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

Established here at the Air War College in 1998, the USAF/CPC provides education and research to present and future leaders of the Air Force, as well as to members of other branches of the armed services and Department of Defense. Our purpose is to help those agencies better prepare to counter the threat from weapons of mass destruction. Please feel free to visit our web site at www.au.af.mil/au/awc/awcgate/awc-cps.htm *for in-depth information and specific points of contact. Please direct any questions or comments on CPC Outreach Journal to Lt. Col. Michael W. Ritz, CPC Intelligence/Public Affairs or JoAnn Eddy, CPC Executive Assistant at (334) 953-7538 or DSN 493-7538.*

Preparing for weapons of terrorism

ROSE LVINGSTON
News staff writer
09/12/00

The nation's first hospital dedicated to training emergency medical personnel to treat victims of chemical terrorism started classes Monday at the former Fort McClellan Noble Army Hospital.

In the courses offered by the U.S. Public Health Service Noble Training Center, doctors, nurses and emergency medical technicians learn of the terrorist threat against the United States and the types of weapons that could be used in such attacks.

They then learn how to treat those particular injuries

http://www.al.com/news/birmingham/Sep2000/12-terrorism.html

Japan Times
September 14, 2000

Japan, China Unite To Remove Chemical Arms Left From War

BEIAN, China (Kyodo) Japan and China on Wednesday began jointly removing poison gas shells abandoned by the Imperial Japanese Army at the end of World War II in Beian, Heilongjiang Province.

A total of 75 Japanese and 200 Chinese will remove an estimated 500 shells over two weeks, a Japanese government official said.

The team unearthed 51 shells Wednesday, the official said, adding that all 10 shells that experts examined were confirmed as chemical weapons.

Three of the 10 were what the Imperial Japanese Army called "kii," meaning yellow, which contain mustard gas.

The remaining seven contained chemical substances that induced nausea, called "aka," meaning red.

The Japanese team consists of government officials, private sector experts and eight Self-Defense Forces members who specialize in the disposal of chemical weapons, the official said.

This is the first time Japan has participated fully in the removal of chemical weapons, and the work is expected to move Japan another step closer to compensating China for its wartime atrocities.

The Japanese and Chinese were working in an area neighboring a residential part of the city, north of Harbin, the official said.

About 800 locals were told to evacuate the area because the work could be dangerous. The experts were wearing gas masks and a cylinder-shaped protective wall was erected at the scene.

The workers will transport the unearthed shells to a temporary storage complex in the province after covering their fuses with plaster and packing them in air-tight containers.

Experts believe the chemical weapons are buried with some 1,000 conventional shells.

Japanese forces are believed to have abandoned at least 700,000 chemical weapons in China; China claims the number is 2 million.

A Japanese official said 670,000 warheads are believed to have been buried on the outskirts of Dunhua in Jilin Province, adding that the first project will serve as a test case for the removal of those chemical weapons.

Beian is a small town with a population of 150,000.

Zhao Xishan, a 52-year-old resident who lives near the site, said: "We have lived in anxiety for so long. They should have been removed earlier."

One community leader, Kung Xianrui, said many residents have moved to other places due to their anxiety over the abandoned chemical arms.

Digging Up A Poisonous Past

Japan is determined to dispose of all abandoned chemical weapons in China. It is our responsibility to destroy this negative legacy.—Akio Suda

By George Wehrfritz and Hideko Takayama
NEWSWEEK

September 25 issue — Japan began waging chemical warfare in China after its 1931 Manchurian invasion. By 1945 the Imperial Army had used poison gas in hundreds of battles, killing roughly 10,000 Chinese soldiers and civilians…

http://www.msnbc.com/news/461489.asp?cp1=1

"Sensors of Chemical Warfare Agents Make a Mass-Transit Debut"

