



USAF Center for Unconventional Weapons Studies (CUWS) Outreach Journal

Issue No. 1137, 17 October 2014

Welcome to the CUWS Outreach Journal! As part of the CUWS' mission to develop Air Force, DoD, and other USG leaders to advance the state of knowledge, policy, and practices within strategic defense issues involving nuclear, biological, and chemical weapons, we offer the government and civilian community a source of contemporary discussions on unconventional weapons. These discussions include news articles, papers, and other information sources that address issues pertinent to the U.S. national security community. It is our hope that this information resource will help enhance the overall awareness of these important national security issues and lead to the further discussion of options for dealing with the potential use of unconventional weapons. **All of our past journals are now available at http://cpc.au.af.mil/au_outreach.aspx.**

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FEATURE ITEM: "US Extended Deterrence in Asia to 2025". Authored by Robert A. Manning; published by the Atlantic Council, October 2014; 32 Pages.

http://www.atlanticcouncil.org/images/publications/Future_US_Ext_Det_in_Asia.pdf

US extended deterrence in Asia, involving the full spectrum from nuclear to conventional capabilities, faces an array of new challenges. Indeed, a dynamic, volatile, and more complex security landscape in the Asia-Pacific and globally has heightened regional security concerns and given deterrence and strategic stability a renewed importance in the period extending to 2025.

The United States has defense treaties with thirty-two nations worldwide, including twenty-seven collectively in NATO, plus bilateral defense treaties with Japan, the Republic of Korea (ROK), the Philippines, Thailand, and Australia. There is some variation in US commitments in East Asia: while the United States is committed to the Philippines under a mutual defense treaty, it is also committed to the security of Taiwan under the Taiwan Relations Act (though in both cases the US commitment is ambiguous). While new tensions could lead to cross-straits conflict or security concerns in Southeast Asia, the current concern about extended nuclear deterrence focuses more on Northeast Asia. For this reason, the Task Force chose to focus principally on the cases of Japan and the Republic of Korea.

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National Defense Magazine.com – Washington, D.C.

Air Force Official: Future Long-Range Strike Bomber 'Essential to Warfare'

By Yasmin Tadjdeh

October 10, 2014

The need for a new long-range strike bomber in the Air Force's inventory is imperative, said the commander of the service's Global Strike Command on Oct. 9.

"The long-range strike bomber is absolutely essential to warfare in the future," said Lt. Gen. Stephen Wilson during a speech hosted by the Mitchell Institute for Aerospace Studies in Arlington, Virginia.

The LRS-B, which has largely been shrouded in secrecy, will include new enhanced capabilities when procured, Wilson said.

"The characteristics that I think will be fundamental for success in the future certainly will be speed, range, stealth and payload. Those are all inherent in bombers and certainly with the new bomber and the future of the LRS-B," he said.

He noted that while the Air Force is looking at increasing the speed of the aircraft, its top speed might remain on par with that of the legacy fleet.

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Like the service's other bombers, the LRS-B will also be able to carry nuclear weapons, Wilson said.

The new LRS-B is one of three top Air Force acquisition priorities, Wilson said. The other two include the F-35 joint strike fighter and the KC-46A tanker.

Wilson said he wants to acquire at least 100 of the new bombers.

"We are going to have to be able to buy them in sufficient quantities and numbers," Wilson said. "We as a nation cannot do what we did with the B-2. The B-2 was an amazing airplane, is an amazing airplane. We just didn't buy enough of them."

The Air Force initially wanted to purchase 132 B-2 bombers, but pared the fleet down to 21 because of costs.

Wilson said that fielding such advanced technology as the LRS-B is critical as the nation faces new threats.

"Because of the changing strategic landscape, because of the world dynamics, because of the financial situation that we're in, there is a sense of urgency. There is a sense of urgency that says, 'I've got to do things differently. I've got to be smart with the money that I have to make sure that our Air Force can continue to dominate in airspace and cyber for the foreseeable future,'" he said.

Over the last few months the United States' strategy has changed substantially, he said.

"I don't think anybody in this room five months ago was talking about Crimea. We certainly weren't talking about ISIS and ISIL. We weren't talking about Ebola. There's a lot of things that happened just in the last five months that we've have got to be able to react faster [to]," he said.

A request for proposals was released in July, and a Boeing-Lockheed Martin team and Northrop Grumman are expected to engage in a fierce competition for the contract.

The Air Force wants the bombers to cost \$550 million per unit and is planning to award a contract in spring 2015. Initially capability is planned for the mid-2020s.

Wilson pointed to Steve Jobs — who through innovative technology, took Apple from the brink of bankruptcy to one of the most successful publicly traded companies in history — as inspiration for a better and faster way to procure equipment in the military.

"How do we then within our DoD do that same thing type of thing?" Wilson asked. "In terms of the regulations and requirements, sometimes they're really onerous ... [and] take 12 years to get an idea ... to the field. We've got to be able to change that."

Wilson said inspiration could also be taken from Air Force Special Operations Command.

Last year, Wilson visited AFSOC and learned that it had put a new radar-targeting pod and a small diameter bomb with a laser seeker on a C-130. It took AFSOC only five months to go from an idea to actually flying the equipment, Wilson said.

"I thought [that] was pretty amazing. So I came back to my headquarters, I sent my team to AFSOC and I said, 'Figure out how they did that. I want to be like them ... to be able to bring capability rapidly, quickly to existing airplanes,'" he said. In about four months, Global Strike Command demonstrated the same targeting pod on a B-52, Wilson added.

<http://www.nationaldefensemagazine.org/blog/Lists/Posts/Post.aspx?List=7c996cd7-cbb4-4018-baf8-8825eada7aa2&ID=1634&RootFolder=%2Fblog%2FLists%2FPosts>

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Global Times – Beijing, China

Missile Deployment Not on Agenda for US-ROK Talks: Seoul

Xinhua, October 13, 2014

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By Agencies

South Korea's defense ministry said on Monday that whether to deploy the US advanced missile-defense system on the Korean Peninsula will not be on an agenda for the upcoming defense minister talks between the United States and South Korea.

Defense chiefs of the two countries are scheduled to hold an annual Security Consultative Meeting (SCM) on Oct. 23 in Washington.

Defense Ministry spokesman Kim Min-seok told a regular press briefing that issues on the Terminal High-Altitude Area Defense (THAAD) would not be on the SCM agenda as far as he knows.

Kim stressed that the US government has neither decided on the THAAD deployment on the peninsula nor it has consulted with South Korea on the issue.

His comments came after Ahn Ho-young, South Korean ambassador to Washington, told a parliamentary audit of the embassy on Oct. 11 that there was exchange of views on the THAAD weapons system itself between Seoul and Washington though no consultations on the THAAD deployment.

The THAAD is an advanced missile-defense system, with one battery composed of six mobile launchers and 48 missiles striking targets at an altitude of 40 to 150 km.

The Korean Air and Missile Defense (KAMD), South Korea's indigenous missile-defense system that would be set up by 2020, aims at intercepting missiles at an altitude of 20 to 40 km.

During this year's SCM, the two countries plan to announce when and in what conditions to transfer wartime control of combined forces from Washington to Seoul.

The wartime operational control of combined forces was initially supposed to be returned to South Korea in 2007, but it was postponed twice to December, 2015.

Seoul asked Washington to delay the transfer after Pyongyang's third nuclear test in February 2013.

South Korea handed over the wartime command of its troops to the US during the 1950 to 1953 Korean War.

Seoul regained its peacetime operational control in 1994.

<http://backup.globaltimes.cn/NEWS/tabid/99/ID/885950/Missile-deployment-not-on-agenda-for-US-ROK-talks-Seoul.aspx>

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The Washington Free Beacon – Washington, D.C.

Russia Deploying Tactical Nuclear Arms in Crimea

Obama backing indirect talks with Moscow aimed at cutting U.S. non-strategic nukes in Europe

By Bill Gertz

October 10, 2014

Russia is moving tactical nuclear weapons systems into recently-annexed Crimea while the Obama administration is backing informal talks aimed at cutting U.S. tactical nuclear deployments in Europe.

Three senior House Republican leaders wrote to President Obama two weeks ago warning that Moscow will deploy nuclear missiles and bombers armed with long-range air launched cruise missiles into occupied Ukrainian territory.

“Locating nuclear weapons on the sovereign territory of another state without its permission is a devious and cynical action,” states the letter signed by House Armed Services Committee Chairman Howard P. “Buck” McKeon (R., Calif.) and two subcommittee chairmen.

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“It further positions Russian nuclear weapons closer to the heart of NATO, and it allows Russia to gain a military benefit from its seizure of Crimea, allowing Russia to profit from its action.”

Russian President Vladimir Putin in recent months “has escalated his use of nuclear threats to a level not seen since the Cold War,” they wrote.

In a related development, the Obama administration is funding non-official arms control talks with Russia through a Washington think-tank that are aimed at curbing U.S. tactical nuclear arms in Europe.

The first round of talks was held in Vienna Monday and Tuesday.

Critics say Obama administration arms control officials at the State Department and Pentagon are using the informal nuclear talks as groundwork for future tactical nuclear arms cuts.

Such cuts are likely to be opposed by NATO allies, especially in Eastern Europe, worried by growing Russian military threats to the continent.

Regarding the nuclear deployments to Crimea, Senate Armed Services Committee ranking member James Inhofe (R., Okla.) first disclosed last month that Putin had announced in August his approval of deploying nuclear-capable Iskander-M short-range missiles along with Tu-22 nuclear-capable bombers in Crimea, located on the Black Sea.

“The stationing of new nuclear forces on the Crimean peninsula, Ukrainian territory Russia annexed in March, is both a new and menacing threat to the security of Europe and also a clear message from Putin that he intends to continue to violate the territorial integrity of his neighbors,” Inhofe stated in a Sept. 8 op-ed in *Foreign Policy*.

In their Sept. 23 letter to the president, McKeon, Rep. Mike Rogers (R., Ala.), chairman of the subcommittee on strategic forces, and Rep. Michael Turner (R., Ohio), chairman of the subcommittee on tactical air and land forces, noted Russia’s violation of the 1987 Intermediate-range Nuclear Forces Treaty by building a banned cruise missile. The missile has been identified by U.S. officials as the R-500.

The lawmakers said the Russian nuclear deployment in Crimea represents the “clear, and perhaps irrevocable tearing” of the 1997 agreement between NATO and Russia that allowed Russia to maintain a military presence within the alliance.

The Russian nuclear deployment plans and treaty violation should have been discussed during the recent NATO summit in Wales but were not, they said.

As a result, the congressmen urged the president to brief Congress on the threatening Russian nuclear deployments in Crimea. They also called on the president to suspend the NATO-Russia accord and demand the removal of all Russian military personnel from NATO facilities.

Additionally, they asked that the United States and its allies halt all arms control surveillance flights by Russia carried out under the Open Skies Treaty.

Significantly, the three House leaders called on the administration to begin research and development on deployment sites for new U.S. intermediate-range ground-launched cruise and ballistic missiles, if Russian refuses to return to compliance with the INF accord.

Putin “must be made to understand that his actions will accomplish nothing more than the alienation [of] Russia from the West, its economy and its security architecture,” the lawmakers said.

“Until we have a strategy that convinces Mr. Putin he cannot achieve his dream of a ‘New Russia’ through illegal annexations, covert invasions, and nuclear saber-rattling, statements and sanctions alone cannot be expected to have an effect on his actions,” the letter warns.

“Too much is at stake to continue to allow Russia’s dictator to continue to proceed on his current path toward regional destabilization without serious opposition.”

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The action “further undermines Russian credibility in terms of the Budapest Memorandum that the Russian Federation signed in 1994,” the congressmen said.

The memorandum promised Ukraine would have security assurances against threats or use of force in exchange for Kiev giving up its Soviet-era nuclear weapons – at the time the third largest arsenal in the world.

On the Track 2 talks between Russian experts and a group hosted by the Washington-based Center for Strategic and International Studies (CSIS), the program leader was identified as anti-nuclear arms advocate Sharon Squassoni.

Squassoni took part in a study three years ago sponsored by the leftist, anti-nuclear weapons group Ploughshares Fund that called for removing all U.S. tactical nuclear arms from Europe.

Thomas Moore, a former senior professional staff member on the Senate Foreign Relations Committee who quit CSIS over concerns about Squassoni’s anti-nuclear slant, said he felt the Track 2 program, which was to cost \$215,000 in federal funding, was unwise after Russia’s military takeover of Crimea which began last February.

