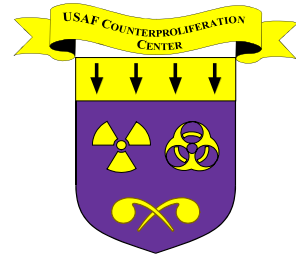


USAF COUNTERPROLIFERATION CENTER

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 to Lt. Col. Michael W. Ritz, CPC Intelligence/Public Affairs or JoAnn Eddy, CPC Executive Assistant at (334) 953-7538 or DSN 493-7538.

The following articles, papers or documents do not necessarily reflect official endorsement of the United States Air Force, Department of Defense, or other US government agencies. Reproduction for private use or commercial gain is subject to original copyright restrictions. All rights are reserved.

Text: Cohen Says "Superpower" Label Attracts Asymmetrical Threats

(Cites chemical, biological, cyber warfare potential) (3730) Since no other country has the military capability of the United States, some states may seek to challenge this country in indirect ways "in the form of chemical or biological or even cyber (warfare)," Defense Secretary Cohen told the Veterans of Foreign Wars in Milwaukee, Wisconsin August 21. "What we have to do is intensify our anti-proliferation types of measures to cut down on the technology that so many of our friends or allies or adversaries are helping to spread around the world," he said....

[http://usinfo.state.gov/cgi-](http://usinfo.state.gov/cgi-bin/washfile/display.pl?p=/products/washfile/topic/intrel&f=00082201.ppo&t=/products/washfile/newsitem.shtml)

[bin/washfile/display.pl?p=/products/washfile/topic/intrel&f=00082201.ppo&t=/products/washfile/newsitem.shtml](http://usinfo.state.gov/cgi-bin/washfile/display.pl?p=/products/washfile/topic/intrel&f=00082201.ppo&t=/products/washfile/newsitem.shtml)

U.S. totally unprepared for bioterrorism

Tuesday, 22 August 2000 15:48 (ET)

U.S. totally unprepared for bioterrorism

WASHINGTON, Aug. 22 (UPI) -- The technology to manufacture biological weapons of mass destruction is now widely available through open literature and the United States is totally unprepared to cope with a bio-terrorist attack, according to one of the United States' leading experts on germ warfare. Speaking in Washington at the Center for Strategic and International Studies, Dr. Tara O'Toole, deputy director of the Johns Hopkins University Center for Civilian Biodefense Studies, said, "100 grams of anthrax properly dispersed downwind over Washington, D.C., for example, could kill between 150,000 and three million people in the surrounding areas...."

<http://www.vny.com/cf/News/upidetail.cfm?QID=111217>

Washington Post

August 24, 2000

Pg. 23

Special Interests

Anthrax Fighter ISO Funds

By Judy Sarasohn

A Tennessee "telemedicine" company working with the University of Alabama-Birmingham on developing an antibiotic alternative to the current controversial anthrax vaccine for U.S. troops has hired Washington lobbyists to help secure Pentagon and congressional support.

The antibiotic, invented by a team led by former NASA astronaut-biochemist Larry DeLucas at Alabama's Center for Biophysical Sciences and Engineering and licensed by Virtual Drug Development, is in preclinical studies and won't be ready for testing on humans for about 18 months, said R. Stephen Porter, head of Virtual Drug Development.

The Tennessee-based company has hired lobbyists Van D. Hipp Jr. and Michael Herson of American Defense International Inc., a government affairs, consulting and business development shop that specializes in defense issues. Hipp was deputy assistant secretary of the Army in charge of reserve forces and mobilization during Operation Desert Storm and the Navy's No. 2 lawyer until the end of 1993. Porter said he was referred to Hipp by a retired brigadier general who knew him during Desert Storm.

Herson earlier served as special assistant to the assistant secretary of defense for force management and personnel. In July, the Pentagon announced that a looming shortage of the vaccine would force the military to cut back on its inoculation program to protect troops against a possible attack of the highly lethal anthrax agent. And several hundred service members have refused to take the vaccine out of concern about its possible side effects.

