streets of Arab countries he is becoming ever more popular."

Chicago Tribune
October 31, 2001

A Great Nuclear Opportunity
By Stansfield Turner. Retired Adm. Stansfield Turner, a former director of the CIA, is the author of "Terrorism and Democracy" and "Caging the Genies."

It could have been much worse. On Sept. 11, the terrorists could have detonated a "small" nuclear weapon inside the World Trade Center. Not only the two towers and their adjacent buildings would have collapsed, but many more to a radius of more than a mile; perhaps 100,000 people would have lost their lives immediately and many more over time as a radioactive cloud would sail downwind depositing lethality hundreds of miles away. Preventing nuclear weapons from falling into the hands of rogue states and terrorists groups have been only an academic matter for most Americans. It now must become a matter of grave concern.

If we are to lead the world away from further proliferation of these weapons, we must drastically reduce the roughly 12,000 nuclear warheads we now have. We, the most powerful nation by far, cannot insist on weaker nations forgoing these weapons entirely if we need anything like 12,000 of them. Fortuitously, President Bush and Russian President Vladimir Putin have agreed to look at reducing nuclear warhead inventories in the range of 1,500 to 2,000 each. That would be considerable progress, but with two reservations.

The first is that the numbers 1,500 and 2,000 do not include all warheads. Under the traditional counting rules, each side may retain any number of "spare" warheads, that is warheads not mounted on delivery vehicles, plus any number of smaller "tactical" warheads. Setting a number of 2,000 for instance, would likely result in an inventory of 5,000 total warheads.

The second reservation is that just pledging reductions to 1,500 to 2,000 is not enough. The U.S. can demobilize only about 2,000 warheads a year and the Russians probably less. We need to demonstrate a greater sense of urgency. Only if we do can we persuade the world that we are serious about downgrading nuclear weapons and that, hence, others do not need them.

Even more important, one likely source of proliferation is Russia. Nuclear components and even weapons there are inadequately guarded. And we just cannot forecast what economic and political conditions within Russia will be like in the years ahead. It is very much in our interest that as many Russian weapons as possible be demobilized as soon as possible in order to reduce the risks of weapons being stolen, sold, fired accidentally, or fired by rogue officers without authorization.

We should certainly, then, agree to the 1,500 number the Russians proposed and set a date of only 18 months for neutering all other warheads. We could do that by separating the warheads from their delivery vehicles and removing them to storage sites at least 300 miles away to await demobilization. Doing this in 18 months would take a major effort, as sufficient storage space may not exist. Concrete bunkers on remote military bases are all that is needed. Each side would invite the other to place observers at the storage sites. Thus, any moves to return warheads to their delivery vehicles before they are demobilized would be detected.

This process, known as "strategic escrow," would be a big step forward, but not nearly enough. We have no conceivable need for 1,500 ready warheads and we definitely do not want an unstable Russia sitting on any more of these than we can talk them down to.

Thus a second step we should take is to engage the Russians in negotiating a treaty to carry both sides to 750 ready warheads. At that level, whether we really need it or not, we would want the assurance of a treaty with provisions for verification. We have found over the years that such treaties are painfully slow to negotiate. We should, then, commence these negotiations almost simultaneously with the discussions on going down to 1,500 ready warheads. Finally, at the point of 750, we would need to deal with the other six nuclear powers, all of which are believed to have less than 750 warheads each. Surely the present crisis has focused our attention on the grave dangers of nuclear weapons in the hands of Pakistan and India. It is in everyone's interest that all nuclear weapons of these six other powers be neutered by being placed in escrow. A third simultaneous negotiation should be started with that objective, plus a reduction of all nuclear arsenals to some number like 200 warheads. This could lead to a world in which, although there would be eight powers with nuclear weapons and all others without, there would be no weapons immediately ready to fire, and there would be international observers to warn of any preparations to fire.

These three steps are a big order. The World Trade Center and Pentagon bombings tell us the world faces a great challenge. As a result of those bombings, however, we are witnessing an unprecedented cohesiveness of the responsible nations of the world.

We need to take advantage of this and move rapidly to ward off the most ominous threat terrorists could pose.
U.S. Closes In On Russia Arms Pact

Deal would allow missile shield tests

By Bill Nichols and Jonathan Weisman, USA Today

In a pivotal moment for U.S.-Russian relations, Defense Secretary Donald Rumsfeld visits Moscow this weekend to try to close a deal that would let President Bush press ahead with a national missile defense in return for cuts in both countries' nuclear arsenals.

Secretary of State Colin Powell discussed the deal with Russian Foreign Minister Igor Ivanov on Thursday in Washington. U.S. officials say Rumsfeld's negotiations with Russian Defense Minister Sergei Ivanov on Saturday is a key in preparing for the Nov. 13-15 summit between Bush and Russian President Vladimir Putin in Washington and at Bush's ranch in Crawford, Texas. Rumsfeld also will visit India and central Asia to discuss the U.S. war in Afghanistan.

A deal would be a watershed event in the history of nuclear weapons strategy, experts say. The pact nearing completion also reflects a dramatic shift in U.S.-Russia relations since the terrorist attacks Sept. 11. Bush needs Russia to remain in the anti-terrorism coalition. Putin sees the tragedy as a vehicle to improve economic and strategic ties with the West.

Rumsfeld ruled out striking a final accord this weekend. "I suspect that the ribbon will not be placed around the thing until President Bush and President Putin meet," he said Thursday.

The tentative deal:

* Bush would agree to a reduction in each country's nuclear arsenal to about 2,000 warheads. As of July, the United States had 7,013 warheads; Russia had 5,858.
* Putin would let Bush conduct missile-defense tests under the 1972 Anti-Ballistic Missile Treaty. The treaty, signed by the United States and the Soviet Union, bars deployment and advanced testing of national missile-defense systems.

The deal appears to be a win for both leaders. Bush could continue test of a missile defense, which he says is needed to thwart attacks by unstable nations. Putin, although opposed to the U.S. plan, would be able to slash Russia's nuclear arsenal, which Moscow can't afford to maintain.

A deal would also would bolster Putin's push to join NATO, increase trade with the United States and attract foreign investment for his country's ailing economy.

Another plus for Putin: The deal would keep the ABM Treaty in force, although in modified form. Moscow believes the treaty is central to U.S.-Russia stability, but Bush has repeatedly called the treaty a relic of the Cold War that should be scrapped. To meet Putin halfway, the administration is now willing to amend the treaty to allow missile-defense testing.

The deal is "almost irresistible at this point," says Joseph Cirincione, a nuclear arms analyst at the Carnegie Endowment for International Peace.

But administration officials are at odds over how to modify the ABM Treaty. Some Bush advisers want formal amendments to the treaty; others want a simpler handshake agreement between Bush and Putin.

The administration also hasn't decided how Bush and Putin should address the ABM Treaty's long-term future. Officials say Bush is committed to withdrawing when a missile-defense system is ready to be deployed. That could be 5 to 20 years from now.

Bush Would Update Germ Warfare Pact

Enforcement Plan Calls for Nations to Crack Down on Bioterrorists on Their Soil

By Dana Milbank, Washington Post Staff Writer
President Bush proposed yesterday to strengthen a 30-year-old international pact banning germ warfare by requiring nations to crack down on bioterrorists on their soil. The administration's new framework for an accord enhancing enforcement of the 1972 Biological Weapons Convention, which it hopes to convert into a specific proposal by the middle of the month, reflects a redoubled effort to avert the proliferation of germ warfare programs at a time when the nation is grappling with bioterrorism incidents. "We just thought that the particular protocol that was being discussed was not addressing the problems that biological weapons pose," said national security adviser Condoleezza Rice.

In July, the administration rejected a draft agreement, seven years in the making, that would have strengthened enforcement of the treaty. The United States complained that the draft's inspection provisions would have allowed the theft of U.S. industrial secrets without catching treaty violators. The framework Bush unveiled yesterday is in line with what the administration is calling the "Bush Doctrine": holding nations responsible for miscreants on their territory. The guidelines demand strong laws in participating countries banning biological weapons, and stronger controls over germs that could be used as weapons. That, administration officials believe, would limit cheating by countries such as Iraq and Iran, both signatories. The framework does not go as far as some U.S. allies, particularly the British, have favored. Instead of creating an independent institution that would carry out mandatory inspections of suspected biological weapons facilities, as the rejected proposal did, the Bush administration would leave it up to the United Nations to handle allegations of treaty violations.

Bush's proposals are "ad hoc" solutions that "would not be part of a formal treaty with rights and obligations," said Jonathan Tucker, a biological weapons expert with the Monterey Institute for International Studies. "At the moment we have nothing, so anything is better than nothing," he said, but a U.N. investigation, particularly if done by the General Assembly, only "works when the country hosting the inspection is cooperative."

Still, the outline, and international sympathy over the anthrax crisis -- France has suggested a United Nations Security Council resolution condemning the anthrax attacks -- will likely restore U.S. credibility on the issue, scholars said. "A number of countries will want to go beyond it in a lot of ways but will regard it as a good-faith effort by the administration to come up with an alternative," said Robert J. Einhorn, a senior adviser at the Center for Strategic and International Studies.

Bush's framework calls on signatories to enact strict criminal laws in their own countries against biological weapons development, with extradition requirements. It would establish a U.N. procedure for "investigating suspicious outbreaks or allegations of biological weapons use." The protocol should also establish procedures to ensure compliance, enhance disease control, and develop a code of bioethics and better national oversight of pathogens, Bush said in a statement.

"Today, we know that the scourge of biological weapons has not been eradicated," Bush said. "Instead, the threat is growing. Since September 11, America and others have been confronted by the evils these weapons can inflict." The 1972 accord, which has 144 signatories, bans the production, possession or use of germ warfare agents, but it does not contain provisions to prevent cheating. The United States unilaterally renounced the use of biological weapons and destroyed its stockpiles.

Rice said yesterday that the new proposals were in development even before anthrax bacteria began appearing in the mail. She said allies have given "a positive reception to a lot of these ideas." With a conference on the subject in Geneva beginning Nov. 19, Bush issued a proposal that "focuses on criminal activity and underground activity" and aims to make "states responsible for dealing with scientists and others who might engage in this kind of activity." State Department spokesman Richard Boucher said the administration has been consulting with allies on a proposal, "and we expect we'll have a proposal in mid-November when the review conference meets." Asked about whether the anthrax outbreak acted as a catalyst, Boucher said: "Obviously the fact that there's anthrax around has made it all the more important to us that we do come up with an effective mechanism to control biological weapons and materials."

While suspecting domestic criminals in the anthrax-by-mail scare in the United States, the government has not ruled out the possibility that the perpetrator was Osama bin Laden's al Qaeda group or other overseas terrorists.
Link Found In Anthrax Bacteria

N.Y. Woman's Spores Match Earlier Cases

By Ceci Connolly, Washington Post Staff Writer

The anthrax bacteria that killed a New York hospital worker match the spores used in the biological attacks on Capitol Hill and two Manhattan news outlets, according to preliminary lab tests completed yesterday. But that was the only clue made public on a day in which anthrax spores were found in four mailrooms of the Food and Drug Administration in Rockville and a Kansas City post office.

As the anthrax crisis entered its second month, authorities expressed relief that there have been no new cases reported since Kathy T. Nguyen, 61, was diagnosed with pulmonary anthrax on Sunday. But they remained frustrated in their attempts to discover the source of the attacks.

Two days after Nguyen's death, city and federal health investigators said they had interviewed 250 of her co-workers and close contacts, and had no evidence linking her death to contaminated mail, which has been implicated in most other cases. They also said they have yet to detect the bacteria in her home or workplace. What appeared to be a good lead initially -- anthrax spores found on Nguyen's clothing -- is proving of little help because all her possessions were mixed in a bag that tested positive. There was no way to determine if the bacteria had landed on the woman recently or had been stuck to, say, her shoes, for weeks.

