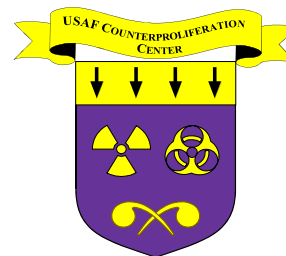


#128

28 Nov 2001

USAF COUNTERPROLIFERATION CENTER

# CPC OUTREACH JOURNAL



*Air University*

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Slain Journalists Had Big Story

## **Two Reported Finding Vials Labeled 'Sarin' In Al-Qaida Camp**

That's The Nerve Gas Used In 1995 Subway Attack In Tokyo  
Bodies Of 4 Slain Journalists Are Now Out Of Afghanistan

JALALABAD, Afghanistan, Nov. 21, 2001

(CBS) The bodies of four international journalists were brought out of Afghanistan on Wednesday, two days after the group was ambushed by gunmen on the road to Kabul, a Pakistan-based news agency reported.

Anti-Taliban militiamen recovered the bodies Tuesday. They were held overnight in a hospital in nearby Jalalabad, and transported Wednesday on a Red Cross convoy to the Pakistani border.

It's unclear who carried out the attack but there is little security anywhere in the fractured nation, reports CBS News Correspondent Randall Pinkston. Even in areas the Taliban have left, renegades, including Osama bin Laden's Arab fighters, still roam this rugged countryside.

The journalists were traveling in a convoy of six to eight cars through a province that recently came mainly under the control of anti-Taliban forces.

The Afghan Islamic Press reported the convoy had crossed over into Pakistan at the Torkham border crossing.

The journalists were attacked Monday as they traveled with a group of about eight cars from the eastern city of Jalalabad to Kabul. An anti-Taliban leader in the area said the attackers were bandits, but witnesses said they shouted pro-Taliban slogans.

Militiamen loyal to the new administration in Jalalabad set out early Tuesday to search for the missing journalists, and they reached the spot of the ambush around 8 a.m., encountering no resistance as they retrieved the bodies. They brought the bodies to a Jalalabad hospital, where colleagues identified them.

The journalists were Australian television cameraman Harry Burton and Azizullah Haidari, an Afghan photographer, both of the Reuters news agency; Maria Grazia Cutuli of Italian newspaper Corriere della Sera; and Julio Fuentes of the Spanish daily El Mundo.

Cutuli and Fuentes filed reports Monday about finding what they believed were capsules of deadly sarin nerve gas at an abandoned al-Qaida camp in the Jalalabad region.

Fuentes's story said he discovered a cardboard box with Russian labeling that said SARIN/V-Gas. His report said the box contained 300 vials of a yellowish liquid.

A Japanese terrorist organization used sarin in March 1995 in the Tokyo subway killing 12 people.

A Pentagon duty officer said the U.S. military had no information on the reports.

The area of the ambush recently came under the control of anti-Taliban forces. However, some Taliban stragglers and Arab fighters loyal to Osama bin Laden are still believed to be in the area, and there had been earlier reports of armed robberies on the road.

The convoy set out Monday morning. Because the road was dusty, the cars in the convoy spread out, and their occupants often lost sight of one another.

Near the town of Serobi, 35 miles east of Kabul, six gunmen on the roadside waved the first three cars in the convoy to stop. One car sped ahead, while two stopped, said Ashiquallah, who was driving the car carrying the Reuters journalists. He uses only one name.

He said the gunmen, wearing long robes, beards and turbans, warned them not to go any farther because there was fighting ahead with the Taliban. At that moment, a bus from Kabul came by and said the road was safe. The cars' drivers thought the gunmen were thieves and tried to speed away, but the gunmen stopped them.

The gunmen then ordered all the journalists out of the cars and tried to force them to climb the mountain. When they refused, the gunmen beat them and threw stones at them, Ashiquallah said.

"They said, 'What, you think the Taliban are finished? We are still in power and we will have our revenge,'" Ashiquallah said.

The gunmen then shot the Italian woman and one of the men, he said. The other two men also had been shot.

The drivers fled back toward Jalalabad, he said, leaving behind the Afghan translator, a man named Homuin. Homuin's whereabouts were unknown Tuesday.

Ashiquallah's account was corroborated by another translator and driver who escaped in the other car.

Haji Shershah, an anti-Taliban commander in Jalalabad, said villagers in the area reported numerous other attacks involving gunfire on vehicles on the same road during the day.

A French journalist was robbed in the area the day before, and hours after Monday's assault on the journalists, an Afghan car arrived in Jalalabad with two bullet holes after being attacked.

Shershah said the attackers were bandits, not Taliban or his own fighters.

"They're not Taliban, they are thieves," Shershah said. "They just want to put the blame on the Taliban. ... They were robbing lots of people."

<http://www.cbsnews.com/now/story/0,1597,318501-412,00.shtml>

**Wednesday November 21 1:44 AM ET**

## **Japan Considering Joint-U.S. Smallpox Project**

By Teruaki Ueno

TOKYO (Reuters) - Japan, worried about the potential for a biological attack using the smallpox virus, is considering a joint project with the United States to develop vaccines for the disease and is preparing legal steps that would help prevent its spread, government sources said on Wednesday.

Japan has no stockpiles of smallpox vaccine, and is unprepared at present for any epidemics caused by the highly contagious and lethal virus, officials said. Smallpox was last seen in Japan in 1956, and vaccination ceased in 1977.

Government sources said Japanese officials and politicians had been shocked by a U.S.-made video of a simulation exercise to test the U.S. government's response to a smallpox virus attack.

The video, "Dark Winter," was prepared by the Center for Strategic and International Studies, a Washington-based think-tank and political risk consultancy.

In the simulation, more than 1,000 people "die" and more than 14,000 are infected by smallpox less than two weeks after 50 patients show signs of an undiagnosed illness in the United States. The simulation ends with no resolution to the "epidemic."

"Government officials and politicians from the Liberal Democratic Party were shocked and scared to see the video," a government source said.

"They all agreed Japan must take measures against a terrorist attack with smallpox virus."

The source said the Japanese government and ruling parties were trying to budget for a special project to develop vaccines for smallpox jointly with the United States.

The source also said the government and ruling parties were considering special laws allowing authorities to put smallpox patients into quarantine to prevent spread of the disease.

#### FRIGHTENING SCENARIO

Anthrax attacks in the United States, which have killed four people and sickened 13, have put the world on alert for bio-terrorism, and smallpox is the most feared of potential biological weapons.

Once one of the scourges of humanity -- killing a third of its victims and scarring the rest for life -- smallpox was declared officially eradicated in 1980.

The World Health Organization ([news - web sites](#)) persuaded most governments to give up their stocks of smallpox virus, used to test the vaccine, but the United States and Soviet Union kept samples.

Washington said last week it would hold on to its samples of smallpox virus just in case someone decided to use smallpox in a bio-attack. The United States has 15 million doses of vaccine and is testing to see if these can be stretched by diluting them.

Another Japanese government source sketched a frightening scenario of a world plagued by the rapid spread of the virus.

"The smallpox virus could be spread around the world quickly if a person infects himself or herself with smallpox virus intentionally and took an international flight," the source said.

Reports in Seoul this week quoted South Korean defense ministry officials as saying North Korea ([news - web sites](#)), a near-neighbor of Japan, held as much as 5,000 tons of biological and chemical warfare materials, including anthrax and smallpox.

Japan's Self-Defense Forces have 2,700 personnel charged with handling bioterrorism in 15 chemical warfare units, but they are not equipped to respond to the smallpox virus, Defense Agency officials said.

[http://dailynews.yahoo.com/h/nm/20011121/wl/attack\\_japan\\_smallpox\\_dc\\_1.html](http://dailynews.yahoo.com/h/nm/20011121/wl/attack_japan_smallpox_dc_1.html)

## Drug may be on shelf for curing smallpox

ASSOCIATED PRESS

Scientists in search of a smallpox cure hope they will find one already on the shelf.

Their strategy: Sift through the hundreds of potential virus medicines developed by drug companies to see if any work against smallpox. Chances are good, they believe, because 21 drugs already have been identified this way that can kill the virus in a test tube.

Whether any of these will pan out for people is uncertain, but clearly the treatment of viral illnesses has undergone a revolution since smallpox was eliminated more than two decades ago.

At that time, no medicine could touch a virus. Now there are drugs for flu, herpes, AIDS and other viral illnesses.

Army scientists who lead the effort say they believe using drugs already on hand rather than creating medicines from scratch will identify treatments to attack this awesome killer.

Until recently, scientists paid little attention to smallpox. But fear of it falling into the hands of bioterrorists has changed that, and the government is using modern research tools to take a detailed look at the virus.

Besides searching for medicines, they are decoding smallpox's genes, creating quick tests for infection and finding new ways to check their theories in lab animals.

Most of this is overseen by the U.S. Army Medical Research Institute of Infectious Diseases at Fort Detrick, Md., and the Centers for Disease Control and Prevention in Atlanta. It is done at the CDC's high-security labs, the only

place in the United States where smallpox is kept.

Smallpox is thought to have killed more people than any other infection in human history, including the Black Death in the Middle Ages. In the 20th century alone, it took at least 500 million lives.

"We have to do the research, because the risk is so monumental," says Dr. Craig E. Smith, a bioterrorism expert at Phoebe Putney Memorial Hospital in Albany, Ga.

Despite the uniquely rampant way it spreads through the air and kills, some of the internal workings of smallpox are similar to other viruses, so scientists reason that antiviral drugs already on the market for other uses might stop smallpox, just as one antibiotic can kill many kinds of bacteria.

They discovered five years ago that a drug used for an AIDS complication could kill the smallpox virus in lab cultures. The drug, called cidofovir or Vistide, is used to treat eye infections caused by cytomegalovirus. The virus can afflict people with HIV-weakened immune defenses.

But the drug has a drawback: It must be given by injection, which could slow its use in an emergency. So scientists have tested other drugs, including some still in early development or that failed against their intended targets.

Dr. Peter Jahrling, who heads the Army's smallpox research, said the most potent are cidofovir and five similar compounds that can be given in pill form, along with 15 others that attack the virus in different ways. So far, all seem reasonably safe.

Other possible candidates have come to the Army's attention since September 11 and the anthrax attacks. "Big pharma is banging down our doors saying they've got things to test," says Dr. Jahrling. "Maybe it's patriotism or maybe it's because they see a market."

He predicts that within five years, they will identify two drugs to treat smallpox by completely different biological means.

Since smallpox treatments cannot be tested in infected people, the researchers plan to use monkeys.

Researchers have developed a 20-minute test for smallpox infection. In monkeys, the results are positive within a day of the animals' exposure.

<http://www.washtimes.com/national/20011121-9962280.htm>

11/19/2001 - Updated 10:05 PM ET

## Chile says letter contained anthrax

SANTIAGO, Chile (AP) — The government said Monday that a letter sent from Switzerland to Chile was tainted with anthrax.

If confirmed, it would be the first case of the deadly bacteria in mail outside the United States since tainted letters raised a worldwide bioterrorism alarm in the aftermath of the Sept. 11 terrorist attacks.

A sample of powder from the letter was to be tested by the Centers for Disease Control, Health Minister Michelle Bachelet said.

There have been false alarms worldwide, including cases in Kenya and the Bahamas in which authorities said they had found dangerous forms of anthrax in mail, but later said that further testing found no anthrax. In Argentina, officials said that spores of anthrax found in a mailed travel brochure were of a harmless strain.

"We are aware that the Chile government has found a specimen that they believe to be consistent with anthrax," said CDC spokesman Tom Skinner in Atlanta. "We are working to have the specimen tested," he said, adding that testing would take several days.

Bachelet said Monday that the anthrax was found in an envelope containing a small amount of white powder as well as papers.

Neither the person who opened the envelope nor 12 others who were nearby have tested positive for exposure to anthrax spores, Bachelet said. The 13 people were being given antibiotics as a precaution and were "all in perfect condition," she said.

The letter, sent by an undisclosed American company, was received last week. Three tests at Chile's Public Health Institute came back positive, Bachelet said.

Bachelet declined to identify the sender or the company in downtown Santiago that received the letter.

<http://www.usatoday.com/news/attack/2001/11/19/anthrax-chile.htm>

Thursday November 22 4:39 AM ET

## US Forces Search for Chemical Weapons

By MATT KELLEY, Associated Press Writer

WASHINGTON (AP) - U.S. teams are searching and taking samples from sites in Afghanistan ([news - web sites](#)) where the al-Qaida terrorist network may have been building chemical or biological weapons, a top Pentagon ([news - web sites](#)) official says.

Marine Corps Gen. Peter Pace said U.S. forces have visited some, but not all, areas where al-Qaida may have been making such weapons of mass destruction. Results of tests from those sites have not come back yet, Pace said Wednesday.

"That one place where the only vial that had English on it said 'anthrax' kind of gives you pause," said Pace, vice chairman of the Joint Chiefs of Staff. "We are going to have the analysis, and don't have that yet."

Sept. 11 attacks suspect Osama bin Laden ([news - web sites](#)), al-Qaida's leader, has said his group has chemical, biological and even nuclear weapons. U.S. officials have said al-Qaida probably has crude chemical or biological weapons but not a nuclear bomb.

U.S. planes have bombed sites that officials believe could have been used to produce chemical or germ weapons. U.S. airstrikes hit a laboratory in Kabul that worked with anthrax, for example. Scientists at the lab say they only made anthrax vaccines for livestock.

Two journalists killed in Afghanistan on Monday had reported finding what they believed were glass vials of deadly sarin nerve gas at an abandoned al-Qaida camp southwest of Jalalabad, an eastern city near the border with Pakistan. At other sites abandoned by the Taliban or al-Qaida, reporters have found guides to making chemical and biological weapons.

Defense Secretary Donald H. Rumsfeld visited special operations troops at Fort Bragg, N.C., Wednesday to thank them for their service. Special forces in Afghanistan have helped guide bombs to targets and given anti-Taliban forces advice and supplies.

"The success of the targeting has just improved so dramatically" since special forces landed in Afghanistan, Rumsfeld told the soldiers: "The air war enabled the ground war to succeed."

Airstrikes also have killed several al-Qaida and Taliban leaders, such as al-Qaida military chief Mohammed Atef, killed in a raid Nov. 14.

"There's one (leader) right now that is trying to get out of the country because his legs were badly damaged in an attack, a senior official," Rumsfeld said Wednesday on CBS' "60 Minutes II."

"We have had good luck in finding these folks and putting weapons on them."

Rumsfeld said the United States hopes to base AC-130 gunships in Uzbekistan, a former Soviet republic on Afghanistan's northern border. The airplanes are armed with rapid-fire cannons that rain down 2,500 rounds per minute.

Rumsfeld said AC-130s were not yet in Uzbekistan. He said the U.S. wants to use them to support anti-Taliban forces besieging Kunduz, the only northern city still under Taliban and al-Qaida control.

The Pentagon probably will send up to 1,500 Marines into Afghanistan, perhaps this week, officials said on condition of anonymity.

They would come from one of two Marine Expeditionary Units based on ships in the Arabian Sea off the coast of Pakistan. Those troops are specially trained for quick raids, counterterrorism and urban warfare, as well as reconnaissance and more traditional forms of combat.

The Pentagon also announced Wednesday that U.S. Navy ([news - web sites](#)) ships in the Arabian Sea would begin stopping and searching vessels that could be carrying Taliban or al-Qaida leaders. The fleeing leaders would have to cross through Pakistan to the coast before getting on a ship, since Afghanistan is landlocked.

Pace said no ships have been chased, boarded or searched so far. He said the Pentagon did not have specific information indicating Taliban or al-Qaida leaders would flee by sea, but said the military wanted to be ready for that possibility regardless.

Rumsfeld confirmed that a new Air Force spy plane - the high altitude, unmanned Global Hawk - has begun flying over Afghanistan this week for the first time. He said it was being operated as a demonstration model, since the aircraft is still in development and has never before been used in a real operation.

[http://dailynews.yahoo.com/h/ap/20011122/us/attacks\\_military\\_276.html](http://dailynews.yahoo.com/h/ap/20011122/us/attacks_military_276.html)



# ATTACK ON AFGHANISTAN DIPLOMACY & TRANSITION:

## Safe houses yielding documents on weapons of mass destruction AL-QAEDA NETWORK:

Financial Times; Nov 23, 2001

By ROBERT COTTRELL and RICHARD WOLFFE

At least 20 houses in Kabul were used by Osama bin Laden's al-Qaeda network as training centres for terrorism, and more will probably be found, according to Younus Qanouni, interior minister in the new Northern Alliance government which replaced the Taliban in Kabul last week.

Books and documents found in the houses indicate they were used as centres to teach subjects including urban warfare, bomb-making, sabotage, foreign languages and computer programming. Materials in Arabic, Urdu, Russian and English indicate al-Qaeda was studying chemical, biological and even nuclear weapons.