Moore said in an interview that the administration could be using the CSIS Track 2 talks as a way of conducting direct negotiations to further reduce U.S. nuclear arms in Europe.

“Now is the wrong time to entertain any such ideas with any Russians, whether they are official or unofficial Russians, because they all support Vladimir Putin’s war in Ukraine and violation of the INF treaty,” Moore said, noting that verifying any tactical nuclear arms reductions is nearly impossible.

“My goal was to verify and keep our nukes in Europe,” he said, noting that Squassoni knows little about nuclear arms and has been “a partisan for Obama and his anti-nuclear agenda in Europe.”

CSIS spokesman Andrew Schwartz confirmed that the Track 2 talks involving U.S., Russian and European experts are aimed at “limiting non-strategic nuclear weapons.” He declined to identify the U.S. or foreign members of the project and said a report on the program would be published in summer or fall of next year. He said the notion that the project has not been adjusted to account for the Crimea crisis is wrong.

Squassoni confirmed her participation in the Ploughshares study but said in an email that the recommendations of that project were not discussed during the first Track 2 meeting this week.

“I can assure you that my personal views do not interfere with my ability to facilitate balanced, analytically sound dialogues,” she said.

The CSIS-Russia Track 2 nuclear talks also are being supported by Rose Gottemoeller, undersecretary of state for arms control and international security; and Andrew Weber, who recently resigned as assistant secretary of defense for nuclear, chemical and biological defenses amid allegations of insubordination and improper personnel activities.

A Pentagon spokeswoman declined to provide details surrounding Weber’s resignation but said he would be taking a lesser position at the State Department.

A U.S. official close to the Pentagon said Weber ran afoul of his superiors as a result of his anti-nuclear arms positions, and practices related to hiring and the use of personnel within his office.

Alexandra Bell, a spokeswoman for Gottemoeller said: “The administration is supportive of the domestic and international non-governmental community’s right to conduct research, scholarship, advocacy and Track 2 dialogues as they see fit.”

Both the Pentagon and State Department spokeswomen would not address the question of whether holding informal nuclear talks on cutting nuclear weapons in Europe with the Russians will undermine NATO security in the aftermath of the Crimean crisis.

Former Pentagon official Mark Schneider, a strategic nuclear arms specialist, said the Track 2 and any formal arms talks on tactical nuclear arms would fail.

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“They can have as many tracks as they want but the Russians will not agree to limits on tactical nuclear weapons,” Schneider said. “Their advantage is too great.”

The United States is believed to have around 200 nuclear weapons in Europe. Russia’s tactical nuclear arsenal is at least 2,000.

“NATO politics will prevent any cuts in U.S. tactical nuclear weapons in Europe,” he said. “This is obviously about the worst possible time to talk about something like this.”

Schneider said nuclear policymakers should focus on deterrence now instead of disarmament.

A Russian Defense Ministry spokesman told state-run Interfax March 26 that a “missile-carrying regiment” of Tu-22 Backfire nuclear bombers will be deployed to the Crimean airbase at Gvardeyskoye within two years.

IHS Jane’s Defence Weekly described the nuclear-capable Tu-22s to be based in Crimea as “the backbone of Soviet naval strike units during the Cold War.”

Rogers, the strategic forces subcommittee chairman, said Sept. 18 that the Russians have discussed “plans to station tactical nuclear weapons in Crimea.”

<http://freebeacon.com/national-security/russia-deploying-tactical-nuclear-arms-in-crimea/>

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The Washington Free Beacon – Washington, D.C.

China Military Buildup Shifts Balance of Power in Asia in Beijing’s Favor

Congressional report warns the danger of U.S.-China conflict is rising

By Bill Gertz

October 13, 2014

China’s decades-long buildup of strategic and conventional military forces is shifting the balance of power in Asia in Beijing’s favor and increasing the risk of a conflict, according to a forthcoming report by a congressional China commission.

China’s military has greatly expanded its air and naval forces and is sharply increasing its missile forces, even while adopting a more hostile posture against the United States and regional allies in Asia, states a late draft of the annual report of the bipartisan U.S.-China Economic and Security Review Commission.

As a result, “the potential for security miscalculation in the region is rising,” the report said, using the euphemism for a conflict or shootout between Chinese forces and U.S. forces or those of its regional allies.

The report paints an alarming picture of China’s growing aggressiveness and expanding power, including development of two new stealth jets, the first deployment of a naval expeditionary amphibious group to the Indian Ocean, and aerial bombing exercises held in Kazakhstan.

China’s communist government also views the United States as its main adversary—despite strong trade and financial links between the two countries, the report says.

The commission report—to be released in final form in November—concludes that the war-footing-like buildup by the People’s Liberation Army is increasing the risk that a conflict will break out between the United States and China.

A copy of the draft report was obtained by the *Washington Free Beacon*.

“China’s rapid military modernization is altering the military balance of power in the Asia Pacific in ways that could engender destabilizing security competition between other major nearby countries, such as Japan and India, and

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exacerbate regional hotspots such as Taiwan, the Korean Peninsula, the East China Sea, and the South China Sea," the report concludes in a section on military developments

With declining U.S. defense spending and cuts in forces, the balance of power in Asia "is shifting in China's favor," the report says.

The report warns that China's communist leaders are fueling nationalist tensions amid concerns about declining economic growth and increasing social unrest. "Promoting a sense of grievance among the Chinese people and creating diversionary tensions in the region would carry real risks of escalation and create the potential for the United States to be drawn into a regional conflict," the report says.

The high-technology weapons and other capabilities China is fielding also pose a growing threat to America's ability to deter regional conflicts, defend allies and maintain open and secure air and sea-lanes.

As China builds up its naval power, the U.S. Navy is declining, and the current American ability to defeat China in a conflict will be difficult to maintain, the report says.

By 2020, China is expected to have 342 submarines and missile-firing warships deployed, many of them equipped with advanced weapons. By comparison, the total U.S. naval forces will be 243 ships and submarines in 2020.

Recent Chinese provocations in sea and aerial encounters also are a signs the two nations could become embroiled in a conflict.

"China already has initiated dangerous encounters at sea on several occasions," the report said, noting the near-aerial collision between a Chinese interceptor jet and a Navy P-8 reconnaissance aircraft.

Rick Fisher, a China military affairs analyst, said the congressional report augments a sometimes-deficient Pentagon annual assessment of the Chinese military.

"The China Commission is hitting its stride concerning China's growing military challenge, offering the Congress an expansive and multi-dimensional assessment of that challenge not offered by the Pentagon's annual China Military Power reports," said Fisher, with the International Assessment and Strategy Center.

Fisher credits the commission for highlighting the shift in the balance of power that he said is linked to China's growth in air and space power.

"The regional balance of power shift in China's favor is based on well documented analysis and should be required reading for anyone concerned with China's growing ability to threaten U.S. interests in Asia," he said.

The report also confirms that China twice this year tested a new, ultra-high speed strategic strike vehicle called the Wu-14. When deployed, the Wu-14 will give the Chinese military the capability of attacking any target on earth in as little as "minutes to hours," the report says.

The hypersonic vehicle tests were first disclosed by the *Free Beacon* in January and August.

A super fast strike vehicle that glides to its targets of speeds of up to nearly 8,000 miles per hour could be deployed by 2020 and a similar high-speed scramjet powered hypersonic attack vehicle could be fielded before 2025, the report says.

"Hypersonic glide vehicles could render existing U.S. missile defense systems less effective and potentially obsolete," the report says.

On China's strategic nuclear buildup, the report identifies China's large-scale buildup of both conventional and nuclear-armed missiles as a serious threat.

China's has as many as 1,895 ballistic and cruise missiles, including up to 1,200 short-range missiles, up to 100 medium-range missiles, up to 20 intermediate-range missiles, up to 75 intercontinental missiles, and up to 500 ground-launched land attack cruise missiles.

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The Pentagon after 2010 halted releasing annual assessments of Chinese missile forces that one expert said undercuts the Obama administration's policy of seeking a more open Chinese military by "indirectly assisting Chinese secrecy."

For short-range missiles, China currently is developing five new systems with ranges between 94 and 174 miles. The new missiles will have greater accuracy and lethality.

For targeting U.S. forces in Japan and South Korea, China has deployed DF-21C theater-range missiles with ranges of about 1,240 miles and appears to have developed a second system, the DF-16.

Its new intermediate-range missile, to be deployed in the next five years, will be able to hit U.S. forces on Guam, Northern Australia, Alaska, and U.S. forces in the Middle East and Indian Ocean.

A variant of the DF-21D is a unique anti-ship ballistic missile that has been deployed in two brigades in southeastern and northeast China.

China's nuclear strike forces remain couched in secrecy, the report said. "China's official statements about its nuclear forces and nuclear capabilities are rare and vague in order to maintain 'strategic ambiguity,'" the report says.

The commission report faults the Pentagon for ending its practice of providing details of China's nuclear arsenal in annual reports to Congress, saying the omission is contributing to Chinese military secrecy.

The Pentagon has not released an assessment of Chinese nuclear forces since 2006 when it said China had more than 100 warheads. Current estimates by non-government analysts place the number of Chinese nuclear warheads as from 250 to as many as 3,000.

"Despite the uncertainty surrounding China's stockpiles of nuclear missiles and nuclear warheads, it is clear that China's nuclear forces over the next three to five years will expand considerably and become more lethal and survivable with the fielding of additional road-mobile nuclear missiles; the integration of as many as five [Jin-class missile submarines], each of which can carry 12 JL-2 submarine-launched ballistic missiles; and the introduction of intercontinental ballistic missiles armed with multiple independently targetable reentry vehicles," the report says.

China also is modernizing its silo-based nuclear missiles, along with hardening storage facilities, launch sites, and transportation networks.

The network of some 3,000 miles of underground nuclear facilities is also being expanded, the report states.

China currently has deployed five road-mobile long-range missiles, and one submarine-launched ballistic missile, the JL-2, with a new JL-3 missile planned for 2020.

The newest system is the DF-41 ICBM that is expected to be deployed as early as next year with up to 10 multiple nuclear warheads. The DF-41's range of about 7,456 miles is sufficient "to target the entire continental United States," the report states.

The *Free Beacon* first disclosed Oct. 2 that China flight-tested a sixth road-mobile ICMB, the DF-31B. The test appeared to take place after the cutoff date of June for most information in the commission report.

The report also includes the graphic published in China's state-run *Global Times* in November revealing that a Chinese submarine-launched ballistic missile attack on the United States could kill 5 million to 12 million people.

China's space warfare programs also are expanding significantly, according to the report.

"The PLA is pursuing a broad counterspace program to challenge U.S. information superiority in a conflict and disrupt or destroy U.S. satellites if necessary," the report said.

Recent missile tests indicate Chinese anti-satellite weapons can destroy both low-altitude and high-altitude satellites, including strategic Global Positioning System satellites and communications and intelligence orbiters.

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“China likely will be able to hold at risk U.S. national security satellites in every orbital regime in the next five to ten years,” the report says.

The report also revealed China last year conducted a space test of three small, maneuvering satellites, one of which is capable of grabbing and destroying orbiting satellites.

To counter the Chinese military buildup, the commission recommends that Congress increase funding for naval deployments in Asia; continue three-a-year production of Virginia-class submarines; develop an unmanned Navy carrier strike aircraft; fund a new long-range anti-ship missile; and build ship-based directed energy arms.

The commission also wants Congress to direct the Pentagon to provide more details on China’s conventional and nuclear missiles and warheads.

On China’s cyber espionage activities, the report said China’s government has been engaged in “large-scale” cyber attacks against U.S. networks, including defense and private company systems.

Among the data stolen by Chinese hackers were details of U.S. weapons systems including Patriot anti-missile defenses, the F-35 and F-18 jets, P-8 reconnaissance aircraft, Global Hawk drones, Black Hawk helicopters, Aegis ballistic missile defenses, and the Littoral Combat ship.

The Chinese military also obtained secrets on defense technologies, including know-how related to directed energy weapons, drone video systems, technical data links, satellite communications, electronic warfare systems, and electromagnetic aircraft launch systems.

“In addition to stealing the designs of these weapon systems and technologies, China’s cyber actors targeted internal communications, program schedules, meeting minutes, and human resource records, among other documents,” the report said.

The Obama administration policy of not responding forcefully to Chinese cyber attacks is not working, the report says, despite the federal indictment in May of five Chinese military hackers.

