

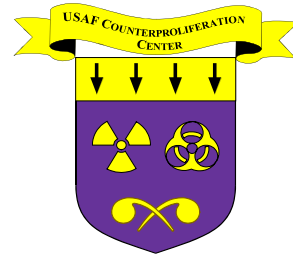
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USAF COUNTERPROLIFERATION CENTER

# 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.*

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## **Victims of Chemical-Biological Weapons Report Increased Health Problems**

(Testimony is part of briefing on Saddam Hussein's war crimes)(790) By William B. Reinckens  
Washington File Correspondent

At a September 18 press briefing on how Iraqi President Saddam Hussein might be prosecuted for war crimes, Dr. Christine Gosden, a leading expert on the effects of chemical and biological agents on humans, said that she and her medical team have been able to identify 281 separate sites where Iraqi forces used chemical, biological and perhaps radiological weapons against civilians in the northern Iraqi town of Halabja twelve years ago.

<http://usinfo.state.gov/cgi-bin/washfile/display.pl?p=/products/washfile/topic/intrel&f=00091805.npo&t=/products/washfile/newsitem.shtml>

Wednesday September 20 10:28 AM ET

## Company to develop new smallpox vaccine

By Richard Woodman

LONDON (Reuters Health) - The UK company Peptide Therapeutics today announced it has won a US\$343 million contract to develop a new smallpox vaccine to protect Americans against bioterrorism.

"The vaccine will be used to create a US national stockpile for the purpose of countering the threat of bioterrorism," the company said today.

Peptide chief executive, Dr John Brown, told Reuters Health: "The US government sees it (bioterrorism) as a considerable threat. Smallpox was eradicated in the late 1970s and most people have no immunity. Stocks of vaccine have gradually been depleted. I am not an expert on biological warfare but I believe the reason for the contract is that there are still sources of smallpox."

[http://dailynews.yahoo.com/h/nm/20000920/hl/smallpox\\_1.html](http://dailynews.yahoo.com/h/nm/20000920/hl/smallpox_1.html)

Inside The Pentagon

September 21, 2000

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## House Committee To Renew Anthrax Inquiry With Hearing Next Month

The House Committee on Government Reform will revisit issues surrounding the Pentagon's Anthrax Vaccine Immunization Program in a hearing scheduled for Oct. 3, according to House staffers.

Under the leadership of Chairman Dan Burton (R-IL) and bolstered by Rep. Christopher Shays (R-CT), chairman of the subcommittee on national security, the Government Reform Committee has been relatively unique in Congress for its repeated efforts to expose quality control problems exhibited by the anthrax vaccine manufacturer, BioPort of Lansing, MI, and adverse reactions possibly attributable to the shots.

The Pentagon has made anthrax shots mandatory for all military personnel, beginning with those deploying to regions seen as at highest risk for exposure to a biological weapon containing anthrax bacteria. However, facing shortages of the vaccine, the Defense Department in July enacted temporary limits on those receiving the vaccine's six-shot series, which is supposed to be given over an 18-month period, followed by annual boosters (Inside the Pentagon, July 20, p1).

The hearing early next month will feature multiple panels of witnesses. The committee is seeking to get a "status report" from witnesses representing the Defense Department and the Food and Drug Administration on the anthrax vaccine program and BioPort's facilities, which are awaiting licensing for new vaccine production following a major renovation. House sources said the committee will also explore the vaccine program's effects on military readiness, morale and personnel retention.

The committee will also hear from vaccine recipients in the military who have experienced health problems, House aides said. As of 1987, the anthrax vaccine label stated that two-tenths of a percent of individuals taking the vaccine were expected to experience systemic reactions. But now DOD says that figure may reach five to 35 percent, House aides say.

Systemic reactions to the anthrax vaccine can potentially range from temporary effects such as fever to more debilitating and long-lasting reactions, such as Guillain-Barre syndrome, an inflammatory nerve disorder that can trigger paralysis.

