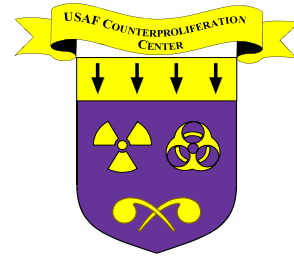


*USAF COUNTERPROLIFERATION CENTER**CPC OUTREACH JOURNAL*

*Air University
Air War College
Maxwell AFB, Alabama*



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AYLWIN WANTS TO PROBE USE OF CHEMICAL TO EXTERMINATE OPPONENTS

Story Filed: Tuesday, November 14, 2000 9:07 PM EST

Santiago, Nov 14, 2000 (EFE via COMTEX) -- Former Chilean President Patricio Aylwin (1990-1994) said Tuesday that he was considering initiating court proceedings to investigate the use of chemical weapons in the extermination of opponents of the military government (1973-1990). Documents declassified by the U.S. State Department and several intelligence agencies on the country's role in Chile revealed a plan to do away with the former president's regime. Aylwin told the local Radio Cooperativa that this "supported the theory that chemical weapons had been used to dispose of enemies of the military government."

"It brings to mind what happened to former President Eduardo Frei Montalva, whose death was never properly cleared up," he said.

Frei Montalva (1964-1970) died as a result of a rare septic shock when he was 71 at Santa Maria Hospital on Jan. 22, 1982, following routine surgery.

The circumstances of his death are being investigated by his children, Sen. Carmen Frei and former President and Senator-for-life Eduardo Frei Ruiz Tagle.

"This makes me think that the repression could have resorted to chemical weapons to destroy their enemies," Aylwin said.

One of the suspected victims of chemical weapons, former Spanish U.N. Economic Commission for Latin America and the Caribbean (ECLAC) official Carmelo Soria, turned up dead showing signs of torture in July 1976.

The body of National Intelligence Board (DINA) chemist Eugenio Barrios, the creator of sarin nerve gas, washed up on the Uruguayan coast in 1995, after he disappeared from a Montevideo jail in 1992.

Carmelo Soria's daughter Carmen said that the Chilean government should ask the United States to have the Central Intelligence Agency (CIA) declassify all its information on the subject.

"Just like in the Caravan of Death, here we could have a large group of people (more than 10), who were killed probably by this gas," he complained.

He said that the declassification of documents on the issue "would allow for the reopening of all these cases to see whether sarin gas was used."

"It is important for these cases to be grouped together and be submitted as a request of the ruling alliance parties to the state and the courts of law," he concluded. EFE

Subject: RE: Sandia Labs Decon Foam

The Joint Service Fixed Site Decontamination System (JSFXD) is being developed to provide a family of decontaminants and a family of decontamination application systems to enhance force protection through personnel, equipment, facility, and area decontamination at fixed sites, ports of entry, airfields, logistics support bases, and key command and control centers that have been exposed to the damaging effects of threat materials. These families will consist of Commercial Off-The-Shelf (COTS) products and Non-Developmental Items (NDI).

To date (11/14/00) studies of some COTS decontaminants have been conducted by the Army's Soldier and Biological Chemical Command at Aberdeen Proving Ground, MD, and by the Naval Surface Warfare Center at Dahlgren, VA. The purpose of these studies was to ascertain whether the COTS/NDI decontaminant technologies possessed sufficient merit to warrant continuation of the program relative to decontaminants. The studies successfully demonstrated that several of the technologies possessed adequate performance to be considered for the next phase of the program. The decontaminant technologies evaluated included several commercially available decontaminants as well as decontaminants developed by U.S. national laboratories (such as Sandia and Lawrence-Livermore national laboratories), and foreign governments.

Future, near-term JSFXD efforts will focus on awarding a contract (in FY01) for the best performing family of decontaminants, and on a formal test and evaluation program (FY02) that will verify the adequacy of a decontaminant's performance. The testing will include an extensive array of decontamination effectiveness (vs. various chemical, biological, and non-traditional threat materials) tests, compatibilities trials, as well as safety and operational use tests. Following successful conclusion of the test and evaluation program, a decision to procure and field the family of decontaminants will be made. The decision is currently planned for FY02.

In addition to the portion of the JSFXD program dealing with decontaminants, other aspects of the program will focus on developing decontaminant applicators and decontaminants for skin and casualties. Test and evaluation of these segments of the JSFXD will be conducted in the FY03 and FY05/06 timeframe, respectively, with fielding to follow in the FY04 and FY07 timeframe, respectively.

Aside from the JSFXD program, decontamination technologies are also being evaluated under the auspices of the Restoration of Operation (RestOps) Advanced Concept Technology Demonstration (ACTD) program. The

objectives of ACTD efforts such as the RestOps program are to conduct meaningful demonstrations of capabilities, to develop and test concepts of operations, and to prepare to transition technologies to the appropriate phase of acquisition. Within the RestOps ACTD program, some decontamination technologies that were investigated by the JSFXD program as well as several other decontamination technologies are being evaluated to determine potential suitability for use in sustaining airbase operation following a chemical or biological attack. Potential fielding of technologies evaluated during the RestOps program will be dependent on technology maturity and performance in various tests. Close coordination and cooperation between the JSFXD and RestOps programs is continuing.

If you have any questions or need additional information please contact Mr. Steve Harlackner at DSN 584-5513, Commercial 410-436-5513 or Mr. Bill Argiropoulos at DSN 584-5680, Commercial 410-436-5680.

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Jane's Defence Weekly
November 15, 2000

Iranian Navy Test-Fires New And Modified Missiles During Exercise

By Ed Blanche, JDW Correspondent, Beirut

Iranian naval forces have test-fired what were described as a modified version of the Chinese YJ-1 (C-802) medium-range anti-ship missile and the previously undisclosed 'Nour' surface-to-surface missile for the first time during air, land and sea exercises in the Persian Gulf and the neighbouring Gulf of Oman, Tehran's official media has reported. Exercise 'Vahdat-79' (Unity-79), the fourth in this series held during the past year, was the climax to a string of almost back-to-back exercises.

Iranian officials said that some 130 vessels, including all three of Iran's three Russian-built Kilo-class (Type 877 EKM) submarines, and 58 aircraft took part in the eight-day exercise which began on 29 October.

A number of domestically produced weapons systems were reportedly deployed for the first time. These are believed to include the Al-Sabiha 15 mini-submarine, launched at Bandar Abbas naval base in August (Jane's Defence Weekly 6 September). Gulf sources said the exercise included over-the-horizon targeting tests for anti-ship missiles such as the 'Tondar', the Iranian version of the Chinese YJ-1 (C-802).

The C-802 model deployed was reported to have an increased range, although no other details were disclosed. An air-launched C-802 variant, dubbed the 'Fajr-e Darya', and an upgraded version of the US RIM-66 Standard SM-1 surface-to-air missile, were reported to have undergone initial tests (JDW 15 March) during the 'Unity-78' exercise in February.

Iran is believed to have as many as 70-80 C-802s, some manufactured in Iran reportedly with the help of French technology.

Brig Gen Morteza Safavi, commander of the Iranian Revolutionary Guard Corps' (IRGC) naval arm, which operates the Thonder-class fast attack craft (FACs), said that IRGC missile units conducted the C-802 tests. The turbojet-powered missiles are currently deployed on Iran's 10 Chinese-built Thonder (Hudong)- class FACs and some of its nine French-built Kaman- (Combattante II) class vessels.

The manoeuvres follow a major four-day air force exercise 'Rad-11' (Thunderstorm-11) launched on 17 October, which involved what officials described as Iran's "latest military technology" across an area that stretched from the northwestern border with Iraq down to the Bushehr region in the southwest.

Iranian military spokesman Brig Gen Mohammad Golverdi confirmed that an Omani delegation observed 'Vahdat-79' exercise. Tehran has been seeking, so far unsuccessfully, to persuade the Gulf Co-operation Council states, which include Oman, to conduct joint exercises and to sign bilateral defence agreements.

