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Welcome to the CPC Outreach Journal. As part of USAF Counterproliferation Center's mission to counter weapons of mass destruction through education and research, we're providing our government and civilian community a source for timely counterproliferation information. This information includes articles, papers and other documents addressing issues pertinent to US military response options for dealing with nuclear, biological and chemical threats and attacks. It's our hope this information resource will help enhance your counterproliferation issue awareness.

Established here at the Air War College in 1998, the USAF/CPC provides education and research to present and future leaders of the Air Force, as well as to members of other branches of the armed services and Department of Defense. Our purpose is to help those agencies better prepare to counter the threat from weapons of mass destruction. Please feel free to visit our web site at www.au.af.mil/au/awc/awcgate/awc-cps.htm for in-depth information and specific points of contact. Please direct any questions or comments on CPC Outreach Journal Jo Ann Eddy, CPC Outreach Editor, at (334) 953-7538 or DSN 493-7538. To subscribe, change e-mail address, or unsubscribe to this journal or to request inclusion on the mailing list for CPC publications, please contact Mrs. Eddy. The following articles, papers or documents do not necessarily reflect official endorsement of the United States Air Force, Department of Defense, or other US government agencies. Reproduction for private use or commercial gain is subject to original copyright restrictions. All rights are reserved

(Editor's Note: For complete transcript, please click on hyperlink.)

President Announces New Measures to Counter the Threat of WMD

Remarks by the President on Weapons of Mass Destruction Proliferation

Fort Lesley J. McNair - National Defense University

Washington, D.C.

THE PRESIDENT: Thanks for the warm welcome. I'm honored to visit the National Defense University. For nearly a century, the scholars and students here have helped to prepare America for the changing threats to our national security. Today, the men and women of our National Defense University are helping to frame the strategies through

which we are fighting and winning the war on terror. Your Center for Counterproliferation Research and your other institutes and colleges are providing vital insight into the dangers of a new era. I want to thank each one of you for devoting your talents and your energy to the service of our great nation. . . .

<http://www.whitehouse.gov/news/releases/2004/02/print/20040211-4.html>

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London Financial Times

Musharraf says no to nuclear site inspections

By Edward Luce and Farhan Bokhari in Islamabad

Published: February 17 2004 21:17 | Last Updated: February 17 2004 21:17

Pakistan would in no circumstances permit foreign inspectors to enter the country and monitor its nuclear weapons or civil nuclear facilities, General Pervez Musharraf, Pakistan's military president, said on Tuesday.

"This is a very sensitive issue," he said. . "Would any other nuclear power allow its sensitive installations to be inspected? Why should Pakistan be expected to allow anybody to inspect?"

Gen Musharraf's comments, in a detailed interview with the Financial Times, came less than two weeks after he pardoned A. Q. Khan, the "father of Islamic bomb", following the scientist's public confession that he had passed on nuclear technology to other countries, believed by western officials to be Libya, North Korea and Iran.

But Gen Musharraf, whose "rogue scientist" account of the scandal was endorsed last week by George W. Bush, the US president, said he was confident no further proliferation would take place from Pakistan.

"We are not hiding anything . . . what is the need of any inspection? What for?" he said. "We will co-operate with any organisation, the International Atomic Energy Agency, or anybody. But don't treat us as if we do not know what we are doing. We are doing everything according to international standards."

Gen Musharraf said Pakistan's investigation into A. Q. Khan's proliferation ring had not uncovered any evidence that other countries had received nuclear secrets from Pakistan. But diplomats and nuclear experts have said that Libya has handed over to the IAEA nuclear weapons designs of Chinese origin that it obtained from a Pakistani-led nuclear trading network.

Gen Musharraf did concede that it was likely the design for centrifuges, which are needed to enrich uranium to weapons-grade material, had been transferred to Iran.

But he denied that nuclear weapons technology had been exchanged for North Korean ballistic missile technology.

"Whatever we bought from North Korea is with money," he said. Pakistan had bought conventional surface-to-air missiles from North Korea in 2002 during a period of tension with neighbouring India.

Gen Musharraf said Pakistan had no intention of freezing its nuclear weapons programme. It was self-sufficient and would not require the import of more material or designs from abroad. "We will never stop our nuclear and missile programme," he said. "That is our vital national interest. It is totally indigenous now. Whatever had to be imported and procured has been obtained."

Pakistan would not try to match India's nuclear weapons development but he confirmed that in the next few weeks it would test-fire its Shaheen II, a missile with a range of 2,000km. "We are not interested in competing with India," he said. "If they want to reach 5,000km or have intercontinental ballistic missiles, we are not interested in those. We are only interested in our own defence." *Additional reporting by Stephen Fidler in London*

<http://news.ft.com/servlet/ContentServer?pagename=FT.com/StoryFT/FullStory&c=StoryFT&cid=1075982615264&p=1012571727102>

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London Financial Times

China to probe Libya nuclear weapons report

By Stephen Fidler in London

Published: February 17 2004 18:39 | Last Updated: February 17 2004 18:39

China on Tuesday expressed concern about reports that Chinese nuclear weapon blueprints were found in Libya. Zhang Qiyue, foreign ministry spokeswoman, said the Chinese authorities were looking into the issue. "China expresses its concern about the relevant reports. We are trying to learn more about the circumstances," Reuters quoted her as saying.

Diplomats and nuclear weapons experts said Libya had handed over nuclear weapons designs of Chinese origin provided to Libya by a Pakistani-led nuclear trading network. Copies of the designs are being held by the US and UK governments and under seal in the US by the International Atomic Energy Agency.

The designs relate to an implosion-type nuclear weapon, weighing about 500kg, designed by China in the 1960s and probably handed to the Pakistanis in the early 1980s. The Chinese origin of the Libyan weapons designs was first reported on Sunday by the Washington Post.

Experts said they showed that China had provided significant nuclear weapons help to Pakistan, including the A. Q. Khan Laboratories. Abdul Qadeer Khan, the leading Pakistani nuclear scientist, admitted this month to passing nuclear secrets to others, and was pardoned by President Pervez Musharraf.

The documents and drawings include detailed instructions on how to assemble an implosion-type nuclear weapon, the designs and purposes of individual components and a series of tutorials for those wishing to build a bomb. Some of the documents handed over were in Chinese, but it is not clear that these related to the nuclear weapons designs. According to David Albright of the Washington-based Institute for Science and International Security, the documents contain "very dangerous information that far exceeds that found in public or on the internet". He described the handing over of the material as "irresponsible and short-sighted".

He said it was critical to find out whether these designs had found their way into the hands of others apart from Libya.

Ms Zhang repeated yesterday's China's position that it was consistently opposed to the proliferation of nuclear equipment and technology. China did not join the nuclear non-proliferation treaty until 1992.

Libya has no missile big enough to carry a spherical device, which is about 0.8m in diameter. But North Korea and Iran both have missiles capable of carrying the weapon.

The weapons designs also contain an initiator of an unusual model, once described by a Chinese scientist to a US conference and still classified in the US, that uses deuterium and tritium to set off the chain reaction.

Although there is some evidence in the material that the documents moved through Pakistan, Pakistan's own nuclear weapons do not follow this design.

US intelligence has long contended that China provided Pakistan with a nuclear warhead design in the early 1980s. However, the new disclosures raise questions about what else has been exchanged.

<http://news.ft.com/servlet/ContentServer?pagename=FT.com/StoryFT/FullStory&c=StoryFT&cid=1075982610897&p=1012571727102>

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Boston Globe

February 17, 2004

Weapons 'Capacity' Of Iraq Challenged

By Charlie Savage, Globe Staff

WASHINGTON—Prewar Iraq was highly unlikely to produce a device that could easily inflict mass casualties—despite President Bush's current assertion that Saddam Hussein had the "capacity" to make a weapon of mass destruction, former weapons inspectors and former national security officials say.

Bush's assertion about Iraq's capabilities, which he made repeatedly during his interview last week on the NBC television program "Meet the Press," is a central prong of his administration's defense that the war was justified despite the failure to find stockpiles of unconventional weapons. It is a theme to which Bush is likely to return often in this election year. And it marks Bush's first characterization of the Iraq threat since the testimony of his former chief weapons inspector, David Kay.

"David Kay did report to the American people that Saddam had the capacity to make weapons," Bush said. "Saddam Hussein was dangerous with weapons. Saddam Hussein was dangerous with the ability to make weapons."