Corporate Security (09/12/00); Brooks, Susan Sonnesyn
http://www.nlectc.org/

The Department of Energy, the Department of the Treasury's Federal Transit Administration, the Justice Department's National Institute of Justice, and the Washington Metropolitan Area Transit Authority have jointly created the PROTECT task force to study the efficacy of using micro-sensors in public areas to detect and identify chemical and biological warfare agents. The initial test site is a Washington, D.C., subway station because of its potential as a political target; the Metro system's position as a leader in chemical and biological warfare protection efforts; and the fact that releasing toxic chemicals in a subway system is a quick means of inflicting widespread damage on a city. While Department of Energy scientists have been working with detection technology for evaluation purpose for a number of years, the application has only recently become possible. A major motivation for PROTECT's efforts is the death of 13 people and the injury of 5,000 more in a sarin gas attack on a Tokyo subway in 1995. The problem was made worse in that the initial responders to the incident had trouble identifying the agent, and were unfamiliar with how to protect themselves, dealing with mass fatalities, and with knowing how to stem the spread of the chemical. Though a subway system's heat and dust may be an obstacle to the sensors' ability, PROTECT attempts to use a system's unique capabilities to its advantage in combating a terrorist attack. A potential snag to the widespread use of the sensors in subway station is the expense, with each sensor costing approximately $15,000. The sensors may decrease in cost as further technological advances are made and user demand increases.

Barringer's chemical warfare agent detector completes US Army test program

(Defence Systems Daily, 13 Sept 2000)

Barringer Technologies Inc. has announced that its Sabre 2000 hand-held detector has successfully completed the US Army's Domestic Preparedness Test Programme for Chemical Warfare Agent detection. The test programme was established to evaluate the capability of detector platforms to reliably detect the presence of several types of chemical warfare agents. Performance data will be made available to federal, state and local agencies having responsibility for establishing the country's civil defence and first responder capability for a domestic chemical warfare terrorist attack.ZGram suggested URL:
http://defence-data.com/current/page8395.htm

Inside The Pentagon
September 14, 2000
Pg. 18

Airborne Laser On Track For Scud-Type Missile Shootdown In 2003

Based on the success of risk reduction activities conducted this year, the Air Force's Airborne Laser program is on track to shoot down a theater ballistic missile in September 2003, service and Boeing officials said Tuesday. Holding "excellent results" from tests conducted at White Sands Missile Range, NM, and a worldwide campaign to collect atmospheric turbulence data, ABL Program Manager Col. Ellen Pawlikowski said ABL is "on target and ready to go" on toward Milestone II engineering, manufacturing and development sometime in 2004. Pawlikowski joined Boeing Vice President and ABL Joint Program Office Director Steve Sauve and Lt. Col. Jeff Stough of Air Combat Command's ABL special management organization in updating reporters on the program

Sept. 12 at the Air Force Association's annual meeting in Washington, DC. The Air Force, Boeing, Lockheed Martin and TRW comprise "Team ABL."

Pawlikowski said testing completed late last week at White Sands' North Oscura Peak (NOP) site validated ABL's advanced optics design, which is intended to compensate for atmospheric disturbances that spread a laser beam and weaken its intensity. The optical system relies on a deformable mirror that inverts the distorted beam and instead delivers a compact beam to the target. Program officials are still sifting through reams of data collected during the test but are confident the results will prove positive for ABL and its ultimate consumer, Air Combat Command.

The congressionally mandated tests were conducted over a 36 kilometer range between NOP and an aircraft flying over Salinas Peak, and scaled to the 300-400 kilometer engagement range intended for ABL. Summary results available from the tests to date show the compensation provided by the optical system results in two to 15 times more energy on target. Moreover, the tests show that ABL "accurately predicts and models atmospheric compensation," according to briefing charts.

Meanwhile, data from Campaign 2000, a worldwide data collection effort conducted in two theaters and three different seasons, further validate the ABL design point, as well as predictions about the atmosphere in locations where ABL will likely operate, officials say.

Adding to the success of the risk reduction efforts, modifications to the ABL aircraft, a Boeing 747-400, have reached a halfway point. Pawlikowski recently visited the Boeing facilities in Wichita, KS, and came away with increased confidence that the program is "on track." Modifications to the aircraft, which began in January, are scheduled for completion in 2002 and include a bulkhead to separate the crew from the laser modules and chemicals, a 14,000-pound nose turret being built by Lockheed to aim the laser, a titanium belly skin to handle laser exhaust and replacing and strengthening the floor to hold heavy laser equipment.

