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New York Times
June 17, 2002
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Bush To Formalize A Defense Policy Of Hitting First

By David E. Sanger

CRAWFORD, Tex., June 16 — President Bush has directed his top national security aides to make a doctrine of pre-emptive action against states and terrorist groups trying to develop weapons of mass destruction into the foundation of a new national security strategy, according to senior administration officials drafting the document. Iraq is clearly first on the target list for such action, and already the Central Intelligence Agency and the Defense Department have stepped up efforts to unseat Saddam Hussein in a last effort to avoid the necessity of a full-scale invasion.

Yet the policy, a significant move away from the chesslike military strategies of the cold war, deals more broadly with a range of options to prevent nations from obtaining large-scale weapons or sponsoring terrorism. The strategy will probably be completed in August, when the president is here on vacation.

His aides said they are fine-tuning the policy to make it clear that the United States has options beyond armed intervention. Those options include joint operations with Russia and other powers. Potential targets include weak states that have become, in the words of one official, "petri dishes" for terrorist groups.

Mr. Bush emphasized pre-emption when he addressed the German Parliament last month. He expanded on the theme at West Point two weeks ago, saying, "If we wait for threats to fully materialize, we will have waited too long." On Friday, at a Republican fund-raiser, he called his approach a "new doctrine," although it echoes actions that past presidents have taken, notably President Kennedy's quarantine of Cuba during the 1962 missile crisis.

"It really means early action of some kind," Condoleezza Rice, the national security adviser, said in a recent interview. "It means forestalling certain destructive acts against you by an adversary." There are times, she said, when "you can't wait to be attacked to respond."

Although Ms. Rice describes the new policy as a broad one, and one that names no countries or terrorist groups, it is already being set in motion against Iraq.

Twice since Sept. 11, Mr. Bush has signed findings authorizing more spending for Iraqi opposition groups, with a focus on intelligence-gathering and on the infiltration by American Special Operations forces and C.I.A. operatives. The latest order authorizes those forces to kill Mr. Hussein only in self defense, The Washington Post reported today, expanding on a report in USA Today on Feb. 28. But a senior administration official said today that the order made no reference to "targeting Saddam," and it would not waive the prohibition on assassinating a foreign leader.

"The problem with a full-scale invasion is that you lose the element of surprise, which is often critical in pre-emption," a senior official said today. "So the president wants to try everything short of that, because he knows that if we have to mount an invasion force, Saddam will see it coming."

Discussions within the White House have dwelled on examples that suggest that the most successful pre-emptive actions were not the most drastic military options. Ms. Rice noted that President Kennedy "thought about a lot of possibilities" during the 1962 missile crisis, but rejected advice to launch a direct attack on the Soviet missile sites being built on island.

"They settled on a strategy that actually was pre-emptive, but didn't use military force to do it, and thereby preserved the possibility for the Soviets to back down," she said. She would not apply the lesson to the current Iraq debate, but said that "there's a whole range of possible ways to take early action."

Others involved said that White House discussions have taken up other cases: President Johnson's consideration, for example, of a pre-emptive strike against China to prevent it from deploying nuclear weapons. The option was abandoned.

The drafters of the policy have also given thought to cases in which presidents failed to act pre-emptively, including not moving more actively against Nazi Germany in the 1930's.

With that in mind, administration officials and some outside consultants have discussed what kind of pre-emptive options Mr. Bush would have to choose from if intelligence concluded that a nation was about to obtain or export weapons of mass destruction. They have also considered how the United States should react if Islamic militants in Pakistan, for example, tried to seize the country's nuclear weapons.

In public statements, Mr. Bush has not discussed his policy in terms of individual countries or terrorist groups. But in private conversations with his close circle, it is is a near-constant source of discussion. Those officials include Secretary of State Colin L. Powell; Ms. Rice; her deputy for counterterrorism, Gen. Wayne Downing; Secretary of Defense Donald H. Rumsfeld; and other members of the national security team. He has also taken it up with members of Congress.

Referring to action against Iraq, Senator Joseph Biden, the Delaware Democrat who is chairman of the Foreign Relations Committee, said today on CBS, "I have discussed this with the President," and "at length" with Ms. Rice and other aides, and was convinced that in the campaign to oust Mr. Hussein, "there's a clear way to do this."

But recently, Mr. Bush has sprinkled his public statements with references to pre-emption as a pillar of a campaign against stateless terrorists or against states that would slip them nuclear or biological material.

In Berlin last month, Mr. Bush stood in the Reichstag, whose burning in 1933 marked the beginning of Hitler's rise as Europe stood by, and warned his European allies that "wishful thinking" would not eliminate "the new totalitarian threat."

The president's aides say the new policy rewrites the fundamental strategies that guided American thinking during the cold war.

The first of those strategies was containment — the policy of living with the nuclear power of the Soviet Union but preventing its expansion. The second was deterrence, which assumed that America's defenses could be arrayed to assure a devastating response and therefore keep the enemy from acting.

Both strategies fit within the United Nations charter, which gives a nation a right to defend itself when attacked but offers little room for countries to define when they felt threatened.

The subject of formalizing a strategy of pre-emptive action — including military attack — has come up repeatedly at the meetings of Mr. Bush's top national security aides, held three times a week. "It didn't take long for this to gel," Ms. Rice said, after "looking at the growing dangers of weapons of mass destruction, at how the terrorists networks operate."

The process of including America's allies has only just begun, and administration officials concede that it will be difficult at best. Leaders in Berlin, Paris and Beijing, in particular, have often warned against unilateralism. But Mr. Bush's new policy could amount to ultimate unilateralism, because it reserves the right to determine what constitutes a threat to American security and to act even if that threat is not judged imminent.

However, Mr. Bush has not described the limits of that policy or how he would define a threat. "Constitutionally, the president has the right to act pre-emptively," Mr. Biden said today. "The hard question," he said, is how to judge whether a country with nuclear or biological weapons has the intent to use them. "For example, the Chinese have a capacity. Does the president have the right to pre-emptively go strike the Chinese, the Communist regime?" Mr. Biden asked. "The answer's no."

Mr. Biden's observation raises the question of how much political pressure — from Congress, from allies, and perhaps from the United Nations — could limit Mr. Bush's freedom to act unilaterally. The administration, not suprisingly, is arguing for the widest possible latitude, making the case that only it can define what poses a major and imminent threat to national security.

Others outside the administration worry that other nations could immediately follow the American lead and twist a policy of pre-emption to their advantage. Israel could use it to justify harder strikes into Palestinian territory; India could use it to pre-empt any Pakistani nuclear threat; China could use it to justify an attack on Taiwan.

"Consistency poses problems," said Peter W. Galbraith, a former ambassador to Croatia and now a professor at the National War College. Mr. Galbraith said he is a supporter of pre-emptive action against Iraq, yet he worries about what happens if the new American doctrine spreads uncontrolled. "No place is the risk greater than in South Asia," he said. "If India adopted the American doctrine of pre-emption, it risks a nuclear war, with devastating consequences for the world. It's a tricky business."

Administration officials say they believe that that allied resistance to Mr. Bush's approach is overstated and that Iraq is a superb first test of the policy. The officials argue that the threat is clear and that Mr. Hussein's violations of United Nations commands are vivid.

In speeches and private conversations, Mr. Bush makes clear that the United States does not know whether Iraq has acquired nuclear or biological weapons, but he suggests that the only prudent course is to assume it has. Otherwise, the argument goes, Mr. Hussein would allow in weapons inspectors, whom he has barred for three years now.

Also, even if there is little evidence that Iraq was involved in the Sept. 11 attacks, Mr. Bush and his aides say, Mr. Hussein's willingness to use chemical weapons against his own people, the Kurds, must be taken as evidence that he would attack the United States or its allies as soon as he has the capability. During the Persian Gulf war in 1991, Brent Scowcroft, the national security adviser under Mr. Bush's father, warned that if Iraq used chemical or biological weapons against Israel or American troops, the response would be devastating and overwhelming.

Mr. Hussein did not launch such an attack. But Mr. Bush's declared policy of ousting the Iraqi dictator before he can act may have eliminated any incentive for restraint. The policy may also prompt Mr. Hussein to a pre-emptive attack of his own. "The message we've sent him in the past six months is very different — that he's going out," one senior official said. In light of that, Mr. Hussein might be more willing "to respond with everything he's got."
Ms. Rice and other officials contend that the less headline-grabbing aspects of the administration's new policy have been barely discussed in public but are as important as the new military strategy. A critical component, she argues, is establishing "a common security framework for the great powers," in which the United States, Russia, China, Japan and Europe "share a common security agenda" in which they work together to keep terrorists and rogue states from challenging that system.
The administration argues that approach has shown promise already: China has been mostly helpful talking to North Korea since the 1994 nuclear crisis there, and President Vladimir V. Putin of Russia joined in the effort to defuse the latest India-Pakistan crisis. If that continued, she said, "this would be a much more stable world." But Mr. Putin has strongly disagreed with President Bush about the dangers of Russia's export of commercial nuclear technology to Iran, and China continues to supply Pakistan. Neither has been persuaded by the administration's insistence that they must stop.

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(Editor's Note: Hyperlink for "Iraq Watch" follows article.)
Washington Times
June 17, 2002
Pg. 1

Saddam Would Hit Buildup Of Troops

By Rowan Scarborough, The Washington Times
In a fight for his survival, Iraqi leader Saddam Hussein would be likely to unleash his arsenal of chemical and germ warheads on American troops and Israel, military sources and analysts say.
That deadly prospect, they say, makes it paramount that any war plan approved by President Bush contain tactical surprise, pre-emptive air strikes and a strategy for turning some Iraqi military units against their supreme leader.
"You can hope for deterrence to work," said Kelly Motz, editor of Iraq Watch, which publishes research on Baghdad's varied weapons programs. "But if you are saying you are going to change the regime and take Saddam out of power, what does he have to lose if he favors power over his life?"
The Bush administration is seeking ways to oust Saddam on the argument that he eventually will succeed in developing nuclear weapons and threaten the national security of the United States.
John Hillen, an Army veteran of the 1991 Persian Gulf war, said that this time the Pentagon will not have the luxury of a six-month buildup of forces in the region. Then, the mission was to evict Iraqi forces from Kuwait. This time, the target is Saddam himself, and he knows it.
"Any buildup would be seen by Saddam as a spear pointed at his heart, and he would be smart to act pre-emptively with chemical weapons against the first units showing up," said Mr. Hillen, an adviser to the 2000 Bush campaign. "Thus, you need to act decisively and with total surprise, a la October 7 in Afghanistan, relentlessly destroying his assets with whatever you have in theater now," he said.
Mr. Hillen said that once U.S. air strikes began against key targets, the buildup of more U.S. forces would begin. The first waves of attacks should "have the effect of keeping him down and not being able to retaliate against vulnerable airfields and ports."
Not all military experts believe Saddam will be able to tap his arsenal of chemical bombs, artillery shells and missile warheads.
Retired Air Force Col. John Warden, who from a Pentagon basement room helped design the 1991 air campaign against Iraqi forces, said getting Saddam on the run and isolated is pivotal.
"If things look that grim — Hitler in the bunker — I'm not sure that many people would follow his orders," Col. Warden said.
He said a key element of a war plan against Iraq is to persuade disaffected Iraqi military officers to turn on their dictator. The Washington Times reported last week that war planners are examining such a strategy.
"In the Gulf war, one mistake we made was seeing the war as a war against Iraq, as opposed to a war against Saddam," Col. Warden said. "When we allowed ourselves to think in that way, we made an enemy of the Iraqi

