#242
28 Feb 2003

USAF COUNTERPROLIFERATION CENTER

# CPC OUTREACH JOURNAL

***Air University***
***Air War College***
***Maxwell AFB, Alabama***

*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.*


## CONTENTS



New York Times
February 27, 2003

## Reactor Started In North Korea, U.S. Concludes

By David E. Sanger
WASHINGTON, Feb. 26 — North Korea has restarted a reactor at its primary nuclear complex, American intelligence officials said today. Over time, the reactor could provide a continuing source of plutonium for nuclear weapons.
The action by North Korea — detected a day after Secretary of State Colin L. Powell said there was no evidence the reactor was operating — was the latest in a series of steps it has taken toward building a significant nuclear arsenal, or at least appearing to do so. American officials are divided about whether the North Korean government is now on a determined course to produce more than half a dozen weapons or is still interested in drawing concessions from Washington.
President Bush and his advisers have played down the standoff, even while sending Mr. Powell to Asia to try to coordinate pressure to temper North Korea's nuclear ambitions.

North Korea had previously announced that it would "resume normal operations" at the plant but had been warned not to do so by the United States and others. The satellite evidence that led to the American announcement tonight was the first sign that the North Korean leader, Kim Jong Il, had decided to ignore those warnings.

The latest move, one American official acknowledged tonight, will make it harder for the Bush administration to "take the position that this isn't a crisis." That argument had already been contradicted by American intelligence officials in testimony to Congress earlier this month.

"It's going to make this a significant test of how the president juggles this and Iraq at the same moment," a senior official said.

North Korea warned its citizens today to prepare for a war with the United States, saying the country might be the next target after Iraq. Mr. Powell and Mr. Bush have repeatedly said they have no "intention" of invading North Korea, though they have warned that all military options remain on the table if the security of the United States and its allies is threatened.

Today's action was not the most serious challenge to the United States and its allies that could have taken at Yongbyon, the nuclear complex north of the capital, Pyongyang.

American intelligence satellites have been closely watching a nearby reprocessor, which can be used to convert spent nuclear fuel rods into weapons-grade plutonium. The North Koreans already have 8,000 spent rods, enough to produce five or six weapons. If the reprocessor began operations, a move that could come in days or weeks, American officials say, North Korea would have sufficient enriched plutonium to be able to produce about one bomb a month through the summer.

"We have no evidence the reprocessor has started up yet," said a senior American official with access to the intelligence. "Either they are stopping just short of that, or they are waiting to turn the screws once again."

The five-megawatt reactor that was restarted can produce slightly more plutonium in a year than would be necessary for one bomb, according to some estimates.

On Tuesday, Mr. Powell noted that for all of its heated words, North Korea had not restarted its nuclear reactor or its reprocessor.

"I think that's a wise choice if it's a conscious choice," he said, on a trip in which he tried to get China and South Korea to agree to the American approach of isolating North Korea. Within hours of his departure from Seoul, American satellites were detecting the first plumes from the reactor, which sends off a distinctive heat signature once it is activated.

The reactor's operations were frozen in 1994 under an agreement reached with the Clinton administration. It stipulated that the 8,000 rods be placed in storage and watched by two inspectors from the International Atomic Energy Agency.

But in October of last year, after the United States told North Korea it had discovered evidence the country was secretly starting up another nuclear project elsewhere, North Korea threatened to end the 1994 accord. On New Years' Eve it expelled the inspectors and broke the seals on the reactor and the reprocessing building. Workers have been seen reloading the reactor with fresh fuel.

The start up of the reactor does not pose an immediate threat; it would be a year before it produced enough waste for a bomb. But it complicates the diplomacy because the Bush administration insists that the nuclear operation must be frozen and the plant dismantled before there is any discussion of aid to North Korea.

In testimony to Congress, Richard L. Armitage, the deputy secretary of state, said the administration's main concern about North Korea was that it would sell its plutonium to terrorist groups or other states.

North Korea has demanded one-on-one talks with the United States, but Mr. Bush has refused, saying he would not "reward bad behavior."

http://www.nytimes.com/2003/02/27/international/asia/27NUKE.html

USA Today
February 27, 2003
Pg. 1

**Special Report**

# Fuel For Nuclear Weapons Is More Widely Available

By Peter Eisler, USA Today

WASHINGTON--U.S. officials have insisted for a decade that getting plutonium or highly enriched uranium is the big hurdle for rogue states or terrorists trying to build nuclear weapons. But for much of that time, they've known a secret: Other materials can be used to make atomic bombs, and they're a lot easier to get.

Now, officials believe the bad guys know the secret too.

