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New York Times
February 7, 2004
Pg. 1

Bush Sets Panel On Intelligence Before Iraq War

By Douglas Jehl

WASHINGTON, Feb. 6 — President Bush created a bipartisan commission on Friday to investigate the quality of the intelligence used to justify the Iraq war and to address problems posed by weapons proliferation. He gave the panel until March 2005, well after the November elections, to submit its conclusions.

Mr. Bush selected Charles S. Robb, the former Democratic senator and governor from Virginia, and Laurence H. Silberman, a Republican appeals court judge who was named to his job by President Ronald Reagan, as chairmen of the commission.

The president named an eclectic group to serve on the panel, including Lloyd N. Cutler, a former confidant of President Bill Clinton, and Senator John McCain, Mr. Bush's bitter rival for the 2000 Republican presidential nomination. Only one, Adm. William O. Studeman, a former deputy director of central intelligence, brings extensive professional experience in intelligence matters.

Mr. Bush had strongly resisted the idea of appointing such a panel. He relented last weekend, however, under pressure from both parties, as the inability of American inspectors to find evidence of illicit weapons in Iraq emerged as a political liability.

In a hastily arranged appearance in the White House briefing room on Friday afternoon, Mr. Bush said the commission will "look at American intelligence capabilities, especially our intelligence about weapons of mass destruction."

Along with a speech on Thursday by George J. Tenet, the director of central intelligence, Mr. Bush's decision to name the panel represents an implicit acknowledgment that the prewar intelligence assessment that Iraq possessed illicit weapons may have included serious misjudgments.

With the panel not due to report its findings until March 2005, the naming of the commission may also help Mr. Bush to deflect election-year questions about why and how the administration and the intelligence community misread the Iraqi threat. But the panel's lack of experts in the murky world of intelligence gathering drew some immediate criticism.

"These are certainly prominent and well-respected Americans," said Jeffrey H. Smith, a former general counsel of the Central Intelligence Agency. "But it is in my view unfortunate that there are no former cabinet officers, no former commanders in chief and no former senior ambassadors on the panel. This is a group that has limited experience in dealing with intelligence and foreign policy at the highest levels."

On the campaign trail and in Congress, Democrats swiftly questioned whether the panel appointed by Mr. Bush would delve sufficiently into whether the president and his top aides misused intelligence in building a case for war against Iraq.

Senator Tom Daschle of South Dakota, the Democratic leader, issued a statement saying that "I still believe we need a comprehensive, genuinely independent inquiry to provide our troops and all Americans the answers they deserve." Others named to the panel include Richard C. Levin, the president of Yale University, and Patricia M. Wald, a Democrat who is a former appeals court judge who left the court to sit on an international tribunal investigating war crimes in the former Yugoslavia.

Two other members of what will be a nine-person group will be named later, Mr. Bush said.

In a written statement on Friday night, Mr. Robb said he looked forward to conducting "an independent review and assessment" of intelligence efforts.

In a separate statement, Judge Silberman said, "The country and the president must maintain confidence in the intelligence community, and I will do all I can to serve that goal."

American intelligence agencies are already under scrutiny from the House and Senate intelligence committees, which are examining their work on Iraq, and from the Congressionally appointed commission that is looking into the Sept. 11 attacks on the United States. Some of those inquiries may be completed before the presidential election in November.

Even so, the commission's extensive mandate gives its review of American intelligence agencies the potential to be the most significant since the inquiry completed in 1976 by the Senate select committee headed by Senator Frank Church, Democrat of Idaho.

Mr. Bush said the panel would be allowed complete access to intelligence agencies and to the work of the Iraq Survey Group, which is continuing its hunt for weapons in Iraq. He said it would seek "to figure out why" prewar intelligence about Iraq's illicit weapons had not yet been confirmed by facts on the ground.

More broadly, Mr. Bush said, the group "will examine intelligence on weapons of mass destruction and related 21st-century threats and issue specific recommendations to ensure our capabilities are strong." He said its work would include a look at intelligence on weapons programs in North Korea, Libya, Afghanistan and Iran. Mr. Bush did not mention Pakistan, which has emerged as the base for a black market for nuclear weapons materials.

The Church committee, which looked into abuses involving intelligence activities and recommended reforms for the future, was composed almost entirely of senators with extensive experience in intelligence matters, including Mr.

Church, then the chairman of the Senate intelligence committee, John Tower of Texas, Howard H. Baker Jr. of Tennessee and Walter F. Mondale of Minnesota.

The White House said over the weekend that the new commission would include people with extensive experience as producers and consumers of intelligence, and it had widely been expected in Washington that its members might include former directors of central intelligence or national security advisers.

But in naming two judges and a lawyer to the panel, Mr. Bush may have been acknowledging the intersections between intelligence and the law in a time in which individuals, rather than countries, have increasingly emerged as American foes. Judge Wald was a candidate to become attorney general in the Clinton administration.

Among other members, both Mr. Robb and Mr. McCain have served on Congressional committees that oversee intelligence agencies within the military and the intelligence community. Mr. Levin, the Yale president, is an economist and Rhodes scholar who attended Oxford University with Mr. Clinton and was President Bush's first overnight guest at the White House.

Mr. Bush created the commission by executive order, a step that deprived Congress of a role in choosing its members. A draft of the order that was released by the White House on Friday night said the commission would examine "whether American intelligence agencies are sufficiently authorized, organized, equipped, trained and financed to identify and warn in a timely manner" and able to support American responses to "the development and transfer of knowledge, expertise, technologies, materials, and resources" associated with illicit weapons and related threats of the 21st century.

<http://www.nytimes.com/2004/02/07/politics/07PREX.html>

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Washington Post

February 7, 2004

Pg. 1

Bush Names Commission On Iraq Data

President Concedes Analysis May Have Been Flawed

By Mike Allen, Washington Post Staff Writer

President Bush acknowledged for the first time yesterday that some prewar assessments of Iraq's weapons stockpiles may have been wrong, and he named a seven-member commission to investigate the nation's intelligence operations. Bush had resisted such a commission until pressure intensified from members of both parties. But he called for a report and recommendations by March 31, 2005, which is four months after he faces voters in the general election and two months after he leaves office if not reelected.

The chairmen will be former U.S. senator and Virginia governor Charles S. Robb, a Democrat who served on the Senate intelligence committee until his defeat in 2000, and Laurence H. Silberman, a federal appeals court judge and Republican who was deputy attorney general under presidents Richard M. Nixon and Gerald Ford.

The most sensitive part of the commission's charge is to study the information about Iraq that was available to the White House before the war, in an effort to determine whether an intelligence failure contributed to Bush's as-yet-unproved assertions that Saddam Hussein possessed weapons of mass destruction.

Bush, looking grim in a hastily scheduled afternoon appearance in the White House briefing room with Robb and Silberman, cited a statement by former U.S. weapons hunter David Kay in pointing out that "some prewar intelligence assessments by America and other nations about Iraq's weapons stockpiles have not been confirmed." "We are determined to figure out why," Bush said. "We're also determined to make sure that American intelligence is as accurate as possible for every challenge in the future."

Robb, son-in-law of former president Lyndon B. Johnson, and Silberman will be joined by Sen. John McCain (R-Ariz.); Lloyd N. Cutler, White House counsel to Presidents Jimmy Carter and Bill Clinton; Yale University President Richard C. Levin; Patricia M. Wald, former chief judge for the U.S. Court of Appeals for the District of Columbia Circuit; and retired Adm. William O. Studeman, former deputy director of the CIA and director of the National Security Agency.

Aside from Studeman, none of the commission members has significant intelligence experience, intelligence experts said. Studeman is a member of the Defense Science Board, which has been looking at ways to increase the Pentagon's role in intelligence gathering and operations.

Loch K. Johnson, a political science professor at the University of Georgia and an authority on the CIA, said he is disappointed the panel members "have not been deeply involved in contemporary intelligence issues."

"Where are the people who know about intelligence but have no axes to grind or institutional biases to reflect?" he said. "I don't see those people there."

Bush said the commission will look into the weapons programs of North Korea and Iran, two other secretive countries that have expressed nuclear ambitions. He said the panel will also examine intelligence on past threats posed by Libya and Afghanistan.

Libyan leader Moammar Gaddafi agreed in December to surrender his weapons of mass destruction, and investigators have since discovered he had an extensive nuclear program that went largely undetected by Western intelligence agencies.

"The commission I have appointed today will examine intelligence on weapons of mass destruction and related 21st-century threats and issue specific recommendations to ensure our capabilities are strong," the president said.

Democrats attacked Bush's decision to appoint all the members, instead of allowing Congress to name some of them as Senate Minority Leader Thomas A. Daschle (D-S.D.) and others have urged in recent days.

Sen. Tom Harkin (D-Iowa) said Bush's handpicked appointments "to investigate his own administration . . . creates the appearance of a cozy inside job." House Minority Leader Nancy Pelosi (D-Calif.) called it "a commission wholly owned by the executive branch investigating the executive branch."

Bush pushed the due date for the commission's report until more than 13 months from now because, aides said, he did not want the probe to become embroiled in election-year politics. British Prime Minister Tony Blair announced a similar commission this week and called for its report by July.

Concerns over intelligence gathering have become a central theme of the presidential campaign, with Democratic contenders challenging Bush's conclusions about Iraq's weapons capabilities.

The formation of the commission came a day after CIA Director George J. Tenet gave a speech at Georgetown University in which he defended U.S intelligence gathering and said that although CIA analysts made mistakes about Iraq, they never said the nation posed an "imminent threat."

A Republican official involved in the commission's selection process said yesterday's announcement was part of a White House "strategy to seize the initiative on this issue -- part defense, but partly trying to get to higher ground again" since Kay's statements last month after he resigned as head of the CIA-led Iraq Survey Group.

White House press secretary Scott McClellan declined to answer a question yesterday about accountability for prewar intelligence, saying he did not want to "prejudge" the commission and the continued work of the Iraq Survey Group. "The president, obviously, will look forward to the work of the independent commission," McClellan said. Republican sources said Vice President Cheney, whose allegations about Hussein helped build support for the war with the public and on Capitol Hill, vetted possible panel members. "He was very involved," a friend said. Cheney talked privately with McCain about serving even before the White House acknowledged it was considering a panel, the sources said.

The selection process appeared troubled, especially for a White House that prides itself on efficiency. The commission was to have nine members and was to be named earlier this week. Bush named seven and said he would fill two other slots later.

Robb did not have his first conversation with the White House until 8:30 a.m. yesterday, Democratic sources said.

The sources said Thomas S. Foley (D-Wash.), a former speaker of the House, turned down an invitation to serve on the panel. A call to Foley was not returned.

Bush signed an executive order creating the panel, formally known as the Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction.

The order said the panel will "examine the Intelligence Community's intelligence prior to the initiation of Operation Iraqi Freedom and compare it with the findings of the Iraq Survey Group and other relevant agencies or organizations concerning the capabilities, intentions, and activities of Iraq relating to the design, development, manufacture, acquisition, possession, proliferation, transfer, testing, potential or threatened use, or use of Weapons of Mass Destruction and related means of delivery."

The order said the commission will have an executive director and other staff.

Staff writer Dana Priest contributed to this report.

<http://www.washingtonpost.com/wp-dyn/articles/A20286-2004Feb6.html>

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New York Times

February 7, 2004

Agency Alert About Iraqi Not Heeded, Officials Say

By Douglas Jehl

WASHINGTON, Feb. 6 — An Iraqi military defector identified as unreliable by the Defense Intelligence Agency provided some of the information that went into United States intelligence estimates that Iraq had stockpiles of biological weapons at the time of the American invasion last March, senior government officials said Friday.

A classified "fabrication notification" about the defector, a former Iraqi major, was issued by the D.I.A. to other American intelligence agencies in May 2002, but it was then repeatedly overlooked, three senior intelligence officials said. Intelligence agencies use such notifications to alert other agencies to information they consider unreliable because its source is suspected of making up or embellishing information.

Because the warning went unheeded, the officials said, the defector's claims that Iraq had built mobile research laboratories to produce biological weapons were mistakenly included in, among other findings, the National Intelligence Estimate of October 2002, which concluded that Iraq most likely had significant biological stockpiles. Intelligence officers from the D.I.A. interviewed the defector twice in early 2002 and circulated reports based on those debriefings. They concluded he had no firsthand information and might have been coached by the Iraqi National Congress, the officials said. That group, headed by Ahmad Chalabi, who had close ties to the Pentagon and Vice President Dick Cheney, had introduced the defector to American intelligence, the officials said.

Nevertheless, because of what the officials described as a mistake, the defector was among four sources cited by Secretary of State Colin L. Powell in his presentation to the United Nations Security Council last February as having provided "eyewitness accounts" about mobile biological weapons facilities in Iraq, the officials said. The defector had described mobile biological research laboratories, as distinct from the mobile biological production factories mounted on trailers that were described by other sources.

The intelligence about the mobile facilities was central to the prewar conclusion that Iraq was producing biological arms, senior intelligence officials have said. No such arms or production facilities have been found in Iraq since the war, and David A. Kay, the former chief weapons inspector, has said he believes that Iraq never produced large stockpiles of the weapons during the 1990's.

Soon after the invasion, American troops in Iraq discovered suspicious trailers that were initially described by the Central Intelligence Agency as having been designed as factories for biological weapons. But most analysts have since concluded that they were used to make hydrogen for military weather balloons.

Dr. Kay reported in October that American inspectors had found "a network of laboratories and safe houses controlled by Iraqi intelligence and security services" that contained equipment for chemical and biological research. But American officials have not described any discovery of the mobile laboratories described by the Iraqi major.