military, rather than thinking at that time what would we need to get the Iraqi military to march on Baghdad. We attacked the Iraqi military and made it virtually impossible for them to do anything."
The first Bush administration limited the aims of the Gulf war to freeing Kuwait to hold together a larger international coalition. After the 1991 cease-fire, President George Bush urged the Iraqi people to rise up against Saddam. But the United States gave no military support, and Saddam brutally suppressed rebels in the north and south. Subsequently, Saddam's intensely loyal security forces put down several assassination attempts by military officers.
This time, Col. Warden said, a U.S.-inspired insurrection, plus air strikes on Saddam's security forces, and command and control stations, would be preferable to a land invasion.
Saddam agreed to U.N. weapons inspections after his defeat in 1991. But Baghdad has concealed a good portion of its military-industrial complex from inspectors, the last of whom left the country in 1998.
Based on U.N. reports, Iraq Watch estimates that Baghdad has scores of aerial bombs, munitions and missile warheads capable of delivering chemical weapons such as VX nerve gas. Evidence indicates there are 157 bombs and 25 missile warheads suitable for germ agents anthrax, aflotoxin and botulinum.
"We know that they built such things before the Gulf war, and we know not all of them have been found," said Gary Milhollin, director of the Wisconsin Project on Nuclear Arms Control, which includes Iraq Watch.
Although Iraq says it has destroyed all of its Scud ballistic missiles — 93 were fired at Israel and allied countries in the 1991 Gulf war — Iraq Watch believes the country may still have as many as 50.
The United States says there is no evidence Saddam used weapons of mass destruction during the Gulf war.
An Army officer who belongs to a unit that could be called into action against Iraq said planners expect Saddam to make some military move once a buildup begins.
"The concern is that Iraq has reasoned out what led to their demise during Desert Storm is that they sat by for six months and watched the United States build up combat power without wiping it out as soon as it began to build," the officer said. "How does the United States counter this? We build up combat power in phases."
The president has repeatedly threatened Saddam with military action, most recently in a commencement speech June 1 at the U.S. Military Academy at West Point, N.Y.
Mr. Bush spoke of "unbalanced dictators" with weapons of mass destruction who "can deliver those weapons on missiles or secretly provide them to terrorist allies."
"Our security will require all Americans to be forward-looking and resolute, to be ready for pre-preemptive action when necessary to defend our liberty and to defend our lives," he said.
The next week, Vice President Richard B. Cheney referred to Saddam's pursuit of nuclear weapons as "this gathering danger [that] requires the most careful, deliberate and decisive response by America and our allies."
Mr. Bush has not decided whether to order an attack. Planners at U.S. Central Command, which oversees military operations in the Persian Gulf, are working on war contingency plans.

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Iraq Watch

is a comprehensive web site devoted to monitoring Iraq's progress in building weapons of mass destruction. *Iraq Watch* describes key Iraqi organizations and sites, lists their foreign suppliers, and provides access to U.N. and other documents that describe Iraq's activities. *Iraq Watch* welcomes inquiries and comments from policy makers, scholars, journalists and the general public.
http://www.iraqwatch.org/

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London Times
June 17, 2002

Iraq Accused Of Smuggling Nuclear Arms Parts On Aid Flights

By Michael Evans, Defence Editor

Iraq is smuggling nuclear-related equipment banned by the United Nations on board aircraft that have been flying relief aid to Syria, intelligence agencies believe.
Baghdad has sent more than 24 planes to Syria, carrying humanitarian aid to help victims of a dam collapse that flooded villages and agricultural land. The Zeyzoun dam near the town of Idlib, about 220 miles north of Damascus, burst on June 4, killing more than 20 people and leaving about 30,000 homeless.
Intelligence agencies trying to monitor flights in and out of Baghdad believe that the Iraqis took advantage of the disaster to smuggle banned equipment back on the return journey. Some intelligence reports indicate that one of the returning planes was filled with spare parts for sensitive so-called "flow-forming machines", which are used to produce components for uranium-enrichment systems. Enriched uranium is a key component of nuclear weapons. Similar flow-forming machines were among equipment and materials used in Iraq's clandestine nuclear weapon programme that were destroyed under the supervision of the Vienna-based International Atomic Energy Agency after the 1991 Gulf War.
According to intelligence sources, the suspected spare parts for the nuclear-related machines were initially held at the Syrian port of Tartus and transferred to Damascus international airport, where they were loaded on to the Iraqi aircraft arriving for the Damascus relief effort. Other equipment also flown back to Baghdad was believed to include tank parts and spares for the Iraqi Air Force. The Iraqi aircraft landed in Damascus without checks because the focus had been on helping the victims of the dam disaster.
"This smuggling operation was organised at the last minute, exploiting the window of opportunity that opened up as a result of the humanitarian relief operation," an intelligence source said.

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Washington Post
June 15, 2002
Pg. 1

Israel Has Sub-Based Atomic Arms Capability

By Walter Pincus, Washington Post Staff Writer
Israel has acquired three diesel submarines that it is arming with newly designed cruise missiles capable of carrying nuclear warheads, according to former Pentagon and State Department officials, potentially giving Israel a triad of land-, sea- and air-based nuclear weapons for the first time.
The U.S. Navy monitored Israeli testing of a new cruise missile from a submarine two years ago off Sri Lanka in the Indian Ocean, according to former Pentagon officials.
One former senior American official said U.S. analysts have studied the nuclear capability of the cruise missile. But, according to a former Pentagon official, "It is above top secret knowing whether the sub-launched cruise missiles are nuclear-armed." Another former official added, "We often don't ask."
The possible move to arm submarines with nuclear weapons suggests that the Israeli government might be increasingly concerned about efforts by Iraq and Iran to develop more accurate long-range missiles capable of knocking out Israel's existing nuclear arsenal, which is primarily land-based.
Although developing a sea-based leg would preserve the deterrent value of Israel's nuclear force, according to analysts, it would complicate U.S. efforts to keep other countries in the Middle East and elsewhere from seeking to acquire nuclear arms. It also could spur a nuclear arms race in the Middle East.
Israel has long refused to confirm or deny it has nuclear weapons. U.S. analysts say it has a modest arsenal of short- and medium-range nuclear-capable missiles, nuclear bombs that could be delivered from jet fighters and Harpoon missiles that could be launched from planes or ships.
Mark Regev, spokesman for the Israeli Embassy, confirmed that his country had recently acquired three submarines from Germany but would not comment on whether they were being outfitted with nuclear weapons. "There has been no change in Israel's long-standing position not to introduce nuclear weapons in the Middle East," Regev said.
A book published this week by the Carnegie Endowment for International Peace reported that Israel was attempting to arm its diesel submarines with nuclear cruise missiles.
"Probably the most important nuclear-related development in Israel is the formation of its sea-based nuclear arm," wrote Joseph Cirincione, director of the Carnegie Endowment's nonproliferation project and a former staff member of the House Armed Services Committee who served as chief author of the book.
The U.S. government "favors" Israel's preserving the ambiguity surrounding its nuclear force, just as it has since the late 1960s, a former senior U.S. diplomat said. "It gives it a strategic deterrence," he said, adding, "If [Israel] were

being explicit, that would create problems with its neighbors like Egypt and Syria . . . whose leaders years ago agreed that [ambiguity] did not pose an offensive threat to them."
Iraq and Iran, he added, are different because "they are destabilizing" countries and could launch a first strike against Israel or U.S. forces in the region if they succeed in developing and deploying nuclear weapons.
There have been published reports going back to 1998 that describe Israel's acquisition of the diesel submarines and its testing of a cruise missile.
In an article two years ago in the Israeli newspaper Ha'aretz, Reuven Pedatzur, a former Israeli fighter pilot and director of the Galili Center for Strategy and National Security, wrote that Israel was motivated by "the need to find deterrence solutions . . . from the probability that during the next decade Iran, and maybe even Iraq, will acquire the nuclear ballistic capability to hit Israeli targets."
Pedatzur said that faced with that threat, a submarine force armed with missiles is a reliable deterrent because Israel's enemies would not be able to locate and destroy them and thus "that it is impossible to avoid their lethal counterstrike."
The Carnegie Endowment book said Israel "is believed to have deployed" 100 Jericho short-range and medium-range missiles that are nuclear-capable. In addition, it has nuclear bombs that could be delivered from U.S.-made F-16 jet fighters and U.S.-built Harpoon missiles that could be launched from planes or ships.
Israel's nuclear-capable, sea-launched cruise missiles were tested in May 2000, the book said, and might have a range of more than 900 miles. With three submarines, Israel could "have a deployment at sea of one nuclear-armed submarine at all times," the book said.
"Such a survivable deterrent is perceived as essential because of Israel's unique geopolitical and demographical vulnerability to nuclear attack, and one that no potential enemy of Israel could ignore," it said.
Cirincione said Israel's possession of nuclear weapons and modernization of its systems creates an "extremely difficult situation" not just for the United States, but also for preventing other countries that have signed the Nuclear Non-Proliferation Treaty from breaking away. Israel's possession of weapons remains officially ambiguous, but Israel, along with Pakistan and India, did not sign the treaty.
Israel is only one of 15 countries discussed in the book, which describes the spread of nuclear, chemical and biological weapons and their missile delivery systems. It updates a similar volume produced by the Carnegie Endowment four years ago.
Cirincione said at least eight countries have nuclear weapons -- the United States, Russia, Britain, France, China, Israel, India and Pakistan -- and three more are apparently seeking them -- Iraq, Iran and North Korea. Four countries, he said, have in recent years given up their weapons -- South Africa and the former Soviet republics Ukraine, Belarus and Kazakhstan.
The book attributed Iran's decision to seek nuclear, chemical and biological weapons to its experience during its war with Iraq in the 1980s, when Iraqi President Saddam Hussein used chemical weapons against Iranian forces. Iran is influenced by its "extended neighborhood [where] it sees Israel, India and Pakistan with advanced nuclear weapons" and Iraq's weapons program no longer subject to inspection by the United Nations, the book said.
The authors said U.S. sanctions against Iran, which have hurt its ability to build conventional military forces, "have likely worked toward reaffirming belief in the utility of unconventional weapons."
Iraq's search for nuclear and biological weapons rests on Hussein's desire to be the "dominant power in the Middle East" and his belief that "a nuclear bomb would provide him with the ultimate symbol of military power," the book said. It said "Iraq may have a workable design for a nuclear weapon" and that if Baghdad "were to acquire material from another country, it is possible that it could assemble a nuclear weapon in months."

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New York Times
June 15, 2002

After U.S. Scraps ABM Treaty, Russia Rejects Curbs Of Start II

By Michael Wines

MOSCOW, June 14 — One day after the United States formally abandoned the 1972 Antiballistic Missile Treaty, Russia responded in curt kind today, saying it was no longer bound by the 1993 accord known as Start II that outlawed multiple-warhead missiles and other especially destabilizing weapons in the two nations' strategic arsenals.

Russia's action was the sort of statement that would have induced global seizures a decade ago. This time some experts called it a political gesture, signaling displeasure but little else in a world remade by forces unleashed after the Soviet Union's collapse.

But that view was not unanimous, and some American experts said Russia's move could exacerbate a trend toward a more unstable nuclear balance — especially if the current thaw between East and West began to chill.

In Washington, a State Department spokesman said tonight that Russia's action "was not unexpected."

"Both the United States and Russia have moved beyond the treaty on further reduction and limitation of strategic offensive arms with the recent signing of the Moscow Treaty," the spokesman said. "Under the Moscow Treaty, the United States and Russia will reduce their strategic nuclear warheads to a level of 1,700 to 2,200 by Dec. 31, 2012, a level nearly two-thirds below current levels."

Official Russia seemed of two minds today. Even as its Foreign Ministry proclaimed Start II dead, accusing the United States of wrecking the arms-control process, its Defense Ministry said there were no grounds to retaliate against Washington for abandoning the missile defense treaty.

Other senior Russian defense officials told the Interfax news service that some Russian nuclear rockets might be kept in service longer because of the American action, but that no major shifts in Russia's strategic posture were envisioned.

"There's no point in talking about this treaty anymore, just as there is no point in talking about the ABM treaty," Vladimir Z. Dvorkin, a retired major general who heads the Russian center for Problems of Strategic Nuclear Forces, said in an interview tonight. "It's all in oblivion. It's time to start thinking of something else."

Others noted that the new nuclear-arms accord that Presidents Bush and Vladimir V. Putin signed in May already would reduce each side's stocks to between 1,750 and 2,200 warheads, well below the Start II levels. In that respect, Start II was an outmoded treaty even before Moscow buried it today.