But Kay did not describe Iraq's production capacity so clearly in either his interim public report last fall or in testimony before the Senate Armed Services Committee on Jan. 28. In an interview last week, he told the Globe that although Iraq had pesticide equipment that could be switched to produce fine-grain anthrax in a lab, it would have remained a challenge to deliver it in a way that would inflict mass casualties.

"I think it's fair to say they had the capacity [to switch over to anthrax production], but you're always going to get into the issue of not just producing an agent, but in a usable way," Kay said. "The real trick is delivery in a way that gets to you in a way that is inhaled—aerosolized. That is much more difficult."

Moreover, although Hussein employed scientists who had once been working on military programs, Kay found that almost all of Iraq's infrastructure for nuclear and chemical weapons production was destroyed during the 1991 Gulf War and by United Nations inspectors.

He cited the pesticide lab equipment as among his most potentially worrisome findings, but Kay testified last month that he considered the possibility that an Iraqi scientist might sell the know-how on the black market "a bigger risk than the restart of [Hussein's] programs being successful."

Many specialists described even weapons-grade anthrax as more of a weapon of mass “disruption” because it is difficult to keep it in the air and it is not contagious, limiting its ability to inflict wide damage.

Vincent Cannistraro, a former head of the CIA’s counterterrorism unit and a former director of intelligence for the National Security Council, noted that Bush has been accused of exaggerating intelligence before the war by taking shards of analysis that included conditions and hedged suspicions about what Iraq might be harboring—then representing it as a certainty.

Cannistraro said Bush’s description of Kay’s postwar findings is also a questionably aggressive interpretation of the evidence.

“It’s not as flatly wrong, but it is misleading,” Cannistraro said. “To translate knowledge . . . to capability, that’s inaccurate because knowledge can be, ‘Yeah, I know how to do this.’ But having the capability of doing this requires the acquisition of a lot of component parts you don’t have.”

Sean McCormack, a National Security Council spokesman, said Bush’s assertion was based on portions of Kay’s interim report in which the inspector said he had found evidence of “weapons of mass destruction-related program activities.”

“One question is, ‘How close [to making a weapon] do you want them to be able to be?’ “ McCormack said.

“Clearly, the president and policy makers have to make judgments about threat and risk. And they had to make judgments about Saddam Hussein, who had shown that he would use weapons of mass destruction and that he was intent on building and acquiring them. This regime was sitting in the middle of one of the most unstable regions in the world.”

Nonetheless, several specialists on weapons of mass destruction who have studied Kay’s findings said Bush’s insistence that Iraq had the “capacity” to make such a weapon—not just the goal of eventually building one—is accurate only in the loosest sense of the word.

“There are easily ways in which that would be a true statement and easily ways in which it could be a stretch,” said Gerald Epstein, a former assistant director for national security at the White House Office of Science and Technology Policy. “It all depends on the squishy word ‘capacity.’ Almost everything is dual-use technology—there is biotech all over the world that is not much different than what you’d need to produce a weapon. But does that mean having everything ready to go for a military attack using that weapon? No, that’s very different.”

Asked to respond to Bush’s characterization of his findings, Kay agreed that one could say Iraq had the “capacity,” but he also described this as a “really mushy” question and added a series of significant qualifiers that Bush did not mention.

“Did they have the capacity to make a small number of chemical or biological weapons using existing civilian infrastructure? Sure,” Kay said. “Look, if some nut can make enough anthrax to terrorize us in very small amounts, Iraq could have made some. That’s different than saying it could have made large amounts of weaponized anthrax that would have been useful in a militarized conflict.”

Kay also reported that on at least two occasions, Hussein or his sons asked scientists how long it would take to produce mustard or VX nerve gas. The scientists answered that they could make mustard gas in several months but that VX would take several years. But Kay also reported that many of the dictator’s scientists had been lying to him while collecting funding.

Kay said that because the order was never given, “we can’t be sure” whether they could make a useful chemical weapon.

He also said his investigation had looked into whether Iraq possessed the chemical ingredients needed to make mustard or VX gas, with varying results.

“They probably had adequate precursors for mustard gas,” he said. “For VX, they faced certain problems, and they were working on how they could find solutions in their own indigenous production.”

The pesticide laboratory Kay found was working with Bt, a substance that closely mirrored the properties of anthrax. He said the Bt equipment could have been converted into producing fine-grain anthrax powder—if Iraqi scientists were able to find a virulent strain to seed a batch.

But even if the Bt equipment were retrofitted to mill anthrax spores, analysts said, it would have been extremely difficult to deliver the agent in a way that would yield mass casualties rather than several deaths—such as the anthrax mailing attacks in 2001 that killed five people.

And Kay said delivery problems are multiplied for chemical weapons because a much greater volume is needed.

Before the war, the Bush administration said Iraq was working on unmanned aerial vehicles equipped with sprayers that could have been part of an airborne delivery system. But Kay’s investigation found that the vehicles were designed for surveillance only.

Kay’s report conceded Iraq had restarted a longer-range missile program, and in the interview he noted that Iraq’s history of having produced unconventional weapons in the past would have made it easier to make them again.

But Jonathan Tucker, a former Iraq inspector for the UN, said an enormous distance remains between that evidence and the implication that Hussein would have been able to produce new weapons of mass destruction.

"It would be inaccurate to say they had a rapid breakout capability," he said.

"It would be accurate to say they were continuing some research and development in some areas related to WMD with the long-range intention of having the capacity to rebuild their programs when sanctions were lifted.

"With chemical and nuclear, it would take them years to rebuild production capacity. In biological, they had the production infrastructure because of dual-use technology, but they didn't necessarily have the capacity for weaponization."

http://www.boston.com/dailyglobe2/048/nation/Weapons_capacity_of_Iraq_challenged+.shtml

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(Published 12:01AM, February 18th, 2004)

New technology tests port security

LES BLUMENTHAL; The News Tribune

WASHINGTON - Sometime later this month, a standard 40-foot international shipping container will arrive at the Port of Tacoma from Japan filled with sensors and other high-tech equipment and locked with an electronic seal. It will be the first container shipped as part of the \$58 million Operation Safe Commerce - a pilot project aimed at increasing the security of cargo arriving from overseas at the nation's ports.

And though the program has a gee-whiz side - with gadgets that can track shipping containers as they sail the globe and tell whether they have been tampered with - it also gives a detailed look at any security vulnerabilities in the worldwide shipping system.

"The technology is the sexy part," said Tim Farrell, deputy executive director of the Port of Tacoma. "The boring part is the policy and the procedures we are trying to change."

Since the Sept. 11, 2001, terrorist attacks there has been increasing concern that cargo containers could carry biological, chemical or nuclear weapons, including a so-called dirty bomb.

Of the millions of shipping containers that enter U.S. ports every year, only 2 percent are opened to have cargo checked. Last year alone, more than 1.7 million containers arrived at the Port of Tacoma.

Operation Safe Commerce was championed by U.S. Sen. Patty Murray (D-Shoreline), who bucked the Bush administration and secured the \$58 million in funding. Murray said last week that the White House now wants to eliminate the program and has zeroed-out funding in the budget plan it submitted to Congress earlier this month.

"When it comes to strengthening security, the administration's rhetoric doesn't match the reality - and Operation Safe Commerce is a perfect example," Murray said. "If the federal government walks away from this program and fails to provide the support our Coast Guard, ports and shippers need, then we are leaving our families, economy and nation vulnerable."

The ports of Seattle and Tacoma, along with Los Angeles-Long Beach and New York-New Jersey, were selected for the program. The Washington state ports received more than half of the funding.

The container headed for Tacoma will hold a variety of sensors, readers and other electronic devices to test how the instruments operate as the container is loaded and unloaded and faces the rigors of a trans-Pacific crossing, said Mike Zachary, director of planning and logistics for the port.

It also will have a special lock and electronic seal that will allow inspectors at the port to determine whether the container has been opened. Eventually, more than 500 containers will be specially equipped and tracked as part of the program.

But Zachary said the program was not just a "test bed" for new technologies.

"We want to analyze the complete supply chain and look at the security gaps and how to fill them," Zachary said.

The supply chain ranges from the company that placed the order for the container, to the company that builds pallets to carry the products, to the ports and the trucking, shipping and rail companies that will carry it.

"We want to track these containers from the time they are sealed to the time they are unsealed," Zachary said. "It's a very sophisticated system."

The ports of Tacoma and Seattle are looking at nine separate supply chains, including one that ships coffee from Guatemala to Tacoma. Zachary said one of the questions about shipments of food, such as coffee, is whether the containers can be opened and a foreign substance added.

When it comes to coffee, Zachary said, a detector could be placed in the containers that could conduct "chemical spectroanalysis" and notice any changes in the makeup of the cargo.