In his speech at Georgetown University on Thursday, George J. Tenet, the director of central intelligence, provided the first hint that the prewar intelligence on Iraq had been tainted by evidence previously identified as unreliable. Apparently alluding to the Iraqi military defector, Mr. Tenet said intelligence agencies had "recently discovered that relevant analysts in the community missed a notice that identified a source we had cited as providing information that, in some cases was unreliable, and in other cases was fabricated." Mr. Tenet went to say, "We have acknowledged this mistake."

In interviews on Friday, intelligence officials described the episode as a significant embarrassment. They said the information provided by the defector had contributed significantly not only to the National Intelligence Estimate but to Mr. Powell's presentation to the United Nations last Feb. 5.

"He was either making it up or he heard somebody else talking about it," one intelligence official said of the information the defector had provided, "but he didn't know what he was talking about." The official said the notification circulated by the D.I.A. had advised other agencies "that the information that this guy provided was unreliable."

In a related matter, the intelligence officials acknowledged that the United States still had not been able to interview two other people with access to senior Iraqi officials, and whose claims that Iraq possessed chemical and biological stockpiles were relayed to American officials in September 2002 by two foreign intelligence services.

<http://www.nytimes.com/2004/02/07/politics/07INTE.html>

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London Financial Times
February 7, 2004

Libya Had Sizeable Chemicals Weapons Programme

By Stephen Fidler

Libya had a "significant and substantial" chemical weapons programme, the head of the international chemical weapons watchdog said yesterday.

Rogelio Pfirter, director general of the Organisation for the Prohibition of Chemical Weapons, said experts from his organisation would help Tripoli prepare a complete inventory of the Libyan programmes in readiness for a Libyan declaration of its stocks by March 5.

He was speaking from Tunis following a visit to Tripoli, where he met Abdurrahman Shalgam, Libyan foreign minister. He said Libya's had been a "farsighted and courageous decision to join the international community in upholding the ban on chemical weapons".

Mr Pfirter said that his organisation was not yet in a position to verify what Libya possessed. But he said he understood Libya had mustard agent, and munitions specially adapted for its delivery. "My understanding is that they have not been weaponised," he said. He also understood Libya to possess precursor chemicals for other chemical agents.

Libya formally became a member of the Chemical Weapons Convention on Wednesday as a part of its surprise announcement in December of its decision to renounce weapons of mass destruction. Under the convention, Libya is expected to provide a list of suppliers to its programme.

Mr Pfirter said he expected Libya would be able to comply with the convention's deadline for the destruction of the material in 2007.

* British and US officials yesterday met a Libyan delegation in London to help normalise relations with the former pariah state.

The meeting helped prepare the way for a visit next week by Abdurrahman Shalgam, Libya's foreign minister.

http://search.ft.com/search/article.html?id=040207001037&query=Libya+Had+Sizeable+Chemicals+Weapons+Programme&vsc_appId=totalSearch&state=Form

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Philadelphia Inquirer

February 7, 2004

U.S. Program To Secure Enriched Uranium Is Called Slow

Experts warn that terrorists could steal Russian supplies and build nuclear bombs relatively easily.

By Steve Goldstein, Inquirer Washington Bureau

WASHINGTON - A U.S. program to buy highly enriched uranium stockpiles from Russia is moving too slowly, experts warn, raising the specter of this material falling into terrorists' hands.

"We are treating this in a workmanlike way, chipping away at the problem, when we should be racing toward a solution," said Michele Flournoy, a former Pentagon official who dealt with nuclear proliferation and is now at the Center for Strategic and International Studies.

The U.S. has acquired about one-third of 500 tons of highly enriched uranium. Critics contend that the slow pace of the program accommodates commercial pressures at the expense of security.

Prominent scientists and nuclear experts believe the theft of this material would enable terrorists to construct with relative ease a nuclear bomb with the destructive force of the Hiroshima blast.

"The only barrier to producing a functioning nuclear bomb is the material," said Laura Holgate, a former Pentagon and Energy Department official.

The warning comes at a time when Pakistan is believed to have sold nuclear technology to Iran and while investigators for the International Atomic Energy Agency have said that Libya's hunt for nuclear weapons benefited from a black market that sold weapons designs, technical aid and critical hardware.

At the root of the problem is HEU - uranium in which the concentration of the isotope U-235 is 20 percent or more.

As a practical matter, weapons-grade HEU contains more than 90 percent U-235.

HEU, and not plutonium, is the only material that allows for the easy manufacture of crude nuclear explosives.

Detection at border crossings or checkpoints is difficult due to the low levels of radiation emitted. For the same reason, the handling of HEU poses minimal health hazards.

'More than enough'

"It is actually quite easy to manufacture a nuclear explosive device if there is a sufficient amount of HEU," said Francesco Calogero, a professor of theoretical physics at the University of Rome.

Calogero noted that, in contrast to a military weapon, a primitive nuclear bomb need not be transportable or sturdy or have any precise yield or security features.

One hundred kilograms of HEU "will be more than enough" to build a primitive device, and smuggling this amount is relatively easy, amounting to less than 10 liters in volume - about the size of a small TV set.

Other experts say that about 50 kilograms is really all that is needed, and far less than that amount for a "very sophisticated" device. Such a device would have the destructive power of the 13-kiloton "Little Boy" bomb that destroyed Hiroshima.

Russia alone has more than one million kilograms of HEU.

'Insurmountable'?

Calogero and other well-known scientists, including Frank von Hippel of Princeton University, this month submitted a proposal to curtail the availability of HEU.

Albert Narath, former director of Sandia National Laboratories in Albuquerque, N.M., where nuclear weapons are manufactured, has written that only an effective worldwide system of controls of fissile materials can protect the world from nuclear terrorism.

"The technical barriers standing in the way of sub-national nuclear-weapon development are substantial but not likely to be insurmountable given sufficient time and resources," Narath said.

So what is being done to secure the world's stocks of HEU?

The largest amount of HEU that has not been used in a reactor is found in Russia, and the estimated stock is 1,000 to 1,400 tons, or enough to make tens of thousands of nuclear warheads.

Less than 40 percent of the material potentially vulnerable to theft has been covered by physical security upgrades in Russia funded by the United States, according to a study by the General Accounting Office.

In 1993, the United States and Russia concluded an agreement whereby the United States agreed to buy 500 tons of HEU from Russia and dilute it to low-enriched uranium to be used as fuel in American nuclear reactors.

The program sputtered for the first several years - one official characterized its survival as akin to the Perils of Pauline movie serials - but finally got on track in 1998. About 170 tons of HEU - the equivalent of 8,000 nuclear warheads - has been converted, according to the Bethesda, Md.-based U.S. Enrichment Corp., a privatized company originally created by the government for this purpose.

Unfortunately, due to commercial considerations, the "megatons to megawatts" program is stretched out over 20 years - concluding in 2013 - in order not to deflate the price of low-enriched uranium, Calogero said.

"It's the material, stupid," said Holgate, who now works for the Nuclear Threat Initiative, a nonprofit foundation dedicated to reducing the threat from weapons of mass destruction.

Along with Russian and U.S. officials, NTI is exploring the possibility of taking an additional 30 tons per year of Russian HEU out of circulation, blending it down to below weapons-grade enrichment, and then storing it until it can be further de-enriched and sold to nuclear utilities worldwide. A decision on whether this is feasible is expected early next year, Holgate said.

Holgate frets that thieves or smugglers may eventually succeed in giving HEU to terrorists.

"Terrorists like al-Qaeda want to kill as many people as possible," she said. "They are not interested in a seat at the bargaining table."

A senior administration official said that "hundreds of millions of dollars" would have to be allocated by Congress to speed the process. "We are doing as much as can prudently be done as a commercial matter," the official said.

A related but separate effort is being directed at the G-8's "Global Partnership," which pledged \$20 billion over 10 years to prevent terrorists from acquiring weapons of mass destruction.

The process of moving from pledges to actual projects has been "frighteningly slow - a failure of political will by all parties," Holgate said.

<http://www.philly.com/mld/inquirer/news/nation/7896183.htm>

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Washington Post

February 8, 2004

Pg. 1

At Least 7 Nations Tied To Pakistani Nuclear Ring

By Peter Slevin, John Lancaster and Kamran Khan, Washington Post Staff Writers

VIENNA, Feb. 7 -- The rapidly expanding probe into a Pakistani-led nuclear trafficking network extended to at least seven nations Saturday as investigators said they had traced businesses from Africa, Asia and Europe to the smuggling ring controlled by Pakistani scientist Abdul Qadeer Khan.

Three days after Khan confessed on television to selling his country's nuclear secrets, Western diplomats and intelligence officials said they were just beginning to understand the scale of the network, a global enterprise that supplied nuclear technology and parts to Libya, Iran, North Korea and possibly others.

"Dr. Khan was not working alone. Dr. Khan was part of a process," said Mohamed ElBaradei, director of the International Atomic Energy Agency, the Vienna-based U.N. agency that is conducting the probe along with U.S. and other Western intelligence agencies. "There were items that were manufactured in other countries. There were items that were assembled in a different country."

Meanwhile, Pakistani officials disclosed that they had launched their own probe of Khan's activities in October after the Bush administration presented what one senior official described as "mind-boggling" evidence that Khan was

peddling nuclear technology and expertise to Iran, Libya and North Korea, and had attempted to do the same with Iraq and Syria.

The evidence included detailed records of Khan's travels to Libya, Iran, North Korea and other nations, along with intercepted phone conversations, financial documents and accounts of meetings with foreign businessmen involved in illicit nuclear sales, the Pakistani officials said.

Pakistan's president, Gen. Pervez Musharraf, was personally briefed on the evidence on Oct. 6 by a U.S. delegation led by Deputy Secretary of State Richard L. Armitage. Gen. John Abizaid, the head of U.S. Central Command, made a similar presentation to Pakistani political and military leaders, the officials said.

"This was the most important development for us since 9/11," one of the Pakistani officials said. "One more time, the ball was in the court of General Pervez Musharraf."

Khan, known in Pakistan as the creator of the country's atomic bomb, acknowledged in the televised statement Wednesday that he had passed nuclear secrets to others, saying that he acted without authorization from his government. A day later, Musharraf pardoned Khan.

U.S. and U.N. investigators say Khan's nuclear trading network represents one of the most egregious cases of nuclear proliferation ever discovered. Using suppliers and middlemen scattered across three continents, the network delivered a variety of machines and technology for enriching uranium, a key ingredient in nuclear weapons. In the case of Libya, at least, it provided blueprints for the bombs themselves.

Khan's network provided "one-stop shopping" for nuclear technology and parts, said a senior U.S. official, who described how supply met demand in what amounted to a centralized ordering system.

"If I want to buy an IBM computer, I don't have to go to every single element of IBM," the official said, by way of analogy. "I can go to their salesman, and he fixes me up just fine."

Diplomats familiar with the Pakistan operation say Khan and his closest associates were the "salesmen" who filled orders for Libya and other customers. In the case of Libya, representatives of Libyan leader Moammar Gaddafi contacted the Pakistanis, who relayed the requests to middlemen.

The middlemen, in turn, found suppliers to produce the necessary components. Finished parts were then shipped to a firm in the Persian Gulf emirate of Dubai, which arranged for delivery to Libya. The interception of a significant shipment of components in Italy last fall led to Gaddafi's decision to eliminate his nonconventional weapons programs, U.S. officials contend.

Companies or individuals in at least seven countries, including Pakistan, were involved, knowledgeable officials said. Among the countries known to be involved are Malaysia, South Africa, Japan, the United Arab Emirates and Germany. A company in another European country was also involved, two diplomats said.

The commodities produced for Libya ranged from electronics and vacuum systems to high-strength metals used in manufacturing gas centrifuges, which are used in making enriched uranium.

"It was a remarkable network that was able in the end to provide a turn-key gas centrifuge facility and the wherewithal to make more centrifuges," said former IAEA inspector David Albright, a physicist who has studied the nuclear procurement networks of Iran and Libya. "The technology holder was always Khan. Suppliers came and went, but Khan was always there."

Libya and Iran have already given investigators the names of many of the companies and middlemen involved, and are continuing to offer more, according to Western diplomats familiar with the investigation.

Two German businessmen identified by Libya as alleged suppliers of centrifuge technology -- Otto Heilingbrunner and Gotthard Lerch -- have been interviewed by IAEA investigators but not charged with any crimes, according to two officials close to the investigation. A third German named by Libya, Heinz Mebus, is now deceased. All were formerly employed by companies that manufacture equipment used in gas centrifuges.

Heilingbrunner, reached by phone at his home in southern Germany, said he tried to sell aircraft parts to Iran in the 1980s, but said he never sold nuclear technology to anyone.

"I never did business with this junk," said Heilingbrunner. "I do not know how they came up with me." A senior Bush administration official said the Khan connection may have provided everything Libya acquired for its nascent nuclear program, including weapons designs. The designs were later handed to U.S., British and IAEA officials in Tripoli and are now being studied in the United States.

The disclosure of Armitage's October visit by Pakistani officials provides new details of a claim made this week in a speech by CIA Director George J. Tenet. Tenet said the intelligence agency had successfully penetrated Khan's network long before the IAEA went to Pakistan in November with evidence of illicit technology transfers to Iran.

Two Pakistani officials said Armitage presented the case against Khan and several other associates during a meeting with Musharraf at his official army residence in the city of Rawalpindi. The Americans asked Pakistan to verify the information independently and to take action against those involved, the officials said.

"We were told that Pakistan's failure to take action will most certainly jeopardize its ties with the United States and other important nations," one of the Pakistani officials said. The U.S. officials warned Pakistan that failure to act on the information could lead to sanctions by the United States and the United Nations.

Musharraf was said to be stunned by the detailed evidence against Khan and his associates. "It seemed that the Americans had a tracker planted on Khan's body," a Pakistani official said. "They know much more than us about Dr. Khan's wealth spread all over the globe."