Few doubted that today's announcement was in large part a bow to Russian politicians who have ached for a stronger response to the United States' go-it-alone policies on arms control.

In truth, the Start II treaty, which the Kremlin threw overboard today, while a landmark in arms control accords, had never officially been binding on either side.

The treaty, agreed upon by Presidents Clinton and Boris N. Yeltsin in 1993, proposed to slash United States and Russian strategic nuclear stockpiles over 10 years by nearly half, to no more than 3,500 warheads on each side. More important, it would have eliminated land-based multiple-warhead missiles, or MIRV's, and so-called "heavy" intercontinental missiles. Arms-control scholars call those weapons the most dangerous and destabilizing in the two nations' arsenals.

Roiled by conservative arguments that Start II endangered American security, Congress did not ratify the treaty until 1996, and refused a protocol that would have deferred it. Russia's Parliament approved the treaty and the new deadline in 2000, but only on the condition that the United States did not abandon the antiballistic missile accord. One result is that Russia has yet to remove multiple warheads from some of its missiles, including ones whose service lives will now be extended. In the interim, Russia has developed a new missile, the Topol-M, which its military experts say is decades ahead of any American design and can penetrate any missile defense the United States can erect.

In the arcane world of arms control, some American experts essentially call this a heartening development — primarily because the United States no longer views Russia as an enemy, and thus does not worry about a surprise attack from Moscow. Also because the existence of Russia's Topol-M suggests that the missile shield the United States is developing is not aimed at swarms of Russian warheads, but rather at single or double shots from terrorist nations.

Today the director of the Arms Control Association in Washington, Daryl G. Kimball, said the Russian move, while long expected, was not to be dismissed lightly. Among other things, he said, it frees Russia to equip its new Topol-M missiles with multiple warheads, a move the Kremlin has not formally endorsed, but that would actually save money as Russia shrinks its nuclear force.

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Los Angeles Times
June 16, 2002

Work Starts On 6 Missile Silos In Alaska

By Associated Press

FT. GREELY, Alaska -- Federal officials broke ground Saturday on six underground missile interceptor silos as part of the new missile defense system.
It will take more than two years to install the silos 115 feet beneath Ft. Greely for the Ground-based Midcourse Defense system.
"We need this for the defense of our country," said Brig. Gen. John W. Holly, program director for the GMD Joint Program Office. The Ft. Greely site, about 100 miles southeast of Fairbanks in the Alaska interior, will at first be used for testing. But the Pentagon hopes to have it ready as an emergency antimissile system by September 2004.
The Bush administration's hurry to put a rudimentary system in place in Alaska by 2004 comes 19 years after President Reagan proposed a national defense against nuclear missile attack. Critics suggest presidential politics is the driving force behind the timetable.
The project's purpose is to defend against the use of a limited number of nuclear missiles and is designed to eliminate mutual destruction as a strategy, said Sen. Ted Stevens (R-Alaska).
The missile test bed work will be done by Boeing Co. and its subcontractors, while Fluor Alaska will be general contractor.
"They're just going to start digging holes," GMD spokesman Lt. Col. Rick Lehner said.
When completed, the six silos, about 100 feet apart, each will have a 24-foot circumference and hold 70-foot-long missiles. There is room for 100 missile beds on the site. Fluor will install roads, fencing, support buildings and a power substation.
The work at Ft. Greely is expected to cost $325 million, officials said. The full system is estimated to cost $64 billion, including a sophisticated "X-band" radar station in the Aleutian Islands and a satellite system to detect launches.
Protesters waited at the main gate of Ft. Greely and at an area along the highway about two miles north of the entrance. No Nukes North, a Fairbanks-based anti-nuclear group, organized the protest, which began June 6 as a peace caravan across Alaska.
The protesters have been in the area since Thursday, voicing objections to the GMD as an offensive--rather than defensive--program, its expense and the nuclear dangers.

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Jane's Defence Weekly
June 19, 2002

Life After The ABM Treaty

Now the USA, freed from anti-ballistic yoke after 28 years, can pursue more vigorous policy. Michael Sirak reports

A lingering vestige of Cold War diplomacy met an unspectacular end on 13 June as the USA formally abandoned the Anti-Ballistic Missile (ABM) Treaty. For the first time in 28 years, US military and national security planners are free to pursue the defence programmes against ballistic missiles that they deem most capable and desirable. They are now answerable only to domestic fiscal and policy directives. Gone are the treaty's limitations on development, testing and deployment that applied to previous US administrations and their Soviet and Russian counterparts since 1974.
The US Department of Defense (DoD), now liberated from the treaty's yoke, intends to engage in "robust" development and testing activities to mature nascent ballistic missile defence (BMD) components and identify and evaluate the most promising of new concepts.
As part of this process, the DoD intends in coming months to expand the nature and scope of the tests to incorporate activities previously prohibited by the now-defunct agreement. Initially, the department says, these activities will include more mundane exercises like using certain radar systems against new sets of targets and merging sensor data from different systems. Later exercises will see land- and sea-based and airborne systems, designed originally to counter shorter-range threats, engage more longer-range targets. Longer-term activities will include space-based exercises.
For the DoD's Missile Defense Agency (MDA), this new era represents a time of great opportunity. The unprecedented freedom gives it the chance to fuse the most capable mix of airborne and land-, sea- and space-based components into a layered and integrated BMD system to counter missiles of all ranges throughout their flight trajectories.

Conversely, agency officials acknowledge that many significant challenges remain in fielding a reliable and effective architecture. "Our programme is now entering a new phase, moving from technology development to system engineering, and we face a very significant challenge of integrating many diverse elements into one system," said MDA director US Air Force Lt Gen Ronald Kadish.

US President George Bush wants a BMD system as soon as possible to protect the US homeland and troops deployed abroad, as well as allies and friends. Toward that goal, the MDA's activities in coming years will centre on a testbed located within a vast expanse of Pacific Ocean territory framed by Alaska, Hawaii, the Marshall Islands and the US west coast. Here, the agency will tie together multiple sensors, weapons and command-and-control elements and evaluate them. They could offer a limited operational capability in an emergency, perhaps as soon as late 2004, although this schedule appears optimistic (Jane's Defence Weekly 1 May). More advanced blocks of capabilities will be assembled every two years thereafter.

The agency is bolstering current test-range assets in the Pacific as it establishes the testbed. As JDW went to press, the MDA expected on 15 June to break ground for a missile silo complex at Fort Greely in central Alaska. The facility will be an integral part of the testbed, featuring five silos that will house developmental versions of the interceptor planned for the nascent Ground-based Midcourse Defense (GMD) element, formerly known as the National Missile Defense system.

The Soviet Union and USA signed the ABM Treaty in May 1972. It entered into force in 1974, allowing each nation only one limited missile defence site to protect either its capital city or an intercontinental ballistic missile field and precluded the use of airborne and sea- and space-based systems as well as mobile land-based capabilities.

As one of the first acts to expand the scope of testing into areas previously prohibited, the MDA plans in August to use for the first time an Aegis SPY-1 radar aboard a US Navy (USN) ship to track the flight of a long-range target missile. The target, originating from Vandenberg Air Force Base, California, will be part of the seventh intercept test of the GMD system. The Aegis system was designed originally as an air-defence radar.

For some in the US Congress, the DoD's desire to expand the BMD test activities beyond the constraints of the treaty right away is more politically motivated than a case of necessary technical exercises. One congressional source said the value of the Aegis exercise at this point in the testbed activities is "minimal".

One US industry source remarked: "It is not crucial to have the Aegis radar on this next test." At the same time, the source noted that "the sooner that you gather data on its ability to track a strategic target, the sooner you will know if it can contribute to the BMD architecture".

Other near-term activities no longer precluded by the ABM Treaty will include the merging of sensor data from shorter-range defensive systems like Aegis and the US Army's Patriot Advanced Capability-3 and Theater High-Altitude Area Defense (THAAD) systems with data from test range radar designed to track long-range targets.

Mid-term test expansion will include using an upgraded Aegis SPY-1 with a derivative of the Standard Missile-3 or perhaps a new missile design to intercept longer-range missiles. Lockheed Martin is pursuing a solid-state S-band follow-on to the SPY-1 called the SPY-1E. Together with Raytheon, which is developing a sea-based X-band radar to operate with the SPY-1E, the Aegis system will attain the capability to track and prosecute longer-range and more sophisticated threats as part of the MDA's Sea-based Midcourse Defense element.

The MDA also expects to test the THAAD and US Air Force's Airborne Laser systems against longer-range targets at some point.

Longer-term activities beyond the scope of the ABM Treaty include the pursuit of space-based kinetic kill vehicles and a Space-Based Laser (SBL) system. The MDA is currently studying different kill vehicle concepts, which would engage a target in its boost phase. It intends to evaluate one or more of the most promising designs in a limited experiment perhaps by the middle of this decade.

The once maligned SBL programme appears to have found renewed interest, with the MDA looking again to demonstrate some type of limited capability by the end of this decade. In early June, the MDA announced that it is seeking to pursue an SBL midcourse active tracking experiment to support BMD testbed activities around Fiscal Year 2006.

One concern related to the MDA's testing activities involves the insufficient fidelity of BMD simulations, said Philip Coyle, who served as director of the DoD operational test and evaluation office from 1994 to 2001. Existing simulations for individual BMD elements like GMD remain too limited, Coyle told JDW. The need for greater fidelity both for the individual elements, let alone for the integrated BMD architecture, will only be amplified as the MDA puts together the BMD system architecture. Because it will be impossible to test the BMD system in testbed exercises against the full range of threats and scenarios, the need for more robust simulation capabilities will be "crucial", Coyle said.

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New York Times
June 15, 2002
Pg. 1

Report Provides New Details Of Soviet Smallpox Accident

By William J. Broad and Judith Miller

Soviet field test of weaponized smallpox caused an outbreak in 1971 that killed two children and a young woman before health teams disinfected homes, quarantined hundreds of people and administered nearly 50,000 emergency vaccine shots, a new report asserts.

The outbreak struck Aralsk, a port on the Aral sea in what was then the Kazakh Republic. The report says a ship doing ecological research sailed too close to a military smallpox test that sent out a deadly plume of germs, infecting a crew member who carried the virus back to the city.

Moscow has never acknowledged the outbreak or that it ever tested smallpox in the open air. But late last year, a former top official in the Soviet germ weapons program spoke of the incident in an interview with a Moscow newspaper, and Kazakh officials have recently been investigating the outbreak's origins.

Now a team of experts at the Monterey Institute of International Studies, drawing on formerly secret Soviet documents and interviews with survivors, has written a report on the Aralsk outbreak.

The team says the strain of smallpox virus appears to have been unusually potent and even sickened seven people vaccinated against the disease. The episode, the researchers say, raises questions about whether new vaccines or drugs might be needed if this strain were used in an attack.

"We know that the vaccine works well in the vast majority of cases," Alan P. Zelicoff, a team member who is also a physician and smallpox expert at the Sandia National Laboratories, said in an interview. "What the new data strongly suggests is that we have much more work to do on new vaccines and the development of antiviral drugs, none of which are available today."

In envisioning a smallpox attack, terrorism experts consider person-to-person contact a main threat. Members of the Monterey team said the blowing of germs in the wind suggested that a contemporary smallpox threat could be harder to combat and contain.

Dr. Zelicoff is to present a summary of the report today in Washington to federal officials who are developing guidelines on whether smallpox vaccinations should be offered to anyone besides the few researchers who now work with the virus.

The three victims who died in Aralsk, Dr. Zelicoff said, were all unvaccinated and developed the disease's rare hemorrhagic form. Usually fatal, it is characterized by heavy bleeding and normally accounts for one to three percent of smallpox cases. The seven survivors, he added, had received routine vaccinations earlier but nonetheless contracted mild to serious cases of the disease. Vaccination usually bars the crippling illness.

"This outbreak did not have enough cases, thank God, to clarify" hints that the strain was unusually potent, Dr. Zelicoff said. "But it at least makes the questions legitimate."