Classified nuclear threat reports warn that rogue countries and terrorists have learned it is possible to make atomic bombs using low-enriched uranium, a common fuel for nuclear reactors used to conduct research and generate power. The reports, described to USA TODAY by top federal officials, also conclude that it would be easier than previously believed for enemies of the United States to make such weapons using spent nuclear fuel, the waste generated by reactors.

Neither of those substances is listed as "weapons usable" under U.S. or international security protocols. As a result, they get little protection from theft at civilian nuclear reactors worldwide. That includes reactors in former Soviet states and nations such as Indonesia, where public sympathy runs high for Iraq and al-Qaeda.

And the threats are real.

Five years ago, U.S. scientists at Los Alamos National Laboratory secretly designed an atomic bomb with low-enriched uranium, USA TODAY has learned. The bomb, which could have fit easily in a small pickup, was weak in nuclear terms but strong enough to destroy a square mile of a city.

U.S. scientists also have proved in experiments that it is possible to create nuclear weapons using several elements that could be extracted from spent fuel by a rogue state or perhaps even a well-organized terrorist organization.

Officials stress that there is no evidence that al-Qaeda or any other terror group has the skills or tools to build an atomic bomb using low-enriched uranium or spent fuel. There's a big gap, they say, between knowing such things are possible and being able to do them. Rogue states are a bigger concern: U.S. officials believe that Iran and North Korea are trying to develop the capability to make nuclear weapons using spent fuel.

Yet U.S. efforts to stop the spread of nuclear weapons still focus almost exclusively on protecting plutonium and highly enriched uranium, the traditional "weapons usable" nuclear materials. That atomic bombs can be made with little or none of those substances reveals significant gaps in current programs to keep rogue states and terrorists from developing a nuclear capability.

Under U.S. and international protocols for protecting nuclear materials, facilities handling low-enriched uranium or spent fuel are not obliged to have armed guards or security systems to stop break-ins or insider thefts. Such measures are expected of nuclear installations holding plutonium or highly enriched uranium. Accounting and inventory rules also are far less stringent for material not deemed "weapons usable."

Officials at the International Atomic Energy Agency, the arm of the United Nations that monitors nuclear stocks worldwide, say such distinctions are appropriate because plutonium and highly enriched uranium remain the most effective and easy-to-use materials for making nuclear weapons.

"We work on the assumption that rogue states, or terrorists for that matter, know how to make (nuclear) weapons with small amounts of material and different types and combinations of material. But we've been advised by experts with the nuclear weapons states that it would be very difficult," says Davis Hurt, a senior safeguards expert at the agency.

The agency, based in Vienna, has to focus its oversight on the biggest threats, Hurt says. Expanded monitoring of other materials, such as low-enriched uranium, wouldn't be possible unless the agency's member states provided money to boost its budget, he says.

**Cracking nuclear myths**

From the dawn of the atomic age, nuclear weapons have relied on plutonium or highly enriched uranium for their explosive punch.

Highly enriched uranium is easier to make and to use. It is created by processing natural uranium to boost its concentration of uranium-235, the element's most fissionable isotope. Once that concentration is sufficient, it's relatively easy to make a "gun-type" atomic bomb, which slams masses of enriched uranium together in a gun barrel-like tube. That was the type of bomb the U.S. dropped on Hiroshima in 1945.

Plutonium is more of a challenge to make because it requires running uranium through a nuclear reactor. It's also harder to fashion into a bomb: a plutonium "pit" has to be surrounded with conventional explosives that are precisely detonated to compress the material and create a critical reaction. But plutonium weapons yield much bigger blasts with far less material.

In the 1960s, as nuclear power went global, U.S. officials successfully pushed for international standards to keep plutonium and enriched-uranium stockpiles secure. The International Atomic Energy Agency monitors compliance with voluntary measures through inspections and inventory checks. Physical protections — guards, gates and guns — are the responsibility of each nation, and the agency cannot mandate such measures.

The agency's protocols and inspection programs fail in several ways to account for types and amounts of materials that can serve as fuels for a nuclear device:

**Low-enriched uranium**, or uranium containing less than 20% of the U-235 isotope, is not labeled "weapons usable" under either U.S. or international standards. Reactors using the fuel are inspected once a year versus once a month for those using plutonium or highly enriched uranium. They also have more leeway in accounting for material that goes missing.

Many of the world's research reactors use low-enriched uranium with U-235 concentrations just below 20%. That material can, as Los Alamos proved, create a nuclear blast, though making a bomb with it requires substantial skill and a relatively large amount of material. The United States helped convert many of those reactors from highly enriched uranium.

Some reactors run on uranium enriched to less than 5%, which cannot sustain the critical reaction for nuclear weapons. But even that material would carry risks in the hands of a rogue state because it is relatively easy to boost its enrichment enough for weapons use.