Among other things, he added, the U.S. officials presented evidence of Khan's alleged attempts to sell nuclear secrets to Saddam Hussein when he was president of Iraq and reported that Khan had traveled to Beirut for a clandestine meeting with a top Syrian official in the mid-1990s.

During the second week in November, an Iranian delegation led by a deputy foreign minister, Gholam Ali Khoshru, arrived in Islamabad, according to a third senior Pakistani official.

"They used a very careful formulation," the official recalled of the visit. "They said they had acquired components and designs in '87 from the black market -- they mentioned Dubai -- and said two of the individuals involved were of South Asian origin, though not from the same country. They hinted they were under scrutiny from the IAEA and would have to make these declarations" about who had supplied the technology.

Shortly afterward, the IAEA delivered its findings on Iran in a two-page letter, and Pakistan's investigation began in earnest. Musharraf ordered the Inter-Services Intelligence agency (ISI) and Strategic Planning and Development Cell to check out the evidence that had been provided by the United States and the U.N. agency, the officials said. ISI officials traveled to Malaysia, Dubai, Iran and Libya and "found that evidence against Dr. Khan was accurate," one of the officials said.

Staff writer Joby Warrick in Washington and researcher Shannon Smiley in Berlin contributed to this report. Lancaster reported from Islamabad and Khan from Karachi.

<http://www.washingtonpost.com/wp-dyn/articles/A22508-2004Feb7.html>

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Baltimore Sun

February 8, 2004

7 Pounds Of Cyanide Found In Raid Of Baghdad House

It may have been intended for attacks on U.S. forces

By Associated Press

WASHINGTON - U.S. forces in Iraq found seven pounds of cyanide during a raid late last month on a Baghdad house believed connected to an al-Qaida operative, U.S. officials said.

The cyanide salt was in either one or several small bricks, and U.S. officials said they believe it was to have been used in an attack on U.S. or allied interests. Cyanide is extremely toxic and can be used as a chemical weapon, although it was unclear if the cyanide was in a form that could be used that way easily.

The raid took place Jan. 23, a defense official said, speaking on condition of anonymity. It was unclear if anyone was captured in the raid. Parts for making bombs also were found in the house, the defense official said.

The house was inhabited by a suspected subordinate of Abu Musab Zarqawi, U.S. officials said. Zarqawi is a Jordanian whom CIA officials have described as a senior associate of Osama bin Laden.

Zarqawi is believed to have tried to direct al-Qaida operations inside Iraq, although it is unknown if he is in the country now.

He also is connected with Ansar al-Islam, an Islamic extremist group from northern Iraq. He and his followers are believed to have sought cyanide and other chemical weapons for use in attacks in the past, American officials say.

U.S. officials say they have increasing evidence to suggest Zarqawi has had a hand in multiple attacks in Iraq, including those on a mosque in Najaf, the U.N. headquarters in Baghdad and Italy's paramilitary police station in Nasiriyah.

Another alleged al-Qaida member, Hassan Ghul, detained this year while trying to enter northern Iraq, is believed to have met with Zarqawi to plan attacks against U.S. and coalition forces, said another U.S. official speaking on condition of anonymity.

Now in U.S. custody, Ghul is believed to be cooperating with interrogators. He is known as a facilitator who can move people and money around and is the highest-ranking member of al-Qaida to have been arrested in Iraq.

The U.S. official said Ghul also is thought to have worked closely with Khalid Shaikh Mohammed, who officials say masterminded the Sept. 11, 2001, attacks.

The official said attacks in Iraq for which Zarqawi is a suspect include a truck bomb in August that hit U.N. headquarters in Baghdad; a car bomb that exploded outside a mosque in the Shiite Muslim holy city of Najaf; and a suicide truck bombing in November that devastated Italy's paramilitary police headquarters in Nasiriyah.

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Washington Times

February 9, 2004

Pg. 1

Intelligence Hit Mark On Nuclear Ambitions

By Rowan Scarborough, The Washington Times

U.S. intelligence agencies may have wrongly estimated Iraqi weapons stockpiles, but on other key assessments — such as Saddam Hussein's nuclear ambitions — the CIA was right, say current and former government officials. Proponents of ousting the Iraqi dictator say the fact Saddam was actively seeking an atomic bomb and operating chemical and biological programs were sufficient reasons to go to war.

The main benchmark for judging the CIA is a National Intelligence Estimate (NIE) completed in October 2002 and partially declassified by the White House in July.

The NIE — which is a consensus, but not a unanimous finding — by the CIA and other intelligence agencies, offered several main points: that Iraq possessed stockpiles of chemical and biological weapons; that it was reconstituting its nuclear-bomb research and that Saddam still wanted atomic weapons; that it was producing missiles beyond the range allowed by United Nations resolutions; and that research continued into chemical and biological agents.

On the first point, David Kay, who resigned last month as chief CIA weapons inspector in Iraq, concluded the Bush administration was wrong. He said the group he ran, the Iraq Survey Group, found no evidence of stockpiles of chemical or biological weapons since the 1990s. (CIA Director George J. Tenet says inspections continue and that the jury is still out.)

But on the nuclear issue, Mr. Kay said the CIA was right on some important points. The NIE said: "If Baghdad acquires sufficient fissile material from abroad, it could make a nuclear weapon within several months to a year."

Mr. Kay, at a Senate Armed Services Committee hearing, said: "If they managed to acquire a sufficient amount of plutonium or high-enriched uranium from a place like the former Soviet Union stockpile, how long would it take to fashion that into a nuclear explosive device? And I think that estimate was actually fairly conservative."

He added, "Fortunately, from my point of view, Operation Iraqi Freedom intervened, and we don't know how or how fast that would have gone ahead."

The NIE stated that "reconstruction is under way" of the Iraq nuclear program.

Mr. Kay seemed to side with this view. "It was in the early stages of renovating the program, building new buildings," he said. "It was not a reconstituted, full-blown nuclear program."

In addition to beginning the construction of sites to build atomic bombs, Iraq had brought together nuclear scientists who were already working together and conducting experiments.

In 1991, Iraqi officials since have acknowledged, Baghdad was perhaps less than a year away from producing sufficient fissile material to produce Saddam's first nuclear bomb. The Desert Storm air war, and subsequent U.N. inspectors, foiled those plans.

"Given their history," Mr. Kay said, "it was certainly an emerging program that I would not have looked forward to their continuing to pursue. It was not yet up as a full nuclear-production site again."

The NIE also stated, "Iraq is continuing, and in some areas expanding, its chemical, biological, nuclear and missile programs contrary to U.N. resolutions."

On the missile issue, Mr. Kay found the NIE was correct.

"The missile program was actually moving ahead," he testified. "I think you will have ... pretty compelling evidence that Saddam had the intention of continuing the pursuit of [weapons of mass destruction] when the opportunity arose, and that the first start on that, the long pole in the tent, was this restart of the long-range missile program."

Mr. Kay, while not finding stockpiles, found proof that Saddam had programs in place to restart production of chemical and biological weapons. For example, Mr. Kay discovered a program to find a substitute for a precursor for deadly VX nerve agent. And there was research into the deadly anthrax germ. "That's WMD-related work," he said.

All such work violated U.N. resolutions.

Daniel Gallington, an analyst at the conservative Potomac Institute and former counsel to the Senate Intelligence Committee, said Baghdad became skilled in the 1990s at counterintelligence that kept the CIA from developing spies.

"What's 'right' is relative," Mr. Gallington said. "We always have to go with the most dangerous possible scenario with these guys. The one that troubles me most is that Saddam did know we were going to invade and he sent

[weapons material] to possibly Syria. So, if you can't find it in country and you can't figure out how or where he disposed of it, then we should be looking elsewhere. It is extremely dangerous that we can't precisely account for any of it, at all. This is the point that all the commentators, in and out of government, seem to be missing." <http://www.washtimes.com/national/20040209-122516-8754r.htm>

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New York Times

February 9, 2004

Libya's A-Bomb Blueprints Reveal New Tie To Pakistani

By William J. Broad

Investigators have determined that the nuclear weapon blueprints found in Libya from the Pakistani scientist Abdul Qadeer Khan were of his own relatively crude type of bomb — not the more advanced models that Pakistan developed and successfully tested, American and European arms experts have said in interviews.

The analysis of the blueprints, which establish a new link between Dr. Khan and the underground nuclear black market now under global scrutiny, has heartened investigators in Europe and the United States because his design is seen as less threatening in terms of the spread of nuclear weapons.

"If you had to have a design circulating around the world, we'd be worse off if it was a design other than Khan's," said an American weapons expert who is familiar with the Libyan case.

However, European and American investigators said they feared that Dr. Khan and his network of shadowy middlemen might have peddled the weapon blueprints to other nations in deals that have not yet come to light. They also said the Libyan findings gave new credence to what was apparently an attempt by Dr. Khan more than a decade ago to sell a nuclear weapon design to Iraq.

Pakistani officials have focused their recent disclosures on Dr. Khan's illicit spread of equipment to enrich uranium to produce nuclear fuel, and have said little or nothing of the blueprints for a nuclear warhead that went to Libya, which are considered more sensitive. To the amazement of inspectors, the blueprints discovered in Libya were wrapped in plastic bags from an Islamabad dry cleaner.

"The Libyans said they got it as a bonus," an official said of the plans.

The centrifuge equipment and warhead designs from Dr. Khan's laboratories in Pakistan were discovered in Libya after the country's leader, Col. Muammar el-Qaddafi, agreed to dismantle his secret nuclear program, opening it to United States and United Nations nuclear officials.

Late last month, a 747 aircraft was chartered by the United States government for the sole purpose of carrying the small box with the warhead designs from Libya to Dulles airport near Washington. They are now undergoing analysis.

The American weapons expert said Western analysts, while relieved to find that the blueprint was of Dr. Khan's design, were not overjoyed. "A bad bomb is still a nuke," he said. "It can still do pretty terrible things to your city." Dr. Khan is known in Pakistan as the father of the Pakistani bomb or the founder of its nuclear weapons program, but Western experts say the credit is not all his. A metallurgist, he is an expert at building centrifuges — hollow metal tubes that spin very fast to enrich natural uranium in its rare U-235 isotope, which is an excellent bomb fuel. His mastery of the difficult art proved vital to Pakistan's acquiring a nuclear arsenal.

But other Pakistani scientists, Western experts said, had far greater success in turning the enriched uranium into nuclear warheads.

To develop the armaments, the American expert said, Pakistan ran "two parallel weapons programs, one good and one bad; Khan ran the bad one." Dr. Khan's weapon was inferior in terms of such as things as size, power and efficiency. The Pakistan Atomic Energy Commission, the nation's official authority for nuclear development, ran the more successful program.

All Pakistan's atom bombs resemble designs that China tested in the late 1960's and passed on to Pakistan decades ago, European and American experts said.

So too, Pakistan's atom bombs all use a relatively advanced means to detonate bomb fuel known as implosion.

The weapon that destroyed Hiroshima in 1945 used a simpler detonation method known as a "gun-type system," in which conventional explosives sped a uranium projectile through a cannon barrel into a uranium target, creating a critical mass and a gargantuan blast.

By contrast, experts said, Pakistan's designs used the more advanced principle of implosion, as did the bomb dropped on Nagasaki. It works by having a sphere of conventional explosives squeeze inward to crush a ball of bomb fuel, creating the critical mass. Implosion uses much less fuel than detonations from the gun-type system, making the bombs far cheaper and lighter.

Even so, Dr. Khan's design is "vanilla flavored and very old in concept," a European weapons expert said.

Analysts said the Libyan episode gave new life to the case of a middleman claiming to represent Dr. Khan who in 1990, on the eve of the Persian Gulf war, offered to have the Pakistani help Iraq build its own nuclear weapon. The case came to light in the mid- 1990's when United Nations inspectors came across documents relating to the middleman's offer. "He is prepared to give us project designs for a nuclear bomb," an Iraqi memo said of Dr. Khan. "The motive behind this proposal is gaining profits for him and the intermediary." But the investigators made little headway, largely because Pakistan furiously denied there had been any aid to Iraq and refused to allow Dr. Khan to be questioned.

Now, those denials have collapsed, bringing new interest. David Albright, president of the Institute for Science and International Security in Washington, said Iraqi documents, coupled with the Libyan developments, raised the possibility that Dr. Khan's network operated for more than a decade to offer atomic blueprints not only to Libya and Iraq but to countries like Iran, Syria and North Korea. Global investigators must now carefully examine that possibility, he said.

<http://www.nytimes.com/2004/02/09/international/africa/09WEAP.html?pagewanted=all>

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New York Times

February 9, 2004

U.S.-Russian Plan To Destroy Atom-Arms Plutonium Is Delayed

By Matthew L. Wald

WASHINGTON, Feb. 8 — A project to destroy the plutonium from thousands of retired Russian and American nuclear weapons has been delayed, and some experts say they fear that the work may never be done.

The plan was to have both countries build factories that could mix uranium with plutonium, the material at the heart of nuclear bombs, to be burned as fuel for civilian reactors. It was conceived in the mid-1990's at a time of intense concern over the security of weapons materials in the former Soviet Union; Russia agreed to it in 2000.

The point was to ensure that weapons being disassembled by mutual agreement would never be rebuilt, and that the weapons plutonium, the hardest part of a nuclear bomb to make, could not be sold or stolen.

But the Bush administration's budget plan for the Energy Department, released last week, said groundbreaking for a conversion factory planned for South Carolina had been delayed from July of this year until May 2005.

The immediate reason is that the United States and Russia are deadlocked on the liability rules for American workers and contractors that would help build the plant in Russia, and the United States will not break ground first. Each plant is to dispose of about 34 tons of weapons plutonium.