"It's not that great a clue," said Julie Gerberding, acting deputy director of the National Center for Infectious Diseases at the Centers for Disease Control and Prevention. As confounding as the investigation has been, she said, officials took some consolation in the lack of new cases since the weekend.

"It's somewhat reassuring that this was not something that posed a broader threat," she said.

In Washington, where there have been no new local cases in more than a week, officials voiced similar hopes. Ivan C.A. Walks, the District's health director, suggested that the area was "on the downside" of its anthrax crisis. The Supreme Court, which had to close its building last week and conduct its business elsewhere because tests found anthrax spores in court mail facilities, announced yesterday that the results of subsequent environmental testing in its building came back negative. The court building will remain mostly closed today. It will be open for business on Monday but closed to the public except for people attending the morning oral argument in Mickens v. Taylor.

The CDC total for confirmed anthrax cases stood at 16 yesterday, and there are six suspected cases, Gerberding said. New York City officials, using a looser standard to define "confirmed," count three more cases of the skin form of the illness, known as cutaneous anthrax.

On the law enforcement front, two men living near a postal facility in Trenton, N.J., that was contaminated with anthrax bacteria were detained on immigration violations, officials said yesterday.

Federal authorities had questioned the pair at an apartment complex in Hamilton Township, N.J., on Monday before turning them over to the Immigration and Naturalization Service. The FBI removed 10 large bags of possessions from their apartment but refused to identify the men.

The men were taken into custody at the Greenwood Village Garden Apartment complex, which was once home to Mohammad Aslam Pervez, another figure in the government's wide-ranging terror investigation. Pervez has been arrested and charged with lying to the FBI about financial transactions.

Neighbors at the complex described the two detained men as Pakistanis who have lived there since 1997, working at a nearby gas station and convenience store. This summer, said neighbors, a large number of Arabic-speaking men began congregating at their apartment.

The U.S. Postal Service announced it was offering free flu shots to all 800,000 employees nationwide in an attempt to avoid an epidemic that has symptoms similar to anthrax disease. Federal health officials fear flu sufferers with fever and aches will flood emergency rooms fearful they have contracted anthrax.

As has been the case virtually every day since the first anthrax case emerged a month ago, thousands more Americans began taking antibiotics as a preventive measure. About 1,100 individuals who worked, visited or were treated at Manhattan Eye, Ear and Throat Hospital, where Nguyen worked in a basement stock room, were offered one of the three medicines used to treat anthrax.

At a post office in Kansas City, 200 workers were given medication after anthrax spores were found on two bags of trash in the underground Stamp Fulfillment Services Center.

Authorities suspect that the bacteria may have come from bundles of mail sent from the Brentwood facility in Northeast Washington. Batches of 7,000 letters are routinely shrink-wrapped and shipped to the fulfillment center to be stamped for collectors. The working theory, said Kansas City health director Rex Archer, is that anthrax spores settled inside dust on those packages.
So far, Archer said, no one from the facility has shown symptoms of the disease. "We're feeling more and more comfortable by the minute," he said.

Anthrax spores have also been discovered on a printer sent from a post office in Trenton, N.J., to a repair company in Indianapolis, said Peter Beering, terrorism preparedness coordinator for Indianapolis. About 100 workers at DDD Co.'s Critical Parts Center have been given antibiotics. Similarly, mailroom workers at the four contaminated FDA buildings in Rockville may begin antibiotics as a precaution.

The Postal Service is testing 230 facilities nationwide; of the 47 that have been checked for anthrax, eight tested positive.

Because scientists have no idea at what levels anthrax bacteria become a health hazard, said Alan Zelicoff, senior scientist at the Center for National Security and Arms Control at Sandia National Laboratory in Albuquerque, the widespread environmental testing is, at a minimum, causing confusion.

Say, for example, environmental testing locates four anthrax spores in a room that is 10,000 square feet. "What is the hazard of those four colonies?" he said. "I'd say it's zero. We know you need several thousand to get sick."

Announcing that a single anthrax spore has been found in a building "just causes panic," he said.

Health authorities also faced mounting confusion over who should be tested for anthrax poisoning and who should be put on antibiotics.

"We do not recommend nasal swabs for people who are involved in exposure when it was more than a few days in the recent past," said Gerberding. She stressed that nasal swabs will not determine whether people have the disease; they will only indicate very recent exposure to the bacteria.

"If we're not doing a nasal swab, it's not because we don't care about them, or we're not concerned about their health and safety. It's because it is not a useful test," she said.

At his daily press briefing, New York Mayor Rudolph W. Giuliani said that nasal swab tests of 28 of Nguyen's co-workers, as well as environmental testing at Manhattan Eye, Ear and Throat Hospital, returned negative.

Health officials said they planned to explain to Nguyen's neighbors in the South Bronx that they are safe from the disease. Based on the negative test results from her apartment, "we don't have any evidence that there is a public health threat," said New York City Health Department Commissioner Neal L. Cohen. "We don't have any evidence of anthrax or anthrax exposure there."

Cohen said Manhattan Eye, Ear and Throat Hospital would remain closed indefinitely.

"You have to have a greater concern about that mailroom, given that that individual was working in very, very close proximity to that mailroom," said Cohen. "Until we can rule that out as a hospital facility where people go in for treatment surgical procedures . . . we want to be absolutely sure."

*Staff writers Christine Haughney, Charles Lane, Susan Levine, Robert E. Pierre, Ellen Nakashima and Susan Schmidt contributed to this report.*
experts in numerous countries have begun looking afresh at earlier studies largely ruling out the use or acquisition of nuclear weapons by terrorists.

Mr. Baradei, an Egyptian citizen and a lawyer by training, said in a statement: "We are not just dealing with the possibility of governments diverting nuclear materials into clandestine weapons programs. Now we have been alerted to the potential of terrorists targeting nuclear facilities or using radioactive sources to incite panic, contaminate property, and even cause injury or death among civilian populations."

"The willingness of terrorists to commit suicide to achieve their evil aims makes the nuclear terrorism threat far more likely than it was before Sept. 11," Mr. Baradei said. His message was addressed not only to the five formally declared nuclear powers — China, France, Russia, Britain and the United States — but also to India, Pakistan and Israel, all of which are either known to possess nuclear weapons technology, or are believed to have them.

Reports that some terrorist groups, particularly Mr. bin Laden's Al Qaeda network, had tried to acquire nuclear material was a "cause of great concern," he said. He said the agency's experts believed that the "primary risks" of a terrorist nuclear attack could involve the theft of fissionable material from reactors or an attack or act of sabotage intended to release large quantities of radioactivity into the environment. But he said the danger also existed that terrorists would either obtain the materials to build a nuclear weapon or would succeed in buying or stealing nuclear weapons.

Given the difficulties involved in building or acquiring a nuclear bomb, he said, terrorists could also use radioactive materials from nuclear reactors, medical devices or other sources to construct a radiological bomb, sometimes called a dirty bomb, by putting the radioactive material around an ordinary explosive and detonating it.

In a paper to be presented at the Friday conference, George Bunn, an expert on nuclear safety from Stanford University, said the September attacks, in which commercial aircraft were rammed into buildings, posed a "much larger threat than civilian nuclear security systems are generally designed to deal with."

The mandate of the agency, which is the United Nations body for monitoring nuclear programs and is based in Vienna, does not extend to nuclear weaponry, and Mr. Baradei voiced concern about safeguards in India, Pakistan and Israel.

"Although I understand there is a high level of security for nuclear weapons," he said, "I hope that all of these countries are urgently reviewing the safety and security of their nuclear weapons." Pakistan has been caught up in a nuclear arms race with its neighbor and archenemy, India. The Pakistani government, which leads the world's second most populous Islamic nation with 140 million people, has been struggling to contain public anger over government support for the American military strikes in Afghanistan. Mr. Baradei noted that Pakistani nuclear safeguards appeared to be sufficient, though he said: "If there were a breakdown in the civil order, of course, you have worries. But so far I think they are under proper control."

He played down the likelihood of terrorists being able to produce a nuclear bomb. To do so, he said, would require obtaining 25 kilograms, or 55 pounds, of highly enriched uranium or eight kilograms of plutonium. "While we cannot exclude the possibility that terrorists could get hold of some nuclear material," he said, "it is highly unlikely they could use it to manufacture and successfully detonate a nuclear bomb." But he quickly added, "No scenario is impossible."

A significant danger, he said, was that terrorists could obtain nuclear materials or weapons from rogue scientists in places like Russia. With the end of the cold war, he noted, thousands of scientists and engineers involved in the nuclear programs of the former Soviet Union found themselves without work and with incomes drastically reduced. Moreover, he said, there were numerous reports, all unconfirmed so far, of the sale or theft of fissionable materials or nuclear weapons from the old Soviet arsenal.

According to agency figures, since 1993 there have been 175 cases of trafficking in nuclear material and 201 cases of trafficking in medical and industrial radioactive materials, he said. But only 18 of those cases involved small amounts of highly enriched uranium or plutonium, the fissionable material needed to produce a nuclear bomb. Some of the proposals to be heard Friday include plans to strengthen international conventions on the safeguarding of nuclear materials. But experts said nuclear countries would generally be reluctant to admit new means of control. Mr. Baradei said the agency would require an additional $30 million to $50 million annually to expand its surveillance programs to meet the terrorist threat.
Bush Is Concerned Bin Laden Is Seeking Bomb That Spews Radioactive Material
By Neil King Jr. and David Rogers, Staff Reporters of The Wall Street Journal
WASHINGTON -- The Bush administration is concerned that Osama bin Laden's terrorist network may be actively seeking a crude explosive device designed to spew radioactive material, U.S. officials say.
The fear of al Qaeda acquiring a so-called dirty bomb adds to a growing list of worries the administration must face as it looks to thwart another possible attack against the U.S.
The administration has based its concerns of al Qaeda pursuing a radioactive bomb on intelligence picked up during recent days that mentions such a device, according to people familiar with intelligence on the matter. They cautioned that the information was still sketchy and unconfirmed. One person familiar with the matter said that while the intelligence had raised concerns within the administration, "it hasn't set off alarm bells."
One official said Attorney General John Ashcroft's warning Monday that the U.S. could face another terrorist attack this week wasn't based on fears of a radioactive bomb falling into the wrong hands.
Officials have had to deal with a flood of intelligence reporting from around the world since the Sept. 11 attacks, including telephone intercepts and tips from human informants. Much of it, they say, is of dubious value. One official familiar with the intelligence on the dirty bomb said it could take days or weeks to figure out whether or not the information is credible.
A senior U.S. official, although unaware of any intelligence information about a dirty bomb, said the Federal Bureau of Investigation and other federal agencies have been preparing contingency plans in case such a bomb is detonated. "Those discussions have been ongoing," the official said, but not because of any hard threat information.
The U.S. long has worried about terrorists acquiring loose nuclear materials from Russia or other former Soviet states, as well as the scientific knowledge to turn the material into a weapon.
Officials said these concerns have increased as authorities in Pakistan during the past week have detained and questioned several nuclear scientists. A spokesman for Pakistani President Pervez Musharraf said at a news conference earlier this week "there are certain questions we need to ask" the scientist, Bashir Uddin Mahmood, who ran one of the country's nuclear-power reactors until quitting in 1998 to work for a relief organization in Afghanistan. Several of his colleagues at the relief group, including at least one other scientist, also have been detained. The group operates inside Afghanistan with support from the ruling Taliban.
Mr. Mahmood wasn't involved in Pakistan's nuclear-weapons program, according to government spokesman Major General Rashid Qureshi. Another Pakistani official insisted the men were being questioned solely about their charitable work for the Taliban.
Foreign Minister Abdul Sattar reacted Thursday to press reports suggesting that political upheaval in Pakistan could jeopardize the safety of the country's nuclear arsenal. Pakistan's "strategic assets are under foolproof custodial controls," Mr. Sattar said in a statement.