ABL officials will provide a review of the program's progress to the Office of the Secretary of Defense Overarching Integrated Product Team sometime in November, Pawlikowski said, noting that working groups will begin preparing for that meeting later this month. The colonel also said she has every indication that Air Force headquarters will support ABL in budget deliberations for fiscal year 2002.

The Defense Department gouged $92.4 million from the program in its FY-01 budget, citing funding shortfalls, but Congress subsequently restored $85 million to the politically popular program in the FY-01 Defense Appropriations Act. The spending bill also included a provision to exclude ABL from FY-01 tax obligations that could equate to as much as a $9 million boost to its FY-01 funding profile. Pawlikowski said these provisions give the program enough to move forward now regardless of whether the program takes a hit in the next president's FY-02 budget request. However, she added that Air Force Chief of Staff Gen. Michael Ryan has expressed full support for the program, believing ABL will "lead the fleet" in directed-energy weapons.

Air Combat Command is currently refining its concept of operations for ABL and plans to deploy seven aircraft by 2009. Three aircraft are scheduled for initial operational capability in 2007. ACC intends to station five aircraft in-theater and two at home readying the fleet for rapid deployment anywhere in the world within 24 hours.

Meanwhile, Pawlikowski said Team ABL has planned a "robust" flight test plan to include more than 50 intercepts with an array of targets including three SCUD missiles. The flight tests will kick off with the intercept of a SCUD missile in September 2003.

ABL is designed to intercept theater ballistic missiles in their boost phase, but could eventually assume additional missions such as taking on cruise missiles or enemy air defense systems, officials say. ACC has been examining these and other adjunct capabilities for the missile-killing platform, but have been asked by the service leadership to keep these on a back burner and focus instead on the primary mission of destroying TBMs, sources say. That's because officials are reticent to ask Congress to fund these capabilities until ABL is proven effective against TBMs.

In addition to cruise missiles and enemy air defense, the command believes ABL would likely be effective against enemy aircraft, intercontinental ballistic missiles and useful in non-lethal missions like imaging surveillance, command, control and communications, as well as augmented data-transfer capabilities. Of these alternative capabilities, thwarting enemy air defense would likely be the "easiest" addition to ABL's capabilities, according to one service source.

-- Catherine MacRae

Jerusalem Post
September 15, 2000

Arrow Downs Missile

By Arieh O'Sullivan

PALMAHIM (September 15) - Moving the nation closer to its goal of attaining a missile shield, the Defense Ministry yesterday successfully tested the Arrow-2 anti-ballistic missile, which destroyed an incoming rocket fired at the coast.

Ministry officials said the test took place at 11:55 a.m at the Palmahim range.

It was the first time that the Arrow, which was declared semi-operational when it was handed over to the air force in March, has been tested against a missile on an attack trajectory. The missile, dubbed the Black Sparrow, was dropped from an IAF F-15 at high altitude and assumed the flight path of a Scud.

"Initial results indicate that all components of the weapon system - the Green Pine radar, the Citron Tree fire control center, and the Arrow-2 interceptor - performed as planned," a Defense Ministry statement said. "All the test objectives were achieved and the target was destroyed."

The Black Sparrow was developed by Rafael, the Armament Development Authority. Until now, the Arrow missiles have been shooting at US-made, sea-launched rockets under "shooting range" conditions. This time the Arrow-2 had to confront a Scud substitute coming head on.

Maj.-Gen. Yitzhak Ben-Yisrael, director of development of weapons systems and infrastructure, said the Black Sparrow was dropped more than 100 kilometers away and the radar tracked it for about five minutes. The fire control system, working out the trajectory, fixed an impact site and launched the Arrow.

"There were a few minutes of high tension as we waited for the intercept. It turned out to be metal-on-metal, and everyone shouted out with relief," he told The Jerusalem Post. "We are very satisfied with the initial test results." The experts are now dissecting data from the test.