"Anthrax has been a public relations nightmare for the Defense Department," Hipp said.

Porter said the antibiotic under development would be easier to use and more effective against varying strains of anthrax.

The project already received--and used up--about \$6 million from the Defense Advanced Research Projects Agency. Porter said they're seeking \$2 million more now and an additional \$14 million for fiscal 2001.

Hipp said they have been briefing Pentagon officials and congressional offices, but have focused on the Defense Department. "If need be, we'll work the legislative area next year."

The project has also been helped by Sen. Jeff Sessions. The Alabama Republican got report language for the Senate defense authorization bill, now in conference, that doesn't name the university or the company but directs the Army to report on the "results of a cost-benefit analysis of a prophylactic pharmaceutical development program that is based on current medical research to develop synthetic compounds that inhibit the anthrax enzyme NAD Sythetase" and on the funding needed to fully develop the research.

BioReliance Prepares Vaccines

By Dana Hedgpeth, Washington Post Staff Writer

A Rockville company has signed on to manufacture a smallpox vaccine for the military, marking the first time in decades that a weapon against the disease will be produced.

BioReliance Corp., a biological testing and manufacturing company that has specialized mostly in gene therapies, said it will initially make about 300,000 doses of the smallpox vaccine at its facilities on Broschart Road in Rockville. Company officials expect to begin the initial production process for the vaccine by the end of the year. Making the vaccine has become a priority in recent years amid growing fears of a bioterrorist attack using the deadly virus. A vaccine for the disease hasn't been produced since it was eradicated in the mid-1970s, leaving whole populations open to infection in the event the virus is released.

Only two tightly controlled samples of the virus are supposed to have survived the eradication of the disease, one in Russia and one at the federal Centers for Disease Control and Prevention in Atlanta. But health officials and biological warfare experts say that virus samples may have been obtained by other countries, including North Korea, Iran, Syria and Libya.

"The potential for an outbreak is very real," said Michael Osterholm, chief executive of the Infection Control Advisory Network in Minnesota. "It's been so long since anyone has had the vaccine. If smallpox came back, it would be one of the most horrible nightmares we could imagine among humans."

BioReliance was chosen to make the smallpox vaccination as only one part of a \$322 million contract, which Frederick-based DynPort is overseeing, to make new, more efficient and safer vaccines for the military. The CDC says it has enough vaccine for 15 million people, but scientists estimate that as much as a quarter of the vaccines are no longer effective. The CDC expects to choose a manufacturer by the end of September to make another 40 million doses of the vaccine.

Smallpox, caused by the variola virus, was a major plague through most of human history, killing an estimated half-billion people – more than all the wars and epidemics put together. The last reported case occurred in 1978 in England. Like chickenpox, smallpox is highly contagious and produces a striking, pustular rash. Unlike that disease, however, smallpox kills about 30 percent of people who contract it, researchers said. In the fatal form of the disease, victims typically die of massive hemorrhaging.

There is no drug treatment for smallpox, and the only way to halt an outbreak is to quarantine infected patients and to conduct a mass vaccination campaign, said Donald A. Henderson, the physician who ran the World Health Organization's smallpox eradication campaign and who is now director of the Center for Civilian Biodefense Studies at Johns Hopkins University.

A worldwide vaccination campaign began in 1966, a campaign that was largely responsible for the disease's eradication. The United States stopped widespread vaccinations in 1972, and Wyeth Laboratories, the last company to make a vaccine, stopped doing so in 1975. The American military stopped routinely vaccinating troops against smallpox in the mid-1980s.

World health experts declared humans free of smallpox in 1980, and nearly all laboratory stocks of the disease were destroyed. Outside of the lab, variola can exist only in the human body.

