

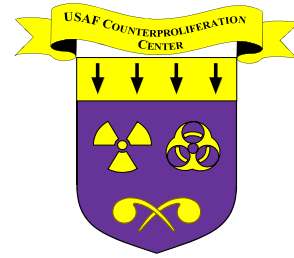
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USAF COUNTERPROLIFERATION CENTER

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 Outreach Editor, at (334) 953-7538 or DSN 493-7538.

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India's and Pakistan's Fissile Material and Nuclear Weapons Inventories, end of 1999

David Albright
Institute for Science and International Security (ISIS)
October 11, 2000

Estimating the size of India and Pakistan's inventory of separated weapon-grade plutonium and highly enriched uranium (HEU) has become more difficult following their nuclear tests in May 1998. Both countries treat these numbers as highly classified, partly because such estimates provide a direct indication of the number of nuclear weapons they may possess. The purpose of this annual report is to summarize estimates of their stocks of fissile material. This report is an update of a report covering the period up to the end of 1998.¹

In the case of Pakistan, what can be surmised is that it has resumed full-scale production of HEU, following a declared moratorium on such production since 1991. Abdul Q. Khan, the father of Pakistan's uranium enrichment program, announced soon after the Pakistani tests that his country had never stopped making HEU. Although his comment has been greeted skeptically, it indicates that Pakistan may have resumed making weapon-grade uranium well before its tests in May 1998....

<http://www.isis-online.org/publications/southasia/stocks1000.html>

Wednesday October 18, 11:01 am Eastern Time

Press Release

SOURCE: University of Pittsburgh

Carnegie Mellon University, University of Pittsburgh to Establish Biomedical Security Institute to Address Bioterrorism, Public Health Threats

PITTSBURGH, Oct. 18 /PRNewswire/ -- Carnegie Mellon University and the University of Pittsburgh are establishing a Biomedical Security Institute (BMSI) that will monitor public health threats and alert emergency management agencies nationwide to attacks of bioterrorism.

The Biomedical Security Institute will provide a far-reaching preparedness, detection and response capability network that can be used to rapidly and accurately respond to acts of bioterrorism.

BMSI addresses a national need for greater preparedness in the event of biological terrorist attacks. It also will provide a means to monitor naturally occurring biological catastrophes such as outbreaks of West Nile virus and other related incidents, as well as attacks with biological agents...

http://biz.yahoo.com/prnews/001018/pa_carnegi.html

U.S. faces a growing terror

The military has lost more people to terrorism than in wars since 1975, a trend, PAUL KORING writes, expected to escalate
PAUL KORING

Friday, October 20, 2000

Despite its unchallenged and overwhelming combat capability, the U.S. military remains vulnerable to terrorist attacks like last week's suicide bombing in Yemen. And Washington fears it will face increasing numbers of terrorist attacks, overseas and on U.S. soil.

"This is precisely the kind of threat that we face, where countries are unwilling to take us on head to head but will resort to acts of terrorism to achieve their goal," U.S. Defence Secretary William Cohen said after the well-planned attack on the USS Cole, a destroyer that carried guided missiles and was refuelling in Aden, Yemen...

<http://199.246.67.250/gam/International/20001020/UTERRM.html>

Denver Rocky Mountain News

October 21, 2000

Finding Sarin Gas Poses Problem For Old Arsenal

Officials debate best way to destroy poison

By Berny Morson, Denver Rocky Mountain News Staff Writer

ADAMS COUNTY — A bomblet containing the deadly nerve gas sarin plagued authorities who struggled Friday to determine what to do with it.

A federal safety agency wants to blow up the grapefruit-sized aluminum canister at Rocky Mountain Arsenal, where it was discovered Monday in a scrap heap.

But state health officials want more information about alternatives and possible effects on air quality before they sign off on any explosions.

The gas would kill anyone within about 900 feet of an uncontained explosion and sicken people up to 3,600 feet away, said Charles Sharmann, the program manager for the arsenal clean-up.

The canister is not a danger to the public, he said. The nearest public road or home is more than two miles away. State and federal officials will discuss the problem Monday. Gov. Bill Owens has been briefed, said Howard Roitman, head of the Colorado Health Department's hazardous materials unit.