Administration officials want to use terms written for early nuclear agreements that protect American contractors from almost all liability in case of accidents involving the release of radioactive material; the Russians have refused those terms.

But another problem is that after years of effort, Western nations have not raised the approximately \$2 billion that the Russians say they need to build and operate their conversion plant. The British said recently that they were withholding any pledge until the liability issue was resolved.

In 1997, when President Bill Clinton's energy secretary, Hazel R. O'Leary, announced that the United States would rid itself of weapons plutonium, she said burning it as fuel in civilian reactors might begin by 2002. But even before the delay made clear in the Bush budget, the American plant, estimated to cost nearly \$4 billion, was expected to begin producing fuel only in 2008. The Energy Department's eventual plan is to pay the Duke Power company to use the plutonium in its reactors.

The issue is particularly delicate in South Carolina, because the Energy Department has already been shipping plutonium from its other weapons factories to its Savannah River Site, near Aiken.

In 2002, South Carolina sued the Energy Department in an unsuccessful effort to prevent shipments. The governor at the time, Jim Hodges, said he wanted a binding agreement that the weapons plutonium would be disposed of elsewhere if the plant was not built. The new delay, Mr. Hodges said, "leads me to believe there's no serious commitment from the Bush administration."

But administration officials say the plan is alive. "I'm absolutely confident we're going to resolve this," said Linton F. Brooks, the under secretary of energy for nuclear security. But he could not say when. "Nobody who tells you he can predict how long it will take is worth listening to," he said.

He described the impasse on liability as "a speed bump as opposed to a death blow." The money, he said, would follow quickly once an agreement on that issue was reached.

But a State Department official acknowledged that "between the liability and details of financing, there's a lot of things to iron out."

Some environmentalists oppose turning weapons plutonium into reactor fuel. Dr. Ed Lyman, a senior nuclear physicist with the Union of Concerned Scientists, has argued that a reactor accident would be more serious if the fuel was a plutonium mix rather than simply uranium, because the fuel's constituents are more dangerous if released. A Greenpeace nuclear expert, Tom Clements, said the plan would leave Russia with a factory that — after the weapons plutonium is processed — could turn additional plutonium into reactor fuel, encouraging the creation and circulation of material that could be diverted into weapons production, or be stolen by a terrorist or militant group. In Europe, some plutonium is recovered from spent fuel for reuse, and the Russians would like to do the same. In contrast, the Energy Department plans to bury American spent fuel, including the plutonium.

The plan for the South Carolina factory also faces its own hurdles.

The consortium of contractors the Energy Department chose to build it — an affiliate of the Duke Power company; the Stone and Webster engineering firm; and Cogema, a French nuclear company — proposed to meet the limits for radiation releases at the plant by pushing the measurement boundary about five miles from the factory.

The Energy Department insisted that the boundary be the factory site perimeter, requiring changes to the safety analysis the consortium must submit to the Nuclear Regulatory Commission to win a license.

<http://www.nytimes.com/2004/02/09/international/europe/09PLUT.html?pagewanted=all>

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Washington Times

February 9, 2004

Pg. 14

Terrorists Pursuing WMDs Capability

By Steven Gutkin, Associated Press

JAKARTA, Indonesia — Terrorists have the will and some of the expertise to make a chemical, biological, radiological or nuclear weapon and are "doing everything they can" to acquire the materials, the State Department's top antiterror official said in an interview.

Cofer Black, ambassador at large for antiterrorism, said al Qaeda is still dangerous even though more than two-thirds of its leaders from the time of the September 11 attacks have been killed or arrested.

Speaking at the U.S. ambassador's residence in Jakarta on Saturday, Mr. Black said he and other U.S. officials are "killing ourselves" to make sure terrorists don't get a so-called "dirty bomb" or other unconventional weapon, but the threat remains.

"We know beyond a shadow of a doubt that a number of these groups, if they had it, would use it," said Mr. Black, who accompanied Attorney General John Ashcroft to an Asia-Pacific antiterror summit on the Indonesian island of Bali last week.

"They've got the will. A lot of these guys seek the expertise, and there's a reasonable amount of that out there, but what you're really looking for is the coming together of all the factors: the will, the expertise and the materials," he said.

Authorities fear terrorists could create a dirty bomb, which would use conventional explosives to disperse a plume of radioactive dust over a city.

Unlike a nuclear weapon, a dirty bomb would not ignite an atomic chain reaction and would not require highly enriched uranium or plutonium, which are hard to obtain. The materials could be a lower-grade isotope, like those used in medicine or research.

Mr. Black's comments follow revelations that the father of Pakistan's nuclear program, Abdul Qadeer Khan, sold equipment related to centrifuges, used to enrich uranium for nuclear weapons, to Iran, Libya and North Korea. Experts say the same black market that enabled those countries to obtain nuclear-weapons technology might also have supplied bomb components or plans to terrorists.

"If al Qaeda were to put together a radiological device, they're going to use it," Mr. Black said. "We know that they have the determination; they've killed large numbers before; their objective is to kill more; they're doing everything they can to acquire this type of weapon and we are working to try to prevent it."

Al Qaeda's apparent interest in acquiring nuclear technology came to the fore in 2001 when two Pakistani nuclear scientists were arrested after meeting Osama bin Laden in Afghanistan on suspicion of giving away secrets. The scientists were later released without being charged.

A pan-Arab newspaper said yesterday that al Qaeda bought tactical nuclear weapons from Ukraine in 1998 and is storing them in safe places for possible use, Reuters news agency reported from Cairo.

There was no independent corroboration of the report, which appeared in the newspaper al-Hayat under an Islamabad dateline and cited sources close to al Qaeda.

The newspaper said the terrorist group bought the weapons in suitcases in a deal arranged when Ukrainian scientists visited the Afghan city of Kandahar in 1998.

Al Qaeda would use the weapons only inside the United States or if the group faced a "crushing blow" that threatened its existence, such as the use of nuclear or chemical weapons against its fighters, the paper quoted its sources as saying.

<http://www.washtimes.com/world/20040208-105638-7734r.htm>

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USA Today

February 9, 2004

Pg. 6

Arab Newspaper: Al Qaeda Bought Nuclear Weapons

An Arab newspaper reported that al-Qaeda bought nuclear weapons from Ukraine in 1998 and is storing them in safe places for possible use. There was no independent corroboration of the report in the London-based newspaper al-Hayat. Al-Qaeda would use the weapons only inside the USA or if the group's existence was threatened, the report said.

After the Soviet Union broke up in 1991, former national security adviser Alexander Lebed said that up to 100 portable suitcase-sized bombs were unaccounted for. Moscow has denied that such weapons existed.

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Charleston (SC) Post and Courier

February 8, 2004

H-Bomb Off Coast: Danger Or Dud?

In 1958, a damaged Air Force plane dropped a nuclear bomb into the ocean near Savannah. The bomb was never found. Now, bomb hunters from Georgia think they know where it is. They fear terrorists could find it, too.

By Tony Bartelme, Of The Post and Courier Staff

OFF THE GEORGIA COAST--A cold north wind whips Wassau Sound near Tybee Island into an angry froth as an old lobster boat motors toward the target.

On deck, Derek Duke holds a yellow Geiger counter. At the helm, Harris Parker fiddles with a wallet-sized GPS unit, mashing buttons to find the location. A tiny skull-and-crossbones pops up. "That's where the bomb is," he says. Duke, a retired U.S. Air Force colonel, and Parker, a Tybee Island treasure hunter and former boat-racer, think they have found a hydrogen bomb in the shallows of Wassau Sound, about 20 miles from downtown Savannah.

An Air Force bomber dropped the weapon in 1958 after a mid-air collision with a fighter. Crews searched for the bomb without success, and for the next 46 years the military deemed it "irretrievably lost."

Duke and Parker say the bomb is neither lost nor irretrievable.

They don't know exactly where it is but think they have identified its general location based on radiation readings and data they've collected over the past several years. "We could find it in less than a day," Parker says over the boat's din, adding he thinks it's buried under a few feet of mud. Pinpointing its location would require money and more sophisticated equipment, they say.

Their claims have fueled a new debate about whether the old bomb is a threat to public safety or, as the Air Force says, is relatively benign and better left alone. The Sept. 11, 2001, terrorist attacks, Duke and Parker say, make this debate all the more pressing.

The missing bomb is a Mark 15 model, one of 1,200 in the U.S. nuclear arsenal at the time, and one of a handful of nuclear weapons the military lost during the Cold War. When armed, its explosive power would be 100 times greater than the atomic bomb dropped on Hiroshima, enough to incinerate nearly everything within a five-mile radius and generate a 160-mile plume of dangerous radioactive fallout.

The military insists that this particular bomb isn't armed with its plutonium trigger, which is necessary to initiate a nuclear reaction.

"We do not leave dangerous nuclear bombs in shallow waters off our coast," said Billy Mullins, the Air Force's associate director for nuclear and counter-proliferation. "If it was dangerous, we would search for it until we found it."

Despite a good deal of evidence to back up the Air Force's position, Duke and Parker aren't convinced. Based on a declassified document they acquired and their own investigation, they think the bomb might be armed with its

plutonium trigger or contain other plutonium components. At the very least, it contains weapons-grade uranium they say shouldn't be left unguarded.

Critics have said Duke and Parker are conjuring visions of nuclear apocalypse to line their pockets. The two and several other partners set up a company to search for the bomb. Duke has vowed that any profits would be donated to the town of Tybee Island. Duke and Parker also are working with film industry types on a screenplay about their investigation. They say financial considerations are secondary. As the boat closes in on the target, Duke says one of the most serious threats facing the nation is the possibility that terrorists could obtain enough weapons-grade uranium to build an atomic bomb. "This is not a hobby," Duke says. "I believe this is a threat to the USA."

Moments later, Parker, a diver who has worked as a marine consultant on several movies, announces, "It should be underneath us in a minute."

The boat motors at 4 mph in water 12 feet deep. A dolphin plays nearby. They toss a microphone-shaped receiver for the Geiger counter into the water. All eyes turn to the needle. Nothing happens for a few moments as the boat bobs in the waves. Then the needle jiggles a tad to the right.

LOSING A NUKE

On the frigid night of Feb. 5, 1958, Maj. Howard Richardson's hands warmed the controls of a B-47 Stratojet, flying fast toward his target.

In the big plane's belly was the Mark 15, serial number 47782, about 11 feet long and weighing 7,600 pounds.

Richardson's mission was to practice dropping the bomb at a designated point near Radford, Va., and then return to his base in Homestead, Fla.

Because the U.S. Atomic Energy Commission owned the bomb, Richardson had to sign a "temporary custodian receipt." He promised to use the bomb for "the sole purpose of flying it on a maneuver."

On the receipt, Richardson wrote "simulated." The Air Force cites the receipt as proof that the bomb was a blank, a weapon incapable of a nuclear explosion.

Richardson was an experienced pilot, the kind the military wanted at the controls of a plane carrying a hydrogen bomb, neutered or not. He had flown bombers in World War II, including two missions on D-Day, and helped organize the Berlin Air Lift. In the late 1950s, he began flying the B-47.

With a top speed of 600 mph, the B-47 was nearly as fast as a jet fighter. On that night in 1958, Richardson steered toward Virginia and pretended to drop the bomb.

On the way back to Florida, though, the B-47 had to tangle with a squadron of F-86 fighters from the Charleston Air Force Base. The squadron had orders to intercept the bomber and engage in a mock attack.

The pilot of one of those fighters was Clarence Stewart. He swooped in on the B-47 near the South Carolina-Georgia border. "I had a radar malfunction, and then let's just say we got together one cold night over Sylvania, Georgia," Stewart said recently from his home in Florida.

The left wing of Stewart's fighter hit the bomber's right wing. Stewart ejected at an altitude of 35,000 feet into air that was about 50 degrees below zero. He drifted 40 miles, until he saw water reflecting from a moonlit swamp.

On the bomber, Richardson wrestled with the controls. The plane's sixth engine dangled from the wing. Debris had shredded a fuel tank and made gashes in the tail. Richardson told his crew to forget about using their ejection seats.

The plane was flyable, barely.

Richardson guided his crippled warplane toward Hunter Air Force Base near Savannah. Landing would be dicey, especially with a 7,600-pound bomb on board. "If we crashed, it would come forward through the crew area like a bullet through a gun barrel," he explained.

Richardson turned the plane out to sea and let the bomb go.

Richardson wasn't worried about a nuclear explosion. The plutonium trigger "just wasn't there," he said recently from his home in Mississippi.

Richardson hit the Hunter Air Force Base airstrip at more than 200 knots and used a parachute to slow the aircraft before it ran out of runway.

"What he did was magnificent," said Stewart, who later became friends with Richardson. "He popped the chute right on the feathered edge of it tearing up." After they landed, Richardson and his crew kissed the tarmac. Richardson eventually received the Distinguished Flying Cross. The plane never flew again.

THE SEARCH

Art Arseneault, a lieutenant commander with the Navy's Explosive Ordnance Disposal Unit 2 in Charleston, had just gotten up for breakfast the morning after the mid-air collision when he got word of a lost nuke. He sped to Georgia and walked straight into an Air Force general's office.

"His first comment to me was, 'How do you like your coffee?' His second was 'Man, you get that bomb back, and I'll be a hero to my boss back in Florida,'" Arseneault said.

It wasn't the first time Arseneault had searched for a missing nuclear bomb. A year before, a Navy jet had lost one off the coast of Florida. That one would remain lost.

Arseneault and his unit focused their search on Wassau Sound, using minesweepers, sonar, even a blimp. Divers crawled like crabs on the seabed. Visibility was next to nothing.

"We were looking for a hole of entry, maybe a yard wide, or maybe a piece of the bomb tail," he said. "But that hole probably got filled every time the tide changed. We probably went over that needle in the haystack several times and didn't know it."