China Prepares For War With U.S. Over Taiwan

By Bill Gertz, The Washington Times

Part three of three

Missteps and appeasement by the U.S. government helped China develop into a dangerous global power, according to "The China Threat: How the People's Republic Targets America" (Regnery), a new book by Bill Gertz, national security reporter for The Washington Times.

In the third of three excerpts, he examines the growing danger of nuclear war between China and the United States over Taiwan.

"DSP reports five events from known ICBM bases in western China." The airman's voice was tense but carried an air of nonchalance, a sign of rigorous training.

The airman was stationed inside a dimly lit command bunker nearly a mile beneath Colorado's Cheyenne Mountain, along with 20 other airmen, soldiers and sailors from the U.S. and Canadian militaries. This is headquarters for the North American Aerospace Defense Command, known as NORAD.

At NORAD, they think about the unthinkable 24 hours a day, seven days a week.

Closed to the outside world by huge steel doors designed to withstand a nuclear attack, the bunker is where military personnel scan the globe from computer terminals, looking for signs of missile launches. They depend on infrared sensors around the world, primarily the constellation of satellites with the nondescript name of Defense Support Program — or DSP, as the airman said.

The five "hot pops" he reported as picked up by satellite over China were the first sign of trouble. Less than a minute later came more bad news: "Sir . . . we have multiple missile launches. Stand by for target report."

A few seconds later, the intelligence officer on duty broadcast further details: "Intel indicates probable launch of five ICBMs from China. Intel assesses this to be combat against North America."

It was Sept. 3, 1999, and the Chinese missile attack was only an exercise. But it was a sobering reminder of how the strategic nuclear threat against the United States has not gone away with the demise of the Soviet Union.

A nuclear war with China over its dispute with Taiwan is a real danger. And even though the Clinton administration went to great lengths to ignore it, that danger is growing.

Shortly after the beginning of the simulated Chinese nuclear combat, five red lines emanating from western China streaked across the computer map in the command center. Each line represented the flight path of a Chinese CSS-4 intercontinental ballistic missile, or ICBM, headed directly for the United States.

China's 24 silo-based missiles are old by American standards. But they can hit targets more than 8,000 miles away and are the backbone of China's strategic nuclear force. The missiles are based on the design of America's first generation of missiles, which China obtained from a defecting U.S. missile engineer.

Each of the CSS-4s carries a huge, 5-megaton warhead with the equivalent of 5 million tons of TNT — enough to blow up an entire city. NORAD's computerized attack-warning network plotted the targets of the incoming ICBMs and they appeared as dots on the giant map: Seattle, Colorado Springs (site of the Cheyenne Mountain complex), Chicago, New York and Washington.

Air Force Col. Allen Baker, NORAD's director of operations, explained that confirmation of Chinese missile launches would be followed by a call to the White House.

"At this point, I'd be telling the president how many minutes until Washington, D.C., is gone," Col. Baker said. Flight time from China to the capital: about 35 minutes. Asked whether the U.S. military had the means to shoot down the incoming missiles, Col. Baker said, "Absolutely nothing."

The 'detracking' lie

A national missile defense system to counter a limited attack such as this simulated Chinese strike — or an attack by a single North Korean missile — is being developed but may not be deployed for several years, Col. Baker said.

So why track the missiles?

"We're tracking them so we can tell our commanders exactly what is happening so they can figure out what their response is going to be," he said. "If they take out Washington, D.C., do we want to take out Beijing? I don't know. That's their decision."

NORAD's 1999 missile exercise also showed that the U.S. military could not afford to give up its strategic nuclear deterrent, despite efforts by the Clinton administration to pretend it no longer is needed.

Only months earlier, the president had announced that U.S. strategic nuclear missiles no longer would be targeted on China after the Communist regime promised to "detarget" its missiles and not aim them at American cities. On June 27, 1998, Chinese President Jiang Zemin appeared at a news conference after meetings with Mr. Clinton in Beijing. He announced: "President Clinton and I have decided that China and the United States will not target the strategic nuclear weapons under their respective control at each other. This demonstrates to the entire world that China and the United States are partners, not adversaries."

As with so many other statements by the Chinese Communist leader, President Jiang lied. The proof arrived in a form common during the highly politicized Clinton administration. It was kept hidden from public view as part of a classified intelligence assessment.

On Dec. 2, 1998, the Pentagon's Defense Intelligence Agency (DIA) reported that the Chinese People's Liberation Army conducted exercises that included simulated nuclear missile attacks on Taiwan and U.S. military forces in the region.

The exercises, which ran from late November to early December, involved road-mobile CSS-5 medium-range missiles spotted by U.S. spy satellites as they moved up and down roads along China's coast. The DIA report, based on sensitive intelligence gathered by U.S. spying systems, also cited activities by silo-based CSS-2s.

"They were doing mock missile attacks on our troops," said one official who saw the report.

A direct threat

Analysts determined that the mock nuclear attacks not only were targeted against Taiwan, but against about 37,000 U.S. Army troops based in South Korea and 47,000 Marines in Japan, including 25,000 on the island of Okinawa. A White House official, confirming the intelligence report, said both weapons systems had "never been pointed our way before." But the official sought to downplay the threat by noting the age of the weapons (the CSS-2 first was deployed in 1971, the CSS-5 in the 1980s).

The important point missed by the White House — intentionally — was that the missile exercises directly threatened our troops. They also provided evidence that Mr. Jiang's promise about detargeting was hollow.

Or was it? The Chinese president had referred to "strategic" nuclear weapons. Apologists for Beijing argued that the CSS-2s and CSS-5s technically may not be in the same category as longer-range ICBMs.

The Air Force's National Air Intelligence Center dispels that notion. In its annual report on "Ballistic and Cruise Missile Threats," the center stated that medium-range missiles "are strategic systems" armed with nonconventional warheads.

One element of the exercises that surprised DIA analysts was the PLA's use of "obscurants" — smoke and particle-filled clouds dispersed around the mobile missiles to shield them from U.S. precision-strike weapons.

The Chinese missiles were seen ready for launch on mobile truck launchers, although none was fired. Pentagon officials concluded that the simulated attacks were a sign that China is prepared to go to war with the United States over Taiwan.

In August, the Air Force moved several dozen air-launched cruise missiles to the island of Guam, perhaps in anticipation of a conflict over Taiwan.

The PLA's 40 liquid-fueled CSS-2s, with ranges of about 1,922 miles, are being replaced in most regions of China with the more advanced, solid-propellant CSS-5s, with a maximum range of 1,333 miles.

Richard Fisher, a specialist on the Chinese military, believes the Chinese may interpret the June 1998 detargeting pledge to exclude shorter-range nuclear missiles and include only long-range ICBMs.

"Chinese doctrine puts special emphasis on missile forces, concealing mobile forces for obtaining surprise and using a wide variety of current and future nuclear and non-nuclear warheads," Mr. Fisher said.

Targeting Taiwan

Taiwan is a mountainous island about the size of West Virginia. Located off the southern coast of China, it has a population of about 22 million. Unlike its archenemy, Taiwan is a thriving, multiparty democracy. It also is a major international trading power.

Taiwan's military includes about 430,000 soldiers equipped with weapons obtained primarily from the United States. But U.S. arms sales to Taiwan were cut back sharply by the Clinton administration.

Meanwhile, China has dramatically increased its military forces over the past decade. In October 1998, a DIA report labeled "Secret" outlined a major buildup of short-range ballistic missiles opposite Taiwan.

Until 1998, missile deployment had been modest and limited to a garrison of CSS-6 missiles at Leping. What the DIA uncovered was a Chinese plan to accumulate 650 missiles by 2005.

According to the DIA, China had 150 missiles near Taiwan in 1998 and intended to add about 50 new missiles a year. The report said the new missiles include two versions of the short-range, ballistic CSS-7 — Mod 1, with a range of 350 kilometers, and Mod 2, with a range of 530 kilometers.

Last Dec. 5, the DIA issued another secret report updating the missile buildup. The conclusion was not good news.