The Defense Department has acknowledged some claims of adverse reactions but disputes others, attributing illness or injury to other causes.

-- Elaine M. Grossman

## Unleashing 'Mini-Nukes' Will Bring Dire Consequences

[Martin Butcher, Theresa Hitchens](#)

Thursday, September 21, 2000

SOME U.S. LEADERS are toying with an idea for a new nuclear bomb that could have turned NATO's campaign in Kosovo into a nuclear war. For more than 50 years, there has been a taboo against unleashing the terrible power of the atom in war, but some in the U.S. nuclear weapons establishment and their political allies now envision a world where nuclear combat could become almost a commonplace event.

Sound crazy? Unfortunately, it's true....

<http://www.sfgate.com/cgi-bin/article.cgi?file=/chronicle/archive/2000/09/21/ED35855.DTL>

Washington Times  
September 22, 2000

## Iran Missile Test Fails After Takeoff

By Bill Gertz, The Washington Times

Iran conducted the third test launch of its new medium-range missile, but the rocket exploded shortly after liftoff, U.S. intelligence officials said yesterday.

The Shahab-3 missile firing was detected by U.S. space sensors during launch from a site in Iran and announced by an Iranian government spokesman in Tehran.

"They did indeed attempt a launch and it didn't go particularly well," said one intelligence official. "It is not a very good sign" for the missile program.

Defense Minister Ali Shamkhani told the official IRNA news agency that the test of a Shahab-3D was conducted as part of events marking the start of anniversary of the start of the war with Iraq, which began in 1980 and ended in 1988.

The spokesman said the missile was "solid-fueled" and will be used only for launching communications satellites and not warheads.

"The necessary basis for designing and producing carriers to put satellites in orbit have been created," Mr. Shamkhani said. "No military use has been forecast for Shahab-3D."

Iran also tested a Shahab-3 in July and that test was successful, U.S. officials said. A third test was carried out last year.

On Capitol Hill, CIA official Robert Walpole told a Senate subcommittee hearing that the official Iranian announcement was not accurate.

"We view this as a missile," Mr. Walpole told the Senate Governmental Affairs subcommittee on proliferation.

The Washington Times first reported Sept. 8 that Tehran was preparing a flight test of the 800-mile range Shahab-3. Intelligence officials said the test had been set for late August and preparations for the test were detected in the late stages. It was put off to avoid embarrassing Iranian President Mohammed Khatami during his visit to the U.N. Millennium Summit, the officials said.

The Senate hearing yesterday was to examine Iran's missile and nuclear, chemical and biological programs.

"In the last five years, as the intelligence community now recognizes, Iran has made rapid progress in the development of longer-range ballistic missiles because of assistance from North Korea, Russia and China," said Sen. Thad Cochran, Mississippi Republican and the subcommittee chairman.

"Beyond its own efforts to develop and acquire more advanced ballistic missiles, Iran has also become a supplier of ballistic-missile technology and assistance to other nations."

During the hearing, Mr. Walpole stated that Iran's missile program is "the largest in the Middle East" and rivals that of North Korea.

"Iran has very active missile and weapons-of-mass-destruction development programs and is seeking foreign missile, nuclear and chemical and biological technology," he said.

"Entities in Russia, China and North Korea supply the largest amount of ballistic-missile technology in Iran," he said.

Mr. Walpole offered this warning during the hearing: "The probability that a missile with a weapon of mass-destruction [warhead] would be used against U.S. forces or interests is higher today than during most of the Cold War, and will continue to grow."

A. Norman Schindler, deputy director of the CIA's Nonproliferation Center, said Iran currently is in violation of the Chemical Weapons Convention and the Biological Warfare Convention.

Mr. Schindler said Iran currently has a stockpile of several thousand metric tons of weaponized and bulk chemical weapons agents.

On the biological weapons of Iran, Mr. Schindler said Tehran has some stocks of agent and weapons. "Tehran continues to develop its biological capability despite its being a party to the Biological Warfare Convention," he said.