Arseneault said the Air Force didn't say whether the bomb contained plutonium. "And I never asked," he said. "An EOD person always assumes that whatever they're looking for is loaded. That's the way you finish your 20 years with all your fingers and toes."

Even if it was armed, 175 different detonators around a plutonium capsule would have to fire at the same time. This simultaneous explosion compresses the plutonium in an instant, causing a nuclear reaction. If just one detonator fails, the chain reaction won't happen. All in all, "nuclear weapons are pretty stable," Arseneault said.

The search went on for more than two months, until, finally, after the searchers found nothing but old junk, "they told us to pack it up," he says.

THE COLONEL'S CRUSADE

For years, the story of the bomb remained a mostly local curiosity, receiving occasional write-ups in the Savannah papers and aviation journals.

Then Derek Duke got interested. In 1998, he went to a reunion at Charleston Air Force Base, where he had been stationed in the 1970s. One of his colleagues was the navigator who was involved in the accidental release of an unarmed nuclear bomb near Florence in 1958, five weeks after the Savannah mishap.

When the navigator didn't show up at the reunion, Duke typed his name into an Internet search engine. Two responses popped up, a reference to the Florence incident and another about the one near Savannah.

Duke is a compact man with a pilot's calm voice who has spent a good deal of his life searching for people and things.

In Vietnam, he was chief pilot for the super-secret National Security Agency. "That's where I got a real education in the dark world of military intel and government secrets," he says. Later, he flew search-and-rescue missions with the Air Force Reserve and has received the Distinguished Flying Cross and four Air Medals. He lives in Statesboro, Ga., and commutes to Atlanta, where he instructs airline pilots.

The more Duke read about the lost Savannah bomb, the more intrigued he became. He contacted Richardson and other crew members, studied tidal charts and weather patterns, traced the bomber's flight path and made calculations about where a bomb might land.

He eventually met Parker, who grew up near Tybee, a barrier island near Savannah. At 64, Parker's skin is weathered from a life spent on the water. He entered his first boat race at age 12 and raced professionally into his fifties. His resume lists more than two dozen TV shows and movies in which he has worked as an actor or consultant, including a stint as a stunt-car builder for the TV show "Dukes of Hazzard" and a diver in the James Bond movie "Thunderball."

With several other partners, Duke and Parker formed a company to look for the bomb. They submitted a proposal to the military, estimating search costs at nearly \$1 million. The military declined to hire them. The bomb was better left buried in the seabed, officials said.

THE LETTER

Meanwhile, Doug Keeney, a military historian, had been doing research on "Broken Arrows," the military's name for lost nuclear bombs.

A friend at the Brookings Institution in Washington, D.C., sent him a box of recently declassified letters, including one written in 1966 about the Savannah bomb.

The letter was written by W. J. Howard, then-assistant Secretary of Defense, to a congressional committee interested in lost nuclear bombs.

In the letter, Howard identified two incidents in which "complete" nuclear bombs, bombs with plutonium capsules installed, were lost. One involved a fighter that fell off an aircraft carrier near Japan in 1965. The other was the one in 1958 near Savannah.

If Howard was correct, then the Savannah bomb was armed with a plutonium trigger and was capable of a nuclear explosion. Keeney later

MISSING NUCLEAR BOMBS

In addition to the Savannah and Florence incidents, the military has lost, and sometimes recovered, other nuclear bombs.

1956 -- A B-47 bomber carrying two nuclear weapon cores in their carrying cases disappeared over the Mediterranean Sea. No trace of the aircraft, the nuclear weapon cores or crew were ever found.

1957 -- A C-124 cargo plane lost power and was forced to jettison two unarmed nuclear bombs into the Atlantic. The incident was kept secret for more than 10 years. The weapons were never found.

1959 -- A Navy aircraft caught fire near Whidbey Island, Wash., and was forced to ditch. A nuclear bomb was jettisoned in water 8,500 feet deep. The incident was kept secret for more than a decade. The weapon has never been recovered.

1965 -- A jet carrying a live nuclear bomb fell off the aircraft carrier Ticonderoga near Japan. The plane, pilot and bomb sank in water more than 16,000 feet deep. The incident was kept secret until 1981. The bomb has never been recovered.

1966 -- In one of the most serious incidents, a B-52 loaded with four live nuclear bombs collided with a refueling plane in Spain. All four bombs were ejected, two exploding when they hit the ground. Though the explosions were not nuclear, more than 1,400 tons of soil and vegetation were contaminated. One bomb landed in the sea and one was recovered after an extensive search.

1968 -- A B-52 on a secret mission crashed on the ice in Greenland, destroying the plane and detonating the high explosives in the four nuclear bombs it carried. A massive cleanup followed, and more than 10,500 tons of contaminated snow, ice and debris were shipped to the Savannah River Site in South Carolina. Danish newspapers have reported that a fifth nuclear bomb may have been lost in the incident, an allegation the military has denied.

The Day The Air Force Bombed Florence County

On March 11, 1958, while Navy crews were still looking for a hydrogen bomb dropped into the ocean near Savannah, another B-47 ran into trouble over South Carolina.

Moments after taking off from Hunter Air Force Base, the crew realized that a pin locking a Mark 6 bomb, an older nuclear weapon, wasn't secure. The bombardier squeezed into the cramped bomb bay to lock the pin by hand. Climbing over the bomb to reach the pin, he accidentally pulled the emergency bomb-release mechanism. The Mark 6 dropped onto the closed bomb bay doors and for a moment, the bombardier was on the weapon like the character Slim Pickens played in the movie "Dr. Strangelove."

Unlike that character, who rode the bomb down whooping and hollering, the bombardier managed to grab something just as the bomb bay doors broke open.

Fifteen thousand feet below was Mars Bluff, a tiny community near Florence.

Fortunately, the Mark 6 didn't have a uranium or plutonium capsule that could have triggered a nuclear explosion. But it did contain conventional explosives, which blasted a 50-foot-wide crater near a railroad conductor's house and slightly injured three of his children.

http://charleston.net/stories/020804/sta_08bomb.shtml

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U.S. News & World Report
February 16, 2004

Selling The Bomb

Pakistani scientist A. Q. Khan is the Johnny Appleseed of nuclear weapons technology

By Thomas Omestad

Pakistanis know him as a gentle man who reads poetry and feeds the wild monkeys in the forest by his house--but also as a patriot of the first order. Abdul Qadeer Khan is revered as the father of Pakistan's crash program to make atomic weapons, the first so-called Islamic bomb. But in recent days Khan's larger-than-life persona has been recast by extraordinary revelations that expose him as the master of a shadowy world of nuclear intrigue.

Khan, 67, who confessed last week to trading nuclear equipment and know-how to Iran, Libya, and North Korea, was a pioneer of sorts in a dangerous growth industry: marketing the means to make the bomb. U.S. and other officials count Khan's outing as a major success in the fight to stop the spread of nuclear technology to rogue states and perhaps terrorists. "The source of the goodies is dried up," says a senior State Department official.

But all is not well. A Pakistani probe launched under pressure from the Bush administration and the International Atomic Energy Agency, a United Nations watchdog, revealed an eye-popping global network of suppliers and middlemen--from agents in Germany to brokers in Dubai to a factory allegedly making gas-centrifuge parts in Malaysia.

The IAEA and U.S. intelligence funneled to Pakistan evidence of the proliferation schemes, though until recently President Pervez Musharraf roundly denied them. The IAEA, the CIA, and other spy agencies are now trying to pick their way through Khan's network, honed over a quarter century of buying parts for Pakistan's own drive for a nuclear arsenal. The European-trained metallurgist began his labors in the 1970s by allegedly stealing centrifuge technology from a Dutch firm.

Some suspects in the procurement network have been detained for questioning. "Khan is seemingly the guiding hand, but after you cut off the head of the serpent, there are still a lot of little serpents left around," says a western diplomat who follows the IAEA's investigations. Another knowledgeable diplomat tells *U.S. News* that the IAEA

and spy agencies are "deeply concerned" over whether any terrorist cells sought to buy nuclear designs or equipment through the network and are probing the matter.

The Bush administration is pleased that Khan has been "neutralized," as one senior official puts it. It has asked Musharraf to permit American experts to question Khan and his associates, which Pakistan is resisting. Yet U.S. officials last week were protective of Musharraf, a key ally in the war on terror, and they said they accept his assurances that military leaders did not approve of or wink at the nuclear deals.

Secret deals. But nuclear analysts and many Pakistanis suspect a coverup. Indeed, it's unlikely that Khan instigated such wide-ranging nuclear transfers from the late 1980s to late last year without the military's involvement. Khan maintained several houses, foreign bank accounts, and a flamboyant lifestyle--all on a government salary of \$2,000 a month. Western diplomats say Iran received both parts and designs for the centrifuges needed to enrich uranium into bomb-grade material. Libya got all that--and a blueprint for a nuclear warhead. And North Korea took centrifuge know-how in exchange for ballistic missile technology vital to developing Pakistan's military deterrent against India. Khan reportedly told a friend--before his confession--that three Army chiefs, including Musharraf, knew about the North Korea trade. And according to Robert Oakley, a former U.S. ambassador to Pakistan, one of Musharraf's predecessors as Army chief of staff told him in 1991 that Pakistan would provide nuclear assistance to Iran in return for oil and political support. "Khan's been allowed to run loose," Oakley says. "They [the Army] knew something was going on, but I suspect they decided not to ask too many detailed questions."

Many Pakistanis find Khan's humiliation appalling. They believe he is being scapegoated to appease the Americans and protect the military--an accusation Musharraf denies. In a televised apology, a contrite Khan took full responsibility and absolved the government of complicity. The next day, Musharraf pardoned him. "Dr. Qadeer is our hero. He is being penalized just because he has given us the nuclear bomb to face India," says Wahid Hussein, the owner of an auto-parts store in Karachi. If Musharraf cannot convince Pakistanis otherwise, he may yet face their wrath.

With Aamir Latif

<http://www.usnews.com/usnews/issue/040216/usnews/16pakistan.htm>

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Web-posted Saturday, February 7, 2004

Foot-and-mouth could be weapon, vet says

By **GEORGE SCHWARZ**

george.schwarz@amarillo.com

The Amarillo Globe-News

A veterinarian and researcher will come to the Bi-City Bi-County Health Board in April to present his concern that a bio-terror attack of foot-and-mouth disease could eliminate swine and bovine herds in the Panhandle.

Dr. Joseph Cummins, president of Amarillo Biosciences Inc., is expected to elaborate on his fear that an outbreak of the disease will lead to wholesale slaughter of herds.

"The virus is very easily acquired by bio-terrorists," he told the board in January. "It doesn't need to be weaponized." The U.S. Department of Agriculture will kill as many of the animals at-risk that it can find, and with 3 million head of cattle within 150 miles of Amarillo, burying the carcasses will require a trench 300 miles long, 9 feet deep and 7 feet wide, he said.

"We need an alternative," he said. "We simply can't kill all the animals."

But representatives of the U.S.D.A. said alternatives exist for a large outbreak.

The disease is extremely contagious, and the agency's approach is to contain and eradicate, said Jim Rogers, an agency spokesman.

Depending on the situation, the response could be a combination of eradicate and vaccinate, but vaccinating animals has stark economic implications. Immunized animals would test positive for the antibodies and couldn't differentiate between vaccinated and infected cattle. Other countries wouldn't allow the importing of those animals, he said.

Most likely, the initial approach would be eradication. But a nationwide outbreak would require a lock-down and possible depopulation of the infected animals, but only after evaluation, Rogers said.

Dr. Ty Vannieuwenhoven, an area emergency coordinator and veterinarian with the U.S.D.A. Animal and Plant Health Inspection Service, agreed that the highly contagious disease could spread in different ways depending on the origin and would prompt a variety of responses.

"If it's on one small farm in the Midwest, one small dairy farm, it may not go anywhere else," he said. "If it's in one feedlot in Amarillo, it has the opportunity to go a lot of places."

The disease has a limited mortality in adult animals, although they become less efficient and weigh less, perhaps by 10 percent. Producers would have difficulty competing regionally or nationally, he said.

Some states' approaches to an outbreak would be a quarantine - not accepting animals from an infected area. The key is to contain the disease similar to a firebreak. Another approach would use vaccination around the infected area, sending those animals to market, he said.

"Do we agree we have to eradicate all the animals? Not necessarily," he said. "What we want to do is contain the disease in some way. I don't think my agency is, nor are the states, dead set on using one particular measure."

http://www.amarillonet.com/stories/020704/new_footmouth.shtml

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The Independent

North Koreans take revenge on chemical tests whistleblowers

Arrest for relatives of man who gathered proof of experiments on prisoners

By Jasper Becker in Seoul

08 February 2004

Communist authorities have arrested the family of North Koreans who provided the world with the first documentary evidence that their country is using live political prisoners to test its growing arsenal of chemical and biological weapons.

Kim Sang Hun, a 70-year-old retired UN official and South Korean human rights activist, who planned the family's escape, said three family members were seized a month ago as they attempted to leave via China and reach South Korea via Thailand.

And last week North Korean agents attempted to abduct the eldest son, the only member of the family still at large, as he was waiting to greet them in Bangkok. He had escaped to South Korea five years ago. "He was walking on the street when two North Koreans jumped out of a Mercedes and tried to grab him but he fought them off and ran away," Mr Kim said. "They will do anything to get these documents back."

The family's fate can now only be guessed at and Mr Kim blames himself for not having got the family out sooner. For three agonising months he haggled over the price of getting the family out and tried to raise money from charity groups to finance the smuggling operation. Many of the cloak-and-dagger negotiations took place over a Chinese mobile phone network that now extends into border areas of North Korea, making it possible, although risky, to contact people directly from Seoul.