"The DIA believes there are at least 40 CSS-7 missiles in Chinese military bases near Taiwan," said one intelligence official familiar with the report. "This gives China the ability to target Taiwan with little or no warning." The report stated that China's goal was to have 500 short-range missiles within range of Taiwan by 2005, allowing the PLA to target all of the island's major military bases.

"They will be able to take Taiwan with little or no warning," the official said.

The report identified a third missile base under construction along China's coast near the town of Xianyou.

Photographs by U.S. spy satellites showed the layout of buildings and storage sheds was similar to that of the missile brigade headquarters at Leping, base for CSS-6 missiles.

The report also identified a second CSS-7 base at Yongang, including storage areas in tunnels. This was a sign that the Chinese were protecting the systems against U.S. bombers equipped with precision-guided bombs and missiles.

Unchallenged threats

Pentagon analysts viewed the buildup as ominous, since it showed that Beijing's intention was not to conduct aircraft or seaborne assaults but to launch barrages of missiles. A Pentagon report to Congress made public in June stated that Beijing views ballistic missiles — as well as ground- or sea-hugging cruise missiles — as "potent military and political" weapons against Taiwan.

And another, internal Pentagon report obtained by this reporter warned that the danger from the short-range missiles was growing.

"A large arsenal of highly accurate and lethal theater missiles serves as a 'trump card,' a revolutionary departure from the PLA of the past," the internal report said. "The PLA's theater missiles and a supporting space-based surveillance network are emerging not only as a tool of psychological warfare but as a potentially devastating weapon of military utility."

Even after this reporter wrote an article for The Washington Times about the intelligence on the missile buildup, President Clinton did not demand that China stop the destabilizing deployments. Mr. Clinton, asked about them at a news conference Dec. 8, said he had "grave concerns" about the growing threat.

"China is modernizing its military in a lot of ways, but our policy on China is crystal clear. We believe there is one China," Mr. Clinton said.

The phrase "one China" meant that whatever happens, the administration would stand with Beijing.

The dispute between the mainland and Taiwan should be resolved through dialogue and "we oppose and would view with grave concern any kind of violent action," the president said.

But Taiwan never has threatened the United States. Communist China has, and its threats went almost unchallenged by the Clinton administration.

'Not a wise move'

One of the most alarming statements appeared Feb. 28 in Liberation Army Daily, the official organ of the PLA that reflects the views of Central Military Commission Chairman Jiang Zemin and other senior leaders.

American intervention in a conflict between Taiwan and China would lead to "serious damage" to U.S. national security, the newspaper said. It warned in only slightly veiled language that China would resort to long-range missile attacks against the United States.

"China is . . . a country that has certain abilities of launching strategic counterattack and the capacity of launching a long-distance strike," the newspaper said. "It is not a wise move to be at war with a country such as China, a point which the U.S. policy-makers know fairly well also."

The threatening article was written by PLA Col. Zhu Chenghu, an influential hard-liner who is deputy director of the Institute of National Security Studies at the National Defense University in Beijing.

A war with China would force the United States to "make a complete withdrawal" from East Asia similar to the loss in Vietnam, his article said.

The Pentagon was surprised by the harsh, anti-American tone of what amounted to an official threat. But instead of criticizing China, Pentagon spokesman Kenneth Bacon told reporters in a briefing that "Chinese doctrine" does not include "first-strike" nuclear attacks.

"And there is nothing new in that article that changes that," he said.

The answer was misleading. The PLA commentary made no reference to a "first-strike" attack, but to the use of nuclear weapons as a deterrent or retaliation for intervention by U.S. conventional forces in a war between Taiwan and China.

Document 65

The Chinese missile threat to the United States reflected official policy, as revealed in an internal military document obtained by dissidents in China.

This reporter received a copy of the report, known as "Document 65." Dated Aug. 1, 1999, it is signed "General Political Department of the People's Liberation Army."

The DIA and CIA both have copies of Document 65, though the latter is not certain whether it is a genuine leak or a deliberate disclosure. Defense officials say the format is similar to that of secret materials delivered by defecting Chinese officials.

Document 65 declares that "a most important task" of the Communist Party of China is reunification with Taiwan. All military units must "be well-prepared for the war based on the rapidly changing relationships with Taiwan," it states.

That was the year Taipei declared it no longer was the government of all of China and thus no longer sought to take back forcibly what was lost during the civil war of the 1940s.

Document 65 discloses for the first time that the issue of Taiwan would not be allowed to "drag on indefinitely." The document says the Chinese military was given "solid grounds for achieving reunification using military power" because of Taiwan President Lee Teng-hui's remarks of July 9, 1999.

On that day, Mr. Lee declared that Taiwan "has been a sovereign state since it was founded in 1912" and called for relations with China on a "special state-to-state" basis. This was a challenge of Beijing's "One China" policy.

The document also states that the timing of reunification — peaceful or forceful — had been hampered by the United States. It adds that Europe would not join the United States in fighting a war with China.

'Better to fight now

Document 65 reveals what Pentagon specialist Michael Pillsbury has called "dangerous misperceptions" by China about the United States. It is just these kinds of misperceptions that could lead to a war.

For instance, Document 65 contains the following alarming passage:

"Taking into account [the] possible intervention by the U.S., and based on the development strategy of our country, it is better to fight now than in the future — the earlier, the better. The reason being that, if worst [sic] comes to worst, we will gain control of Taiwan before full deployment of the U.S. troops.

"In this case, the only thing the U.S. can do is fight a war with the purpose of retaliation, which will be similar to the Gulf war against Iraq or the recent bombing of Yugoslavia as far as its operational objective is considered, namely, to first attack from the sky and the sea our coastal military targets, and then attack our vital civil facilities so as to force us to accept its terms like Iraq and Yugoslavia.

"This is of course wishful thinking," the document goes on. "However, before completely destroying the attacking enemy forces from the sea and their auxiliary bases which together constitute a threat to us, even if we successfully carry out interception and control the sky, our military and civil facilities will still incur some damages."

Document 65 asserts that the U.S. military has not been tested in a major conflict with a large nation such as China and will become "exhausted" by long-distance warfare.

"It can be safely expected that once the U.S. launches an attack, the front line of the U.S. forces and their supporting bases will be exposed within the range of our effective strikes. After the first strategic strike, the U.S. forces will be faced with weaponry and logistic problems, providing us with opportunities for major offensives and [to] win large battles."

As for nuclear war, Document 65 states, the Chinese military "does not foresee" a strategic nuclear exchange because the United States has shown no willingness to fight a massive conflict and suffer "major losses" over Taiwan.

Washington Times

November 15, 2000

Pg. 13

Denial On U.S. Plan Indicates Policy Split

Diplomats, military differ on missiles

By Jon Boyle, Reuters News Agency

MOSCOW - Russian arms-control officials denied yesterday that Moscow had softened opposition to a proposed U.S. national missile shield and urged the future president to agree to big cuts in nuclear arsenals.

Their comments appeared to signal a split between the Foreign Ministry and Russia's nuclear missile chief, who suggested Monday that Moscow was shifting away from a blanket rejection of U.S. anti-missile plans.

Gen. Vladimir Yakovlev proposed setting up a strategic weapons scale under which any increase in missile defense would be mirrored by a cut in other areas, including offensive capability.

His comments were interpreted as a trial balloon. They came just hours before President Vladimir Putin repeated an offer to reduce to 1,500 a ceiling on deployed nuclear warheads, as a platform for even more radical cuts. Speaking in Ulan Bator, the capital of Mongolia, Mr. Putin said the fresh offer aimed to ensure arms control did not slip off the agenda pending a final decision on who will replace President Clinton in January.

"It was done deliberately to stress that, in spite of all the processes of a domestic political nature which are currently under way in the United States, our contacts with our American partners . . . do not stop," he said in comments broadcast by Russian television.

In Moscow, a senior Foreign Ministry official covering North America denied Moscow was backtracking on its hard-line opposition to a National Missile Defense (NMD) system.

"There is no softening of the Russian position on ABM Anti-Ballistic Missile treaty," Yuri Kapralov told reporters. Gen. Yakovlev was entitled to his own view, he said, but only Mr. Putin could rule on policy matters.