"Coffee has its own (chemical) signature," he said.

Late this summer, the port will submit a report to the Department of Homeland Security about what has been learned.

“Before they write any rules, we want them to know what works and doesn’t work,” Farrell said. Zachary said the program will give ports and the shipping industry “an opportunity to make sure we have smart regulations and global standards.”

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<http://www.tribnet.com/news/story/4755440p-4702067c.html>

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New York Times

Salesman on Nuclear Circuit Casts Blurry Corporate Shadow

By **RAYMOND BONNER**

Published: February 18, 2004

UALA LUMPUR, Malaysia, Feb. 17 — It has lately begun to seem as if B. S. A. Tahir, a prominent businessman here, had two faces.

Acquaintances describe Mr. Tahir, who is in his middle 40's, as a soft-spoken husband and father who lives in an upper-middle-class suburb of Kuala Lumpur and has a passion for fast cars and flashy clothes.

He has a financial interest in a fine-chocolates franchise in a shopping mall in fashionable Bangsar that was opened a couple of years ago by the wife of a top politician. Nearby is a gourmet date shop that he also partly owns.

In addition, Mr. Tahir has been director of an investment holding company called Kaspadu, until recently owned by his wife in partnership with the son of the country's current prime minister and another prominent businessman.

But investigators are trying to determine whether Mr. Tahir's legitimate businesses here have been a cover for nuclear black-market activities, a senior Malaysian official said.

President Bush, in a speech last week at the National Defense University, called him the "chief financial officer and money launderer" of an illicit operation headed by the Pakistani nuclear scientist Abdul Qadeer Khan. That operation has been accused of providing Iran, North Korea and Libya with technology for making atom bombs.

Investigators say Mr. Tahir put together a deal two years ago for a Malaysian company, Scomi Precision Engineering, to make nuclear-centrifuge parts for Libya, apparently without telling the company where the parts were going, according to company officials and corporate documents. The deal was exposed last October when a ship destined for Libya, the *BBC China*, was seized in the Mediterranean.

Scomi Precision's parent, the Scomi Group, is principally owned by Kaspadu, the holding company linked to Mr. Tahir, according to corporate documents on file with a government regulatory agency here.

Investigators say Mr. Tahir, a Sri Lankan who came to Malaysia in the mid-90's by way of Dubai, may have been sent by Mr. Khan to secretly procure nuclear parts.

They also suspect this was not the first time or country in which Mr. Tahir carried out an operation to acquire nuclear matériel, one senior investigator said, adding that in Malaysia, Mr. Tahir had "replicated" earlier operations — though the details of those are still unknown.

Investigators have discovered that Mr. Tahir apparently traveled widely to carry out his nuclear-technology business. On one occasion, they say, he went to Casablanca, Morocco, to negotiate with Libyans for the purchase of the centrifuge parts, which are important in making fuel for bombs. On a trip to Switzerland, they say, he met with an engineer who came to Kuala Lumpur to supervise production of the parts.

Mr. Tahir also made trips to Germany and Turkey to meet with suppliers, the investigators said. A Malaysian official said Mr. Tahir's network included two father-and-son teams, one British and one Swiss.

In recent weeks, it appears Mr. Tahir has taken steps to cover up his past. His wife sold her shares in Kaspadu, some of them to the Malaysian prime minister's son, Kamaluddin Abdullah. In addition, a Dubai computer company that Western investigators say Mr. Tahir was using as a front has removed evidence of his involvement from its Web site.

He has not been arrested, but is under constant and close surveillance by Malaysian authorities, who say he declines to comment publicly. Nor did Mr. Kamaluddin respond to requests for interviews made at his home and his business.

Bukhary Seyed Abu Tahir was born in Tamil Nadu, India, on April 17, 1959, according to the Sri Lankan Embassy and corporate papers. When he was about 5, his family moved to Sri Lanka.

He later returned to New Delhi to study, and it was during this time that an uncle met Dr. Khan, according to investigators. The uncle had a business that supplied parts to Dr. Khan's operation.

In his early 20's, Mr. Tahir moved to Dubai and opened a shop, SMB Computers, using his father's initials. He was successful, and together with his brother, Seyed Ibrahim Bukhary, he helped the company grow into SMB Group, which has computer sales and services operations throughout the Middle East.

In a brief telephone conversation last week, Mr. Bukhary refused to answer any questions, saying only that his brother had no current financial interest in SMB Group and was not involved in the management. Two weeks ago, the SMB Group's Web site (www.smb.co.ae) implied a different story. For instance, a press release from 2002, which announced that SMB Computers had signed a "megadeal" with the United Arab Emirates Air Force, listed Mr. Tahir as the managing director. That press release no longer appears on the site. In the mid-90's, Mr. Tahir showed up in Kuala Lumpur, according to Malaysian officials. Most notable among his new friends was Mr. Kamaluddin, son of the country's foreign minister, Abdullah Badawi, who is now prime minister. There was also Shah Hakim Zain, who was on the verge of joining the "movers and shakers," to quote a recent article in a Malaysian business magazine. Mr. Kamaluddin and Mr. Hakim had an investment company named Kaspadu, according to records at the Companies Commission of Malaysia, a regulatory agency. In 1998, Mr. Tahir married Nazimah Binti Syed Majid. She was put on the Kaspadu board, but stepped down in December 2000 and was replaced by Mr. Tahir, who served until early 2003. Last month, after the Americans notified the Malaysian government about Mr. Tahir's involvement in the sale of centrifuge parts to Libya, Ms. Nazimah sold her shares in Kaspadu to Mr. Kamaluddin and Mr. Hakim, according to documents and Malaysian officials. Kaspadu is the principal shareholder of the Scomi Group. In 2001, Mr. Tahir negotiated a contract with Scomi for the manufacture of high-precision components, Scomi officials have said. At the time, he was on the board of Kaspadu, according to corporate documents. Mr. Tahir said the parts were being made for Gulf Technical Industries, a Dubai company owned by a British engineer, Peter Griffin, a longtime supplier to Dr. Khan during the time he was building Pakistan's nuclear capacity. Mr. Griffin, whose son Paul is one of three owners of Gulf Technical, acknowledges meeting Scomi officials with Mr. Tahir, but denies that they discussed nuclear equipment, or that he ever bought anything from Scomi or any Malaysian company. To manufacture the parts, Scomi set up Scomi Precision Engineering. Gulf Technical brought in a Swiss engineer, Urs Tinner, to oversee production of the parts, Scomi officials said this week. Mr. Tinner, who was based in Dubai, rented a house near the plant while he was here, Scomi officials said. He kept the blueprints with him at all times, they said. Mr. Tinner's father is also an engineer, and has a factory in Europe that makes vacuum tubes, Scomi officials said. Investigators have not linked the elder Mr. Tinner directly to the sale to Libya. Scomi officials declined to provide addresses of either Tinner, and efforts to find them failed. Scomi shipped the parts in four consignments to two companies in Dubai that had been designated by Mr. Tahir, Scomi officials said this week. One of them, according to Dubai corporate records, was owned by Mr. Tahir's financial partners in SMB Computers. Desert Electrical was owned by one of Mr. Tahir's financial partners in SMB Computers, according to Dubai corporate records. The phone number for Desert Electrical listed in the corporate records is no longer in service. Scomi officials have repeatedly insisted that they were told the parts were for an oil and gas company. They had no reason to suspect Mr. Tahir, they said, until the BBC China was seized last year. Why should they have? a Malaysian official asked on Monday, as he walked between the date shop and the chocolate shop. Mr. Tahir "appeared very legitimate," he said.

<http://www.nytimes.com/2004/02/18/international/asia/18NUKE.html?pagewanted=all>

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EPA scientist queried over biowarfare warning

By Guy Taylor

THE WASHINGTON TIMES

An Environmental Protection Agency scientist has been questioned by the FBI about an anonymous letter accusing a colleague of plotting biowarfare in the days before the 2001 anthrax attacks.

Agents from the FBI's anthrax task force, according to a document obtained by The Washington Times, sought information on the anonymous letter, which warned that Ayaad Assaad, an Egyptian native who works as a toxicologist at the EPA, was an anti-American "religious fanatic" with the means to unleash a bioweapons attack.

The anonymous letter, sent in early October 2001 to police in Quantico, Va., identified Mr. Assaad, who conducted ricin research at the Army's biodefense lab at Fort Detrick, Md., before moving to the EPA.

Meanwhile, the discovery of the deadly protein ricin on Capitol Hill early this month brought a chilling reminder of the anthrax attacks that left five persons dead in the months after the September 11 hijackings.