"If you got a stack of uranium enriched to 4-5%, which as a rule is not seriously protected, the plant needed to convert it to 90% enrichment is potentially small and easy to hide," Harvard University physicist Matthew Bunn says.

**Spent reactor fuel,** which cannot be used directly to make an atomic bomb, is a growing concern among authorities because it can be processed to extract materials that can be used for nuclear weapons. The work demands sophisticated skills and equipment, but it's not the challenge it once was.

The United States "reprocessed" spent fuel from nuclear reactors for decades to recover plutonium for weapons. And U.S. scientists have proved recently that other, less-recognized elements in spent fuel, such as neptunium and americium, also can sustain the chain reaction needed for nuclear blasts.

Security for spent fuel often is a low priority because it is seen as too radioactive to handle. But U.S. scientists have warned for years that poorly guarded spent fuel caches in some countries have sat for so long that radioactivity has dissipated and poses less of a risk.

A recently declassified study by Lawrence Livermore National Laboratory in 1995 found that rogue states or terrorists would need only "modest facilities and equipment" to extract weapons-ready nuclear material from spent fuel.

**The amount of nuclear fuel** needed to build a bomb is far less than what is officially stated.

The International Atomic Energy Agency says it takes 17.6 pounds of plutonium or 55.1 pounds of highly enriched uranium — amounts that could fit in a suitcase — to build a nuclear weapon. Reactors holding those amounts or more are inspected with greater frequency.

Yet U.S. officials acknowledge that nuclear weapons can be built using far smaller quantities of those materials.

A 1995 study by the Natural Resources Defense Council found that terrorists with "low" technical ability could build a small nuclear weapon with about nine pounds of plutonium or 20 pounds of highly enriched uranium. A more expert program, such as those run by Iraq, Iran or North Korea, would need about half those amounts, the study said. Such a bomb would have about a quarter the power of the one that destroyed Hiroshima.

"It's a lot easier to make a nuclear explosive device — and some simple designs require a lot less fissile material — than the public has been led to believe," says Thomas Cochran, a physicist who co-authored the study.

**New threats perceived**

There's debate among U.S. officials over the gravity of the nuclear threat terrorists or rogue states could pose without significant amounts of plutonium or highly enriched uranium. In August, the debate clouded a much-touted mission by U.S., Russian and international officials to remove more than 100 pounds of highly enriched uranium from a closed and poorly secured Serbian research reactor. With Serbia's blessing, the material was taken under heavy guard to a Russian site where security had been improved with U.S. help.

Officials never revealed in news briefings that they left behind a cache of spent fuel laced with at least 10 pounds of plutonium that could be extracted for weapons. The material remains at the site.

"Some people wanted to take it — there was a lot of debate," says a U.S. official involved in the mission. "It would have been a lot of work — more than two tons of additional material in a lot of containers. But our understanding is that the plutonium may be concentrated in certain containers, so if a bad guy got the right ones, he could get some good stuff."

Assessing the risk is tough because officials don't know what rogue states and terrorists are capable of doing with different types of nuclear material. U.S. officials worry, for example, that al-Qaeda picked up nuclear secrets from sympathetic Pakistani scientists.

The other problem is that no one knows how much nuclear material may be missing around the world. Many research and power reactors keep shoddy fuel inventories, particularly in former Soviet states and developing nations. And reports of thefts or losses tallied by the International Atomic Energy Agency are notoriously spotty.
"No one doubts that there are a number, if not many, instances of diversion or theft of nuclear material that we're not aware of," says William Potter, a non-proliferation expert at the Monterey Institute of International Studies. Many countries don't disclose losses, he adds, and intelligence sharing is limited.
Data gathered by the International Atomic Energy Agency and the Monterey Institute reveal several thefts or losses over the past few years involving low-enriched uranium and small amounts of traditional weapons fuel.

**A daunting set of solutions**

Many officials fear they will undermine the critical mission of securing big stockpiles of plutonium and highly enriched uranium if they draw attention to the risk posed by lesser grades or amounts of nuclear material.
Economic woes in the former Soviet states, especially Russia, have left little money for securing numerous sites storing weapons-ready nuclear fuel left from the Cold War. U.S. assistance programs to help consolidate and protect that material have reached fewer than half the sites of concern.
"We need to have more countries throwing money into the pot," says Rose Gottemoeller, a former assistant secretary of Energy now at the Carnegie Endowment for International Peace.
U.S. officials recently won agreement from the seven other top economic powers to collectively match a U.S. pledge of $10 billion over 10 years for non-proliferation efforts. Meanwhile, many experts say, safeguards must be tightened.
The rules should reflect that information on making bombs with low-grade nuclear fuel or small amounts of traditional material "has leaked out more in recent years," says Laura Holgate of the Nuclear Threat Initiative, a non-profit group working to curb the spread of nuclear arms.
Some critics say they expect no action because the International Atomic Energy Agency's member states fear that their nuclear industries would be hurt by the costly measures needed to secure all the types and quantities of nuclear materials that might be useful to rogue states or terrorists.
Those nations are ignoring the growing capabilities of those who would steal material for nuclear weapons, says Cochran of the Natural Resources Defense Council. "They're living in 1945," he says.
http://www.usatoday.com/usatonline/20030227/4902623s.htm