"General Yakovlev was saying how things might be," he said, denying any split between the defense and foreign ministries.

Washington says it needs a limited NMD system to shoot down missiles it fears could be launched by hostile states developing nuclear missile technology. It says North Korea and Iraq pose the greatest potential threat.

The plan is opposed by Russia and would violate the Anti-Ballistic Missile treaty, cornerstone of arms control for 30 years.

Mr. Putin has warned that NMD would trigger a new arms race and vowed to tear up all arms-control accords with Washington if it overrides Moscow's security concerns.

The Russian leader has offered instead to lower deployed warhead limits, boost cooperation on nonstrategic missile defense and use diplomacy to ease U.S. fears over North Korea.

"We would like to carry on down that road but you cannot continue to reduce weapons if you have the other side creating some kind of shield," said Mr. Kapralov. That would mean Russia having to increase its arsenal or take other countermeasures.

"We appeal to the United States to cooperate with us in order to get around those concerns which they present as reasons for developing NMD," he said.

Idaho Falls Post Register

November 15, 2000

Pg. 1

Putting Cold War Science To Work For Peace

INEEL brokers deal to find work for former Russian weapons scientists

By Jennifer Langston

The INEEL has struck a deal to help transform Cold War Russian biological weapons scientists into modern day eco-prospectors.

Instead of developing weapons of mass destruction, they'll work with a U.S. company to find plants, microbes and natural enzymes that could make better prescription drugs or stone-washed jeans.

They'll collect plant samples from the Soviet tundra, bacteria from pristine and contaminated rivers, rocks from volcanic mountains - looking for new enzymes that could be useful in industrial processes.

"There's very little known about Russian microbiology," said Eric Mather, senior director of molecular diversity for Diversa, a biotechnology company and partner to the agreement. "There's huge potential for discovering untapped resources."

The Department of Energy has invested \$1 million to help four Russian biological institutes, three of which formerly worked on weapons, to create a new non-profit organization. The Ecological Biotrade Center will explore the country's potential for developing new commercial products.

In the past, bioprospectors have traveled to foreign countries and raided their natural resources, leaving with suitcases full of plants, fungus and soil teeming with potentially valuable bacteria.

The new center will help ensure that royalties from commercial products developed from microorganisms found in Russia make their way back to that country.

The deal was brokered by the nonproliferation arm of the DOE, which is concerned with more than preventing the spread of nuclear materials that could be used to make weapons.

"There's another aspect - the proliferation of knowledge and people," said Bill Toth, program manager for nonproliferation initiatives at the INEEL. "We want to stabilize the economy and help former scientists and weapons engineers find meaningful, stable employment."

For instance, the agency has launched more than 55 ventures in Russia in the last six years to help find peaceful employment for former biological weapons scientists. That way, they won't be tempted to work in rogue nations trying to manufacture weapons.

The INEEL began talking to researchers in Russia two years ago, which culminated in the deal signed Tuesday. It is the eighth nonproliferation project the laboratory has initiated there.

Diversa, a San Diego biotechnology company that signed a controversial agreement to mine bacteria in Yellowstone's hot springs, has also invested \$1 million in the venture.

That 6-year-old company collects samples of natural microorganisms in exotic environments around the world, from tropical leaf litter to sponges in Bermuda.

It extracts genes and produces enzymes, proteins and natural agents that can be used in a wide variety of industrial processes, from bleaching paper to making detergents to developing cancer therapies.

Environmental groups challenged an agreement to tap Yellowstone's geysers for potentially valuable microbes, arguing it exploited the park and public resources. A judge this year upheld the agreement, which returns some royalties to the park, although Yellowstone is now conducting an environmental review.

The company will also share royalties from any commercial successes from the Russian venture with the Department of Energy and the Ecological Biotrade Center.

Russian microbiologists have done limited work with private companies in the past, said Alexander Boronin, Director of the academic Institute of Biochemistry and Physiology of Microorganisms.

Most of those contracts were small, looking for one particular microbe, he said. This project to inventory vast ecosystems and develop commercial applications should create a self-sufficient research organization, with work to last for years.

"This project is very special because it is so wide," Boronin said. "I can't see the end of this project because it is endless."

Omaha World-Herald
November 15, 2000

Soldier Details Germ Warfare Production

Tokyo (AP) - In the first testimony of its kind, a former Japanese soldier told a Tokyo court Wednesday that he helped produce deadly germs and participated in biological experiments in China during World War II.

Yoshio Shinozuka, 77, said he participated in the mass production of cholera, dysentery and typhoid germs. He said he also assisted in the vivisection of Chinese civilians in the early 1940s.

"What I have done was something that nobody should have done as a human being. I cannot escape that responsibility," he said.

Though Shinozuka has spoken out publicly about his role, his testimony makes him the first member of the notorious Unit 731 to acknowledge before a court its role in Japan's biological warfare in northern China.

He was called as a witness for nearly 180 Chinese suing the Japanese government for compensation and an apology for the deaths of family members allegedly killed by the unit.

The trial in Tokyo District Court is expected to continue for several more months.

Shinozuka said he was often told to help out departments that needed to boost germ production for forthcoming deployments, including the 1939 Nomonhan attack near Mongolia and several other germ-bombing attacks in southern China in the 1940s.

He said that just before the 1939 Nomonhan attack, he was responsible for transferring dysentery and typhoid germs from test tubes to bigger jars, packing them into barrels, sealing them and taking them to a night train for the attack.

Several unit members died after contracting typhoid.

Shinozuka said he is still bothered by the vivisection, or surgical experiments on living people, which were carried out without anesthesia.

"We called the victims 'maruta,'" which meant a log, he explained. "I remember using the word as we compared how many logs we cut that day with other members."

Shinozuka said the unit members were prohibited from disclosing to outsiders what happened inside the unit. Notes and other written instructions were all collected afterward.

Later Wednesday, a former Unit 731 pilot named Shoichi Matsumoto testified that he spread plague-infected fleas from an airplane over Hangzhou in 1940 and Nanjing in 1941.

Matsumoto told the court he carried healthy rats from a Tokyo suburb to Harbin to get them infected with bubonic plague. He also flew to Singapore and Java with the rats.

Although some Japanese veterans have confessed to war crimes in recent years, the Japanese government has shied from making apologies to China.

Japanese textbooks still often present only brief, perfunctory accounts of Japan's aggression in East Asia from the mid-1930s to the war's end in 1945.

Shinozuka said one of his reasons for testifying was disappointment with the government's efforts to come clean about the war.

"I committed all these war crimes because I was ordered to do so," he said. "The government should try to learn about the victims. I really think it's time for Japan to face this issue with humanitarian consideration."

CHEMICAL AND BIOLOGICAL DEFENSE; Units Better Equipped, but Training and Readiness Reporting Problems Remain

Report to the Chairman, Committee on Armed Services, House of Representatives

GAO-01-27

<http://www.gao.gov/new.items/d0127.pdf> (Requires Adobe Acrobat .PDF reader/plugin)

The invisible enemy

Nov 16th 2000

From The Economist print edition

Has the threat of bioterrorism been overstated?

ON MARCH 20th 1995, members of the Aum Shinrikyo cult placed containers of nerve gas in five Tokyo subway cars during the morning rush hour. As many as 6,000 people were exposed to the gas, and more than 3,000 flocked to hospital emergency rooms as word of the attack leaked out. When it was over, 12 people were dead, and a handful more had sustained permanent brain damage. The Japanese authorities later learned that the cult had carried out a similar attack the previous year, resulting in seven deaths. Aum Shinrikyo turned out to be a relatively large, sophisticated and well-financed operation staffed by highly trained people studying germ and chemical warfare.

http://www.economist.com/science/displayStory.cfm?Story_ID=423595

Times of India

11/16/00

India, Pak upgraded N-arsenals: Report

WASHINGTON: A Washington-based think tank Heritage Foundation has said in its latest annual report that recent US satellite photos indicate that both India and Pakistan have upgraded their nuclear arsenals.