Mr Kim largely relies on his own savings to help North Koreans escape and to bribe officials to provide documentary evidence of the terrible stories the refugees are taking with them. There are now at least 4,000 refugees in the South, possibly far more, and among them are those with eyewitness accounts of the horrors of Kim Jong Il's regime.

"For years we heard these stories that live prisoners were being used but there was no evidence," Mr Kim said. Then he came across one refugee whose father worked as a janitor at the "February 8" Vinalon factory in Hamhung, on the east coast of North Korea. The factory was the brainchild of North Korea's most famous scientist, Lee Sung Ki who introduced a technology to produce a chemical fibre made from calcium carbide called Vinalon. The Japanese-trained scientist became a favourite of the late Kim Il Sung, who put him in charge of the country's extensive chemical and biological weapons programmes and used the country's Vinalon and fertiliser plants for dual purposes. South Korea believes the North has at least 5,000 tons of materials for nerve gases such as VX and sarin, blood agents, and the mustard-gas family of chemical weapons. It has large stockpiles of shells filled with poison gas. Recently the US Assistant Secretary of State, John Bolton, called it "one of the most robust offensive bio-weapons programmes on earth".

One defector, Kim Dae Ho, who spent 10 years working on the North's nuclear programme, said: "I know that they used to test the weapons on dogs at the National Defence College in Kangye. Colleagues told me they used prisoners as guinea pigs but there was no proof."

Only a handful of people have ever emerged alive from North Korea's gulag to bear witness. One of the first detailed accounts has come from Soon Ok-Lee, who served at a woman's prison camp where, in 1988, she saw 50 fellow inmates die after being fed cabbage laced with chemicals as scientists in white surgical gowns watched. Two years later, she witnessed 150 prisoners dying in chemical fumes on a hillside, observed by guards in gas masks. She also heard those supervising the experiment praising the name of the scientist Lee Sung Ki.

Many prisoners, especially young and healthy men, were also transferred out of the camps to work on special military projects and it is thought that they were used to build secret tunnels and then buried alive. Others are alleged by one former prison guard to have been operated on, often without anaesthetics, by trainee surgeons.

At the Hamhung Vinalon plant, the head of the arrested family, a 57-year-old engineer whose spine had been broken when he was falsely accused of treason, agreed to help with the search for proof. He had heard that another plant, called "Daily Site No 2" four miles away at Hungnam city, had a strange reputation.

"It was a chemical factory. It was difficult even to breathe because of the unpleasant chemical smell all around," he told Mr Kim. "While I was inspecting the power unit, I saw a prisoner truck that looked like a freezer truck arriving. I noticed a strange expression on the face of the officer. The steel gate of a tunnel opened automatically and the truck disappeared inside."

Once inside the tunnel he got a brief glimpse of what was going on. "There were boxes that looked like aluminium about the size of a large freezer. Each box had a door in front with a large round window. I witnessed with my own eyes human hands moving inside two of the boxes. I was breathless with shock."

He found out that the State Security Agency delivered truckloads of prisoners twice a month. Later he went into the plant manager's office and saw records lying on a desk. He grabbed four transfer authorisations from a thick pile of similar orders lying on a desk, crumpled them up and threw them in waste paper basket so he could retrieve them later on in safety.

Each document gives sparse biographical details of an individual and authorises his or her transfer from a prison specifically for the purpose of "human experimentation of liquid gas for chemical weapons testing in live experiments". Forms are dated as late as July 2002.

Mr Kim thinks the North Korean secret police launched the search for the engineer, his wife and second son after the documents were found to be missing. He now also fears that they may have sacrificed their lives in vain.

Seoul is doing its best to ignore anything that might harm its efforts to foster good relations with Pyongyang and to encourage North Korea to take part in the six-nation talks that resume in Beijing this month. It has dismissed the documents and the testimony of another defector, Kwon Hyuk, who described in a recent BBC documentary how he saw whole families being gassed, as unreliable.

<http://news.independent.co.uk/world/asia/story.jsp?story=489063>

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Washington Post

DNA Analysis of Ricin Could Track Source

By Marilyn W. Thompson

Washington Post Staff Writer

Sunday, February 8, 2004; Page A11

Using DNA analysis, federal authorities are trying to glean important clues about the source of ricin found last week in a Senate mailroom and in two earlier letter mailings, including where castor plants used to make the poisons were grown.

"The U.S. government has this well in hand," said Lee Browning, a researcher with a Texas seed company who has consulted with the FBI about ricin production and was interviewed by agents from the Lubbock field office about recent developments involving use of the poison. "They will read this DNA, analyze the soil and the water content, and be able to say if it's coming from South Carolina, Georgia, Florida or Texas. There's a team of people hard at work on it."

Authorities have not determined the source of ricin discovered in the office of Senate Majority Leader Bill Frist (R-Tenn.), or of samples found last October and November in postal facilities serving a Greenville, S.C., airport and the White House. The two found by postal workers arrived in envelopes with letters signed by "Fallen Angel," who protested new regulations that change the number of hours per day that truckers may spend sleeping in their berths. Genetic analysis also has been an important FBI focus in the investigation of the unsolved 2001 anthrax mailings to Capitol Hill and to media outlets in New York and Florida, which left five people dead and 17 ill as the lethal microbes were spread. Those tests, some of which have been specially developed for the FBI, are incomplete, but the FBI said recently that it expects definitive results on the source of the anthrax bacteria within six months.

Browning said federal agencies have geared up in recent years to handle the use of the toxin ricin, a protein found in castor seeds, as a terrorist tool. Samples of numerous varieties of castor plants have been collected by federal officials for use in forensic and scientific analysis, he said.

After ricin was found on a mail sorting machine in the Dirksen Senate Office Building, officials of the Department of Homeland Security said that the poison could be easily made by an amateur with access to castor plants. In a letter found in the Greenville case and at a White House mail facility, "Fallen Angel" claimed to have "easy access to castor pulp" and to be "capable of making ricin."

Browning, however, questioned the assessment that ricin is an "active" or highly potent powder. He does not believe it could be the work of an amateur using homegrown formulas and simple equipment. Extracting ricin is a dangerous process, he said, that requires chemistry knowledge and advanced scientific equipment.

"There is currently no U.S. production of castor," he said, partly because of the dangers associated with it. Browning's firm, Castor Oil Inc. of Plainview, Tex., last year cultivated 40 acres of castor plants to generate seed that could be used for research. It is the only company in the United States that cultivates the castor plant, he said. Tom McKuen, a ricin expert at the Department of Agriculture's Western Regional Research Center in Albany, Calif., declined to say whether he or other USDA specialists have been working with the FBI on recent cases. He said his team has focused since 2001 on research to "genetically eliminate" the ricin toxin from castor seeds so that they can be handled more safely.

The most common use of castor is in the production of castor oil, a lubricant widely used in commercial products, including lipsticks, sunblocks, paint, plastic foam, electrical wiring and sealants. The United States imports the majority of its castor oil from India, he said, but the shipments pose no terrorism threat because ricin cannot be extracted from the processed oil.

Castor plants grow profusely in the wild in many warm climates in the United States, and to extract ricin, the plants must be cooked into a pulp, McKuen said.

Medical researchers, including a team in Texas, are experimenting with the use of ricin in cancer treatment.

Browning's company, in partnership with Dow Chemical Co., received \$5 million from the Department of Energy in 2001 to work with USDA on research to use plant-based oils such as castor oil to make plastics and chemicals. The project includes work to eliminate the ricin protein from castor seeds.

Browning said he has worked closely with the FBI over the years and turned over any seed variation he has developed to federal authorities. "I want them to know everything that I know," he said.

<http://www.washingtonpost.com/wp-dyn/articles/A22027-2004Feb7.html>

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New York Times

February 10, 2004

Pg. 1

Pakistani Leader Suspected Moves By Atomic Expert

By David Rohde and Amy Waldman

RAWALPINDI, Pakistan, Feb. 9 — President Pervez Musharraf acknowledged for the first time on Monday that he had suspected for at least three years that Pakistan's top nuclear scientist was sharing nuclear technology with other countries, but argued that the United States had not given him convincing proof.

In an hourlong interview conducted here in English, General Musharraf shared blame for the delay with Washington, saying it was not until October that American officials provided evidence of the activities of the scientist, Abdul Qadeer Khan.

"If they knew it earlier, they should have told us," General Musharraf said. "Maybe a lot of things would not have happened."

At the same time, General Musharraf said he had seen signs that Dr. Khan was sharing nuclear technology, including "illegal contacts, maybe suspicions of contacts," and "suspicious movement" connected to Dr. Khan's laboratory. But he said he was concerned that investigating Dr. Khan, a national hero for his role in developing its nuclear weapons, could provoke a political backlash.

"It was extremely sensitive," he said. "One couldn't outright start investigating as if he's any common criminal."

In Washington on Monday, a senior Bush administration official acknowledged that General Musharraf was not given highly specific information about Dr. Khan's activities until last fall. But the official noted that the United States conveyed more general warnings about Dr. Khan's activities starting in 2001.

On Wednesday, President Bush is expected to give what one senior official at the White House described Monday evening as a "lengthy, detailed speech on what must change in the area of stopping proliferation." He is expected to include new proposals for dealing with rogue scientists and with countries that have not signed the Nuclear Nonproliferation Treaty — a delicate subject, because India and Israel, like Pakistan, have rejected it.

General Musharraf said he forced Dr. Khan to retire from his post as head of a nuclear weapons lab in March 2001, to prevent him from transferring any more nuclear secrets. That is the first time the general has cited Dr. Khan's nuclear activities as the reason for his departure. "We nipped the proliferation in the bud, we stopped the proliferation," he said of Dr. Khan's removal. "That is the important part."

But the nuclear black market supplied by Dr. Khan continued to operate for two and a half years, until last fall, American officials say. That network is one of the largest and most successful efforts at evading nonproliferation controls, and is suspected of being the source of nuclear weapons developed in Iran, North Korea and Libya, investigators say.

[North Korea was dismissive of reports of Dr. Khan's activities, saying on Tuesday in its first reaction to them that his admission that he sold nuclear weapons technology to the North and other states was "nothing more than sordid false propaganda" spread by the United States, Reuters reported, citing a statement by the Foreign Ministry.]

Before the exposure of Dr. Khan's network late last fall, Pakistani officials, including General Musharraf, had long denied that Pakistan was the source of nuclear technology for any other country. In repeated interviews, he never disclosed that he suspected that the nation's top nuclear scientist was spreading technology.

His comments on Monday will only add to the debate over what is a murky episode. Some political and military analysts say Pakistan's earlier refusal to act against Dr. Khan and its effort now to bring the scandal to a hasty conclusion reflect at least tacit approval from the powerful army for his activities. They suggest that Dr. Khan received a full pardon in exchange for publicly stating that he alone was responsible for the proliferation.

The president attributed his protectiveness to Dr. Khan's national stature and to political realities in Pakistan. "Since he had acquired a larger-than-life figure for himself, one had to pardon him to satisfy the public," he said. "And I think it has gone extremely positively."

Many argue that what may appear to be evasions or deceptions simply reflect General Musharraf's quandary — how to appease both international pressure to crack down on a rogue proliferator and domestic pressure to protect Dr. Khan.

General Musharraf said that after he had centralized oversight of the nuclear program in February 2000, he received reports from a scientist who had been "sidelined" by Dr. Khan that raised concerns about "some proliferation activity, some underhand proliferation going on," the president said. He also confirmed earlier reports that Pakistani agents had raided a cargo plane used by Dr. Khan in 2000, but had found nothing.

"We got some suspicious reports through the security agencies — that there are some suspicions of some items to be loaded and taken somewhere in the plane," he said.

"We were very sure there was some activity likely," said General Musharraf, who added that the scientist may have been tipped off. "But we didn't catch them red-handed."

But General Musharraf seemed to have few answers about how Dr. Khan operated freely in a country where the nuclear arsenal is considered its greatest single asset.

He said Monday that the brigadier general in charge of security for Dr. Khan's top-secret laboratory never reported anything. "He didn't, and frankly, he hasn't even now," the president said. "He in fact has said that yes, he regrets that he was inefficient, he couldn't unearth, he didn't know. He says he didn't know whatever was going on. And he swears by that even now."

The general emphatically denied reports by American intelligence officials that Dr. Khan had struck a barter agreement with North Korea in which Pakistani nuclear technology was exchanged for North Korean ballistic missile technology. He said Pakistani cargo planes spotted in North Korea in July 2002 were picking up surface-to-air missiles Pakistan had purchased at the height of tensions with India.

While he has previously said the government completed its investigation of the proliferation, he said Monday that the government was "still looking into the details" about what, beyond designs, had been transferred to North Korea. General Musharraf, who had said he would shield Dr. Khan from the International Atomic Energy Agency, the United Nations watchdog group, softened his position slightly on Monday, saying, "We need to think about it."

He has indicated that he is not eager for trials of six close aides to Dr. Khan in part because public trials would raise "the same sensitive issue of Dr. A. Q. Khan coming in again, getting invoked every time."

He said that despite his suspicions, he had no idea how extensive Dr. Khan's network was, nor how long it had been operating. "We didn't know that this is so deep that it started somewhere in the late 80's," he said. "We didn't know that at all. And frankly again, the sensitivity of the issue — we tapped it and we just sidelined this one individual." Even removing Dr. Khan from his post in 2001, he said, required hours of deliberation over how best to proceed. Dr. Khan was removed as head of the laboratory but was made a special adviser to the government, a post he was stripped of last week.

Even on Monday, General Musharraf seemed ambivalent about whether Dr. Khan was victim or villain, patriot or traitor. "I don't know whether Dr. A. Q. was using the underworld or the underworld was using A. Q.," he said at one point.