It also may have restored the FBI's interest in Mr. Assaad, who built a career during the 1990s developing a ricin

vaccine for the Army and generally is regarded as one of the premier ricin researchers in the nation.

The document obtained by The Times indicates that one of Mr. Assaad's EPA colleagues was called last week into the FBI's Washington field office and asked whether he was the author of the letter, which referred to Mr. Assaad as a "religious fanatic."

Mr. Assaad, who holds graduate degrees from Iowa State University and has lived in the United States since the mid-1970s, has something of a contentious past as an Army researcher.

He has a discrimination lawsuit pending against the Army stemming from the time he worked as a researcher at Fort Detrick during the 1990s. The lawsuit claims others at the Army base had formed a group called the "Camel Club" to make fun of his ethnicity, published reports said.

Mr. Assaad yesterday said he has not been questioned by the FBI since the days before the anthrax attacks. He said the anonymous letter, which investigators showed him at the time, probably was written by someone who had worked at Fort Detrick.

"I hardly believe the letter came from an EPA scientist," he said. "It carries the fingerprint of Fort Detrick."

However, FBI officials at the Washington field office, which is heading the anthrax task force, have refused to release the letter or give Mr. Assaad a copy.

It was not clear yesterday whether the latest development signals a new direction in the more than 2-year-old investigation into who sent deadly anthrax bacteria to senators on Capitol Hill and to news outlets in Florida and New York.

"At this point, I'm unable to discuss whether or not there is a nexus between the anthrax mailings of 2001 and this anonymous letter written to the FBI before the first anthrax mailing," a representative at the FBI's Washington field office said yesterday.

The document said one EPA scientist was told by an FBI agent last week that he had been identified by other EPA scientists as the author of the anonymous letter about Mr. Assaad. The document also indicates that the FBI agent warned the scientist not to speak of the interrogation and suggested he may be subjected to a lie-detector test.

While it may appear the FBI has a renewed interest in the anonymous letter, it also may be that investigators have been pursuing the letter secretly as a lead in their aging investigation.

The massive probe into who mailed the anthrax has resulted in no arrests and has produced few substantial leads. However, FBI officials say the probe remains intensely active.

<http://www.washtimes.com/national/20040217-094306-3740r.htm>

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Los Angeles Times

February 19, 2004

Pg. 1

Russia Tests Missile That Could Evade U.S. Defense

By Kim Murphy, Times Staff Writer

MOSCOW — After two days of high-profile military exercises, Russian President Vladimir V. Putin said Wednesday that Russia had successfully tested a new strategic missile system, a development that analysts said could allow nuclear warheads to avoid U.S. defenses.

Putin, who is seeking reelection next month, did not identify the system, which he said would allow "deep maneuvering" of Russia's long-range missiles.

Russian and U.S. military analysts said his cryptic description could mean that Russia has developed a "maneuverable reentry vehicle" — a technology under development for decades that could provide a rudimentary guidance system for intercontinental missiles and render them difficult or impossible to destroy.

"Not a single country in the world has such a weapons system at the moment," Putin said, adding that the new "powerful means of warfare" would be deployed with the Strategic Rocket Forces "in the near future."

The Cold War ended with the breakup of the Soviet Union, but Putin's announcement at the conclusion of Russia's biggest nuclear exercise in 20 years is a signal that Russia is prepared to commit billions of dollars to continue an arms race with the U.S.

"This illustrates that the U.S. and Russia both continue to develop ever more modern and deadly ballistic missile systems, and the Cold War continues, despite the friendly words from Putin and despite the so-called arms-reduction treaty which they agreed to last year," said Daryl Kimball, executive director of the Arms Control Assn., an arms control advocacy group in Washington.

The Pentagon downplayed the announcement, saying that regardless of any successful test of new missile guidance technology, Russia has long had the capability to defeat the \$30.2-billion antimissile defense program to be deployed in the U.S. this year, if only through the size of its ballistic missile inventory.

But former Assistant Defense Secretary Phil Coyle, now a senior advisor at the Center for Defense Information in Washington, said that if the Russians had developed a maneuverable warhead, "I think it would be very alarming to the Pentagon, because this would represent a kind of threat against which no missile defense system would be effective."

Putin's announcement followed a frustrating day during which an RSM-54 ballistic missile, launched from a submarine in the Barents Sea, suddenly veered off course 98 seconds after launch and self-destructed.

There were widespread reports a day earlier that submarine crews had tried and failed to launch two RSM-54s while Putin was aboard a nearby submarine, in a widely televised preelection demonstration of his role as commander of the armed forces.

Russian naval officials said the earlier launches were not failures, but were intended all along as simulations.

Several successful launches buttressed Putin's announcement of the new system. The military ended the exercise with the launch of a Topol RS-12M missile from the Plesetsk Cosmodrome, an RS-18 missile from the Baikonur Cosmodrome, and a military satellite.

Russian officials refused to define the new system tested during the launches, except to say it was a supersonic missile capable of "deep maneuvering, both in altitude and course."

Analysts said Russia has looked at equipping its state-of-the-art Topol missile with multiple warheads, an option that would greatly reduce the weapon's vulnerability to the U.S. missile defense system, which is designed to attack one warhead at a time.

Not long after President Bush pulled out of the 1972 Antiballistic Missile Treaty in order to pursue the new defense program — now under preliminary construction in Alaska — Russian military leaders announced they no longer felt bound by previous agreements that prohibited missiles with multiple warheads.

But several Russian military analysts said Moscow probably had tested a long-range missile with guidance capability — the equivalent of a space cruise missile.

"The president is talking about an intercontinental missile which is capable of aerodynamic maneuvering in space or in the atmosphere, meaning ... a hybrid between a ballistic missile and a cruise missile," said Alexei G. Arbatov, former deputy chief of the parliament's defense committee and now a security specialist at the Institute of World Economy and International Relations in Moscow.

Alexander Golts, defense analyst for the journal *Yezhenedelny*, said Putin probably has in mind a missile that could change its trajectory once separated from its rocket.

Current ballistic missiles are fired through the upper atmosphere and follow a fixed and predictable trajectory back down. The U.S. defense system is designed to deploy a field of interceptors in Alaska and California that would fly into space to meet and destroy such a missile.

"But if they had maneuvering reentry vehicles and were able to veer around the sky as they came down, that would be especially daunting for a missile defense system," Coyle said.

Putin's announcement may have been intended to toughen Russia's image for a domestic audience, because as Coyle said, "Even without the development Putin has just announced, the Russians already know they can overwhelm our missile defense system as soon as it's built."

U.S. officials have long acknowledged that the system would not defend against Russian or Chinese technology.

"The threat is really the countries like North Korea that are developing long-range missiles and weapons of mass destruction that could be carried by the missiles. This is the primary threat that this missile system is designed to deal with," said a Pentagon official, who spoke on condition of anonymity.

Putin declined to characterize the testing as a return to the arms race. "I can say that the perfection of the kinds of weapons we have and the development of the new weapons systems are not aimed against the United States," he said.

But Putin noted that U.S. officials "have themselves been actively developing their weapons."

"We were told that these actions were not directed against the Russian Federation, and ... it's true that the level and character of our relations confirms what our American partners told us," Putin said.

At the same time, he said, "we reserve the right to modernize our armed forces in the interest of ensuring the security of our own country."

Times staff writers Esther Schrader in Washington and Sergei L. Loiko in Moscow contributed to this report.

<http://www.latimes.com/news/nationworld/world/la-fg-missiles19feb19,1,482069.story?coll=la-home-world>

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Nuclear Machinery Found In Iran

U.N. discovery points to weapons ambitions

By Barbara Slavin and John Diamond, USA Today

United Nations inspectors have found sophisticated uranium-enrichment machinery at an air force base outside Iran's capital, Tehran, U.S. and foreign sources with knowledge of the discovery say.

The find at Doshen-Tappen air base appears to undermine Iran's claim it is not pursuing a nuclear bomb. The discovery may strengthen calls for action by the International Atomic Energy Agency, the U.N.'s nuclear watchdog. The IAEA would not comment Wednesday, nor would the Bush administration. However, a source with knowledge of the find at the base said the Iranians had constructed and tested a gas-centrifuge system there. Such a system is used to refine uranium for nuclear reactors or bombs. There was no indication any uranium had been inserted or enriched.

Iran has long been suspected of seeking nuclear bombs and is building a reactor with the help of Russia. The United States has questioned why Iran needs nuclear power, since it has the world's fifth-largest oil reserves.