Dani Peretz, director of the Arrow project at Israel Aircraft Industries, which built the missile, told Israel Radio the Arrow flew "accurately and stably" until it reached the target missile.

"We know for certain that the target missile was totally destroyed. The weapon system is operational as of today, and if we need it for a day of reckoning, it works," he said.

The test was completely run by air force personnel, not technicians from the defense industries which developed and built the system.

The test was observed by a delegation from the Pentagon's Ballistic Missile Defense Organization, which will report back to Washington. The US has funded about 65 percent of the $1.1 billion spent on the project so far, and will probably fund about half its final $2b. cost.

Prime Minister Ehud Barak praised Israel Aircraft Industries, the main contractor for the system, and other defense industries involved in the project.

He said the successful test greatly contributes to Israel's military and strategic might. He added that it manifests the successful cooperation among the defense industries and the country's technological and scientific advances.

The test had been postponed at least once in the past three weeks due to various malfunctions. Once the target missile tracking system didn't work properly, and a second malfunction was connected to the F-15 dropping the Black Sparrow.

The test was the system's eighth. The last test was conducted on November 1 and was also declared successful. Defense officials described yesterday's test as "routine." Ben-Yisrael said the Arrow-2 would undergo one or two tests a year.

Upgrades to enable the Arrow to tackle the more advanced missiles, such as the Shihab-3 and Shihab-4 being developed by Iran, are being planned. The Arrow is designed to strike and destroy a warhead, be it nuclear or other, well before it is supposed to explode.

The Arrow-2 system contains a static radar station, batteries, and control center. Its Green Pine radar, developed by Elta, is designed to track incoming missiles from as far as 300 kilometers away. The Citron Tree battle management center, built by Tadiran, will guide the launches of the interceptor, developed by Israel Aircraft Industries' MLM Division.

The first battery of the Arrow missiles is deployed in the center of the country. A second battery is to be placed east of Hadera, but that has been delayed by strong opposition from residents, who claim its radar would be hazardous to their health. Last month, arbitrators said the air force could prepare infrastructure for the Arrow-2 battery, but could deploy it only in a national emergency. The Defense Ministry rejected this.

It had originally been planned to deploy just two batteries, but funding for a third battery has since been promised. The US Congress approved $81.6 million toward the purchase of a third battery, whose total cost is estimated at $170m.
The cost could be reduced if the Arrow-2 is sold to other countries which have expressed interest, such as Great Britain, Turkey, Japan, and reportedly India.
Ben-Yisrael warned that the announced reduction in the defense budget would harm weapons projects, including the Arrow-2.
"We don't know what the final budget will be, as we don't know whether the decision to cut is final. But if it is, then it means that all our projects will be harmed, this one included," he said.

Sunday, 17 September 2000 3:28 (ET)

Report: Pakistan produces a new missile

By AAMIR SHAH

ISLAMABAD, Pakistan, Sept. 17 (UPI) -- Pakistan has produced a missile capable of carrying a nuclear warhead up to 1,550 miles (2,500 km), a report published in Pakistani newspapers said Sunday.
Dr. Samar Mubarik Mand, a prominent Pakistani scientist who oversees his country's missile development program, is quoted as saying the Shaheen-II missile is ready for testing.
Addressing the graduation ceremony at the Water and Power Development Authority (WAPDA), Mand said Shaheen-II was a product of Pakistan's "indigenous missile technology," rejecting media reports that Islamabad had acquired its missile technology from China and North Korea.
"Besides atomic missile technology, Pakistan has developed much in metal and communication technology as well," he said.
Referring to retaliatory nuclear tests by India and Pakistan in May 1998, he said: "We responded to the Indian tests only five days after we received a go-ahead from the government . It was not a miracle. It had the preparation of 25 years behind it."
"We are thankful to (Indian Prime Minister Atal Behari) Mr. Vajpayee for providing us with an opportunity to officially declare our nuclear and missile capability."
Mand is not the first Pakistani scientist to have proclaimed his country's nuclear capability. Since last week, when the Indian Prime Minister arrived in the United States on an official visit, Pakistan has been warning the world not to take it lightly.
Last week Dr. Abdul Quadeer Khan, who is generally regarded as the "father" of Pakistan's nuclear weapon program said his country had enough nuclear weapons to destroy India's main cities.
Khan, who heads Pakistan's Kahuta nuclear project, said at an awards ceremony in Islamabad: "India should not underestimate Pakistan. We have enough bombs and missiles to wipe out India's main cities many times over."
The claim is being treated with caution even within Pakistan, where Khan, now in his 70s, is accorded varying degrees of credibility. Critics have accused him of bombast and self-promotion.
Earlier this year, Pakistan's Foreign Minister Abdul Sattar denied a report by some U.S. scientists that his country was ahead of India in nuclear technology. He described Islamabad's nuclear program as "extremely limited in scope."