But much sensitive material vanished from the houses last week before Northern Alliance forces attempted to seal them, Mr Qanouni has acknowledged. Some papers were taken by the fleeing Taliban while others were taken by journalists when the houses stood open and empty.

Mr Qanouni said the papers studied so far had yielded no clear links between the Kabul "safe" houses and the terrorist attacks on America in September.

His ministry would consider making copies of the papers available to friendly countries, including the US, he said.

In Washington, administration officials said they were checking out the documents. From what they had been able to assess so far, the documents appeared to confirm existing intelligence about al-Qaeda and the organisation's attempts to acquire and develop nuclear, chemical and biological weapons.

But it is not clear that the materials found amount to evidence that al-Qaeda either had achieved capability in producing weapons of mass destruction or used the Kabul houses as centres for planning attacks. It seems more likely the houses were used as basic training centres, or barracks, for al-Qaeda recruits.

The size and arrangement of the houses suggest that each probably accommodated about 20 men at any one time.

Mr bin Laden was also a visitor, guards posted at the houses say, to a big madrassa, or religious school, in the centre of Kabul.

Under the Taliban the building, a former girls' school called the Lycee Malalai, became a barracks for training foreign fighters from Pakistan, Saudi Arabia and elsewhere. It held up to 4,000 men, the guards said.

Curiously, given the international hunt for Mr bin Laden, only the international press seems to have taken a strong interest in the archives of physical evidence about al-Qaeda that suddenly became available when the Taliban fled Kabul and the safe houses were deserted.

Soldiers at two safe houses said they had received no visits from investigators other than journalists. At another house the owner said Afghan police had come round on Monday, a full week after the houses were left vacant.

In fact, even now, not all of the al-Qaeda papers have been gathered in. Some of the safe houses, all large, high-walled villas, have been cleaned out or locked up. But at some which are under light guard, or are being used as temporary accommodation by Northern Alliance soldiers, visitors can still pick freely through terrorists' leavings.

The evidence is that Mr bin Laden's apprentices took their homework seriously. A search among the debris in one al-Qaeda house reveals a well-thumbed copy of *On War*, by Clausewitz.

There are also computer manuals in German, US Department of Defence manuals on urban warfare, computer discs, technical drawings of Russian weaponry, US and Russian military maps of Afghanistan with coded markings, books on self-defence, telephone numbers and addresses scribbled on sheets of note paper, progress reports on the "students", chemistry manuals, and hundreds of pages covered with electronic circuit diagrams.

A series of hand-drawn charts, evidently meant for group tuition, explains how to plant bombs in order to destroy aircraft, submarines and different kinds of bridges.

Another pile of papers includes three passports: an Afghan one in the name of Zakarya Abdullah, an Iraqi one in the name of Wosyar Amin, and a Sudanese one in the name of Mutasim Ahmed Abdalla Mustafa, described as a "blacksmith". Mr Mustafa, or whoever used the passport in his place, spent part of 1998 in Kenya, the year the US embassy there was blown up. Additional reporting by Richard Wolffe in Washington

<http://globalarchive.ft.com/globalarchive/article.html?id=011123001628&query=chemical+weapons>

## **Gendarmerie seizes chemical materials**

Turkish Daily News; Nov 26, 2001

The Gendarmerie have seized 15 canisters of mustard gas, used in producing chemical weapons, and detained six people. The people detained during the operation in Istanbul, Serkan Akman, Cetin Gunes, Fikri Gunes, Haluk Baycan, Gokhan Hacikasimoglu and Muhterem Siktas were sent to Istanbul State Security Court (DGM) after interrogation at the gendarmerie station. Prosecutor Nazmi Okumus, who lead the operation, sent five suspects to the DGM with the request of arrest while releasing Siktas. The DGM interrogated the five suspects again, and decided to arrest and send them to prison on the charge of "Smuggling chemical materials" and "Forming a gang to commit crime."

<http://globalarchive.ft.com/globalarchive/article.html?id=011126001951&query=chemical+weapons>

## **Russia tightens security at chemical weapons dumps**

BBC Monitoring Service - United Kingdom; Nov 23, 2001

Text of report in English by Russian news agency ITAR-TASS

Moscow, 23 November: Russia has toughened the security of chemical armaments, military sources told ITAR-TASS on Friday [23 November].

Battalions equipped with armour, machine-guns and grenade launchers have been assigned to protect chemical arms depots, they said. There is an anti-aircraft battery at one of the depots.

"All the posts are equipped with radios and telephones. The system of fire and entanglements guarantee that terrorists will not break into chemical arms depots. The physical protection of the depots meets international standards," the military said.

Source: ITAR-TASS news agency, Moscow, in English 1546 gmt 23 Nov 01

/BBC Monitoring/ © BBC.

<http://globalarchive.ft.com/globalarchive/article.html?id=011123006101&query=chemical+weapons>

## **Russian technology for destroying chemical arms "better" than US**

BBC Monitoring Service - United Kingdom; Nov 22, 2001

Text of report in English by Russian AVN Military News Agency web site

Moscow, 21 November: The head of Russia's Ammunition Agency said yesterday the Russian technology for the destruction of chemical weapons is vastly better than its US counterpart.

The Americans are using a "primitive technology" by merely burning toxic chemicals in high temperature furnaces and thereby producing noxious substances, Zinovy Pak told reporters.

"Our technology [involves] low temperature, small volumes and mixing combat toxic substances with reagents, and the result is not any poison, not any toxic substances, but a low toxic product," he said.

Pak said many in the United States have come to the conclusion that the Russian technology is safer and that there have been appeals to go over to the Russian technology. He also said chemical weapons destruction under a revised Russian programme would be at least 40 per cent more economical than it has been under the previous one.

"We will have to defend our positions in international organizations. We believe that the convention on the destruction of chemical weapons can be carried out more quickly and cheaply," he said.



Source: AVN Military News Agency web site, Moscow, in English 1501 gmt 21 Nov 01  
/BBC Monitoring/ © BBC.  
<http://globalarchive.ft.com/globalarchive/article.html?id=011122005422&query=chemical+weapons>

**November 25, 2001**

**BIOLOGICAL WARFARE**

## **Turner's Foundation to Spend Millions to Fight Bioterrorism**

**By JUDITH MILLER**

Ted Turner, who invented all-news television and is helping to subsidize the United Nations, has taken on a new challenge: reducing the threat of biological weapons.

Spurred by the events of Sept. 11 and the anthrax-tainted letters sent to news organizations and Capitol Hill, a foundation headed by Mr. Turner and Sam Nunn, the former Democratic senator from Georgia, has decided to increase spending aimed at deterring bioterrorism and the threat of germ weapons.

The fledgling foundation, the Nuclear Threat Initiative, which began operating only in January, decided months before Sept. 11 to devote some of its planned \$250 million in grants over the next five years to combatting threats posed not only by nuclear weapons, but also by chemical and germ weapons. But foundation executives said last week that their emphasis had shifted somewhat following the mysterious anthrax attacks that have infected 18 people, 5 of whom have died.

Foundation representatives said the board approved almost \$5 million in initial grants at its October meeting.

Ultimately, they said, the foundation would spend about a third of its estimated \$50 million in grants each year on combatting bioweapons and bioterrorism.

"Reducing the threat of biological weapons has always been our primary mission, but the events of Sept. 11 have led to new opportunities to address preparedness and consequence management," said Margaret A. Hamburg, a former assistant secretary of the Department of Health and Human Services in the Clinton administration who heads the foundation's biological projects.

The new grants, which the foundation's representatives discussed in interviews, involve both foreign and domestic threats and private and public partnerships. The largest category is about \$2.4 million in initial grants to finance scientific collaboration with scientists who once worked in the former Soviet Union's covert biological weapons program. The investment supplements federal efforts to help Soviet scientists who once made biological weapons find peaceful employment working with American scientists on antidotes for those weapons.

The largest project — \$1.3 million for three former Soviet labs in Russia — is intended to help develop a new vaccine against brucellosis, which threatens animals in the United States and throughout the world.

Another project will provide \$600,000 to the Vector lab in Novosibirsk, Russia, which once specialized in turning smallpox and other viruses into weapons of war. The grant will finance a study of how Vector can best attract commercial investors in a new vaccine production facility. About \$400,000 has also been allocated to helping identify Western drug companies willing to work with former Soviet bioweaponeers on commercial ventures. The foundation also intends to bring at least 20 former Soviet bioweapons scientists together each year with American scientists in the United States to discuss germ weapon threats.

In Europe, the foundation has allocated \$500,000 to help the Geneva-based World Health Organization establish a revolving fund so that doctors can respond quickly to outbreaks of a mysterious illnesses.

In the United States, the foundation has awarded \$650,000 to help industry develop standards to reduce the potential for harmful applications of biotechnology and create a group to monitor the standards, and will give \$400,000 to help the National Academy of Sciences draft standards to guard against the destructive application of biotechnologies.

<http://www.nytimes.com/2001/11/25/international/25BIOT.html>

London Sunday Times  
November 25, 2001

## **Al-Qaeda's Secrets**

### ***Bin Laden's camps reveal chemical weapon ambition***

Tom Walker, Kabul, Stephen Grey and Nick Fielding

The professor cut a diminutive figure in the winter sun, a gentle man in a colourful Afghan fez who spoke quietly and deliberately in Persian.

Gul Nazir, head of organic chemistry at Kabul University, was always an unlikely choice to run a chemical weapons programme, and the Taliban found him tougher to crack than they could have imagined.

Last week Nazir revealed how, despite his salary of just \$20 a month, he refused cash bribes to take part in the production of chemical weapons, in nuclear experiments, and even in the search for chemicals to purify heroin.

"They told me not to worry," he said, speaking outside his rudimentary apartment in a state-built tenement block. "I was told just to get hold of the chemicals and they would provide the money. I said I would do that sort of work over my dead body."

Together with other evidence uncovered in Kabul and the eastern Afghan city of Jalalabad last week, Nazir's statement confirms that Osama Bin Laden's Al-Qaeda organisation was working with the Taliban government and rogue Pakistani scientists towards the production of crude weapons of mass destruction.

As the Taliban have retreated to the south of Afghanistan, the witnesses and mass of documents they have left behind reveal how foreign extremists were able to dominate and manipulate the isolated Afghan regime.

At Kabul University, Nazir and Ahmed Massoud, a fellow chemistry lecturer, described how six delegations of Pakistani scientists had visited their laboratories in the past three years with offers of funding from the Taliban's ministry of defence for chemical weapons and drug processing programmes.

In August, a month before the World Trade Center attacks, an Arab delegation came with a proposal to begin mining for uranium in Afghanistan. The visitors were introduced by the hardline Taliban chancellor, Mullah Peermohammad Ruhani, who is now believed to be holed up in Kandahar, the Taliban's stronghold.

The Arabs told Nazir they wanted the names of all Kabul University's science teachers and offered to pay all their wages. "They said they needed our co-operation to set up some research programmes," said Nazir. "They were particularly interested in minerals and chemicals."

The delegation asked their Afghan counterparts if they knew where the country's uranium deposits were. "They told us that it didn't matter how much the project would cost, they would fund it," said Nazir. One group sent by Mullah Obaidullah, the Taliban defence minister, offered to pay for the renovation of their laboratories in return for conducting experiments. Another asked for help in obtaining large quantities of sodium cyanide and thionyl chloride.

Although they may have benign applications, both are ingredients for crude chemical weapons. Thionyl chloride is used to produce nerve and mustard gas and sodium cyanide can be used to create lethal cyanide gas.

Ramzi Yousef, the Islamic extremist convicted of the 1993 bombing attack on the World Trade Center, had attempted to release the gas in the building's underground car park.

Nazir, who refused the approaches, said it had been suggested that both chemicals could be used as rocket propellants but he warned the Pakistanis the compounds would spread poisonous clouds over a wide area if one of the missiles or rockets exploded. A number of Pakistani nuclear scientists have been questioned over their links with Al-Qaeda — though none has so far been charged.

The most prominent is Professor Sultan Bashiruddin Mahmood, who helped develop Pakistan's atomic bomb. He has admitted meeting Bin Laden since he retired but only in connection with the Foundation for Construction, a relief charity he runs in Afghanistan.

Last week, however, plans were found at the charity's Kabul headquarters that appeared to suggest the house's occupants were involved in designing some kind of anthrax bomb. Hanging above a scattered assortment of weapons was a wall chart explaining how to scatter anthrax using a hot-air balloon.

Among many copies of media articles about anthrax, there was a computer disk with a picture of William Cohen, the former US defence secretary, demonstrating how a small amount of anthrax could wipe out most of Washington DC. Such documents could represent an elaborate practical joke, or an attempt to fool the West. But the house, like many in Kabul, had been abandoned rapidly with the Northern Alliance's unexpected advance on November 13.

Western diplomats fear Mahmood may have passed on to Bin Laden his specialised knowledge, obtained from the Pakistani nuclear bomb programme, of how to covertly acquire weapons of mass destruction. They remain sceptical, however, that Al-Qaeda or the Taliban made much progress towards developing a nuclear device.

The Pakistan charity's house is just one of more than 30 sites being investigated by the new police force of the Northern Alliance, which is eager to show it is capable of running a coherent inquiry into Al-Qaeda. Often, however, they have been beaten to the terrorist training camps by the dozens of journalists in Kabul, who have been picking over the camps since Alliance forces entered the capital. The documents being unearthed — shopping lists, medical records, wage slips, driving licences, instructions to commanders — are offering a new insight into the Islamic extremist network and its grip on Afghan society. None of these documents tells a complete picture. It is hard, for example, to determine whether the scribbled calculations for explosive mixtures and chemical weapons represent the deluded ambitions of would-be mass killers or the formulae of an established production process.

Likewise, some of the more shocking discoveries have not been verifiable. At the Farm Hada training camp near Jalalabad, slim glass phials were found. Inside the 3in-long phials was a colourless liquid. On the side of the boxes holding them, written in Cyrillic lettering, was SARIN/V-GAS. Sarin was the nerve gas released by the Aum sect in the Tokyo metro in 1995, killing 12 people. It is odourless, tasteless and kills quickly. In one store, there were 30 boxes with 10 phials in each.

The phials were found by two reporters — Julio Fuentes of El Mundo of Madrid and Maria Grazia Cutili of Corriere della Sera in Milan — who were killed last Monday in an ambush on the road to Kabul. Other reporters visiting the camp have not confirmed the findings.

Judged by the accounts of witnesses and the many chemical supplies left behind, there is no doubt, however, as to the scale of chemical experiments under way at Farm Hada and the nearby Darunta camp, which, spread over five barren hilltops, once boasted a population of around 6,000.

The camps were run by a man called Midhat Mursi, known by his nom de guerre of Abu Khabab, who is allegedly a Saudi, a brother-in-law of Bin Laden and a chemistry professor.

The most impressive Al-Qaeda camp in Kabul is south of the city, at Topai Tajbek, surrounding the wrecked royal palaces. Here Pakistanis, Chechens, Arabs, north Africans, Uzbeks and Chinese trained in hostage taking, suicide attacks and hijacking.

Training manuals found in a tunnel nearby provide details of the tools of the terrorism trade: from booby traps to rocket-propelled grenades.

The complex was hit by American bombs, but the 34 tunnels dug into the hillside at the back all survived and Alliance commanders were searching on Friday for a band of Chechens thought to be roaming the hills. At least 270 of their Al-Qaeda colleagues were killed in one bombing raid, and most of the camp's graduates are now thought to be fighting to the last in the northern city of Konduz.

Al-Qaeda not only controlled its own recruits but also may have directed the Taliban leadership of Mullah Mohammed Omar. The destruction of the ancient Buddhas in the town of Bamiyan in March came after a group of Arabs in Kabul lobbied the Taliban.

The minutes of their meeting, discovered last week, read: "Even though the meeting decided the two statues in Bamiyan were on the side of a mountain and had thousands of years of history dating from the 9th century, they are only pieces of stone and mud, and we don't care."

Last week some Afghans described how Arabs and Pakistanis had begun to treat Kabul as an occupied city. While beggars roamed the streets, the foreigners drove around in Japanese pick-up trucks, ate in the best restaurants and had the best homes.

A senior official who, until last month, headed a logistics department at the Taliban's defence ministry, could not conceal his contempt for the foreign fighters. "They got whatever they wanted," he said, describing how nearly a third of the country's military supplies went to Al-Qaeda and its fighters.

The bureaucrat, who spoke on condition of anonymity, remembered the swaggering boasts of the men they knew as "Osama's people". In the days after September 11, he said, the volunteers could not conceal their delight and their guilt: "They patted me on the back and said, 'We've got America on its knees. Next we'll get London.'" oSaid Bahaji, an alleged ringleader of the attacks on America, has been spotted in a training camp near Kabul, the German news magazine Der Spiegel claims. An international arrest warrant has been issued for Bahaji, who shared a flat in Hamburg with Mohammed Atta, who is believed to have piloted one of the planes that crashed into the World Trade Center.