“China’s material incentives for continuing this activity are immense and unlikely to be altered by small-scale U.S. actions,” the report says.

Other key findings of the report include:

- Chinese President Xi Jinping has made China’s missile forces the “core strength” strategic deterrence.
- Chinese defense spending will continue to fund an acceleration of the military modernization for the next five years.
- A U.S. defense analyst said China’s efficient defense spending could render U.S. aircraft carriers difficult to defend. China could build 1,127 DF-21D anti-ship ballistic missiles for the cost of one U.S. aircraft carrier at \$13.5 billion.
- China is using the estimated 235,000 Chinese students studying in the United States to conduct technology collection for the Beijing government.
- Joint ventures between Chinese and U.S. companies include a legal requirement for the Chinese firms to share technology with the Chinese military and intelligence services.

The report includes sections on China’s domestic stability, security, foreign affairs, North Korea, economy, trade, energy, and health care. It is produced annually by the commission, currently headed by Chairman Dennis Shea, a lawyer and former government official, and Vice Chairman William Reinsch, a former Clinton administration Commerce official.

The commission’s final report is expected to have only minor changes from the draft, a commission official said.

<http://freebeacon.com/national-security/china-military-buildup-shifts-balance-of-power-in-asia-in-beijings-favor/>

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The Sydney Morning Herald – Sydney, Australia

Vladimir Putin Ups the Ante with Reminders Russia is a Nuclear Power

Peter Hartcher, *Sydney Morning Herald* political and international editor

October 18, 2014

New Zealand's Prime Minister, John Key, was enjoying some friendly banter with his Russian counterpart when they stumbled on to a distinctly unfriendly subject: nuclear war.

It was a lunch break at an international summit, as Key related to me earlier this year: "So we're having this joke exchange and one point I said to him: 'How long would it take a missile to get out from Moscow to NZ?'"

The Russian Prime Minister, Dmitry Medvedev, briefly consulted an aide, apparently without success, before turning back to the NZ leader. Key relates: "He said, 'Don't worry, I'll let you know before it happens'."

Key laughs heartily at the retelling. But jokes about nuclear weapons are an uneasy genre of humour. Russia's nuclear arsenal is the ultimate reality of its power. It sits at the back of every conversation and calculation about Russia.

And since that exchange, the humour has drained away. Russia's President, Vladimir Putin, has put his country's 5000 nuclear warheads at the forefront. Three times in the past two months, he has raised the spectre of nuclear war as he confronts the West.

Most recently, he did it overnight Thursday Australian time while he was en route to a summit of 50 nations, the annual Asia-Europe Meeting, in Milan. "He's again threatened the West with nuclear weapons," says John Besemeres, a Russia expert at the ANU.

It's a dramatic way to make an entrance to a summit. "It trumps an AFL shirt-fronting any day," quipped Andrew O'Neil, a professor of international relations at Griffith University.

"It seems like a masturbatory fantasy he can't go without," says Besemeres. These are references that haven't been heard since the era of the Soviet Union, and even then it wasn't this overt."

Nobody jokes with Putin about Russia's atomic arsenal. Even a prime minister of far-away, pacifist NZ: "Putin is a lot more buttoned-down," Key agreed. And yes, Russian missiles do have the range to strike NZ. Or Australia.

"There is a low probability that Russian nuclear weapons are aimed at Australia, with one possible exception," says Peter Jennings, formerly head of strategy at the Australian Defence Department and now head of the Australian Strategic Policy Institute.

"That would be the joint facilities" – the US-Australian satellite tracking bases at Pine Gap and Nurrungar from which US spy satellites over eastern Russia are controlled. "The joint facilities are the only thing that may be relevant to the US ability to launch an attack on Russia."

Soviet officials bluntly told Australian defence officials during the Cold War that warheads were aimed at the joint facilities.

And today, "they are certainly on the Russian target list," says O'Neil, who is knowledgeable on Russian nuclear policy.

On August 14, Putin told members of Russia's Duma that he soon planned to "surprise the West with our new developments in offensive nuclear weapons about which we do not talk yet".

And six weeks ago: "I want to remind you that Russia is one of the leading nuclear powers ... It's best not to mess with us."

Summarises Besemeres: "Putin's Russia is heading towards a police state internally and a rogue state externally. It's a very worrying combination."

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Putin's aim is to restore Russian national pride after the humiliation of the Soviet Union's collapse, an event he has called "the greatest geopolitical tragedy of the 20th century".

Through the force of his own will, Putin's project is hardening into the reality of Russia itself, at great cost to the Russian economy and to the stability of the world.

"Today, a single man personifies the entire Russian political system," says Moscow-based Fyodor Lukyanov, head of the Council on Foreign and Defence Policy, an adviser to the government. There is no way back for Putin, he says.

"For Putin, the question is not simply one of winning or losing a tactical position in a game. At stake is his own political survival and, by extension, Russia's future political landscape. With the stakes that high, why would anyone expect him to make serious concessions, especially knowing that he can never restore relations with the West?"

Australia's immediate concern with Russia's evolving bellicosity is narrower. It is Russian obstructionism over MH17 and the 298 civilians, including 38 Australian residents, who died when it was shot from the sky without warning as Russian-backed rebels fought to dominate the Ukrainian territory below.

It was the moment that brought Australia into the middle of the extraordinary reality that a land war is under way in Europe as Russia seeks to dominate its smaller neighbour.

The Labor leader, Bill Shorten, wanted to show Australian disgust by removing Putin from the guest list at the G-20 summit in Brisbane next month.

However, Foreign Affairs Minister Julie Bishop points out that "no one country has the authority to rescind an invitation to another member" of the G-20.

"What I said was that I would test the attitude of the other countries; I've done that. You certainly wouldn't get consensus for a withdrawal of the invitation to Russia. There are countries in the G-20 that are supportive of Russia."

These include China, Brazil and India, Russia's partners in the so-called BRICs grouping of large countries with emerging economies.

"Others, including the US and the UK, don't think he should attend," Bishop says, "and if he does, that we should take the opportunity to raise the issue of Ukraine and for him to face directly the concerns of the countries involved in MH17."

Germany, Britain and Indonesia are the other G-20 nations whose citizens died that day above Ukraine.

Prime Minister Tony Abbott made plain his frustration: "I'm going to shirt-front Mr Putin," he said this week. "I am going to be saying to Mr Putin 'Australians were murdered'. There'll be a lot of tough conversations with Russia and I suspect the conversation I have with Mr Putin will be the toughest conversation of all."

Yet, as Bishop points out, "we will need Russian co-operation" to finish searching the crash site and to establish responsibility.

"We still don't have free and unfettered access to the crash site," she says. There has been recent fighting in the area and "we're advised it's not safe". The remains of 36 of the 38 Australian residents have been identified so far.

And, as Harvard's Joe Nye, a former top US official, points out: "It is natural to feel angry at Putin's deceptions, but anger is not a strategy."

He was not addressing Abbott's seething frustration specifically but the reaction of the West more broadly, but he might well have been.

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Bishop met her Russian counterpart, Sergei Lavrov, overnight Thursday, Australian time, at the Milan summit to ask that "Russia use its influence with the rebels to allow safe access to the crash site", in accord with the United Nations Security Council resolution 2166.

Does Bishop think Abbott's public promise of a shirt-fronting will make Putin more likely to co-operate, or less?

Bishop neither endorses nor repudiates her leader's remark, but tells me: "My focus is on the repatriation of remains and the investigation" into responsibility for the destruction of the aircraft."

Analysts have remarked in recent weeks that Putin seems to be seeking to re-engage with the wider world. With Western sanctions biting Russia's economy and NATO indignation finally roused, Putin was thought to be looking to ease the pressure.

There are signs he is. By choosing to attend the Asia-Europe summit, he signalled diplomatic re-engagement. This leads to the expectation he will attend the G-20 summit in Brisbane.

And, by announcing the withdrawal of Russian forces from Ukraine, he seemed to be conceding to NATO pressure.

<http://www.smh.com.au/federal-politics/political-news/vladimir-putin-ups-the-ante-with-reminders-russia-is-a-nuclear-power-20141017-117p2r.html>

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fedscoop.com – Washington, D.C.

DARPA Wants to Detect Chemical Weapons with Fine-Toothed Laser Combs

By Greg Otto

Wednesday, October 15, 2014

Through a number of different programs and technological advances, scientists, engineers and war fighters can easily detect biological or chemical agents from various sources. However, DARPA wants to make it easier.

These agents are often detected through spectroscopic chemical sensing — a measure of how matter absorbs or scatters light in order to pinpoint its molecular identity — but those devices are often tied to a desk in a lab or have measurements affected by other agents in the atmosphere, like ozone or chlorofluorocarbons (CFCs).

In order to enhance the power and scale of this technology, DARPA's Defense Sciences Office recently announced the Spectral Combs from UV to THz (SCOUT) program, which aims to put ultra-refined light "combs" into chip-sized devices that can ultimately detect biochemical agents from thousands of yards away.

"In laboratory settings we've seen proof of principle that it's possible to identify and quantify multiple substances at a distance of 2 kilometers or more, but no portable sensors exist today that can detect and distinguish among multiple chemical or biological agents in gas or liquid form at even half that distance," Prem Kumar, a DARPA program manager, said in a release. "The challenge DARPA is addressing is to develop portable, microchip-size optical frequency combs that display a high degree of sensitivity and specificity across the electromagnetic spectrum, even in a cluttered frequency environment."

Kumar outlined the five technical areas that the program will address during a webinar Wednesday, including four areas on the electromagnetic spectrum where chip-sized combs can be produced. DARPA sees applications for ultraviolet waves, mid-wave and long-wave infrared, and terahertz waves in technology dedicated to breath analysis, explosives detection and real-time monitoring of chemical weapons.

The fifth area will then test the limits of each detection device to see if it can be integrated with other related technologies.

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"We generally recognized that detecting trace samples of chemicals is hard," Kumar said during the webinar. "At the end of the day, we are looking for compact sources with similar capabilities, packaged into a centimeter-sized package."

A number of agencies and academic institutions are already working on technology that refines the spectral comb used across the electromagnetic spectrum. Presenters from NASA, NIST, the Energy Department's Sandia National Laboratory, Cornell University, Yale University and Harvard University were among those offering research that will be used to create working groups moving forward.

Kumar said DARPA will kick off the program in the second quarter of 2015, with the initial phase spanning two years. The second phase, which will focus on integrating the chip-sized components into other devices, will last another year, with the project ending in 2018.

DARPA has posted a Broad Agency Agreement on FedBizOpps, which outlines the project's technical details. Responses are due Nov. 25.

<http://fedscoop.com/darpa-scout/>

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Yonhap News Agency – Seoul, South Korea

China's Xi: Six-Party Talks 'Optimum' on N. Korea's Nuclear Issue

October 14, 2014

BEIJING, Oct. 14 (Yonhap) -- Chinese President Xi Jinping has told the leader of South Korea's ruling party that long-stalled six-nation talks are still the "optimum" process to help persuade North Korea to give up its nuclear ambition, the ruling South Korean party's leader said Tuesday, despite a six-year hiatus of the six-party process.

Xi made the remarks during a bilateral meeting earlier in the day with Rep. Kim Moo-sung, leader of the South Korean ruling Saenuri Party, at the Great Hall of the People in Beijing, Kim told reporters.

The six-party talks, involving South Korea, North Korea, the United States, China, Russia and Japan, were last held in December 2008. North Korea has conducted two more nuclear tests since then.

"The Korean Peninsula issue can't be resolved alone," Xi was quoted as saying by Kim.

Xi told Kim that the six-party talks are the "optimum" mechanism that could provide a "sustainable, effective and irreversible" way of denuclearizing North Korea, according to Kim.

Before meeting with Xi, Kim held talks with Wang Jiarui, head of the Chinese Communist Party's international department, and urged China to exercise its "responsibility" to curb North Korea's wayward behavior.

"In order to maintain peace in Northeast Asia, resolving North Korea's nuclear issue is essential," Kim told Wang, according to South Korean lawmakers who attended the meeting.

"The Chinese government should take responsibility in curbing North Korea's nuclear development," Kim was quoted as saying by the lawmakers. It was not immediately known how Wang responded to the remarks by Kim.

<http://english.yonhapnews.co.kr/search1/2603000000.html?cid=AEN20141014009500315>

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Times Union.com – Albany, NY

US: US, China Oppose North Korea Nuclear Test

Associated Press (AP)

October 16, 2014

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BEIJING — Washington and Beijing have agreed that a nuclear test by North Korea would lead to its further isolation and set back efforts to restart regional talks on its nuclear disarmament, a U.S. envoy said.