Anthrax At Vilnius U.S. Embassy
By Liudas Dapkus, The Associated Press
VILNIUS, Lithuania -- A laboratory in Lithuania confirmed Thursday that traces of anthrax were found in at least one mailbag from the U.S. Embassy in Vilnius, the first such discovery in Europe.
Kazimiera Rutiene, chief of the microbiology laboratory at the Lithuanian Public Health Center, said that chemical tests indicated anthrax and that mice injected with the suspect substance on Wednesday had died by Thursday morning. "This is real proof that there were traces of anthrax there," she said at the center in Vilnius, the Lithuanian capital. She said she was "100 percent" certain that scientists had found anthrax.
Many Lithuanians were dismayed and frightened.
"This news of anthrax cases in Lithuania is shocking," State Security Department chief Arvydas Pocius said. "This proves that no place on the planet is safe from the threat of bioterrorism."
"I used to think this terrible disease couldn't cross U.S. borders," said Rima Sirvinskiene, a teacher. "But everyone's a potential target, even thousands of miles away."

U.S. Embassy spokesman Michael Boyle said the embassy mailroom had been sealed with plastic sheets and the 120 embassy employees were being offered antibiotics, although none showed symptoms of anthrax. Rutiene said the five bags were delivered to the lab this week as part of worldwide tests of mailbags from all U.S. embassies after anthrax was detected at the U.S. State Department in Washington. Suspicious material was found in small amounts in the corners of the bag, not inside letters or packages, Rutiene said, adding that results from tests on the four other bags were expected by Friday. Boyle said the diplomatic pouches had come straight from the U.S. State Department in Washington -- appearing to rule out that the contamination could have come from letters sent within Lithuania. "Common sense leads me to believe that this is part of the same contamination that has been documented at the State Department," Boyle said. He said mail from the bags, including from the one confirmed to have anthrax, had earlier been distributed to embassy staff but was retrieved and would be decontaminated, along with the inside of the embassy. State Department spokesman Richard Boucher had said Wednesday that preliminary tests showed two of five bags from the Vilnius embassy had shown traces of what appeared to be anthrax. Public buildings in Vilnius, as well as embassies, were closed Thursday for All Saint's Day. Boyle said the embassy would open Friday but that staff had the option of taking the day off. The last known case of anthrax in Lithuania was in 1974.

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**Inside The Ring**

By Bill Gertz and Rowan Scarborough

**Anthrax threat**

U.S. intelligence officials tell us the Pentagon recently conducted an exercise to gauge the destructive power of a biological weapons attack. The target was Los Angeles, and the simulation involved the detonation of an anthrax bomb over the Los Angeles harbor with a warhead containing 2,000 grams of anthrax. The spores were dispersed at a certain altitude into a 20 mile-per-hour wind flowing west to east. The simulated bomb also contained true weaponized anthrax — the kind that is genetically engineered to be completely resistant to all types of antibiotics. The type of anthrax found in recent terrorist attacks in Washington and New York, by contrast, was not resistant to antibiotics. The results were catastrophic. Intelligence officials estimated that two hours after the explosion, as many as 880,000 Angelenos would die and another 1.3 million people would be exposed from this weapon of mass destruction.

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**Arrested Pakistani Atom Expert Is A Taliban Advocate**

By Dennis Overbye and James Glanz

Sultan Bashiruddin Mahmood, a nuclear engineer who was one of three Pakistani scientists arrested last week because of their suspected connections with the Taliban, is an expert on nuclear weapons production, but also a fundamentalist Muslim with unorthodox scientific views, scientists familiar with the Pakistani scientific circles said today.

During more than 30 years in Pakistan's nuclear program, he pioneered construction of plants to produce enriched uranium and plutonium for Pakistan's small but growing arsenal of atomic weapons. But as a subscriber to a brand of what is known to practitioners as "Islamic science," which holds that the Koran is a fount of scientific knowledge, Mr. Bashiruddin Mahmood has published papers concerning djinni, which are described in the Koran as beings...
made of fire. He has proposed that these entities could be tapped to solve the energy crisis, and he has written on how to understand the mechanics of life after death.

"He seems to have played a very important role in the whole spectrum of the Pakistani program of plutonium production and uranium enrichment," said David Albright, a nuclear weapons expert and president of the Institute for Science and International Security in Washington, who described him as "just the kind of guy who could help provide shortcuts on building nuclear weapons or creating a nuclear weapons capability."

Other experts stressed, however, that Mr. Bashiruddin Mahmood, an outspoken admirer of the Taliban, could not by himself help either the Taliban or Osama bin Laden and his Al Qaeda terrorists build an actual nuclear weapon. "If he were to just cross the border and set up shop in bin Laden's caves, that's not going to get them a bomb," said Robert Sherman, director of the Strategic Security Project of the Federation of American Scientists.

American intelligence officials have said that, while the reporting is sketchy, there is no evidence that either the Taliban or Al Qaeda have obtained nuclear weapons. But they said Al Qaeda, which has enjoyed the Taliban's protection since Mr. bin Laden moved to Afghanistan in 1996, has made repeated efforts to buy fissionable material that could be turned into a bomb.

One such effort was documented last February in the Manhattan trial over the bombings of American embassies in East Africa in 1998. Jamal Ahmed al-Fadl, a former close aide to Mr. bin Laden who pleaded guilty and testified for the government, described his own role in a 1993 attempt by Al Qaeda to buy uranium for $1.5 million.

Mr. Fadl, a Sudanese member of Al Qaeda, testified that he was sent by one of Mr. bin Laden's advisers to meet an intermediary near Khartoum, and was shown a cylinder, apparently from South Africa, which the man said contained the uranium.

Mr. Fadl testified that he told the man that Al Qaeda was "very serious" about the purchase, but acknowledged that he had no idea whether the deal ever went through.

Several American intelligence analysts have said that they are not certain whether the United States has a firm grasp of how much progress, if any, Al Qaeda has made toward building a nuclear bomb or a weapon that could spread radioactive material. Whether Mr. Bashiruddin Mahmood has imparted any of his knowledge to the Taliban or Al Qaeda is also unclear.

Little is known in the West about his background. He is believed to have studied engineering in England, according to Dr. Zia Mian, a Pakistani physicist at Princeton's Woodrow Wilson School.

He came to prominence as an engineer in the 1970's when he worked out a technique for detecting leaks in steam pipes at a Canadian-built reactor, the Karachi nuclear power plant, in Pakistan.

Mr. Bashiruddin Mahmood went on to spearhead the development of the Kahuta plant near Islamabad, which, according to a 1992 issue of The Bulletin of the Atomic Scientists, has the capacity to produce about 100 kilograms of enriched uranium a year, enough for half a dozen bombs.

Pakistan exploded its first atomic device in May 1998, responding to a similar test by its archrival India just days earlier.

Until last year, Mr. Bashiruddin Mahmood was thought to be in charge of another installation, the Khushab reactor, which Western experts believe produces weapons-grade plutonium. He was forced to retire last year as a result of his outspoken opposition to the Comprehensive Test Ban Treaty, said Dr. Pervez Hoodbhoy, a Pakistani nuclear physicist and professor at Quaid- e-Azam University in Islamabad.

In an interview last year with The Financial Times, Mr. Bashiruddin Mahmood said he opposed the treaty on the ground that Pakistan needed to carry out test explosions to develop peaceful uses of atomic energy.

Since retiring, Mr. Bashiruddin Mahmood has had a high profile in Islamabad science circles. "He has been going around giving talks, meeting with university students and faculty, going to schools, colleges, wherever there are people who will listen to him, and arguing that the Taliban are the way, that they show the way for Pakistan," Dr. Hoodbhoy said. He also helped found the Holy Koran Foundation, and traveled to Afghanistan doing what he said was charity work.

Pakistan is believed to have fewer than 20 nuclear bombs. They probably have an explosive power similar to the bomb dropped on Hiroshima in 1945, and like that weapon, use highly enriched uranium-235 as their fuel.

Western sources believe the Pakistani bombs weigh about 1,500 pounds and are intended to be delivered by an F-16 jet, according to Robert S. Norris, a researcher and analyst at the Natural Resources Defense Council, a think tank that opposes nuclear proliferation.

According to Dr. Mian of Princeton, Mr. Bashiruddin Mahmood was replaced as head of the uranium enrichment program by Dr. Abdul Qadeer Khan, who is generally identified as the father of Pakistan's nuclear bomb. (Uranium enrichment is the process by which weapons-grade uranium is purified from natural uranium ore.) According to The Bulletin of the Atomic Scientists, Dr. Khan worked at a uranium enrichment plant in the Netherlands in the early 1970's and later brought information about that technology with him to Pakistan.
Nevertheless, Dr. Hoodbhoy and Dr. Mian said, Mr. Bashiruddin Mahmood remained an influential figure in the program.

Dr. Hoodbhoy said that President Pervez Musharraf's support of the American campaign against the Taliban had caused "deep cleavages" in the Pakistani military, scientific and government circles and there was a danger that the government could lose control of parts of the highly secretive nuclear program.

"I think the chances of an entire weapon being carted off are rather remote," he said. Much likelier would be the loss of the uranium core, he said. If that was stolen, experts and other materials would be required to reassemble that into a bomb.

Mr. Bashiruddin Mahmood could not make a bomb for the Taliban by himself or even smuggle one or materials for one out of Pakistan, an effort that would require a large number of people. But, Dr. Hoodbhoy said, "He knows quite a bit and people like him are important."

Mr. Bashiruddin Mahmood could be a general consultant and guide to the black market, according to Rodney W. Jones, president of Policy Architects International in Reston, Va., a defense consulting firm.

It was in the 1980's that Mr. Bashiruddin Mahmood emerged as a proponent of "Islamic science," espousing among other things that djinni could be tapped to solve the energy crisis. He published a book called "The Mechanics of Doomsday and Life After Death."

"I think that if we develop our souls, we can develop communication with them," Mr. Bashiruddin Mahmood said about djinni in The Wall Street Journal in an interview in 1998. "Every new idea has its opponents," he added. "But there is no reason for this controversy over Islam and science because there is no conflict between Islam and science."

In his own book, "Islam and Science, Religious Orthodoxy and the Battle for Rationality," and in interviews, Dr. Hoodbhoy has severely criticized Mr. Bashiruddin Mahmood's theories and the notion of Islamic science in general, calling it "ludicrous science."

In a letter published in Dr. Hoodbhoy's book, however, Mr. Bashiruddin Mahmood protested that Dr. Hoodbhoy misrepresented his views. "This is crossing all limits of decency," he wrote. "But should one expect any honesty or decency from anti-Islamic sources?"

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New York Times
November 2, 2001

**Bush Will Offer Nuclear Cuts To Sway Russia**

By Michael R. Gordon and David E. Sanger

WASHINGTON, Nov. 1 — President Bush will decide in the next few days how deeply to slash America's nuclear arsenal as part of a new understanding with Russia on missile defense and strategic nuclear arms, officials said today.

Together with economic incentives for Moscow, the reductions in nuclear arms are intended to be an inducement to the Russians to accept the Bush administration's program to test and develop antimissile defenses — which are prohibited by the 1972 Antiballistic Missile Treaty.

A leading option under consideration, according to senior administration officials, is to reduce the American nuclear force to a range of around 1,800 to 2,250 warheads, from current levels above 6,000.

The president's final decision on the cuts is expected to be included as part of a broad package of strategic and economic incentives that Mr. Bush hopes to present to President Vladimir V. Putin when he arrives here later this month.

White House officials confirmed today that Mr. Bush's national security adviser, Condoleezza Rice, has made a series of calls around Capitol Hill in hopes of arranging a quick vote on revoking the main economic sanction against Russia remaining from the cold war.