Singapore Straits Times
September 19, 2000

India Can Build ICBMs Quickly, Says Missile Guru

Technology for an intercontinental ballistic missile is available and all that is needed is the will to make it, says Vajpayee's science adviser

NEW DELHI -- India can develop and design an intercontinental ballistic missile quickly, the architect of the country's missile programme was quoted as saying yesterday. "Today we have the capability to design and develop

any type of missile, including the ICBM. Now it's for the country to decide," Mr A. P. J. Abdul Kalam was quoted as telling The Hindustan Times.
Mr Kalam, principal science adviser to Prime Minister Atal Bihari Vajpayee, said that all the technology used to develop the Agni-2 Intermediate Range Ballistic Missile (IRBM) was available for an intercontinental weapon.
"It'll not take much time, should India decide on it," the paper quoted him as saying in an interview.
"It would require a strong, highly willed nation for this to succeed."
Only the United States, Russia, China, France and Britain now have the capability to produce ICBMs, which have a minimum range of 5,000 km.
Such a weapon, fired from India's north-west desert, where nuclear weapons were tested in May 1998, could reach Moscow, Beijing, Korea, Indonesia, Cairo, Budapest, Warsaw and Helsinki.
But some defence analysts are sceptical about how quickly India could develop such a long-range missile.
The Agni-2 missile, with a range of more than 2,300 km, was tested in April last year.
The Hindustan Times quoted experts as saying it has only had four tests during a period in which 1,500 ballistic missiles have been tested worldwide.
The Agni-2's range does not extend to Europe.
However, it can reach anywhere in Pakistan, India's neighbour and chief rival for 50 years, and parts of western China, with which India fought a border war.
Some reports have said production of the Agni-2 is imminent.
Others note that setting up a command and control system and getting the missile armed with nuclear weapons would take five years.
Because India's missile and nuclear programmes fall under secrecy laws, few details are available.
Mr Jasjit Singh, director of the Institute for Defence Studies and Analyses, said: ""The priority should be the development and deployment of a 5,000-km missile as a minimum credible deterrent. At the moment, we have nothing."
--AP

New York Times
September 19, 2000
Pg. 1

U.S. Asks Putin Not To Sell Iran A Laser System

By Judith Miller

The United States has been pressing Russia not to proceed with plans to sell Iran laser technology that Washington says can be used to make fuel for nuclear weapons, according to Administration officials.
Officials said that since July President Clinton has raised the prospective sale of laser technology at least two times in meetings with President Vladimir V. Putin. The most recent occurred this month at the United Nations summit meeting.
Mr. Putin assured Mr. Clinton then that Russia would work with Washington to resolve the dispute, officials with knowledge of the discussions said. American officials said they were encouraged by that pledge.
But they also called the response ambiguous, because Russian and American technical advisers disagreed with each other over whether the equipment could help Iran in what Washington contends is a secret program to acquire nuclear bombs.
The administration officials said that Russian sales of nuclear technology to Iran had been a longstanding concern, but that the administration grew particularly worried about the laser equipment after an American private fuel provider abandoned the product, deciding that it was not economically competitive in a civilian nuclear program.
And given America's own troubles in trying to develop a cost-efficient laser technology, the United States is said to believe that Iran was more likely to want to make weapons than to develop commercial plants. The United States apparently believes that the technology is too expensive for refining nuclear fuel for commercial uses and is mostly suited to producing fissionable material for bombs. As a result, the United States has been working for three months to dissuade Russia from letting a center associated with the D. V. Efremov Institute of St. Petersburg, part of the Atomic Energy Ministry, from proceeding with a contract to sell the technology to Iran.