After talks in Beijing on Friday with senior Chinese officials, U.S. envoy for North Korea Glyn Davies said both sides are opposed to any nuclear test by North Korea and said ridding it of nuclear weapons remains a condition for bringing stability to the region.

"We reached strong consensus that a nuclear test will be troubling and will set back efforts to de-nuclearize the Korean Peninsula. De-nuclearization is a necessary precondition to peace and stability on the Korean Peninsula," Davies told reporters.

He said North Korea can choose to test and further isolate itself or return to disarmament talks that involve South Korea, Japan and Russia as well as the U.S. and China.

"We judge North Korea by its actions, not its words," he said.

Davies' Beijing talks come amid visits to South Korea and Japan to discuss what to do about North Korea. His tour also comes as tensions are rising and China is showing signs it wants to rein in its North Korean ally. Beijing fell into rare agreement with Washington this past week, allowing the U.N. to tighten sanctions against North Korea as punishment for a rocket launch last month.

In response, the North Korean Defense Commission, which commands the military, said it is prepared to conduct a nuclear test and made clear its missiles are capable of reaching the United States.

Another nuclear test by North Korea would pose a challenge to newly installed Chinese Communist Party leader Xi Jinping, unsteady South Korea, Japan and the United States. Relations between the three and Beijing are strained, and their trade and investment help to keep the buoyant Chinese economy growing.

Asked about Davies' visit, China's Foreign Ministry said that given the current tensions, all sides need to keep calm. "The current situation of the peninsula is complicated and sensitive. We hope the relevant sides can stay calm, strengthen dialogue, avoid any acts that will escalate tension and jointly maintain peace and stability of the peninsula," ministry spokesman Hong Lei told a routine daily media briefing.

China provides most of North Korea's fuel and a good deal of its food and accounts for an increasing share of its trade and investment. But in more than a decade of recurring missile launches, two nuclear tests and other provocations by North Korea, China has been reluctant to use its economic leverage, fearing it could destabilize its neighbor.

<http://www.timesunion.com/news/article/US-US-China-oppose-North-Korea-nuclear-test-4226224.php>

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Yonhap News Agency – Seoul, South Korea

China Envoy Expects U.S. Missile-Defense System to Stir Ire of N. Korea

October 17, 2014

BEIJING, Oct. 17 (Yonhap) -- A move by the United States to deploy its advanced missile-defense system in South Korea is likely to irritate North Korea and could jeopardize diplomatic efforts to resume long-stalled six-nation talks on the North's nuclear weapons program, China's deputy chief envoy to the talks said Friday.

China has long voiced concerns over the U.S. move to deploy the THAAD (Theater High Altitude Area Defense) missiles in South Korea against missile threats from North Korea, but it is the first time that a senior Chinese diplomat has publicly commented on the issue.

"The United States has recently bolstered its military alliance with South Korea and Japan, based on the nuclear crisis of North Korea," Xu Bu, China's deputy chief envoy to the six-party talks, told a forum at Peking University.

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"The United States has also strengthened its military presence in Northeast Asia by pushing to deploy its missile-defense system in this region," Xu said.

"These moves would spark strong dissatisfaction from North Korea," Xu said.

In spite of international sanctions, North Korea continues to develop nuclear weapons and ballistic missiles.

Xu said, however, sanctions "can't fundamentally resolve the North Korean nuclear issue."

South Korea and the U.S. have called on China to play a greater role in leading North Korea to give up its nuclear weapons, but Beijing's diplomacy still appears to put priority on stability, rather than the denuclearization of North Korea.

<http://english.yonhapnews.co.kr/northkorea/2014/10/17/72/0401000000AEN20141017004400315F.html>

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RIA Novosti – Russian Information Agency

Russia to Put Kaliningrad Missile Defense Radar on Full Combat Duty in December

15 October 2014

KALININGRAD, October 15 (RIA Novosti) - Russia will put a recently-built early warning radar station in the Kaliningrad Region on full combat duty in December 2014, Deputy Defense Minister Yuri Borisov said Wednesday.

The Voronezh-DM class radar has successfully completed a five-month testing phase, Borisov told reporters following an inspection tour of the station deployed in Russia's Baltic exclave of Kaliningrad.

The Russian deputy defense chief said the radar's unique technical and tactical characteristics made it unparalleled to other systems of the kind.

"With its technical characteristics, this radar station is at least on par with all foreign counterparts, while such qualities as precision make it stand out," Borisov told journalists.

The radar covers almost all of Europe and the Atlantic Ocean, has a range of 6,000 kilometers (3,728 miles) and can simultaneously track up to 500 targets.

This came four months after the United States announced in May the opening of a Patriot missile base in northern Poland, just 80 km (50 miles) from the Kaliningrad border, a move which drew much criticism from Moscow.

The Russian Defense Ministry said last week it planned to finish the construction of several new anti-missile radars within five years to cover the entire Russian territory. According to reports, new Voronezh-class radar stations will be located in east Siberia's Krasnoyarsk Territory, in south Siberia's Altai Republic and in the Orenburg Region in South Urals.

http://en.ria.ru/military_news/20141015/194122624/Russia-to-Put-Kaliningrad-Missile-Defense-Radar-on-Full-Combat.html

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RT (Russia Today) – Moscow, Russia

Cyber Security Units to Protect Russia's Nuclear Weapons Stockpiles

October 17, 2014

The IT systems of all Russian nuclear weapons stockpiles will be protected by a new team of anti-hackers, the Defense Ministry said after a year-long "hunting season" for programmers.

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Special units of the Russian Strategic Missile Forces (SMF), responsible for the country's nuclear weapons, will reduce the vulnerability, should it be found, in their brand-new information systems, according to the Defense Ministry's spokesman.

"The SMF is adopting digital technologies in weapon and troop control and is expanding the use of electronic document management. Therefore, SMF staff are taking preventive measures in upgrading cybersecurity: the process of creating teams responsible for sustainable combat troop control amid cyberwarfare is underway," Igor Egorov said on Thursday.

Titled *"Sopka"*, which in Russian stands for the *"System of Detection and Prevention of Computer Attacks"*, the team is set to thwart global hacker attacks. Its specialists will be cooperating both with troops armed with mobile land-based missile systems and with those equipped with silo launchers.

The SMF are active users of cutting-edge technologies - arms, weapons, and document flows are controlled with their help. The security upgrade is aimed at avoiding hacking of this electronic system, with e-management fully operating by 2020.

This spring, the Russian SMF's five silo launchers were equipped with armed guarding robots. Designed not only to detect and destroy targets on their own, they can also gather intelligence data.

In summer 2013, Russian Defense Minister Sergey Shoigu said the ministry had started a *"big headhunt"*, as programmers were needed for the development of the software the army needs in the following five years.

<http://rt.com/news/196720-russia-missile-forces-cybersecurity/>

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The Daily times – Lahore, Pakistan

Iran Expects Progress, if No Breakthrough, in Nuclear Talks

By Agencies

October 14, 2014

VIENNA – Foreign Affairs Minister of Iran Mohammad Javad Zarif on Tuesday said that his country does not expect a breakthrough in nuclear talks with the US and the European Union this week but hopes they will help pave the way for a final deal.

He was speaking upon arrival in Vienna, where he was due to meet European Union foreign policy chief Catherine Ashton. US Secretary of State John Kerry will join them on Wednesday. Zarif's cautious optimism came a day after President Hassan Rouhani told Iranian television that a nuclear deal was certain and that only fine details remained to be negotiated.

Talks between Iran and six powers – the United States, France, Germany, China, Russia and Britain – are due to conclude by a self-imposed November 24 deadline with, diplomats hope, a deal to end a nuclear standoff that has lasted more than a decade. With only some six weeks to go, Western officials say there are still significant differences, especially over the future scope of Iran's uranium enrichment program.

One of Iran's chief negotiators, deputy Foreign Minister Abbas Araqchi, last week raised the possibility that the talks could be extended. But a US State Department official said Washington believed there was still time to reach a comprehensive solution by the target date.

"Although we do not expect a breakthrough in the trilateral negotiations between Zarif, Ashton and Kerry ... still this round could pave the way for a final agreement," Fars quoted Zarif as saying on Tuesday. *"On the agenda is the volume of uranium enrichment and the timetable for lifting the sanctions,"* he said. Iran rejects allegations from Western powers that it is seeking a nuclear weapons capability. It has refused to halt uranium enrichment, and has been hit with US, EU and UN Security Council sanctions as a result.

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Israel has threatened to use military force against Iranian atomic sites if diplomacy fails to ensure Iran is deprived of the means of developing nuclear weapons. Tehran says Israel's presumed atomic arsenal is the main threat to peace. Iran and the six powers last November reached an interim deal under which Tehran suspended its most sensitive nuclear activity in exchange for some easing of the sanctions.

A former Obama administration official said that it would make sense to extend the temporary accord if there was no long-term deal by late next month. "The continuation of an interim agreement would provide the breathing space needed for all sides to take an extended break from negotiations over a permanent deal," Jofi Joseph, a former director for non-proliferation on the White House National Security Council staff, wrote this week.

<http://www.dailytimes.com.pk/foreign/14-Oct-2014/iran-expects-progress-if-no-breakthrough-in-nuclear-talks-with-eu-us>

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Arutz Sheva (Israel National News.com) – Beit El, Israel

Report Ties Parchin Blast to Iran's Nuclear Program

Explosion with truck of Iranian transport company featuring nuclear explosion logo - an act of remote control sabotage?

By Ari Yashar

October 14, 2014

The massive explosion at Iran's top-secret Parchin nuclear facility last Monday remains shrouded in mystery, but new details revealed in an in-depth *Channel 10* report by investigative reporter Ronen Solomon who provided the first satellite photos of the site to *Israel Defense* indicate the blast was in fact a chemical explosion, and may shed light on Iran's nuclear program.

Iran's Defense Industries Organization (DIO) admitted the blast occurred - after Iran initially denied it - saying it was caused as ammunition was being unloaded at the secret military base suspected of being used to test nuclear detonation devices.

Despite the claims of an accident, chairman of Iran's national security council Mohammed Saleh has summoned security sources to clarify the cause of the explosion which reportedly killed a "nuclear expert," confirming suspicions it was not a simple accident.

The Iranian state-run *Fars News Agency* on Monday in follow-up reports about the supposed ammunition explosion admitted it happened due to a "private company" that was given a tender to manage the transportation following government privatization.

Channel 10 reports that the inquiry apparently is focused on a private transportation company "Hamana," which roughly four years ago was privatized and given given offices adjacent to the Parchin base entrance, where it is authorized to transport dangerous materials in and out of the base.

The public relations picture of Hamana features an image of a nuclear explosion, hinting in a not-so-subtle manner that the company may also be involved in transporting radioactive materials as part of Iran's secretive nuclear program.

Suspicions that the blast was an act of sabotage by a foreign nation were strengthened by the reports, given that a cyber attack would be possible on Hamana's trucks.

Hamana reportedly owns five trucks allowed to enter Parchin, which are equipped with GPS and AVL (Automatic Vehicle Location) systems. The trucks' movements are supervised online, in a system that allows distress signals to be sent out - and even allows remote control over the truck's engine.

Chemical, not ammunition explosion?

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Satellite images from before and after the blast cut through Iran's initial denials and proved the explosion, showing extensive damage to several buildings and more than one which appears to have completely disappeared.

Analyzing the images, *Channel 10* reports that the area most heavily hit by explosion damage in the base is a site run by Parchin Chemical Industries (PCI), which is managed by DIO and is subject to UN and US sanctions for producing ammunition and solid propellants for ballistic missile fuel.

In fact, the report exposes that four storage buildings in the base were completely wiped out by the blast, and appear to be part of PCI's production and storage workshop for ballistic rocket fuel. It added the building had numerous air vents as characteristic of buildings containing dangerous chemicals such as rocket fuels.

A large cement structure adjacent to the center of the blast was left unscathed according to the report, indicating that the explosion was not caused by an accident with explosive ammunition as claimed - which would have caused secondary damage further away - but rather was a chemical explosion.

It added that the explosive ammunition on the base appears to be stored in cement reinforced bunkers on the eastern side of the facility, not the area where the blast was centered.

It is possible that the chemical storage sites destroyed in the blast also contained radioactive materials left over from the fuse tests conducted secretly at the base as part of a nuclear weapons program - Iran has already admitted to testing exploding bridge wire nuclear detonation devices at Parchin.