Members of the Monterey team said federal officials grew wary this week when told of the impending report out of fear that it would undermine the national push for 300 million doses of smallpox vaccine, the production of which is due to be completed late this year.

In a conference call on Thursday, Dr. Zelicoff reassured health and military officials that he would recommend more research rather than changes in vaccine production.

His presentation is nonetheless expected to cause a stir at the meeting today, which is public.

D. A. Henderson, a top bioterrorism adviser to the secretary of heath and human services, said he was skeptical of the Monterey report's conclusions and expressed confidence in the American vaccine. As for the Soviet one, too little was known, he said, to assess its effectiveness among Aralsk citizens in the 1971 outbreak.

"We don't know when they were vaccinated or whether they were successfully vaccinated," Dr. Henderson said in an interview. He added that the Monterey scientists were "jumping to far-reaching conclusions with scant information."

No country has divulged outdoor tests of the smallpox virus, which causes high fevers and usually kills one in three unvaccinated people. The disease was declared eradicated from human populations in 1980.

The United States ended routine smallpox vaccinations in 1972 and the immunity of those vaccinated before then is believed to have waned over time. Today, the protection issue is back on the public agenda as fears of germ terrorism have grown.

Only the United States and Russia now keep publicly declared stocks of the virus. But terror experts say impoverished Russian scientists may have sold the virus to foreigners.
Raymond A. Zilinskas, one of the Monterey report's authors, said in an interview that American officials should try to obtain the strain from the Russians in order to test the American vaccine's effectiveness.
"They're going to have to open up," Mr. Zilinskas said of the Russians. "We have to know what we're defending against." He added that the Russians undoubtedly still possessed the strain.
The report was written with the aid of Kazakh officials, who blame Moscow for the Aralsk outbreak. The document, a draft of which The New York Times obtained, is to be made public late this month or early in July.
Though it draws on old Soviet studies about the Aralsk outbreak, the report does not directly tie the epidemic to weapon tests but infers a link through circumstantial evidence and the perceived weakness of alternative theories, such as a natural epidemic.
By 1971, it notes, the Soviet Union had reported no outbreaks of the disease for a decade.
In an interview, Dr. Henderson suggested that a natural outbreak might have carried the virus to Aralsk from Afghanistan, where smallpox in 1971 was still endemic.
As evidence of a weapons link, the Monterey report cites an interview with General Pyotr Burgasov, a former official in the Soviet germ weapons program. Moscow News, a Russian publication, quoted him in November as saying the outbreak was caused by field testing of 400 grams, or a little less than a pound, of germs.
General Burgasov said the crew member on the research ship picked up the virus when it passed within 15 kilometers, or about 9 miles, of an off-limits isle. The Aral Sea island of Vozrozhdeniye housed the main outdoor testing area of the Soviet program to make germ weapons.
The smallpox test is said to have occurred on July 30, 1971, with the ship sailing nearby between July 29 and July 31.
Aside from his comments, no details of the putative test are known publicly. But scientists at the military base on Vozrozhdeniye Island routinely exposed animals to deadly germs and measured agent dispersal in open air.
These tests were legal in 1971, as no international treaty then existed that banned the development of biological weapons.
In researching the incident, Dr. Zelicoff of the Sandia National Laboratories was able to track down and interview the outbreak's first case, who was then a young fisheries expert, as well as the second patient, her 9-year-old brother.
Contrary to the official Soviet report, he said, she told him that she never disembarked from the ship, the Lev Berg, before returning to the home port of Aralsk. That, Dr. Zelicoff said, strengthened the idea that she picked up the virus from the wind rather than from a port of call.
As the youngest crew member, she told him, she worked most frequently on deck. Her job was mainly to cast nets to catch fish, which she then took below to a small laboratory.
After the outbreak began in Aralsk, health officials scrambled to contain the disease, according to a formally secret Soviet report reprinted in the Monterey study.
Nearly 50,000 residents of Aralsk were vaccinated in less than two weeks, and hundreds were placed in isolation in a makeshift facility on the edge of town where they could receive no visitors.
Travel to and from Aralsk was stopped, and many homes were disinfected, along with 18 metric tons of household goods.
The Soviet vaccine of that era was generally considered as effective as the American one.
In his section of the draft report, Dr. Zelicoff says the fact that the Soviet Union never reported the Aralsk outbreak to world health authorities "suggests a sinister source."
Another author of the report is Jonathan B. Tucker, a Monterey official and author of "Scourge," a book on the smallpox threat.
The public forum where Dr. Zelicoff is presenting a summary of the Monterey study is one of a series that the Centers for Disease Control and Prevention is holding to solicit opinions before two advisory committees decide whether to change recommendations on smallpox vaccination.
A policy decision is expected as soon as next week.

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Jerusalem Post
June 17, 2002

Hamas Threatens Chemical Attack

By Margot Dudkevitch
Hamas is threatening to use chemical weapons in future attacks against Israeli targets, claiming "slaughter will bring slaughter," Channel 2 reported last night.
According to the report, Hamas issued a statement after conducting a strategic debate which generated the decision to use chemical weapons in addition to conventional bombs.
"When we reach that stage [using chemical weapons], the gates will be opened to develop suicide attacks with Allah's help," the report said, quoting from the statement issued by the movement yesterday.
The statement claimed that the aim is to further harm those hit by shrapnel in a bomb blast and "create a massacre."
The movement claimed that while the idea is not new, attempts to use chemicals in bombs have so far met with failure, as the chemicals used are usually inexpensive and crude agents that lose their effectiveness in the heat created by a bomb blast.
Hamas spokesman Abdel Aziz Rantissi denied the meetings took place and referred to the reports as "lies."
Hamas yesterday claimed responsibility for the attack near Dugit on Saturday night in which St.-Sgt. Yehezkel (Hezki) Gutman, 22, of Beit El, and Sgt. Alexei Gladkov, 20, of Beersheba, were killed and four others wounded.
The soldiers had succeeded in thwarting a terrorist attack near Dugit earlier in the day after blowing up a car rigged with 180 kilograms of explosives.
Hours later, after receiving reports of terrorists between Dugit and Elei Sinai, the soldiers returned to the area and were ambushed by one of four terrorists using the foliage for cover. Three other terrorists fled back to Palestinian Authority-controlled territory when the soldiers returned fire.
The dead terrorist was identified as Mahmoud el-Abed, 19, from Gaza City.
Security officials believe that there is a direct connection between the two incidents on Saturday, saying there has recently been a sharp increase in the number of attacks in the area.
Yesterday afternoon, IDF bulldozers began clearing the dense foliage in the area to allow soldiers a clearer view.
Yesterday morning, soldiers shot and killed a Palestinian who carried a large bag and ignored their calls to stop, after he and two others attempted to bypass a roadblock at the Bekaot junction in the northern Jordan Valley. The IDF Spokesman said the soldiers set off in pursuit and managed to arrest two of the fleeing men. The third, who was carrying a large bag, continued to flee, and the soldiers in accordance with regulations opened fire.
Elsewhere in the West Bank, police revealed the recent arrests of five Hamas members from Askar and Rumana, near Jenin. The five, who belonged to the Aksa Martyrs Brigades, are suspected of planting bombs near IDF troops, arresting and torturing Palestinians suspected of collaborating, organizing demonstrations and confrontations with security forces, and planning shooting attacks. Additional arrests are expected, the police said.
Early yesterday morning, security forces arrested a fugitive wanted by the Shin Bet near the Kuchin junction, west of Nablus.
Shots were fired at an IDF post near Silwad, north of Ramallah. In the Gaza Strip, soldiers arrested a fugitive at the Gush Katif junction, and shots were fired at an IDF post near Kfar Darom.
Muhammad Najib and David Bender contributed to this report.

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Wall Street Journal
June 18, 2002
Pg. 1

Pentagon Could Begin Deployment Of Some Missile Defenses By 2004

By Greg Jaffe, Staff Reporter of The Wall Street Journal
WASHINGTON -- A Pentagon agency plans to push for accelerating development of a missile-defense shield based at sea, just one week after the U.S. pulled out of a treaty with Russia that banned such a system.
The Pentagon's Missile Defense Agency said it hopes to deploy sea-based defensive missiles as early as 2004. Although the agency hadn't previously disclosed a timetable, a deployment two years from now would represent a faster pace than many experts had expected for putting in place defenses designed to intercept enemy missiles while they're hurtling through space.
The move would represent the first deployment of a defensive missile shield since a system was first proposed by President Reagan in the 1980s. At the time, the proposal was widely criticized as a futuristic Star Wars plan with

little hope of working. While the technology has improved enormously since then, there are still serious questions about the system's prospects for success.

Air Force Lt. Gen. Ronald Kadish, who heads the Pentagon's Missile Defense Agency, said in an interview Monday that he expects to recommend the accelerated timetable to Defense Secretary Donald Rumsfeld later this summer. Gen. Kadish has been granted wide powers to oversee missile-defense development and has strong support on Capitol Hill. Still, he cautioned that his agency needs to complete its final analysis of last week's test of the sea-based system before he prepares his final recommendations.

The U.S. formally pulled out of the 1972 Anti-Ballistic Missile treaty with Russia last week, opening the way for a much more aggressive program of testing. The Sept. 11 terrorist attacks have reinforced President Bush's commitment to missile defense, as a way to defend the U.S. against what the president has called the "axis of evil" states, especially Iraq, which he says are armed with weapons of mass destruction.

The current budget calls for the Pentagon to spend about $3.3 billion on a sea-based system over the next five years. If the Pentagon decides to accelerate the program the budget will "be a lot higher," Gen. Kadish said. He expects any additional money to come from other programs, rather than fresh funding.

A Navy study prepared for the incoming Bush administration estimated that it would cost $5 billion to equip five or six Aegis destroyers with the system, or as much as $15 billion if the Pentagon decides to build additional ships to handle the mission. The move would be a boon to Bethesda, Md.-based Lockheed Martin Corp. and Raytheon Co. of Lexington, Mass. They are the key contractors building the sea-based system, which has shown promise in initial trials.

Sea-based defenses -- especially so-called boost-phase defenses that shoot down missiles soon after they take off -- have long captured the imagination of missile-defense advocates. A good part of their appeal is that they can be moved closer to enemies to improve their accuracy. But they've also been seen as forbidden fruit, since the ABM treaty barred all sea-based or mobile systems, because they were seen as too easy to hide.

Even without the ABM treaty, the Pentagon has decided that the boost-phase technology still isn't ready. The system the Pentagon is now talking about deploying is a so-called midcourse system designed to shoot down missiles in midflight as they hurtle through space. It was originally designed to protect Navy ships from short- and medium-range missiles.

A big advantage of sea-based missile defense is that it piggybacks on existing capabilities, including already deployed Aegis cruisers, allowing the Bush administration to field a system quickly at relatively low cost.

For President Bush, who has made missile defense "the signature weapons system of his first term," quick deployment would be a political boon, said Loren Thompson, chief operating officer of the Lexington Institute, an Arlington, Va., defense think tank.

The prospects of the sea-based system have been buoyed in recent months by two successful tests, including one late last week. The Navy is now expected to increase the difficulty of the next four tests, using smaller, faster targets. Gen. Kadish said that by tying in other land-based radar to supplement the picture provided by the Aegis system, defense officials could significantly increase the range and effectiveness of the sea-based system to shoot down missiles within a range of 1,800 to 3,000 miles.

Some missile-defense experts say that estimate is far more ambitious than the current technology can handle. These experts say the Pentagon will need faster rockets, better radar, and probably new ships to be effective against longer-range missiles launched at the U.S. The potential threat to the U.S. and its forces ranges from a small number of missiles being sought by North Korea, Iraq and Iran. Or it could be a far-better-armed China bent on regional domination.

Gen. Kadish said that the Pentagon could likely make do with the rockets, ships and radar currently in use for the 1,800- to 3,000-mile-range missiles, which if launched from Iran, Iraq or North Korea could strike U.S. forces and allies but not the continental U.S.

To tackle longer-range missiles, which travel at higher speeds and are harder to hit, Gen. Kadish said the Pentagon would need to develop a new missile. Such a weapon, he said, likely would be used in both the sea-based system and the ground-based system and would take an additional three to four years to develop.