President Clinton announced earlier this month that the missile threat to the United States from countries like North Korea and Iran is growing. Still, the president decided against beginning deployment of a national missile defense that could knock out incoming missiles. He cited developmental problems and opposition from foreign governments as the reason.

London Sunday Telegraph

September 24, 2000

Pg. 1

## **Missiles Deal Puts Israel In Gaddafi Sights**

By Con Coughlin

The Libyan dictator Col Gaddafi has taken delivery of a consignment of North Korean ballistic missiles capable of hitting targets in Israel and Nato states in southern Europe, The Telegraph can reveal.

In an escalation of the Middle East arms race, the Libyan leader has negotiated a secret deal with the Stalinist state that will finally give his country the long-range missile capability he has craved since the Seventies. The first consignment of North Korean No-Dong surface-to-surface missiles and launchers, which have a range of up to 800 miles, were flown to Tripoli in the summer by a Libyan air transporter.

The consignment, which cost the Libyans an estimated £300 million, was accompanied by nine North Korean missile engineers and technicians who will remain in Libya for two years to work on making the missiles operational. The No Dong, which is similar to the Scud missile the Iraqi leader Saddam Hussein used to attack Israel during the Gulf war, can carry either conventional, nuclear or chemical weapons warheads.

Col Gaddafi's attempts to buy Scud missiles were frustrated by British intelligence last year when a consignment of Scud missile parts destined for Tripoli was intercepted by British Customs in London. His success in acquiring the restricted missile technology from North Korea will be deeply embarrassing for both the British and American governments which have led international efforts to prevent Tripoli acquiring sophisticated missile technology. Once the missiles are fully operational, Col Gaddafi will have the capability to hit targets in Israel and deep within southern Europe.

Despite lifting United Nations sanctions against Libya after Col Gaddafi handed over two former intelligence officers suspected of involvement in the Lockerbie bombing, Britain and the United States have insisted on maintaining strict controls over military trade. These are regarded as an essential safeguard to the region's stability in view of Col Gaddafi's well-documented support for international terrorism and his vehement opposition to the Middle East peace process.

A Western intelligence official said: "The delivery of the No Dong missile to Libya is an alarming development. Once it is operational it will give Gaddafi the ability to wreak havoc in the region, just as Saddam Hussein did with his Scud missiles during the Gulf conflict."

Under the terms of the deal negotiated between Tripoli and Pyongyang, the North Koreans have agreed to supply Libya with 50 ballistic missile systems and seven launchers. The North Koreans have also agreed to construct in Libya the infrastructure necessary for maintaining and storing the missiles, and to train the Libyans in all aspects of missile technology over a period of five years.

Following the successful delivery of the first missile consignment in July, the remainder of the missiles will be dispatched in three further consignments during the next two years. The deal will be financed from a special budget Col Gaddafi has set up to develop a Libyan long-range missile capability.

The No Dong missile's sophisticated technology is much sought after by rogue states denied access to Western missiles. Iran is known to have adapted the technology for use in its nuclear weapons programme, while Indian customs officials last year seized a North Korean ship with a concealed consignment of No Dong components and guidance and navigation systems.

Initially the Indians believed that it was destined for Pakistan, but a detailed investigation showed that the cargo was on its way to Libya, via Malta. The failure of that attempt by the Libyans to import North Korean missiles prompted Col Gaddafi to order his military chiefs to find a more direct method of dealing with Pyongyang.

Immediately after the UN Security Council passed a resolution lifting sanctions imposed on Libya in April last year, a high-ranking delegation from the Libyan army's procurement directorate visited North Korea's state-owned Chongchengang Corporation to negotiate directly on a deal for the No Dong missiles.

The contract was signed in Tripoli last October by Gen Abu Bakr Jaber, the Libyan defence minister and army chief of staff, who also holds overall responsibility for the Libyan missile project. The successful delivery of the No Dong consignment constitutes a breakthrough for the Libyans in their attempts to develop their own missile system.