The bomblet was found by workers who are cleaning up the defunct arsenal. It contains 1.3 pounds of sarin, as well as the explosives needed to disperse it among enemy soldiers had the canister been used in war.

Under the plan recommended by the Munitions Assessment Review Board, the canister would be detonated by a charge so massive that the nerve gas would be instantly vaporized, Sharmann said. Sharmann said the technique has been used previously.

The Maryland-based review board is an advisor to the Army on stray munitions.

The 27-square-mile arsenal is a federal Superfund cleanup site because of heavy contamination left by nerve-gas manufacturing during World War II and the Korean War. None of the gas was used.

The nerve-gas canister was discovered as cleanup workers sifted through a pile of scrap metal, most of it headed for recycling.

"It's a little unclear when it got there and how it got there," Sharmann said.

Roitman, the state hazardous materials head, said: "It has a potential to be a serious situation. On the other hand, this object has been there for decades."

That means the state has time to consider options, such as shipping the canister off site, Roitman said.

"We just want to be sure what will happen under any of these scenarios," he said.

Sharmann said sending the canister off-site could pose a danger to communities along the route, particularly because the explosive charge appears to be intact.

Sarin breaks down in a matter of hours or days when exposed to the air. But opening the canister or drilling into it could be dangerous, Sharmann said.

"You have people there using their hands and not knowing how stable it is," he said.

Nearby residents were outraged they weren't officially notified until late in the week about the potential danger.

Lee Kaley, who lives in Montbello and serves on an arsenal citizen's advisory committee, said he should have been informed.

"Why it wasn't is totally and completely beyond me," Kaley said.

But two Commerce City City Council members said they were told, as was the police department.

"We are very satisfied with the communication the arsenal has given us with the cleanup here," said Councilman Roland Cole. "That doesn't mean we won't stay on top of it."

Cole said he's confident the arsenal will handle disposal safely.

"I have complete confidence in them," he said.

Secret German plans for biological weapons

Source: AFP|Published: Sunday October 22, 10:24 AM

BERLIN - The German army is secretly developing biological weapons resistant to antibiotics, the German newspaper Die Welt said in a report to be published today.

According to the paper, an army research program on genetics has included work on pathogens that can be used in warfare.

"These pathogen agents are considered as being suited for use in weapons," the paper said.

In a written statement the German defence ministry confirmed that the army was engaged in research in the field of genetics, but declined to say what the research consisted of.

The ministry said the program had been carried out "in close agreement" with NATO and its partners.

"No research and no development to manufacture biological weapons have been conducted, financed, or supported in any way," the statement said.

Die Welt alleged the research has been carried out on genetically modified potatoes and soya seeds, but also on colon bacillus and pathogenic agents of cholera, the plague and coal.

Indian Navy's new impetus to N-sub project

Rezaul H. Laskar

Oct 22, 2000 18:55 Hrs (IST)

New Delhi: In a clear indication that it is serious about speeding up the development of an indigenously designed nuclear submarine, the Indian Navy has appointed a senior commander who captained the Charlie-class nuclear submarine that India leased from the erstwhile Soviet Union in 1988 as head of its Advanced Technology Vessel (ATV) project.

Vice Admiral R.N. Ganesh, who was recently appointed the chief of the ATV project, is also the first serving officer to head the navy's program to develop an indigenous nuclear submarine, according to well placed sources.

The ATV project, which has never been officially acknowledged by the government, had traditionally been headed by a retired naval officer.

India's efforts to develop a nuclear-powered submarine received a major boost when New Delhi leased a Russian Charlie-class nuclear submarine for three years in January 1998. The submarine served in the Indian Navy with the name INS Chakra and a team of Russian experts trained Indian personnel to operate it.

The Indian crew headed by Ganesh which served on INS Chakra gained considerable expertise in the capabilities of a nuclear submarine, sources said, adding that the navy was keen to ensure that these skills were not dissipated with the passing of almost a decade since the return of the INS Chakra to Russia.