Under pressure last year to disclose its intentions, Iran agreed in a deal with France, Germany and Britain to suspend efforts to enrich uranium and to let inspectors into the country to prove it is not trying to build bombs.

Last week, U.N. inspectors looking through Iranian nuclear documents found drawings of a so-called P-2 gas centrifuge, twice as productive as a model Iran has acknowledged using to enrich uranium. Iranian Foreign Minister Kamal Kharrazi on Tuesday admitted Iran is doing research on the P-2, but for peaceful purposes.

Two U.S. sources briefed on the IAEA discovery said the Iranians admitted that they also possessed the actual machinery and tested it. The discovery appears to indicate that Iran is moving ahead with a nuclear-bomb program. Before the latest revelations, U.S. intelligence believed Iran was 10 years from a nuclear weapon.

"The question is, did the Iranians actually give us the Full Monty or are they just doing a striptease?" asks Patrick Clawson, deputy director of The Washington Institute for Near East Policy.

Three sources with knowledge of the latest find say it will be mentioned in an IAEA report to be sent to the 35 governments on the organization's board this weekend.

One expert said Iran should be encouraged to keep cooperating with the IAEA and not be subjected to U.N. penalties.

"You want the Iranians to reveal more, and we know there is more to reveal," says David Albright, president of the Institute for Science and International Security in Washington.

Pressure on Iran has increased since Libya decided last year to reveal its nuclear activities and Pakistan admitted that its top nuclear scientist sold nuclear know-how to Libya, Iran and North Korea.

<http://www.usatoday.com/usatoday/20040219/5939261s.htm>

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New York Times

February 19, 2004

Russians Fail For Second Day In Missile Test

By Steven Lee Myers

MOSCOW, Feb. 18 — President Vladimir V. Putin oversaw one of Russia's largest strategic military exercises in years for a second day on Wednesday, and, for a second day, something went wrong.

An intercontinental ballistic missile fired from the nuclear submarine Karelia in the Barents Sea veered wildly off course 98 seconds after the launching and self-destructed, a navy spokesman, Capt. Igor V. Dygalo, said. The cause of the malfunction, he said, would be investigated.

The missile was supposed to have crossed the Arctic and landed in a missile range in Kamchatka in the far eastern region, but instead exploded in the upper atmosphere over the Barents.

On Tuesday, two missiles from the submarine Novomoskovsk in the Barents also failed to launch — for reasons that are still in dispute — as Mr. Putin watched from the deck of another submarine.

Officials had described the planned launchings on Tuesday as a centerpiece of the exercises, which involved Russia's strategic nuclear forces. On Tuesday, Adm. Vladimir I. Kuroyedov denied initial reports that the missiles had malfunctioned.

He said that the missile tests had always been planned as simulations, not as live fire exercises. But Kommersant and Izvestia both reported Wednesday that the launchings were aborted because of a malfunction in one of the missiles. Both newspapers reported that the navy was trying to cover up an embarrassing failure.

Mr. Putin's visit to the exercises — much publicized and intensely covered by state television — came three and a half weeks before the presidential election on March 14 and appeared intended to highlight his role as the commander-in-chief of a revived Russian military.

Pavel Felgenhauer, a military analyst and journalist, said the glitches in the exercises reflected the aging of Russia's ballistic missiles, many of them nearly 30 years old.

"With such old missiles, mishaps do happen," he said. "They have happened before. This time the P.R. surrounding the president and the presidential campaign meant more attention was paid. They demonstrated quite the opposite of what the Kremlin wanted."

<http://www.nytimes.com/2004/02/19/international/europe/19RUSS.html>

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Philadelphia Inquirer

February 19, 2004

U.S. Warns N. Korea To Be Candid

By Christopher Torchia, Associated Press

SEOUL, South Korea - A U.S. diplomat warned yesterday that North Korea's denial that it had a uranium-based nuclear program could derail chances of success next week at six-nation talks on the North's nuclear capabilities. "I think North Korea's unwillingness to discuss the uranium-enrichment program could subvert President Bush's determination for a peaceful, diplomatic resolution of the North Korean issue," Undersecretary of State John Bolton said in an interview with the Japanese public broadcaster NHK. Bolton was in Tokyo for meetings with Japanese officials.

The questions about North Korea's nuclear capabilities are expected to overshadow the talks in Beijing, which are scheduled to begin Wednesday. The United States, North Korea, South Korea, China, Japan and Russia will participate.

At issue is whether North Korea has only a plutonium-based nuclear program, as it says, or whether the North also has a uranium-based program, as the United States maintains.

There also is uncertainty over whether North Korea has made nuclear weapons and whether they can be mounted on a missile and fired.

The plutonium program is believed to be more of an immediate threat than the alleged uranium one, which does not require large-scale, easily detectable facilities and could require at least several years of operation before producing a bomb.

U.S. officials believe North Korea has at least one or two plutonium-based nuclear bombs, though some experts believe the North does not have the technology and resources to mount a nuclear warhead on a missile.

The recent confession of Abdul Qadeer Khan, Pakistan's proliferator of nuclear secrets, suggests North Korea's uranium-based program "is of longer duration and more advanced than we had assessed," Assistant Secretary of State James Kelly said last week in Washington.

North Korea has denied receiving nuclear secrets from Pakistan.

"There is no agreed estimate of anything," said Leon Sigal, a North Korea expert. "As with Iraq, there is significant disagreement in the intelligence community about pieces of this."

North Korea will likely try to capitalize on the uncertainty, brandishing the threat of what it vaguely describes as its "nuclear deterrent" in an effort to extract concessions.

U.S. negotiators will likely hold firm, demanding that North Korea dismantle all nuclear projects in a verifiable way. A resolution is possible if the two adversaries move toward a step-by-step process under which North Korea - perhaps the most secretive country in the world - allows unprecedented access to its most guarded sites, and the United States and its allies provide sweeping security assurances and economic aid.

<http://www.philly.com/mld/inquirer/news/nation/7985494.htm>

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New York Times

February 19, 2004

Roots Of Pakistan Atomic Scandal Traced To Europe

By Craig S. Smith

PARIS, Feb. 18 — The Pakistani scientist Abdul Qadeer Khan has been demonized in the West for selling atomic secrets and equipment around the world, but the trade began in Europe, not Islamabad, according to court documents and experts who monitor proliferation.

The records show that industry scientists and Western intelligence agencies have known for decades that nuclear technology was pouring out of Europe despite national export control efforts to contain it.

Many of the names that have turned up among lists of suppliers and middlemen who fed equipment, materials and knowledge to nuclear programs in Pakistan and other aspiring nuclear nations are well-known players in Europe's uranium enrichment industry, a critical part of many nuclear weapons programs. Some have been convicted of illegal exports before.

The proliferation has its roots in Europe's own postwar eagerness for nuclear independence from the United States and its lax security over potentially lethal technology. It was abetted, critics say, by competition within Europe for lucrative contracts to bolster state-supported nuclear industries. Even as their own intelligence services warned that Pakistan could not be trusted, some European governments continued to help Pakistan's nuclear program.

"It was an economic consideration," said Paul Stais, a former Belgian member of the European Parliament who lobbied unsuccessfully for tighter export controls.

One name to emerge from the international investigations of Dr. Khan's nuclear trade was that of Urs Tinner, a Swiss engineer who monitored production of centrifuge parts at a factory in Malaysia. The parts were intended for Libya. Mr. Tinner's father, Friedrich Tinner, also an engineer, came under scrutiny by the Defense Department in the 1970's and again by Swiss export control authorities and the International Atomic Energy Agency in the last decade, because he was involved in exports to Pakistan and Iraq of technology used in uranium enrichment.

In the 1970's, Friedrich Tinner was in charge of exports at Vakuum-Apparate-Technik, or VAT, when the company was identified by the Defense Department as shipping items with possible nuclear-related uses to Pakistan, according to documents and VAT company officials. He later set up his own company, now called PhiTec AG, which was investigated by the Swiss in 1996 for trying to ship valves for uranium enrichment centrifuges to Iraq. The Tinnings were never found to have broken any laws, Swiss officials said.

"Most of these people were heavily investigated in the 1970's, 80's and 90's," said Mark Hibbs, the European editor of the technical journal *Nucleonics Week*, published by McGraw-Hill.

The problem began with the 1970 Treaty of Almelo, under which Britain, Germany and the Netherlands agreed to develop centrifuges to enrich uranium jointly, ensuring their nuclear power industry a fuel source independent of the United States. Urenco, or the Uranium Enrichment Company, was established the next year with its primary enrichment plant at Almelo, the Netherlands.