*Additional reporting: Kurt Pitzer, Kabul; Ghulam Hasnain, Islamabad*

## **Anthrax Type That Killed May Have Reached Iraq**

### ***Baghdad's Bid to Obtain Microbe Fuels Suspicions***

By Colum Lynch, Special to The Washington Post

UNITED NATIONS -- In August 1988, two key figures in Iraq's secret germ warfare program attended a scientific conference in Winchester, England, to survey advances in the battle against the anthrax disease.

Professor Nassir Hindawi and a colleague, Abdul Rahman Thamer, attracted little attention at the gathering, which was sponsored by scientists from the British biodefense institute at Porton Down.

But U.N. inspectors who uncovered Iraq's secret biological weapons years later believe that the trip was part of a covert mission to identify foreign suppliers for Baghdad's biological weapons program and to obtain deadly anthrax microbes, including the Ames strain, a highly virulent anthrax bacteria found in letters sent to American targets. Shortly after the visit, Baghdad's trade ministry telexed an order to Porton Down for samples of the Ames strain and at least two other varieties of anthrax microbes. But the British scientists were suspicious that Baghdad might be seeking to develop biological weapons. "There were requests for anthrax strains, and they were denied," said Porton Down spokeswoman Sue Ellison.

U.S. officials and former U.N. weapons experts have found no proof that the Iraqi scientists obtained the Ames strain from another supplier. But Iraq's attempt to obtain the Ames microbes has fueled suspicions among some U.S. and U.N. experts that Iraq may yet be linked to the series of biological attacks against the United States.

"We know that Iraq was very keen on obtaining that specific strain as well as others, and they were contacting many countries of the world," said retired Col. Richard Spertzel, a microbiologist and former head of biological inspection teams in Iraq for the United Nations. "The effort with which they [pursued] Porton Down would suggest that if they thought someone else had it, they would press for it. But we simply don't know."

Porton Down scientists obtained the Ames strain in the early 1980s from the U.S. Army Medical Research Institute for Infectious Diseases (USAMRIID) at Fort Detrick, Md. The deadly pathogen has been passed to an unknown number of scientists.

Iraq's unsuccessful attempt to secure the Ames bacteria from Britain represented a minor setback in its largely successful campaign in the mid-1980s to acquire ingredients for a massive covert biological weapons program. Iraq sought materials from government and commercial labs in the United States, Europe and Africa.

"The Iraqis had set up this very secret and very sophisticated procurement system so that there would be no chance that outsiders could figure out what they were doing," said Raymond Zalinkas, a former U.N. inspector who is now senior scientist in residence at the Monterey Institute of International Studies.

In 1988, Iraqi scientists obtained from a private British business, Oxoid Ltd., and other suppliers, nearly 40 tons of medium to grow anthrax and botulinum bacterium for its biological weapons, according to former U.N. officials and a 1999 U.N. report.

Iraq also acquired at least two other forms of anthrax, the Sterne strain, commonly used in an animal vaccine, and the A-3 strain derived from Spanish sheep, from France's Institut Pasteur.

"There was absolutely no reason to refuse an order from Iraq in the 1980s," said Michael Haynes, a spokesman for Unilever, the Anglo-Dutch consumer goods giant that owned Oxoid until 1997. Haynes noted that Iraq at that time was not considered hostile to the West and was under no economic sanctions. "As far as we knew the growth medium would be used for genuine medical, humanitarian purposes," he said.

U.N. inspectors got their first glimpse at Iraq's offensive biological weapons program during an August 1991 U.N. inspection of Salman Pak, one of Iraq's premier biological weapons facilities.

Rihab Taha, the head of Iraq's germ warfare program, provided a team of U.N. biologists with several sealed glass vials containing freeze-dried anthrax spores. The vials included two variants of the Vollum strain, which had been used in U.S. and British biological weapons programs.

The Iraqi scientist initially claimed that some of the anthrax spores were used in research but had never been weaponized. Baghdad also acknowledged that it had received the two Vollum strains and five other strains of anthrax bacterium from the American Type Culture Collection, a commercial germ bank now located near Manassas, Va.

Iraqi documents later obtained by the United Nations indicated that Baghdad subsequently filled more than 50 bombs and missile warheads with a liquid form of Vollum anthrax.

DNA analysis conducted on remnants of Iraq's Al-Hussein warheads at the Al-Nibai missile destruction site revealed traces of bacteria similar to the Vollum anthrax strain. "I can't say with one hundred percent certainty that they are identical," Spertzel said. "But they are consistent with Vollum."

The U.S. company also sold Iraq several strains of Clostridium botulinum, a poisonous toxin that paralyzes the muscles and lungs and kills by suffocation. Iraq acknowledged producing at least 19,000 liters of botulinum toxin, using more than half to fill at least 116 bombs and missile warheads.

*Staff writer Joby Warrick contributed to this report.*

New York Times  
November 27, 2001  
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## **Next Target In Terror War: Bush Says It Could Be Iraq**

By Elisabeth Bumiller

WASHINGTON, Nov. 26 — President Bush warned Saddam Hussein today that if he did not admit United Nations inspectors to determine if Iraq is developing nuclear, chemical or biological weapons, he would face consequences. Mr. Bush declined for now to say what those might be. "He'll find out," Mr. Bush said.

In issuing the threat, the president seemed to broaden his definition of terrorism to include the development of weapons that would "terrorize nations," a significant departure from the definition he used in an address to Congress in September about the purpose of the war.

"If anybody harbors a terrorist, they're a terrorist," Mr. Bush said today. "If they fund a terrorist, they're a terrorist. If they house terrorists, they're terrorists. I mean, I can't make it any more clearly to other nations around the world. If they develop weapons of mass destruction that will be used to terrorize nations, they will be held accountable."

Secretary of State Colin L. Powell said tonight that Mr. Hussein should hear Mr. Bush's words as "a very sober, chilling message." In an appearance on CNN on "Larry King Live," Secretary Powell added, "There are many options available to the international community and to the president."

Mr. Bush's remarks came as his administration continues an internal debate over the next phase of the war, including whether it will undertake military action to try to oust Mr. Hussein. Mr. Bush has been criticized by conservative Republicans for not moving forcibly against Mr. Hussein, who has been accused of plotting to assassinate Mr. Bush's father and whose survival continues to torment Washington a decade after the Persian Gulf war.

For his part, Mr. Bush insisted that he had not widened the definition of what his administration considers terrorism, even though he did not mention weapons of mass destructions in his speech to Congress. "Have I expanded the definition?" Mr. Bush said. "I've always had that definition, as far as I'm concerned."

Mr. Bush made his remarks in a question-and-answer session with reporters after a ceremony in the White House Rose Garden welcoming two American Christian relief workers who were rescued this month by American forces in Afghanistan.

The president, whom one missionary, Heather Mercer, praised as "such a man of God," repeated some of the same strong language that he first used last week in a speech to cheering members of the 101st Airborne Division in Fort Campbell, Ky.

"Afghanistan is still just the beginning" of the war on terrorism, Mr. Bush said today, emphasizing that Americans would die there.

"It's going to happen," the president said. "I said this early on, as the campaign began: America must be prepared for loss of life. I believe the American people understand that we've got a mighty struggle on our hands and that there will be sacrifice."

Mr. Bush added that "as for Mr. Hussein, he needs to let inspectors back in his country, to show us that he is not developing weapons of mass destruction."

Other than this warning, the president gave no further hint of what course the war might take should Osama bin Laden be captured or killed and his Al Qaeda network be destroyed in Afghanistan.

Iraq is the most conspicuous example of a country that either has or is suspected of developing nuclear, chemical or biological weapons, but it is not the only one. Mr. Bush also said today, "We want North Korea to allow inspectors in, to determine whether or not" North Korea is developing nuclear weapons.

A showdown with North Korea in 1994 led the United States to reinforce its troops on the peninsula. The crisis was partly resolved with an agreement that froze the North's nuclear activity at one major site, but the Bush administration suspects there are additional plants capable of producing nuclear weapons.

The United States has also said it strongly suspects Iran, Libya and Syria of developing biological weapons. In each of these cases, the White House appears to be laying the groundwork for demanding international inspections. What administration officials will do if the nations refuse is unclear.

Iraq has refused to admit inspectors since 1998, when the Clinton administration and British forces responded with four nights of air and missile strikes against more than 100 targets, including military headquarters and air defenses. But Mr. Hussein remained in place.

During the the 2000 presidential campaign, Mr. Bush and his advisers pledged to confront Mr. Hussein more aggressively than Mr. Clinton had. Significantly, those advisers included Secretary Powell and Vice President Dick Cheney, who had helped Mr. Bush's father oust Iraqi forces from Kuwait in the gulf war in 1991.

In February of this year, barely a month in office, Mr. Bush ordered air strikes with Britain against Iraqi radar stations and air-defense command centers, calling the action a necessary response to Iraqi provocation.

Since Sept. 11, a group of administration hard-liners has argued that the United States should move further against Iraq, but Secretary Powell has said there is no evidence linking Mr. Hussein to the Sept. 11 attacks and that the coalition against terrorism will not hold if Washington acts against Iraq.

The secretary said on CNN tonight that he was working with Russia for a compromise on what the administration calls "smart sanctions" against Iraq, which are intended to let in civilian goods but not military ones.

"What we don't want to have go in, are equipment that can be used for developing weapons of mass destruction," Secretary Powell said. "We're not doing this just to protect America, but to protect the region."

Mr. Bush has so far seemed to endorse the views of Mr. Powell, and the president said again today that he remained focused on the war in Afghanistan. "We're going to make sure that we accomplish each mission that we tackle," Mr. Bush said. "First things first."

Although Mr. Bush has been criticized by some conservatives for what they consider his hesitation in dealing with Mr. Hussein, Senator John W. Warner of Virginia, the ranking Republican on the Armed Services Committee, warned today about opening up another front in the war.

"The principal focus should be on achieving the goals of this mission," Mr. Warner said in a news conference on Capitol Hill. Before tackling terrorism in a new country or region, Mr. Warner added, the administration should conduct "a complete reassessment with regard to coalition support."

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## **Iraq's Weapons Could Make It A Target, Bush Says**

By Mike Allen, Washington Post Staff Writer

President Bush offered a new justification for future military strikes against Iraq yesterday, declaring in blunt and personal terms that countries that develop weapons of mass destruction could be a target in the U.S. war on terrorism.

Bush was emphatic that much work remains to be done in Afghanistan, where U.S. ground troops landed Sunday for the first time, and he warned that casualties are likely as soldiers hunt cave to cave for Osama bin Laden and other suspected perpetrators of the Sept. 11 hijackings. "This is a dangerous period of time," he said.

But Bush, when asked at a Rose Garden appearance about whether Iraq could be a target as the United States looks to expand the war on terrorists, said, "Afghanistan is still just the beginning. . . . If you develop weapons of mass destruction that you want to terrorize the world, you'll be held accountable."

White House press secretary Ari Fleischer said the president's comments represented a "restatement of a long-standing American policy." Since Sept. 11, the administration has appeared divided about where to take the war after Afghanistan, with some key Bush advisers urging a more aggressive stance versus Iraq.

Iraqi President Saddam Hussein has barred United Nations weapons inspectors from searching for chemical and biological weapons depots since 1997, U.S. officials have said satellite photographs and intelligence reports suggest that Hussein has continued his quest for chemical, biological and nuclear weapons.



"As for Mr. Saddam Hussein, he needs to let inspectors back in his country, to show us that he is not developing weapons of mass destruction," Bush said.

Asked the consequences if inspectors are not admitted, Bush said, "He'll find out."

The president also said North Korea must allow weapons inspectors. "We've had that discussion with North Korea," Bush said. "I made it very clear to North Korea that in order for us to have relations with them, that we want to know: Are they developing weapons of mass destruction? And they ought to stop proliferating."

Kenneth Allard, a former Army colonel who is a senior associate at the Center for Strategic and International Studies, said administration officials have been disciplined about not dwelling publicly on its grievances with Iraq, but now "are allowing themselves the luxury of looking ahead."

"They have been very careful not to bite off more than they could chew," Allard said. "It is very clear that Iraq looms as the major continuing terrorist threat, and they just didn't want to talk about that until they were ready to go."

In Bush's address to Congress on Sept. 20, he said, "Any nation that continues to harbor or support terrorism will be regarded by the United States as a hostile regime." On Oct. 30, he was more specific, saying, "If you feed a terrorist, if you provide sanctuary to a terrorist, if you fund a terrorist, you are just as guilty as the terrorist that inflicted the harm on the American people."

Bush said yesterday that he was not consciously expanding his list of possible targets by citing countries, like Iraq, that possess weapons of mass destruction. "I've always had that definition, as far as I'm concerned," Bush said.

The series of recent administration remarks about Iraq began with an appearance by nation security adviser Condoleezza Rice on CNN's "Late Edition" on Nov. 18. She said the United States is monitoring Hussein and added, "We'll deal with that situation eventually."

Deputy Secretary of Defense Paul D. Wolfowitz said during a briefing on Wednesday, after noting that the focus remains on Afghanistan, "We see a good deal of evidence -- chemical, biological, and even nuclear -- that the Iraqis are working both with their indigenous capabilities and acquiring what they can illicitly in the international market." Secretary of State Colin L. Powell said last night on CNN's "Larry King Live" that U.S. officials had hoped Hussein would not survive the aftermath of the Persian Gulf War, but added that Iraq remains a danger. "They continue to try to develop these weapons, and we will keep the pressure on them to make sure that these weapons do not become a serious threat to the region or to the world," Powell said.

Despite the drumbeat, White House officials said it would be a mistake to assume that Iraq is the next target, or even that the next phase in the war will be military. Officials have said strikes against bin Laden's al Qaeda network are possible in Sudan and Somalia and likely, in coordination with the host government, in the Philippines and Indonesia.

"The military has been making plans and contingencies with regard to Iraq for 10 years," a senior administration official said. "We are focused on what we're doing right now, which is in Afghanistan."

Bush's Rose Garden remarks were part of an appearance with two U.S. aid workers who had been detained in Afghanistan on charges that they had promoted Christianity. As Bush took questions, he was he was "not the least bit concerned" about international concern over his plan to establish secret military tribunals for certain terrorist suspects from abroad.

Bush is to meet Wednesday with Jose Maria Aznar, the prime minister of Spain, which has cited the possible use of the tribunals as a reason for not extraditing eight suspects as conspirators in the Sept. 11 attacks.

"A president must have the option of using a military tribunal in times of war," Bush said. "It makes sense for national security purposes, it makes sense for the protection of potential jurors. It makes sense for homeland security. It is the right decision to make, and I will explain that to any leader who asks."

*Staff writer Steven Mufson contributed to this report.*

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## **Man Accused Of Shipping Nuclear Parts**

By Reuters

LOS ANGELES, Nov. 26 -- A 72-year-old engineer from the Los Angeles area who has been on the run for the last 16 years pleaded not guilty today to charges of illegally shipping nuclear triggering devices to Israel.

"I'm not guilty," Richard Kelly Smyth told U.S. District Judge Pamela Ann Rymer in a hearing in Los Angeles. Smyth faces 15 counts of violating the Arms Export Control Act and 15 counts of making false statements to the U.S. government. If convicted, he could face life in prison. Rymer, assigned to the original case in the 1980s, set trial for Jan. 15.

Smyth, a former Air Force and NATO adviser, disappeared from the United States in 1985 three weeks after pleading not guilty to charges that he exported 800 devices that could be used as nuclear triggers, worth about \$60,000, to Heli Trading Corp. in Israel.

Sixteen years later, he was arrested last July in Malaga, Spain, after filling out a bank application. He was extradited to the United States last week and is being held without bail.

In addition to the charges from the original indictment, Smyth could be charged with fleeing the United States, prosecutors said.

At a Dec. 17 hearing, Rymer will have to determine whether to admit statements made by Smyth's defense attorney, James Riddet, to the media in 1985 in which he allegedly acknowledged Smyth shipped the triggers without a license. Prosecutors maintain Riddet could be a potential witness because of those statements, said Tom Mrozek, spokesman for the U.S. attorney.

Riddet told reporters today that prosecutors are asking Smyth to choose between admitting to some charges or giving up the right to his chosen counsel. "It seems apparent that the government now feels they have a weak case," he said.

The devices Smyth is accused of exporting are called krytrons. Invented in 1934 for use in high-speed photography, krytrons are small glass bulbs that have many applications, from laser photocopying machines to strobe lighting to nuclear weapons. Because they can be used to trigger nuclear bombs, U.S. law forbids their sale overseas without a permit.

At the time of the indictment, Smyth was president of an export and engineering business based in Huntington Beach about 40 miles south of Los Angeles. He is accused of illegally sending the krytrons to Israel between 1980 and 1982 without proper permitting. Smyth has not "made any assertions as to their intended use," Mrozek said. Israel has maintained that the krytrons were not intended for nuclear weapons use. It returned "a substantial number" of them after Smyth's indictment, Mrozek said.