Scientists from the Defense Research and Development Organization (DRDO) are part of the ATV project, which has research facilities in several parts of the country, including Visakhapatnam, Hyderabad and Kalapakkam, the sources told IANS.

A nuclear powered submarine would form an integral part of the triad of air, sea and land-based delivery systems that India wants to create to form a credible nuclear deterrent, the sources said. The government has already indicated its plans to create this triad, which would give it a "second strike capability," in its draft nuclear doctrine that was announced last year.

Rahul Roy Chaudhury, a noted maritime security expert who has followed the ATV project for some time, recently wrote in his book India's Maritime Security that the nuclear submarine program was started in the mid-1970s by former prime minister Indira Gandhi. The ATV project, Roy Chaudhury wrote, is divided into two parts - the building of a nuclear reactor to propel the vessel and the construction of a hull for the submarine.

Roy Chaudhury said the nuclear reactor of 190 MW is expected to use enriched uranium and it is being developed at the Bhabha Atomic Research Center (BARC), the country's premier nuclear research facility situated near Mumbai, with the uranium being acquired from electricity producing heavy water reactors in various parts of the country.

Most of the problems faced by the scientists working on the ATV project, Roy Chaudhury wrote, revolved around miniaturizing the nuclear reactor to fit the hull design for the submarine. He also wrote that facilities for testing the nuclear reactor on land have been established at Kalpakkam in Tamil Nadu.

Defense sources told IANS that discussions had also been held with France and Russia to obtain assistance for the ATV projects, but Paris had refused to help in view of existing nuclear non-proliferation regimes. Some reports in the Indian and Russian media have also suggested that the ATV's hull design is based on the Russian Severodvinsk-class attack submarine.

The DRDO is also working on a submarine-launched cruise missile code-named Sagarika for use with the ATV, the sources said.

India Abroad News Service

U.S. Cash Helps Russian Nuclear Shipyard Limp On

SEVERODVINSK, Oct 22, 2000 -- (Reuters) If there is one-thing residents of this closed, once top secret, northern Russian town are really not accustomed to it is hearing English voices.

And yet last week, officials who for decades had been obsessed with secrecy in Russia's biggest nuclear submarine shipyard were all smiles as they rolled out the red carpet for a man who made no attempt to hide that he was a U.S. general.

Thomas Kuenning, director of the U.S. Department of Defense's Common Threat Reduction Directorate, seemed no less happy as he opened a U.S.-funded nuclear waste processing plant, near the shipyard which coincidentally built the Kursk, the Russian nuclear-powered submarine which sank in August after an explosion killing all 118 crew. The plant is designed to help Moscow scrap its aging submarines, and to help the people of Severodvinsk make a living.

"The United States really believes that the USD 17 million that it has invested in this project is money well spent," Kuenning said to warm applause before cutting the ribbon at the entrance to the multi-store, hangar-like facility. The plant, fully paid for by Washington and built by an international consortium which also included Russian companies, is scheduled to start what are called "hot" tests this week.

It will then be able to process large amounts of low-level radioactive waste, such as reactor cooling liquids, laundry wastewater and radioactive solids, generated in the dismantling of nuclear-powered submarines.

WASTE USED TO BE DUMPED INTO THE SEA Russia, which is scrapping hundreds of such vessels under the START arms reduction agreements with the United States, has had trouble recycling the low-level waste accounting for about 15 percent of total radioactivity inside a submarine.

In the old days Moscow would simply dump the waste into the sea. It did so until 1992 when environmental groups and Nordic countries whose economies depend heavily on fishing forced it to abandon the practice.

With no money to develop and build processing facilities, Russia started to stockpile the waste in unsafe locations, such as barges along the coastline.

Ecologists have said it was only a matter of time before disaster struck.

"This project will help make the area safer, the Arctic region safer, in fact, the whole world safer for the work that will be done at this plant," Kuenning said.

Russian Deputy Atomic Energy Minister Valery Lebedev said 185 nuclear submarines across Russia were now waiting to be dismantled, 55 of them already cut up.

The plant in Severodvinsk, along with two more similar facilities due to be commissioned later, will help eliminate the problem of low-level waste altogether, he added.