That measure, the 1974 Jackson- Vanik Amendment, was intended to pressure Communist-bloc nations to allow free emigration, particularly in the case of Russian Jews trying to leave. The law has not been applied to Russia in years. But Mr. Bush wants to announce this month that Russia and a host of former Soviet republics will be "graduated" from the entire process of being reviewed annually to be granted normal trading status. That step would also help pave the way for American approval of Russia's entry into the World Trade Organization. Congress permanently exempted China from the law last year.
American officials are touting these actions as signs of a new relationship with Moscow. But to forge those ties, Mr. Bush also appears to be modifying his own positions. He needs Russian cooperation in the war against terrorism and the attacks on Afghanistan. The result is that few in the administration are now talking about withdrawing from the ABM treaty any time soon, despite Mr. Bush's oft-repeated claim that the treaty is outdated and dangerous.

Other stances have changed: the Bush administration is markedly more reserved on the question of Russian use of force in Chechnya despite previous American concerns that civilians were being hurt by indiscriminate Russian attacks.

While Mr. Bush has repeatedly indicated as a candidate and president that he favors deep cuts in the country's nuclear arsenal he has never said how many weapons he plans to eliminate. At a briefing for reporters today, Ms. Rice said nothing about the nuclear cuts, other than repeating the administration's position that it would not engage in negotiations over a new arms control treaty.

"We really believe the old arms control agreements in which you had to match warhead for warhead, system for system, ignoring geography, ignoring history, ignoring the threats around you, was the old way of thinking about this," she said.

Other administration officials said that Mr. Bush would make a unilateral declaration of how deeply he hoped to cut the American stockpile, and that the administration expected Mr. Putin would do the same. "This may not be on paper," one administration official said. "It doesn't have to be."

That alone is a huge change. By avoiding negotiations on limits that apply equally to both sides, the Bush administration is breaking with the cold war tradition in arms control, which made parity between the superpowers the paramount consideration. Moreover, if there can be an agreement without a treaty, there is nothing for the United States Senate to debate or approve.

But first Mr. Bush must resolve differences within the Pentagon about how deep those cuts should go. The second strategic arms reduction treaty, Start II, which has never legally taken effect, called for reducing armament levels to around 3,000 to 3,500 warheads. President Bill Clinton and President Boris N. Yeltsin of Russia agreed that their goal should be to cut the number of warheads on each side to 2,000 to 2,500 under a proposed Start III accord.

The arms reductions would be made over a 10-year period under provisions for on-site inspection outlined by Start I. Some former Clinton administration officials said the reductions the Bush administration is considering are less significant than advertised. That is because the Bush administration is adopting a new procedure for counting weapons in which strategic submarines and bombers that are being overhauled will not be included, a break with past arms control treaties.

This change in the counting will reduce the official tabulation of nuclear weapons by about 250 warheads without actually eliminating a single weapon. "It sounds like the Bush team may not have overcome the institutional resistance to lower numbers that the Clinton administration encountered," said Steven Andreasen, the director of defense policy and arms control for the National Security Council during the Clinton administration.

Arms control advocates said the reductions being considered by the White House are not nearly as deep as they had hoped. "They are not sensible cuts for the end of the cold war," said Bruce G. Blair, president of the Center for Defense Information. "Those numbers imply a requirement to prepare for the possibility of a large-scale nuclear war with Russia, which is not a plausible scenario."

A Bush administration official asserted, however, that the reductions projected now were the product of a review that took a fresh look at the nuclear force. He defended the decision not to count submarines and bombers in the overhaul, saying officials have decided it is not sensible to count what he termed "phantom arms."

Ms. Rice's calls to Congress this week to take Russia off the list of countries that are affected by the Jackson-Vanik amendment was another step in the direction of integrating Russia more fully into the West.
"We'd have to do it anyway to get Russia into the W.T.O.," one administration official said. "Putin wants Russia off
the list, and by doing it we can declare victory, say 'it worked,' and move on," the official added.

Getting Russia into the World Trade Organization, however, will be a far more complex problem, involving
extensive negotiations about opening Russia's markets. It is unclear whether Mr. Putin is willing to pay the political
price — especially if entry into the W.T.O. forces Russian industry to face global competition.

The third element of the administration's package to encourage an agreement with Mr. Putin is a new position on
defensive systems. Instead of abandoning the ABM treaty, as many conservatives have advocated, the Bush
administration now appears to be proposing a phased approach.

During the first phase, it appears, Russia would permit the United States to go ahead with testing — but not
deployment — of its antimissile system. But it would do this by amending, but not abandoning the ABM treaty.

This approach would enable the Pentagon's antimissile defense program to go forward while partially satisfying the
Russians, who insist that the ABM treaty is the bedrock of arms control.

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November 2, 2001
Pg. 13

**U.S.-Russia Arms Race Nearing New Era**

*A look at the history and future of the issue*

By Jonathan Weisman and Bill Nichols, USA Today

WASHINGTON — The United States and Russia are nearing a historic agreement to slash their nuclear-weapon
arsenals while allowing U.S. missile-defense tests to go forward.

Some key questions about the issue:

**Q: How many nuclear weapons does each side have?**

A: The United States has 7,013 warheads, while Russia has 5,858 warheads.

**Q: Didn't both countries already agree to cut those numbers substantially?**

A: Yes, President Bush's father and Russian President Boris Yeltsin signed the START II treaty in 1993. That
agreement calls for reducing each side's arsenal to between 3,000 to 3,500 warheads by 2007. In 1997, Yeltsin and
President Clinton agreed to negotiate a START III treaty to reduce each side's arsenal to no more than 2,500 by
2007.

But START II hasn't been implemented yet. One reason is that Moscow doesn't have the money to dismantle its
warheads. Also, some Russian officials fear that a U.S. missile-defense system would swing the nuclear balance of
power to the United States unless Russia keeps enough warheads to swamp a defense system.

**Q: So why is Russian President Vladimir Putin willing to slash his arsenal?**

A: The Russian economy is so strapped that its military cannot maintain its aging nuclear stockpile. Putin says it is
better to have a few nuclear weapons in good working order than a large, decaying arsenal. But he wants the United
States to reduce its arsenal by the same amount, so each side has about 2,000 warheads.

**Q: Does the United States need more than 2,000 warheads?**

A: Pentagon nuclear experts say more are needed to provide a minimum deterrence from attack. But independent
analysts say 2,000 is more than enough to deter attack.

**Q: Would the U.S. Treasury save money from cutting its arsenal?**

A: A Congressional Budget Office study last year estimated that the United States would save $11.6 billion over 10
years in maintenance costs if nuclear levels were cut to 3,000 to 3,500 warheads. But that saving would be vastly
offset by the cost of developing a national missile-defense system. Overall cost estimates range from $60 billion to
$500 billion.

**Q: What happened to Putin's concerns about the U.S. missile-defense program?**

A: He's still concerned that the U.S. program violates the 1972 Anti-Ballistic Missile (ABM) Treaty signed by the
United States and the Soviet Union. Putin has raised fears that scrapping the treaty, as Bush proposes, could trigger
an arms race, as Russia builds weapons to counter a defense.

But reality seems to be setting in. Russia can't afford a new arms race. Moreover, since the Sept. 11 attacks, Putin
has been eager to join the war on terrorism and improve economic and strategic ties with the United States and
Europe. His country's economy is still struggling and can use all the help it can get from the West.
Besides, Bush appears bent on pursuing a missile-defense program. If he and Putin can reach an accord, at least the Russians can have some influence on the missile-defense timetable and other arms-control issues.

Q: What kinds of missile-defense testing does the ABM Treaty prohibit?
A: The treaty lets each country build a land-based anti-missile system at one site. Russia chose Moscow; the United States chose missile silos in Grand Forks, N.D. But Bush wants to build a testing range in Alaska. The treaty also prohibits the testing and deployment of sea-, air-, or space-based defenses against long-range missiles. Bush wants to test the ability of existing ship-borne radar systems to track long-range missiles.

Q: The United States has been working on missile defense since Ronald Reagan was president. Will it ever happen?
A: Hard to say. U.S. officials have said deployment could take anywhere from 5 to 20 years. The most recent missile-defense test was a success, but there have been more misses than hits. Some independent scientists doubt a missile defense would ever work. But Bush says the system is worth the cost even if it only deters "rogue" states, such as Iraq or North Korea, from firing a missile at the United States.

Wall Street Journal
November 2, 2001
Pg. 1

Seven Days In October Spotlight Weakness Of U.S. Response To Threat Of Bioterrorism

By Kathy Chen, Greg Hitt, Laurie McGinley and Andrea Petersen, Staff Reporters Of The Wall Street Journal

WASHINGTON -- The first bioterrorist attack against the U.S. government began during a routine meeting to discuss whether a tapped-out South Dakota gold mine should be converted into a research laboratory.

It was Monday, Oct. 15, and 10 members of Senate Majority Leader Tom Daschle's staff were holding their weekly South Dakota planning meeting on the fifth floor of the Hart Office Building. A painted buffalo hide, donated by a Sioux Indian tribe, hung on the wall.

Shortly after 10 a.m., Eric Washburn, a longtime Daschle aide, stuck his head in the door, interrupted the mine-to-lab discussion, and announced that an intern had just opened a threatening letter. "Just wanted to let you know," he added, according to a colleague, "it had white powder in it."

In the minutes, hours and days that followed, the U.S. government was put to the test. For decades, experts had warned of a bioterrorist attack. Now it was happening. Just days earlier, the Capitol police, spurred by anthrax attacks in Florida and New York, had established new procedures for screening suspect packages.

But the plan didn't provide any guidance to the nation's leaders on how to navigate the difficult line between taking all necessary precautions and avoiding alarming the public. Federal officials, faced with a chaotic situation that changed hourly, were first faulted for being alarmist as they shut down the House of Representatives, and then for underreacting tragically by minimizing the threat. The Centers for Disease Control and Prevention, floundering in uncharted territory, repeatedly assured a nervous Postal Service that there was no reason to worry about mail workers who might have come in contact with the threatening letter before it was opened. A week later, two of those mail workers were dead.

Confusion over just how to respond to the anthrax attacks continued to deepen Thursday, as preliminary tests revealed that the latest victim, a New York City hospital worker, was killed by a strain that's indistinguishable from those found in all the other infections, according to a top federal health official. But authorities were no closer to unraveling how the woman, who had no obvious ties to previously known targets or the postal system, became infected. That's an increasingly urgent mystery. Additional locations are testing positive for anthrax every day, most recently Food and Drug Administration mailrooms in Rockville, Md.; a Kansas City, Mo., postal facility; and State Department mailbags sent to Lithuania.

The initial reaction in Sen. Daschle's office on Oct. 15 was nonchalant. Staffers had seen threatening letters before. Days earlier, environmental activists had delivered a tuft of musk ox fur to the senator as a token of gratitude for opposing expanded oil drilling in Alaska, and some fretted it might be anthrax-laced. A test showed it wasn't. But given the recent anthrax attacks in Florida and New York, which had killed one person already, the staff wasn't taking chances.
Uniformed police officers came and closed the stairwell in the office, securing the room with the letter. They quarantined all staff in the area. Officers did two on-the-spot tests. Both indicated anthrax. The letter's postmark -- Trenton -- was also troubling, because an anthrax-laced letter mailed to NBC's Tom Brokaw earlier had the same postmark.

A short while later, Sen. Daschle arrived in the Capitol and was notified of the situation. He wanted to go to his office to discuss the threat directly with his staff, but Senate Sergeant-at-Arms Al Lenhardt, whose duties include overseeing security, insisted it was too risky. Instead, Mr. Daschle made a conference call, and his staff gathered around the speakerphone as he confirmed that the powder had tested positive for anthrax. He relayed reassurance from medical professionals that the disease was treatable. And he told them he was "proud of how strong they are," recalls Jay Carson, Mr. Daschle's home-state press secretary.

Mr. Daschle also talked to President Bush and told him about the letter. "Field tests showed it was positive," he said, according to an aide. Minutes later, Mr. Bush surprised Mr. Daschle and his staff by announcing the development to the world during an appearance with Italy's prime minister. In the Hart building, the Daschle staff ordered Armand's pizza and watched reports about their unfortunate circumstance. By mid-afternoon, they were released, and headed to the office of Dr. John Eisold, the Capitol's attending physician, where they were given anthrax-detecting nose swabs and doses of the antibiotic Cipro.