The foundation in its US and Asia Statistical Handbook said Pakistan has an unknown total of medium range ballistic missiles, 10 Ghauri-1S with a range of 1,500 km, an unknown number of Ghauri-2s (range 2,300 km), an unknown number of Shaheen-2s (range 2,300 km), an unknown number of HATF-2s (range 300 km), 30 to 80 HATF-3s (range 800 km), unknown number of Shaheen-1S (range 750 km) and 18 HATF-1S (range 80km).

The report also said that despite receiving less media attention in recent months, the number of violent incidents in Jammu and Kashmir has increased. Many had hoped that US President Bill Clinton's visit would help ease tensions between India and Pakistan, but "this has not happened," it added.

The report said though Pakistan officially denies the Indian claim that 2,500 armed militants have assembled near the Pakistani side of the Line of Control (LoC) waiting to cross into Indian territory, but it "tacitly justifies" its support for the insurgency in the Kashmir valley.

Although US officials always refer to Pakistan as an "ally", the think tank points out that it has no security alliance with the US, but it has a friendship and non-aggression treaty with China. The US has no military installation in Pakistan, it noted. (PTI)

Inside The Pentagon
November 16, 2000
Pg. 3

Bioport: Approval Process For Anthrax Vaccine Production On Track

Despite problems uncovered by Food and Drug Administration officials during an inspection last month at BioPort's vaccine manufacturing plant in Lansing, MI, company officials are confident they will obtain FDA approval to start new anthrax vaccine production as early as April next year.

"We're still on track to get FDA approval in the second quarter of calendar year 2001," a company source told Inside the Pentagon Nov. 11. "Once approved, production could begin within a matter of weeks."

BioPort's vaccine plant is the only facility contracted by the Pentagon to make vaccine for the U.S. military. The company also manufactures rabies vaccines and various blood products for other customers.

The Oct. 10-26 FDA inspection was conducted by its so-called Team Biologics, the name given to a group of investigators who specialize in reviewing good manufacturing practices for vaccine manufacturers. The group identified several problems with the design and construction of the facility's filling suite and uncovered employee practices that question "the sterility of products filled in the suite," according to an Oct. 26 FDA "483" report obtained by ITP that summarizes the team's findings.

The inspection team examined BioPort's production practices for all its products, not just the anthrax vaccine. "It was a biennial inspection of the entire facility," the source said. "It was not a surprise, but it was unannounced." Company officials are downplaying any concern about problems raised by the inspection, which they say are already being addressed and will not impact efforts to get FDA approval for anthrax vaccine production.

The 483 report also faults the company for incomplete investigations of anthrax vaccine lots that failed "initial sterility testing." In addition, the report says BioPort "does not trend data" it receives on adverse events related to its vaccines, nor has it "investigated adverse events for anthrax vaccine that are different from those stated in the package insert," as required by FDA guidelines.

When it issued the 483 report, FDA had yet to receive documentation from BioPort about the death of an individual who had taken anthrax vaccine from lot No. 31, the agency says.

"The individual was inoculated on [March 14, 2000] and died on [June 14, 2000]," the report states. "The cause of death is reported as Aplastic Anemia and Invasive Aspergillosis. The firm [BioPort] received information in a Vaccine Adverse Event Reporting System form, but there is no documentation as to when that report was received by" BioPort.

BioPort was required to submit a so-called "15-day report" on the incident, the report says. The BioPort source said that the company learned about the death on Oct. 10 and already has notified FDA that it is reviewing the VAERS information.

To track and review adverse events related to the vaccines it produces -- which could include nausea, vomiting, double vision and memory loss -- the company started to purchase software for the job before the inspection took place, according to BioPort officials. The company also has purchased a subscription to VAERS and appointed a medical officer to oversee investigations of VAERS reports.

In 1998, BioPort purchased the vaccine plant from the state-owned Michigan Biologic Products Institute, which owned an FDA license for anthrax vaccine production. The Defense Department announced its mandatory anthrax vaccine program in December 1997 and has maintained that only FDA-approved vaccine would be administered to service members.

The next month, the plant was shut down to renovate and expand the facility. The renovation was planned, in part, to address production problems identified by previous FDA inspections.

MBPI came under scrutiny after a February 1998 inspection uncovered stability, sterility and validation problems with the vaccine production process (ITP, March 26, 1998, p1). FDA Inspections in 1993, 1994, 1995 and 1996 revealed "significant deviations" from agency standards at the facility. Because of those problems, Defense Secretary William Cohen ordered supplemental testing for all MBPI-produced anthrax vaccine before giving doses to military personnel.

Since its 1998 purchase of the MBPI facility, BioPort has sought an amended license -- called a biologics license application -- from FDA, allowing the company to distribute vaccine produced at the renovated plant. BioPort submitted the application for FDA approval in August last year. Typically, it takes 18 to 24 months for FDA to approve BLAs, according to a company spokeswoman.

In the meantime, an unanticipated number of MBPI-produced vaccine lots failed supplemental testing, making them off-limits for DOD use. The result was a shortage of FDA-approved vaccine, which led Pentagon officials to scale back vaccinations in July.

Administration of the vaccine was suspended for all troops except those deploying for an extended time to high-risk regions (ITP, July 20, p1). Deputy Defense Secretary Rudy de Leon said at the time that defense officials should work toward getting the program back on track by January 2001.

But doing so depends on FDA approval of BioPort's biologics license application. Before it is approved, BioPort must correct problems identified last year by FDA during a Nov. 15-23 inspection of the renovated plant (ITP, Dec. 16, 1999, p1). A 483 report of that inspection said the manufacturing process for making anthrax vaccine "is not validated."

BioPort had hoped to address all 30 problems outlined in the report by last August, but officials at the company found the self-imposed deadline "unrealistic," the spokeswoman said. Also that month, the company announced it expects to get BLA approval in the second quarter of calendar year 2001.

BioPort has worked out an arrangement with FDA that allows the company to address each problem in turn with "rolling submissions," she said. "We're still within the average amount of time it takes to get a BLA approved." The Anthrax Vaccine Immunization Program office was unable to respond by press time (Nov. 15) about the amount of anthrax vaccine available to continue the scaled-down program until mid-2001.

-- *Keith J. Costa*

Washington Times
November 17, 2000

Governor Wants Search For Bombs In Colorado

DENVER — Colorado Gov. Bill Owens wants the Army to carry out an intensive surface search at the Rocky Mountain Arsenal so that the state can be assured there are no additional abandoned bombs.

Mr. Owens said Wednesday he was making a formal request that such a survey be made a "high priority" by the Defense Department. Three unexploded, grapefruit-size sarin gas bombs have been discovered at the site in recent weeks.

The governor said he has the authority to order certain actions and noted that his time line on the issue is "very short."

The deadly nerve gas bombs were once manufactured at the arsenal, but the site was considered cleaned up and safe for tours by school groups and others until the first "bomblet" was found Oct. 16.

Washington Times
November 17, 2000

Inside The Ring

By Bill Gertz and Rowan Scarborough

Russian violations

U.S. intelligence agencies uncovered new evidence of arms-control-treaty cheating by Russia. Spy services recently learned about new warhead capabilities of Russia's road-mobile intercontinental ballistic missile (ICBM), known in the Pentagon as the SS-27.

A classified report sent to senior policy-makers revealed the SS-27, Moscow's top-of-the-line missile and also known as the Topol-M, can be quickly outfitted with multiple warheads. The warhead "uploading" capability violates the START II arms treaty, which bans multiple warheads on land-based ICBMs. The treaty also specifically bans adding multiple warheads to single-warhead land-based missiles.

Disclosure of the Russian treaty violation comes as Russian President Vladimir Putin is proposing still deeper cuts in U.S. and Russian strategic arsenals. Critics in the Pentagon point out that Moscow has never met a treaty it didn't like — and violate.

One official said arms-control talks with Russia are pointless and that the best deal for the United States is no arms talks at all. This is because Russia's arsenal is rapidly wearing out by itself and will end up rusting to pieces in silos and on launchers without an agreement. It's a sort of natural disarmament.