U.S. CASH KEEPS RUSSIAN COMPANIES AFLOAT

But for many Russians involved in the project, the celebration was tinged with sadness as they observed that the shipyard, which in Soviet days filled them with pride, was saved from ruin by American money.

"We built submarines here that could annihilate all of the United States - and today it is thanks to their cash that we still exist," said a Russian engineer who asked not to be named.

"And we really had a hard time getting them to accept that Russian companies actually take part in the project. And for many of these companies it was the last chance of survival."

The atmosphere of days gone by was also distinctly present at a banquet to which all the guests were treated after the opening ceremony.

As organizers toasted the new U.S.-Russian friendship and cooperation, folk singers sang Soviet-era tunes about the joys of serving in the navy and how "a weary sub is heading home", apparently after lurking for months near American shores.

Tears glistened in some eyes when a film projector beamed images of rows of huge dark vessels moored for maintenance at the piers, long before the end of the Cold War and the collapse of the Soviet Union dried up financing.

Through the window one could see the same docks and piers, but not a single submarine in sight. The Kursk was one of the last submarines built in Severodvinsk.

The only vessel to grace the steely waters seemed to be the half-finished aircraft carrier Admiral Ushakov, which Moscow has virtually given up hope of completing because of lack of funds.

"We can only build big nuclear submarines here and nobody needs them anymore," said another local official who also asked not to be identified.

"We tried to convert, but what can you convert to when you only know how to build these?"

The Americans, who had been dealing with Severodvinsk for more than two years, seemed to notice none of this sadness and sounded relieved as they left.

Giving the cold and featureless town a last glance, one of them said: "The worst is over".

Iran To Test Chinese-Made Missiles

The Associated Press

Monday, Oct. 23, 2000; 12:18 p.m. EDT

TEHRAN, Iran ** Iran will reportedly test a modified version of a Chinese-made anti-ship missile during naval maneuvers in the Persian Gulf next week.

Iran's regular army and the elite Revolutionary Guards will test C-802 Silkworm missiles in eight days of war games starting Sunday, the daily Iran quoted Morteza Saffari, commander of the Revolutionary Guards' naval forces, as saying.

The war games will be staged in the Strait of Hormuz and the Sea of Oman, the paper said Monday.

Saffari did not say what modifications had been made on the missiles. Iran has tried to increase the range of missiles it has purchased from China and North Korea, according to officials from Israel and the United States.

An Iranian army official said Iran would deploy a large force as well as submarines for the war games. Iran has three Kilo-class Russian-built submarines.

Iran has built and tested a number of missiles, including the Shahab-3 which has a range of 810 miles. Washington denounced a July test of the Shahab-3, which it said could reach Israel or U.S. troops in Saudi Arabia.

Fear in Louisiana over Biological Agent Test

Oct 23, 2000

Dave Eberhart

Stars and Stripes Veterans Affairs Editor

In Louisiana, the towns of Deridder and Leesville are known primarily for their proximity to Fort Polk, the home of the Army's Joint Readiness Training Center. Relations between the 199,000-acre base and surrounding civilian community have long been excellent - until now.

<http://www.stripes.com/servlet/News/ViewArticle?articleId=100033289>

Bio-agent Scare Spreads to Missouri

Oct 24, 2000

David Eberhart

Stars and Stripes Veterans Affairs Editor

Pentagon representatives have been invited to an emergency public meeting Oct. 26 at the Versailles Middle School in Versailles, Mo., following news that the DoD has quietly been testing biological agent detection gear at nearby Fort Leonard Wood since January.

<http://www.stripes.com/servlet/News/ViewArticle?articleId=100033321&frontpageId=100033331>

Nuclear Expert Challenges U.S. Thinking on Warheads

By Walter Pincus

Washington Post Staff Writer

Tuesday, October 24, 2000; Page A03

A leading U.S. expert on nuclear weapons is challenging decades of military thinking by suggesting that precision-guided conventional explosives could replace nuclear warheads on most of America's strategic missiles.