Security at Urenco was by most accounts slipshod. The consortium relied on a network of research centers and subcontractors to build its centrifuges, and top-secret blueprints were passed out to companies bidding on tenders, giving engineers across Europe an opportunity to appropriate designs.

Dr. Khan, who worked for a Urenco Dutch subcontractor, Physics Dynamic Research Laboratory, was given access to the most advanced designs, even though he came from Pakistan, which was already known to harbor nuclear ambitions. A 1980 report by the Dutch government on his activities said he visited the Almelo factory in May 1972 and by late 1974 had an office there.

After Dr. Khan returned to Pakistan with blueprints and supplier lists for uranium enrichment centrifuges at the end of 1975, American intelligence agencies predicted that he would soon be shopping for the items needed to build the centrifuges for Pakistan's bomb. They soon detected a flow of equipment from Europe to Pakistan as Dr. Khan drew on Urenco's network of suppliers using a trusted group of former schoolmates and friends as agents.

The Dutch government report found that in 1976, two Dutch firms exported to Pakistan 6,200 unfinished rotor tubes made of superstrong maraging steel. The tubes are the heart of Urenco's advanced uranium-enriching centrifuges.

In 1983, a Dutch court convicted Dr. Khan in absentia on charges of stealing the designs, though the conviction was later overturned on a technicality. Nonetheless, in the late 1980's, Belgian ministers led delegations of scientists and businessmen to Pakistan, despite warnings from their own experts that they were meeting with people involved in the military application of nuclear technology.

"Every well-informed person knows the inherent danger of an intense collaboration with a country such as Pakistan," wrote René Constant, director of Belgium's National Institute of Radioactive Elements in February 1987, chastising Philippe Maystadt, then the country's minister of economic affairs, after one such visit.

That same year, despite American warnings to Germany that such a sale was imminent, a German firm exported to Pakistan a plant for the recovery of tritium, a volatile gas used to increase the power of nuclear bombs. The company simply called the plant something else to obtain an export license.

"The export control office didn't even inspect the goods," said Reinhard Huebner, the German prosecutor who handled the subsequent trial of the company's chief, Rudolf Ortmayers, and Peter Finke, a German physicist who

went to Pakistan to train engineers there to operate the equipment. Both men were sentenced to jail for violating export control laws.

But there were clues that the technology had spread even further: a German intelligence investigation determined that Iraq and possibly Iran and North Korea had obtained uranium-melting expertise stolen from Urenco in 1984, Mr. Hibbs reported in Nucleonics Week several years later.

In 1989, two engineers, Bruno Stemmler and Karl Heinz Schaab, who had worked for Germany's MAN New Technology, another Urenco subcontractor, sold plans for advanced uranium enrichment centrifuges to Iraq. They went to Baghdad to help solve problems in making the equipment work.

In 1991, after the first Iraq war, international inspectors were stunned to discover the extent of Saddam Hussein's hidden program. Mr. Schaab was later convicted of treason but only served a little more than a year in jail. Mr. Stemmler died before he could be tried.

David Albright, a former weapons inspector for the International Atomic Energy Agency, said he helped retrieve a full set of the blueprints from Iraq after the major combat operations ended last year. United States inspectors have not found evidence that Mr. Hussein had restarted his nuclear program, but Mr. Albright said there were still drawings unaccounted for.

"It's an unnerving issue," said Mr. Albright, who is president of the Institute for Science and International Security. "A lot of nuclear weapons design stuff could be missing in Iraq."

As recently as last year, German customs agents seized high-tensile-strength aluminum tubes made by a German company and bound for North Korea. The tubes matched the specifications for the housings of Urenco's uranium-enriching centrifuges.

One name on a list of suppliers to Iran that came to light in recent investigations was Henk Slebos, who studied with Dr. Khan at Delft Technological University in Leuven, Belgium, in the late 1960's.

In the early 1980's, Mr. Slebos was arrested for shipping an oscilloscope, used in testing centrifuges, to Dr. Khan in Pakistan. He was convicted and sentenced to a brief prison term in 1985. Mr. Slebos declined to comment for this article.

In 1998, he withdrew five Pakistan-bound shipments that the Dutch authorities had stopped in the Netherlands, Belgium and Austria because they contained "dual use" items, which could be used for unconventional weapons as well as civilian purposes.

Last September, Mr. Slebos was among the sponsors of an international symposium on advanced materials in Pakistan organized by Dr. Khan. Jaap de Hoop Scheffer, who was then the Dutch foreign minister and is now NATO's secretary general, told Dutch members of Parliament that Mr. Slebos was still doing business with Dr. Khan, though he did not elaborate.

<http://www.nytimes.com/2004/02/19/international/europe/19NUKE.html>

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Moscow Times
February 19, 2004
Pg. 2

Nuclear Training

MOSCOW (Reuters) -- Russia has already trained 600 specialists for a nuclear power station it is building in Iran despite U.S. concerns that Tehran wants to use it to develop nuclear weapons, Itar-Tass reported Wednesday. Russia insists the \$800 million Bushehr project is purely for peaceful purposes and will press on with the construction. The specialists had been undergoing training in Novovoronezh, some 400 kilometers south of Moscow, Itar-Tass reported. Russia plans to train over 700 workers by next year.

<http://www.themoscowtimes.com/stories/2004/02/19/031.html>

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London Times
February 19, 2004

British Team Develops 'Black Death' Vaccine

By Michael Evans, Defence Editor

BRITISH scientists have made a crucial breakthrough in the war on terrorism by developing a vaccine to counter bubonic plague, the bacteria that caused the Black Death.

A vaccine for the bubonic plague, which killed millions in the Middle Ages and is now one of the deadliest bio-terrorism agents, may be available within a year as a result of a breakthrough at the Ministry of Defence's laboratory at Porton Down.

Initial clinical tests on human beings at the laboratory in Wiltshire have produced no adverse side-effects, clearing the way for large-scale trials.

Rick Titball, group leader for microbiology at Porton Down, told *The Times* yesterday that the vaccine could be licensed "within a year or two".

Professor Titball said it represented one of the biggest achievements at Porton Down in the past ten years.

The results of the large-scale clinical trials are expected to be published in a scientific journal in about a year.

He added: "The Americans are very keen on our programme because we are well in advance of any other research projects developing a vaccine elsewhere in the world."

There is an existing vaccine in Australia but Professor Titball said it "was not particularly effective". An American version based on the same principle as the Australian one was abandoned in 1999.

Professor Titball said the Porton Down vaccine had been developed in a comparatively short time. The clinical trials would be "relatively expensive", he said, because of the number of volunteers involved.

Scientists at Porton Down have been working on a vaccine since the 1991 Gulf War when it became apparent that Iraq had been developing huge stocks of chemical and biological warfare agents, including bubonic plague, anthrax and botulinum toxin.

Although there was a licensed vaccine for anthrax that was given to British troops for the 1991 Gulf War and made available for the war in Iraq last year, the development of a plague vaccine was not sufficiently advanced to add to the list of inoculations.

Now, with the fear that an international terrorist organisation such as al-Qaeda might turn to non-conventional forms of attack, using chemical, biological or radiological devices, the work at Porton Down has taken on even greater significance.

Professor Titball, who has worked at Porton Down for more than 20 years, said it was possible that a terrorist with a degree in microbiology would be capable of constructing a device using plague bacteria.

Although he would not say whether plague was considered to be potentially the biggest killer in the hands of a terrorist, he acknowledged that it was "one of the bio-terror agents about which we are most concerned".

He said that in the next stage of the plague vaccine programme several thousand volunteers would be used in full clinical trials.

He expected that there would be no difficulty in finding enough volunteers "because we have already shown that this is a safe vaccine with no adverse side-effects".

Professor Titball's colleague at Porton Down, Jill Cook, is the project manager for the plague vaccine programme. But it was a team led by Professor Titball that made the original breakthrough discovery in developing a possible vaccine and published the findings in 1995.

He and his team identified two harmless proteins on the surface of plague bacteria which were capable of triggering an immune response against the disease.

He said: "These two proteins are key parts of the plague organism which are recognised by the immune system and respond to them."

One of the problems for the Porton Down team was that bubonic plague is not prevalent as a disease on a large scale anywhere in the world. So it was not possible to carry out tests on thousands of people who might be vulnerable to the disease.

The World Health Organisation says there are about 2,500 cases of plague every year, scattered in different parts of the world. The disease is normally transmitted by fleas from rats and other rodents.

An outbreak of pneumonic plague — relating to the lungs — occurred in India in 1994, after an earthquake in Surat, 200 miles north of Bombay. Nearly 60 people died.