The START II treaty calls for U.S. and Russian strategic arsenals to reduce to the level of 3,000 to 3,500 warheads by 2007. The de-MIRVing (MIRV stands for multiple independently targetable re-entry vehicle) was touted by arms-control advocates as a key benefit of the START II treaty.

Moscow has tried to backtrack on the single-warhead treaty requirement by suggesting it would add warheads to its mobile missiles to counter U.S. deployment of a national missile defense.

Washington Times
November 17, 2000
Pg. 15

Chinese Leader, Clinton Progress With Missile Talks

Human rights violations also discussed

By Randall Mikkelsen, Reuters News Agency

BANDAR SERI BEGAWAN, Brunei — President Clinton and Chinese President Jiang Zemin reached an agreement in principle yesterday to resume human rights talks and made some unspecified progress on missile proliferation, the United States said.

Stan Roth, assistant secretary of state for East Asian and Pacific affairs, said the two leaders agreed to resume the talks in a meeting on the sidelines of a summit of Asia-Pacific leaders in Brunei.

Mr. Roth also said Mr. Clinton and Mr. Jiang had made "some progress" on weapons nonproliferation issues. He declined to detail the progress that was made and added there would be "more to say in the days to come."

"[Clinton] indicated that it would be helpful if the human rights dialogue could be resumed so that we could try to channel our discussion and make progress in a useful way, and interestingly, President Jiang responded by saying that he agreed, that he thought that dialogue would be a useful way to go," Mr. Roth told reporters.

He described the understanding as an agreement in principle and said issues such as a date for a resumption of the talks would be worked out later.

China broke off the talks in May 1999 in retaliation for the NATO bombing of China's embassy in Belgrade during the air war against Yugoslavia.

China also had been angered by U.S. attempts to win passage at the U.N. Human Rights Commission of a resolution critical of China's human rights record.

In his meeting with Mr. Jiang, Mr. Clinton raised U.S. concerns over human rights in Tibet and limits on political and religious freedoms.

The meeting with Mr. Jiang was to be the last of Mr. Clinton's presidency.

Asked by a reporter at the outset of the meeting to describe what type of U.S.-China relationship he had bequeathed to his successor, Mr. Clinton said: "I believe we have made some real progress in developing a mature, honest and working relationship that is basically quite positive."

He cited the congressional vote this year to approve permanent normal trading status for China, and work the two countries had done on nonproliferation issues.

The two leaders have — in 10 meetings since 1993 — slowly and warily thawed U.S.-Chinese relations from the chill of the 1989 Tiananmen Square massacre. But friction remains concerning Taiwan, Chinese weapons sales and China's human rights record.

Mr. Clinton told Mr. Jiang that he thought U.S.-China relations were stronger than when he took office, that problems and differences remained, but the progress they had made would help them resolve remaining issues, Mr. Roth said.

"Several minutes later President Jiang made basically the identical point" he said.

Chinese Foreign Minister Tang Jiaxuan said the two leaders got "quite emotional" as they wrapped up their final meeting. Mr. Jiang would "always welcome Mr. Clinton to China as a friend," Mr. Tang told a news conference. Chinese Foreign Ministry spokesman Zhu Bangzao said Beijing was satisfied by assurances by Secretary of State Madeleine K. Albright and other U.S. officials that there would be continuity in China policy no matter who succeeded Mr. Clinton.

He quoted Vice Premier Qian Qichen as praising Mr. Clinton's role in building ties and saying he believed that "after Clinton leaves office the next president will build on his past achievements and continue developing relations."

Washington Post
November 17, 2000
Pg. E5

Countering Germ Warfare

By Terence Chea, Washington Post Staff Writer

A suspicious package discovered three years ago in the mail room of B'nai B'rith's Washington headquarters sparked fears of biological terrorism.

Authorities had no way to quickly tell if the oozing red substance found in a Manila envelope at the Jewish community organization was really the deadly bacterium anthrax, as its label indicated. Thus, workers were barricaded in their offices for more than eight hours, two city blocks were shut down and two employees were stripped to their underwear and hosed with chemicals on the sidewalk.

In the end, the incident turned out to be a hoax--scientists analyzed the material and discovered it to be a common household bacterium. But such hoaxes helped spawn a Maryland biotechnology company that's developing tools to prevent panicked reactions to the specter of biological attack.

Bill Nelson, Thomas O'Brien, Gary Long and Beverly Mangold were part of the team of scientists at the Naval Medical Research Institute in Bethesda called on to analyze the suspicious material during the B'nai B'rith incident. Two years ago, the four colleagues pulled together \$100,000 to start Tetracore LLC, a Gaithersburg company that makes devices to detect agents of biological warfare and infectious diseases such as anthrax, plague and smallpox. Tetracore, whose founders helped the U.S. military inspect biological weapons sites in Iraq, makes detection tools for hazardous materials response teams, known as HazMat units, which would be first on the scene in situations involving biological and chemical attack.

The company, which has not taken money from outside investors, generated about \$400,000 in revenue last year and expects to make \$3 million this year, according to Nelson. The company now has 25 employees and just moved into new offices in Gaithersburg.

Tetracore makes two kinds of diagnostic tools to detect deadly germs. Its BioThreat Alert test strips, which work like home pregnancy tests, let emergency response teams know if a disease agent is present within minutes. The test strip is a small plastic device in which a sample of a questionable substance is placed. The device contains anthrax

antibodies, proteins produced to combat the anthrax bacterium. If anthrax is present, it binds to the antibodies and causes a white paper strip to change colors.

"This gives them an opportunity to quickly pick up material and analyze it," Nelson said. "If it is anthrax, they could quickly take the necessary measures."

So far, the company has designed a test for anthrax, or *Bacillus anthracis*, a livestock bacterium that can be deadly when inhaled by humans. It has developed a proprietary method to make the anthrax antibodies using cells from mice. It is making similar test strips for other disease agents such as ricin, botulinum toxin and plague.

The company also develops DNA-based tests that detect the agents by recognizing their genetic sequences. The genetic tests, meant to be used alongside the test strips, are much more sensitive than the strips and can detect bacteria long after death.

They are similar to the tests Nelson, Long and O'Brien used when they helped the United Nations Special Commission inspect Iraqi biological weapons facilities after the Persian Gulf War.

"Even though they had stopped producing anthrax a long time ago, they couldn't get rid of all the evidence," Nelson said.

In recent years, fear of biological attacks has been growing among public officials, afraid that disease agents will get into the hands of terrorists and be deliberately released on the public. Fears were stoked in 1995 when Japanese cult Aum Shinrikyo released the deadly nerve gas sarin in the Tokyo subway system. The group had previously made several attempts to use anthrax and other toxins.

In 1996, after the Oklahoma City bombing, Congress passed the Domestic Preparedness Program to train public safety and health-care workers to react to terrorist attacks.

In addition to the potential for biological attack, officials are concerned about the growing number of hoaxes like the one at Washington's B'nai B'rith building.

Montgomery County recently purchased about two dozen of Tetracore's test strips for anthrax. Theodore Jarboe, the county's fire marshal, said rapid testing devices are essential in dealing with potential biological attacks.

"Time is critical when you're dealing with the release of a biological agent that could be harmful to people," Jarboe said. "The sooner we know if a substance is present or not, the quicker we can determine the best course of action to manage the incident."

U.S. GROWS KILLER FUNGUS TO FIGHT HEROIN

Sunday, November 19, 2000

By NILES LATHEM

A secret U.S.-funded biological weapon to wipe out the heroin trade is in the final stages of development, raising fears in the scientific community that a monster germ will wreak an "ecological catastrophe."

For the past two years, scientists funded by the U.S. and British governments have been developing a killer fungus that they say destroys the opium poppies that produce the raw material for heroin....

<http://www.nypost.com/11192000/news/16197.htm>

Arsenal bomblets under guard until analysis is completed

By Charley Able

Denver Rocky Mountain News Staff Writer

November 19, 2000

Crews at the Rocky Mountain Arsenal stood watch Saturday over two more bomblets that could contain the deadly chemical sarin.

The devices were found Friday at the site where three others had been found since October.