Attention came back to the disease when in 1992 a Soviet official named Kanatjan Kalibekov, who is now known as Ken Alibek, defected to the United States. In secret debriefings, Alibek, formerly a top player in Soviet germ warfare, told Washington that Moscow had made large quantities of smallpox for war, and he suggested that the virus might have been sold or secreted away as the Soviet state collapsed and Russian scientists were looking for jobs in other countries. The danger, many researchers and scientists said, could come if the virus gets into the hands of terrorists.

"We know the Russians produced smallpox in large quantities and intended to use it as a biological weapon," Henderson said. "Many of those people have left those labs and they may have carried the virus with them. We don't know."

The remaining known stocks of the smallpox virus are held in a high-security facility at the CDC and at a laboratory run by the Russian government in Siberia. Last year, the Clinton administration announced that it opposed destroying the last remaining samples of the deadly virus, for research purposes.

"A biological event is expected to be rare, but if it were to occur a smallpox outbreak would be catastrophic," Henderson said. "We need a lot more vaccine than we have on hand."

The smallpox vaccine is made not from smallpox virus but from a related virus known as cowpox virus. It was originally produced by making a laceration on a calf's belly and inserting the virus, whereupon the wound produces defenses against the virus that can be given to humans. "It was made from what was in essence purified cow pus," Osterholm said.

That way of making the vaccine will not be used because health regulations are now much stricter. BioReliance said it will grow the vaccine in cell cultures in its new laboratory, which was specially designed handle developing a vaccine. The facility can hold between 10 million and 20 million doses, said John Gilly, vice president of the manufacturing division at BioReliance.

The company was founded in 1947 and went public in 1997. It now has 470 employees – most of whom are in Rockville. The deal, company officials said, is worth at least \$10 million to BioReliance. It also gives the company more exposure.

"It's going to give us visibility," said Capers W. McDonald, chief executive at BioReliance.

Wall Street Journal

August 24, 2000

Pg. B7

Halliburton Co.

Subsidiary Wins Contract To Dismantle Missiles, Silos

Halliburton Co.'s engineering-and-construction subsidiary, Brown & Root Services, has won a Defense Department contract to remove and dismantle Russian intercontinental ballistic missiles and their silos. The project is part of the Strategic Arms Reduction Treaty and will be based in Russia, with project offices in Moscow. The two-year contract with the Defense Threat Reduction Agency includes an additional seven optional years and will begin in late September. Though it is a \$283 million project, the energy company's portion will be smaller than that. Brown & Root will work with Russian subcontractors in its role as project manager. It also will provide logistics support and data management. Halliburton Chief Executive and President Dave Lesar said in a written statement that the project will be similar to a recently completed four-year contract with the defense department to dismantle missiles in Kazakhstan. Mr. Lesar succeeded CEO Dick Cheney when Mr. Cheney was tapped by GOP presidential candidate George W. Bush to be his running mate. Halliburton said Mr. Cheney, a former defense secretary, wasn't involved in negotiations for the Russian contract.

New York Times

August 24, 2000

Hussein Aide Says Iraq Won't Cooperate With Arms Monitoring

By Barbara Crossette

UNITED NATIONS, Aug. 23 -- As a two-day meeting of international arms inspections experts convened today to review new monitoring operations for Iraq, a leading Iraqi official denounced the inspection commission and vowed again never to cooperate with it.

The official, Tariq Aziz, Iraq's deputy prime minister and the person considered to be the most authoritative spokesman for President Saddam Hussein, said in Baghdad that his government would not allow the new arms inspection team to visit the country, as called for in a Security Council resolution last December.

Hans Blix, the executive chairman of the new arms panel, the United Nations Monitoring, Verification and Inspection Commission, said this week that a team of 44 inspectors from 19 countries had been trained and was ready to go to Iraq to restart inspections after a 20-month lapse. The last inspectors of an earlier commission were withdrawn from Iraq in advance of American and British bombing in December 1998.

Mr. Aziz told reporters in Baghdad: "I have said that Iraq will never cooperate with resolution 1284. This means it will not receive Blix or any person related to this resolution."