To pay for the accelerated test schedule of the sea-based system and a larger missile interceptor Gen. Kadish said he likely would have to shift money away from other missile-defense programs that weren't performing as well. "I don't assume that we are going to get new money," he said. "We have some choices that we are going to have to make."

Currently the Pentagon is pursuing a half dozen different programs that are designed to shoot down missiles in their boost phase, right after take off; their midcourse phase, in which the missile is traveling through space; and in the descent phase, in which the missile is hurtling to earth. Right now the Pentagon's midcourse systems, which include the Navy system and a ground-based system in Alaska, seem to be showing the most promise.

Pentagon officials have said that they thought they could have a rudimentary ground-based system, including four or five interceptors at Fort Greely, Alaska, as soon as 2004. The system could be used for more-advanced testing or to defend the U.S. in case of emergency, they said.
Gen. Kadish suggested that the Navy system, because it could operate from existing ships, was further along than the ground-based system, which will require additional construction in Alaska before it would be ready.

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Washington Post
June 18, 2002
Pg. 17
The Ideas Industry

Feeding The Media's Appetite For Destruction

By Richard Morin and Claudia Deane
For the past month, Heritage Foundation computer expert Dexter Ingram has been using a Department of Defense doomsday computer program to launch nuclear strikes against Pakistan, blow up Washington, lay waste to Norfolk, drop anthrax-inducing bombs near Detroit and El Paso and otherwise wreak theoretical havoc on cities and countries around the world.
What's more, he's waging these faux cyberwars at the urgent request of some of the biggest news organizations in the country. On a single day recently, CNN, ABC News, FOX and Time magazine were on the phone demanding that Ingram use his computer to decimate something, somewhere.
Ingram's war machine is the Consequences Assessment Tool Set (CATS). This sophisticated program was developed for the Department of Defense to model what would happen if, say, India launched a nuclear strike on Pakistan -- which was precisely the scenario that ABC's George Stephanopoulos asked Ingram to consider a few weeks ago.
What makes CATS unique is that it uses real-time data to make predictions. Ingram will enter the size of a nuclear device, the altitude at which the bomb detonates and the precise coordinates of ground zero. The computer then searches 150 Internet sites to collect other key data, such as the population in surrounding areas and important geographic features, as well as current wind and weather conditions. It then uses these data to produce an estimate of the damage that such a bomb would do right now.
Sometimes the results are surprising. When he ran the Stephanopoulos scenario through CATS, Ingram found that a nuclear strike by India likely would backfire -- literally. "Because of the prevailing easterly winds, all of the fallout is going to go to India. Nobody had looked at the weather," he said.
Heritage is the only think tank to acquire a copy of the closely held program, which also has been obtained by several law enforcement agencies, including the New York police counterterrorism squad.
"Anybody can request it, but you have to demonstrate a need for it," said Ingram, a former Navy aviator. "I told them I was working on homeland defense, working with people on the Hill, and they thought that was a positive thing."
Already CATS has been a positive thing for Heritage. The right-thinking think tank is working hard to win friends in the media, which Heritage thinks have tended to view it with suspicion if not outright hostility.
"When Stephanopoulos credited us on the air, he called us the 'Heritage Foundation' -- the first time ABC has called us anything other than the 'conservative Heritage Foundation,' " said tank spokesman James Weidman.

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Washington Times
June 19, 2002
Pg. 9

Pentagon May Seek Missile Defense In 2004

With the Anti-Ballistic Missile Treaty dead, a Pentagon agency said yesterday it hoped to deploy the initial, sea-based leg of a system to protect America and its allies from missile attack as early as 2004.

But private analysts quickly warned that a two-year goal for deploying a warship-based system was unrealistic even with accelerated testing planned in the wake of last week's scrapping by Washington of the 1972 U.S.-Russia ABM Treaty
Any reliable defense against intercontinental missile attack was still a decade away, owing to technology hurdles, they said.

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InsideDefense.com
June 18, 2002

DOD Predicts No Significant Environmental Impact From Massive Chem Demil Program

Defense Environment Alert, June 18, 2002 -- The Defense Department has issued a document predicting no significant environmental impacts would result if the military were to pilot test non-incineration technologies for the destruction of chemical weapons at certain Army sites where the weapons are currently stockpiled.
The final environmental impact statement (EIS) names one non-incineration technology as DOD's preferred alternative for just one of the sites -- Pueblo, CO. It also leaves the door open for pilot testing a non-incineration method at the Blue Grass, KY, site. It calls for no pilot tests at the other sites.
The EIS, prepared by DOD's Assembled Chemical Weapons Assessment (ACWA) program, analyzes four alternatives to chemical weapons incineration, all of which have successfully gone through a demonstration phase. They are: neutralization followed by biological treatment; neutralization followed by supercritical water oxidation; neutralization followed by gas-phase chemical reduction and transpiring wall supercritical water oxidation; and electrochemical oxidation. The document examines pilot testing some or all of these technologies at any of four Army stockpile sites: Anniston Army Depot, AL; Pine Bluff Arsenal, AR; Pueblo Chemical Depot, CO; and Blue Grass Army Depot, KY. A no-action alternative, where the weapons would remain in storage for now, was also evaluated.
"For the majority of impact areas considered at each installation, the technology alternatives had similar impacts," the EIS states. "Distinctions among the technologies did, however, occur in the areas of utility requirements, human health and safety, and socioeconomics.
"In all cases, the impacts associated with construction and normal operations were not significant," the report states, adding that the impacts that might occur "would be short-term." Included among the types of impacts examined were: land use; waste management; air quality; noise; human health and safety; water use and quality; soils; biological resources; cultural resources; socioeconomics; environmental justice; accidents; agriculture; and cumulative effects, it states.
DOD announced the availability of the final EIS in the May 30 Federal Register.
Under defense legislation passed in 1996, Congress created the ACWA program to test alternatives to the Army's baseline incineration method for destroying stockpiled, assembled chemical weapons.
In general, DOD says "the preferred alternative is to pilot test ACWA technologies at one or more locations." It then goes on to specifically list preferred alternatives for each of the four sites. The document's preference to pilot test neutralization followed by biotreatment at the Pueblo site coincides with a recent endorsement of the technology by DOD's acquisition chief as the preferred destruction method at Pueblo.
A separate EIS the Army completed for that site chose neutralization/biotreatment over incineration and other alternatives. The ACWA EIS states that, for Pueblo, the Army will also "look for ways to accelerate the demilitarization process."
DOD examined all four technologies for pilot testing at Blue Grass, none of which would significantly affect the human environment, the EIS reads. It states that the preferred alternative for this site at this time is no action. However, the Army will "continue analysis in the site-specific EIS by [its program manager for chemical demilitarization], which will preserve options for deployment of a full-scale pilot plant." Also, the Army will consider ways to speed the demilitarization process, it states.
None of the ACWA technologies examined for testing at the Anniston and Pine Bluff sites would have a significant effect on the human environment, the EIS reads, naming no action as the preferred alternative. The Army currently plans to use incineration to destroy the stockpiled weapons at these two sites, and has begun trial burns using surrogates at the Anniston site.

The EIS only addresses pilot testing the ACWA technologies, saying "it would be premature to assume that a proposed technology would be used to destroy the entire inventory at an installation." In fact, the document states that pilot testing "would occur simultaneously with any existing chemical weapons destruction or demilitarization programs and schedules at these installations."
The document assumes construction of an ACWA pilot test facility would take about 34 months, and operations would last up to 36 months. Closure of the facility would take up to 24 months, it states.
At least 30 days from the publication of the final EIS, DOD will issue a record of decision, describing the department's decision on the proposed action in the EIS. Then, DOD's acquisition executive will decide whether an ACWA technology should be implemented and where. This decision will be based on cost, schedule, safety and environment, the EIS reads.
The defense acquisition executive's decision will come at the end of a high-level review process that provides advice on critical decisions concerning acquisition programs.
-- *Suzanne Yohannan, is senior editor of Defense Environment Alert, where this article first appeared.*

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Atlanta Journal and Constitution
June 17, 2002

Grid Computing To Study Panic Scenarios

By Shelley Emling, Cox Washington Bureau
New York --- Researchers say a futuristic computing technology will help government agencies prepare for worst-case scenarios involving terrorist attacks.
The need for such a tool gained urgency last week after U.S. authorities said they had captured an al-Qaida operative allegedly planning an attack on the United States with a radioactive "dirty bomb."
The technology is grid computing, which harnesses the power of two IBM supercomputers at Purdue University and Indiana University. By linking the two powerful machines with a high-speed fiber-optic network, the grid can perform more than a trillion calculations per second and store data equal to more than 10 million full-length novels.
The process works by breaking complex applications into lots of tiny pieces and distributing them across hundreds of separate processors contained in the two supercomputers. The pieces are processed individually and then spliced back together.
Experts say that the grid will let researchers at the Centers for Disease Control and Prevention and various government agencies simulate a "synthetic environment" to help them discover how millions of people might react in the event of a biological or nuclear attack or other emergency.
"What we will be able to do is a fire drill for homeland security that is incredibly complicated because it will involve the whole country," said Alok Chaturvedi, associate professor of management at Purdue's Krannert School of Management. "The goal is to create an environment that is exactly like real life."
Chaturvedi, along with Shailendra Mehta, director of entrepreneurism and small- business outreach at the Krannert School, developed the software that makes the complex simulations possible.
Already, the software has been used by the U.S. Army Recruiting Command to simulate what might happen if the army increased marketing in various parts of the country.
It has also been used by several industries to predict how consumers would respond to new promotional campaigns or to see what would happen if companies entered new markets.
Grid computing itself is not new. The idea, which lets users plug into processing power on the Internet in the same way electrical power is drawn from the electricity grid, has for years helped scientists do things like forecast weather patterns.
But experts say this is the first time someone has used grid computing to study homeland security.
"Many institutions are uncovering the power of grids and putting them to use with real-life applications, but what they're doing at Purdue and Indiana is one of the most aggressive examples of this I've seen," said Peter Ungaro, vice president of high performance computing at IBM Corp.
To simulate a biological or chemical attack, Chaturvedi and Mehta are utilizing 1 million artificial agents, with each agent representing a U.S. citizen.
"What we do in our synthetic environment is create artificial people," Chaturvedi said. "They are calibrated based on real data, and they behave just as people do in the real world."

Chaturvedi and Mehta plan to model countless behaviors, such panic fleeing and other likely responses to a terrorist attack. They also will model the population's mood swings, as well as the lag time between the contraction of smallpox and other diseases and the appearance of symptoms.
"In the past, you would never have been able to run this many processes with one machine, but with grid computing, you can do this in a few minutes," said Chaturvedi, who helped the Department of Defense create war simulations in the early 1990s.
He and Mehta developed homeland security scenarios with the help of the Institute for Defense Analysis, a research group in Alexandria, Va. They plan to simulate a biological or chemical outbreak within the next few weeks, focusing on Illinois and Indiana.
Eventually, though, the pair will simulate disaster scenarios that would affect the entire country.
"We will mimic something like the bombing of a chemical facility in northern Indiana and, based on what happens, health and government officials will make decisions on road closures and in all kinds of other areas," Mehta said.