If so, the report adds that sensors placed by the International Atomic Energy Agency (IAEA) or intelligence services should be able to locate radioactive particulates at the site due to the blast, and thereby obtain concrete evidence of nuclear weapon tests at the facility.

On Tuesday the eighth round of Iranian nuclear talks began in Vienna, ahead of a November 24 deadline.

A senior diplomatic source in Jerusalem on Monday warned US President Barack Obama is liable to extend the deadline again, and more troubling - he may be holding secret talks with Iran again and making agreements against Israeli interests. Iran has repeatedly threatened to annihilate Israel.

Indeed, Obama was revealed last November to have been holding secret talks with Iran for over half a year which led to a temporary agreement, and likewise reportedly had been easing sanctions on Iran for five months ahead of the deal.

<http://www.israelnationalnews.com/News/News.aspx/186168#.VD76ICxARDx>

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The Daily Star – Beirut, Lebanon

Iran Official says Centrifuges are 'Trivial' in Nuclear Talks

Reuters

October 15, 2014

GENEVA: U.S. nuclear negotiators should stop focusing on Iran's number of centrifuges and should push for a deal, which could help build confidence between Iran and the coalition of countries fighting against ISIS, a senior Iranian politician said Wednesday.

"This is something like a trivial matter and we should not bargain over trivial matters," Iran's Parliament Speaker Ali Larijani told a news conference in Geneva. "This is not going to be useful, this is not going to solve any real problems."

<http://www.dailystar.com.lb/News/Middle-East/2014/Oct-15/274156-iran-official-says-centrifuges-are-trivial-in-nuclear-talks.ashx#axzz3GFamLSKV>

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Isil Jihadists may Have Access to Chemicals for Dirty Bombs

Former commander of British Army issues warning as it emerges two large stockpiles of shells filled with mustard and sarin gas have not been made secure

By Damien McElroy, and Philip Sherwell

15 October 2014

A former commander of the British Army's chemical and nuclear weapons protection forces has warned that Islamic State in Iraq and the Levant (Isil) has the capability of making battlefield dirty bombs.

It emerged that hundreds of shells filled with poison gas are stored unguarded in areas controlled by the jihadists.

Hamish de Bretton-Gordon, a former colonel, issued the warning after it was found that two large stockpiles of shells filled with mustard and sarin gas had not been made secure, either under the American occupation or when Iraqi forces controlled the areas north of Baghdad before this summer.

Mr Bretton-Gordon said Isil had shown it was determined to use chemical weapons in Syria and its advance in Iraq had put dangerous material within the group's grasp.

"These materials are not as secure as we had been led to believe and now pose some significant threat to the coalition in Iraq fighting Isil," he said.

"We know that Isil have researched the use of chemical weapons in Syria for the last two years and worryingly there are already unconfirmed reports that Isil has used mustard gas as it pursues its offensive against the Kurds in Kobane.

"They certainly have access to the al-Qaeda research into chemical weapons and will want to use the legacy weapons in Iraq."

Isil seized the Muthanna State Establishment, where Iraqi chemical agent production was based in the Eighties, this summer. The New York Times reported on Wednesday that last year, two contaminated bunkers there containing cyanide components and sarin gas rockets as well as other shells had not been encased in concrete and made safe.

It also reported that another large bunker where US marines found mustard shells in 2008 was overgrown and abandoned during the same visit. Jace Klibenski, a corporal, told the newspaper: "There were just rounds everywhere."

Iraqi officials added that an army base near Saddam Hussein's home town of Tikrit, which fell to Isil during the same lightning offensive, housed a shipping container "packed with chemical shells".

All told, the Iraqi government has estimated that about 2,500 chemical shells were stored within Isil territory, but it has never admitted that the bunkers had not been put beyond use.

The allegations that Isil could access chemical-filled munitions heightens concern over use of the weapons, either in Iraq or Syria. "If [Isil] gained access to the Muthanna bunkers in Fallujah, mustard agent could have been found and used in some capacity in the assault on Kobane," said the disarmament experts Joe Cirincione and Paul Walker in a report published this week.

The publication of the New York Times investigation followed a report at the weekend by an Israeli research group that Isil jihadists appeared to have already used chemical weapons against their Kurdish enemies.

The Global Research in International Affairs Centre cited evidence that the group may have captured chemical agents at Muthanna in June and used them in July to kill Kurdish fighters near Kobane with mustard gas or a similar blistering chemical.



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Jonathan Spyer, the author of the report, used photographs provided by Kurds in Kobane to suggest that “on at least one occasion, Islamic State forces did employ some form of chemical agent, acquired from somewhere, against the [Syrian Kurdish forces] in Kobane”.

The New York Times found that 17 American service members and seven Iraqi police officers were exposed to nerve or mustard agents after 2003 but reported that American soldiers were instructed to cover up their experiences.

The Pentagon will launch an investigation into the reports that US soldiers were exposed to chemical weapons in Iraq and that some of the munitions may have been seized by Isis, the White House said.

“We have the deepest concern for these individuals,” said Josh Earnest, Barack Obama’s spokesman. “The Department of Defence has indicated that they are going to conduct a review of the specific situation.”

<http://www.telegraph.co.uk/news/worldnews/islamic-state/11165789/Isil-jihadists-may-have-access-to-chemicals-for-dirty-bombs.html>

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International Business (IB) Times – New York, NY

US To Stand Firm on Iran Nuclear Talks Deadline, Which Russia Says is Not ‘Sacred’

By Sneha Shankar
October 15, 2014

A senior U.S. official said Wednesday that six of the world's nuclear powers and Iran will work toward clearing a long-standing impasse over the latter’s nuclear program by a Nov. 24 deadline. However, the official added that there were significant gaps that needed to be addressed before a deal could be finalized.

The statement came before Wednesday's meeting between U.S. Secretary of State John Kerry, Iranian Foreign Minister Mohammad Javad Zarif and the European Union’s foreign policy chief Catherine Ashton in Vienna, to discuss Iran's nuclear program. A key negotiator from Iran had raised the possibility of extending the deadline to help resolve the deadlock between Iran and the six world powers, which include the U.S., Russia, China, Britain, France and Germany.

"We don't know if we'll be able to get to an agreement, we very well may not," the State Department official said, according to Reuters, adding: "We're not talking about extension or anything like that in the room. We're talking about getting this done by the 24th (of November)."

Russian Foreign Minister Sergei Lavrov reportedly said on Tuesday that the deadline was not "sacred," raising expectations that it may be extended.

Both parties have met several times over the past few months to discuss reducing economic sanctions against Iran if it stops its efforts to enrich uranium. In July, after meetings held that month failed to provide a solution, the group extended the deadline to November. Although Iran has repeatedly said that its nuclear program is for research purposes, Western powers believe it is an excuse to develop nuclear weapons.

"There is still time to get this done. There's enough time to get the technical work done, to get the political agreement ... if everybody can make the decisions they need to," the U.S. official said, according to Reuters, adding: "We keep chipping away ... In places gaps have narrowed, but the Iranians have some fundamental decisions to make."

<http://www.ibtimes.com/us-stand-firm-iran-nuclear-talks-deadline-which-russia-says-not-sacred-1705262>

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FARS News Agency – Tehran, Iran

Thursday, October 16, 2014

FM: Iran, G5+1 to Resume Expert Talks in 2 Weeks

TEHRAN (FNA) - Iranian Foreign Minister Mohammad Javad Zarif announced that Iran and the Group 5+1 (the five permanent UN Security Council members plus Germany) will hold an expert-level meeting in the next two weeks.

"The Iranian and G5+1 experts will discuss issues related to their differences in the negotiation within next one or two weeks," Zarif, also Iran's top negotiator in talks with the world power, told Iranian reporters in Vienna on Thursday.

He underlined that very serious negotiations between Iran and G5+1 are still remaining.

The Iranian foreign minister, meantime, noted that he will hold talks with his American counterpart John Kerry and EU foreign policy chief Catherine Ashton in less than a month.

Zarif noted that the venue of the expert-level and trial-lateral talks are not known as yet, but it will not be in Vienna.

Iran and the six major world powers (the US, Russia, France, Britain and China plus Germany) started a fresh round of nuclear negotiations in Vienna this morning local time.

Zarif and Ashton are presiding over the 8th round of the talks between Tehran and the Group 5+1 (the five permanent UN Security Council members plus Germany) in the Austrian capital.

On Tuesday, Zarif said Tehran and the G5+1 have not yet reached an agreement over their main bones of contention.

"There are outstanding differences, but it doesn't mean that these differences cannot be resolved," Zarif told reporters after meeting Ashton in Vienna.

"Of course, this doesn't mean that a solution cannot be achieved. Everyone believes that this issue can be settled since actually, Iran's nuclear program is a peaceful program and a reality on the ground," he added.

Stressing that working on solutions is necessary, he said that during the Tuesday talks among the Iranian, EU and the US officials, the participants proposed different solutions in a series of serious discussions, but they have not yet reached a common conclusion and "I believe that in case there is a political will, reaching a solution will be possible".

He noted that as long as the two sides don't agree on all issues, no agreement can be said to have been obtained on any single issue.

"Yet, we still have time to reach an agreement," the Iranian lead negotiator concluded.

Iranian Foreign Minister Mohammad Javad Zarif, accompanied by his deputies Seyed Abbas Araqchi and Majid Takht Ravanchi, arrived in Vienna on Tuesday morning.

Upon arrival, the Iranian, American and EU negotiators had two days of trilateral talks in Vienna on October 14-15.

The two sides held six rounds of negotiations in Vienna to reach a comprehensive deal after they inked an interim agreement in Geneva on November 24.

The 7th round of talks between Iran and the Group 5+1 was held in New York on the sidelines of the UN General Assembly meeting last month.

The Geneva agreement took effect on January 20 and expired six months later on July 20. In July, Tehran and the six countries agreed to extend negotiations until November 24 after they failed to reach an agreement on a number of key issues.

<http://english.farsnews.com/newstext.aspx?nn=13930724000634>

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Pittsburgh Tribune-Review – Pittsburgh, PA

ISIS Lacks Deadly Chemical Munitions in Iraq, Syria, Pentagon Claims

By *The Washington Post*

Thursday, October 16, 2014

Islamic State terrorists do not appear to have seized any chemical weapons as they have rolled across Iraq and Syria, the Pentagon said Wednesday, as reports of U.S. troops' exposure to similar weapons during Washington's last conflict in Iraq raised questions about the extremist group's access to similar deadly agents.

"We have no indications right now that they have possession of those kinds of munitions," said Rear Adm. John Kirby, a Pentagon spokesman.

The United States destroyed 4,530 chemical munitions during its 2003 invasion of Iraq, which was motivated in part by the Bush administration's belief that then-Iraqi leader Saddam Hussein harbored a large-scale, secret weapons program. The chemical munitions that U.S. troops later found, however, were mostly decaying remnants of a much earlier weapon program.

While American troops may have destroyed most of those weapons, U.S. officials acknowledge that at least some chemical materials may remain in Iraq, including at a Hussein-era chemical weapon site that extremists seized in June.

The New York Times on Wednesday reported that at least 17 U.S. service members had been exposed to chemical weapons in Iraq during the invasion. In some cases, The Times said, military physicians failed to provide proper care to the troops, some of whom have reported lasting health problems.

Although military officials do not have a tally for all of the service members exposed to those weapons from 2003 to 2011, when President Obama withdrew forces from Iraq, a Department of Defense official said about 20 had been exposed to chemicals from 2006 to 2008. Two troops were exposed to a nerve agent in 2004, the official said.

The renewed reports about Iraq's lingering chemical stockpile may intensify anxiety in Congress about Obama's Islamic State strategy, which now is centered upon airstrikes on militant positions in Iraq and parts of Syria. Some lawmakers are pushing for more direct military involvement in the fight against the group, which has beheaded hostages — including Westerners — and threatened to initiate further attacks against the West.

"There are caches of this stuff clearly out there — it would be folly just to assume there aren't," an aide to the House Armed Services Committee said, referring to the possibility of the Islamic State seizing chemical materials in Iraq or Syria. "It's a contingency you have to be prepared for." The aide spoke on condition of anonymity because he was not authorized to speak on the record.

Senior U.S. officials show few signs that they support sending troops into ground combat in what has become a messy, multisided war.

Speaking Wednesday, Defense Secretary Chuck Hagel ruled out a new ground war in Iraq.