Iraq has also refused to allow entry to Yuli Voronstov, a Russian diplomat charged with studying the cases of 600 Kuwaitis and others still missing since the 1990 invasion and occupation of Kuwait by Iraq. And Peter van Walsum, the Dutch ambassador to the United Nations and chairman of the Security Council sanctions committee on Iraq, has also been refused entry. He said he has been eager to see for himself what effects a decade-long embargo is having on the people of Iraq.

The embargo was imposed by the United Nations after Iraq's invasion of Kuwait in 1990.

Dr. Blix, a former Swedish foreign minister and director general of the International Atomic Energy Agency during the period when it was discovered that Iraq had been working on a secret nuclear weapons program, was widely assumed to be more acceptable to Iraq as a chief inspector than his predecessor, Richard Butler of Australia. Mr. Butler headed the now-defunct commission known as Unscorn.

Nuclear inspectors under Dr. Blix had concluded several years ago that Iraq was free of nuclear weapons, but needed long-term monitoring. Mr. Butler's inspectors, who were responsible for destroying and monitoring biological, chemical and long-range missile programs, still had a list of questions for the Iraqis about missing arms components and materials for germ warfare, and were aggressive in demanding answers. Iraq objected, demanding more diplomatic treatment, which some United Nations officials also advocated.

Mr. Butler now says this undermined his work and gave the Iraqis the opening to become more defiant of all inspection systems.

Iraq must be declared free of all prohibited weapons of mass destruction in order to have sanctions lifted, although the new commission, in a gesture to Iraq, is permitted to recommend a suspension of the embargo if the Iraqis cooperate on still-undefined "key" disarmament tasks for six months.

Dr. Blix was expected to report today to his international advisory board, called a "college of commissioners," on his readiness to return inspectors to Iraq and Iraq's rejection of the new program.

Christian Science Monitor

August 24, 2000

Pg. 1

Israel's Worst-Kept Secret, On Web

Satellite photos of a nuclear reactor complicate US policy.

By Cameron W. Barr, Staff writer of The Christian Science Monitor

JERUSALEM -- First the Web brought you real-time stock quotes, instant messaging, and cybershopping.

Now comes a new pinnacle in transparency: high-resolution satellite imagery of some of the world's most sensitive sites, available to anyone online.

In recent months, images of a US Air Force base in an off-limits part of the Nevada desert known as Area 51 have been published in cyberspace, as have pictures of North Korea's secrecy-shrouded missile-launching facilities.

Last week the Federation of American Scientists (FAS) placed on its Web site satellite photographs of Israel's top-secret Dimona reactor and an Israeli daily prominently published some of the same images.

For decades Israeli leaders have denied that their country has nuclear weapons while letting slip the odd remark that ensures everyone knows they possess the deadliest of deterrents. But in the Internet age, when technology allows invasions of personal and national privacy, this policy of "deliberate ambiguity" is looking much more deliberate than ambiguous. "This publication does make a difference," says a former US National Security Council official about the availability of the Dimona images. "It exposes what has been officially denied."

Israel's nuclear-weapons program has long been secret in name only; some experts estimate that Israel has 100 to 200 nuclear warheads. Considering the extensive reach of Israel's missiles and its well-funded conventional forces, this tiny nation of 6 million people is the military powerhouse of the Middle East.

Indeed, says Daniel Goure, an international security specialist at the Center for Strategic and International Studies in Washington, greater awareness of their nuclear capabilities may serve the Israelis' interests. "They're increasingly facing long-range threats" - such as Iran's missile program - "for which conventional forces are not a solution," he says.

The United States, Israel's ally and a nation that has tried to appear as an honest broker in disputes between the Jewish state and its Arab neighbors, has long ignored the public evidence of Israel's nuclear-weapons program.

"There is a massive American effort against proliferation," notes Abdel-Monem Said, director of Egypt's state-funded Al-Ahram Center for Strategic and Political Studies in Cairo. "But when it comes to Israel, [this effort] is highly disappointing."