Since the bombing of Tripoli by the Americans in 1986, the Libyans have been searching for the means to develop substantially their military capability. They have courted the North Koreans assiduously since the early Nineties, but their efforts to import sophisticated weapons technology were seriously hampered by the wide-ranging UN sanctions imposed against them for their alleged involvement in the Lockerbie bombing.

The Libyans have attempted to develop their own ballistic missile system through the al-Fatah project, which aimed to give Col Gaddafi a system with a range of about 600 miles. Libyan technicians have also been working to extend the range of the Scud missile through the al-Jadid project.

Despite co-operating closely with Iran and Yugoslavia on developing missile technology, both the Libyan missile projects have encountered severe development problems. The deal with Pyongyang will enable Col Gaddafi to bypass his own development programmes as the North Koreans will provide him with ready-made ballistic missiles which will soon be able to pose a significant threat to the security of Israel and southern Europe.

Jerusalem Post  
September 25, 2000

## **Laser Kills Two Katyushas In US Test**

By Arie O'Sullivan

TEL AVIV (September 25) -- In a repeat performance, the Nautilus, the jointly developed US-Israeli Katyusha-killing laser weapon, successfully shot down a salvo of two Katyusha rockets at a US testing range, the Defense Ministry announced yesterday.

The test was carried out at the White Sands Missile Range in the New Mexican desert on Friday. According to a Defense Ministry statement, the Nautilus, known in the US as the Tactical High Energy Laser (THEL), "tracked and destroyed" the Katyusha rockets.

On June 6 the THEL shot down a sole Katyusha and on August 28 it hit two rockets.

The \$202 million laser is designed to negate the threat of Katyushas on northern Israel. But as the THEL enters its final phase of developmental testing in the US, officials here say they no longer are in a hurry to deploy prototype batteries as currently designed. This means the IDF is not in a hurry to deploy it along the northern border by the end of the year as had originally been hoped.

Defense officials in Tel Aviv have reportedly doubted whether the THEL can effectively defend against Katyusha rockets attacks from Lebanon. It is feared that Hizbullah has stockpiled rockets and would attempt to saturate the border with more rockets than the system could handle if the border flared up.

Yet defense officials insist the program should continue as a springboard for future versions of a laser system that ultimately could meet Israel's operational requirements.

The THEL system includes a laser, pointer-tracker, a fire control radar, and a command center.

The system is expected to be operated by the air force's anti-aircraft units, but other than preliminary steps, no serious preparations are said to have been taken to accept the system in the near future, military sources said.

The laser gun looks like a large spot light. Its command and control center is designed to follow 15 targets simultaneously. According to senior IDF sources, the laser beam needs to stay on the target for at least five seconds for it to be destroyed. If and when it becomes operational, it would be the only weapon like it in the world. With its 10-kilometer range, it is also designed to be used against aircraft, as its laser can turn jet canopies opaque after just one second. However, it requires an enormous amount of electricity.

The US Space and Missile Defense Command and Mafat, the Defense Ministry's weapons systems development and infrastructure administration, are running the program. Israel is paying for about one third of the costs.

The laser weapon is being built under contract by Cleveland-based TRW Space and Laser Programs Division. Local industries involved include Tadiran, IAI, El-Op, Elta, and Rafael. Costs have been shared by the Israeli and US governments.

Although this would be the first laser weapon built for defense against rockets, the US Defense Department has said it has no immediate plans to use it with US forces, in part because the system is not easily transportable. But there are plans for a self-propelled version.

The Pentagon is working on a variety of other laser-weapon technologies that could be used to shoot down ballistic missiles in flight, including one mounted on a jumbo jet. But deployment of such weapons is said to be at least a decade away.

Stars and Stripes Omnimedia  
September 25, 2000

## **Week Nine: SPECAT Nike Air**

By William M. Arkin, Special to The Stars and Stripes

(Stars and Stripes Omnimedia is a privately owned news source and is in no way affiliated with the U.S. government.)