"Our strategy in Iraq and Syria does require forces on the ground, but they must be local forces," Hagel said during an address at an Army conference.

<http://triblive.com/usworld/nation/6971867-74/iraq-chemical-weapons>

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Billings Gazette – Billings, MT

AP NewsBreak: Iran Looks at Compromise Nuke Offer

By George Jahn, Associated Press (AP)

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October 16, 2014

VIENNA (AP) — Iran is considering a U.S. proposal at nuclear talks that would allow it to keep more of its nuclear infrastructure intact while still reducing its ability to make an atomic bomb, two diplomats told The Associated Press on Thursday.

At issue is Iran's uranium enrichment program, which can make both reactor fuel and the fissile core of nuclear arms. Tehran insists the program is only for future energy needs. Iran is refusing U.S. demands that it cut the number of working enriching centrifuges from nearly 10,000 to only a few thousand. That dispute has been the main stumbling block to progress since the talks began early this year.

Ahead of a Nov. 24 deadline to seal a deal, diplomats told the AP last month that U.S. had begun floating alternates to reducing centrifuges that would eliminate the disagreement but still accomplish the goal of increasing the time Iran would need to make a nuclear weapon.

Among them was an offer to tolerate more centrifuges if Tehran agreed to reduce its stockpile of low-enriched uranium, which can fuel reactors but is also easily turned into weapons-grade material.

Back then, Iran was non-committal. But the two diplomats said Thursday it recently began discussions with Moscow on possibly shipping some of its low-enriched stockpile to Russia for future use as an energy source. Russia supplies fuel for Iran's existing nuclear reactor.

The diplomats demanded anonymity because they were not authorized to discuss confidential information. They stressed the discussions were preliminary and Iran had made no commitment.

Iranian officials at the closed talks were not reachable for comment.

Experts say the low-enriched uranium Iran has stored, if further enriched, could arm up to seven nuclear weapons. They estimate it would take Tehran between 3-to-12 months to have enough weapons-grade uranium for one bomb.

http://billingsgazette.com/news/world/ap-newsbreak-iran-looks-at-compromise-nuke-offer/article_72fa936a-40e1-5cd9-8e0c-b78454f2cdcb.html

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FARS News Agency – Tehran, Iran

Friday, October 17, 2014

Iran's N. Chief Optimistic about Attainment of Final Deal with World Powers before Deadline

TEHRAN (FNA) - Head of the Atomic Energy Organization of Iran (AEOI) Ali Akbar Salehi voiced satisfaction in the progressive trend of the nuclear talks between Tehran and the six major world powers, saying the negotiations' atmosphere is promising and cutting a final deal before the November 24 is possible.

"The negotiations between Iran and Group 5+1 (the five permanent UN Security Council members plus Germany) will make positive results and its prospect is bright," Salehi said on Thursday.

He noted that Iran is a powerful country in the world and other world powers have no choice but to deal with Tehran in an absolutely reciprocal way.

Iran and the six major world powers ended their 8th round of nuclear negotiations in Vienna on Thursday.

Iranian Foreign Minister Mohammad Javad Zarif and EU Foreign Policy Chief Catherine Ashton presided over the 8th round of the talks between Tehran and the G5+1 in the Austrian capital.

The 7th round of talks between Iran and the Group 5+1 was held in New York on the sidelines of the UN General Assembly meeting last month.

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The two sides held six rounds of negotiations in Vienna to reach a comprehensive deal after they inked an interim agreement in Geneva on November 24.

The Geneva agreement took effect on January 20 and expired six months later on July 20. In July, Tehran and the six countries agreed to extend negotiations until November 24 after they failed to reach an agreement on a number of key issues.

<http://english.farsnews.com/newstext.aspx?nn=13930725000504>

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Xinhua News – Beijing, China

India Test Fires Nuke Capable Cruise Missile

October 17, 2014

NEW DELHI, Oct. 17 (Xinhua) -- India on Friday successfully test fired its home-made, nuclear capable sub-sonic cruise missile, Nirbhay, from a test range in the eastern state of Odisha, sources said.

"The test firing of the surface-to-surface missile from the integrated test range at Chandipur around 10 a.m. (local time) has been successful," the sources said.

Local TV channels showed footage of the missile blasting off like a rocket, and then, unlike a missile, turning into an aircraft with wings and pronounced tail fins.

The missile, developed by the state-owned Defense Research and Development Organization can fly at tree-top level, making it undetectable on radar, the sources said.

With a strike range of 1,000 km, it can hit deep into enemy territory and it has a fire-and-forget system that cannot be jammed.

When India's own satellite navigation fleet is ready, cruise missiles can be controlled by signals from the country's space system, the sources added.

The maiden test firing of Nirbhay (meaning fearless) was not successful in March last year as it deviated from its course about 20 minutes after launch.

Nirbhay is India's equivalent of America's Tomahawk and Pakistan's Babur missiles.

http://news.xinhuanet.com/english/world/2014-10/17/c_133723891.htm

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Business Insider.com – New York, NY

China Military-Linked Firm Eyes Quick Approval of Drug to Cure Ebola

By Adam Jourdan, Reuters

October 14, 2014

SHANGHAI (Reuters) - A Chinese drugmaker with close military ties is seeking fast-track approval for a drug that it says can cure Ebola, as China joins the race to help treat a deadly outbreak of a disease that has spread from Africa to the United States and Europe.

Sihuan Pharmaceutical Holdings Group Ltd has signed a tie-up with Chinese research Academy of Military Medical Sciences (AMMS) last week to help push the drug called JK-05 through the approval process in China and bring it to market. The drug, developed by the academy, is currently approved for emergency military use only.

"We believe that we can file to the Chinese Food and Drug Administration (CFDA) before the end of the year," Sihuan's chairman Che Fengsheng said during an investor call last week.



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"They are looking at this very seriously... and we could get on the 'green light' track," he added.

Sihuan's drug is only one contender amongst a number of experimental cures worldwide to treat Ebola, although if successful it would be a huge boon for China's developing pharmaceutical sector and the country's soft power in Africa, an increasingly important partner for the world's No.2 economy.

The current outbreak, the worst on record of the disease, has killed more than 4,000 people, mostly in West Africa.

Che said one of Sihuan's strengths was its close military ties. The firm, which claims to be China's third largest prescription drugmaker, was originally a military scientific unit, which was spun off into its current form in 2001.

"We have a myriad of connections with the military medical science units and have developed lots of products in cooperation with the AMMS," Che said. AMMS is a research unit of the People's Liberation Army, China's armed forces.

Che pointed out that a Chinese vaccine against a SARS outbreak a decade ago, also developed by the military, was approved by the drug regulator rapidly after its application, signally that JK-05 could receive similar treatment.

"At that time the whole approval process, clinical components and the period after was cut right down," he said.

Officials at Sihuan, which is part-owned by Morgan Stanley, were not available for further comment on Tuesday.

TESTED ON MICE

China's Ebola cure bid still lags some way behind U.S.-developed ZMapp and TKM-Ebola, but Sihuan management said the drug has proven effective during animal testing on mice.

The drug, which AMMS has been studying and developing already for five years, is similar to Japanese flu drug favipiravir, developed by Fujifilm Holdings Corp, which has been used effectively to treat patients with Ebola.

ZMapp and TKM-Ebola have been tested on monkeys, which give a closer immune response to that of humans, and have been used to treat human patients with the disease.

JK-05 has not yet undergone clinical trials, but Sihuan management said the firm was actively working towards clinical tests of the drug, which could be shorter than normally required. The drug has also shown promise against diseases such as influenza and yellow fever.

Chinese military doctor Wang Hongquan, credited with inventing the drug, said on the investors call that JK-05 would first be used to treat Chinese nationals working in Africa with the disease, but treating non-Chinese would require further international approvals.

There are millions of Chinese nationals living in Africa, with around 10,000 in the worst affected countries - Sierra Leone, Guinea and Liberia.

JK-05 could also be used if Ebola spreads to China.

"We can't rule out the possibility that it will spread to Asia. Particularly in China now we have lots of connections with different international cities and many people coming and going across our borders," he said on the call.

Company management and analysts said an Ebola outbreak in China would further speed up the approval process and development of the drug.

"It is highly likely the Ebola indication could be approved very quickly if Ebola was to spread to China," said Deutsche Bank analyst Jack Hu in an analyst note on Sunday.

Additional reporting by SHANGHAI newsroom; Editing by Raju Gopalakrishnan

<http://www.businessinsider.com/r-china-military-linked-firm-eyes-quick-approval-of-drug-to-cure-ebola-2014-10>

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The Wall Street Journal – New York, NY

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New Ebola Cases May Rise to 10,000 a Week by December

U.N. Health Body Aims to Have Majority of Cases Isolated Within Two Months to Reverse Outbreak

By Andrew Morse

October 15, 2014

ZURICH—The Ebola virus is killing 70% of the people who contract the disease, the World Health Organization said on Tuesday, and as many as 10,000 new cases a week could be reported by early December.

Bruce Aylward, the WHO assistant director-general in charge of the organization's response to the epidemic, said the Ebola virus is "still moving geographically, still escalating" in some bigger cities.

He expressed concern the disease could spread to West African countries that share borders with Sierra Leone, Guinea and Liberia, the epicenters of the current outbreak, singling out Ivory Coast as particularly vulnerable.

Dr. Aylward pushed for adoption of a plan the WHO has dubbed "70-70-60" that includes the goal to safely bury 70% of the people killed by Ebola and treat 70% of those with the disease within 60 days to help prevent the spread of the disease.

"Every time you isolate another patient, every time you have a safe burial, you're taking some of the heat out of this outbreak," Dr. Aylward said.

The WHO's latest numbers indicated 8,914 suspected or confirmed Ebola cases and 4,447 deaths from the disease. Based on those numbers, the mortality rate is under 50%.

But Dr. Aylward said that when patients can be monitored throughout the course of their disease, the mortality rate is actually 70% in the affected countries.

"This is again a high-mortality disease in any circumstance but especially these places where it's happening," Dr. Aylward said.

Dr. Aylward said the number of reported cases has been running at 1,000 a week over the past three to four weeks, with the total number of reported cases expected to top 9,000 this week.

<http://online.wsj.com/articles/up-to-10-000-new-ebola-cases-could-occur-each-week-says-who-1413293490>

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Defense One.com – Washington, D.C.

OPINION/Article

This Is a Pivotal Moment for the US Nuclear Arsenal

Adam Mount, *Council on Foreign Relations (CFR)*

October 13, 2014

The primary systems of all three legs of the U.S. nuclear weapons triad are nearing the end of their service lives and are slated for replacement. As a result, the United States is preparing to upgrade nearly every bomber, submarine, missile, and warhead in the arsenal in the next decades. This unfortunate coincidence will drive the cost of the arsenal 75 percent higher in the next ten years than the last, and up to \$1 trillion over the next thirty years.

In recent weeks, the nuclear spending cliff has gained increased attention and has left observers at home and abroad wondering whether the plans—which arise from disparate agency requests to replace each system individually—conflict with the administration's promise to work toward a world without nuclear weapons. The U.S. nuclear arsenal is tasked with deterring potential adversaries and reassuring allies and partners around the world, but this in itself does not set the size or the shape of the arsenal.

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Anxious to pare down next year’s budget request to Congress, the White House is reviewing the spending plans. Advocacy groups, sensing an opportunity for reductions, are coalescing around a set of steps to curtail the programs but have not recommended major changes to nuclear force structure.

Costs of U.S. Nuclear Forces

(Billions of dollars)

Category	2014	Total, 2014 to 2023
Projected Budgeted Amounts for Nuclear Forces		
Nuclear delivery systems	9.7	136
Nuclear weapons, supporting laboratories, and naval reactors	8.3	105
Subtotal	18.0	241
Command, control, communications, and early-warning systems	5.1	56
Total Budgeted Amounts, Nuclear Forces	23.1	296
Additional Costs Based on Historical Cost Growth		
	n.a.	59
Total Estimated Cost of Nuclear Forces	23.1	355
Memorandum:		
Projected Budgeted Amounts for Other Nuclear-Related Activities	20.8	215

Source: CBO based on information from DoD and DOE

Notes: Other Nuclear-Related Activities include legacy costs of nuclear weapons and infrastructure, costs for threat reduction and arms control, and costs for missile defenses and other defenses

The conclusions of the administration’s review will determine its legacy on nuclear issues. Thus far its record has been deeply ambivalent. For instance, Senate Republicans succeeded in exacting high modernization budgets in exchange for approving the 2011 New START treaty. The administration’s ambition to pursue a second arms control treaty—which would reduce each country’s deployed strategic arsenal by another third, to one thousand weapons—has stalled as U.S.-Russian relations have deteriorated. The administration’s review of nuclear spending is not only a unique opportunity to reshape the arsenal; it may also be Obama’s last chance at influencing arms control.