Washington Times
February 27, 2003
Pg. 4

# North Korea Tested A Cruise Missile

By Bill Gertz, The Washington Times

North Korea flight-tested a new long-range cruise missile Monday, not a short-range, 1950s-era weapon as first reported, U.S. intelligence officials said yesterday.
Intelligence data from the test contradicted statements by Secretary of State Colin L. Powell, who told reporters Tuesday that the test was a "fairly innocuous" firing of an old missile.
"It appears to be a Silkworm variant that they [North Koreans] modified to get a longer range," said one U.S. official, speaking on the condition of anonymity.
Initial reports said the missile test, which occurred hours before South Korea's new president, Roh Moo-hyun, was inaugurated in Seoul, involved a short-range Russian Styx anti-ship missile with a range of about 50 miles.
Further analysis of intelligence data collected on the flight test sharply changed the estimate of the missile's capability, and thus its importance in the international community's current standoff with North Korea over its nuclear weapons program.
The Washington Times first disclosed the existence of the new North Korean cruise missile in 1997, when it was test fired for the first time.
The missile was identified as a long-range variant of China's HY-2 Silkworm missile and dubbed the AG-1 by the Pentagon. The first test launch was May 23, 1997, from a military base at the Angol army barracks in northeastern North Korea.
It could not be learned where Monday's test took place.
Based on the early intelligence information, Mr. Powell told reporters in Seoul that the test "seems to be a fairly innocuous kind of test, a short range, surface-to-surface naval missile that goes out maybe 60 or so miles."

"From what I have been able to determine, it's a fairly old system," said Mr. Powell, who was in South Korea to attend the presidential inauguration.
Mr. Powell said the test had been expected because North Korea had announced a "notice to mariners" to stay clear of areas off the coast of North Korea. "I didn't find it particularly surprising or shocking or disturbing that one occurred today," Mr. Powell said.
State Department spokesman Philip Reeker said yesterday that Mr. Powell did not intentionally misspeak in Seoul. The secretary's remarks were based on preliminary information available to all U.S. government agencies at the time, Mr. Reeker said in an interview.
Mr. Powell, however, in the past has sought to down play the problems caused by North Korea's nuclear program, saying the latest developments are not a crisis.
U.S. intelligence officials said additional tests by Pyongyang are expected in coming days and the launch facility is being closely watched.
U.S. intelligence agencies are worried the cruise-missile test is part of renewed long-range missile testing by North Korea, which was halted after the 1998 flight test of a Taepodong-2 long-range missile. "That's a concern," one U.S. official said.
The new anti-ship cruise missile is estimated to have a maximum range of just under 100 miles, the officials said.
The new cruise-missile test, while not the first, is a significant increase in missile power for North Korea. The long range gives Pyongyang's military an "over the horizon" strike capability that could be launched against U.S. aircraft carriers and warships, according to U.S. officials.
Earlier estimates had put the missile's range at about 60 miles.
The missile fired by North Korea is an advanced, homemade version of the Chinese Silkworm anti-ship missile, which has a range of about 60 miles.
China's HY-2 Silkworm is an updated version of the Russian SSN-2 Styx missile.
The officials said the missile test appeared to be the latest effort by North Korea's communist government to flex its muscles. Tension has been high on the Korean Peninsula since Pyongyang announced late last year that it was resuming its nuclear program.
A North Korean diplomat suggested several weeks ago that Pyongyang might resume missile flight tests and lift the self-imposed testing moratorium.
U.S. officials fear North Korea will sell the cruise missiles, as it has done with its arsenal of ballistic missiles.
http://www.washtimes.com/national/20030227-615708.htm