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Aerospace Daily
June 20, 2002

ABM Treaty Withdrawal Prompts New Look At Programs, Kadish Says

The U.S. withdrawal from the 1972 Anti-Ballistic Missile Treaty will make it easier for the Missile Defense Agency to move ahead with some of its programs, agency director Lt. Gen. Ronald Kadish said June 19.
"We kind of self-selected out some things that were prohibited by the treaty that could have helped us move farther ahead from a technical point of view," he said at a breakfast in Washington sponsored by the National Defense University Foundation. "We're re-looking at a lot of those issues, but it's taking more time than I would like."
Kadish said the agency is moving ahead with projects that had been banned under the treaty, such as the use of a ship-based radar in the next test of the Ground-based Midcourse Defense system.
"Specifically, in the next test in August of the ground-based system, we're going to put Aegis in to see if the actual performance is the same [as] that we have analyzed against long-range missiles," he said.
The absence of treaty restrictions also has led MDA officials to re-evaluate how soon the Sea-based Midcourse Defense system can be deployed, he said. With treaty restrictions lifted, MDA is looking into whether Raytheon's Standard Missile-3 can be improved with onboard sensors.
"I think we have the potential to make some progress earlier than expected, but I'm not sure when," he said.
The prospects for allied involvement in the missile defense program have improved now that treaty restrictions have been lifted, Kadish said.
"We are working on a framework to allow those discussions (with U.S. allies) to move forward. And I think that as we enter into that dialogue, the prospects are very good that we will address the problems and have an ability to interact."
MDA's management of missile defense programs will be different from past Pentagon management programs used to deploy mature weapons systems, according to Kadish.
"Our challenge right now - and it's not all been worked out by a long shot, we're still struggling some with the applications of these theories - is to make sure that we take the basic management approaches that have been tested through time and shorten our cycle times in decision making," Kadish said.
That requires key decision makers to make decisions quickly as the need arises, "because we've got to be able to turn quickly to different solutions if something doesn't work," he said. "Otherwise, we will be 20 years in the development phase."
The new management structure also allows the MDA to capitalize quickly on the successes seen in flight and ground testing and move into the next phase, he said. Because missile defense technology still is being developed, the concept of full-rate production needs to be reconsidered, Kadish said.
"I think we've got to start talking about and thinking about this idea of full-rate production ... differently for missile defense systems than we have had in the past," he said. "This idea of having a major inventory objective where we make big decisions [and] buy as a result of the full-rate decision process may not be the right way to approach this problem."

Instead, MDA's strategy is to buy missile configurations in predetermined blocks "at reasonable rates, when they're ready to be bought."
"We may not be able to foresee exactly how many of these systems we will need to buy ahead of time or can afford," he said.
Kadish said MDA is working to move the program ahead as quickly as possible and that "good progress has been made." But the program's overall progress depends on funding, he said.
"What I've asked from the Congress is to support our budget, because in the end, it all comes down to money and how well you spend it."
-- Nick Jonson

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New York Times
June 20, 2002
News Analysis

India-Pakistani Tensions Subside, But Nuclear Fear Is Far From Over

By Celia W. Dugger
NEW DELHI, June 19 — The game of nuclear brinkmanship between India and Pakistan, already six months old, is far from over.
India's prime minister, Atal Bihari Vajpayee, said in an interview published this week that India would have gone to war if Pakistan had not promised to stop the infiltration of Islamic guerrillas into Kashmir, India's only majority Muslim state.
India itself has committed never to using nuclear weapons first, but Mr. Vajpayee said India was ready to risk a nuclear strike from Pakistan, which has professed no such doctrine, to stop what India regards as nearly two decades of Pakistan-sponsored terrorism.
"India was prepared for nuclear war, but we were confident our neighbor would not resort to such madness," Mr. Vajpayee said.
Pakistan's president, Gen. Pervez Musharraf, did not let India's claim of diplomatic victory stand. He asserted that India was deterred from attacking by Pakistan's conventional military prowess as well as the nuclear ability it demonstrated in 1998 and its missile tests last month.
"Our capability was being doubted and it was being said with arrogance that Pakistan's nuclear bluff had been called," Pakistan's official news wire quoted him as telling a group of scientists and engineers. "We were compelled to show then, in May 1998, that we were not bluffing and in May 2002 again we were compelled to show that we do not bluff."
Such overt talk of nuclear war has alarmed the United States, Britain and much of the world — and it appears that both India and Pakistan intended it to do so.
Six months ago, India mounted a huge military buildup after an attack on Parliament that India blamed on Pakistan-based Islamic militants who want to wrest Kashmir from Indian control.
Ever since, the world has witnesses a new brand of nuclear diplomacy in South Asia, one intended to use the threat of nuclear war to engage the influence of United States and other outside powers as leverage to settle the region's most neuralgic dispute.
It is a strategy that carries nearly unfathomable dangers, which have yet to pass.
Many analysts — both Indian and American — say Pakistan has thought for years that it could endlessly bleed India in Kashmir by covertly backing Islamic militants, safe in its belief that India would never strike back for fear Pakistan would use its nuclear weapons, as it had threatened to do.
But India now seems to have decided two can play that game.
"Until recently, it was Pakistan which sought to manipulate the risks of a nuclear confrontation for political objectives," C. Raja Mohan, the strategic affairs editor of The Hindu, wrote recently. "But it is New Delhi today that is subtly using the threat of nuclear war to get the international community to pressure Pakistan to end terrorism."
To be effective, India needed its threat of war to be taken seriously. By and large it has succeeded with the United States and Britain, but less conclusively with Pakistan. The Kashmir dispute seems as intractable as ever.

Just after India took several steps on June 10 to ease tensions, Deputy Secretary of State Richard L. Armitage told the BBC that "the international community was frightened to death that we were on the verge of nuclear war." Privately, some diplomats have wondered if India really would have followed through on the threat of war. By general consensus, it has no good military options.

The network of training camps, safe houses, communications centers and launching pads used by the militants is so widely dispersed in Pakistan that India could not wipe them all out without threatening Pakistan's independence — something India said it had no intention of doing.

An inconclusive military move against Pakistan — perhaps, for example, symbolic commando strikes on militants' camps in the portion of Kashmir that Pakistan controls — would have raised the military cost for Pakistan, but might also have inflamed Islamic extremists in Pakistan and further fueled anti-India terrorism.

Some South Asia experts and Western diplomats feared that, with a million troops facing each other on the border, even a modest strike could set off a chain of military moves that escalated into a nuclear exchange.

Despite the likely futility of Indian military action, Western diplomats said they said they had little choice but to assume the worst — that India might start a war that could go nuclear and kill millions of people.

General Musharraf himself said in an interview this spring that he would consider using nuclear weapons if Pakistan's survival were at stake, though he backed off such statements lately under international pressure.

"Was the huge ratcheting up of military pressure solely designed to scare the pants off the international community and pressure Pakistan or were the Indians really prepared to use it?" asked a senior Western diplomat based here. "As a last resort, they probably were prepared to use it, but the saner figures in the government wanted to avoid war, including Mr. Vajpayee."

Mr. Vajpayee's remarks — made to Dainik Jagran, one of India's largest Hindi-language newspapers and confirmed by his office — were emphatic about India's willingness to go to war. But they also betrayed deep doubts in India about whether General Musharraf would actually keep his pledges to end the infiltrations in Kashmir and strongly suggested that India will again wield the same threat of war some months down the line if the general does not.

Mr. Vajpayee said India as yet has no plans to demobilize hundreds of thousands of Indian soldiers along the border. "There is no hurry to withdraw the forces from the border," Mr. Vajpayee said. "There is no possibility of dialogue now between the two countries."

In the meantime, each side seems determined to convince the other that it is not blustering, maintaining the risk of actual war.

After General Musharraf boasted at the dinner for scientists and engineers that "we do not bluff," Nirupama Rao, spokeswoman for India's ministry of external affairs, was nothing less than dismissive.

"This is classic Musharraf," she replied tartly. "It's more loose talk and ersatz bravado."

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London Times
June 20, 2002

Gulf War Troops' Brains 'Damaged'

By Michael Evans, Defence Editor

BRAIN scans on Gulf War veterans in the United States who are suffering from debilitating diseases may have resolved why 130,000 US and British servicemen and women complain of mystery illnesses.

Research discovered that disabled veterans of the 1991 war suffered chemical changes in their brains, similar to the onset of Parkinson’s and Huntington’s disease.

The findings of the research, which have not yet been published, were revealed yesterday at the second day of a US congressional hearing into so-called Gulf War syndrome, being held in the Palace of Westminster. British veterans who were present looked shocked.

After detailed medical examination of one battalion of 249 soldiers from the 700,000 US troops who were deployed to the Gulf, Robert Haley of the Southwestern Medical Centre at the University of Texas found that the brain cellular structure of the sick veterans had been damaged.

Speaking in a committee room of the House of Lords, Dr Haley said he had uncovered evidence of "chemical disturbance" in the brain. A similar study of British veterans by Goran Jamal, consultant physician at Imperial College School of Medicine, London University, which also revealed brain damage, had been ignored by the authorities, Dr Haley said.

His own research, he said, had also shown that Gulf War veterans were two to three times more likely to suffer from motor neurone disease than other people.
The damage to the brain was likely to have been caused by the use of organophosphate pesticides to kill desert flies and lice at the American and British tented camps in Saudi Arabia; the anti-nerve gas tablets and vaccines given to frontline troops and inhalation of chemicals after the Americans bombed an Iraqi chemical weapons store.

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Baltimore Sun
June 20, 2002

Filtering Out Bioterrorism

Invention: A Hopkins scientist has early success with his device, designed to remove anthrax spores, viruses and bacteria from the air.

By Jason Song, Sun Staff
The first place Richard S. Potember went in his quest to kill anthrax was to the dump.
The chemist at the Johns Hopkins University Applied Physics Laboratory in Laurel had mapped a system that could fit in an air conditioner or heater and that would destroy anthrax spores, viruses and bacteria in building vents.
Rather than buy a new air conditioner or heater, Potember rooted through the back of an air-conditioning store until he found a dirty, broken heating unit that fit his needs.
"Why build something expensive when you can find something cheap?" he said.
Early results show that Potember's invention, which eliminates foreign objects with ozone and ultraviolet light, has the potential to kill 100 percent of the viruses and bacteria that a terrorist might dump into a building vent.
The machine also kills or filters out more than 99 percent of spores that resemble anthrax in early tests.
Now Potember is preparing to move into a new lab modeled after an office building to test his machine in a real-world environment. If that research goes well, the device could be available commercially within a year and fill a gaping hole in homeland security.
Although he is not aware of the specifics of Potember's project, Bruce Clements, the associate director of the Center for the Study of Bioterrorism and Emerging Infections at St. Louis University, says technology that protects against airborne threats is "absolutely critical and needs to be developed, especially for high-risk buildings."
Potember began working on the project nearly a year ago with three objectives: He wanted the system to be simple, lethal and cheap.
"If it's supposed to protect the public, regular people have to be able to use it," he said.
A self-professed tinkerer who will strip down his old toasters for spare parts, Potember began fiddling in his lab amid piles of screws, discarded machines and charts.
"Some scientists need to be behind a desk, writing code," he said, standing in the middle of the cramped space that looks more like a pack rat's garage than a high-tech lab. "I need to be in the lab."
After several months of planning and building, Potember came up with a device that is made entirely from commercially available materials and is relatively straightforward.
Air runs through a filter before entering a chamber, where it is doused with ozone, high intensity UV light and water, a combination that has proved effective in early testing.
Although ozone is toxic, it has a relatively short life span and decays into oxygen within 30 minutes.
Potember estimates that it would cost $5,000 to assemble a machine, although that could rise or fall depending on the size of the structure it serves.
Despite his advances, Potember worked in relative anonymity until fall. But when anthrax was discovered in post offices and government buildings, the frightening incidents showed how simple it is to distribute the deadly spores.
Many security experts speculated about how easy it would be for a terrorist to dump biological weapons into building vents, where they would be circulated.
Potember was inundated with calls from air-conditioning contractors and others who were aware of his work because of earlier research contacts.
The anthrax attacks "showed that [more effective] technology had to be developed," said Kevin Holland, a spokesman for the 4,000-member Air Conditioning Contractors of America.
Now officials at the Hopkins lab hope Potember will prove to be the man with the answer. Because of the attention on bioterrorism, lab managers have put his project on the fast track.

Potember will be moving his experiment into a lab with a ventilation system to see if the system works on a larger scale. The lab is also equipped with three office cubicles so Potember can see how particles are distributed.
Potember applied for a patent on his device in February, and lab officials are negotiating with a number of companies who might manufacture the devices to market commercially.
"It looks like it's a real killer [of spores and viruses] and it's not expensive, so all those things together make it pretty darn interesting," said John Bacon, a manager for technology transfer at the lab.
Although much of the push behind the machine is based on its potential to fight bioterrorism, Potember and others believe it also could play an important role in hospitals by cutting down on potentially deadly airborne diseases.
While workers put the finishing touches on Potember's lab, he is eagerly awaiting a chance to put his machine to the test. Walking through the room, he put his hand on a duct and said with a smile: "It's time to see what this thing can really do."