Samples of the powder were sent to Fort Detrick, Md., where Army scientists confirmed that evening that the substance was anthrax. The Capitol Police worked with Dr. Eisold's office on plans for a massive nose-swabbing operation the next day.

No one involved contacted the U.S. Postal Service, officials there say.

**Tuesday, Oct. 16**

At 4:30 a.m., an official from the Centers for Disease Control called Sherry Adams, the nurse who runs Washington's Office of Emergency Health and Medical Services. The experts at Fort Detrick had concluded that the Daschle letter contained "a virulent form" of anthrax. It consisted of tiny particles, able to float in the air for a long period of time and thus invade the lungs of victims. Sen. Daschle got the same message in a briefing from Maj. Gen. John Parker, Fort Detrick's commander. In an afternoon press conference, he said: "It's a very potent form of anthrax that was clearly produced by somebody who knew what he or she was doing."

At Postal Service headquarters, Postmaster General John "Jack" Potter asked his aides to ask the CDC what to do about workers upstream from the Hart building at the city's main postal station. The Brentwood Road facility distributes all the city's mail, and it has a special unit for sorting the federal government's incoming mail.

The response was unequivocal, says Deborah Willhite, the Postal Service's senior vice president for government relations and public policy. "They said there was virtually no risk of any anthrax contamination in the facility, that without the letter being opened at Brentwood, there was no risk of any anthrax escaping, so neither the facility nor the employees needed to be tested." Health officials said "whatever was sealed in the envelope was sealed," adds Patrick Donahoe, the Postal Service's chief operating officer. "There was no evidence anything had opened up. The letter to Daschle had been sealed with tape."

"There were just no clues, no evidence that indicated to us that people in Brentwood were at risk," says David Fleming, deputy director of the CDC.

By then, evidence already had emerged from earlier anthrax attacks that letters were leaving behind spore trails. In Florida, where inhalation anthrax killed a supermarket-tabloid editor, officials were pretty sure that a mailroom worker for the newspaper was infected, and a Boca Raton post office was tainted with anthrax traces, prompting authorities to close it temporarily and hand out Cipro to postal workers. In New Jersey, news of the Trenton-postmarked Brokaw letter had prompted private physicians to notify authorities that two Trenton-area postal workers had anthrax-like skin lesions.

But CDC officials in Atlanta and Washington thought there wasn't a risk of inhalation anthrax, the more serious form of the disease, for Washington postal workers. "It's not a question of leakage, but if enough comes out that poses a health risk," says Rima Khabbaz, head of the CDC investigation in Washington. Besides, she adds, environmental tests at another congressional mail facility that received mail from Brentwood had so far shown no evidence of anthrax.

Meanwhile, at the Brentwood station, 56-year-old postal worker Leroy Richmond called in sick. He had a fever, the sweats, muscle aches and fatigue. Joseph Curseen, a 47-year-old mail processor on the night shift, came to work, but felt like he was coming down with a cold. And Thomas Morris, a 55-year-old mail sorter, participated in his weekly Tuesday morning bowling league at the Parkland Bowl in District Heights, Md., but then he started feeling fatigued.

In New Jersey, at about 9 a.m. Dr. Faruk Presswalla, the state medical examiner, started work on a skin biopsy of a female mail carrier suffering from lesions. Dr. Presswalla had seen naturally occurring anthrax cases in his native India. It took him hours to prep the biopsy, but late in the afternoon, his microscope revealed dark-purple-colored
rod-shaped germs -- telltale signs. He phoned Dr. Eddy Bresnitz, New Jersey's chief epidemiologist, at about 5 p.m. "He said, 'Doc, this is certainly compatible with anthrax, but we don't have the special stains to confirm this," Dr. Bresnitz recalls. "Only the CDC has those." The skin biopsy was sent to the CDC in Atlanta that night via FedEx. At 8 p.m., Sen. Daschle was at a fund-raiser when he got a call asking him to return to the Capitol right away. He rushed to the Secretary of the Senate's ornate office, where the sergeant-at-arms, Mr. Lenhardt, and other top aides delivered the latest disturbing news. Cultures grown from the staffer swabs preliminarily indicated that as many as 20 had been exposed -- including those a floor below in the South Dakota planning meeting. More troubling, tests showed the clothing of a Capitol-based Daschle aide who hadn't even been in the Hart building on Monday had been exposed. Though the latter result later would turn out to be a false positive, "it was very disconcerting," the senator said.

Late that night, Mr. Daschle called Senate Republican Leader Trent Lott, Speaker of the House Dennis Hastert and House Minority Leader Richard Gephardt. House aides say Mr. Daschle raised the prospect of closing the Capitol in his call with Rep. Gephardt.

Mr. Daschle went home at 1 a.m.

Wednesday, Oct. 17

By 7 a.m., Sen. Daschle was at a weekly White House breakfast with the president and other congressional leaders, a ritual instituted by the president in the aftermath of the Sept. 11 attacks. The senator looked "shaken, almost ashen," recalls a top congressional aide. The leaders discussed the expanding anthrax crisis and how to secure the Capitol and its workers.

Messrs. Gephardt and Hastert came away convinced that an agreement had been struck to close both chambers, along with all the complex's office buildings. House aides say Mr. Daschle recalls some discussion of closing the office buildings but no focus on the Capitol building itself. "It could be my discussion of that was misinterpreted," he says.

Later that morning, Reps. Hastert and Gephardt announced the House would go out of session that day, and leave town until the following Tuesday. For the first time in history, the U.S. Congress appeared to be shutting down under threat of attack.

At about 10:30 a.m., the Senate convened a rare bipartisan caucus of all 100 senators in the members-only dining room on the Capitol's first floor. Sen. Daschle outlined the grim situation: Spores had been detected in about 30 staffers, mostly his, and they were taking powerful antibiotics to ward off a possibly deadly infection. "We're being tested here," he said, according to several in attendance. "I want us to demonstrate leadership. I want everyone here to be a leader." The room erupted in applause.

Gen. Parker of Fort Detrick also spoke to the group, but this time he focused on the good news. The anthrax, he said, appeared to be a "garden variety" strain that was easily treated with antibiotics. "I've seen it under the microscope," he assured them.

Then Sen. Daschle announced that all Senate office buildings would be closed for testing, and the Senate itself would need to be tested at some point. He suggested closing for legislative business at the day's end and doing a "pro forma" session Thursday.

Several colleagues objected. Texas Republican Phil Gramm stood and argued that votes be held Thursday as a signal to the terrorists and the country. "We cannot flinch," he said, according to someone at the meeting.

"You need to have a real vote, a real vote on something, anything" on Thursday, said Charles Schumer, a New York Democrat.

"We've got to send a message: Vote today," said North Dakota Democrat Kent Conrad, drawing cheers. "Vote tomorrow," he said, drawing more cheers. Jocularly pushing his luck, he broached a Senate taboo: "Vote Friday." Mocking boos broke the tension. Faced with a Senate revolt, Mr. Daschle relented: The office buildings would close for testing, but the Senate would stay in session and vote Thursday.

Back at Postal Service headquarters, Mr. Potter decided to have Brentwood tested himself, at Postal Service expense, even though the CDC continued to argue it was unnecessary. "Let's not wait," Mr. Potter said, according to Ms. Willhite.

The CDC based its position on limited available scientific data and its experience in Florida, New York and New Jersey, says Ms. Khabbaz, head of the CDC team in Washington. "The risk of inhalation anthrax" was thought to be "with the opening of the letter and aerosolization of the substance," she says. "So the investigation focused on the letter and went concentrically from there." Meanwhile, Mr. Curseen now had a stomach ache as well as a cold. But he reported to work as usual. Messrs. Richmond and Morris were also feeling worse.

Thursday, Oct. 18

Dr. Bresnitz, the New Jersey epidemiologist, was about to leave for work at 7:30 a.m. when someone from the CDC called saying that the female mail carrier's biopsy had been confirmed positive for anthrax and that another worker
probably was infected, too. "Are you sure about this?" Dr. Bresnitz recalls asking, stunned. "And he said, 'We're absolutely sure.'"

The Postal Service's Ms. Willhite and several colleagues went to a meeting that morning at the office of the Senate sergeant-at-arms to discuss the growing backlog of Capitol Hill mail. Commenting on the enormity of the problem, a congressional staffer mentioned that the Senate mailroom had four "hot spots" of anthrax traces. "That was the first time our concerns that anthrax might be able to escape an unopened envelope were sort of confirmed," Ms. Willhite says. "That sort of said to us: 'If it got into their mailroom before the letter was opened, why think it couldn't have gotten into Brentwood?'"

Leaving the office, Ms. Willhite turned to her colleagues: "Did you think that had some implications?"

It did. The Postal Service, eager to calm the public's nerves, arranged an event with John Walsh of the "America's Most Wanted" television show to publicize the government's $1 million reward for information leading to the people who had sent the anthrax. To drive home his point that the mail was safe, Mr. Potter decided to hold the event at the Brentwood postal facility. He had asked CDC officials that day and the previous day whether "there was any reason to believe our employees were at any risk being at Brentwood," says Ms. Willhite. "Given the facts they knew at the time about the letter to Sen. Daschle, they advised it was safe for employees to be there. Since it was safe for employees, he felt it was safe for him to be there and for all of us to be there. He said, 'Let's do this at Brentwood.'"

Even as reporters were gathering at the Washington post office, Acting Gov. Donald T. DiFrancesco of New Jersey was announcing the first confirmed case of anthrax in a postal worker.

At the news conference on the cavernous workroom floor of the Brentwood facility, Messrs. Potter and Walsh stood with other top federal officials, next to a big image of the Daschle and Brokaw envelopes, as they touted the $1 million reward and the toll-free tip line maintained by America's Most Wanted. "We will continue to do everything possible to protect the confidence of the American people in their mail," Mr. Potter said. The Daschle letter "was extremely well-sealed, and there is only a minute chance that anthrax spores escaped from it into this facility."

That night at Brentwood, senior plant manager Timothy Haney halted all of the machines for quiet and gathered all workers in the central work area. "Mr. Haney advised employees that if they saw people with funny suits, they were testing the facility," recalls Ray Williams, vice president of the American Postal Workers Union's Washington office, who was also present.

A worker interrupted him: "Why are you testing the machines instead of us?" Mr. Haney responded that if anything was found on the machines, the CDC and public health officials would start providing antibiotics to the workers, according to Ms. Willhite. The workers weren't satisfied, but after 15 minutes everyone went back to work.

A team of testing contractors in white protective suits and face masks arrived shortly after 8 p.m. and started testing, focusing on four automated machines as well as equipment in the government mail area that would have processed the Daschle letter. The initial field-test results, available in minutes, were negative, offering hope that Brentwood wasn't contaminated.

Meanwhile, Mr. Morris went to see a doctor. He had a fever of 102 degrees, but a normal white-blood-cell count and so was sent home. Mr. Curseen was feeling worse, too, but he hadn't missed a day in 15 years, so he didn't consider skipping work. "He thought he could just stick it through," said his mother, Billie Curseen.

**Friday, Oct. 19**

At the work week's end, Capitol Hill was a ghost town. Both the House and Senate were out of session and all the office buildings remained closed. Some Daschle staffers played touch football on the mall by the Air and Space Museum -- "exposed versus unexposed," one quipped.

In New Jersey, Dr. George T. DiFerdinando, acting commissioner of the state's health department, decided to ignore the CDC's advice and recommend seven days of Cipro for all workers at two Trenton-area postal facilities. "We made our own policy," Dr. DiFerdinando says. "I said, 'I'm interested in hearing what the CDC has to say, but my mind is pretty much made up. I'm going to recommend treatment anyway.'"