Washington Post
February 27, 2003
Pg. 21

# Marines And Reporters Get A Scare

***Chemical Weapons Alerts at Kuwait Camp Turn Out to Be False Alarms***

By Susan B. Glasser, Washington Post Foreign Service
CAMP RIPPER, Kuwait, Feb. 26 -- "This is not a drill! This is not a drill!"
Within seconds, hundreds of Marines milling about Camp Ripper pulled gas masks on. They started running toward their tents. The lengthy PX queue disappeared. The Marines were convinced they were responding to a chemical attack in the Kuwaiti desert south of Iraq.
"This is for real, ma'am," one Darth Vader-voiced Marine said through his mask.
A crowd of reporters, many without gas masks, looked on as Marines swore this was not a test. The reporters snapped pictures of the masked-up Marines and wondered what to do. Running Marines herded one set of journalists into a tent, then returned to order them out of the camp.
"This is not a drill," Capt. Joseph Plenzler shouted as a line of sand-battered, four-wheel drive vehicles beat a hasty retreat.
It was the second chemical weapons scare in less than two hours at Camp Ripper, a sign of the times as a U.S. military force of more than 110,000 camps out here in Kuwait awaiting word on whether and when it will be called to attack Iraq.
Civilian life in Kuwait proceeds with seeming normality for the 2.3 million residents. But in the U.S. military encampment that occupies much of the country, a chemical attack in the middle of a sunny day does not seem far-fetched. All U.S. personnel are required to keep their gas masks and chemical protection suits with them, even if all

they are doing is drinking fresh-squeezed orange juice at the beachside Hilton resort that serves as the military press center.
During the Persian Gulf War, which 12 years ago today liberated Kuwait from Iraqi rule, false alarms were common. But technology was supposed to be better this time. Practice drills are routine in the military camps, but today's miscue showed equipment flaws can still occur.
At Camp Ripper, about 25 miles south of the border, the first false alarm came around 10 a.m., when a neighboring unit not connected to the 1st Marine Expeditionary Force conducted an unannounced drill.
About 20 reporters were waiting at the gate to enter the camp. In honor of Kuwaiti Liberation Day, the Marines had rounded up a dozen Gulf War veterans to talk about how they felt being back in the desert. Instead, the warning came over the radio. Marine public affairs officers pulled on gas masks, then ordered reporters to don their own gear or leave.
"Drive south," one Marine urged. "Leave now."
No one left. About two-thirds of the journalists had brought gas masks. As the others wondered what to do, TV crews and photographers with their masks on shot pictures of other journalists donning their masks.
"This was not a drill," Plenzler said. "We've done a bunch of drills before. But this is the first time this has happened when it hasn't been a drill."
After an anxious half-hour, the all-clear was given, along with an explanation that there had been a communications mix-up.
The second false alarm came an hour and a half later as Gunnery Sgt. Nick Hentges was finishing an interview. He was talking about the looming war and what it might be like to charge into Iraq. He was imagining the Kuwaiti border with Iraq. He was thinking about the plight of the Iraqi front-line soldiers on the other side of that border.
It was 12:15 p.m. An officer nearby sounded the alarm. Within seconds, Hentges was crouched on the ground, gas mask on, yelling out the warning to others who had not heard. Kneeling next to him in the sand, a photographer snapped away. He had no gas mask. Hours later, the Marines put out a statement. "Chemical detection equipment falsely detected the presence of chemical agents," it said.
http://www.washingtonpost.com/wp-dyn/articles/A8078-2003Feb26.html

Washington Times
February 27, 2003

# Biosensors Are Not Bioshields

By Scott Gottlieb
President Bush's two recent efforts to ready America for the threat of biological terrorism — the first to retrofit the air quality monitoring stations inside major cities in order to detect bioweapons, and then to spend $6 billion to fund new research into vaccines and antidotes as part of his BioShield initiative — will both make Americans safer.
But the president's ability to rapidly deploy a series of bioweapons sensors provides evidence why the development of appropriate antidotes could take much longer.
The technology for detecting bioweapons is advanced to the point where functioning systems can be readily deployed, largely because similar tools have been used for years by the private sector. For example, agricultural companies use the same platforms found inside bioweapons sensors for the detection of contaminants in food.
Seattle-based Research International is one of about a half-dozen companies adapting machines used to detect agricultural toxins as a bioweapon sniffer. Their box, which can test air and soil samples for a range of would-be bioweapons, has already been successfully deployed on an American-made aerial drone and could eventually be used for clandestine monitoring.
Equally important, the military and civilian needs for biosensors are similar. When companies like Research International spend gobs of money adapting machines into bioweapons sniffers, they can expect to sell successful products to not only the Pentagon, but cities interested in mounting them inside public spaces like subways and sports arenas. The result? There's a big potential opportunity for successful boxes and a flurry of private innovation among companies interested in capturing a slice of that market.
All of these things aren't true when it comes to medical countermeasures and, as a result, our treatments aren't nearly as advanced as our detectors.
With treatments for bioweapons, unlike biosensors, the needs of a soldier stationed on the battlefield and an ordinary office worker are diametrically different. The key for Pentagon planners is to keep their troops on the battlefield in peak performance. That means protecting them from succumbing to a biological agent in the first place, mostly with