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Philadelphia Inquirer
June 20, 2002

Approach In Anthrax Probe Not Promising

Eight months ago, experts thought genetic analysis would help. They are 'pessimistic.'

By Laura Meckler, Associated Press
WASHINGTON - Sophisticated genetic fingerprinting that investigators hoped would help crack the anthrax case has yet to yield results. With the most promising avenue gone, the FBI is expanding its scientific probe, law enforcement officials said yesterday.
"There's still potential out there," said a senior law enforcement official. "We are not at the point yet of being able to say it's over, done, there's nothing there."
Eight months after the attacks by mail killed five people, standard investigative techniques have yet to produce a breakthrough in the case.
The hope was that genetic matching could help determine which of about a dozen laboratories that have the Ames strain of anthrax, the type used in the attacks, was the source of the deadly microbes.
Scientists say it is still possible that genetic analysis will help, but they are increasingly pessimistic.
"I did think this would be a fairly straightforward case when this first came out," said Mark Whellis, a microbiologist at the University of California-Davis who serves on the Federation of American Scientists' Working Group on Biological Weapons. "Now, seven or eight months out from attacks, with no apparent forward movement in the case, it is quite distressing. It makes me pessimistic about ever resolving it."
Conventional genetic fingerprinting, tried early on, did not work because the genetic makeup of anthrax changes very little from generation to generation, so various samples of the Ames anthrax are virtually identical.
But in January, researchers unraveling the entire genetic code of anthrax made an important breakthrough: They found small differences between the anthrax mailed to Florida, where the attacks first surfaced, and anthrax from a lab in England, a standard source of the microbe.
These researchers turned their work over to scientists in Arizona who are working for the FBI and have on hand hundreds of samples of anthrax from every lab known to house the bacteria. The idea was to compare the anthrax held at each of these labs to the attack samples. If anthrax at a particular lab was more similar than others to the attack anthrax, that would suggest that this lab might be the source.
With this research in hand, scientists knew precisely where to look among the five million units of DNA that make up the genetic code of anthrax.
But that genetic fingerprinting failed to narrow the field because they were unable to find the same differences among samples in hand, FBI spokesman Bill Carter said.
The problem could be that the anthrax used in the attacks evolved genetically after it was taken from the lab, explaining why it no longer matches the lab samples, said Philip Hanna, an anthrax researcher at the University of Michigan Medical School. Or, he said, it is possible that it came from a lab that has not provided a sample to the government, although authorities have subpoenaed anthrax samples from all labs known to have the microbe.
As a result, researchers working for the FBI are taking a step back, genetically speaking. They are unraveling the genetic code of the first anthrax sample that was used in laboratory work, which produced all the other samples now

scattered around the country, so they can look for other tiny differences that may exist as anthrax changes over time, said the senior law enforcement official, speaking on condition of anonymity.
It's unclear whether that will be any more successful.
"The deeper you have to delve into it, and you keep coming up negative, that's one more hope gone," Hanna said. "There was optimism. It was based on hope and not fact, and when the facts come in and they don't work out, you're disappointed."

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Washington Post
June 21, 2002
Pg. 1

Limited Smallpox Vaccine Use Eyed

Expert Panel Rejects Mass Inoculations

By David Brown, Washington Post Staff Writer

ATLANTA, June 20 -- A panel of scientific experts that advises the federal government recommended yesterday that a small number of health care workers in each state -- perhaps 20,000 Americans in all -- be vaccinated against smallpox to protect them in the event of an outbreak.
The advice, if accepted by the Bush administration, would expand the use of the vaccine for the first time in nearly 30 years. But it represents the most limited of several options the panel considered for incorporating smallpox vaccination into the country's defense against biological terrorism.
The choice reflects the panel's belief that the risk of an attack employing smallpox virus is too small to justify the many complications that would arise from widespread vaccination.
Currently, only scientists who handle the virus are vaccinated. The last human case of smallpox occurred in 1978, and the microbe is known to exist only in a few laboratory freezers. Some experts believe samples of the virus may have gotten into the hands of bioterrorists or hostile governments.
The decision also affirms a belief that the strategy used to eradicate smallpox in the 1970s would work in the event of a bioterror attack. That strategy, called surveillance-and-containment, requires that people exposed to smallpox virus, and their immediate contacts, be vaccinated, observed and quarantined if they become ill. This approach, also known as "ring vaccination," doesn't rely on full-scale vaccination of a population, either before or after an outbreak.
"We had to base our decisions on what we were told, which is that the risk [of attack] is low," said Natalie J. Smith, a California state public health official and a member of the 15-member Advisory Committee on Immunization Practices. "We will reconsider our decision if we get information that the risk is changing."
The ACIP is made up of academic physicians and public health officials appointed by the Centers for Disease Control and Prevention. Its advice carries great weight and is usually followed.
In a statement, Health and Human Services Secretary Tommy G. Thompson said he will "now review the recommendation with experts . . . as the administration works toward a policy on the smallpox vaccine."
Under the recommendation, each state would designate at least one "smallpox response team" composed of physicians, epidemiologists, investigators, lab technicians, nurses and vaccinators. A few law enforcement officers (possibly from the FBI or state police agencies) might also be included in this group. In general, though, paramedics, police officers, firefighters and other "first responders" would not be vaccinated. Each state would also pick one or more hospital to be a referral center for possible cases of smallpox. At each site, a pre-designated group of caregivers -- including possibly clerks and technicians -- would be vaccinated and expected to care for initial cases.
In all cases, vaccination would be voluntary. Although many states are already putting together such teams, it's unlikely vaccination would begin before October. That's because many legal and procedural decisions must be made, including who will pay damages to people harmed by the vaccine.
A recent poll found that 60 percent of adults would take smallpox vaccine if offered it. Although the committee considered public demand -- and the argument that citizens, not the government, should make the final risk-vs.-benefit calculation -- this view was ultimately rejected.
"This is a public health decision. There are many issues in the past where the public health interest does not jibe with the personal health interest," said John F. Modlin, a professor at Dartmouth Medical School and chairman of ACIP.
Smallpox vaccine is a live virus, vaccinia, which infects a person and sets up an immune response that protects against smallpox, a closely related microbe. It causes more serious and more frequent complications than vaccines used against other diseases.

Even with careful screening of people at high risk of vaccine complications -- AIDS patients, recipients of organ transplants and others with weakened immunity -- smallpox vaccination would probably cause at least one death per million people vaccinated. A larger number of people would become seriously but not fatally ill, although some would have permanent disabilities.
A newly vaccinated person can transmit vaccinia to other people for a brief period. The likelihood of such spread -- and the fact the vaccine is technically "experimental" and must be given only after extensive counseling -- weighed heavily in the committee's decision.
"You can transmit it to people who haven't consented," Smith said.
Proponents of wider use of the vaccine say these risks are overpowered by the chance that a smallpox outbreak could get out of control if it began in multiple places or with a large number of initial victims.
"I think ring containment in a terrorist situation has been thoroughly discredited . . . and that has not been recognized by CDC," said William J. Bicknell, a physician at the Boston University School of Public Health who was the Massachusetts health commissioner in the 1970s.
He cited a mathematical model constructed by a Yale University researcher that predicted an attack that began with 1,000 infections would lead to nearly 100,000 deaths in three months if addressed through ring containment, but fewer than 1,000 deaths if there was mass vaccination immediately after the first cases were identified. That model was one of several -- and by far the darkest -- presented to the committee at several meetings in recent weeks.
People who believe it say it argues strongly for a policy of vaccination now, before any cases occur.

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Christian Science Monitor
June 21, 2002
Pg. 1

Russian Nuclear Know-How Pours Into Iran

A civilian power reactor being built in Bushehr triggers fears that Russian scientists are secretly sharing missile technology.

By Scott Peterson, Staff writer of The Christian Science Monitor
MOSCOW - As Aeroflot Flight 515 from Moscow begins its predawn descent into Tehran, the group of middle-aged Russian experts on board begins to fill out landing cards for Iran.
Pulling out dog-eared, still-valid Soviet passports, the men write down their profession – engineer – and their destination: Bushehr, the city on the Persian Gulf that is home to Iran's nuclear-power project – and to 1,000 Russian engineers and technicians.
Russia sees the Bushehr reactor as a mammoth civilian venture, an $800 million nuclear power project that adheres to international norms, brings home cash, and ensures close relations with the Islamic regime in Tehran.
But from the United States' perspective, oil- and gas-rich Iran doesn't need nuclear power. And so the reactor is an indication that Iran – using the civilian project as a cover, the US alleges – is gaining sensitive Russian technology that will help Tehran's hard-line mullahs acquire nuclear weapons and delivery systems. Curbing such proliferation is a key strategy of the US-declared "war on terror."
Despite top-level denials of wrongdoing from Moscow and Tehran, and piecemeal indications that Russia has refused several questionable Iranian requests in recent years, US officials say that illicit technology and know-how transfers from Russian entities to Iran are continuing, and could spoil rapidly warming US-Russia relations.
"The quality of the relationship with Russia really depends fundamentally on how they address this question in the future," John Bolton, the US undersecretary of state in charge of arms control, warned last week. Russia says it is playing by the rules, and that it has an even greater interest than the US in preventing nearby Tehran from acquiring nuclear capability.
Officially, the United Nations International Atomic Energy Agency (IAEA) says that both Russia and Iran – for their declared nuclear projects – are adhering to all guidelines. Russia notes that, under a nonproliferation agreement, the US is building a similar reactor in North Korea – another country labeled by Washington as part of an "axis of evil."

Loose scientists

But the secretive world of nuclear and missile exports; the murky role of Russia's security services, often vulnerable to bribery; and the desperation of Russia's nuclear scientists, impoverished since the USSR's fall, have created new

risks. US concerns focus not on mishandling of nuclear materials at Bushehr – which are to remain under internationally monitored Russian control – but on the possibility that Russian know-how will create a nucleus of Iranian experts who could apply new knowledge to a weapons program.

"The new generation [of nuclear experts] may work in Iran, and may work on nuclear weapons, because their lives are too hard and they want money, money, money," says Valentin Tikhonov, a Russian Academy of Sciences expert who authored a report last year on the "human factor" of Russian proliferation, for the Carnegie Endowment for International Peace. "Most can't see the difference between working on civilian or war production – for them it doesn't matter," Mr. Tikhonov says. "In these conditions it is difficult to speak about human values, about the dangers of their work. They only want to survive. It is a catastrophic situation." Most Russian nuclear scientists make less than $50 per month, according to the report.

Under US pressure, three key missile technology deals to Iran were stopped by Russian authorities in the late 1990s. And the sale of critical laser information that could help Iran make fuel for nuclear weapons was suspended in 2000. Still, US sources say such cooperation continues.

"[Russia] is giving meaningful help [to Iran] in mastering the nuclear-fuel cycle, and some critical technologies like sophisticated metal alloys [and for] laser isotope separation techniques ... that are involved in building the bomb," says a senior US official, who asked not to be further identified. "There's enough to see a pattern of a determined Iranian effort that has unfortunately struck positive responses from some Russian entities."

While Russia calls for evidence of US claims, however, passing on such intelligence is "tricky" because of Clinton-era cases that went awry, the US official says: "When some sensitive information was passed to the Russians, they didn't stop the activity, but they stopped the leak. That leads to great reticence to blow any more sources."

Russian analysts argue that Moscow's concerns about Iran precisely mirror Washington's, and that it also wants to stop "freelance" technology transfers.

"There is practically zero risk that Iran will use the Bushehr power plant for nuclear proliferation," says Vladimir Orlov, head of the PIR Center, a Moscow think tank, echoing some American analysts. He notes that Russia will cut Iran out of the nuclear-fuel cycle by supplying all such fuel itself and immediately taking spent fuel back to Russia. "Russia doesn't want – and will not support – any ambitions of Iran which may be interpreted as nuclear weapons ambitions," Mr. Orlov says, adding that the US "exaggerates the situation."