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## **Restructuring Of BMDO Gets Final Cornerstone**

By Gopal Ratnam, Washington

The Pentagon has put the finishing touches on a new organizational structure for its overall missile defense effort that consolidates control over the various programs under a single office, according to a defense official.

The new structure means program managers for the various missile defense programs will have a seat at the Ballistic Missile Defense Organization (BMDO) instead of reporting through program executive officers of individual services, a document outlining the new structure shows.

Currently, for instance, the program manager for the U.S. Army's Theater High Altitude Area Defense program reports to the Army's program executive officer for missile defense programs, who in turn reports to BMDO.

### **Bypassing Bureaucracy**

The new setup would eliminate a layer of service bureaucracy by having managers of the missile defense programs and subsidiaries report directly to BMDO's director, U.S. Air Force Lt. Gen. Ronald Kadish. The new structure is intended to bypass bureaucracies of military services, one defense industry official said.

In the past, BMDO and program executive officers of different services have clashed over budget allocations. For example, while preparing the 2001 defense budget, BMDO and Army officials were at odds about how much would be spent on the Army's Patriot Advanced Capability (PAC)-3 program. Army officials argued for a higher budget to enable speedier acquisition of the systems, while BMDO favored spending less on PAC-3 systems.

With program managers reporting directly to Kadish, such conflicts may be more easily managed, said Jacques Gansler, who served as U.S. undersecretary of defense for acquisition, technology and logistics under former President Bill Clinton. Gansler currently is a professor at the school of public affairs, University of Maryland, College Park, Md.

"Program managers reporting directly to the agency's director would make a difference," Gansler said. "It would not only give [the director] authority but also budget control."

The new organizational structure is part of a wider effort by Kadish to reshape the agency, with an eye on more effective management of programs and greater flexibility in the budget process, defense industry executives and former Pentagon officials say.

BMDO spokeswoman Pamela Bain declined to comment.

One of the proposals being considered by the Pentagon would rename BMDO the Missile Defense Agency and give it more budget authority, the defense industry official and Gansler said.

"Names are important," Kadish said Oct. 18 in response to a question about impending changes at BMDO. Kadish was speaking at a missile defense meeting here organized by the National Defense University, here.

Kadish also said the agency could evolve as the programs continue to evolve. The name change could garner more explicit budget authority for the agency, Gansler and defense industry officials familiar with the discussions said.

Greater budget authority would lead to greater flexibility in managing budgets, leading to more financial stability, Gansler said. "With budget stability comes [program] effectiveness," he said.

The proposed changes at BMDO are part of a Pentagon-wide reform on which Defense Secretary Donald Rumsfeld has embarked, Gansler said.

### **The Polaris Example**

In creating the new structure at BMDO, Kadish has tried to draw on the example of the U.S. Navy's Polaris program in the mid-1950s, defense industry executives familiar with the reorganization say.

The Navy created the Special Projects Office in 1955 to develop the Polaris, a submarine-launched ballistic missile.

Under the leadership of then-Rear Adm. William Raborn, the Special Projects Office test fired the first Polaris missile in 1960, three years ahead of schedule and under cost.

An overriding national urgency to catch up with the Soviet Union's ballistic missile development prompted President Dwight Eisenhower to ask the Navy to create a special office to develop the Polaris, say former Polaris program officials.

"The U.S. Navy was put on the hot seat by Eisenhower for not having anything" to match the Soviet Union's ballistic missile programs, said retired Navy Capt. Grayson Merrill, the first technical director of the Polaris program.

Merrill, now 98, is credited with having developed the Polaris organization structure that mirrored the different missile components.

The Polaris organization not only had a uniquely flat and lean structure, but more authority and flexibility than most Pentagon programs, Merrill said.

"We more or less chose the [defense] contractors from the point of view of their capabilities ... based on our experience," Merrill said. Without the same sense of national urgency, it would be difficult to replicate a Polaris-type organization today, he added.

National urgency to catch up with the Soviet Union "justified bypassing many restrictions and oversight that are put in place for normal programs," said Rear Adm. Robert Wertheim, who retired as director of the Navy's Strategic Systems Project Office.

Wertheim is a consultant at Science Applications International Corp. (SAIC), a high-technology research firm based in San Diego.

Defense contractors played a key role in the Polaris program and enjoyed greater flexibility than today, Wertheim said.

"The government [team] was relatively small," he said.

"While contracts between the government and contractors were closely negotiated, there was none of this business of, 'We will negotiate a contract and hold your feet to fire,' as is often the case these days," Wertheim said.

Drawing on the Polaris example, Kadish is attempting to enlarge the role of defense contractors, by having a large U.S. defense firm or an industry team act as a super-systems integrator, managing the capabilities among the various missile defense programs, officials say.

# U.S. Seeks Chem-Bio Suit That Survives Sea Water

By John M. Donnelly

The U.S. military is trying to find a new suit that will protect its personnel from chemical and biological agents, partly because the latest model being purchased for all the services doesn't work when soaked with sea water, even though it's officially required to do so, Defense Week has learned.

No chemical-protective garment has ever, once doused with water, been able to protect military personnel from doomsday agents. But earlier this year, at the insistence of U.S. special-operations forces, especially Navy SEALs, the requirements document for the new Joint Service Lightweight Integrated Suit Technology—the JSLIST trousers-and-coat set—was altered. Now the document mandates that the suit be able to protect people not only in the presence of sea spray, but also when the garment is "soaked" in sweat or water, according to the document and U.S. officials.

U.S. special-operations forces are playing a central role in the Afghanistan war. They are not exposed to sea water in that land-locked country, though some arrived via ships, and so the salt-water shortcoming doesn't appear to be an urgent issue. Nonetheless, U.S. officials say Afghanistan is the locus of but the first phase in the war on terror. Subsequent phases should also call on "special-ops" teams, and those phases could well bring some U.S. forces—be they SEALs, Marines or others—in simultaneous contact with sea water and weapons of mass destruction.

Neither the change in requirements nor the potential vulnerability, confirmed by JSLIST program officials in interviews, has been previously disclosed. The JSLIST program and its operational requirements document are unclassified, but a U.S. Special Operations Command spokesman would not comment on the issue.

The new requirement was approved by the multi-service board that oversees chem-bio requirements. As a result, the single JSLIST suit being bought en masse not just for SEALs but for all soldiers, sailors, airmen and Marines must meet this new, more exacting standard.

Unfortunately, the JSLIST suit has so far proven unable to do so, even though the military has already bought about 780,000 of the 4.4 million JSLIST suits it will buy by 2011. Only last month did two Marine Corps infantry battalions at Twentynine Palms, Calif., begin field testing alternatives to the suit, said Dennis Litalien, project officer for the JSLIST Joint Program Office at Marine Corps Systems Command. After those tests, meant to gauge the suits' durability, they will be exposed to chemical and biological agents.

## Most suits won't meet requirement

But the suits' chem-bio testing isn't scheduled to start until February, and the Marine Corps, the lead service on the JSLIST program, does not expect to make a decision on buying a new suit—if one that works even surfaces—until 2007, Litalien confirmed.

That is significant because it means the overwhelming majority of JSLIST suits—perhaps all of them—will not meet the current requirement to work in sea water.

Litalien acknowledged that withstanding water is now a joint requirement approved by all services and that U.S. forces are required to be able to fight in chem-bio environments, which former Defense Secretary William Cohen called "a likely" condition of future warfare.

However, Litalien said only a minority of U.S. forces are affected by water, and even those personnel could avoid contaminated areas. Marines, for example, wouldn't storm a beach they knew was contaminated, and they probably would know beforehand if it was, he said.

"The first principle of nuclear, biological and chemical defense is contamination avoidance," he said.

Nonetheless, both the Marine Corps and the Army Soldier Systems Command in Natick, Mass., are studying a set of alternative suits. The research into a new suit is being driven not only by the new salt-water requirement but also by the government's desire to find other improvements—in comfort and performance, for example—and by its wish to find other potential contractors besides the incumbent, Washington, D.C.-based Tex-Shield, Inc.

"The requirements were updated in anticipation of a leap in technology, which we hope to achieve," said Greg Pardo, Marine Corps System Command's Individual Protective Equipment team leader.

## Options under review

The JSLIST jacket and pants can be worn over a combat uniform. The system also includes gloves and boots, but not the gas mask that troops also wear when in full protective mode. The JSLIST suit's nylon-cotton poplin shell has a "water-repellent" coating, according to the program's home page. The coating protects personnel to some degree from liquid hazards. The suits charcoal lining soaks up vapors.

But when the suit is soaked through, it doesn't protect people from gas and germs, officials concede.

Both the Marine Corps and Army are testing the Tex-Shield suit against four other charcoal-lined alternatives and two "semi-permeable" options. The lining in the latter style of suits resembles plastic wrap, and it repels agents

rather than absorb them, according to an article in the Army Biological Chemical Command's March 2001 issue of "CB Quarterly."

The new models cover the person from head to toe and weigh half as much as the current JSLIST suit, the article says. Marines have practiced amphibious assaults in the suits and Army soldiers at Fort Lewis, Wash., have also tested the garments. But the verdict is not yet in.

### **Protection 'not adequate'**

The JSLIST suit was developed in response to shortcomings found in the "battle dress overgarments" that U.S. forces wore in the face of potentially poisoned battlefields during the 1991 Persian Gulf War. The older suits, many of which are still in the inventory, are too bulky and hot, cannot be laundered and, in the words of the new requirements document, "The garment does not provide adequate protection (12 hours of contaminated wear) once exposed to threat concentrations of chemical agents."

The performance record of U.S. protective gear is spotty even when it is made to specifications. But when made deliberately defective, the results are of course worse.

Last year, a New York City-based company called Isratex was convicted of intentionally cutting corners in the production of about 780,000 of the older-model suits for the U.S. military—coincidentally the same number of JSLIST suits that have been produced but no longer meet the updated requirement.

According to the General Accounting Office, the Defense Logistics Agency still does not know where 250,000 of the Isratex suits are, though they were all recalled, Defense Week reported late last month.

Los Angeles Times

November 26, 2001

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## **Taking A Germ Bullet**

*From 1954 to 1973 during Operation Whitecoat, the Army exposed hundreds of Seventh-day Adventists to diseases to learn about possible bioweaponry.*

By Aaron Zitner, Times Staff Writer

WASHINGTON -- Dressed in battle fatigues and wrapped in an Army blanket, Lloyd Long slept on the sand in the barren Utah desert. Monkeys and guinea pigs sat placidly in cages beside him. A siren blared, telling Long to wake up and climb onto a stool. He faced into the wind and breathed the night air.

Two weeks later, the 18-year-old soldier fell as sick as he'd ever been. Fever. Headache. Blurred vision. The desert wind had carried a waft of the debilitating disease known as Q fever, unleashed by Army scientists.

And Long, a human guinea pig by his own consent, had helped prove that Americans were vulnerable to a new type of weapon: the germ. That was more than 46 years ago. Long was part of Operation Whitecoat, a set of 153 Army tests from 1954 to 1973 that mark an extraordinary chapter in medical research history, one that probably could not be repeated today. The Whitecoat experiments exposed hundreds of healthy young men to debilitating diseases that might be used in biological warfare. And the experiments were conducted on soldiers recruited from a single religious group: the Seventh-day Adventist Church.

Now the Whitecoats, who have received little public attention over the years, are being lauded as heroes. By offering the first details of how biological weapons move through the environment and affect the human body, their experiments laid out many of the scientific insights that officials need as they boost U.S. defenses against bioterrorism and investigate the anthrax attacks that have killed at least four Americans.

"I firmly believe that if those experiments had not shown our vulnerability to biological warfare, there would be no biological defense program today," said Col. Arthur Anderson, an Army immunologist. "As a result, the services provided during this outbreak of anthrax would be completely in the Dark Age."

But ethical concerns probably would rule out Operation Whitecoat today, because the experiments would put volunteers at undue risk, said Jonathan Moreno, a University of Virginia bioethics researcher.

Should those standards now be relaxed?

"Before Sept. 11, would we have found these tests more objectionable than we do now? I think we would," Moreno said. "We might be willing to live with more ambiguities and moral compromises now, in the harsh realities of the 21st century."

No test subjects died during Operation Whitecoat, Army officials say. The Army only now is conducting a study of possible long-term effects on those exposed, asking the 1,000 or so volunteers who could be located to fill out health questionnaires.

Like today, the nation was trying to grapple with the new and frightening threat of biological warfare at the time Operation Whitecoat was created.

After World War II, Americans learned that Japan had conducted extensive germ attacks and experiments on humans, mostly in Japanese-occupied areas of China. By some accounts, more than 10,000 people were infected. But to U.S. scientists, biowarfare was an unproven threat. Once released, biological agents seemed hard to control in battle. And it was unclear how many casualties might result. Little was known about the number of germs it took to harm someone, and whether they could be released broadly, through an aerosol.

"We needed to fully understand the nature of aerosols and infectivity in man," said William C. Patrick III, a former official in the U.S. bioweapon program. "You could only get so much information from an animal model."

And so, in 1954, the Army approached Adventist leaders about forming a partnership.

Adventists had a special niche in the armed forces. Following the commandment "Thou shalt not kill," many sought status as conscientious objectors and became medics. That often put them on the battlefield, but in life-saving roles. Army scientists thought the well-educated Adventists, with their natural interest in health matters, would make good test subjects. Moreover, Adventists--at least those who followed church rules--did not smoke, or drink alcohol or coffee.

"They were a cleaner piece of paper on which to work an experiment," said Richard O. Stenbakken, who supervises Adventist clergy in the armed forces. When testing an experimental drug or disease agent, "you didn't have to ask if their reaction was because they were drunk as a skunk on Saturday night."

In all, more than 2,100 young Adventist soldiers made the trip from Ft. Sam Houston in Texas, where the Army conducted medic training, to serve their tours of duty at the Army's biological warfare program at Ft. Detrick, Md. Many would have ended up in Korea or Vietnam. Once at Ft. Detrick, they were expected to volunteer for at least one experiment while holding clerical, motor pool or other military jobs. But some took part in more than one and a few participated in none.

"They gave us pretty good duty," said Lou Bitzer, 64, an auto mechanic in St. Charles, Mo., who as a Whitecoat inhaled bacteria that cause tularemia, a plague-like disease. "I never sat down to a table where there wasn't a tablecloth or a flower on there."

Soon, Whitecoat experiments began laying out the details of biological weaponry, the type of information that is becoming a staple today of news reports about the anthrax attacks on the East Coast.

For example, tests such as the 1955 Q fever release in Utah established that germs could be spread effectively through an aerosol.

Moreover, early tests showed that germs embedded into tiny particles are most dangerous. Where large particles settle quickly to the ground, small particles float invisibly on air currents, and they can be inhaled deeply into a victim's lungs.

This lesson apparently was well considered by whoever mailed anthrax bacteria to the Washington office of Senate Majority Leader Tom Daschle. Anthrax spores in the letter were so small that they found their way over the air currents to the nostrils of 28 people.

Operation Whitecoat also helped scientists use animals as proxies for people in biological tests. The researchers exposed rhesus monkeys, guinea pigs and Whitecoat volunteers to a nonlethal disease, such as Q fever or tularemia. The tests showed how many more germs were needed to make a person sick than each type of animal.

Scientists could then test lethal agents such as smallpox and plague on animals, and make projections about what dose would be lethal for humans. "This was a very, very important development," Patrick said.

Although other methods were used to determine the lethal dose of anthrax, the Whitecoat techniques laid out some of the principles that made those calculations possible.

The data helped scientists understand how the agents would function as weapons. Even after President Nixon renounced offensive biological weapons in 1969, the same type of information was needed to develop vaccines and medicines that defend against biological attack.

"This was the first work done of its kind," said Dr. C.J. Peters, a former Army disease researcher who now leads the Center for Biodefense at the University of Texas Medical Branch at Galveston. "We'd still be arguing about these things if they hadn't done the work."

Safety equipment also was developed during the Whitecoat experiments that scientists still use when working with dangerous bacteria and viruses, Anderson said. This includes biohazard suits and containment chambers that control germs with air flows.



A central feature of the Whitecoat program was the "Eight Ball," a huge, spherical chamber at Ft. Detrick, more than two stories tall. Scientists would discharge bacteria or viruses into the chamber, while volunteers wore breathing apparatus that allowed them to draw the infected air.

Army officials say the Utah experiment in 1955, at the Army's Dugway Proving Ground, was the only one in which germs were released in the open air.

Long, now 65 and retired from the insurance business, recalled that he and about 29 other volunteers were taken to a remote section of the desert and stationed about a tenth of a mile from one another. At night, they slept on the ground. Occasionally, a siren would blow, signaling another release of the Q fever bacteria. The men were to wake up and face into the breeze, breathing naturally.