"Yesterday afternoon we went in to the exclusion area to do some analysis of the two that we had found previously. And during that process we found two more," said Ruth Mecham, the Army's chief of public affairs at the arsenal. Mecham said it has not been determined whether the bomblets contain sarin, a nerve agent that causes respiratory arrest.

"But until we can get confirmation, we treat them as if they do," Mecham said.

The discovery of the latest two bomblets prompted more than 30,000 phone calls to notify residents in the area.

"Our primary concern right now is to take care of these (the five bomblets).

But certainly we are going to go in and make a further assessment of the whole area," Mechem said.

All work in the area stopped after the first one was found, Oct. 16. Two others were found Nov. 10.

The Friday discovery was made by munitions experts conducting an analysis of the two that were found this month.

The discovery of the first bomblet prompted arsenal officials to heighten security and to end tours of the facility, which is in the cleanup process.

It is being converted into an urban national wildlife refuge.

The site where the bomblets were found is in the arsenal's "central remediation area" and is two to three miles from the closest point available to the tours, Mechem said.

London Sunday Telegraph

November 19, 2000

Saddam Stockpiling Deadly Chemical Weapons

By Christina Lamb, Diplomatic Correspondent

Saddam Hussein has been illegally stockpiling an arsenal of deadly chemical and biological weapons in schools and hospitals, Western intelligence reports say.

Among the items listed are 610 tons of precursor chemicals for the production of VX, a nerve agent so deadly that one drop can kill, in addition to large quantities of growth media used to make biological weapons such as anthrax so potent that one teaspoon is enough to dissolve the kidneys, livers and lungs of a million people.

Peter Hain, the Foreign Office minister, told The Telegraph: "We have good reason to suspect that Iraq is still hiding chemical, biological and weapons of mass destruction in a range of locations."

Satellite imaging has now revealed Saddam's elite force, the Republican Guard, apparently shifting the weapons to new hiding places. The disclosures, based partly on the debriefing of defectors, come amid growing tensions over the 10-year sanction regime. There is mounting opposition from Arab states and some in Europe such as France and Russia, as the measures have failed to unseat Saddam.

Over the past month there has been a flurry of "humanitarian" flights to the newly-reopened Baghdad International airport. Aircraft from France, Ireland and Bulgaria have all landed carrying food, medicines and doctors, but one from France included artists and politicians. Others from Russia, Lebanon and the United Arab Emirates carried businessmen.

Critics claim that the sanctions, imposed in 1990 after Iraq's invasion of Kuwait, are hurting only the old and sick.

Mr Hain said, however: "There's no reason at all for anyone in Iraq to be suffering." He pointed out that Iraq is now receiving £11 billion a year under the Oil for Food programme. "This amounts to three times per capita what Egypt spends on food and medicines. If there are shortages it's because of stockpiling."

Mr Hain pointed out that before expelling the United Nations weapons inspectors in December 1998, Iraq had admitted that it was hiding chemical, biological weapons and missile parts in the desert, caves and railway tunnels.

Mr Hain said: "Sanctions are not a perfect mechanism. We want to see them suspended but only under the terms agreed at the UN which would allow back the weapons inspectors. If we just turned our back on Saddam who would defend the Kurds in the north, as well as other countries in the region from Kuwait to Israel who he constantly threatens?"

Defense Week

November 20, 2000

Pg. 5

Israel Breaks Russian Monopoly On Indian Missile Sales

By Mohammed Ahmedulla

NEW DELHI—Israel has sold a number of anti-ship "Barak" missile systems to India for \$270 million, ending a Russian monopoly on missile sales to New Delhi. The sale was quietly concluded here in the Indian capital in early October.

The seven missile systems purchased (each consisting of five missiles), will ride on the Indian navy's principal combatant, the aircraft carrier INS Viraat, and a couple of missile-firing frigates. They have the capability to target enemy ships beyond the horizon as well as missiles coming in from the air and sea. India chose the Barak because it offers protection against anti-ship missiles like the air-launched "Harpoon" (U.K.-made) and the ship-launched "Exocet" (French-made), which Pakistan possesses.

For Jerusalem, the deal marks the culmination of more than four years of negotiations with New Delhi to sell advanced weaponry. The deal was inked around the same time Russian President Vladimir Putin was in India on a state visit, and could mark a significant shift in Indian defense purchases away from Russian firms.

"The Barak purchase means New Delhi has realized the limitations of counting on Russia as its main supplier," said Bidanda Chengappa, an analyst with New Delhi's Institute for Defense Studies and Analysis.

The Barak offers precision, accuracy and an advanced target acquisition system not seen in comparable Russian systems like the Uran missile. The acquisition also means New Delhi is willing to pay a higher price for better quality, he added.

A top source in the Indian navy said what prompted the Barak purchase was the inability by the Indian Defense Research and Development Organization to deliver a comparable missile system called "Trishul." The Trishul has been in development for several years, with no sign of reaching the deployment stage. The source disagreed that the Barak was preferred over the Russian Uran missiles. "Though the Russian Uran and the Israeli Barak can be deployed against similar threats, their performance parameters are different. The latter was chosen as it was the best choice against the peculiar threat environment envisioned for our principal surface naval combatants," he added. Elaborating on the superior features of the Barak over Russian systems like the Uran, the Indian navy source said that the Barak offered a vertical launch capability while the Uran's trajectory had to be set in the general direction of the target. The Israeli missile's cruising speed was faster than the Uran's, improving the probability of a kill. "In fact, the indigenously made Trishul was planned with similar characteristics as the Barak," the official added.

Hard won sale

It is significant that Israel managed to sell the missile system when the United States, its main supplier of defense hardware, is opposed to sales of advanced weaponry and missile systems to India. In July, the Israelis, at the urging of the United States, cancelled the sale of the Phalcon early warning radar system to New Delhi. Sholomo Naaman, the Israeli Embassy spokesman in Delhi refused to comment on the sale.

"We do not elaborate on aspects of defense cooperation (between New Delhi and Jerusalem)," he said. Asked if defense cooperation had improved after the blocking of the Phalcon radar to India, he said defense cooperation was within the overall relations of the two countries which was progressing satisfactorily.

However, the India Abroad News Service (IANS) quoted the deputy spokesperson of the Israeli defense ministry in Jerusalem as saying that, "strategic arms sales to India are exempt from an American veto on technology transfer exports (by Israel)." The IANS report suggested that following a round of talks between the United States and Israel last month, Tel Aviv and India may revive the possible sale of the Phalcon early warning radar system.

The Russians appear angry that India bought the Israeli system. A marketing executive from a Russian arms exporting company, Promexport, Victor Bulaev, told Defense Week that the missile sale was a "wake up call" to Russian companies. India was a loyal and long standing customer whose needs had to be addressed better than they are now. He said the Russian deputy prime minister, Ilya Klebanov, had issued instructions that arms companies should respond in a timely manner to customer needs.

There have been reports recently in the Indian media that Russian arms companies were taking inordinately long to make deliveries, forcing India to look elsewhere for spares of defense hardware. In fact, one of the jobs before the Indo-Russian task force on defense, set up during President Putin's India visit, is to remove bottlenecks in arms transfers.

Monday, November 20 2000 14:29 22 Heshvan 5761
Jerusalem Post

Iraq said hiding new arms

By Douglas Davis

(November 20) LONDON - Iraqi President Saddam Hussein, who last month repeated his threat to destroy Israel, has secretly stockpiled chemical and biological weapons in schools and hospitals, according to Western intelligence reports.

The London Sunday Telegraph reported yesterday that among the stockpiled items are 610 tons of precursor chemicals for the lethal VX nerve agent and large quantities of growth media for producing anthrax and other biological weapons.

Foreign Office Minister Peter Hain told the paper that the government had "good reason to believe that Iraq is still hiding chemical, biological, and weapons of mass destruction in a range of secret locations."

Satellite pictures have revealed the Iraqi Republican Guards moving weapons to fresh hiding places.

In another development, the London Observer quoted a top-level Iraqi defector as having told British intelligence that scores of senior army officers have been killed by Saddam in purges over the past two years.