Moscow has sometimes defied Iran's wishes, Orlov says. In the 1990s it refused Tehran's request to build a more robust heavy-water reactor. And Russia turned down a request for gas centrifuges, which could have led to production of homegrown- weapons-grade material.

Moscow's caution was illustrated earlier this year, Orlov says, when Iran asked to buy the Russian version of the shoulder- held US Stinger missile – the Igla, or "needle" – designed to shoot down aircraft. Angering Tehran, Russia said no – because Iran's contacts with anti-Israel Hizbullah guerrillas in Lebanon meant Moscow was "not certain that Igla would stay in Iran."

Still, Moscow is a key factor in any Iranian nuclear aspirations. "Russian technology is unique to the Iranian program, because it is the only game in town," says Rose Gottemoeller, a former Deputy Undersecretary of Energy responsible for nonproliferation programs, who is now at the Carnegie Endowment in Washington. "Everyone else has cut off cooperation with Iran on nuclear technology, including the Chinese."

While US officials worry that Bushehr will create a nuclear knowledge base in Iran that could be applied to a weapons program, Ms. Gottemoeller says the real risk comes from a "handful" of "bottom feeders – small Russian industrial or research institutions that are desperate, or they wouldn't be trying to take extreme measures, such as false invoices ... to mask their sales."

Keeping control

The majority of nuclear-related entities here have decided to "stay on the straight and narrow," Gottemoeller says. Recent leadership changes at the top of the Ministry of Atomic Energy are likely to tighten controls further.

Still, says Gottemoeller, "the Russian system being what it is, I'm sure there are others [desperate institutions] who could pop out of the mud at any time."

Keeping that from happening has been the aim of US pressure on Russia for a decade, since some analysts say that any new nuclear power in the Mideast would almost certainly spark other nuclear weapons programs, and cause global nonproliferation accords – signed by both Russia and Iran – to collapse. Already, the Bushehr project is subject to regular IAEA inspection.

Noting that until now Russian controls on sensitive technology have been "half-hearted and incomplete," Gary Samore, a special adviser to Clinton on nonproliferation who is now at the International Institute of Strategic Studies in London, says: "There may be a real opportunity now, post-Sept. 11, for the US and Russia to work out an agreement that would give the Russians a strong incentive to go all the way in enforcing what they say is their policy."

Mr. Samore says the US should recognize that the Bushehr project is too advanced to stop, and offer to "grandfather" the deal. Russia would receive a variety of incentives, Samore suggests, for explicitly limiting the Bushehr deal to power needs, handling all fuel supplies, and for insisting on public commitments from Iran to swear off fuel-cycle ambitions and comply with tougher IAEA "go anywhere" inspections. Samore says such a deal would test Iran's declarations of peaceful intentions, while relieving it of waste-disposal problems. Tehran's rejection of such a plan would lead to the "obvious conclusion" about Iran's nuclear plans, he adds.
"The sooner you can step in to slow down or stop [Iran's] program, the better," says Samore. "If we just let the situation drift and don't do anything, they will get closer and closer, and will eventually reach the technical point of no return."
As the Bushehr project continues, Russian law enforcement will be critical in guarding against dangerous transfers of technology, experts say. "If their security is as effective as they claim it to be, and we think it is, they should be able to track these things down," says the US official who requested anonymity. "They know who is flying on Aeroflot to Tehran."

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Washington Times
June 21, 2002
Pg. 4

Missile Defense Director Predicts Successful Post-Treaty Development

By Sean Salai, The Washington Times
The United States will perfect a missile defense system now that it is free from the ABM treaty, the director of the Missile Defense Agency said yesterday.
"Our goal is to have limited defenses against long-range missiles and robust defenses against short-range missiles," MDA Director Lt. Gen. Ronald Kadish said in a briefing at the Heritage Foundation.
The withdrawal last week from the Anti-Ballistic Missile treaty with Russia came after a series of successful U.S. tests to intercept incoming missiles. The treaty barred missile defense systems.
According to Gen. Kadish, President Bush's decision to exempt the United States from the treaty's legal barriers will greatly expedite the process of implementing a working missile defense system "as soon as possible."
"Our challenges are still great, but we are now poised to deal with them," he said.
Defense Secretary Donald H. Rumsfeld re-established the old Ballistic Missile Defense Organization (BMDO) as the MDA on Jan. 4.
Gen. Kadish, who first became involved as director of the BMDO in June 1999, said that although the MDA is convinced ground-based missile defense systems can work, they must nonetheless be proven reliable in the presence of countermeasures and different altitudes and environments.
"We have a complex, tough problem defending against ballistic missiles," he said.
The United States, in two test programs running since 1999, has successfully intercepted both short- and long-range ballistic warheads. Ground-based hit-to-kill systems hit seven out of 10 targets in the first test and four out of six in the second.
The hit-to-kill method of missile defense involves kinetic energy weapons known as "kill vehicles." These are small (about a yard long and 150 pounds) but accurate propulsion devices sent to hit ballistic warheads in flight and essentially stop them head-on.
In addition to the ongoing ground-based tests, the United States also is pursuing developments in space- and sea-based hit-to-kill systems and space-based lasers.
The MDA anticipates more flexibility in pushing its program with elected officials.
"I see a summer of intense consultations at all levels of government," Gen. Kadish said.
Part of that challenge is getting Congress to approve the price tag. The MDA requested $7.8 billion for 2002 and $7.5 billion in 2003.
Gen. Kadish also said the expanded program will require a multilateral effort in order to address the needs of U.S. allies. The MDA will continue providing opportunities for different levels of participation by countries such as Russia and Japan.

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Bloomberg.com
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U.S. To Increase Missile Defense Talks With Allies, Kadish Says

By Tony Capaccio

Washington -- The U.S. wants to enlist more allies and Russia in its effort to develop a global missile defense now that's its freed from the Anti-Ballistic Missile Treaty, a top military official said.

The U.S. government, Lockheed Martin Corp. and Raytheon Co. already cooperate with Israel, Italy, Germany and Japan on short- range missile defense programs. Broader allied participation and testing of a variety of technologies were constrained by the treaty, which the U.S. abandoned June 13.

``In the coming days and months, there will be active discussion'' on expanding international cooperation, including with Russia, said Air Force Lieutenant General Ronald Kadish, head of the U.S. Missile Defense Agency.

Allied participation could extend the range of the system and defray its cost, which the Pentagon now estimates at $48 billion through 2007. It could also allow the U.S. to test and eventually deploy sensors, missile interceptors or radar in areas closer to enemy states such as North Korea, Iran and Libya, Kadish said.

``There could be government-to-government arrangements or there can be industry-to-industry agreements, or there could be both,'' Kadish told forum at the Heritage Foundation, a pro- defense research institute on Capitol Hill.

Russia and the U.S. already work on a ``Russian American Observational Satellites'' that could be launched by 2006. Kadish sees greater cooperation ``in many, many areas,'' Kadish said.

``We'd like an arrangement as soon as we can do so. We are discussing and will continue to work on relations with the Russian Federation,'' he said.

Successful Tests

The Pentagon hasn't proven it can repeatedly and reliably intercept incoming enemy missiles protected by decoys during all three stages of flight -- ascent, mid-flight and descent, Kadish said.

Still, the program has been buoyed by two consecutive successful intercept tests of the ground-based system managed by Boeing Co. and two consecutive successful sea-based intercepts of a short-range missile.

The USS Lake Erie successfully used Lockheed Martin Aegis command-and-control equipment to launch a Raytheon missile against the target earlier this month.

Based on these successes, Kadish said he might recommend a rudimentary sea-based system that could be available in the next several years in an emergency even as it undergoes an increasingly complex set of test flights. The administration has already announced that it plans to deploy a rudimentary ground-based capability by 2004 in Alaska.

There are precedents for taking a program from testing and using it temporarily in combat operations, including flying the Northrop Grumman Corp. Global Hawk high-altitude drone during on- going operations in Afghanistan, Kadish said.

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Philadelphia Inquirer
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New Nuclear Arms For New Targets?

Bush officials insist weapons must be adapted or created. But Congress wants its say.

By Jonathan S. Landay, Inquirer Washington Bureau

WASHINGTON - With the ink barely dry on last month's nuclear-arms-reduction pact with Russia, the Bush administration is eager to explore new uses and improved designs for the country's ultimate weapons.

Administration officials worry that existing warheads cannot destroy targets such as deeply buried bunkers in Iraq, Iran and North Korea that may house biological or chemical weapons.

The Energy Department, caretaker of the U.S. nuclear arsenal, wants teams of experts to study whether they could modify existing warheads for these kinds of targets.
Working with the Pentagon and the armed forces, these "advanced warhead concept teams" would also design warheads and conduct tests of components short of full-scale, underground blasts.
In a related proposal, the administration wants to look at ways to cut the time needed to restart underground nuclear tests if they are needed to ensure the reliability of the nuclear arsenal. Bush insists he has no plans to end the testing moratorium his father instituted in 1992.
Yet taken together, the two initiatives would move the country closer to being able to design, test and build nuclear weapons than it has been at any time since President George Bush ended warhead production in 1990.
That prospect alarms arms-control advocates and is the focus of a debate in the Senate that began on Tuesday.
Critics fear that if the United States is perceived to be improving its nuclear weapons, other nuclear powers - including Russia, China, India and Pakistan and foes like Iraq - will redouble their nuclear development efforts.
The differences have emerged in a Capitol Hill fight over an administration proposal for a $15.5 million study to determine whether two existing warheads - the B83 and B61 thermonuclear gravity bombs - could be turned into nuclear bunker-busters.
The study would look at whether the nuclear explosives from the warheads could be repackaged in a new body that could smash into the Earth, burrow deep underground, and destroy a reinforced bunker or tunnel complex.
The explosives packages would be modified to limit radioactive fallout and damage to nonmilitary targets. Some scientists say that cannot be done.
The study would be the first project for the teams of scientists the Bush administration wants to set up at the Energy Department and the Lawrence Livermore, Sandia and Los Alamos nuclear-weapons laboratories.
The Republican-controlled House approved the study of the Robust Nuclear Earth Penetrator, or RNEP, in the 2003 Pentagon budget that it passed last month.
But majority Democrats in the Senate are expected to pass a Pentagon budget that restricts the RNEP.
The Senate Democrats' measure would require Energy Secretary Spencer Abraham to submit a study justifying the need for the RNEP and telling how it would be used, the kinds of targets it would attack, and whether conventional weapons could be used instead.
The measure would also give Congress more power to block any administration effort to modify existing warheads or design weapons. The Energy Department would have to win congressional approval for the research and development phases of such programs and then return to Capitol Hill for permission to begin producing modified or new nuclear warheads.

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Business Week
July 1, 2002
Developments to Watch

Smart Sniffers For Chemical Weapons

In early June, a routine environmental inspection turned up traces of nerve gas at a military base in Uzbekistan that thousands of U.S. soldiers had passed through. Personnel were immediately evacuated, but it took days to positively identify the deadly traces. That's because today's chemical-weapons detection kits are quick to sense danger but do a poor job of sorting one warfare agent from another. To these kits, which are based on the reaction of natural enzymes to poisons, nerve gas can look just like a less harmful but chemically similar pesticide.
With a grant from the military, biotech startup Semorex Inc. is developing polymers that could inexpensively mimic certain properties of the enzymes in current chemical-detection kits and outperform in them in some tasks. Known as molecularly imprinted polymers, or MIPs, these tiny plastic particles are dotted with cavities engineered to trap specific molecules, including organophosphate toxins such as sarin and other nerve gases. Natural enzymes respond more quickly, says Semorex Chief Scientific Officer Bernard Green, but MIPs could actually I.D. the culprit. And detection is just the start. Because the polymers encapsulate the poisons, MIPs could be used in mop-up operations--either sprayed as aerosols, or embedded in fabrics. In the civilian arena, Semorex is designing MIPs that could be ingested, to rid the body of toxins linked to cancer and other diseases.
By Neil Gross

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