Mr. Clinton raised the prospective deal with Mr. Putin in July in private talks at a Group of 8 meeting in Japan. The contract has also been raised by Vice President Al Gore and Samuel R. Berger, the national security adviser, with their counterparts.

Officials said the issue was also scheduled to be discussed over the weekend by Energy Secretary Bill Richardson, who met on Sunday with the Russian atomic energy minister, Yevgeny O. Adamov, at a meeting of the International Atomic Energy Agency. That organization helps states that rule out nuclear weapons and monitors their civilian nuclear centers to ensure that they are not being used for military purposes.

American allegations that Russia provides critical technology to Iran has roiled their relations for years. American intelligence agencies have long believed that Iran has a secret program to develop nuclear weapons, as well as biological and chemical weapons, dating from the rule of Shah Mohammed Riza Pahlevi, which ended with the 1979 revolution. Given its ample oil and gas resources, Iran's desire to generate electricity with nuclear power, the analysts argued, was automatically seen as suspicious.

Russian nuclear contacts with Tehran have expanded since 1995, when cash-strapped Moscow signed a contract with Iran to complete the Bushehr nuclear power station, which its German builders abandoned in 1979, at the onset of the revolution. Despite pressure by the Clinton administration and sanctions by Congress, which halved foreign aid to Russia's central government in the last two years, Russia has refused to abandon the project.

American officials reportedly do not regard Bushehr as a source of nuclear material that could be diverted to a bomb-making program. But the administration apparently fears that the project will train an entire generation of Iranian physicists and engineers in nuclear technologies, thus enhancing the nuclear scientific base, including any program to develop nuclear weapons.

Russian and Iranian officials argue that Iran has ruled out nuclear weapons and has put the Bushehr plant under the international agency's rules and safeguards.

Russia has refused to forgo revenue from Bushehr and future reactor sales, each of which could run up to $1 billion. But former President Boris N. Yeltsin pledged not to expand nuclear cooperation with Iran beyond Bushehr, which plans up to four reactor and turbine units.

Last spring, however, the United States learned that the Science and Technology Center of Microtechnology, a unit of the Efremov Institute, had signed a contract to provide the laser equipment to Iran. Separating isotopes is costly, intensive in time and energy and essential to making nuclear bombs or fuel for light water civilian reactors to generate electrical power.

To make a nuclear bomb or reactor fuel, uranium 235, whose atoms are used in chain reactions, has to be separated from the dominant uranium 238 isotope. The United States uses gaseous diffusion. Some Europeans and Russia use centrifuge technology to separate the U-235 from U-238, which is not good for making weapons.

The United States has developed at the Lawrence Livermore National Laboratory a third method, laser isotope separation, that can be used to separate fissile isotopes from both uranium and plutonium, both of which can be used in nuclear bombs.

The United States also had an extensive program to develop the laser isotope separation technology, known as Atomic Vapor Laser Isotope Separation, or Avlis, for commercial purposes. It hoped that Avlis reactor fuel could be enriched with one-tenth as much electricity, a boon to the nuclear power industry.

But after having invested almost $2 billion in the technology, the United States Enrichment Corporation, America's privatized nuclear fuel provider, abandoned the technology last year, saying the method was too expensive to commercialize and would probably always be so.

With that experience, Washington reacted with alarm to intelligence reports from multiple sources indicating that Iran was trying to buy such technology from Russia.

That is only the latest point of tension between Russia and the United States in terms of Iran.

In February, Russia promised to stop making plutonium out of fuel from its civilian power reactors as part of a $100 million joint research and aid package from Washington. The administration put a condition on the part of the package most attractive to Moscow, namely the $25 million for joint research into new reactors. Washington insisted that Russia had to stop all new sales and transfers of nuclear technology to Iran that could be used in a nuclear weapons program.

But Mr. Adamov, the atomic energy minister, has said since then that Russia would not stop competing to sell light water power reactors to Iran.