<http://www.nytimes.com/2004/02/10/international/asia/10STAN.html>

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Washington Post
February 10, 2004
Pg. 3

Tests Reveal Little About Ricin's Potency

Senators, Staffers Return to Dirksen Building; Frist's Offices Remain Shut

By Spencer S. Hsu and Allan Lengel, Washington Post Staff Writers

Investigators have gleaned few clues from forensic tests of the potentially deadly ricin recovered from the office of Senate Majority Leader Bill Frist (R-Tenn.) because only trace amounts were recovered, several agencies said yesterday.

Researchers have been unable to determine the size of the ricin particles, their potency or how long they were on a letter-opening machine in Frist's mailroom before an intern noticed the suspicious powder last Monday, law enforcement and military sources said.

That news came as senators and staff members returned to the Dirksen Senate Office Building yesterday after a seven-day closure, and Capitol Hill returned to normal operations except for mail delivery. The Russell and Hart Senate buildings, which had also been shut, reopened Friday.

Dirksen workers started walking back into their building after 7 a.m., and some saw plywood sealing doorways to three rooms on the fourth floor where Frist's office is -- Rooms 463, 464 and 465. Those rooms will remain closed pending further decontamination and reconstruction. The faint smell of bleach lingered in some halls, along with a musty odor from the shutdown of ventilation systems.

All air samples that have been taken outside the mailroom since the powder was discovered have been clear of ricin, and no hazardous substances have been detected beyond the fourth floor, police said.

"Everything is pretty much the way that it was," said Joe Shoemaker, spokesman for Sen. Richard J. Durbin (D-Ill.). Shoemaker said his papers had been scattered by crews that collected unopened mail but added, "I'd rather have a ricin-free messy desk than a perfectly neat contaminated area."

The absence of additional clues further complicates an investigation that has found no letter or other evidence indicating how ricin got to the mailroom. One key theory is that it arrived by mail, possibly weeks ago, authorities said.

Sources said that only tiny amounts of ricin were found mixed with paper dust on the letter-opening machine. The powder was divided into smaller samples for testing by several labs, sources said.

"There was a small amount to begin with. It was difficult to separate, and I don't know how much is left to do additional testing," said Dan Mihalko, spokesman for the U.S. Postal Inspector Service.

"It was a small amount of material," said another official. "It was kind of hard to say what the physical characteristics were."

One official said investigators have tried to retrieve more ricin by disassembling the letter opener and using a forensic vacuum but have been unsuccessful.

Officials said investigators are retracing their steps and reinterviewing staff and postal workers.

Testing has been done by the Centers for Disease Control and Prevention in Atlanta, the U.S. Army Medical Research Institute of Infectious Diseases at Fort Detrick in Maryland and the Biological Defense Research Directorate for the Naval Medical Research Center in Silver Spring.

Navy Capt. Al Mateczun said his directorate completed preliminary testing of all letters and other evidence from the FBI and U.S. Capitol Police and found no additional "hot" letters or ricin. Blood samples are being taken from about 20 Dirksen employees to see if they were exposed to ricin.

The Army is sending results of an electron microscope scan to determine the size of the ricin particles to the Department of Homeland Security. A spokesman declined to comment.

<http://www.washingtonpost.com/wp-dyn/articles/A27009-2004Feb9.html>

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Moscow Times

February 10, 2004

Pg. 3

Ukraine Denies Sale Of Nuclear Weapons

By Simon Saradzhyan, Staff Writer

Ukrainian officials on Monday denied a report in an Arab newspaper that al-Qaida purchased tactical nuclear weapons from Ukrainian scientists and is storing them for possible use.

"The allegations of Ukrainian scientists giving away tactical weapons is another tall story," Alexander Kuzmyk, a former Ukrainian defense minister and a member of the parliament's security committee, told Interfax.

The London-based al-Hayat newspaper said Sunday that Ukrainian scientists traveled to the Afghan city of Kandahar in 1998 and struck a deal with the international terrorist network for the sale of an unspecified number of so-called nuclear "suitcase bombs."

The newspaper quoted sources close to al-Qaida as saying that al-Qaida would detonate the devices only in the United States or if it faced a "crushing blow" threatening its existence, such as the use of nuclear or chemical weapons against its fighters, according to Reuters.

Kuzmyk, who headed Ukraine's Defense Ministry from 1996 to 2001, said the newspaper's allegations "lie in the sphere of fiction" and are "groundless."

He noted that Ukraine had transferred its nuclear arsenal to Russia by 1996 and, as such, had no tactical nuclear weapons to sell in 1998.

Kuzmyk's remarks were echoed by the deputy head of Ukraine's arms export agency, Alexander Myakushko. He said Monday that Ukraine has not supplied weapons to Afghanistan since 1993 and none could have been smuggled there, Interfax reported.

Reports of al-Qaida seeking nuclear materials and of nuclear weapons going missing after the breakup of the Soviet Union are nothing new. The CIA, for one, has repeatedly said it has information indicating al-Qaida is trying to obtain nuclear material to build a so-called "dirty bomb." Former Soviet republics have frequently been named as likely sources for the material.

Questions about whether Ukraine might have lost warheads were raised in September 2002, when Ukrainian lawmaker Pyotr Simonenko said that the transfer of only 2,200 of the country's 2,400 warheads had been documented. "The fate of the other 200 warheads is unknown," Simonenko told reporters.

Kiev denied Simonenko's allegations at the time.

In May 1997, General Alexander Lebed, then the secretary of the Security Council, stirred up a storm in both Russia and the United States with an announcement that Moscow was unable to account for 80 small atomic demolition munitions, or ADMs, made in the Soviet Union.

Officials at the Ukrainian Defense Ministry and the Security Service of Ukraine could not be reached for comment Monday. A search on the security service's web site found only one case in which a foreigner had tried to acquire nuclear warheads in Ukraine. In 1992, security officers arrested a 32-year-old Swedish citizen on charges of trying to acquire warheads to blackmail the Swedish government into giving a \$2 billion loan to Ukraine.

Ivan Safranchuk, head of the Moscow office of the Washington-based Center for Defense Information, said Monday that al-Hayat's report probably reflected an attempt by al-Qaida to use "nuclear bluffing" in its "information warfare" against the United States. Such a bluff would indicate that al-Qaida is indeed making a serious effort to acquire nuclear weapons, he said.

<http://www.themoscowtimes.com/stories/2004/02/10/013.html>

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Washington Times

February 10, 2004

Pg. 15

U.S. Asks Pakistan To Uproot Nuke Network

By Nicholas Kralev, The Washington Times

The United States yesterday demanded that Pakistan dismantle its vast network of nuclear technology sales "by its roots" and said it had President Pervez Musharraf's assurance that the pardon he had granted the operation's leader was a conditional one.

The Bush administration continued to insist, however, that the investigation into the activities of Abdul Qadeer Khan, the scientist who admitted last week to selling nuclear secrets to Iran, Libya and North Korea, is an internal Pakistani matter.

Secretary of State Colin L. Powell, who spoke with Gen. Musharraf by telephone on the weekend, said the Pakistani government already has "done quite a bit now to roll up the network."

"I said to President Musharraf that we wanted to learn as much as we could about what Mr. Khan, and the network, was up to. It has to be pulled up by its roots and examined to make sure we have left nothing behind," the secretary told reporters at the State Department.

"He assured me that was his objective as well, and he would share with us all the information they came up with," Mr. Powell said.

In a telephone conversation between the two men in March, first reported by The Washington Times, Mr. Powell raised concerns about Pakistan's nuclear proliferation activities and informed Gen. Musharraf of imminent sanctions on the Khan Research Laboratories.

But Gen. Musharraf and other senior members of his government continued to dismiss accusations of wrongdoing as recently as several weeks ago, even though Pakistani officials say they were confronted with intelligence by Deputy Secretary of State Richard Armitage in October.

Mr. Powell yesterday dismissed weekend wire reports citing Pakistani officials that he would visit Islamabad soon. "I have no plans to travel to Pakistan. I'm sure I will before the spring and summer are out," he said.

When Gen. Musharraf last week pardoned Mr. Khan, the father of Pakistan's nuclear program, the president promised that proliferation activities will never occur in the future. But it was not clear until yesterday that the clemency was conditional on ending all nuclear information leaks.

"We also talked about the issue of amnesty for Doctor Khan, and President Musharraf reminded me that it was a conditional amnesty and that's the way they are dealing with the matter," Mr. Powell said.

He, however, would not detail how Pakistan was going about the investigation.

After Mr. Powell spoke, the Pakistani government confirmed that the pardon was conditional.

"The pardon is specific to the charges made so far, and about which Doctor A.Q. Khan has made a confessional statement," Foreign Ministry spokesman Masood Khan said in Islamabad. "But this is not a blanket pardon."

The Bush administration has been reluctant to criticize Gen. Musharraf's government over any knowledge it might have had about Mr. Khan's secret operation or Islamabad's slow response to it.

State Department spokesman Richard Boucher said yesterday that "it's the responsibility of the government of Pakistan to [complete the investigation] and to share the information with the appropriate international bodies," such as the International Atomic Energy Agency.

Pakistani Foreign Minister Khursheed Kasuri said during a visit to Berlin yesterday that his government will share "all information" with the IAEA. But he rejected calls that the agency be involved in the investigation, arguing that it was "not an investigative body."

<http://www.washtimes.com/world/20040209-101720-1823r.htm>

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Los Angeles Times

February 10, 2004

N. Korea Documents Suggest Political Prisoners Are Gassed

The papers were purportedly smuggled out by a defector. Some experts in the South are skeptical of the letters' authenticity.

By Barbara Demick, Times Staff Writer

SEOUL — Four crumpled pieces of paper smuggled last year out of North Korea have raised anew long-standing allegations that chemical weapons are being tested on political prisoners.

The documents are purported letters of transfer for inmates to be sent from one of North Korea's most infamous prison camps to a chemical complex in South Hamgyong province for "the purpose of human experimentation for liquid gas."

Kim Sang Hun, a respected South Korean human rights advocate, said he obtained the letters from a top engineer who was working at the chemical complex.

"I am absolutely convinced [the letters] are genuine, no doubt about it," Kim said. He carefully studied the paper and the handwriting and official seal on the documents before deciding to release them, he said.

The documents have sparked a vigorous debate in Seoul within a small coterie of North Korea experts and defectors who say they can neither confirm nor disprove the papers' authenticity.

Kim intends to release the letters Wednesday at a news conference in London along with written statements from the engineer.

The engineer, 57-year-old Kang Byong Sop, was arrested last month in China along with his wife and son as they attempted to flee from North Korea to Laos. Their whereabouts are unknown. Another son, who had been working in Bangkok, Thailand, was assaulted Jan. 25 in an incident that human rights advocates said was linked to North Korean agents.

"We believe this family has been identified and targeted by North Korea for having brought out the letters," said Kim, who has known members of the family for years and was instrumental in persuading the engineer to take the letters.

"This is a case of a brave North Korean who has risked his and his family's lives to inform the world of these horrendous crimes against humanity," he said.

The existence of the documents was first reported this month by the British Broadcasting Corp.

The allegations, which evoke images of the gas chambers used in the Holocaust, have sparked renewed calls for international scrutiny of the North Korean gulag, which is believed to house about 200,000 people.

Human rights organizations have been frustrated for years in their attempts to investigate the treatment of political prisoners in North Korea. Although there are clear satellite images of the camps, the country's authoritarian regime

does not allow foreigners to visit them. As with allegations about the North Korean nuclear weapons program, defectors may be motivated to exaggerate or forge documents to obtain money or win asylum for their families. The gassing allegedly took place at one of North Korea's largest chemical complexes, the February 8 Vinalon Factory in Hamhung, which is believed to produce synthetic fibers, agricultural feed and insecticides as well as nerve gas and blistering and choking agents.

In his statement, Kang claimed to have been the chief electrical engineer, a position that gave him access to visit remote corners of the compound for emergency repairs. He said it was known that prisoners would arrive by trucks about twice a month and disappear into a secluded annex about four miles from the main complex. On one occasion, he was fixing a broken power line when he saw a chamber about the size of a large freezer.

"I saw human hands scratching a round glass window inside a chamber that was locked with a heavy metal door," Kang said in the statement.

Kang said that last July he was in a State Security Agency office that had stacks of documents referring to prisoners. He snatched a handful of papers off a desk, crumpled them into a ball and threw them into the wastebasket. He later took the basket and hid the papers in his clothing.

The documents were essentially form letters on which someone had written the names, dates of birth and addresses of prisoners who were being sent for experimentation with chemical weapons. They bore the seal of the No. 22 prison camp, a facility for dissidents in North Korea's far north, about 200 miles from Hamhung.

Ahn Myong Chol, a North Korean defector who worked as a guard and driver at Camp 22, said the official seal on the document appeared to be genuine.

"I'd say from the look there is a 70% chance it's authentic. But it's impossible to be certain. I find it hard to believe that anybody would be able to get out a document like that," said Ahn, who is active in the human rights community in Seoul.

Kang Chol Hwan, a former North Korean political prisoner who is now a journalist in Seoul and co-chair of a human rights group, said: "It is widely taken for granted, especially among political prisoners, that tests are conducted on human beings. But it has never been proven. And nobody, neither former prisoners nor executioners, has credibly claimed to have seen it."

The North Korean defectors, and other human rights activists working in Seoul, dismissed claims by a defector who gave the BBC a graphic description of watching a family being gassed to death as scientists watched. They said the man's previous statements, including his claim to have been a top security official, had been discredited.

South Korean security officials also have cast doubt on the statements made in the television documentary.

North Korea's official news service last week put out a statement denying the alleged gassing of prisoners.

"It's a trite method for the present U.S. administration to invent lies and justify a war of aggression under that pretext," an unnamed Foreign Ministry spokesman was quoted as saying.