But for the first five nights, a siren soon blared a second time, indicating that the test was a scratch. Wind conditions were not right, or something else had gone wrong.

On the sixth night, Long knew that the release had worked, even though he never saw or felt the germs. Instead of a second siren blast, soldiers drove up in gas masks to take the volunteers back to base. The men showered, then stood under ultraviolet lights to kill any remaining pathogens, then showered again. Quickly, they boarded a plane and were flown to Ft. Detrick, where they were quarantined in a hospital.

Long worked as a lab assistant for the rest of his two years of duty. Though he now is battling malignant melanoma and colon cancer, he does not believe his Whitecoat participation is responsible.

"I don't know anybody who went in who felt later on that they had been bamboozled," said Long, of Bullhead City, Ariz.

Whitecoat volunteers participated in a range of other experiments. Instead of a likely tour of duty in Vietnam, Dean Rogers tested an Eastern encephalitis vaccine in the early 1970s. Jonah Kumalae was part of a study about how the body reacts to sand fly fever, a mosquito-borne illness that bedeviled U.S. troops overseas.

In possibly the strangest experiment, in 1970, Gary Swanson and four other men were placed in hospital beds, each separated by a curtain. On each bed was an electronic console, covered with dials and lights.

When some of the lights stopped blinking, the men were to turn the dials to get them flashing again. When other lights blinked, the men would turn them off by adjusting other dials. A distracting white noise filled the room.

The effect was something like trying to keep an aircraft running over the roar of the engines.

Then the men were injected with sand fly fever and fell ill. Still, they were asked to keep working, said Swanson, 55, of Silver Spring, Md.

Many soldiers were exposed to serious diseases, officials say, but none were infected with anthrax or other life-threatening illnesses.

The Army and the church also say Operation Whitecoat was a model of the proper use of gaining consent from volunteers in medical research. Volunteers were asked to give consent to participate at several stages--before they joined the program, and then twice each time they volunteered for an experiment.

"The procedures were state of the art then and would be today," said Anderson, who leads the medical research review board for Army experiments at Ft. Detrick. He offered one exception: "I don't think they would do aerosol studies today. The lung is a fragile organ. So many conditions can trigger respiratory distress."

The program ended along with the military draft in 1973. The church still is proud of its involvement, saying it led to vaccines and treatments that have saved thousands of lives.

Anderson called the Whitecoats "real heroes" for taking on the risks of the experiments.

Arthur Caplan, a bioethicist at the University of Pennsylvania, said the Whitecoat tests would not meet current standards for medical research, including those set by the Food and Drug Administration. And he does not believe current fears about bioterrorism justify changing those guidelines.

"We do not expose people to conditions that could be lethal or have high risk," Caplan said. "We do the best we can with animals. . . . To bend the rules would make it almost impossible to distinguish between what we're for and what the other guys are for."

Caplan also questioned the Whitecoat recruitment procedures, on grounds that there is an element of coercion in any offer from an officer to a soldier to volunteer for research.

Still, many of the Whitecoats were grateful for the chance to join.

"Those of us who went into the program were very fortunate," said Rogers, now 54 and living in Silver Spring. "We wanted to serve our country. But some of the friends who went to Vietnam didn't come back. The friends I had in the Whitecoats are still around."

## **Trial Burns To Begin In January At Incinerator**

By Richard Raeke, Star Staff Writer

In January, the Army will begin testing the chemical weapons incinerator at the Anniston Army Depot. During those tests, the Army will try to demonstrate the plant's maximum rate of destroying the weapons while staying within set emissions boundaries.

The rate is governed by a health risk assessment, approved by the Alabama Department of Environmental Management and the Environmental Protection Agency.

Tim Garrett, the Army's project manager at the incinerator, likened it to test-driving a fast car.

"You prove you can run it at 120 mph, but you don't drive it at 120 mph in daily driving," he said.

The Army also will have to prove that it can destroy 99.9999% of a surrogate material that is equally difficult or more difficult to destroy than nerve agent. That demonstration will include six-hour test burns over a one- to two-week period.

Incineration opponents question whether the surrogate trial burn will accurately reflect the real-world conditions, while the Army says it designed the surrogate trial burn to simulate the destruction of the weapons.

The Anniston plant has four incinerators - a liquid nerve agent incinerator; a metal parts furnace to destroy non-explosive munitions parts, a deactivation furnace system to burn explosives, fuses, propellants and residual agent, and a dunnage incinerator to burn contaminated articles such as pallets and clothing.

Garrett said he expects to show that the incinerator can theoretically destroy 34 rockets an hour.

"Thirty-four is the thermal capacity, but the destruction rate is probably not close to that at a steady state," he said.

"We'll probably do 15 to 20 an hour, but the idea is to prove 30 and do less.

"During the surrogate trial burn, the tests will center on the liquid incinerator, the deactivation furnace system and the metal parts furnace.

In the liquid incinerator, The Army will use 1,2,4 - trichlorobenzene and liquid tetrachloroethylene. According to the EPA's ranking system, the compounds are more difficult to destroy than nerve agent. Tetrachloroethylene is a drying agent for metals and a cleaning solvent, while 1,2,4 - trichlorobenzene is used in dies and lubricants.

In the deactivation and metal parts furnaces are liquid monochlorobenzene and solid hexachloroethane.

Monochlorobenzene is used in solvents and pesticides while hexachloroethane, a solid, is used in explosives and solvents.

Those compounds will account for the gelled rockets, believed to be 30 percent of the Anniston Army Depot's stockpile of M55 rockets.

The chemicals also are spiked with metals to provide a worst-case scenario based on the highest concentrations seen at other incinerators.

Craig Williams, of the anti-incineration Chemical Weapons Working Group, said the burn does not accurately reflect the difficulty of destroying gelled rockets, and says burning gelled rockets is unproven.

Williams cites a 1994 report from the National Research Council, which said chemical agents and munitions materials have successfully been divided into four distinct process streams that have widely differing properties. Separation of these materials for processing in distinct well-engineered systems provides safer and more reliable operations than would processing of a mixed stream in a single process."

To destroy gelled rockets, the Army will chop them into several pieces and feed them into the deactivation furnace.

The Army used this process at incinerators on Johnston Atoll and in Tooele, Utah.

Williams said the process violates the NRC report and has never been scientifically proven as safe and effective.

Garrett said the Tooele incinerator has proven that burning gelled rockets does work.

The Tooele plant burns approximately 1.6 rockets per hour while destroying other weapons at the same time.

Because of the small number of gelled M55 sarin rockets in Utah and the multi-million-dollar cost of more trial burns, the Army decided not to seek a permit modification to destroy them at a faster rate.

Utah has roughly 1,400 gelled sarin rockets. Anniston could have as many as 10,000.

Williams said he thinks the Army didn't want to seek a permit modification because it would require further testing, and the effectiveness of burning gelled rockets might be drawn into question.

As for the surrogate trial burn in Anniston, Williams said it is extremely advantageous for the Army. The incinerator is allowed to fail the tests, but as soon as it passes it can receive a permit. Once it has passed the tests, Williams said, the Army might not be able to guarantee that it will stay in compliance for the duration of the burn.

Garrett said the surrogate trial burn defines the parameters the Army must stay within. The Army monitors the level of oxygen and carbon dioxide coming from the stack to ensure it is getting complete destruction. If those levels go out of compliance or if the sensors break down, the system automatically shuts down. After the Army completes the surrogate trial burn it will test-burn actual munitions. That test is slated for late spring 2002.

Washington Post  
November 25, 2001  
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## **Deadly Anthrax Strain Leaves A Muddy Trail**

By Steve Fainaru and Joby Warrick, Washington Post Staff Writers

For more than a month, federal investigators have stalked the poisonous anthrax strain used in the recent terrorist attacks. The search has led to culture collections and research labs, to microbiologists and veterinarians, to anywhere and anyone who might have come in contact with the Ames strain.

But with each new case, the mysteries surrounding the distribution of Ames are only deepening. Once thought to be accessible to thousands of researchers, the strain now appears to have circulated in only a small universe of laboratories. One of its main distributors, according to scientists, was the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID) at Fort Detrick, Md., which used Ames to test vaccines that could protect U.S. troops in case of a biological attack.

In following the trail, investigators have had to face the possibility that Ames may have slipped through an informal network of scientists to Iraq, which sought the strain from a British biodefense institute in 1988 but whose application was rejected because of concerns that it would be used to manufacture biological weapons.

Understanding the distribution of the Ames strain may be critical to the government's search for those behind the attacks that have killed five people, infected 13 others and disrupted the federal government. In the latest case, that of a 94-year-old Connecticut woman who died Wednesday after contracting inhalation anthrax, federal investigators said DNA testing showed that the bacteria was indistinguishable from the strain that appeared in the attacks in Florida, Washington and New York.

Those attacks involved the Ames strain, a virulent anthrax bacteria named for the Iowa city where it was originally isolated, according to an Oct. 25 statement from Tom Ridge, the White House director of homeland security. But identifying the type of anthrax from among the 89 known genetic strains has done little to clear up confusion within the government and the scientific community over the history of the Ames strain, how many scientists had access to it and how it might have circulated.

When the attacks began, there was speculation that thousands of labs might have had access to Ames, but that number has been knocked down by anthrax experts. Philip C. Hanna, a microbiologist at the University of Michigan, said: "I'd put it . . . between 10 and 24."

Paul Keim, who has done genetic mapping of anthrax strains at Northern Arizona University and is reportedly assisting the FBI with the investigation, said he was uncertain of the number of labs with Ames but described it as "a pretty small list" that he thought was "very discoverable."

Only a few facts have been clearly established. The strain of *Bacillus anthracis* that became known as Ames was first isolated decades ago from a diseased cow near Ames. A natural or "wild" strain, Ames was recognized relatively early for its virulence and for its ability to resist vaccines.

Scientists in America's biological weapons program chose a different strain, called Vollum 1B, as the lethal ingredient in U.S. anthrax weapons in the 1950s and 1960s. But in the late 1970s, following the dismantling of the program by President Richard M. Nixon, Fort Detrick's microbiologists turned to the Ames strain to develop and test tougher anti-anthrax vaccines to protect against biological weapons being built in the Soviet Union.

"There was a whole new interest because of what the Soviets were doing," said Joseph V. Jemski, who ran animal experiments at Fort Detrick. "I remember we began working with three strains: One from Colorado, another from Texas -- and Ames."

Fort Detrick's work established Ames as something of a gold standard, a hardy strain that helps biologists gauge the effectiveness of potential vaccines and treatments. Soon, other researchers also became interested in Ames, and Army scientists would help them obtain it.

"We were all just doing science," said David R. Franz, a scientist at Fort Detrick in the early 1980s and now vice president of the Chemical & Biological Defense Division of the Southern Research Institute, recalling an era of scientific openness that followed the secretive days of the bioweapons program. "Our biowarfare era was over, and we were doing a lot of work with academia and studying the variant strains. Things just weren't as tight as they became" after new federal security guidelines on transfers went into effect in the late 1990s.

Biologists familiar with Ames identified USAMRIID as the strain's major distributor. "USAMRIID is the one that handled most of the distribution of this strain," said Keim. "Surely they would know" who received it.

Martin Hugh-Jones, an anthrax expert at Louisiana State University who maintains a global database of anthrax outbreaks for the World Health Organization, concurred that it was relatively simple in the past to obtain anthrax cultures from USAMRIID.

"They kept the stuff there, and if you needed a culture, you called up Art" -- Col. Arthur Friedlander, USAMRIID's senior military research scientist, Hugh-Jones said.

In some cases, the bacteria delivered to researchers were genetically altered to prevent their use as a weapon or make it less hazardous. Duke University researcher Ken Wilson, for example, said he obtained the Ames strain from USAMRIID in the early 1990s but only after the organism had been stripped of its ability to produce deadly toxins. Other researchers received the bug in its virulent form. One such recipient was at Fort Detrick's British counterpart, the Chemical Defense Establishment at Porton Down, near Salisbury, England. Peter Turnbull, a former Porton Down microbiologist, said the institute also was testing vaccines that would protect troops against various anthrax strains.

British scientists in turn shared the Ames strain with other researchers. In the mid-1990s, Porton Down sent a packet containing Ames spores to Hugh-Jones, and also to a "very few" others, said Turnbull, who declined to name them. "It wasn't random," said Turnbull. "We would know the other person's bona fides. It was not spread around promiscuously."

Investigators are now hoping that retracing the movement of Ames will help lead them to the person or group behind the anthrax mailings of September and October. Since mid-October, FBI agents have visited universities, pharmaceutical laboratories, hospitals and veterinary centers to find out who may have had access to the strain. Some researchers, such as Louisiana State University's Hugh-Jones, have been subpoenaed and questioned for hours about the possibility that Ames spores might have been lost or stolen. Hugh-Jones said he has turned over laboratory documents to the FBI and insisted his lab kept the Ames strain under tight control.

"Nobody got it from us; it stopped with us," he said.

In fact, some anthrax experts believe that it may be impossible to learn exactly how many researchers have Ames. Genetic differences among anthrax strains are slight, and until the advent of genetic typing in recent years, the labeling of strains was often sloppy. It is possible that Ames bacteria ended up in many other laboratories, but under a different name. Perhaps the strain even reached Iraq, or another state with a biological weapons program, some scientists say.

"I don't think anyone had heard of [Ames] before we published our vaccine results" in the 1980s, Turnbull, the former Porton Down scientist, said. "There doesn't appear to be a history of the strain previous to this. Perhaps it existed as stock on a shelf somewhere. Someone isolates a strain -- we believe in this case it was from a cow from Ames, Iowa -- and it's labeled 'Iowa cow' and placed on a shelf somewhere."

Because of the imprecise labeling, some experts say that anthrax strains that were widely distributed should be analyzed to see if they match genetically the strain used in the attacks.

Of the seven strains sent to Iraq by the American Type Culture Collection in the late 1980s, for example, none was labeled "Ames." But Kimothy L. Smith, a member of Keim's genetic analysis team that reportedly has been helping the FBI investigation, said he did not believe that all the strains sent to Iraq had been studied and compared to known varieties.

"It's a tower of Babel when it comes to nomenclature," said one scientist familiar with the Iraqi shipments. "Much of what is out there in the biological world is not well identified."

Given Iraq's interest in obtaining the Ames strain -- and given the lax controls over pathogen movement in the past -- some experts are convinced that Baghdad has Ames. "The probability that they don't have the strain is near zero," said a microbiologist who has studied Ames.

But others are hopeful that the Ames microbes used in the attacks will turn up closer to home, leaving a clear trail to the perpetrators.

"Basically, if some guy's got this culture on his dirty clothes or on his bench top, he'll have some explaining to do," said Hugh-Jones. "It's like owning a pistol that was used in a homicide."

*Staff researchers Alice Crites, Bobby Pratt and Mary Lou White contributed to this report.*

Washington Post  
November 24, 2001  
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## **In New York, On Alert For Bioterrorism**

### ***City's Tracking System Is Viewed as a Model***

By Ceci Connolly, Washington Post Staff Writer

NEW YORK -- Just before noon on Nov. 13, Farzad Mostashari gazed down at his computer printout and wondered aloud if he was staring into the face of a biological attack.

In the previous 24 hours, ambulance calls and emergency room visits for respiratory distress had spiked in Queens. Mostashari, the city health department's epidemiologist, asked his medical detectives to check it out.

That afternoon and into the evening, teams of public health experts pored over patient charts at three Queens hospitals, looking for any sign that pulmonary anthrax was the cause of the respiratory cases. What they found instead was asthma, anxiety attacks and -- as Mostashari had suspected all along -- smoke inhalation from the crash of American Airlines Flight 587 on Nov. 12.

On the bioterrorism front, it was a false alarm, but the sort of false alarm that should give New Yorkers comfort. The city has what is widely regarded as the finest system in the country for monitoring public health problems and quickly detecting outbreaks of disease, including a biological assault.

"The events of the past couple months have made people get real serious about the need for surveillance systems with some sensitivity and some specificity," said Thomas Milne, executive director of the National Association of County and City Health Officials. "We need public health departments to get the information in as close to a real-time basis as possible."

The anthrax attacks that have struck Washington and four states -- Florida, New York, New Jersey and most recently Connecticut -- were relatively small and delivered in some cases with clear warning signs: white powder and threatening letters. But a future attack, such as smallpox released in a sports arena or anthrax spores introduced through air ducts, could be stealthy.

Treating the sick would be an unprecedented challenge for a generation of physicians who have no experience with such diseases, especially at a time when many state and local health departments have been starved for resources. Even more terrifying to many in the medical community is the notion that they might not know for some time that an attack had occurred.

New York's solution is an elaborate health surveillance system that tracks 911 calls, walk-in emergency room visits, pharmacy sales of anti-diarrhea medication and illnesses among city transit workers.

"One doctor working in one ER may not be able to see the forest for the trees," Mostashari said. "These systems are designed to detect the earliest signs of a massive, widespread bioterrorist attack."