Killer throughout the ages

*The first known plague pandemic began in Egypt in 541 AD, killing about 50 per cent of the world population

*In the Great Plague of London in 1665, an estimated 100,000 people died

*Plague is caused by *Yersinia pestis*, a bacterium named after Alexandre Yersin, a Swiss scientist who identified the bacillus in the late 19th century

*A bubonic plague infection from flea bites takes two to eight days for symptoms to develop — fever, nausea, vomiting, diarrhoea and swollen lymph nodes that ooze blood.

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Washington Post
February 20, 2004
Pg. B2

Scientist Is Watched For Signs Of Ebola

By Avram Goldstein, Washington Post Staff Writer

A scientist who works in a maximum containment laboratory at Fort Detrick has been placed in isolation after she accidentally stuck herself with a needle while working with mice infected with a weakened form of the Ebola virus. The woman, whom officials at the Army base declined to identify, has shown no symptoms of the deadly Ebola hemorrhagic fever during eight days of medical observation in a special isolation facility, said Army spokesman Chuck Dasey. He said she was exposed to the Zaire strain of Ebola, the deadliest of the three types of the virus. After the accident Feb. 11, the scientist was allowed to go home because there was no danger of her spreading the infection to anyone else at that time, said Dasey. The next day she moved into a suite with two 180-square-foot patient rooms adjoining a larger treatment room. The isolation suite, known on the base as The Slammer, hasn't been used since 1985.

The incubation period for Ebola is two to 21 days, but Dasey said officials planned to keep the woman in isolation for up to 30 days. She is allowed to have visitors because she has shown no signs of being infectious, Dasey said. "She reported the incident appropriately to the clinic, and the staff there discussed it and determined there was no risk in her going home that night," Dasey said. "If you get the disease and get sick, that's when you would pass it on to people."

If she does become ill, the woman would receive only "supportive care," Dasey said, because there is no known cure.

The disease is characterized by its abrupt onset, and symptoms include fever, headache, joint and muscle aches, sore throat and weakness, followed by diarrhea, vomiting and stomach pain, according to the Centers for Disease Control and Prevention Web site. Some patients suffer a rash, red eyes and internal and external bleeding. Researchers do not know why some victims recover.

The scientist is a National Research Council postdoctoral fellow who has been assigned to the U.S. Army Medical Research Institute of Infectious Diseases at Fort Detrick for almost two years. The council was notified yesterday afternoon but was not told the woman's identity, said spokesman William Skane.

The institute leads the nation's biodefense research and is the only military lab equipped to study the most hazardous pathogens at what is known as biosafety level 4. Only three other BSL-4 labs are in operation in the United States. Anyone entering the specially ventilated, high-security facilities must wear a moon suit with a respirator and shower before leaving.

The woman was testing treatments for Ebola, Dasey said.

Although the accident occurred Feb. 11, military spokesmen did not disclose it until 11 p.m. Wednesday -- seven days later. Dasey said there was no danger to the public. "We waited until the media asked us about it," said Dasey, who said a reporter had inquired. Soon after the incident occurred, the mayor of Frederick, the Frederick County Health Department and Maryland state health authorities were notified, Dasey said.

<http://www.washingtonpost.com/wp-dyn/articles/A56368-2004Feb19.html>

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New York Times
February 20, 2004

U.S. Urges North Korea To End Nuclear Work

By Steven R. Weisman and David E. Sanger

WASHINGTON, Feb. 19 — The United States will demand next week that North Korea agree to dismantle all its nuclear weapons and development programs — including a uranium enrichment program that Pakistan is believed to have supplied in recent years — as a prerequisite for any assistance, a Bush administration official said Thursday. But in a briefing on Thursday, in advance of talks with North Korea in Beijing next week, the administration official said he would not specify whether any commitment to dismantle the uranium enrichment program, along with other weapons programs, had to be explicit, or whether the administration would settle for a more vaguely worded commitment from North Korea to eliminate all its nuclear programs.

In an administration still split over how hard a line to take in the negotiations, the handling of the uranium program may determine whether the talks move forward or fail.

Confronted with intelligence gathered by the United States and South Korea, North Korea admitted to American officials in October 2002 that it had an active program to enrich uranium, in addition to its much older effort to turn spent plutonium into a bomb.

But it has denied the existence of the uranium program in subsequent meetings, and American intelligence officials said Thursday that they still could not determine where the uranium program was located.

In recent months, China, citing the failure to find weapons in Iraq, has questioned the quality of American intelligence about the North Korean program and suggested that it should not be a focus of the negotiations, which are to begin on Feb. 25. But the confession last month of Abdul Qadeer Khan, a founder of the Pakistani nuclear program, included an admission that he had provided nuclear technology to North Korea.

"Khan's statements have made it imperative that this program be dismantled right away," a senior administration official said Thursday.

Echoing what was said at the briefing, but taking a more threatening posture, another senior American official charged in Japan that any failure by North Korea to acknowledge its enriched uranium program could derail the plan for settling the issue without military force.

"I think North Korea's unwillingness to discuss the uranium enrichment program could subvert President Bush's determination for a peaceful, diplomatic resolution of the North Korean issue," the official, John R. Bolton, under secretary of state for arms control, said in an interview with NHK, the Japanese broadcast network.

The broader objective of the talks, the official at the briefing in Washington said, would be for North Korea to make a fundamental choice to abandon its nuclear aspirations altogether, as Libya did after lengthy negotiations last year.

Otherwise, he argued, there could be no deal that would permit energy or economic assistance to North Korea.

The official's comments came at a session with reporters arranged before the trip to Beijing next week by the leader of the American delegation, James A. Kelly, assistant secretary of state for East Asian and Pacific affairs.

Many of the comments echoed a speech by Mr. Kelly last Friday in which he said the American delegation was "prepared to listen carefully and respond to all positions." President Bush said on a trip to Asia last fall that he was willing to spell out security guarantees for North Korea as part of an overall deal.

The talks are sponsored by China and also include South Korea, Japan and Russia. American and Asian diplomats say the planning for the negotiations has been difficult, in part because of disagreements between the United States and two partners, China and South Korea.

The negotiations have largely focused, so far, on North Korea's decades-old program to produce nuclear weapons by extracting plutonium from spent fuel from its nuclear reactors. North Korea not only has acknowledged that program, but has boasted about it. American intelligence officials believe that the reprocessing operations are still going on.

The parallel effort to build a weapon from uranium is believed to be further behind. American officials believe that North Korea obtained from Dr. Khan's network designs and equipment similar to those sold to Libya.

But Bush administration officials say they came to know about the uranium program in 2002 and won an admission from North Korea that it existed after Mr. Kelly confronted officials in North Korea in the fall of that year. North Korea now denies that it made such an admission, but American officials reject that denial.

<http://www.nytimes.com/2004/02/20/politics/20DIPLO.html>

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Philadelphia Inquirer

February 20, 2004

New Craft Can Evade Missiles, Russia Says

By Vladimir Isachenkov, Associated Press

MOSCOW - Russia has successfully tested a space vehicle that could lead to weapons capable of penetrating missile defenses, a senior general said yesterday. He insisted the device was not meant to counter U.S. efforts to develop an antimissile shield.

Analysts said the device might be part of a campaign to bolster Russia's global clout and burnish President Vladimir V. Putin's image ahead of March polls in which he is expected to win reelection. It also might be part of an effort to restore prestige to the country's military, which has suffered near collapse since 1991.

Col.-Gen. Yuri Baluyevsky, first deputy chief of the General Staff of the Russian armed forces, gave few details about the device, which was tested Wednesday. He said it was a hypersonic vehicle - one that moves at more than five times the speed of sound - that could maneuver in orbit.

A weapon based on the craft could use that maneuverability to evade missile defenses, he said.

"The flying vehicle changed both altitude and direction of its flight," he said at a news conference. "During the experiment conducted yesterday, we have proven that it's possible to develop weapons that would make any missile defense useless."

Phil Coyle, a senior adviser to the Washington-based Center for Defense Information, said that Russians had been working on such a system for years and that "it would not be surprising if they finally succeeded."

Baluyevsky's statement followed Putin's assertion a day earlier that Russia could build unrivaled new strategic weapons. Putin spoke during military exercises described as the largest in more than 20 years.

In 2002, the United States withdrew from the Anti-Ballistic Missile Treaty to develop a missile shield. Putin said Russia's latest weapons development was not directed against the Americans, and Baluyevsky reaffirmed the statement.