preventative vaccines. The Pentagon can't risk troops being sick, even if it was only for a few days, say, until antibiotics or antiviral drugs took effect.
By comparison, civilians are less likely to face biological agents, and so vaccinating them for the full spectrum of bioweapons isn't practical, or even necessary. But ordinary Americans still need countermeasures.
In the face of a domestic attack, doctors might not be as concerned that civilians could fall ill to bioagents, so long as they had the tools to completely cure everyone. So, what civilians need are effective treatments that can be stocked on hospital shelves, and used to treat sick patients and mitigate the effects of an attack. The problem is that most of the research in bioweapons countermeasures has traditionally focused on the needs of the Pentagon. So, treatments have been given short shrift in favor of vaccines.
Consider anthrax, where the Pentagon is currently shopping for a better, oral vaccine in order to protect its frontline troops. It wouldn't be practical to give the same vaccine to every American, even if the final product was entirely safe, especially since anthrax isn't contagious and there's little chance it would spread outside an area of release. So long as doctors had effective antidotes stocked in centralized locations, they could easily mitigate the impact of an attack.
What would such treatments look like? With anthrax, it's not the bug itself that kills, but the deadly toxin that these bacteria release. Antibiotics like Cipro kill the bacteria and are effective only if they're administered before the infection has released too much of this poison. But, once too much toxin has been secreted, usually in a matter of days when it comes to inhalation anthrax, all the antibiotics in the world are unlikely to save a victim.
To those ends, what doctors need isn't a vaccine but an antitoxin that could mop up the deadly chemical that anthrax releases into its victim's blood. Such drugs aren't far off. There's strong scientific evidence that a group of shelved cancer compounds called metalloproteinase inhibitors, abandoned years ago because they weren't effective cancer agents, could be converted into drugs that neutralize anthrax toxin.
The same medical principles apply to a range of would-be bioweapons, from Ebola, to smallpox, to tularemia. The right antidotes can be nearly as effective as vaccines and more practical for civilians. But developing these kinds of medicines could be given short shrift unless planners adhere to a dual approach when it comes to developing countermeasures, one that considers the different needs of troops and civilians.
Since it's vaccines that the Pentagon needs most, that's where much of the government research money has often been targeted. The result could be that our cities are outfitted with the best bioweapons sensors, but doctors might not have anything to offer inhabitants if one of them should start ringing.
*Dr. Scott Gottlieb is Resident Fellow at the American Enterprise Institute and a writer for the British Medical Journal.*
http://www.washtimes.com/op-ed/20030227-85983432.htm

New York Times
February 28, 2003
Pg. 1

# 'In Principle,' Iraq Agrees To Destroy Forbidden Missiles

By Patrick E. Tyler with Felicity Barringer
WASHINGTON, Feb. 27 — As the Security Council argued bitterly over whether to go to war with Iraq, the government of Saddam Hussein said today that it had agreed "in principle" to begin destroying ballistic missiles judged illegal because their range exceeds limits imposed after the Persian Gulf war.
Baghdad's decision was conveyed by letter to Hans Blix, a chief United Nations weapons inspector, after he had distributed a report concluding that Iraq had made a "very limited" response to the disarmament requirements set forth by the Security Council last November. Diplomats made the contents available.
The report, to be delivered to the Security Council on Friday, appeared to offer some support for the Bush administration's claim that Mr. Hussein is not serious about disarming.
"The rockets are just the tip of the iceberg," President Bush reiterated today in an appearance with the Afghan president, Hamid Karzai. "The only question at hand is total, complete disarmament, which he is refusing to do," the president said, referring to Mr. Hussein.
At the same time, Iraq's announcement that it would destroy more than 120 Al Samoud 2 surface-to-surface missiles as a Saturday deadline approached indicated that Mr. Hussein was trying to head off a military assault by the United States and its allies.