Stephen M. Younger, the associate director of Los Alamos National Laboratory and head of its nuclear weapons work, also says the United States should consider developing a new generation of small nuclear bombs to handle the few military tasks for which nuclear weapons are still theoretically required.

<http://www.washingtonpost.com/wp-dyn/articles/A61540-2000Oct12.html>

Albright Urges Nuke Plan Disclosure

Wednesday October 25, 2000 10:40 am

SEOUL, South Korea (AP) - Secretary of State Madeleine Albright said Wednesday that North Korea must remove lingering uncertainty about its nuclear weapons activities if efforts at accommodation with the United States are to succeed.

A 1994 U.S.-North Korean agreement was designed to freeze a suspected nuclear weapons program in Yongbyan but there are concerns Pyongyang may have stockpiled one or more such weapons beforehand.

Some experts believe North Korea had acquired sufficient materials in the pre-agreement period for one or two weapons while others doubt Pyongyang has any.

Albright, who arrived here Wednesday after two days in Pyongyang, told a news conference she raised the weapons issue with North Korean leader Kim Jong Il.

"Obviously the nuclear issue has been one of central importance to us," Albright said, stressing the importance of full disclosure by the North Koreans.

"I made the point any number of times in my discussion with Chairman Kim whatever the subject that confidence building measures generally and transparency were absolutely essential if our relationship is to move forward," she said.

Albright came here to brief the South Korean Foreign Minister Lee Jung-binn and Japanese Foreign Minister Yohei Kono on her talks in Pyongyang. Both welcomed her initiative and vowed to continue the close three-way coordination on the North Korea issue that they established last year.

On returning to Washington later in the week, Albright will report to President Clinton on her discussions. Clinton has said he will travel to North Korea next month if Albright's talks went well.

North Korea's development of missiles and its missile exports to the Middle East have been a key area of U.S. concern but outside experts said the nuclear issue should not be underestimated.

David Albright, president of the Institute for Science and International Security in Washington, says peace on the Korean Peninsula "can't be achieved without verified assurances that North Korea is free of nuclear weapons."

"A single nuclear weapon could cause tremendous havoc to Seoul," says Albright, no relation to the secretary of state.

As for North Korea's missile exports, a senior official aboard Secretary Albright's plane said Kim sees these sales as profitable but also recognizes he will never have a sound relationship with the United States as long as these sales continue. This could be detrimental to the economy over the long run, the official said.

"There are other ways to make millions of dollars," the official said.

New York Times
October 26, 2000

Threat Of Unconventional Terrorism Is Overstated, Study Says

By Judith Miller

The threat of terrorism involving chemical and germ weapons has been highly exaggerated, and much of the federal government's response to this small, but growing challenge is wasteful and ill-conceived, according to a new study of the administration's domestic emergency preparedness programs by a Washington-based research center.

The 319-page study, published yesterday by the Henry L. Stimson Center, a nonprofit public policy research organization, concludes, among other things, that the administration should stop initiating emergency preparedness training programs and abolish the expensive National Guard teams established to help states and cities in the event of a chemical or germ warfare attack.

The study, written by Amy Smithson, an expert on chemical warfare and the director of the center's program on stopping the spread of chemical and germ weapons, also says the government has "grossly underfunded" programs with Russia to prevent about 10,000 important Soviet germ and chemical weapons scientists from being recruited by terrorists or states like Iran and Iraq that the State Department says support terrorism.

Ms. Smithson bases her critique of the government's counterterrorism programs on almost two years of interviews with police officials, firefighters, paramedics, emergency managers, health care personnel and public health officials in 30 cities in 25 states and on private and government studies of different aspects of the federal emergency preparedness effort. Blame resides within the Clinton administration, she concludes, for letting "pork" take precedence "over preparedness," and in Congress, where committees have "authorized virtually any program with terrorism in the title."

Overall spending on counterterrorism, the study says, rose to \$10.2 billion in this year's budget from \$5.7 billion in 1996. Within those budgets, money for combating unconventional terrorism — or attacks involving nuclear, biological or chemical weapons — more than doubled in the last two years, to \$1.5 billion in 2000 from \$645 million in 1998.