<http://www.latimes.com/news/nationworld/world/la-fg-prisoners10feb10,1,204993.story?coll=la-headlines-world>

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New York Times
February 10, 2004

New Germ Labs Stir Debate Over Secrecy And Safety

By Judith Miller

A flood of federal money has led to a building boom for high-security "hot labs," where the world's deadliest germs and potential bioterrorist weapons can be studied.

The laboratories would more than triple the space to develop vaccines and treatments for anthrax, plague, hemorrhagic fevers and other killer pathogens, officials estimate.

Scientists, biodefense experts and officials say the shortage of Biosafety Level 3 and 4 labs, those that handle the most dangerous forms or the most lethal germs, has hindered research on vaccines and treatments for diseases they cause.

"We desperately need this new space," said Dr. James M. Hughes, director of the infectious disease center at the Centers for Disease Control and Prevention.

Some biodefense experts challenge the need for so many highest-containment labs. Those experts say that heightened security, along with other recent federal actions aimed at controlling exotic germs, is greatly increasing secrecy and threatening to reduce the scientific openness that nourishes good research. They said the elaborate rules might also discourage scientists from working in the field,

"Becoming an armed camp to prevent organisms from falling into the hands of malefactors is a self-defeating approach," said Dr. Stanley Falkow, a professor of microbiology and immunology at Stanford, who has criticized Washington's approach to biodefense.

Dr. Falkow decided last year to destroy his own plague cultures rather than abide by proposed regulations on germs that can be used as weapons. Even after the rules were loosened in response to complaints, he declined to work on such agents.

"These rules affect not just the scientists who work with me," he said, "but those who clean labs and all who have access to them. It's just not worth it."

The projects are unsettling local residents and researchers, too, particularly near a proposed Level 4 lab at the Boston University Medical Center, near Roxbury.

"The issue is one of trust," said Dr. David M. Ozonoff, an epidemiologist at the Boston University School of Public Health. "Though I still support such a lab in principle for public health reasons, there aren't sufficient safeguards to prevent work that violates the ethical standards of the scientific community. Nor can safety through civilian authority be assured."

The expansion is fueled by the National Institutes of Health, which has poured more than \$1.7 billion a year into biodefense since the attacks of Sept. 11, 2001, and the lethal anthrax mailings a month later.

Last September, Dr. Anthony S. Fauci, director of the National Institute of Allergy and Infectious Diseases, announced that the institutes would grant \$240 million to build two Level 4 National Biocontainment Laboratories, at the University of Texas Medical Branch at Galveston and Boston University. Weeks later, the infectious diseases agency issued an additional \$120 million in grants ranging from \$7 million to \$21 million to nine institutions to build Level 3 space at the Regional Biocontainment Laboratories.

The institutes are also overseeing the construction of Level 3 and 4 centers a \$66.5 million building at its Rocky Mountain Laboratories in Hamilton, Mont., and a 100,000-square-foot \$105 million Integrated Research Facility with Level 3 and 4 laboratories near the Army research installation at Fort Detrick, Md.

Although the research budget of the acclaimed biodefense lab at Fort Detrick is supposed to be cut, the health institutes are more than doubling the Level 3 and 4 space at its Centers for Disease Control and Prevention, a spokesman for the centers said.

Moreover, an official of the health institutes said, so many universities and companies had built laboratories or were expanding them for Level 3 research that it was hard to determine how much Level 3 space existed.

"We're considering conducting an inventory," said Rona Hirschberg, an administrator at the infectious diseases agency.

Dr. Richard H. Ebright, a professor of chemistry at Rutgers, who is a lab director at its Waksman Institute of Microbiology in Piscataway, N.J., called much of the Level 4 construction overkill, as well as a misdirection of scarce resources.

The needs, he added, "can be met entirely by the construction of a single large facility in a secure environment."

In interviews, Dr. Fauci and other senior American scientists and experts said more space was greatly needed, and they dismissed safety concerns. They said there had never been a documented case of illness in a community caused by an escaped pathogen from a high-security laboratory.

But many experts agree that such laboratories radically change scientists' working conditions. Tighter security is evident, and not just at the Centers for Disease Control, which have armed the guards there, installed permanent perimeter fencing and taken other steps to ensure safety.

The University of Texas Medical Branch at Galveston, which won the grant to build the 13,000-square-foot Level 4 laboratory, has installed elaborate security at its new 2,000-square-foot "baby" hot lab, where about 12 researchers will soon start to work on viruses that cause diseases like Lassa and Crimean Congo hemorrhagic fevers.

Entry to the \$15.5 million center, once open to most on campus, is now restricted to people with coded identity cards who pass through two checkpoints. Background checks on researchers are routine, and access to the Level 4 lab requires electronic fingerprints. The university is also installing special doors and posting armed guards.

On a tour, administrators called the lab a veritable "safe within a safe," separated on its own floor from the rest of the complex by pressurized air seals and welded scrubbed air ducts that filter air to and from the lab. In case of a loss of power, bioseals are to close off the lab automatically.

The lab is kept at a lower pressure than the atmosphere, so that a leak lets air in, not out. Scientists and technicians take chemical showers before and after work, which is carried out in pressurized suits and is monitored by security cameras.

Planning for the Level 4 complex, which will cost \$750,000 a year to operate, began in 1997. Dr. David H. Walker, executive director of the Galveston branch's center for biodefense and emerging infectious diseases, has slowly transformed a sleepy medical backwater into a top center to study naturally and unnaturally inspired disease. The center has recruited scientific superstars like Dr. C. J. Peters, its biodefense director who is widely known as the quirky hero who battled the Ebola outbreak in "The Hot Zone," the best-selling 1994 book by Richard Preston. Since the attacks of Sept. 11, biodefense has become big business. Galveston received \$3.7 million in federal grants in the 1996-1997 fiscal year. In fiscal 2003-2004, it won nearly \$200 million.

Dr. Walker said some community groups were initially hostile to placing a hot lab in an area prone to devastating hurricanes. He and his staff, he said, met repeatedly with the community to explain safety measures. Juan Pena, the president of the University Area Association and an employee of the institution, and Robert Mihovil, the program director of the group whose wife is a nurse at the campus, said the university had addressed their concerns.

"They really included us in the planning," Mr. Mihovil said.

Several community leaders said that was not the case in Boston, the other winner of the competition, where opposition to the hot laboratories has been building.

Although the University of Texas gave neighborhood groups an edited version of its grant application, Boston University did not do so for months. University representatives said the lab would not have classified work, but the application suggested that unidentified government subcontractors might work in the Level 3 and 4 areas, especially in the event of a bioterrorist strike or other national emergency.

The complex, near Roxbury, is in a poor and densely populated area.

"The university has been uncooperative, elitist and condescending," said Chuck Turner, the Boston City Council member who represents the area.

Mr. Turner, who has introduced a resolution in the council to keep Level 4 labs out of Boston, said he questioned using Federal Express and other such couriers to deliver dangerous materials to the lab.

Alternatives for Community and Environment, a neighborhood association, plans to sue Boston University and the Boston Redevelopment Authority to block the project for environmental reasons.

Dr. Sheldon Krinsky, a professor at Tufts, who is with the Council for Responsible Genetics, another opposition group, said he favored establishing a more active city biosafety committee similar to one formed in the mid-70's in neighboring Cambridge to oversee research and to review building plans for safety.

In an interview, Dr. Mark S. Klempner, Boston University medical school's associate provost for research, who is in charge of the project, said the laboratory would enhance the scientific and economic standing of the region and be a magnet for talent.

"That's the biggest frustration," Dr. Klempner said. "A year after telling people all these things, we find ourselves in front of the same people who are not in favor of the project, who still supply no data supporting the threats they say exist, asking the same questions. There are groups out there that don't really want a dialogue, which is what we want."

Public opposition helped thwart competitors for the federal labs. The University of California at Davis, 90 minutes northeast of Berkeley and highly regarded for its research on infectious disease, was not selected partly because of community opposition, critics and public health officials said.

Donald Mooney, a lawyer opposed to the lab, said his community group had sent more than 1,200 pages to the university and the N.I.H. documenting opposition.

"They would tell us which pathogens were on campus, but not their location or which researchers were working on them or the type of research that would be conducted," he said.

Maril Stratton, a spokeswoman at Davis, said the university had repeatedly reached out to newspapers, city officials and neighborhood groups to build support and had tried to be open and transparent in all its dealings.

"We made a most unusual effort to reach out," Ms. Stratton said. "But this is an activist community, and although the project was safe, it was a hard project. It sounded scary."

Concern that increased secrecy and security may harm science is increasing. Dr. Peters, head of the Galveston project, said he was worried that new restrictions might alienate researchers whom labs like his are trying to attract.

Dr. D. A. Henderson, who helped lead the campaign to eradicate smallpox and has been advising the federal health institutes for nearly two years, said the clash of cultures between scientific openness and tight security might not be resolvable.

"We've been well served by being pretty open," Dr. Henderson said. "And I worry about not sharing information that might advance the development of better antibiotics, more vaccines and drugs."

Dr. Hughes of the Centers for Disease Control said scientists would have to adjust to tighter security because of the growing threat of naturally occurring infectious diseases and bioterrorism.

"It took some of our people time to adjust," he said. "But most scientists understand the threat and are excited to take advantage of the new research opportunities that were never before available."

<http://www.nytimes.com/2004/02/10/science/10BIOL.html?pagewanted=all>

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Los Angeles Times
February 10, 2004

Scientist Claimed Nuclear Equipment Was Old, Official Says

By Mubashir Zaidi, Special to The Times

ISLAMABAD, Pakistan — An official involved in the investigation of Abdul Qadeer Khan said Monday that the Pakistani nuclear scientist has claimed that the equipment he sold to Iran and North Korea to enrich uranium was outdated.

Khan was pardoned last week by President Pervez Musharraf after confessing to illegally passing nuclear secrets abroad. But the nation's Foreign Ministry said Monday that the pardon was conditional and that the man who led the secret effort to develop Pakistan's nuclear bomb must cooperate with investigators as new questions arise.

"The pardon is specific to charges made so far," ministry spokesman Masood Khan said. "This is certainly not a blanket pardon for Dr. A. Q. Khan. The investigations have not come to a closure."

Khan's claim appeared to be an attempt to play down the value of the technology he spread. That assertion, together with the announcement that Khan could still face punishment, may represent an effort by Pakistan to mollify critics in the U.S. and elsewhere who are angry about Khan's activities and the pardon.

However, international investigators said that even sharing outdated designs would substantially promote the spread of nuclear weapons. Inspectors with the U.N.'s International Atomic Energy Agency, for instance, have found that Iran made significant improvements on Pakistani-designed equipment.

According to Pakistani officials involved in the investigation, Khan said in his signed confession that he supplied old and discarded centrifuges and other uranium-enrichment equipment to North Korea and Iran.

One official, who spoke on condition that he not be named, identified the equipment as P-I and P-II centrifuges, machines used to enrich uranium to fuel nuclear reactors and warheads. The P-I is thought to have been made using blueprints Khan is suspected of stealing while he was working at a uranium-enrichment plant in the Netherlands in the 1970s.

The official said Khan had transferred P-I and P-II machines to North Korea along with drawings, sketches, technical data and depleted uranium hexafluoride gas — the feedstock for gas centrifuges and a crucial, difficult-to-obtain element.

Khan said he supplied equipment such as old P-I machines with drawings to Iran under pressure from the late Gen. Imtiaz when the general was defense advisor to Prime Minister Benazir Bhutto from December 1988 to August 1990, officials claimed.

Khan also said he met Iranian scientists in the Pakistani city of Karachi at the request of another close Bhutto aide, identified as Dr. Niazi. He had meetings with Libyans in Istanbul, Turkey, in 1990, the officials said.

Bhutto, who lives in exile in London and Dubai, United Arab Emirates, said in an e-mail interview last week that she never had direct knowledge that Pakistanis were involved in nuclear proliferation while she was in power. Now she believes the military is trying to hide its complicity, she added.

One official said the nuclear leaks started in the late 1980s. There was a lack of strict command and control over Pakistan's nuclear program for 20 years, the official said, until after Musharraf seized power in a 1999 coup.

The contention that Pakistan's military and intelligence services were unaware of Khan's activities contradicts assurances that Musharraf and senior Pakistani military leaders gave to U.S. officials.

"Musharraf and people before him constantly assured us that this was something that the military had a firm grip on," a former U.S. intelligence official said Monday in a phone interview from Washington.

More than a dozen scientists, security staff at Pakistan's main nuclear research laboratory and military personnel have been detained for "debriefing" in recent months. The Foreign Ministry said Monday that seven scientists and retired military personnel in custody would not be allowed to resume their work at the Khan Research Laboratories. Although relatives of the detained scientists have insisted that military intelligence officers strictly monitored employees of the laboratory and their families, the official interviewed Monday said it was "a one-man show" under an officer he identified only as Brig. Tajwar. The military's powerful Inter-Services Intelligence agency — which is widely believed to be present in virtually every corner of Pakistani society — was shut out of Khan's nuclear facility, the official said.

Khan's direct shipments of bomb-making equipment went through a black market network with the assistance of two Sri Lankans, identified as Tahir and Farooq. Dubai became the shipment hub and the place where clandestine meetings took place and deals were struck, the official said.

North Korea — which has denied having a uranium-enrichment program — placed orders for P-I centrifuge components from 1997 to 1999, and Khan and his associates provided direct technical assistance to that country from 1998 to 2000, said an official involved in the probe.

Izaz Jaffery, the owner of an Islamabad nightclub called Hot Shot, has been arrested on suspicion of being an emissary between Khan and Iran, the source said.

Times staff writer Douglas Frantz in Istanbul contributed to this report.

<http://www.latimes.com/news/nationworld/world/la-fg-khan10feb10.1.4447529.story>

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