Part of the US justification for the 1991 Gulf War was to attempt to eliminate Iraq's nuclear-weapons program. The US has alternated between cold-shouldered warnings and peaceful entreaties to convince North Korea not to develop atomic bombs. These policies stand in contrast to the Washington's don't-ask-don't-tell handling of Israel.

"Every additional publication of documentation," says Joseph Alpher, an independent researcher who is an expert on Israel's defense, "is another blow at the doctrine of ambiguity." And the growing public awareness of Israel's nuclear capability "doesn't make it easier for the US to maintain its posture."

Mr. Goure says that the appearance of a double standard complicates nonproliferation efforts in the region: "The Arabs can say, 'Don't talk to us about chemical and biological weapons when you turn a blind eye to what the Israelis are doing.'"

The former National Security Council official concedes that the Dimona pictures will serve the cause of Egypt and other countries that demand a tougher US line on Israel's nuclear program. But he doubts that the US will change its stand.

The satellite images published by FAS, a non-profit group founded by the scientists who helped to develop the first US atomic weapons and now campaigns for nuclear disarmament, follow the publication of a landmark study of Israel's nuclear program.

"Israel and the Bomb," by scholar Avner Cohen, was published by Columbia University Press in late 1998. It details the history of this country's nuclear program, including the accommodation reached with the US.

The nuclear version of "don't ask, don't tell" was the logical solution to a situation where Israel felt compelled to develop weapons to defend against its neighbors and where the US was pushing for global nonproliferation.

Israeli officials, without ever breaking from their coy refusal to acknowledge their nuclear abilities, have said they would be interested in ridding the Mideast of so-called weapons of mass destruction, but only once a comprehensive regional peace is in place.

If the peace processes between Israel and the Palestinians and Israel and Syria yield agreements, the next step will be to try to curb the military power in the region.

In that context, Israel's nuclear program may serve as a useful bargaining chip in attempting to convince Iran and other countries to abandon some of their weapons programs.

But in a world where nations are flexing their atomic powers - India and Pakistan exploded nuclear devices in 1998 - the Israelis may have a hard time forsaking such weapons.

Aerospace Daily
August 24, 2000

Intel Community Sees 'Stepping Stones' To ICBM Proliferation

HUNTSVILLE, Ala. - Intelligence analysts see potential U.S. adversaries developing the intercontinental ballistic missiles they lack today by following the same "stepping stones" that led to existing ICBMs, using domestic and imported technology and expertise to advance their short-range capability with better propulsion systems and materials despite international efforts to control missile technology proliferation.

A panel of DIA and Air Force intelligence officials told the U.S. Army Space and Missile Defense Conference here Tuesday that China is readying a new, solid-fuel ICBM with enough range to reach the U.S. that will replace or augment its fleet of about 20 CSS-4 liquid-fueled ICBMs. That will be an advance over the road-mobile solid-fuel DF-31, which is limited by its 8,000-kilometer range to Asian targets and Russia.

"Countries of interest are not only developing MR [medium-range] and IRBMs [intermediate-range ballistic missiles], but they're also establishing a foundation on which to base the longer-range ICBMs," said David H. Eskins, chief of the ballistic missile division at the National Air Intelligence Center. "Most countries that I know of never went directly to an ICBM. You have to walk your way up through the systems and learn some technologies and capabilities before you get there."

Eskins said the key to achieving intercontinental ranges is the "burnout velocity," the speed a missile is traveling when its engines shut down. A short-range missile is moving at about 3,100 meters per second, while an ICBM must reach between 7,315 and 7,784 meters per second.

"What we see taking place in the countries of concern today are the propulsion systems are getting better," he said. "In other words, that ISP [specific impulse] number is going up. We also see the structure and materials they're using also getting better...What we see is a proliferation of technologies that is enabling some of these countries to achieve much greater, faster capabilities than what we anticipated a few years ago."

Eskins, who said his talk was based in part on his office's annual unclassified assessment that will be published in about a week, said the use of solid propellant is one enabling technology that serves as a "stepping stone" to ICBMs. Most Third World nations that could pose a threat to the U.S. or its allies are still relying on liquid-fuel technology, although by adding stages as in North Korea's Taepo Dong 1 and 2, developing nations can move toward ICBM ranges.