In Washington, no widespread treatment was provided, although Mr. Potter had said the previous day that any Brentwood workers who wanted to get tested for anthrax should. At about 1 p.m., Mr. Richmond went to the Kaiser Permanente Woodbridge medical facility in Northern Virginia and told Dr. Michael Nguyen that he was a postal worker, that he rarely got sick, and that he was worried about anthrax. The doctor sent Mr. Richmond to the emergency room at Inova Fairfax Hospital, where he arrived just after 3 p.m. There, Dr. Cecele Murphy ordered blood tests and a chest X-ray and CT scan; the preliminary signs pointed toward inhalation anthrax. Dr. Murphy put him on intravenous Cipro and notified city health officials at about 10:30 p.m.

CDC officials monitored the situation closely, but doubted that Mr. Richmond had inhalation anthrax.

**Saturday, Oct. 20**
On Capitol Hill, Sen. Bill Frist, the Senate's only physician, was worried about the report that a postal worker was in a Fairfax hospital. He called Tom Ridge, the White House director of homeland security. "What's going on?" Mr. Frist recalls Mr. Ridge saying. "It's not clear to me," Mr. Frist responded. "But it's big."

Meanwhile, the CDC's Dr. Khabbaz sent an investigator to the Fairfax hospital to check on Mr. Richmond's condition. And, evidencing confidence in the Brentwood facility's safety, other CDC officials visited the plant without protective clothing to meet with its manager, Mr. Haney. The CDC officials wanted to know exactly where the letter had come in and to see the equipment that processed it and the plant floor layout. As Mr. Haney was explaining the mail-sorting process to his guests, an assistant came in and whispered in his ear. Mr. Haney excused himself to take an urgent phone call and returned several minutes later with devastating news: Mr. Richmond's wife had called to say that doctors were almost certain her husband had inhalation anthrax.

"Everyone started falling and popping and running and scrambling," recalls Mr. Williams. Recovering from cancer and other illnesses, Mr. Williams picked up his briefcase and headed for his doctor's office.

At the news conference, health officials played down Mr. Richmond's condition, saying it had not yet been confirmed.

At the CDC's Atlanta headquarters, people were stunned by the Richmond case. "It didn't make sense," says Dr. Fleming. "Something different happened at Brentwood. Something there allowed this material to become aerosolized."

That afternoon, Mr. Curseen went to Mass at St. John the Evangelist Catholic Church in Clinton, and briefly blacked out. By the time paramedics arrived, he had recovered sufficiently to drive home.

In New York that night for the all-star benefit rock concert at Madison Square Garden, Mr. Daschle was called onto the stage by comedian Billy Crystal, who cracked, "This man has had a pretty tough week." Mr. Daschle played it straight. "We're all Americans tonight," he said. He had planned to leave early, but "we stayed till the last song was sung" -- "Let It Be," by Paul McCartney and the all-star cast.

**Sunday, Oct. 21**

At 7 a.m. Sunday, Sherry Adams called Dr. Ivan Walks, the director of the D.C. Department of Health. Mr. Richmond was confirmed positive.

The CDC now recommended that all postal workers at Brentwood be tested and treated. Belatedly, Dr. Walks had realized that hundreds of postal workers would be converging on D.C. General Hospital for treatment just as crowds would be entering nearby RFK Stadium for a benefit concert featuring Michael Jackson, the Backstreet Boys and others. So he hurriedly switched the day's testing venue to a city office building.

Mr. Morris arrived at the emergency room of Greater Southeast Community Hospital just before 6 a.m. When doctors saw his medical history form and realized he was a postal worker at the Brentwood central mail facility, they suspected anthrax. Within hours, the hospital contacted Washington's Department of Health to notify them. Mr. Morris died at 8:45 p.m.

Mr. Curseen's wife, Celeste, found him alarmingly lethargic that day. At 3:30 a.m., after he collapsed in the bathroom, she called an ambulance, which whisked him back to the Southern Maryland Hospital Center. He could barely breathe, and a second chest X-ray and CT scan revealed serious problems. A reexamination of the previous day's X-ray, which had been deemed normal, showed "an ill-defined area of increased density," the CDC said in a report. Antibiotic therapy started, and he was put on a ventilator.

His parents, summoned to the hospital, were told that he had "double pneumonia," says his mother, Billie Curseen. "His breathing was so labored, you could hear him a block away," she says. She figured his condition was exacerbated by his asthma. "The doctors were frantic, this was something new to them," she said.

Mr. Curseen died six hours after arriving. Officials later announced that both he and Mr. Morris had succumbed to pulmonary anthrax. Their colleague Mr. Richmond remains hospitalized in serious condition.

In retrospect, CDC officials say they would have done some things differently. "If I could move back the clock and go back, knowing what I learned at Brentwood, boy ... " says Dr. Khabbaz, her voice trailing off. Still, she says, the agency moved as quickly as it could. "The fact that we were able to put people on antibiotics within six hours of..."
confirmation, we had mobilized the [pharmaceutical] stockpile, and to make sure that we were able to do that, is pretty amazing." Defenders of the CDC also say the agency was hampered because it wasn't getting timely information from Fort Detrick.

For his part, Health and Human Services Secretary Tommy Thompson says he didn't realize how extremely potent the anthrax was until he was briefed by the Army lab at Fort Detrick on Oct. 23, after the postal workers died. "If I had known it sooner, we would have done something differently at Brentwood," Mr. Thompson says.

-- Jess Bravin in Washington contributed to this article.

Old Soviet Biological-Weapons Labs Hold Promise For Vaccine Techniques
By John Fialka, Staff Reporter of The Wall Street Journal

One bitterly cold day in February 1998, Alan Felton, the owner of a small veterinary-equipment business near Kansas City, Kan., went shopping for a better way to vaccinate hogs. But this was no ordinary Midwestern shopping trip. At the invitation of a small Russian laboratory, Mr. Felton traveled to the city of Voronezh to examine a jet injector capable of administering thousands of vaccinations without the use of needles. And he encountered the jarring security procedures that carried over from the laboratory's past life as part of a top-secret Soviet military facility.

"I go in there, and they escort me all over the place, even into the toilet," Mr. Felton recalls. "They still treat these places as if they were making atomic bombs."

He became one of several dozen U.S. business executives and six U.S. agencies that in the past three years have sought peaceful uses from the old Soviet biological and chemical-weapons effort, a grisly enterprise that once involved about 60,000 workers. Some of the earliest beneficiaries emerging from this swords-to-plowshares work are likely to be hogs, crops, food processors, Kentucky bluegrass and the American buffalo. But the work may also help defend the U.S. against biological terrorism, which, in the wake of anthrax attacks, has suddenly has become an important national priority.

The Cold War research, conducted in an agency with headquarters in Moscow called Biopreparat, among other departments, involved a myriad of programs primarily intended to target the U.S. One aimed to use plant and animal disease agents, from foot-and-mouth disease to wheat-stem rust, for a missile-borne attack that could devastate U.S. crops and livestock herds. Others involved milking snakes, spiders and scorpions to amass what still may be the world's most complete collection of poisonous venoms.

Shifting toward cooperation in recent years hasn't been easy, either for apprehensive Russian lab managers or for U.S. officials. "It was hard to get a comfort level within our own government that we knew what we were doing," says James Noble, who runs an Energy Department program called Initiatives for Proliferation Prevention. Most of the department's expertise is in nuclear, not biological, weapons.

Moreover, the strict secrecy under which the old Soviet research was conducted means that even Russian scientists lack complete information on the substances they had worked on. "People often didn't know where the stuff they were working on came from and where it went," says Ronald Nesse, a program manager at the Energy Department's Pacific Northwest National Laboratory in Richland, Wash.

For example, Mr. Nesse is working with some Russian microbiologists on a project to help a business in Washington state stimulate the growth of Kentucky bluegrass. Steve Stillson, manager of Dye Seed Ranch in Pomeroy, calls the chemical stimulator the Russians have provided "very promising." But the Russians haven't said where it came from.

"I think maybe they found it by accident, trying to find something that would do just the opposite," Mr. Stillson says.

Accidental or not, the Russian research appears to hold promise for a wide range of applications in the U.S. At Yellowstone National Park, the U.S. government is trying to capitalize on the Soviets' expertise in brucellosis, a contagious disease that destroys cattle herds and can infect humans.

In September, the U.S. Department of Agriculture flew in a team of Russian experts from former biological-weapons labs to inspect a buffalo herd seriously infected with the disease. The U.S. officials hope that vaccines
derived from powerful strains of the bacteria developed by Soviet scientists during the Cold War can help cure the herd, and end tension between the wandering buffalo and neighboring cattle ranchers in Montana, Idaho and Wyoming, who worry that the buffalo will infect their herds.

Scientists from DuPont Co., seeking improved pesticides to protect U.S. crops, are tapping into the Soviets' expertise in toxins and venoms. DuPont executive Randolph Guschl cites "a promising lead from that collection," though he notes that more work is needed.

"One spider's venom might have thousands of compounds in and of itself," says Mr. Guschl, who heads the company's center for collaborative research. "The challenge is, how do you separate them?"

Mr. Felton hopes to turn a profit with a system he derived from a Russian high-speed vaccination system designed to protect Soviet troops headed toward infected battlefields. The Missouri businessman is preparing to market "Hog 100," a jet vaccine injector that is completing field tests on porkers in Iowa and Nebraska research farms. "We'll have a product within a year," he predicts.

While his main objective is hogs, Mr. Felton has also formed a company, Felton International, that is working with the Energy Department to develop a jet injector for humans. Some previous forms of such injectors, which use pressure to drive a jet of vaccine through the skin, also transferred human body fluids from one person to the next. The Russian system, he says, prevents that. But the human injector requires elaborate testing and remains several years away.

Meantime, another U.S. business executive hopes to turn Soviet research on fireflies into advances in bacteria-detection devices to protect food-preparation facilities, as well as U.S. soldiers confronting biological weapons. Finding Russian fireflies too dim, Soviet biological weapons labs collected the bugs from all over the world. Laboratory tests revealed that specimens from Madagascar glowed the most.

David Trudil, executive vice president of Hew Horizons Diagnostics in Columbia, Md., thinks it has to do with the peculiarities of luciferase, an enzyme that makes fireflies glow. Luciferase also has the ability to detect tiny amounts of a chemical called adenosine triphosphate, which is contained in bacteria.

That means luciferase could be useful for the biological-weapons detectors that Hew Horizons Diagnostics makes for the U.S. military. Mr. Trudil visited a lab outside Moscow, where he says some of the former Soviet firefly experts "worked a lot" with the enzyme.

Now, Mr. Trudil has 30 Russian scientists working to genetically engineer luciferase so that it could be used in a bacteria detector. The first commercial application that he envisions will be for slaughterhouses and other food-preparation facilities. But he hopes eventually to get a small, cheap device that could be used by individual soldiers.

"Flashes of light will tell you how much bacteria is around," Mr. Trudil explains. "It tells if there is a high count, if something is contaminated."

New York Times
November 2, 2001

U.S. Groups Have Some Ties To Germ Warfare

By Jo Thomas

In the six years since Timothy J. McVeigh used a truck bomb to destroy the Oklahoma City Federal Building, domestic antigovernment groups have spoken of the inevitability of using biological weapons.

"One individual, working alone and in secret, can create a weapon of mass destruction," Martin Lindstedt, editor of The Modern Militiaman's Internet Gazette, wrote in 1998, for example. "The Resistance needs to develop some of this weaponry in order to deal with the current ruling criminal regime."

Experts who track such groups say they see nothing in their recent monitoring indicating that the groups were involved in sending anthrax-laced letters, and many experts believe that the timing of the mailings seems to point to foreign terrorists. But they say some domestic groups have demonstrated the ability to use biological weapons, though not anthrax in particular.

Shortly before anthrax was discovered in the offices of Senator Tom Daschle, terrorists claiming to be from the home-grown Army of God sent more than 250 anthrax hoax letters to Planned Parenthood offices and abortion providers in 17 states. Most arrived on Oct. 15.

Gloria Feldt, president of Planned Parenthood, said the organization had received 171 letters from different states. No anthrax was found in the letters that were tested, she said.
Civil rights groups, scholars and law enforcement officials say the letters that have contained anthrax could have been sent by a small cell of domestic terrorists or by someone working alone. But they offer several reasons the source could be foreign.