Air

Though the current force of B-2 and B-52 strategic bombers is not expected to begin retiring until 2040, the Air Force has undertaken a program to build a new strategic bomber. The first bombers are planned for a conventional role and it is only later that a nuclear capability would be added, a modification the Air Force has suggested it might delay. Expected to enter service ten years from now, the Pentagon estimates that one hundred of the Long Range Strike Bomber (LRS-B) aircraft will cost some \$55 billion. Though the Air Force officially began a competition to select a contractor for the bomber in July 2014, it is possible that research and development work has already been funded using classified budgets and also possible that cost will rise significantly.

The Air Force also plans to add a nuclear capability to the F-35 stealth fighter. Far behind schedule and over cost, the program has normalized in recent years. However, the nuclear modifications, estimated to cost some \$350

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million, have been delayed until 2022. At the same time, the Air Force is also planning to replace its nuclear-armed Air Launched Cruise Missile (ALCM), which allow bombers to strike defended targets without entering enemy airspace.

Sea

The Navy's fourteen Ohio-class ship submersible ballistic nuclear submarines (SSBN) are set to begin retiring in 2027 at the rate of about one per year. The Ohio replacement program, or SSBN(X), plans to build twelve submarines beginning in 2021 to maintain continuous at sea deterrence. Technology development for the submarine began in 2011 with design of the missile compartment. This year, the program plans to complete the boat's initial design. The cost of the replacement program is variously estimated between \$77 and \$102 billion, or as much as \$7.2 billion per boat (half the price of a new aircraft carrier). Because the program is expected to consume up to half of the Navy's shipbuilding budget for the next three decades, the Senate has acceded to the creation of a separate "National Sea-Based Deterrence Fund" to fund construction of the boats. In addition, the Navy will have to extend the life of the Trident II D-5 missile carried by the submarines and to begin to develop a replacement system after 2030. The Navy has already made several modifications to the Ohio replacement plans to reduce costs, yet recent experiences in naval shipbuilding suggest that the cost overruns are a possibility.

Land

The Air Force is reducing its deployment of 450 Minuteman III intercontinental ballistic missiles (ICBM) to the 420 allowed under New start. Having recently refurbished the Minuteman missiles to ensure that they will remain in service until 2030, the Air Force is beginning its effort to find a replacement. Rather than develop an all new missile, the current plan looks to upgrade the Minuteman with a new rocket motor and solid-state guidance system to lend increased accuracy over the current force. No cost estimates have yet been prepared for replacing of the missiles, but the ICBM force is relatively inexpensive to maintain and upgrading the Minuteman with existing technology will be substantially cheaper than bomber and submarine modernization plans. The modest scale of ICBM replacement is no accident: rising costs would likely to provoke calls to maintain the existing missiles or retire the force altogether. Already, a 2014 RAND study commissioned by the Air Force found indefinite sustainment of the current force to be by far the cheapest option, amounting to \$75 billion through 2050.

Other Sustainment

In addition to major delivery vehicles, several other elements of the U.S. nuclear enterprise are up for modernization. Four classes of nuclear warheads are due to undergo comprehensive life extension programs in the next ten years to ensure their safety and surety. Technicians will replace the non-nuclear components of the nuclear warheads used in gravity bombs, cruise missiles, SLBMs, and ICBMs. The refurbishment efforts also include an ambitious plan to produce a common warhead for land and sea-based ballistic missiles. Furthermore, the Department of Defense plans to upgrade the complex system of satellites, radars, aircraft, and networks that transmit information to and orders from the president in a crisis, an undertaking the Pentagon estimates will cost \$40 billion through 2023. Lastly, the Department of Energy is planning several major new facilities to disassemble plutonium warhead cores, research plutonium chemistry, and enrich uranium on an industrial scale. On top of these costs related to the arsenal, the United States incurs several related expenses, including for missile defense, environmental cleanup of nuclear sites, and global nonproliferation initiatives.

A Rising Debate

As a result of the modernization plans, the cost of the nuclear arsenal is set to expand precipitously even as the overall defense budget is declining to meet the challenges of sequestration. There is a growing consensus among former and current officials that this plan for recapitalizing the nuclear triad is unaffordable under current budget constraints. Though nuclear spending is formally exempted from sequestration, the military services are already finding that the scale of nuclear modernization endangers other priorities. And if the recent history of major procurement projects is any indication, each of the official estimates cited above is in distinct danger of delay and cost overrun.

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Outside of government, calls to pare down the modernization package will continue to increase. Few have tried to rekindle the earlier debate over whether to cut a leg of the nuclear triad—an approach the Obama administration rejected—but arms control groups are coalescing around a more modest set of changes that could limit the spending increases while maintaining the existing force structure:

- Reduce the number of submarines from twelve to ten or eight;
- Delay bomber procurement until B-52 retirement;
- Cancel the air-launched cruise missile;
- Eliminate the nuclear mission from tactical fighters;
- Modernize the existing ICBM force gradually and indefinitely.

In Congress, Sen. Ed Markey (D-MA) and his allies have proposed a similar but more extensive plan.

Without a careful and concerted effort to address the spending packages, nuclear force structure will be determined by congressional infighting or by whichever programs happen to face major cost overruns. The chance to reshape the nuclear arsenal is an unprecedented opportunity and should lead to a national debate. Politicians, strategists, and the public should together determine the nuclear force required to meet the country's strategic needs and comport with the administration's commitment to seek a world without nuclear weapons.

Absent clear moves to reduce the nuclear arsenal, foreign governments will likely take these plans as a sign that the administration is backing away from the president's disarmament pledge. With the international community planning to gather to review the Nonproliferation Treaty, to negotiate on a nuclear-free zone in the Middle East, and to draft a ban on nuclear weapons in Vienna next year, a sign of commitment to disarmament could assist American nuclear interests significantly in the coming years.

What is clear is that the current plans to replace the nuclear arsenal do conflict with the administration's policy of reducing reliance on nuclear weapons. On the contrary, the administration seems set on replacing the triad to the detriment of conventional forces and assigning an increasing role for the nuclear arsenal. With Russia refining its penchant for aggression below the nuclear threshold, the White House ramping up counterterrorism operations in the Middle East, and a host of important domestic spending priorities imperiled, many will ask just how much the nuclear arsenal is worth.

Adam Mount is a Stanton Nuclear Security Fellow at the Council on Foreign Relations. He is currently writing a book on nuclear disarmament in the United States and an article on conventional deterrence after the Cold War. Previously, he worked on nuclear elimination contingencies at the RAND Corporation. He holds a Ph.D. in Government from Georgetown University.

This post appears courtesy of CFR.org.

<http://www.defenseone.com/management/2014/10/pivotal-moment-us-nuclear-arsenal/96365/>

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The National Interest.org – U.S.

OPINION/Feature

Time for American Land-Based Missile Forces to Counter China?

By Evan Braden Montgomery

October 14, 2014

Should the United States develop its own land-based missile forces, even if doing so means adapting or abandoning the Intermediate-Range Nuclear Forces (INF) Treaty?

To sustain a strategy of forward defense in the face of China's growing missile arsenal, Washington may need to consider options that would have seemed implausible just a few years ago, and that clearly remain controversial today. Of course, revising arms-control agreements and investing in new capabilities are major decisions. In his

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latest response to my previous articles, Matthew Hallex raises a number of operational, diplomatic and economic concerns, all of which merit serious consideration. Rather than repeating my earlier arguments, let me conclude this debate by highlighting three areas of disagreement.

First, Hallex notes that forward-based missile forces would not have the same degree of flexibility as other capabilities. Specifically, whereas missiles located in the first island chain would only have utility in East Asia, undersea warfare and long-range strike platforms have global reach. Yet this lack of flexibility can be a virtue, rather than a vice. Submarines and bombers are potent weapons, but their ability to deter adversaries and assure allies can be limited by the fact that they usually operate out of sight, are based far from the theater and may be drawn away when other contingencies arise. Moreover, it is precisely because missile forces would have a narrow mission that they could provide the United States with enhanced bargaining leverage. Although Washington is unlikely to trade away assets that have significant value across a range of scenarios, it might be willing to sacrifice assets that have a more limited role—for the right price.

Second, Hallex writes off land-based missile forces in part because the Army, which is the natural candidate to man and maintain them, would be unwilling to pursue this option at the expense of other capabilities that it believes are more relevant, from infantry units to heavy brigade combat teams. Indeed, the Army does seem reticent to embrace missions such as coastal defense and long-range strike, despite its long history with both. Yet Service preferences should not be allowed to trump higher-level strategic decisions, even though they can be barriers to change. In fact, developing new land-based missiles could help the Army make a stronger case for preserving its budget share as the United States rebalances its attention and resources toward the Asia-Pacific region.

Finally, Hallex calls attention to the potential expense of any new missile forces and argues that such an investment would be unwise, because China could produce missiles more cheaply than the United States. While this contention is plausible, the evidence for it is problematic. To illustrate his point, Hallex cites the cost of an unspecified Chinese air-launched cruise missile (\$175,000) and the price of a U.S. Pershing II land-based ballistic missile (\$18 million). But this is comparing apples to oranges. Cruise missiles tend to be much less expensive than ballistic missiles of comparable range, and air-launched weapons require expensive delivery platforms, which are not taken into account. The estimated cost of the Chinese missile also appears to be more than a decade and a half old, while the price tag of the Pershing II is adjusted for inflation, skewing the numbers even further. Setting these details aside, the key metric that needs to be debated is not how much a U.S. missile might cost relative to a Chinese missile, but rather how much a U.S. missile might cost relative to a potential target, along with any defensive measures that are taken to protect it.

Ultimately, designing, developing and deploying new military capabilities would inevitably require making certain trade-offs and accepting some risks. But it could also have significant payoffs. Hopefully this debate has shed light on both sides of the ledger.

Evan Braden Montgomery is a Senior Fellow at the Center for Strategic and Budgetary Assessments.

<http://nationalinterest.org/feature/time-american-land-based-missile-forces-counter-china-11453>

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The Diplomat – Tokyo, Japan

Could China's Nuclear Strategy Evolve?

For half a century, China's nuclear strategy has been surprisingly consistent. Will it remain so?

By Nicolas Giacometti for *The Diplomat*

October 16, 2014

Fifty years ago, at 7:00 GMT on October 16, 1964, China exploded its first nuclear device at the Lop Nur test site, becoming the fifth official member of the nuclear club after the U.S., the Soviet Union, the U.K. and France. This anniversary is an occasion to take stock of fifty years of Chinese nuclear strategy and reflect on its potential evolution in light of the ongoing modernization of the country's nuclear arsenal. Overall, the analyst is faced with

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the problem of peering through the fog of Beijing's nuclear secrecy to assess the credibility of Beijing's seemingly unaltered nuclear strategy.

Since 1964, China's declaratory policy has remained surprisingly consistent. Beijing regularly restates that the purely defensive role of its nuclear weapons limits their role to preventing any form of nuclear blackmailing or nuclear strike against China. As such, Beijing claims that it would only use its nuclear weapons in a second strike after having suffered a nuclear attack. This unilateral No-First-Use (NFU) policy is complemented by unconditional Negative Security Assurances (NSA) that commit China to not using or threatening to use nuclear weapons against non-nuclear weapons states or non-nuclear weapons zones.

China also regularly insists on the fact that the limited size and capabilities of its nuclear arsenal confirm this policy and that it exercises utmost restraint on nuclear weapons development. It thus describes the size of its arsenal as being kept at the lowest level necessary for self-defense only, with very low levels of readiness. This is confirmed by the limited capabilities of China's nuclear arsenal, especially during the Cold War years. Kristensen and Norris estimate that China only possessed around 200 nuclear warheads in 1990, when the U.K. had around 350, France 550, and the superpowers more than 20,000. Of these 200 warheads, only a handful could reach part of the continental United States when fitted on the liquid-fuelled DF-5 silo-based ICBM. The other warheads could only be assigned to regional deterrence because of the limited range of the missiles and aircraft to which they were assigned.