"Certain Russian entities" continued to proliferate missile technology in 1999, Eskins said, citing in particular Russian help with Iran's Shahab-3 MRBM. Similarly, China has helped Iran, North Korea and Libya with their missile development efforts, he said.

"The ballistic missile threat is expanding, and even though my particular briefing here is strategic or NMD-type threats, the important part to us is that the countries are developing the stepping stones to achieve that," Eskins said.

"Proliferation is having a major impact in terms of...looking at what technologies and what capabilities and brain-power capabilities is flowing to these countries of concern."

Ken Knight, defense intelligence officer for global trends and projections at the DIA, told the conference that he was skeptical over the prospects for controlling missile technology proliferation.

"The way that money, people, information, technology, brainpower move around these days, the global economic environment - and in fact it's an environment we encourage for economic reasons - I just don't see how over the long term you can prevent a determined state from developing, either indigenously or acquiring the key technologies that they need," Knight said, noting that counter-proliferation efforts "have helped," but adding "I'm a pessimist overall."

--- *Frank Morring Jr.*

Washington Times
August 25, 2000

Inside The Ring

By Bill Gertz and Rowan Scarborough

Asian missile buildup

The Pentagon moved several dozen conventional air-launched cruise missiles to the island of Guam earlier this month. The transfer marked the first time the precision-guided weapons will be based outside the continental United States.

The missile deployment to the U.S. island, located in the Pacific about 1,500 miles east of the Philippines, will likely fuel suspicions in China about possible U.S. attacks during a conflict between the mainland and Taiwan, Pentagon officials said.

The forward deployment means U.S. bombers will be able to hit any place in the Asia-Pacific region within 12 hours with the ground-hugging warhead, they said.

The deployment was opposed by the Joint Chiefs of Staff for years. The chiefs expressed concerns for the security for a missile regarded as one of the Pentagon's premier weapons.

The 3,000-pound cruise missiles were used to such an extent against Serbia last year that planners worried the Air Force might run out.

The missile deployment was approved after appeals from the U.S. combatant commanders, specifically the commander in chief of the U.S. Pacific Command, Adm. Dennis Blair

Chicago Tribune
August 26, 2000

German Agency Confirms Discovery Of Missile Factory

From Tribune News Services

IRAQ -- Germany's intelligence agency Friday confirmed a report that it had discovered the location of a secret Iraqi missile factory near Baghdad, supporting allegations that Saddam Hussein has continued to build up his arsenal.

About 250 technicians are working on short-range missiles at the Al Mamoun Factory, said a spokeswoman from the German Bundesnachrichtendienst.

The report in the Bild newspaper said the complex, which has many buildings, is located 25 miles southwest of Baghdad, and gave the precise latitude and longitude.

Although the ARABIL-100 missiles have a range of less than 93 miles, the production shows "the Iraqi will and personnel for missile development exists as before," the agency said.

Anthrax Vaccine Recipe Missing

(Lansing, Michigan-AP) -- The company under contract to make the anthrax vaccine for the U-S military says the recipe for the vaccine is missing.

BioPort Corporation says the recipe is one of a number of documents that have disappeared from its offices.

The Lansing, Michigan, company says the missing documents could help solve production problems that have kept it from getting government approval of its renovated labs.

The company has yet to deliver a single dose of the controversial anthrax vaccine to the Defense Department under the 100 (m) million-dollar program.

The Lansing State Journal reports the disappearance of the documents was revealed in a dispute between BioPort and three scientists who want royalties for their work on the anthrax vaccine and two other vaccines.

Copyright 1999 [The Associated Press](#). All rights reserved. This material may not be published, broadcast, rewritten, or redistributed.

http://my.cnn.com/jbcl/cnews/Go?template=otmDetStory&art_id=5949509&uid=967211719110&page_exclude=1