"It seems clear that the anthrax production is at least somewhat sophisticated," said Mark Potok, a spokesman for the Southern Poverty Law Center in Montgomery, Ala., which monitors hate groups. "We've seen no evidence that any group on the American radical right has those kinds of possibilities."

But he and other experts say that white supremacist groups, among others, have shown an interest in biological weapons. Rabbi Abraham Cooper, associate dean of the Simon Wiesenthal Center in Los Angeles, pointed to "Biology for Aryans," posted on the Internet by Alex J. Curtis, a white supremacist convicted of threatening public officials and vandalizing two synagogues.

Mr. Curtis's brief posting said, "The principal characteristic of biological agents that could make their use attractive to terrorists is their extreme toxicity, even compared to other weapons of mass destruction."

Of the posting, Rabbi Cooper said: "There's no explicit suggestion that anyone should do it. But the one place he couldn't control himself was the headline."

Far more specific are the self-published books and compact discs a Nebraska man, Timothy W. Tobiason, has sold on the gun show circuit since 1996. "Biotoxic Weapons" and "Advanced Biological Weapons Design and Manufacture" are virtual cookbooks for anthrax and other biological weapons. Each warns it is "for academic purposes only."

According to court documents filed in a civil lawsuit in Federal District Court in Kansas, the Federal Bureau of Investigation looked into Mr. Tobiason's activities in 1998, after a gun collector told the agency that Mr. Tobiason said "the Oklahoma City bombing would be nothing" compared with what he was prepared to do. No charges were filed. Mr. Tobiason's family said he could not be reached for comment.

Raymond A. Zilinskas, a senior scientist at the Center for Nonproliferation Studies in Monterey, Calif., has read Mr. Tobiason's work. Although it has flaws, Mr. Zilinskas said, "he does give some accurate information on how to process spores that I have not seen anywhere else in the open literature."

Mr. Zilinskas, who was a member of the United Nations team that inspected Iraqi biological research and production facilities in 1994, said the sale of such literature deeply disturbed him. "It's really irresponsible for us as a nation to allow this kind of information to get out."

In recent years, domestic terrorists have been arrested with a number of poisons, including ricin, a deadly white powder distilled from castor beans, and Yersinia pestis, which causes bubonic plague.

In 1995, four members of the Minnesota Patriots Council were arrested, accused of plotting to kill a federal marshal with ricin, described in the Merck Index, the standard reference on chemicals, as among the most toxic compounds known.

In 1993, Thomas Lewis Lavy tried to enter Canada from Alaska with 130 grams of ricin. Mr. Lavy was not charged then, but in 1995, after the Oklahoma City bombing, he was arrested by the F.B.I. in a raid on his cabin in Arkansas and charged under antiterrorism statutes with possessing ricin.

Days after his arrest, Mr. Lavy hanged himself in his cell. The authorities said Mr. Lavy had ties to "survivalist groups," but they never named any. Officials said they had found no links to extremist groups.

Larry Wayne Harris, a white supremacist from Lancaster, Ohio, was arrested in 1995 after ordering three vials of Yersinia pestis from a laboratory in Maryland. Officials there became suspicious when Mr. Harris called to inquire about his order, and the police found the vials in the glove compartment of his car. He pleaded guilty to fraud and was sentenced to 18 months' probation.

Three years later in Las Vegas, Mr. Harris was charged with possessing anthrax, but the substance was a harmless veterinary vaccine and the charges were dropped.

On several occasions, the discovery of a cache of biological weapons has been a fluke. Thomas C. Leahy, who had learned to make ricin in a basement laboratory at his home in Janesville, Wis., was arrested after shooting his stepson in that basement in 1996.

And the police officers who were called to the home of Dr. Larry Creed Ford in Irvine, Calif., after his suicide on March 2, 2000, found an arsenal of automatic weapons and ammunition in his backyard and jars containing bacteria that cause typhoid and cholera in a refrigerator.

South African officials said Dr. Ford had worked as a consultant to Project Coast, a biological weapons program run by the South African government from 1981 to 1992.

A report released by the South African Truth and Reconciliation Commission in 1998 said Project Coast scientists had developed ways to put anthrax on cigarettes and the gum of envelopes. The report also said that participants in the program tried in 1989 to kill Frank Chikane, an anti-apartheid activist, by planting poison in his underwear. He was saved because he was en route from Namibia to the United States, where doctors detected the toxins.
Brian H. Levin, director of the Center for the Study of Hate and Extremism at California State University at San Bernardino, has been warning for years of the danger of chemical and biological toxins in the hands of domestic terrorists.

Nevertheless, Mr. Levin said he believed that "the people committing these acts are foreign-based or have foreign sympathies."

One reason is timing.
"It would seem to me to be improbable that a domestic extremist would be able to put together such an attack in such a short period of time," he said.

Rabbi Cooper of the Wiesenthal Center said the timing of the anthrax letters after the Sept. 11 attacks led him to believe they are linked.

Such a link would mean "we're looking at three possible sources," Rabbi Cooper said: "Osama bin Laden, individuals and extremists living here who are from that part of the world, and subcontracting to the lunatic fringe here."

"The same individuals who privately applauded Oklahoma City would applaud what happened on Sept. 11," he said, because they hate the federal government. "Even though they want to throw every non-Aryan out of the United States, they have to hand it to Osama bin Laden."

A collection of Internet postings by hate groups during and after the Sept. 11 attacks includes a message written by Billy Roper, deputy membership coordinator of the National Alliance, a white supremacist group.

"The enemy of our enemy is, for now at least, our friend," Mr. Roper wrote. "We may not want them marrying our daughters," he continued, but "anyone who is willing to drive a plane into a building to kill Jews is alright by me."

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(Edited Note: Hyperlink for referenced handbook after article.)

InsideDefense.com
November 1, 2001

CIA Posts Chemical, Biological Incident Handbook

The CIA yesterday posted on its web site a 1998 handbook on handling weapons of mass destruction. The unclassified publication has been widely distributed by the agency in recent years as a resource to anyone interested, but was posted to the Internet only recently because of the increased interest by the public in biological and chemical weapons, a CIA spokesman said today.

The "Chemical, Biological, Radiological Incident Handbook" is dated October 1998, but was first put together by an interagency panel in 1995. The Interagency Intelligence Committee on Terrorism, comprised of 45 government agencies and federal organizations was established in 1990 as a way of providing a government-wide forum on counterterrorism issues, according to the report.

According to an introduction of the handbook, the information provided "is intended to supply information to first responders for use in making a preliminary assessment of a situation when a possible chemical, biological agent or radiological material is suspected."

The handbook includes definitions of a chemical, biological and radiological "event" and offers a checklist on response measures. It defines biological warfare agents as, "living organisms or the materials derived from them that cause disease in or harm to humans, animals, or plants, or cause deterioration of material. Biological agents may be used as liquid droplets, aerosols, or dry powders."

The book does not mention anthrax specifically, and CIA spokesman Tom Crispell said he does not believe the handbook has been updated since the recent spate of anthrax attacks.

"Given the public's interest, we just thought it would be a publication of interest to those following the [anthrax] issue," Crispell said.

-- Anne Plummer

UNCLASSIFIED
Chemical/Biological/Radiological Incident Handbook
(October 1998)

Acknowledgments
This handbook was first produced by the Chemical, Biological and Radiological (CBRN) Subcommittee in June 1995. The subcommittee is one of seven subcommittees of the Interagency Intelligence Committee on Terrorism (IICT). Established and charged under DCI Directive 3/22, 24 October 1990, the IICT is comprised of representatives from 45 US Government agencies and organizations from the intelligence, law enforcement, regulatory, and defense communities. The IICT and its subcommittees provide an interagency forum for coordination and cooperation on a wide spectrum of counterterrorism and antiterrorism issues....

Boston Globe
November 1, 2001
Pg. 12

Federal Agencies Criticized
By Raja Mishra and John Donnelly, Globe Staff
WASHINGTON - The world's most experienced cadre of disease detectives remains stumped about the anthrax crisis, struggling to decipher the basic science of the deadly bacteria while simultaneously managing an escalating bout of public fear.

Nearly a month since a photo editor in Florida died from inhalation anthrax, teams of epidemiologists at the Centers for Disease Control and Prevention continue to learn more daily about the basics: how anthrax is passed, how long it takes to infect a person, how it affects victims, and how many spores are needed to kill.

But health specialists say that a complicating factor for the Bush administration is its diminished credibility due to the government's often conflicting or erroneous statements during the first three weeks of the crisis. In the early days, nonscientists such as Health and Human Services Secretary Tommy Thompson spoke for the administration, relying on even less knowledge than the federal government's already-strapped researchers.

The CDC, widely regarded as having the world's top teams of epidemiologists, overlooked one threat early - issuing no alerts about handling mail following the Oct. 18 report of a New Jersey letter carrier who was diagnosed with skin anthrax. Three days later, six Washington, D.C., postal workers became gravely ill. Two later died.

As a result, some critics say they have lost some confidence in the administration. "We've been briefed in great secrecy, on the 'real' story - totally wrong, in many cases," said Senator Fred Thompson, a Tennessee Republican, at a congressional hearing yesterday on how the nation has not gotten entirely accurate information about anthrax from the government.

Tara O'Toole, director of the Johns Hopkins Center for Civilian Biodefense Studies, told the Senate Governmental Affairs Committee the "government is doing a terrible job of communicating what is going on."

O'Toole, who has served on several bioterrorism panels, said that the "tendency to shield people from bad news underestimates the ability of the public to rationally respond to disturbing information."

The death early yesterday of a New York hospital worker identified as Kathy T. Nguyen, 61, of pulmonary anthrax raises additional troubling questions since investigators know of no evidence that places her near a tainted letter.

The fears that the outbreak has extended beyond mail carriers, senior US officials, and media workers, however, were counterbalanced by the relatively small death toll of four people, with 17 infected overall. That small number, however, continues to produce more questions than answers.

"Those who are saying in the last couple of days that we're learning as we're going are certainly right. We are learning," said Senate majority leader Thomas A. Daschle, a South Dakota Democrat, whose office received one of the three known tainted pieces of mail. "We have not experienced this before. ... We've got to adapt and respond and change as the information and the facts change, and I think that's what we're trying to do."

But many public health specialists say the criticism of the CDC is largely unfair because the federal agency has waded into uncharted medical territory. From an Atlanta "nerve center" - a remodeled auditorium - CDC officials are directing the work of investigative teams in the Washington and New York areas.

"We in the United States expect immediate gratification, immediate results, and expect anything to get solved immediately. But how can you be prepared for something you don't know how to be prepared for?" said Katherine
L. O'Brien, an infectious disease specialist at the Johns Hopkins' Bloomberg School of Public Health. "In my view, there is no other organization in the world that would respond any better than the CDC is able to."

John Coller of Harvard Medical School, a leading anthrax vaccine researcher, said he, too, "can't be too critical of them. I think they're doing their best. We're learning things all the time."

For example, he said, public health officials never knew until recently that the average envelope contains holes large enough for anthrax spores to slip through. This may be why they initially thought D.C. postal workers were safe. "I don't know that anyone would have thought of that before," Coller said.

While a handful of US infectious disease specialists have worked on a small number of anthrax inhalation cases, all of which date back more than a generation ago, the current cases are giving the investigators the first real clues of how the disease affects a patient's health.

"Most of what we knew related to cutaneous anthrax. And that information was decades old," Secretary Thompson said yesterday in a conference call with reporters.

Last week, the CDC talked with about 200 infectious disease specialists around the country in a review of the 10 inhaled anthrax cases to date. They compared notes, and found the victims all had far more intense fatigue than previously associated with anthrax. Also, the patients had clear sputum, another new finding that will help doctors distinguish early-stage anthrax from the flu, in which the sputum is yellowish.