"The experiment conducted by us mustn't be interpreted as a warning to the Americans not to build their missile defense...", Baluyevsky said. "We have demonstrated our capability, but we have no intention to build this craft tomorrow."

The United States reacted calmly to the Russian plans.

"If you're in that business - intercontinental ballistic missiles and warheads - you want them to be survivable, and maneuverability is one way to increase their survivability against any potential defenses," Gen. Richard Myers, chairman of the Joint Chiefs of Staff, said when asked about remarks Putin made Wednesday. "They've got to design a missile force that they think is sufficient for deterrence, just like we do."

<http://www.philly.com/mld/inquirer/news/nation/7994846.htm>

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Moscow Times
February 20, 2004
Pg. 4

Chemical Weapons

MOSCOW (AP) -- Viktor Kholstov, head of the Munitions Agency and the official responsible for reducing weapons stockpiles, accused the United States of inventing irrelevant political conditions for funding Russia's chemical weapons disposal program.

Kholstov said that while the United States had pledged more than \$500 million to help eliminate the world's biggest chemical stockpile, its financial aid was "dependent upon completely far-fetched political conditions," Rossiiskaya Gazeta reported Thursday.

Kholtsov said that the United States suspected that Russia was selling chemical weapons to so-called "problem countries," making reference to Iraq.

<http://www.themoscowtimes.com/stories/2004/02/20/031.html>

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Philadelphia Inquirer
February 20, 2004

Nuclear Find In Iran Puts A Vow In Doubt

By George Jahn, Associated Press

VIENNA, Austria - U.N. inspectors probing Iran's nuclear program have found equipment that can enrich uranium for weapons use and is far more advanced than anything the Iranian government has previously acknowledged, diplomats said yesterday.

The advanced centrifuge system is the second piece of evidence uncovered this month that casts doubt on Iran's commitment to prove it does not want atomic weapons.

White House spokesman Scott McClellan said the latest find raised serious concerns.

"A country with the vast oil and gas resources of Iran has no legitimate need for nuclear energy," McClellan told reporters. "And full confidence about Iran's nuclear program requires Iran to abandon uranium enrichment and reprocessing activities."

The advanced centrifuge system whose existence was revealed yesterday appeared linked to drawings found about a week ago by nuclear inspectors of the P-2, a centrifuge far more advanced than the thousands of P-1s Iran now acknowledges having.

Iran insisted that its intentions were peaceful and that its centrifuges were meant to process uranium for nuclear power, not warheads. Without explicitly acknowledging the discovery, Iranian Foreign Ministry spokesman Hamid Reza Asefi said any advanced P-2 centrifuge system in the country was not in use but rather at a research stage. One of the diplomats said the centrifuge was apparently located at an Iranian air base outside the capital - which would strengthen the arguments of the United States and other nations that Iran was trying to make weapons. But several other diplomats said they did not know where the equipment was found, and the Iranian government said there were no nuclear projects on any military base in the country.

Confronted by evidence last year, Iran acknowledged hiding nearly two decades of nuclear activity, including the import of enrichment technology linked to the black-market network of Pakistani scientist Abdul Qadeer Khan. Those imports of know-how have allowed Iran to create a domestic production line of centrifuges that can be used to process uranium for power - or for warheads at a highly enriched level.

<http://www.philly.com/mld/inquirer/news/nation/7994858.htm>

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London Daily Telegraph

February 20, 2004

Pg. 1

Suspicious Mount That Iranians Are Seeking Atom Bomb

By Anton La Guardia, Diplomatic Editor

United Nations nuclear inspectors have discovered components for sophisticated uranium enrichment equipment that Iran failed to declare, deepening suspicions that Teheran is seeking an atomic bomb.

The unravelling of the nuclear network operated by Abdul Qadeer Khan, the father of Pakistan's bomb, has exposed Iran to ever more damaging disclosures of its attempts to hide nuclear-related facilities.

"We have serious concerns about these reports," said the White House spokesman, Scott McClellan, yesterday. "We have long said that our belief is Iran is pursuing a nuclear weapons programme under the cover of a peaceful effort." A senior diplomat said recently: "If all you want to do is enrich uranium for nuclear fuel, then the G1 centrifuge is enough. The G2 could point to a military programme."

According to diplomats familiar with investigations by the International Atomic Energy Agency, inspectors have found designs and parts for a G2 uranium enrichment centrifuge - a more advanced version of the G1 system previously declared by Iran.

Centrifuges are tubes that spin at high speed to separate fissile uranium 235 isotopes that can be used for nuclear fuel, or at high concentrations for nuclear bombs.

Some reports said the components were found on an Iranian air force base. If this is confirmed, it would create a possible link between Iran's nuclear programme and the military, despite claims that nuclear facilities are entirely civilian and designed to generate electricity.

The IAEA is due to report formally on its findings in the coming days. But the leaks corroborate a report by the Telegraph this month which quoted American sources as accusing Iran of trying to operate a parallel enrichment programme.

Under pressure from the IAEA, Iran has repeatedly been forced to change its story in the past year. In recent days it has admitted for the first time to carrying out "research and development" with G2 centrifuges. But it insists it disclosed the work to the IAEA.

Hamid Reza Asefi, spokesman for the Iranian foreign ministry, said: "Iran's nuclear activities are entirely peaceful and Iran has not had and nor does it have military nuclear activities."

The USA Today newspaper reported yesterday that the G2 components had been found at a military base identified as Doshan Tapeh. But Mr Asefi said: "In none of Iran's military centres is a nuclear programme being pursued and [G2] centrifuges do not exist in such centres."

Under a deal brokered by European countries last October, Iran admitted to violations over 18 years. In return, it was spared a referral to the UN Security Council. Iran admitted it had made small "laboratory scale" quantities of weapons-grade uranium and plutonium - offering two possible routes to a bomb.

Teheran also promised to "suspend" the operation of its large enrichment facilities in Natanz based on the G1 design using aluminium tubes. G2 centrifuges are made of a high-strength, lightweight alloy that can spin much faster.

Both versions are based on designs stolen by Khan from Holland in the 1970s and used to make fissile material for Pakistan's nuclear weapons.

Libya admitted buying the G1 and G2 versions from Khan's network, as well as a design for a nuclear warhead provided by China to Pakistan.

Diplomats suspect that Iran failed to make a full declaration. One said: "Libya bought three items on sale - the G1, the G2 and a weapon design. The Iranians admitted to the G1, and now to research with the G2. The question is whether they also have a weapon design."

America will seize on the IAEA's findings to demand that Iran be referred to the Security Council for possible sanctions when the IAEA board meets next month.

But the European countries negotiating with Iran to come clean - Britain, France and Germany - fear that this would be an empty gesture unless Russia and China agreed to take tough action.

<http://www.telegraph.co.uk/news/main.jhtml?xml=/news/2004/02/20/wiran20.xml&sSheet=/news/2004/02/20/ixnewstop.html>

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Washington Post

State Office Sealed After Powder Found

By David A. Fahrenthold

Washington Post Staff Writer

Friday, February 20, 2004; Page A14

The State Department yesterday sealed off a satellite office that performs visa work after white powder spilled out of an envelope containing an Indian passport, officials said.

A preliminary test could not rule out the possibility that the powder was anthrax. Officials, who were doing follow-up tests last night, said that they were moving cautiously but that they did not expect the substance to turn out to be anthrax.

The officials said they expect to have test results today.

The envelope was opened about 11 a.m. in the visa services unit, on the seventh floor of a building in Columbia Plaza, a complex in the 2400 block of E Street NW, the D.C. fire department said. Fire department spokesman Alan Etter said the powder spilled from between the Indian passport's pages.

Officials sealed off the floor and briefly quarantined about 20 employees while fire department crews performed a preliminary test on the powder, Etter said. The workers showed no ill effects and were allowed to go home, officials said.

"There's no reason at all to believe this is anything sinister," Etter said.

The office and seventh floor remained off limits, however, because the test found that the powder contained protein, Etter said, leaving open the possibility of anthrax.

State Department spokesman Lou Fintor said the office processes visas for validation and renewal. He said that it was not unusual for the office to receive passports by mail.

The office's staff was expected to return to work today, and Fintor said he did not expect operations to be disrupted significantly.

The FBI was having the powder tested last night by the Armed Forces Institute of Pathology in the District, FBI spokeswoman Debbie Weierman said. She said initial field tests often produce "false positives."

"This is not a procedure that is done on a daily basis," she said. "However, additional testing of a suspicious substance is not uncommon or out of the ordinary."

<http://www.washingtonpost.com/wp-dyn/articles/A56409-2004Feb19.html>

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