Think of health surveillance as a set of medical smoke detectors, sounding the alarm before a deadly disease sweeps through an entire community, said Michael Osterholm, director of the Center for Infectious Disease Research and Policy at the University of Minnesota.

"If a whole bunch of alarms go off, we may need to get to a large number of people with antibiotics or vaccine," he said. "We are not just here to record history, but to change history."

In some states, public health reporting is still done with "pencil, paper and snail mail," as one official put it. Milne's organization estimates that 40 percent of local health departments do not have high-speed Internet access. Detecting a biological attack in those communities could take days.

As part of a \$3.3 billion emergency bioterrorism package, Congress is considering giving cities and states up to \$425 million for "health surveillance." Still, public health experts say that would represent only a down payment on fixing what they describe as a woefully underfunded system.

For decades, the term health surveillance conjured up images of dusty annual reports cataloguing births, deaths and the occasional batch of spoiled eggs at a church social, said Margaret A. Hamburg, a bioterrorism expert and former assistant secretary at the U.S. Department of Health and Human Services. But in recent years, the AIDS epidemic and tuberculosis prompted New York health officials to take a more active role.

As New York City's health commissioner in the 1990s, Hamburg helped move from a "word of mouth" approach that relied on doctors and nurses to one that combines traditional disease reporting with high-tech tracking of symptoms, a system known as "syndromic surveillance."

The heart of that system is daily monitoring of every 911 call in the city, about 1 million a year. Each night, fire department logs are transferred electronically to the health department, where a sophisticated computer program helps spot anomalies. "It actually turns red on the graph," Mostashari said.

With the data coded by medical complaint and Zip code, health officials can track localized problems such as the smoke-filled air in Queens. It is the first department in the nation to apply spatial cluster maps to symptoms, said Commissioner Neal L. Cohen.

Skeptics such as Osterholm say they are waiting for evidence that syndromic tracking -- which costs New York about \$1.5 million a year -- works better or faster than highly trained doctors and nurses.

"The New York experiment is worth watching, but it's subject to a lot of random variations" such as bad weather triggering more 911 calls, said Alan P. Zelicoff, senior scientist at the Center for National Security and Arms Control at Sandia National Laboratory in Albuquerque. He has developed a touch-screen program for doctors that he said has the virtue of "capturing physician judgment about the severity of illness."

In the diverse city of 8 million, New York's system is already paying dividends as the "eyes and ears" of the health department, Cohen said. For the past three winters, the computer announced the start of flu season two to three weeks before traditional reporting by health care professionals.

The early warning can save lives, said Gregg Husk, chairman of emergency medicine at Beth Israel Medical Center.

"If I were a medical director at a nursing home and heard of a flu outbreak, that would light a candle under me to get people vaccinated," he said. Similarly, health department alerts about syphilis outbreaks tip doctors off to ask the right questions and perform extra tests, he said.

After some 300,000 Milwaukee residents were infected in 1993 with cryptosporidium, a parasite that can cause severe intestinal illness, New York added a diarrhea surveillance program that tracks lab results and pharmacy sales. The first clue in Milwaukee, said Marcelle Layton, assistant commissioner of health in New York, was an uptick in purchases of Kaopectate.

One Monday morning a few winters ago, Layton's team arrived at work to see a similar increase in sales of Imodium, another anti-diarrheal medication.

"It turns out Imodium had been a sponsor of the Super Bowl that weekend," Layton said, laughing in retrospect. "I now know more about pharmaceutical marketing than I ever expected."

Still, Layton said it is easier to weed out false leads than not to have any data. She hopes to expand the pharmacy surveillance program to include popular flu medications, since many people try them before visiting a doctor.

After the Sept. 11 hijackings, health officials broadened their surveillance to hospitals, asking emergency workers to fill out an extra form on every patient. Epidemiologists from the Centers for Disease Control and Prevention were stationed round the clock in hospitals to assist, but when they left for a brief period, compliance plummeted, Layton said.

Within a few weeks, the process was computerized. Now, 28 hospitals in the five New York boroughs ship a daily log to the health department. The system is still "clunky," said Husk, who each morning excises confidential patient information by hand before sending the report to the health department. But he expects the technical glitches to be smoothed out.

Often, the real value of surveillance is ruling things out. After New York hospital worker Kathy T. Nguyen was initially diagnosed with inhalation anthrax on Oct. 29, Layton's team watched the computer charts, waiting to see if her case foreshadowed a new wave of attacks. "We especially wanted to see if there were clusters around where she lived or worked," she said.

As three, four and five days went by without a blip on the graphs, health officials began to breathe easier. "It was very reassuring," Layton said.

More than most, New York health officials are keenly aware of the strengths and weaknesses of syndromic surveillance. An astute doctor -- not syndromic surveillance -- first alerted Layton to a possible outbreak of West Nile virus in 1999. Yet city doctors had hospitalized 15 people with the disease, cases that were never reported.

A computerized chart doesn't lie, but it also doesn't tell the whole story, Mostashari said.

"It's just one arrow in the quiver," he said. "But if this adds a 20 percent chance of giving us 24 hours earlier notice of a massive bioterrorist attack, I'm sure people would say it was worth it."



# Pakistan Continues Probe Of Nuclear Scientists

By Susan B. Glasser and Kamran Khan, Washington Post Foreign Service

ISLAMABAD, Pakistan, Nov. 23 -- Pakistan's military intelligence service continues to detain two nuclear scientists for questioning about their alleged connections to Osama bin Laden and his al Qaeda terrorist group, senior Pakistani intelligence sources said today.

"We want to be absolutely sure before giving a clean chit to nuclear scientists who had confessed to having met Osama Bin Laden, Mullah Omar and several al Qaeda leaders last year," said a senior Pakistani official. Sultan Bashiruddin Mahmood and Abdul Majid have acknowledged meeting bin Laden and Taliban leader Mohammad Omar during at least three visits to Afghanistan last year, the sources said. But the scientists have insisted throughout the six-week investigation that those meetings were in connection with a relief agency they founded in 1999.

"We are still not satisfied with their answers," said an intelligence official when asked why the two scientists have not been allowed to return to their homes. President Pervez Musharraf "has ordered an extensive investigation in this matter and we can't let them go before we get to the bottom of this," the official said.

In an effort to allay international concerns about the security of Pakistan's nuclear program, Pakistani officials recently briefed a senior U.S. official on the status of the investigation of the scientists and their purported connections with bin Laden and al Qaeda, the sources said.

In comments to reporters Thursday, the chief government spokesman, Gen. Rashid Qureshi, confirmed that the investigation was continuing, but would not discuss the details. "We will continue to investigate for as long as it is deemed necessary," he said. Asked whether the scientists were being held, he said, "I don't think they are in continuous detention," but he would provide no details about their status.

Senior intelligence sources said that neither scientist had been formally arrested while the investigation continues. Mahmood helped lead Pakistan's efforts to enrich uranium, while Majid worked for Pakistan's Atomic Energy Commission until 1999.

Senior Pakistani officials said Mahmood is at the center of their investigation, which seeks to reconstruct his days since he resigned to protest a transfer in March 1999. "Mahmood's personality profile, combined with his meetings with Osama bin Laden, make a lethal blend," said a senior intelligence official.

After 28 years of working in key jobs at Pakistan's three most crucial nuclear facilities, Mahmood was transferred to a less important desk job after he had vigorously advocated extensive production of weapons-grade plutonium and uranium enrichment with a view toward equipping other Islamic countries with nuclear capabilities, government officials said.

Pakistan's powerful Inter-Services Intelligence agency argued that the transfer was necessary because Mahmood's beliefs were too dangerous for him to be allowed to continue as head of the country's plutonium-producing plant near Khoshab in the Punjab region.

"Mahmood was the strongest advocate of the view that only nuclear weapons could provide ultimate security to Muslim nations against infidel powers," said an MIT-trained Pakistani nuclear scientist who spoke on condition of anonymity.

New York Times  
November 25, 2001

## Don't Forget North Korea

By David E. Sanger

With the Taliban badly battered in Afghanistan, and Osama bin Laden on the run, the biggest parlor game in Washington has now boiled down to one question: What will Phase II of the war look like?

Theories abound. The Bush administration may not have decided. But one scenario beginning to gain credence goes something like this: In coming months, while it steps up pressure on Al Qaeda's haunts, the United States also gives countries long suspected of hiding their nuclear, chemical or biological weapons programs short deadlines to open up to intensive international inspection. If they refuse, as they have in the past, Washington will quickly raise the pressure, apply sanctions through the United Nations, and vaguely threaten that at some point diplomacy will give way to bombs.

Or, as one high-ranking hawk in the Bush administration said Friday, "they might be urged to consult the Taliban" about the risks of stiff-arming Washington.

At the very top of the list would sit Iraq, of course. Conservatives in and out of the administration have been talking about making Saddam Hussein a target almost from the first week of the war. But there is a hint of talk about another secretive, totalitarian nation with a troublesome history of nuclear and germ warfare: North Korea. For two months, the odd regime in Pyongyang had rarely been mentioned, even though the C.I.A. has long suspected that it has amassed enough nuclear material for two or three atomic weapons. The silence ended last week. John R. Bolton, the under secretary of state for arms control and international security affairs, named Iraq and North Korea as the two nations the United States has concluded are actively developing germ weapons, in violation of a global treaty. He added Iran, Libya and Syria as countries strongly suspected of following suit. "The purpose of naming the names today was to put the international spotlight on them," Mr. Bolton said. "Prior to Sept. 11, some would have avoided this approach. The world has changed, however, and so must our business-as-usual approach." It would be easy to read too much into Mr. Bolton's statement. Naming names is quite different from demanding inspections and punishing those who play shell games or refuse to open their doors. It could be a feint. "Why not get everyone we dislike on notice?" asked Ashton B. Carter, the Harvard professor who was in the midst of negotiations with the North during the Clinton administration. He said that since Sept. 11, "the North Koreans have been laying as low as they can."

But this is an administration that never put much faith in the Clinton-era negotiations, and stopped such talks dead when it took office. So it was notable that Mr. Bolton said the Bush administration would no longer wait for "slow-moving multilateral mechanisms that are oblivious to what is happening in the real world."

Still, North Korea is an immensely complicated case, and it poses perhaps the most interesting test of how far Mr. Bush is willing to push his war on terrorism and his vow to make sure that weapons of mass destruction do not threaten America or its allies.

North Korea has mixed weapons production and intimidating tests of its medium-range missiles with peace gestures, including negotiations that nearly brought President Clinton to Pyongyang a year ago. President Kim Jong Il abandoned his father's habit of sponsoring terrorism, but he still makes his money by trading in missile technology, notably with America's newest friend, Pakistan. It wants Western aid and trade, but believes its fearsome stockpile of weapons is the only way to hold Washington's attention.

So from the Bush team's first days in Washington, North Korea has divided the administration's "engagement" camp (led by Secretary of State Colin L. Powell) from hard liners who urge that the country must be isolated and, if possible, pushed to the brink of collapse. Mr. Powell lost round one of that debate, and prevailed in round two. Then came Sept. 11, which may change everything.

No one doubts that the North has behaved badly. The 1994 nuclear crisis on the Korean Peninsula was set off by Pyongyang's refusal to allow international inspectors into its huge nuclear reprocessing site at Yongbyon, north of the capital. The Air Force floated a proposal to take out the nuclear facility in an air strike (it insisted that the resulting nuclear contamination would be minimal), but William J. Perry, then the secretary of defense, warned President Clinton that the approach "was highly likely to start a general war."

THEN, just when Mr. Clinton was on the verge of imposing what amounted to an economic embargo on the country, and reinforcing the 40,000 American troops on the Korean Peninsula in case things turned ugly along the DMZ, a partial deal was reached.

Ultimately, North Korea allowed inspectors into Yongbyon, and froze the fuel production from a reactor that the C.I.A. believes had already yielded enough weapons-grade material to produce a few nuclear weapons. (Whether they have been assembled is anyone's guess.) In return, the Western allies agreed to help North Korea build a new generation of "proliferation resistant" nuclear power plants. But construction has proceeded at a dead slow pace, the country is starving, and after 11 months in office the Bush team has yet to hold a serious meeting with North Korean officials.

Now comes the hard part.

Does Mr. Bush try to revive the talks, and with it the Clinton-era offer that North Korea could get itself off the State Department's terrorist list, opening up the possibility of economic aid? Or does he heed conservative advisers who see in North Korea a chance to make an example of a non-Islamic country that poses a threat to two close allies, South Korea and Japan? After all, the intelligence community has a long list of suspect sites it would love to see north of the DMZ.

It's a tough call," said one senior administration official. "There is no link to Al Qaeda," he said, and no evidence of active proliferation of weapons since Sept. 11. South Korea, intent on reviving its own rapprochement with the North, would resist any effort to make its menacing neighbor the next target of the war on terrorism. China and

Japan are equally uninterested in creating a crisis. But, the official said, "you can't say you are serious about neutralizing weapons of mass destruction and ignore Kim Jong Il."

Washington Times  
November 28, 2001  
Pg. 1

## **Iraq Rejects Demand For Arms Inspectors**

By Nicholas Kralev, The Washington Times

Iraq yesterday rejected a demand from President Bush that it allow weapons inspectors back into the country, but the United States sought to lower expectations that it will attack Iraq as part of its anti-terror military campaign.

At the same time, after failing to get Russia's consent for "smart sanctions" against Iraq before the current sanctions expire on Friday, Washington obtained Moscow's commitment to revise the embargo after six months, U.S. officials said.

U.S. warplanes attacked an air-defense target in southern Iraq yesterday, but the Pentagon said the incident had nothing to do with Mr. Bush's comments on Monday and was in response to continuing Iraqi threats against American and British jets patrolling a no-fly zone there.

A day after Mr. Bush said Iraqi President Saddam Hussein "will find out" the consequences of not allowing weapons inspectors back into his country, the White House yesterday remained vague about how it might deal with Baghdad in the future.

"The president left that for Saddam Hussein to figure out," White House press secretary Ari Fleischer told reporters. "If Iraq is not willing to let arms inspectors into their country, they continue to violate an agreement that they promised to keep."

Mr. Fleischer said "the president is focused on phase one" of the campaign against terrorism. "Anything that may come subsequent to that would be something the president would discuss at the appropriate time — if and whether that would come to be," he said.

A defiant Baghdad said yesterday it's not afraid of U.S. threats and is ready to defend itself against any attack.

"Anyone who thinks Iraq can accept an arrogant and unilateral will of this party or that is mistaken," an Iraqi government spokesman said in a statement carried by the official Iraqi News Agency.

U.N. weapons inspectors left Iraq in December 1998, shortly before the United States and Britain began four days of air strikes to punish Saddam for refusing to cooperate with them. Baghdad has said it would allow inspectors back in only if sanctions imposed after the 1991 Persian Gulf war are lifted.

At the United Nations yesterday, the United States and Russia agreed to keep the current U.N. oil-for-food program in place for six more months, after which a carefully scrutinized list of civilian goods will be allowed into Iraq.

"There is a consensus on a draft resolution on the concept of a goods-review list, which will be put to a vote by the Security Council on Thursday or Friday," said a U.S. diplomat familiar with the draft.

"Between now and May 31 we'll work on refining the items on the list and the procedures of implementing it to make sure that components of weapons of mass destruction don't get in," he said.

The United States had initially proposed a four-month "rollover period," but Russia insisted on a half-year, the diplomat said. An annex to this week's resolution containing the list of goods will be adopted by the Security Council on June 1, 2002, he added.

Secretary of State Colin L. Powell and Russian Foreign Minister Igor Ivanov spoke on the phone about the sanctions program on Monday, State Department spokesman Richard Boucher said.

Some of Washington's closest allies yesterday echoed Mr. Bush's demand that inspectors return to Iraq but warned against widening the U.S.-led military campaign against Afghanistan without clear evidence of state involvement in the September 11 attacks.

"This is a military campaign specifically directed against those responsible for the mass murders of September 11," junior Foreign Office minister Ben Bradshaw told the House of Commons in London. "There is no evidence of any state involvement, and in the absence of such evidence those military objectives remain as they have done all along." In Paris, a French Foreign Ministry spokesman told reporters that "the statement by the U.S. president is natural and goes in the right direction."

However, a senior French diplomatic source was quoted by wire reports as saying that France believes U.S. military action should be limited to Afghanistan.

Some of these concerns were echoed by countries in the Middle East.

Syrian Foreign Minister Farouk Sharaa said a U.S. attack on any Arab country as part of its war on terrorism would be a "fatal mistake."

In Cairo, Arab League Secretary-General Amr Moussa told reporters that "striking against any Arab country will be the end of harmony within the international alliance against terrorism."

The U.S. military's Central Command in Tampa, Fla., said yesterday's air strike was on a target at An Nasiriah, about 170 miles southeast of Baghdad.