"We never really had any significant clinical data on patients. The small positive about these recent cases is that we're learning, in a short period of time, much more about [inhalation] anthrax," said Dr. Steven Calderwood, director of infectious diseases at Massachusetts General Hospital, who participated in the CDC briefing.

The largest recorded outbreak of anthrax resulted from a 1979 leak at a biological weapons plant in Sverdlovsk in Russia. When it ended, at least 66 had died, perhaps dozens more. But because the Soviet government covered up the outbreak, saying tainted meat was the cause of deaths, epidemiologists did not examine patients.

Specialists remain unsure how much anthrax it takes to kill. For two decades, they assumed exposure to about 10,000 spores was necessary. But now, with the recent deaths, many believe the number could be as low as 2,000, perhaps even less.

Several former CDC officials, speaking on condition of anonymity, also have questioned whether the organization had been planning properly for bioterror hazards following a long period of emphasizing health promotion and prevention of chronic diseases.

In 1998, Congress appropriated $160 million for bioterror preparedness. About $50 million went for vaccine and antibiotic stockpiling. In addition, every major population center, including Boston, received money to create early warning systems - computers that monitor emergency room admissions for upticks in suspicious cases. During the five-year grant, Boston will receive $979,000.

In 2000, the federal government spent $43 million on bioterrorism research but that was scheduled, even before Sept. 11, to jump to $92.7 million.

"What they now need to do is get in place [disease] surveillance systems and increase consultations with state and local health departments," said Anthony Robbins, chair of family medicine and community health at Tufts University School of Medicine.

Many people will be watching the interaction of the CDC and law enforcement officers.

"Public health is more like police work than it is about medical care," he said. "I think the public health people ought to make a determined effort for teaching police officials about the ways they can solve police problems."

Globe reporter Susan Milligan contributed to this story. Mishra reported from Boston, Donnelly from Washington.
Washington insiders believe that such a coup is now more likely than ever. But in their view an even bigger threat is the risk that fissile material in Pakistan could be stolen and used for crude terror devices. Pakistani leaders have said repeatedly that their country's nuclear assets are safe. But a former senior U.S. official says helping Pakistan to strengthen its nuclear security at potentially vulnerable sites is "perhaps our most urgent threat reduction priority in South Asia."

Pakistan's military is evidently serious about protecting its nuclear arsenal of some 25 weapons - enough for strategic parity with a much bigger India. Robert Einhorn, a nonproliferation expert in the U.S. government for nearly 30 years who recently joined the Center for Strategic and International Studies, says Pakistan's military has done a respectable job in securing its nuclear assets.

"But," he adds, "I am not entirely confident about fissile material" - the highly enriched uranium and plutonium used to make the bomb core.

Doubts about the safety of Pakistan's nuclear program center on the A.Q. Khan Research Laboratory in Kahuta. The lab is named after Abdul Qadir Khan, the self-proclaimed father of the Pakistani bomb. U.S. intelligence has noted visits to the lab in May 1999 by senior Saudi and United Arab Emirates officials, and deals between the lab and North Korea.

Saudi officials deny any interest in acquiring nuclear weapons from Pakistan, but the United States worries about the possible implications of the May 1999 visit. The Khan Research Laboratory is known to have imported North Korean missile technology for Pakistan's Ghauri missile program. The worry is that in exchange for such technology North Korea may have been provided with vital know-how or fissile material for its own suspected nuclear armory.

Of greater concern is the possibility of fissile material being pilfered by sympathizers of the Taliban regime in Afghanistan among the lab's scientists. Still, this year American pressure prompted General Musharraf to remove Mr. Khan from the institution bearing his name. The recent detention of two senior scientists from the lab is the result of growing U.S. concern about these individuals' fundamentalist connections. One of them, Sultan Bashiruddin Mehmood, is a former director of the Kahuta Enrichment Project who took early retirement to establish an organization promoting science and technology in Islamic countries.

"My sense," says George Perkovich, author of "India's Nuclear Bomb," "is that the problem of an insider or insiders making off with fissile material is probably greater than somebody making off with an actual weapon."

Designing a simple, gun-type device using highly-enriched uranium is not difficult, once the enriched uranium is at hand. With relatively little effort, a small amount (as little as three kilograms) of highly enriched uranium could be turned into a weapon of nearly half the power of the bomb that was dropped on Hiroshima at the end of World War II. "The most likely danger is that with any kind of radioactive material you just add dynamite or a high explosive and blow it up and poison people," Mr. Perkovich says. The delivery weapon for such a device could be as simple as a truck driven across the border into India.

How to prevent such theft, and the killing of tens of thousands of people? The dire prospect calls for upgrading existing regulations.

The United States should offer assistance to ensure the physical protection of nuclear assets such as vaults, sensors, alarms, tamper-proof seals and labels, and other means of protecting sensitive assets. Pakistan and India, too, can benefit from American procedures and methods to ensure personnel reliability, prevention of unauthorized activities and secure transport of sensitive items.

The writer is director of publications at the Yale Center for the Study of Globalization. With Strobe Talbott, he is co-editor of the forthcoming book "The Age of Terror: America and the World After September 11." He contributed this comment to the International Herald Tribune.
The overall investigation was stalled, though, with authorities saying they have no firm evidence to lead them to the perpetrators. "We are doing everything we can to get all the facts," President Bush (news - web sites) said, appealing to the public for help.

Federal officials also officially confirmed the 17th case of anthrax infection, a New York Post worker who had already been diagnosed by local authorities, Thompson said. Overseas, officials in Pakistan, Germany and India said early tests came back positive for anthrax.

In New Jersey, investigators have found traces of anthrax in the mailbox of the 51-year-old accountant whose case had puzzled them because she had no apparent connection to the mail, Thompson said in AP interview. "It's a good sign," he said, because it suggests she contracted the highly curable form of infection through her mail. "We have not conclusively ruled that's where she got it from, but it's a good indication."

With cleanup under way on Capitol Hill and justices returning to a decontaminated Supreme Court, Homeland Security Director Tom Ridge told a White House briefing that the high-state of alert issued by the federal government on Monday would remain in place indefinitely. "We have not precluded any possibility," said Ridge said. "We enlist American, citizens, to help us."

Later, Bush said: "We're in a new day here in America. We're fighting a two-front war. I believe most Americans understand that now."

"We're learning a lot about anthrax and we're doing everything we can to get all the facts," Bush added. "I believe the hard work of our public health officials has saved lives."

Almost a month into the anthrax mystery, officials said they had little to go on and could not say whether the plot originated at home or abroad.

"The current investigation puts us at mailboxes in Trenton, where the three critical letters were mailed," FBI (news - web sites) Director Robert Mueller said. He referred to anthrax-laden letters, postmarked Trenton, N.J., that went to Senate Majority Leader Tom Daschle, NBC and the New York newspaper.

Four people have died from inhalation anthrax and six more are infected with the most lethal form of the disease. Mueller said he was disappointed in the public response to the offer of a $1 million reward for information leading to the arrest of suspects.

"We had hoped that the $1 million reward would encourage many more citizens to help. We have not received as many tips or leads as we would like," he said.

"It is still too early to draw any conclusions," in the probe, Mueller said. He said that the American public could be "an important set of eyes and ears."

The federal officials said they had little to add to warnings that four California bridges, including San Francisco's Golden Gate Bridge, might be terrorist targets.

In Pakistan, the nation's largest newspaper evacuated some of its offices Friday after a letter received last week tested positive for anthrax. In India, preliminary tests were positive on a powder found in an envelope in a government office. In Germany, tests came back positive in three spots - a letter delivered to an employment office and on two packages found elsewhere.

But in Washington, where anthrax has killed two people, city health authorities suggested the worst was over. In New York, dozens of disease specialists searched for clues to explain how a 61-year-old hospital worker, Kathy T. Nguyen, was exposed to anthrax. Nguyen was too sick to talk before she died, and she lived alone with no close family to help retrace her steps.

So far there is no evidence she was exposed through the mail, as other victims were, said Dr. Julie Gerberding of the Centers for Disease Control and Prevention (news - web sites).

Investigators know that the bacteria that killed Nguyen were "indistinguishable from all the others," including the strain in a letter to Daschle, D-S.D., said Dr. Steven Ostroff of the CDC, who is leading the New York probe. That could mean anthrax aimed at someone else mixed with other letters in the mail and wound up infecting her, said one expert, Dr. Eric Rackow, chief medical officer at New York University Medical Center. "This may still be related to the original batch of letters," Rackow said.

On Capitol Hill, an intense cleanup was under way in the Hart building, where the Daschle letter was opened. Workers were sealing doors and windows as they prepared to fill the nine-story building with a killing gas. Chlorine dioxide is expected to kill everything it touches - mice, rats, roaches, anthrax spores.

Supreme Court justices and some of the other 400 people who work in the court building returned to their offices Friday. The court building remained closed to the public as it has been since a small amount of anthrax was found in the basement mailroom.

Environmental tests continued finding anthrax in government mail rooms. On Thursday, four Food and Drug Administration (news - web sites) mailrooms in suburban Maryland joined a growing list of infected sites. In Florida, a sixth post office tested positive.
More than 170 area postal workers in the Kansas City area were taking antibiotics after anthrax was detected in the Stamp Fulfillment Center. A private mail maintenance center in Indianapolis remained closed for cleaning after anthrax spores were found there on a piece of postal equipment sent from a contaminated mail processing center in Trenton.

Of the 17 cases of anthrax, 10 were of the inhalation type - including four fatalities - and seven of the less dangerous skin variety.


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Overseas Cases of Anthrax Reported

By NADEEM AFZAL, Associated Press Writer

KARACHI, Pakistan (AP) - Pakistan's largest newspaper evacuated some of its editorial offices after a letter tested positive for anthrax, one of four new overseas cases reported Friday.

In Germany, tests came back positive for anthrax on a letter delivered to an employment office in an eastern city and on two packages found in a northern town, authorities said. The revelations prompted the closure of a mail distribution office and a sorting center in eastern Germany.

And in India, the health secretary of a western state said Friday that powder found in an envelope in a government office tested positive for anthrax and would be examined further.

Thuringia state health minister Franz-Michael Pietzsch said the letter that tested positive was delivered Oct. 25 in the town of Rudolstadt and raised suspicions because it had a Pakistani return address but a German stamp and postmark.

The two packages were found in the town of Neumuenster in northern Schleswig-Holstein state, and were among 21 parcels that had raised suspicions, state health minister Heide Moser said.

The letter and parcels were sent for further testing in Berlin. In the United States, initial tests for anthrax have sometimes come out positive, only to be proven negative in subsequent more rigorous tests.

Four people in the United States have died from inhalation anthrax and six more are infected with the most lethal form of the disease. Seven other people have developed skin anthrax, the less dangerous variety. Most cases in the United States have been linked to the mail. The source of the anthrax has not been found.

Tests for anthrax exposure on 10 people who had handled the suspect letter in Germany or were present when it arrived all came back negative. Still, a mail distribution office in Rudolstadt and a sorting center in the nearby city of Gera were closed.

In Pakistan, white powder in a letter received Oct. 23 by the Daily Jang newspaper tested positive for anthrax, said Dr. Mohammed Tasleem of Agha Khan University Hospital in Karachi, where the test was performed.

The reporter who opened the letter was put on antibiotics along with dozens of other staff members, though none showed any sign of anthrax symptoms.

Editorial offices on one floor of the newspaper were closed and signs reading ``Anthrax Zone`` were taped to the doors. Employees in other parts of the building wore plastic gloves and surgical masks.

In India, Maharashtra State Health Secretary Subhash Salunkhe said traces of anthrax were found on an envelope received by the office of the state's deputy chief minister.

It was the first positive anthrax result in more than 200 cases of suspicious envelopes tested in India.

Most of the 120 employees at the U.S. Embassy in Lithuania are taking antibiotics - although none showed symptoms of anthrax - after a laboratory in the Baltic country confirmed Thursday that traces of anthrax were found in at least one mailbag at the embassy.