"Throwing money at a problem is a costly substitute for effective government," the report concludes.

P. J. Crowley, a White House spokesman, said that while White House officials had not seen the report, the administration was steadily improving the nation's ability to respond to chemical or biological attack or crisis.

"Three years ago, we had no capability to deal domestically with chemical, biological, radiological or cyber threats," Mr. Crowley said. "Today, we have built a foundation that allows us to anticipate, identify and, if necessary, respond to these emerging threats."

Ms. Smithson also criticizes the federal government for underfinancing what she argues is the most important means of detecting a covert biological attack on the United States, the disease surveillance system. In 2000, only \$222 million, or about 14 percent, of the unconventional-terrorism budgets was allocated to hospital preparations, public health infrastructure and biomedical research. Only 6 percent of the budget was devoted to strengthening public hospitals, clinics and emergency health facilities that would be overwhelmed in a chemical or germ terrorist attack.

On the other hand, the study finds, Washington has thrown money at emergency response teams of dubious value.

Ms. Smithson singles out a program that in the last two years has cost more than \$134.7 million to prepare and train National Guard teams to help states and cities in the event of a germ or chemical terrorist attack. No team would arrive in time to help local populations and the teams are technically inept, she contends. The National Guard, moreover, is building a \$60 million "first responder" training facility in West Virginia, although the Justice Department already has such a center at Fort McClellan, in Alabama.

For the \$3.5 million cost of starting, equipping and training one National Guard Civil Support Team, Ms. Smithson states, "2,333 hospitals or fire stations could be outfitted with decontamination capabilities."

Charles Cragin, an assistant secretary of defense, disagreed with the criticism, asserting that some Guard teams would arrive within four hours of being called, and that they had performed well in exercises.

The lack of federal coordination, the report states, has led to the creation of about 90 terrorism preparedness courses with different missions, resources and requirements, resulting in "a confusing mess that has left officials outside Washington uneasy and frustrated."

Much of the training money never reaches the states and localities, but rather stays "within the Beltway," Ms. Smithson said.

The preparedness programs, the study adds, focus "disproportionately on the on-scene sirens and rescue components of unconventional terrorism response" and too little on strengthening the public health system against diseases that could emerge through a terrorist attack or a natural epidemic.

Army Times
October 30, 2000
Pg. 12

New Chemical Protection Cream On Its Way To Soldiers

Medical innovations ahead for troops

By Diane Tsimekles, Times staff writer

Soldiers may soon be issued a skin cream that provides a protective barrier against chemical agents.

The cream, approved by the Food and Drug Administration in February, provides additional protection against chemical agents when used with protective garments.

Lt. Col. Harold E. Modrow, deputy commander of the Army Medical Materiel Development Activity, said he expected the procurement to begin sometime before next October.

The cream — Skin Exposure Reduction Paste Against Chemical Warfare Agents — is not designed for general topical use, but rather for application along breaks in clothing.

"Even though soldiers have , they would use it on their waist, cuffs, neck," Modrow said.

The cream was one of several initiatives discussed at an Army Medical Department seminar at the Association of the U.S. Army convention in Washington, D.C.

Another top project is a telemedicine program that allows forward teams to consult with experts back at Walter Reed Army Medical Center.

The Army medical community also is developing several hemorrhage-control products, such as a tourniquet that can be applied with one hand.

Clinical trials for new hemostatic bandages, which are designed to staunch bleeding in serious wounds, are scheduled to start soon.

In addition, a hemostatic foam and intravenous hemostatic drugs are in development. The foam would be pumped into a wound to stop bleeding and the IV drugs would deliver more clotting agents to the wounded soldier. It would be similar to drugs used to treat hemophiliacs.

Another high-tech project under way is Medic Warrior. In this system, sensors placed on soldiers would transmit information about their condition and location to medics.

Not only would the system allow combat medics to assess which soldiers need to be treated first, it could help save the lives of some medics.

"Historically, 15 percent of medics killed on the battlefield were on route to someone already dead," said Maj. Gen. John S. Parker, commander of Army Medical Research and Materiel Command and Fort Detrick, Md.