The allies were also maneuvering, as were Russia, France and Germany.
The British ambassador to the United Nations, Sir Jeremy Greenstock, was said by diplomats to have disclosed fresh intelligence in today's closed Council session that Iraq continued to manufacture poison nerve gases and mustard gas.
In Washington, senior Bush administration officials claimed that an intense lobbying campaign was making progress toward securing 9 of the 15 Council votes for the American, British and Spanish resolution that would provide United Nations backing for military action.
President Bush telephoned President Vladimir V. Putin of Russia today and made the case for war in a 17-minute conversation. "Putin said, `Our feeling is that we should give the inspectors more time,' " a senior administration official recounted. Mr. Bush said he disagreed.
The official said Mr. Putin replied, "We'll think about it." The official said the Russian response showed flexibility and was, in any case, "better than a sharp stick in the eye."
Secretary of State Colin L. Powell also spent the day lobbying top leaders and believes, according to a senior administration official, that all three African states on the Council, Angola, Guinea and Cameroon, will side with the United States.
A senior administration official said he believed that among Pakistan, Mexico and Chile, Washington could count on two out of the three it would need to pass the war resolution.
[In Beijing on Friday, Russia's foreign minister, Igor S. Ivanov, said his country opposed any new Security Council resolution which would lead to a war to rid Iraq of weapons of mass destruction, Reuters reported.
["Russia does not support any resolution which could directly or indirectly open the way to an armed resolution of the Iraq problem," Mr. Ivanov told a news conference.] In New York today, France and Germany held the line in opposition to any immediate decision on war and pressed for more time for the United Nations inspection force.
During the closed session, the French ambassador, Jean-Marc de la Sablière, asked how much legitimacy the Security Council would have if it authorized a war opposed "by the vast majority of the international community" and that, with the United States' promise to proceed with or without Council support, "has been decided in any case?"
A German diplomat said today that the "elements of a compromise are on the table" at the United Nations, if Washington would be willing to negotiate with France, Germany and Russia over setting a deadline for Iraqi compliance.
"But the paper that has been put on the table is a do-or-die proposal," the diplomat said. "There is no offer to negotiate and so what sense is there to offer a compromise?"
The prospect that Washington might win a slim majority authorizing war also weighed heavily on the White House and the Bush family, including the president's father, and close associates said there were deep concerns about the collapse of Western unity over Iraq.
"You cannot go to war without a consensus," one close associate said.
Adding to those concerns, Turkey's leaders today postponed a parliamentary vote on whether to allow American combat troops to use the country as a base for attacking Iraq. Officials said the vote would be put off until Saturday, as the governing party appeared to be having trouble assembling a majority of deputies to carry the measure.
Also today, the Turkish defense minister, Vecdi Gonul, said his government had reached an agreement with the United States on military issues, including a limit of 12 miles on Turkish troops' penetration into northern Iraq as they set up a security zone for refugees.
Iraq's Kurdish leaders, who will figure prominently in any post-Hussein political order, are fearful that Turkey wants to follow American forces deep into northern Iraq so they can control the Kurds' ability to declare independence or seize the oil fields there.
In Iraq today, Mr. Hussein moved some of his best troops, from Mosul in northern Iraq toward either Tikrit, his ancestral home, or Baghdad. That leaves only one Republican Guard division in the northern region, where Kurdish, American and Turkish forces are expected to be sent if war breaks out.
Military officials said today that B-2 stealth bombers, which would play a significant role in bombing Iraqi targets in the opening hours of any conflict, have received orders to leave for bases in Britain and on the island of Diego Garcia in the Indian Ocean. The aircraft carrier Nimitz and its battle group of warships were also set to leave San Diego on March 3 for service in the Persian Gulf.
The sense of buildup and the diplomatic pressure from Washington for war authorization elevated the issue of the Samoud missiles. With the prospects for a war seeming increasingly likely, Mr. Hussein's decision to destroy the missiles would deny him their use. His failure to destroy them, however, would violate United Nations demands and hasten the onset of a war.

Baghdad's notification today that it agreed "in principle" to destroy the missiles, prompted Mr. Blix to seek immediate clarification on whether Iraq intended to meet the deadline this weekend.
"The destruction of missiles required has not yet begun," Mr. Blix said pointedly in his report.
Still, Mr. Blix's review is mixed. Since mid-January, he states, Iraq has taken "a number of steps" that could lead to the destruction of banned weapons or their components. But he adds that it has not been possible to conduct satisfactory interviews with Iraqi scientists with knowledge of weapons programs.
"It is hard to understand why a number of measures now being taken could not have been initiated earlier," he states in the draft of the report. It had been expected that Mr. Blix would submit his report this week and then make a presentation before the Security Council on March 7, but the Council reached no agreement on when Mr. Blix would speak.
During the Security Council session, Sir Jeremy, the British envoy, said he spent some time showing "why the claim by Iraq" that it has "zero" weapons of mass destruction "is a lie."
Chile and Mexico appeared to merge their positions today, chiding the five permanent members of the Council to come to agreement and take the pressure off the nonpermanent member states that have expressed alarm about the divisions.
"We have indicated today that inspections cannot be eternal," said Ambassador Gabriel Valdés of Chile. "We want the inspectors to give us the plan of work, and we would like to step up those demands to Iraq that are crucial for the disarmament process."
The lobbying also continues in world capitals. John R. Bolton, the under secretary of state for arms control and international security, returned from Moscow, where significant emphasis is focused on convincing Mr. Putin to break with the French president, Jacques Chirac, the intellectual force behind the European opposition to war.
"If you pick off Russia, the dynamic changes," a senior administration official said.
The White House was also concerned about Pakistan. Diplomats knowledgeable about the negotiations said today that Pakistan could be expected to support the United States but would delay a public declaration until the last moment because of domestic political considerations.
A number of Bush administration officials indicated that they thought it was a mistake to publicly predict the outcome of the Security Council vote. Today, one American diplomat said: "I don't think it's going to be over until it's over. I certainly wouldn't want to characterize any delegation" as taking sides.
In an interview in the corridors outside the Council chambers, the Pakistani envoy, Munir Akram, said his government was working "to try and promote some agreement on what would establish the credibility of the inspections process."
Ismael Gaspar Martens, the Angolan envoy, said in a brief interview his country was committed to disarming Iraq. Asked if that meant his government favored one side over the other, he demurred, saying, "If it is closer to the U.S. or the other, I don't know."
http://www.nytimes.com/2003/02/28/international/middleeast/28IRAQ.html