"This action was taken to reduce the threat to the coalition aircraft patrolling the southern no-fly zone and has no connection with 'Operation Enduring Freedom,'" in Afghanistan, the Central Command said in a statement.

*This article is based in part on wire service reports.*

Wall Street Journal  
November 28, 2001

## **Defense Firms Comb Through Their Arsenals To Find Products Fit For Homeland Security**

By Anne Marie Squeo, Staff Reporter of The Wall Street Journal

In a move away from their traditional role making bombs, ships and fighter jets, the nation's biggest defense companies are combing through their arsenals and pitching a number of technologies and products to help in the government's push for improved homeland security.

Although the newly created federal Office of Homeland Security hasn't officially requested proposals, the companies that make the products that defend America during war are pitching ideas on how to fortify security at home, both in the near term and in the future. Among these recommendations are sensors that can detect poisons in the air, electronic identification cards that can track foreign nationals in the U.S. and the development of data-collection systems capable of consolidating information from a number of sources, such as local health or emergency-management officials, to create a national picture.

"We've spent a lot of time and money on the defense side trying to ensure the world is fully integrated electronically," said Brian Dailey, senior vice president of Lockheed Martin Corp.'s Washington operations. "The irony is that we actually are not that prepared here at home."

Lockheed, the nation's largest military contractor, set up its own internal homeland-defense office after the Sept. 11 terrorist attacks to organize its efforts. Raytheon Co., Boeing Co., Northrop Grumman Corp., General Dynamics Corp. and TRW Inc. also are reviewing their own areas of expertise.

The Office of Homeland Security, headed by former Pennsylvania Gov. Tom Ridge, is reviewing suggestions that have been made. "We've gotten dozens and dozens of proposals from commercial businesses as well as private citizens," said Susan Neely, spokeswoman for the office. A team of policy analysts has been assembled to evaluate each "with an eye toward culling out great ideas," said Ms. Neely.

Still, company executives say the process for transmitting ideas is murky and it isn't clear how much money will be allotted for implementing any of them. While about half of the \$40 billion emergency supplemental money approved by Congress after the Sept. 11 terrorist attacks was tagged for homeland security, much of it is paying for things such as National Guardsmen at the nation's airports. Mr. Ridge's office, though it is drafting the security strategy, is dependent on other federal agencies to issue contracts for services that fall under their purview.

Ms. Neely said Mr. Ridge's strategy and the funding will be unveiled in two phases -- as part of the fiscal 2003 budget President Bush will send to Congress in January and in a longer-term plan set for release in the spring.

Officials at Lockheed said the sophisticated computer systems the company has already developed for a number of government agencies including the Federal Bureau of Investigation and the Social Security Administration could give it an advantage over rivals in integrating these systems into a nationwide database. Raytheon, TRW and others are pushing similar skills.

TRW has seen increased government interest in its emergency-management systems, said Philip Odeen, executive vice president of TRW's Washington operations. By pulling data from police and fire departments and other sources, these systems create a cohesive picture of an emergency situation. Mr. Ridge has endorsed the creation of such

systems, outlining Tuesday (see related article) an initiative to create a nationwide system to link local health officials and possibly tip off federal officials if someone is experimenting with biological or chemical weapons. Northrop officials are proposing that "smart cards," wallet-size electronic tags that can be loaded with personal identification information, fingerprints and other data, be used as part of a national ID system being considered by the government to track foreigners living in the U.S. General Dynamics officials said the U.S. post office already is testing an automated system, about the size of a carry-on suitcase, that continually tests the air for poisons such as anthrax. A spokesman for Boeing, the world's biggest maker of commercial jets, said the company already is doing homeland-security work for a number of government agencies, but declined to provide specifics.

### **Developing Defenses**

Some areas of homeland security on which defense companies are focused:

\*Information-gathering systems that consolidate data nationwide on emergencies, health concerns or visitors to the U.S.

\*Smart cards that could be loaded with identifying information about foreign nationals in U.S.

\*Biological/chemical sensors for detecting anthrax or other poisons at post offices, subway systems, or entire cities.

\*Cyber-security systems that can prevent attacks and respond quickly if a virus is launched on government and corporate computers.

\*Airport-security systems that can track individuals and their luggage the entire time they're in the airport.

New York Times  
November 28, 2001

## **2 Pakistanis Linked To Papers On Anthrax Weapons**

By Douglas Frantz with David Rohde

ISLAMABAD, Pakistan, Nov. 27 — Pakistan said today that it had detained two retired nuclear scientists after the recent discovery in offices they had used in Afghanistan of documents describing ways to use anthrax as a weapon and other suspicious material.

The scientists, Sultan Bashiruddin Mahmood and Chaudry Abdul Majeed, were first questioned in October after American intelligence officers expressed concern about trips the two had made to the Afghan capital, Kabul. They were interrogated about their ties to the Taliban.

After he retired from Pakistan's Atomic Energy Agency in 1998, Mr. Mahmood founded a private relief organization, Ummah Tameer-e-Nau, that operated in Afghanistan.

Documents from the organization's Kabul offices examined by The New York Times have been found over the past several days describing the history of anthrax and a Pentagon program to immunize all members of the United States military against anthrax attacks.

Also found were a box of gas masks, a diagram showing a plane shooting down a weather balloon and promotional material from militant Islamic groups. These findings were first reported last week in the British daily The Evening Standard.

Plans for building a balloon and what appeared to be a rocket were found on a piece of paper along with empty steel tubes and parts of a rocket-propelled grenade. A container of helium sat on a work bench.

The diagrams of the balloons seem to show a possible method for slowly dispersing some type of biological or chemical agent from the air. Words scribbled in the diagram appear to say "cyanide."

One diagram found in the Kabul offices show four balloons flying together in tandem with a box around them. The box appears to show how the agent would be dispersed across a wide area.

The house, like others in the Afghan capital apparently used by Osama bin Laden's terrorist network, Al Qaeda, seems to have been hastily abandoned when the Taliban fled Kabul two weeks ago. It is not clear who may have been in the house since then.

Referring to the scientists, Maj. Gen. Rashid Qureshi, the top Pakistani military spokesman, said today in Islamabad: "Both of them are under detention." He declined to elaborate, but officials said the new detentions related to the discoveries in Kabul.

The first arrest of the scientists last month was linked to American suspicions that Pakistan's nuclear weapons technology could have found its way into the hands of Osama bin Laden, Al Qaeda or the Taliban.

An American intelligence official said today that the first interrogation of the two Pakistani scientists has resulted in an assessment that Mr. Mahmood and Mr. Majeed did not know enough to help build a nuclear weapon. "These two

guys were nuclear scientists who didn't know how to build one themselves," the American official said. "If you had to have guys go bad these are the guys you'd want — they didn't know much."

Neither of the Pakistani scientists has been charged with any wrongdoing. Their families have said they are innocent and that their interest in Afghanistan was humanitarian. The families have written to government officials protesting their interrogation and earlier detention.

They had been released after the initial questioning in October, but remained under loose house arrest. The new detentions indicate that concern about their activities in Afghanistan have intensified.

Mr. Mahmood and Mr. Majeed worked for the relief organization, whose official purpose was to upgrade roads, build flour mills and carry out other projects to assist Afghanistan. Both spent a considerable amount of time in Afghanistan.

Maj. Gen. Qureshi, the military spokesman, said of their new detention: "When we have completed the investigation, I'm sure the details will be coming out."

The diagrams in the Kabul offices of the relief organization were detailed. One had an arrow pointing to a balloon and the word "wireless" written next to it, suggesting that some type of communications device might be used as a trigger. Other diagrams had the word "SAM-7" and "Stinger" written near the balloon, suggesting that the two types of anti-aircraft missiles could be fired at the balloon to get it to release its contents.

Nearly all of the information found about anthrax in the house came from the United States military. The copies of the military paper describing the anthrax immunization program and expansion of anthrax vaccine production in Michigan were all from original documents, not documents downloaded from the Internet.

Someone had written a half dozen stars across the top of the Michigan study, suggesting that they found it valuable. Whoever was conducting the research also effectively mined United States military Web sites for information. Copies of a printout of the first page of a military Web site devoted to better informing Persian Gulf war veterans with related illnesses were found in the house.

The site offers highly detailed descriptions of how Anthrax can be used as a weapon and spread through artillery shells, airplanes and trucks. It lists what size of anthrax dose kills people who have been immunized, and refers readers to more detailed academic studies on anthrax.

The house used by Mr. Mahmood's organization, one of three adjacent structures occupied by Pakistani scientists in the Wasi Akbar Khan section of Kabul, the city's wealthy diplomatic corner, it is an unremarkable two-story cinderblock home.

Books and toys suggest that children recently lived in the house. A young girl's second-grade English literature workbook lay on the living room floor surrounded by mounds of abandoned clothing. There was no hint of the effort underway in the workroom upstairs. Mr. Mahmood was a director-general of nuclear power plants for the Atomic Energy Agency and Mr. Majeed was once director of uranium-enrichment laboratories.

Pakistani officials said earlier that neither man was affiliated with its nuclear weapons program. President Pervez Musharraf of Pakistan repeated the denial in a television interview on Monday.

But Pakistani newspapers have reported that Mr. Mahmood was involved in developing the atomic bombs Pakistan tested in its western desert in May 1998. Western intelligence agencies estimate that Pakistan has a stockpile of about 20 nuclear weapons.

Shortly after the Sept. 11 attacks on the United States, a team of American law enforcement and intelligence officials raised the safety of Pakistan's nuclear weapons in discussions in Islamabad with Pakistani officials.

The papers and blackboard drawings found in a Kabul house appear to describe the Taliban's notions for dispersing biological and possibly chemical agents by balloons and other methods. Those concepts are backed up by rudimentary calculations and information from Department of Defense Web sites and at least one report prepared for the United States military on anthrax vaccines.

The report, prepared by Science Applications International Corporation, a private research firm with contracts with the Pentagon, was not classified, said Zuraidah Hashim, a spokeswoman for the firm, in Frederick, Md. It was titled "Renovation of Facilities and Increased Anthrax Vaccine Production at the Michigan Biologic Products Institute." "This report was not a how-to manual of any kind," Ms. Hashim said. "It was not a report that gave instruction of how to produce anthrax or anthrax vaccine." Instead, Ms. Hashim called it "an evaluation report" on the institute's vaccine program.

The papers also contained copies of Web pages with information on anthrax. An internet search on phrases on the pages quickly led to Department of Defense and other sites with relatively detailed information on anthrax and biological weaponry.

One page correctly explains the difference between cutaneous, gastrointestinal and inhalation anthrax and shows a photograph of former Defense Secretary William S. Cohen at a press conference holding a five-pound bag of sugar, which the caption indicates is the amount of anthrax needed to destroy half the population of Washington, D.C.

The drawings on a wallboard are more difficult to interpret, but they appear, in part, to illustrate the dispersal of an agent by balloons. Why the Taliban considered that concept is unknown, but terror experts said it was far from an ideal method.

For one thing, said Dr. Ashok Gadgil, a biological terror expert and senior staff scientist at Lawrence Berkeley National Laboratory, agents released outdoors would be so widely dispersed as to be useless in many circumstances. Pinpoint release of the agents over, say, a city, would be difficult with a balloon.

"It's a very poor way to release something that you hope to release at a particular urban site," Dr. Gadgil said. "It doesn't sound like a very good game plan."

U.S. News & World Report  
December 3, 2001

## Terror's Dirty Secret

### *Radioactive material, loosely guarded, makes a cheap weapon*

By David E. Kaplan and Douglas Pasternak

The cesium was missing. From a hospital in Greensboro, N.C., someone had pilfered 19 vials of radioactive cesium-137. It was March 1998, and in just weeks the city would host the regional NCAA basketball finals. Might a terrorist use the stolen material to disrupt the games? As FBI agents moved in, the U.S. Department of Energy quietly dispatched its antinuke teams, complete with radiation-detecting vans and helicopter. For days they scoured the city, but the vials were never found.

Officials had good reason to worry—then and now. Back in 1987, in Goiania, Brazil, a theft of cesium-137 from an abandoned clinic spread the radioactive metal across an entire neighborhood, killing four, contaminating 249 others, and forcing the destruction of 85 homes. The amount of cesium was minute—only 20 grams—but potent. More than 112,000 Goiania residents had to be tested; moon-suited workers hauled away 125,000 drums of contaminated refuse. And that disaster was unintended—scrap-yard workers had come upon the discarded stuff and passed some of it on to friends and family.

It may have been an accident, but the Goiania disaster suggests what can happen if such substances fall into the wrong hands. Osama bin Laden has long harbored nuclear ambitions, intelligence sources say. His al Qaeda operatives have tried to buy weapons-grade uranium, and they have sought expertise from Russian and Pakistani nuclear scientists. Notebooks found in al Qaeda houses in Kabul, Afghanistan, contain data on building an atomic bomb. While the terror chieftain boasted last month that he possesses a nuclear weapon, intelligence analysts doubt that al Qaeda has actually fashioned a fission device. (That success managed to elude the oil-rich Iraqis, who tried to build one for a good decade.) And even if bin Laden obtained a Soviet nuke, the weapons require complex arming codes that are highly secret and are not kept with the bomb. Figuring them out, says a knowledgeable U.S. official, "would be tough for our own people to do."

**Explosive mix.** Far easier, experts say, would be for bin Laden's wily operatives to fashion a crude radiological weapon. "He is going to build what we call a radiological dispersal device or 'dirty bomb' and mix it with explosives," predicts Edward Badolato, former director of security at the Department of Energy. Such a weapon would not produce a nuclear reaction; rather, radioactive particles, like those stolen in Goiania or Greensboro, would be scattered by something like TNT. With these threats in mind, the Department of Energy's elite antinuclear strike force—the Nuclear Emergency Support Team, or NEST—has "forward deployed" its members to key cities, U.S. News has learned. In addition, DOE scientists are modeling the impact of a range of terrorist nuclear attacks on big U.S. cities: everything from a 10-ton nuclear blast to a dirty bomb.

Dirty devices are not unheard of overseas. In 1998, officials in Chechnya defused a booby-trapped explosive attached to a container of radioactive material, according to Russian press reports. Three years earlier, Chechen separatists buried a 30-pound box of radioactive cesium near the entrance to a busy Moscow park and later threatened to blow up 167 pounds of the stuff. Nor would a dirty bomb be new to Islamic militants. Some terrorism experts, including former FBI deputy director Oliver "Buck" Revell, believe that al Qaeda associate Ramzi Yousef searched for radioactive waste to add to the explosive mix for the 1993 World Trade Center bomb.

Sources for radioactive material are plentiful. Two weeks ago in Siberia, for example, Russian police arrested two men attempting to sell radioactive cobalt stolen from an industrial plant. In the United States there are more than 2 million devices that use radioactive materials. Large amounts of radioisotopes are used in medicine to fight cancer

and for diagnosing various diseases. They are used by industry for moisture sensing, to examine pipe welds, and to irradiate food (and now anthrax-tainted mail). They are in smoke alarms, pacemakers, even exit signs.

No terrorist will cause much damage with smoke alarms and exit signs. But more dangerous radioactive materials are abundant and, say critics, government regulators have failed to ensure they are not misused. Since 1986, the NRC has recorded over 1,700 instances in which radioactive material has been lost or stolen. "Security of radioactive materials has traditionally been relatively light," says Abel Gonzalez, a top official at the United Nations' International Atomic Energy Agency. "There are few security precautions on radiotherapy equipment, and a large source could be removed quite easily."

In the United States today, there are thousands of lost, stolen, or discarded radioactive sources—dubbed "orphans" by regulators. No comprehensive registry exists of radioactive devices, but the NRC estimates that in America one new radioactive source is orphaned every day. About 50 of them are found by the public each year, along roadsides, in dumps, and at recycling centers, and many more may be on the way. Fully a quarter of America's 2 million radioactive devices are no longer needed or wanted by their owners, says former NRC health physicist Joel Lubenau. The situation is even worse overseas; former Soviet republics like Georgia and the region of Chechnya are littered with radioactive garbage, say officials. "We need to get these orphaned sources off the street," says Lubenau. The NRC is playing catch-up. Having found in the mid-1980s that 15 percent of users could not account for their radioactive devices, the NRC this year ordered that its licensees keep better records. The Environmental Protection Agency has also begun a pilot project to collect orphaned materials, but critics call it too little too late. "The genie really is out of the bottle," says Pennsylvania antinuclear activist Scott Portzline, who for years has urged federal officials to tighten oversight on the orphans.

**Good news.** While it may be easy to obtain radioactive materials and to fashion a device with them, therein lies some good news. Although recent press reports suggest the impact of a dirty bomb would be disastrous, with thousands killed and downtowns rendered uninhabitable, scientists say such scenarios are wildly exaggerated. "It is most likely that only a small area of a few city blocks would be involved," concludes a just released report by the National Council on Radiation Protection and Measurements. Casualties would be low, limited largely to those hurt by the blast itself and those nearby who ingest radioactive particles. Most dirty bombs would lack the kind of long-lived elements like plutonium that a nuclear blast releases. And the isotopes—in most cases heavy metals—would fall to the ground, where they could be cleaned up with common detergents. The cleanup would be monitored with Geiger counters. "It would not harm a lot of people from a human health perspective," says David Lochbaum, a nuclear engineer at the Union of Concerned Scientists. "But it would cause a lot of terror."