On Sept. 16, 1990, the Illinois-based Transportation Command (TRANSCOM) sent a priority message to the Joint Chiefs of Staff and U.S. Central Command in Saudi Arabia asking for clarification. In its stack of movement requests for troops, equipment and munitions, TRANSCOM came across a message that, in the words of a planner on the Pentagon's Joint Staff crisis action team, "smelled fishy."

A CENTCOM message of Sept. 9, referring to a Top Secret Appendix 2 to Annex C of the Operation Desert Shield plan, called for the deployment of toxic chemical weapons (CW) in support of U.S. ground forces. Was CENTCOM indeed saying it wanted poison gas to be deployed to Saudi Arabia, TRANSCOM asked? And if so, "what is desired mode of shipment, air or surface?" Needless to say, the inquiry sent staff officers scurrying to decipher the genesis of CENTCOM's request, and to determine U.S. policy on the deployment and use of its own chemical arms.

Officially, they found, there was no ambiguity: The United States reserved the right to retaliate in kind against hostile use. Yet strangely, no civilian authority had ordered that the controversial munitions be deployed to Saudi Arabia. Quite to the contrary, the crisis action team found that the prospective deployment was an "autopilot" decision, precipitated by the mad rush to deploy forces.

Four days later, Washington directed Gen. H. Norman Schwarzkopf's headquarters to put a "hold" on any preparations to deploy chemical weapons. "It is important to keep a low profile on CW deliberations," the message said. "Approval is required before any further CW planning is undertaken."

Part of the reason that many felt it was necessary to respond so forcefully to Iraq was its repeated use of chemical weapons in the Iran-Iraq war, a key part of its pattern of law-breaking. But the discussion of U.S. options wasn't permanently put to rest: Instead, the Joint Staff told CENTCOM that any further deliberations were to take place only in a special compartmented category (SPECAT) of information with the codename "Nike Air" to keep it in a tight circle.

**Definitely Not the Kitchen Sink**

A week before CENTCOM issued its "requirement" for chemical weapons, Joint Staff officers caught another gaffe, this time a nuclear one. Officers slogging through the Army deployment list for Saudi Arabia flagged the 1st Battalion, 12th Field Artillery Regiment, a short-range Lance missile unit from Ft. Sill, Okla., as preparing to deploy. The unit's equipment was literally on railcars and ready to move to ports in Texas before the missilemen were ordered to stand down.

Though a "standard" part of corps-level artillery, no one wanted the political fallout or the image of deploying a unit with nuclear-weapons capability.

But again, this was the war plan running on autopilot. Outside observers might imagine that the Pentagon has "contingency" plans for every possibility, but in the case of Iraq's invasion of Kuwait, CENTCOM was caught unprepared.

Staffers had cribbed from Operations Plan 1021-88, the Cold War contingency plan to defend against a Soviet invasion of Iran, to piece together an American response. In the language of the military, the plan's time-phased force and deployment data (TPFDD or "tip-fiddle") provided a database of apportioned forces and personnel with their accompanying supplies.

What no one initially noticed was that OPLAN 1021-88 had an "Annex C," that is, a nuclear weapons annex, which foresaw not only deployment of chemical arms but nuclear forces as well. Nuclear options were discussed at a

September meeting in the "tank," the highly secure chamber of the Joint Chiefs of Staff, where the chiefs decided not to move nuclear warheads to the Persian Gulf. But still, units at bases across the United States received no clear direction from on high.

#### The Nuclear Umbrella

The chiefs may have decided to rule out the movement of weapons, but a variety of military organizations quietly began to examine nuclear options. Led by the "special weapons branch" in the Operations Directorate and the office of the Scientific Advisor at Schwarzkopf's headquarters, the Army staff, Defense Nuclear Agency (DNA), Strategic Air Command (SAC) and the Department of Energy's national laboratories all contributed ideas and proposals. What precipitated the planning, CENTCOM officers say, was an off-the-cuff remark by Schwarzkopf two days after the invasion when he agreed that his science adviser could look into the feasibility of a high-altitude nuclear burst to create an electromagnetic pulse that might disable communications and missile-launch systems. Early in Operation Desert Shield, according to Rick Atkinson's *Crusade: The Untold Story of the Persian Gulf War* (Houghton Mifflin, 1994), Schwarzkopf also suggested the United States dispatch a formal "demarche" to Baghdad: "If you use chemical weapons, we're going to use nuclear weapons on you."