Washington Post
February 28, 2003
Pg. 8

# Reactions May Be Linked To Vaccine

***3 Workers Report Serious Side Effects***

By Ceci Connolly, Washington Post Staff Writer

Three Florida health care workers inoculated against smallpox as part of the Bush administration's bioterrorism preparations have experienced serious side effects that may be linked to the vaccine, federal officials announced yesterday.
Nationwide, two dozen people have reported complications associated with the vaccine, though none has been life-threatening, according to the Centers for Disease Control and Prevention.
A 39-year-old Florida nurse, after complaining of headaches and malaise, developed a severe rash called "generalized vaccinia" that is a known side effect of the inoculation. Although additional testing is being done, health officials expressed confidence that the pustules on her chest and back were caused by the live virus vaccine. She was treated with antihistamines, and doctors do not expect her to have permanent scarring, said Eric Mast, an immunization specialist at CDC.

The two other Florida cases involved symptoms not typically associated with smallpox vaccination -- angina, or severe chest pain, and gallbladder inflammation. Both patients were treated at local hospitals and are in good condition, officials said.

"Although two of the individuals appear to have suffered ailments that have no previously known association with smallpox vaccine, it has been several decades since individuals were vaccinated against smallpox, and we must therefore report on even the most unlikely associated clinical events," said John O. Agwunobi, secretary of the Florida Department of Health.

Health officials have expected a small number of complications associated with the inoculations. In the past, between 14 and 52 of every 1 million people immunized suffered life-threatening side effects such as encephalitis. More common reactions include fever, itching, lethargy and headache.

As of Feb. 21, 7,354 people had been immunized in the voluntary program, designed to vaccinate 500,000 health care workers who would respond to an initial outbreak and open mass vaccination clinics.

More than 108,000 military personnel have been inoculated in the past six weeks, with six serious complications reported, according to the most recent data available from the Pentagon. They included two cases of encephalitis, two serious rashes, one case of myocarditis (inflammation of the heart) and an eye infection.

After studying the CDC figures, the military data and the recent immunization campaign in Israel, Alan Zelicoff, a senior scientist at Sandia National Laboratories has concluded that "the experience to date has been completely consistent with the vaccination experience in the 1960s."

Florida has immunized almost 1,200 people and is checking each of them daily for side effects, said Health Department spokesman Rob Hayes. "We are doing aggressive monitoring," he said, speculating that such an approach may explain why that state has detected the three possible adverse reactions.

All three Floridians missed work because of their symptoms, though officials could not say how much time off they needed or whether they have insurance coverage. The insurance issue has become a major hurdle for the program. State health departments, unions and hospitals say that without a compensation program to cover treatment of side effects and lost work time, it will be difficult to recruit the more than 10 million volunteers for which President Bush asked in December.

"This event reaffirms the need for a compensation program to support health care workers and their contacts injured by the smallpox vaccine," said Rep. Henry A. Waxman (D-Calif.), who has filed legislation that would provide no-fault compensation for anyone harmed in the immunization campaign.

"The president has asked health care workers to volunteer to be immunized so that they can serve society," Waxman said. "In turn, society should help them if they are hurt when they volunteer."

Two sources said the administration is considering a special designation for vaccination volunteers that would entitle them to certain disability or death benefits similar to those provided police officers injured in the line of duty under a 1968 law.

http://www.washingtonpost.com/wp-dyn/articles/A13570-2003Feb27.html