Terror, indeed, appears to be a dirty bomb's greatest attraction. The image of moon-suited crews with Geiger counters in a big city downtown is bound to cause panic. The economic costs would also be considerable. In the end, though, the sheer lethality of radioactive devices may be what stops terrorists from using them. To create an effective dirty bomb, one must extract the radioactive material from its shielding, exposing the terrorists to far worse radiation than their victims would receive. "That's why we wear dosimeters and use glove boxes and robots," says a NEST veteran. "The guy's going to irradiate himself, and we'll find him dead four days later."

New York Times  
November 28, 2001

## How Secure Is Pakistan's Plutonium?

By Mansoor Ijaz and R. James Woolsey

A deeply disturbing picture of terrorist intent has emerged in recent weeks as blueprints for building nuclear weapons have been discovered in the wreckage of abandoned Al Qaeda safe houses. These blueprints and other documents, while largely available in the public domain, sharpen the need for a vigorous American policy to deal with unsecured nuclear, chemical and biological materials. Even if terrorist manufacture of nuclear bombs is unlikely, substantial dangers remain of terrorists using radioactive material in low-tech "dirty" bombs.

The main nuclear security problem posed by Al Qaeda today is access to radioactive materials in Pakistan. However, for a decade we have focused on the former Soviet Union. Since the end of the cold war, approximately 175 incidents of smuggling or attempted theft of nuclear materials there have been thwarted. But the threat remains, as the Russian Defense Ministry reported on Nov. 6, when the last attempt at theft was made.

For Russia, a sensible solution is available — the Nunn-Lugar "cooperative threat reduction" program to improve the security of Russia's nuclear materials, technology and expertise. This week, the House Republican leadership



will decide whether to finance the next phase. The program is only 40 percent complete; finishing it will take another quarter of a century at the current rate of funding. It is past time to fully implement and finance this important legislation.

The Nunn-Lugar initiative can serve as a valuable precedent in addressing security problems in Pakistan. Neither Pakistan nor India has signed the Nuclear Non-Proliferation Treaty or the Comprehensive Test Ban Treaty. Nor has either country engaged in negotiations, under the auspices of the United Nations Conference on Disarmament, to protect against theft of fissile materials. This reluctance in India and Pakistan to recognize international norms, however, should not alter our resolve to improve the security of nuclear materials in South Asia.

While Islamabad is widely believed to have the material for 25 to 40 medium-yield bombs, most of its nuclear devices are kept in component parts, not as assembled warheads. The storage procedures, quite elaborate prior to Sept. 11, were altered again on Oct. 7 when the American bombing of Afghanistan began. Separately stored uranium and plutonium cores and their detonation assemblies were moved to six new secret locations around the country. The new storage patterns were designed to allow for rapid assembly and deployment, but attackers will nonetheless find it much more difficult to confiscate Pakistan's nuclear weapons. Even if Al Qaeda obtained radioactive materials from a sympathizer at one of Pakistan's plants for making weapons-grade nuclear materials, as some reports have suggested, the material would still have to be shaped into a fissionable core with detonation switches and delivery housings.

Such a complex effort would be difficult to carry out in an Afghan cave. But we can hardly count on terrorists always being under bombardment in caves.

Pakistan's nuclear command hierarchy, overhauled in 2000, was also revamped on Oct. 7 in the wake of a broad military-intelligence shake-up. Pakistan's president and army chief, Pervez Musharraf, created the strategic planning division and appointed a moderate general, Khalid Kidwai, to oversee Pakistani nuclear assets.

Self-policing, however, is not enough. Since 1990, American sanctions have blocked sale or transfer of any technology that might have a military use — including technologies that would improve nuclear security. American export license controls — and, where necessary, Non-Proliferation Treaty and Comprehensive Test Ban Treaty compliance rules preventing United States exports — should be waived to transfer the technology needed to protect Pakistan's nuclear arsenals and materials from unauthorized use.

The Bush administration should make available American vaults, sensors, alarms, tamper-proof seals, closed-circuit cameras and labels to identify, track and secure Islamabad's nuclear materials.

Such precautions would dramatically reduce the probability that even the most devoted bin Laden supporter inside a Pakistani nuclear enrichment facility would get very far in trying to deliver stolen uranium or plutonium to terrorists. There is a real risk that Pakistan's fanatics might collaborate with Al Qaeda; the plans, recently discovered in Kabul, for a helium balloon armed with anthrax have been attributed to a Pakistani nuclear scientist turned Taliban philanthropist. But the risk is manageable if we can help the Musharraf government focus on this threat, as Russia has done in the Nunn-Lugar cooperative threat reduction program.

Unless we follow such a course, we face the very real possibility of terrorist militias obtaining not just blueprints but the materials to fashion and detonate weapons of mass destruction. We also risk sharpening the debate in Pakistani military and political circles about whether its nuclear expertise should be shared with other Muslim countries. It is hard to think of two developments that are less in our interest.

*Mansoor Ijaz, a nuclear scientist, is chairman of Crescent Investment Management in New York; his father was an early pioneer in Pakistan's nuclear program. R. James Woolsey, an attorney, was director of central intelligence from 1993 to 1995.*

Congressional Quarterly Weekly

November 24, 2001

Pg. 2793

## **Lawmakers See Potential For New Spy Technology To Detect Weapons Of Mass Destruction**

By Chuck McCutcheon, CQ Staff

Congress wants the Bush administration to do more with a new and little-understood form of intelligence-gathering that can detect gases used in producing chemical weapons as well as heat emissions from caves harboring suspected terrorists.

Measurement and signatures intelligence, known in spy circles as MASINT, deals with identifying production of weapons of mass destruction and industrial activities through the use of infrared and radar sensors as well as computer systems.

The sensors and computers, located on ships, aircraft and satellites, can observe foreign missile tests, analyze smokestack discharges from factories and spot hidden evidence of drug cultivation.

Unlike other forms of intelligence, such as human spying, MASINT has only recently been considered a formal intelligence discipline.

The amount of money devoted to MASINT is classified. A Senate Intelligence report released earlier this year said the committee "has allocated a significant amount of additional funds over the last two years to bolster MASINT capability."

But Jeffrey T. Richelson, a senior fellow at the National Security Archive, a non-government group in Washington, said the level of spending remains considerably below what is given to other agencies such as the National Reconnaissance Office (NRO), which coordinates the collection and analysis of information from satellites and airplane reconnaissance, and the National Imagery and Mapping Agency (NIMA), which handles the dissemination of air imagery and map intelligence.

"One of the reasons it's gotten overlooked is that you don't have a large organization like the NRO or NIMA devoted to MASINT," Richelson said in a Nov. 19 interview.

Mark M. Lowenthal, a former House Intelligence Committee staff director who is a top official at SRA International Inc., a Virginia company that contracts with intelligence agencies, said MASINT also has suffered because intelligence agencies often do not understand how to properly analyze what it produces.

For example, he said an image of a plume of smoke coming from a building can be easily misinterpreted as "lousy imagery" if officials do not know what they are seeing.

"If I were in that office, the first thing I would do is get a rubber stamp that says, 'This is produced by MASINT,'" he said. "More than half the time, when you have people looking at it, they don't even know what it is."

### **Building Capability**

Some officials foresee a bright future for MASINT. Vice Adm. Thomas R. Wilson, director of the Defense Intelligence Agency, told the Senate Armed Services Committee in March that it "is crucial to maintaining coverage against global weapons of mass destruction and missile developments."

Gen. Tommy R. Franks, commander of the U.S. Central Command, who is overseeing the war in Afghanistan, said it also can help the military with battle damage assessments.

But Franks told the House Armed Services Committee in March that "the current lack of operational sensors and a formal architecture significantly reduces MASINT's ability to support military operations."

Two Senate Appropriations Committee members sought to add money this year for the planning and design of MASINT facilities in their states. The Senate version of the fiscal 2002 military construction bill (S 1460) included \$10 million for the facilities in Huntsville, Ala., home state of Richard C. Shelby, who also is the top Republican on the Senate Intelligence Committee, and Martinsburg, W.Va., home state of Democrat Robert C. Byrd.

However, the language was dropped in the conference report on the bill (HR 2904 - H Rept 107-246). (CQ Weekly, p. 2488)

In 1992 and 1993, the director of Central Intelligence and the Defense Department set up a central MASINT office within the Defense Intelligence Agency (DIA), the CIA's military counterpart. The office was upgraded in 1998 to a semi-autonomous organization attached to the DIA.

During debate Nov. 8 on the fiscal 2002 intelligence authorization bill (HR 2883), Senate Intelligence Committee Chairman Bob Graham, D-Fla., said he is awaiting a report from the intelligence community by year's end that will highlight recommendations on using MASINT. (CQ Weekly, p. 2691)

The report will serve as a starting point for the committee in deciding whether more money is needed or if intelligence agencies should be reorganized to take advantage of this new intelligence, Senate aides said.

"We expect that rebuilding our MASINT capability will be a priority item in next year's [intelligence authorization] legislation," Graham said.

In a Nov. 13 interview, Graham said MASINT could be effective in tracking terrorists, but offers even more potential in detecting evidence of weapons of mass destruction such as chemical and biological weapons.

"We haven't gotten out of the business of being concerned about weapons of mass destruction," he said. "Obviously terrorism has taken a new high priority, but we've still got other things to look at."

Several intelligence experts said other earlier studies already have pointed out the usefulness of MASINT, yet it still has not received the attention that other forms of intelligence have gotten in recent years. "I'm not sure that we need another study," Lowenthal said. "What you need to do is put some bureaucratic muscle and money behind MASINT."

Newsweek  
December 3, 2001  
Pg. 7

### Periscope

## **Bin Laden's Nuclear Ambitions—And Fears**

Secretary of Defense Donald Rumsfeld recently said it was "unlikely" that Osama bin Laden's terrorist network had a nuclear weapon. But U.S. officials are leaving nothing to chance. NEWSWEEK has learned that over the last several years, Customs inspectors who check cargo at U.S. entry ports have been quietly equipped with pagers containing a special feature: a Geiger counter that sounds whenever an inspector is near a source of radioactivity. About 4,000 inspectors have been given the belt-mounted beepers. So far, no wayward nukes have been discovered entering the country. But American Customs officials have also distributed pagers to officers in several former Soviet republics. On at least one occasion, foreign cops used the beepers to spot an illicit shipment of radioactive cobalt to Iran.

Although no specific threat of atomic terror against the United States has been received, Customs Commissioner Robert Bonner says, "I think we have to take the nuclear threat seriously." His inspectors are on what he calls "Level One" alert. Within the last month, they got a tip that a sea container was headed into a U.S. port carrying weapons of mass destruction. Inspectors descended on the container, Geiger counters at the ready, but came up empty.

Despite the discovery of purported nuclear manuals in Al Qaeda safe houses in newly liberated Kabul, U.S. intelligence officials say there is still no persuasive evidence that the bin Laden network has acquired the know-how to explode a nuclear bomb. They are, however, worried that Al Qaeda operatives could build a "dirty bomb," in which they would try to contaminate a wide area by blowing up a cache of chemical, biological or even nuclear materials with conventional explosives, spreading radioactive fallout, germs or nerve gas to the four winds. One former Qaeda member testified earlier this year about repeated attempts by bin Laden to purchase uranium on the open market. Officials say the former Soviet stockpile remains a particular source of concern: about 60 percent is not properly safeguarded.

During the 1990s, quantities of "weapons usable" nuclear materials sufficient to irradiate a significant area (but too small to make a bomb) were seized from would-be smugglers in Russia and other European countries including Germany, the Czech Republic and Bulgaria, U.S. intelligence officials say. Among the materials targeted by smugglers are various grades of uranium, including bomb-grade material, and small quantities of deadly plutonium. According to intelligence sources, bin Laden has also been preparing for a chemical or biological attack. German intelligence officials have told the United States that right before September 11, bin Laden ordered 200 gas masks and another 200 spacesuits designed to protect against attacks with chemical or biological weapons. The suits were supposedly delivered to bin Laden by one of his sons-in-law about a week before the 11th at a hideout near Milava, Afghanistan.

Western intelligence officials believe that bin Laden bought the suits because he feared a chemical or biological onslaught by the United States or its allies, not because he is planning to launch such an attack on Western forces. Some U.S. officials warn that the story about bin Laden's gas-mask purchase should be taken with "a grain of salt."

-- *Mark Hosenball, Michael Isikoff and Daniel Klaidman*

Wednesday November 28 3:49 PM ET

## **Bush Admin. to Buy Smallpox Vaccine**

By LAURA MECKLER, Associated Press Writer

WASHINGTON (AP) - The Bush administration has signed a contract to buy more than 150 million doses of smallpox vaccine, an official familiar with the negotiations said Wednesday.

The contract will bring the nation's stockpile to nearly 290 million doses, said the official, who spoke on condition of anonymity.

The government already has 15.4 million doses on hand, each of which will be diluted to create five doses, bringing the on-hand total to 77 million. An additional 54 million doses have already been ordered and are expected to be delivered next year.

The new contract will purchase just over 150 million more doses, the official said. He declined to say which of three companies in the bidding won the contract. The total cost will be less than the \$509 million that the administration has asked Congress to provide. That would put each dose at less than \$4.

Federal researchers have concluded that the smallpox vaccine now on hand can be effective if each dose is divided into five.

Health and Human Services ([news - web sites](#)) Secretary Tommy Thompson planned to announce the new contract after the stock market closed Wednesday.

In the running were Merck & Co., GlaxoSmithKline and a joint venture between British-based Acambis and Baxter International.

The U.S. arm of Acambis is making the 54 million doses now under HHS contract.

[http://dailynews.yahoo.com/h/ap/20011128/hl/smallpox\\_vaccine\\_6.html](http://dailynews.yahoo.com/h/ap/20011128/hl/smallpox_vaccine_6.html)

**Wednesday November 28 3:17 PM ET**

## **Progress Made on Anthrax Project**

*By PAUL RECER, AP Science Writer*

WASHINGTON (AP) - Hoping for clues to the anthrax attacks, researchers reported Wednesday that they are about halfway through efforts to compare genetic details of a killer strain with a laboratory version.

"We can now compare the (terrorism) strain to the standard laboratory Ames strain that we have," said Timothy D. Read, a researcher at the Institute for Genomic Research in Rockville, Md. "Basically we are midway through that work."

The private laboratory has a \$200,000 contract from the National Science Foundation ([news - web sites](#)) to sequence genes from a strain of anthrax recovered from a Florida man who died as a result of inhaling anthrax spores, probably from a letter mailed to his office. He was the first of five to die from inhaled anthrax.

Officials said spores of the same anthrax strain, called Ames, that killed Robert Stevens, 63, were mailed to two U.S. senators in Washington and to media offices in New York. Many offices and mail handling facilities have been contaminated by spores, and thousands of people have been treated with antibiotics.

Read said his lab has finished the first stage of sequencing the strain recovered from Stevens and now are looking among its 5 million DNA base pairs for sequences that subtly differ from the laboratory strain. These differences, comparable to fingerprints, could enable investigators to match the killer anthrax strain with anthrax cultures found in other labs.

In theory, the comparison could lead investigators to the specific batch of anthrax used to make spores that were sent through the mails, Read said.

He declined to say if his lab had found genetic differences that might be sufficient to match the killer strain with other forms of the organism.

"Once we have done the comparison, we will experimentally verify any differences before we make any information public, if we make any information public," Read said. "This will be a process that may take another month or so."

Other researchers have looked at eight highly variable segments of DNA in the bacteria and proved that all the mailed spores were of the Ames strain, a form of the microbe that has been used in military research.

Read said that only by looking at the gene sequences in much greater detail will it be possible for researchers to isolate and prove the specific source of the mailed anthrax.

Dr. Martin E. Hugh-Jones, a researcher at Louisiana State University, said that anthrax genetically is very stable and that there are very few genetic differences between one strain and another. This is unlike many other microbes that genetically change within just a few generations.

As a result, it is possible that many labs may have anthrax strains that are nearly identical twins to the strains in other labs. This would make it more difficult to nail down the specific laboratory that was the origin of the spores used in the anthrax bioterrorism, Hugh-Jones said.

“The question is does everybody have the same Ames or are there minor, minor differences that forensically can show the ownership,” said Hugh-Jones. “We don't know the answer. We are all crossing our fingers.”

[http://dailynews.yahoo.com/h/ap/20011128/us/anthrax\\_genes\\_1.html](http://dailynews.yahoo.com/h/ap/20011128/us/anthrax_genes_1.html)