It said intelligence sources believe that Saddam ordered the killing of 38 officers, including suspected coup plotter Gen. Kamil Saachit Dulaimi, in February 1999.

According to the defector, execution orders are always signed by an immediate member of Saddam's family or a close adviser, who also decides whether the victim should be tortured before execution.

According to the defector, the regime is becoming increasingly paranoid about opposition, and recent laws have made slander of Saddam or his family punishable by amputation.

Military.com
November 20, 2000

More Response, Less Control No Clear Chain Of Command For Emergency Chem-Bio Response Teams

By Stephen Trimble, Military.com Staff Writer

ATLANTA, Ga. -- Firefighters spilled from a pair of fire trucks and raced toward the Baker Building, a shiny new classroom set amid Georgia Tech's lawns and parking lots. As this emergency-response exercise got under way, a little imagination conjured up dozens of students choking and rubbing their eyes as a strange acidic odor wafted across campus.

Inside, the firefighting crews discovered three scientists lying prone next to a spilled black jug affixed with a toxic warning label. "Confirm release of unknown product," the firefighter's southern voice drawled over the police radio, and that's when the real chaos began.

If the danger had been real instead of a drill called "Project Atlanta," the transmission would have alerted a special Marine Corps unit, an Army National Guard team, six federal agencies, and a Georgia state task force.

Missing: a chain of command.

That's why nearly 100 local, state, federal and military officials -- all assigned to respond to a chemical or biological attack -- assembled in Atlanta on Nov. 15 and 16 for a drill and symposium designed to answer one question.

"Can anyone tell me who is in control?" asked Marine Corps Brig. Gen. William Catto, the Marine Corps Warfighting Laboratory's commander. He addressed a room full of officials. No one answered.

"That's what I'm talking about," Catto said. "The key for what we're doing here is learning how to work together -- from triage to cleanup . to finding the bastards that did it."

Send the Marines

It's not that the proliferation of emergency response teams isn't a good thing. Four years ago, Atlanta Olympic planners had only the Marines to turn to in the event of a chemical or biological incident. The Marines' Chemical

Biological Incident Response Force, or CBIRF, can rescue, decontaminate and treat hundreds of people within hours, and are still the nation's only defense against a large attack.

But it takes several hours for CBIRF, a 372-man unit based in Indian Head, Md., to respond to a crises outside the Washington, D.C., area. Local firefighters and HAZMAT crews will likely be first to arrive on scene, but are woefully unequipped and untrained for toxic attacks by terrorists or even domestic militants, he said.

And CBIRF's medics offer clear advantages over, say, malpractice and liability-conscious civilian doctors at the scene of a domestic attack, CBIRF commander Col. Carlos Hollifield told the Project Atlanta participants.

"When I tell one of my doctors to go downrange, he has no choice," Hollifield said. "He can go downrange or go to jail."

Emerging Responses

Still, even CBIRF's expertise is relatively new. "Five years ago, there was nothing like CBIRF or the [national guard's new] civil support teams," said Maj. Woody Radcliffe, deputy commander of the Georgia National Guard's new weapons-of-mass-destruction response unit.

A new cottage industry supplies federal and local response teams with detectors of toxins, decontamination suits.

Project Atlanta also offered a CBIRF team a chance to test such devices as a handheld computer for analyzing victims' symptoms and a "radar flashlight," that can detect victims behind walls and doors.

The nation remains highly vulnerable to chemical and biological weapons, said Thomas Bevan, director of Georgia Tech's Center for Emergency Response Technology, Instruction & Policy. Basic equipment like toxin detectors require daily recalibration and yet are still unreliable. "It's not a point where it's mature," Bevan said. "We still have critical needs."

U.S. Army Stockpiling Vaccines To Combat Risk of Bio-Terrorism

Monday, November 20, 2000

[Ronald Rosenberg, Boston Globe](#)

Fresh concern about bio-terrorism is fueling development of new vaccines against the deadliest and most contagious diseases and prompting reexamination of whether enough of these new drugs are being stockpiled.

Unlike bullets and explosives, the traditional weapons of terror, bacteria and viruses released into the environment can create epidemics, spreading infectious diseases such as smallpox and anthrax....

<http://www.sfgate.com/cgi-bin/article.cgi?file=/chronicle/archive/2000/11/20/BU110983.DTL>

More bombs discovered at arsenal

Sphere for nerve gas, parts found in cleanup

By [Dick Foster](#)

Denver Rocky Mountain News Southern Bureau

November 21, 2000

Another nerve gas bomb and three more bomb halves were uncovered Monday by cleanup workers at the Army's defunct Rocky Mountain Arsenal.

The discoveries bring to six the number of bombs found since Oct. 16 in a scrap yard within the massive arsenal cleanup site in Adams County.

The bombs, grapefruit-sized aluminum spheres, were built to contain sarin, one of the deadliest nerve agents in existence. Tests on the first bomb discovered indicate it still holds the deadly chemical. Results have not been received on the others....

<http://insidedenver.com/news/1121sari5.shtml>

N-bomb expertise handed to N Korea

By LYNNE O'DONNELL

21 Nov 00

WHEN the on-switch is finally flicked at two nuclear power stations in Pyongyang in a few years' time, the US and its allies are likely to have wasted billions of dollars building a brace of potentially dangerous white elephants.

It is possible they will also have handed North Korea's power-hungry leadership the technology it needs to enhance its nuclear capability.

Running that risk seems all the more crazy given that Pyongyang city, the sole supposed beneficiary, has no modern electricity grid or water system essential for distributing the electricity that the plants are meant to produce.

The two light-water reactors are being built by an international consortium called the Korean Peninsula Energy Development Organisation, or KEDO, at a cost of \$US4.6 billion (\$8.8 billion) under a deal struck in 1994 in which North Korea agreed to scrap its nuclear weapons program.

While North Korea has halted weapons production, experts fear that the deal, known as the Agreed Framework, will result in the transfer of technical and practical expertise to enable North Korea to produce even more plutonium bombs.

Indeed, according to Henry Sokolski, executive director of the Nonproliferation Policy Education Centre in Washington, that is already beginning to happen.

Under the Agreed Framework, Mr Sokolski said, South Korea must train roughly 1000 North Korean nuclear technicians, a vast increase in the number of people versed in nuclear operations. He also points out that the deal will also vastly expand North Korea's nuclear materials production base.

Experts such as Mr Sokolski further fear that if the West agrees to help North Korea launch satellites in return for a halt to production of nuclear-capable missiles, Pyongyang will be able to build an arsenal of nuclear rockets.

Alexander Downer said last week that the condition named by North Korean leaders for halting missile production and exports was financial compensation, as well as assistance in launching what they refer to as scientific satellites.

Technicians working on the reactors in Pyongyang last week conceded that the project was plagued with problems that had pushed back completion until at least 2006.

As a result, the cost to the US will soar because its role in the agreement is to provide North Korea with 500,000 tonnes of desperately needed heavy oil each year until the reactors are finished.

The other KEDO members, South Korea, Japan and the European Union, put up cash.

Washington has suggested building a thermal reactor instead of proceeding with the more complicated light-water reactor as a way of reducing its financial burden and better meeting Pyongyang's power needs.

But according to South Korean media reports, Pyongyang has rejected the idea.

The two light-water reactors are reportedly similar to facilities in Iran, which Washington considers a proliferation threat.

The plants that the new reactors aim to replace will remain intact and could therefore resurface later as a nuclear threat.

China Opposes Proliferation of Mass-Destruction Weapons, Spokesman Says

BEIJING, Nov 22, 2000 -- (Agence France Presse) China has issued a statement opposing the proliferation of weapons of mass destruction, state media reported early Tuesday.

The U.S. State Department a short time later announced a waiving of sanctions against China related to the export of missiles and related technology, and imposed them on Pakistan and Iran.

In the statement carried by Xinhua news agency, Chinese Foreign Ministry spokesman Sun Yuxi said China fulfils its obligations to the treaty on the proliferation of nuclear weapons and chemical and biological weapons conventions "in letter and spirit."...

<http://www.insidechina.com/news.php3?id=222834§ion=default>