None of the potential nuclear options required Lance missiles or other Army short-range systems. Besides, by mid-September, while the Army was still scrambling to deploy troops, particularly heavy forces with their massive logistics "tail," a variety of dual-capable air and missile forces was already on the ground.

Navy aircraft flying from aircraft carriers had a nuclear capability, Tomahawk cruise missiles in-theater could be fitted with a nuclear warhead, and nuclear bombs already were stored at Incirlik airbase in southern Turkey, deliverable by F-16 and F-111F aircraft.

On Sept. 12, with the arrival of the last special operations AC-130 gunship at King Fahd airport in Saudi Arabia, 962 fixed-wing aircraft and approximately 1,100 helicopters were deployed. Lt. Gen. Chuck Horner, the joint forces air component commander, reported to Schwarzkopf that the last Phase I combat aircraft was in-theater.

Well, maybe not the last aircraft: There was another nuclear problem, this time involving the B-52 bomber.

#### A Nuclear Headache

On Aug. 11, less than nine days after the Iraqi invasion, the first seven B-52G bombers from Loring Air Force Base, Maine, arrived at Diego Garcia airbase in the Indian Ocean with full conventional weapons loads.

SAC was only too happy to supply its aging Cold War bombers to the Mideast crisis. Since the Soviet invasion of Afghanistan, the command's focus had increasingly shifted to the bomber's conventional orientation and away from the nuclear mission.

By Aug. 16, SAC had dispatched 20 B-52Gs to Diego Garcia. Schwarzkopf was surprised and delighted by the speed of SAC's response. The "Bear" wanted the bombers available to pulverize the Republican Guard divisions, and before long, he wanted even more of the eight-engined aircraft.

That's when the State Department ran into considerable political opposition. Though the British government accommodated the B-52 deployment to its colonial territory in the Indian Ocean, other governments wanted nothing to do with symbols of the U.S. nuclear arsenal. The Pentagon undertook an exhaustive search for potential B-52 bases, surveying every possible site within a 4,000-mile radius of Baghdad. Secretary of Defense Dick Cheney personally asked Egyptian President Hosni Mubarak for permission to base B-52s at the Cairo West Airbase adjacent to the Pyramids, and Mubarak refused. Saudi Arabia also said no to bringing the bombers into the kingdom. Spain dithered. Basing negotiations proved such a diplomatic hassle that Cheney abandoned the effort on Oct. 2. Eventually, the Saudis agreed to allow B-52s at Jeddah, but the proviso was that the deployment be kept strictly secret and that the aircraft stay away until the shooting started. A dozen bombers would be prepared for first-night deployments, and six more readied for movement to Moron Airbase, Spain.

From the beginning, B-52 crewmen prepared for low-altitude bombing missions. Low-level had been adopted in the late 1950s to counter the threat posed by Soviet high-altitude surface-to-air missiles, a tactic seemingly confirmed in the Vietnam War, where most B-52 losses occurred from hits at high altitude. But low-level also meant finer accuracy. What the crew found once the shooting started, however, was that Gens. Schwarzkopf and Horner didn't care about B-52 accuracy; crew survival was their top priority.

Besides, Schwarzkopf's goal in employing the massive bombers was to terrorize Iraqi soldiers, a goal that was as much psychological as physical. For the same reason that foreign governments were antsy about the B-52's link with nuclear weapons and their role in Vietnam, Schwarzkopf loved them.

Washington's solution to the political sensitivity of the nuclear machines was boilerplate Cold War non-responsiveness as well: No press visits would be allowed to B-52 units, no pictures would be released, carpet-bombing missions would be denied and the existence of the bombers in Saudi Arabia would stay an official "secret" even after the war.