The Russian Foreign Ministry declined to comment today on the dispute. A spokesman for Mr. Adamov said he was traveling and could not answer questions.

A spokesman for the Iranian mission to the United Nations said Iran's cooperation with Russia posed "no threat of proliferation." Iran "does not seek a nuclear weapon and has exercised utmost transparency with regard to its program," he said.

But the spokesman added, "We do not accept any country's deciding in an arbitrary manner what type of peaceful technology we can or cannot have."
As a member of the International Atomic Energy Agency, Iran was "entitled" to technology "for peaceful purposes," the spokesman said.
"If the U.S. has any complaints," he added, "the proper forum is the I.A.E.A."
Administration officials said Washington and Moscow would continue talks. Otherwise Washington could decide to reduce the more than $250 million a year that the Energy Department gives Russia to support its hard-pressed nuclear sector and secure its arsenal from theft and accident.

New York Times
September 20, 2000

Russia Sends Mixed Signals On Laser System Sale To Iran

By Judith Miller

The White House said yesterday that Russia had suspended a contract to sell Iran sophisticated laser technology that Washington says can be used to make fuel for nuclear weapons. But the Russian scientific institute involved says it still plans to make the sale.
In an e-mail response yesterday to questions from The New York Times, Boris Yatsenko, director of the Science and Technology Center of Microtechnology, a unit of the government's D. V. Efremov Institute of St. Petersburg, said his institute was planning to sell the equipment, which he said was solely for "medical, industrial, and scientific purposes."
"As we believe, Iran will use lasers and some electrophysical equipment deliverable by us for the scientific, industrial and medical purposes," Dr. Yatsenko said in the e- mail. "Our scientists and technicians will execute maintenance and guarantee support of the deliverable equipment during agreed periods."
Because the equipment was purely for nonmilitary purposes, the e-mail added, "we do not need the government's approval."
P. J. Crowley, spokesman for the National Security Council, said: "We will continue to work with the government of Russia to ensure that no Russian entities provide support to the Iranian nuclear weapons program. We're moving in the right direction, but clearly this remains a work in progress."
Administration officials have said they have been trying for three months to persuade Russia to cancel the sale. They said yesterday that Russia had agreed to suspend, but not cancel, the sale at a meeting of experts in New York earlier this month, just before President Clinton and President Vladimir V. Putin met.
"We were assured at the United Nations summit in New York two weeks ago that the Russian government had ordered a suspension of this sale pending a joint investigation into whether the laser technology could help Iran acquire a nuclear capability," a White House official said. "I think the institute's e-mail indicates some of the problems that the Russian government may be having in trying to rein in some of the more cash-strapped scientific centers."
"We think that the Russian government is negotiating in good faith," the official said. The official said he was convinced that the "Russian government has the authority to stop the sale if it chooses to do so."
A spokesman for the Russian Embassy in Washington, informed that the institute believed that the sale was proceeding, said he could not comment on that issue since "the dialogue between the White House and the Kremlin is confidential."
An administration nuclear expert said he believed that the American team of experts had made a "very persuasive technical case" that the equipment the institute is trying to sell Iran could not be used efficiently for other than military purposes. "I cannot conceive of this type of equipment being used for any other purpose other than the once we are concerned about," the official said.
An expert in nuclear technology said there were many types of lasers, only some of which pose proliferation concerns.
In his message, the institute director said his center was "planning to supply to Iran the laser equipment of different types for the medical and scientific purposes by an average power of 15-20 W," with the letter standing for watts.
The expert in nuclear technology said that the Nuclear Suppliers Group — which identifies the technologies that require international safeguards because they are of proliferation concern — said the threshold for the type of "copper vapor" the institute is planning to sell Iran is 40 watts.

While the institute's lasers are less powerful than the suppliers group threshold, "they can still be of concern," he added. "It depends on how Iran is planning to use them, on what other equipment Russia is selling, and what the entire system looks like."

American officials have long believed that Iran is trying to acquire nuclear technology for a weapons program. Iran denies that, and asserts that it has forsworn nuclear weapons and is under international safeguards.