But by late September, more was happening than mere efforts to employ nuclear-capable forces armed only with conventional weapons in the looming confrontation with Iraq. Under the highest security, another "specat" had been formed--this one so secret that its existence has not been revealed until now.

At the White House and in Cheney's office at the Pentagon, senior political and military officials were seriously studying what many would deem an unthinkable option: the consideration of threatening to use nuclear weapons against Saddam Hussein.

Defense Week  
September 25, 2000  
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## **New Germ-Agent Alarm Falls Short In Tests**

By John M. Donnelly

The detector that is expected to warn U.S. forces when a biological weapon has been used against them has failed to meet all but a few of its requirements in tests, the Pentagon's Inspector General says in a new report.

The nearly \$1 billion Joint Biological Point Detection System is supposed to be the main way soldiers, sailors, airmen and Marines will know when they are under attack from anthrax, plague and the like. Planned after the Gulf War highlighted concerns about doomsday agents and scheduled to be fielded in fiscal 2002, the detector is supposed to be an improvement over current detectors.

But Army operational testers recently found that the system met just one in 10 critical requirements assessed, according to the IG's Sept. 11 report. A separate Marine Corps-Air Force test found that the detector met only three of 11 requirements examined. The shortcomings were in criteria as diverse as detecting and identifying agents, communications, battery power, time between failures and survivability in rugged environments.

"In view of growing concern related to biological warfare and terrorism, as well as controversies related to the reliability of certain types of U.S. biological and chemical defense equipment and countermeasures, it is particularly important that this system be thoroughly tested and not approved prematurely for production, even low-rate production," the IG report said.

The Army says the system has improved since the tests were conducted this summer, that the detector is still under development, and that it will be ready to pass its most important tests next year—just ahead of an August 2001 decision to start full-rate production. Still, the Army Test and Evaluation Command maintains there is a risk that the system will not be ready for that final exam, according to the IG report. Referring to the service tests, the report said: "In the draft operational assessments, the independent agencies concluded that the Point Detection System was not yet operationally effective, suitable and survivable and that it needed major design changes."

### **Program office disagrees**

Army Lt. Col. Tim Moshier, manager of the detection program at the Joint Program Office for Biological Defense, said in an interview that the detector had better success than the test scores indicate, and since the tests were done, the system has improved. There is still time for further work once low-rate initial production models come off the line in the coming months, he said, and design changes are not required.

"We are progressing well enough to enter the next phase," Moshier said. "In (Low Rate Initial Production), we'll see whether we can go to the field."

The system uses several complementary technologies, including an ultraviolet laser that illuminates aerosol particles faster and better than the systems now fielded. The detector collects air samples, detects the presence of 26 toxins and organisms (the types are classified), identifies the type within 20 minutes using a system similar to a home pregnancy test, and then communicates the findings to unit leaders.

A single system will deploy on ships, at air bases, and at the Corps level in the Army and at the brigade or battalion level in the Marine Corps. The device comes in several sizes from man-portable to truck-sized. New contractor this week In 1996, a \$29.5 million contract for the 33-month engineering and manufacturing development phase was awarded to Lockheed Martin Librascope of Glendale, Calif.

Moshier says the EMD phase cost \$15 million more than the initial \$70 million estimate, partly because the original detector design wasn't performing adequately and had to be replaced.

The IG report said Lockheed Martin "failed to implement credible cost controls and continued to experience significant schedule delays," leading the program office not to renew the company's development contract. Moshier said that the Army "didn't fire" Lockheed for poor performance, but has since opted to open the low-rate production,



or LRIP, phase to new bidders, whom he would not name. This week, the program office will announce the new prime contractor.

Originally, the program office was going to build 25 LRIP models for \$8.6 million, but the testing community, IG and the Army since agreed to build just 10 for an as yet undisclosed amount. If the detector passes next year's tests and full production is approved, the same company named this week will have an option to build the remaining 960 units. Total acquisition cost: \$936 million.

### **Programs beneath radar**

The detector is an example of an expensive and critical program that does not get the oversight it needs, said Robert Lieberman, the Pentagon assistant inspector general for auditing, in an interview.

Though the total system cost is nearly \$1 billion, the IG's Sept. 11 report, signed by Lieberman, is the first audit of the program. The chemical weapons detector program has also not yet been audited. The IG has repeatedly told Congress it needs more money if it is to cover any but the most expensive programs, Lieberman said, and this is an example of one that fell through the cracks.

"Audit coverage of acquisition programs, once you get beyond the very biggest, is terrible. There are just hundreds of programs out there. This is a real good example."

Moreover, to increase the program's visibility, the IG wants the Army's acquisition executive, not the Army-run Joint Program Manager for Biological Defense, to decide whether the program should start production. However, the Army has rejected the recommendation. The IG report says the program's problems are partly due to pushing faster than could be effectively managed. Moshier said that was a subjective call and, besides, there's a threat justifying the urgency.

Either way, Lieberman also says the system worked in this instance because the testers and auditors identified problems and the Army is attempting to rectify them before approving production of the detectors. Next year's tests, called "initial operational test and evaluation," will go a long way to determining how much longer U.S. troops will have to wait for better protection from a potential germ attack.

Jerusalem Post  
September 26, 2000  
Pg. 1

## **Arrow Radar Detects Syrian Scud D Test**

By Arieh O'Sullivan

JERUSALEM (September 26) - The radar from the Arrow 2 anti-ballistic missile system succeeded in detecting the weekend test launch of a longer-range Scud D by Syria.

"It is not a secret that we have technical capabilities. We were able to detect this test launch with the radar of the Arrow 2," Chief of General Staff Lt.-Gen. Shaul Mofaz told reporters yesterday. "Syria is investing in increasing and widening its missile capabilities. The Scud D range is longer than the other Scuds they have. We are following what they are doing in this matter. We have the necessary capability of giving an answer to these sorts of threats."

Syria reportedly tested the missile over the weekend, just a week after Israel successfully tested its Arrow 2 system. Syria's Scud missiles have long had most of Israel within range, but the new Scud D, with a range of some 700 kilometers, gives Damascus the option of deploying them deeper into Syria to better protect them.

Damascus has given what military sources have described as an "open check" to its surface-to-surface projects and has invested heavily in protecting its 26 launchers. Syria is believed to have 300-400 Scud Bs and Cs.

The Syrians are concerned about the Arrow 2 and are trying to develop multiple warhead clusters for their Scud Ds, which they purchased from North Korea.

Prime Minister Ehud Barak said he is concerned about the Scud D test. "It is definitely a development which effectively puts all of Israel in range of Syrian missiles, and in this way it is a negative development," Barak told reporters at the Defense Ministry in Tel Aviv. "We are continuing to follow the situation and to prepare for all possibilities."

The Scud D was picked up by the Green Pine radar system developed by Elta. Israel rushed the Green Pine into deployment during the last Scud crisis with Iraq in late 1998.

The Syrians are able to arm their Scud B and C missiles with chemical and biological warheads, but it is not yet clear if they can do it with the smaller Scud D warhead.

"You don't have to panic. These missiles have been in the region for many years and they have been used, to my regret. It really has not been nice, but there is not any kind of revolution here," former OC Air Force Maj.-Gen. (res.) Eitan Ben-Eliahu told Israel Radio.

He said that the Syrians simply tested something they have had for some time to make sure it works.

He said that the Scud D has a longer range, but it comes at the expense of its warhead, which must be lighter. He also said that the longer range makes it less accurate.

He also noted that Iran and other countries are trying to equip themselves with long-range rockets that could strike at Israel. "I can't elaborate, but this is exactly what the air force has been focusing on for the past few years. It has been building itself and upgrading itself and training itself and conforming its equipment to exactly this sort of thing. We don't need a test to know what is going on there. And we have been preparing for it," Ben-Eliahu said.