In addition to these limited numbers, the relative inaccuracy of Chinese ICBMs and the very high yield of most of the warheads (in the megatonic ranges) confirmed the strategic character of the arsenal and the impossibility of using it for tactical purposes. This didn't stop China from conducting research and development of various types of nuclear devices, including enhanced radiation weapons and low-yield warheads (that could have been used for tactical purposes), but it seems that they were not deployed. Finally, the levels of readiness of Chinese nuclear forces were and seem to remain very low. Along with the fact that most Chinese ICBMs were liquid-fuelled (and thus required several hours or days to ready for launch), the warheads were and still are generally stored in nearby storage facilities, instead of already being fitted on the missiles. As some Chinese analysts claim, such a low level of readiness strongly contrasts with the launch-on-warning postures of the superpowers that could be used for surprise first strike purposes.

Overall, and although Western typologies might not apply very well to the Chinese case, Beijing is generally seen as having adopted a "minimum deterrence strategy," relying on a nuclear second strike capability that would punish an aggressor for using its nuclear weapons first. Because of the limited capabilities of the Chinese arsenal, the counter-strike would mainly target the aggressor's cities (counter-value strike).

Notwithstanding these limited numbers and capabilities, China has been slowly but steadily increasing the size and capabilities of its nuclear arsenal with the stated purpose of ensuring the credibility and reliability of its minimum nuclear deterrent. As already explained in a previous article for *The Diplomat*, China has focused the modernization of its nuclear arsenal on those factors and technologies that ensure a survivable, reliable, and destructive second strike, such as increased numbers, solid-fuelled missiles, submarine-based missiles, and potentially Multiple Independent Re-entry Vehicles (MIRV) and Maneuverable Re-entry Vehicles (MaRV). Additionally, it has also made progress in other areas relevant to nuclear weapons and delivery means, including increased accuracy of the missiles, the miniaturization of warheads, and the control of the yield of the nuclear explosion. As a result, China now operates increasingly modern and capable nuclear forces, with missiles such as the DF-21 (since 1990), the DF-31 (since 2000), the JL-2 Submarine Launched Ballistic Missile (SLBM), and perhaps in a few years the new DF-41.

Some of these new capabilities could lead to the broadening of Beijing's nuclear options in the future and to a more flexible approach to the principles of its minimum deterrence strategy. Indeed, a reduction in yield combined with more accurate delivery systems could permit China to widen the set of targets it could hold at risk, thus allowing the targeting of high-value assets or troops concentrations. This would not necessarily entail the adoption of a so-called "nuclear warfighting strategy," but it could allow adaptation of the targets used in a deterrence-by-punishment strategy to give a second strike more flexibility, adaptability and proportionality.

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The fielding of SLBMs will necessarily entail an increased level of readiness of at least this part of the nuclear forces, because of the impossibility of separating the missiles from the warheads, as can be done with land-based missiles. Similarly, the all-solid-fuelled arsenal would dramatically increase the reactivity of the Second Artillery. This could allow a more flexible approach to NFU with the adoption of a launch-on-warning posture in the case of an incoming nuclear attack. The probability of such a change being adopted would depend on factors such as increased U.S. conventional first strike capabilities. While these developments would represent a more flexible approach to China's nuclear strategy, they would not challenge the latter's fundamental principles.

In a different but less likely scenario, China could also fundamentally change its strategy and use its nuclear weapons within the framework of a limited deterrence or deterrence-by-denial strategy. Such a strategy would for example lead to an abandonment of NFU and use limited nuclear strikes in a regional conventional conflict for escalation control or de-escalation forcing purposes. In a more extreme scenario, it could also seek to employ tactical nuclear weapons in order to gain military advantage and make up for certain limitations in conventional military power. The inherent difficulty of strategic forecasting added to China's secrecy policy make it difficult to assess the credibility of such scenarios, but some broad comments can nevertheless be made. Indeed, if current assessments of the size, structure, doctrine, training and associated capabilities (such as ISR and dynamic C3BM) of China's nuclear forces are accurate, the latter cannot, at present, be used in an extended nuclear warfighting mode. As such, the policy-capability gap that was pointed out by Johnston in the 1990s has not been completely bridged in the last 20 years. Moreover, the military added-value of nuclear weapons on the battlefield will only decrease with the parallel increase in China's conventional capabilities (including long-range conventional strikes). Nuclear weapons could then be limited to providing a nuclear umbrella to either an anti-access/area-denial strategy or to offensive conventional operations by deterring the use of tactical nuclear weapons by an adversary who would try to use tactical nuclear weapons to make up for an unfavorable conventional balance of power. Among other determining factors, the likeliness of such a scenario would be dependent upon Chinese ambitions in the Asia-Pacific region, the country's readiness to use force, and the overall political environment and balance of conventional military power in the region.

Overall, this analysis has shown that although China's declaratory policy has not changed since 1964, the evolving characteristics of Beijing's nuclear arsenal are broadening the set of nuclear options for its nuclear strategy. This modernization could very well remain within the framework of China's strict minimum deterrence strategy, but other less likely scenarios include a more fundamental shift towards a more flexible use of nuclear weapons. Assessing the likelihood of such scenarios could be a topic for future research, and should include such elements as China-U.S. relations, the evolution of the military balance of power in the Asia-Pacific region, and China's overall grand strategy.

Nicolas Giacometti is a specialist in nuclear issues and missile defense. The views expressed in this article are the author's own and do not necessarily reflect the views of any institutions he has been affiliated with. The numbers and technical information used in this article are mainly drawn from the publications of the Federation of American Scientists (FAS).

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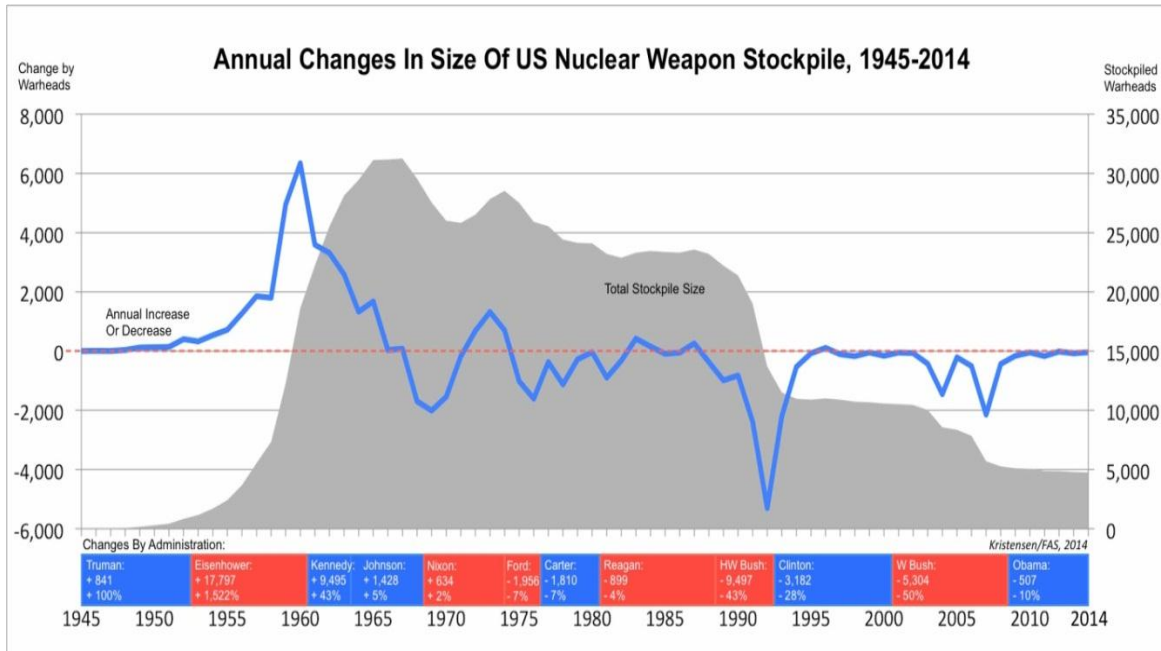
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OPINION/Blog

How Presidents Arm and Disarm

By Hans M. Kristensen

October 15, 2014



The Obama administration has cut the least nuclear warheads from the stockpile of any U.S. administration ever.

It's a funny thing: the administrations that talk the most about reducing nuclear weapons tend to reduce the least.

Analysis of the history of the U.S. nuclear weapons stockpile shows that the Obama administration so far has had the least effect on the size of the U.S. nuclear weapons stockpile of any of the post-Cold War presidencies.

In fact, in terms of warhead numbers, the Obama administration so far has cut the least warheads from the stockpile of any administration ever.

I have previously described how Republican presidents historically – at least in the post-Cold War era – have been the biggest nuclear disarmers, in terms of warheads retired from the Pentagon's nuclear warhead stockpile.

Additional analysis of the stockpile numbers declassified and published by the Obama administration reveals some interesting and sometimes surprising facts.

What went wrong? The Obama administration has recently taken a beating for its nuclear modernization efforts, so what can President Obama do in his remaining two years in office to improve his nuclear legacy?

Effect on Warhead Numbers

On the graph above I have plotted the stockpile changes over time in terms of the number of warheads that were added or withdrawn from the stockpile each year. Below the graph are shown the various administrations with the total number of warheads that each added or withdrew from the stockpile during its period in office.

The biggest increase in the stockpile occurred during the Eisenhower administration, which added a total of 17,797 warheads – an average of 2,225 warheads per year! Those were clearly crazy times; the all-time peak growth in one year was 1960, when 6,340 warheads were added to the stockpile! That same year, the United States produced a staggering 7,178 warheads, rolling them off the assembly line at an average rate of 20 new warheads every single day.

The Kennedy administration added another 9,495 warheads in the nearly three years before President John F. Kennedy was assassinated in October 1963. The Johnson administration initially continued increasing the stockpile and it was in 1967 that the stockpile reached its all-time high of 31,255 warheads. In its second term, however, the



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Johnson administration began reducing the stockpile – the first U.S. administration to do so – and ended up shrinking the stockpile by 1,428 warheads.

During the Nixon administration, the military started loading multiple warheads on ballistic missiles, which increased the overall stockpile. The successor, the Ford administration, reduced the stockpile and President Gerald Ford actually became the Cold War-period president who reduced the size of the stockpile the most: 1,956 warheads.

The Carter administration came in a close second Cold War disarmer with 1,810 warheads withdrawn from the stockpile.

The Reagan administration, which in its first term was seen by many as ramping up the Cold War, ended up shrinking the total stockpile by almost 900 warheads. But during three of its years in office, the administration actually increased the stockpile slightly, and the portion of those warheads that were deployed on strategic delivery vehicles increased as well.

As the first post-Cold War administration, the George H.W. Bush presidency initiated enormous nuclear weapons reductions and ended up shrinking the stockpile by almost 9,500 warheads – almost exactly the number the Kennedy administration increased the stockpile. In one year (1992), Bush cut 5,300 warheads, more than any other president – ever. Much of the Bush cut was related to the retirement of non-strategic nuclear weapons.

The Clinton administration came into office riding the Bush reduction wave, so to speak, and in its first term cut approximately 3,000 warheads from the stockpile. But in his second term, President Clinton slowed down significantly and in one year (1996) actually *increased* the stockpile by 107 weapons – the first time since 1987 that had happened and the only increase in the post-Cold War era so far. It is still unclear what caused the 1996 increase. When the Clinton administration left office, there were still approximately 10,500 nuclear warheads in the stockpile.

President George W. Bush, who many of us in the arms control community saw as a lightning rod for trying to build new nuclear weapons and advocating more proactive use against so-called “rogue” states, ended up becoming one of the great nuclear disarmers of the post-Cold War era. Between 2004 and 2007 (mainly), the Bush W. administration unilaterally cut the stockpile by more than half to roughly 5,270 warheads, a level not seen since the Eisenhower administration. Yet the remaining Bush arsenal was considerably more capable than the Eisenhower arsenal.

President Barack Obama took office with a strong arms control profile, including a pledge to reduce the number and role of nuclear weapons, taking nuclear weapons off “hair-trigger” alert, and “put an end to Cold War thinking.” So far, however, this policy appears to have had only limited effect on the size of the stockpile, with about 500 warheads retired over six years.

Effect on Stockpile Size

Counting warhead numbers is interesting but since the stockpile today is much smaller than during the previous three presidencies, comparing the number of warheads retired doesn’t accurately describe the degree of change inflicted by each president.

A better way is to compare the reductions as a percentage of the size of the stockpile at the beginning of each presidency. That way the data more clearly illustrates how much of an impact on stockpile size each president was responsible for.

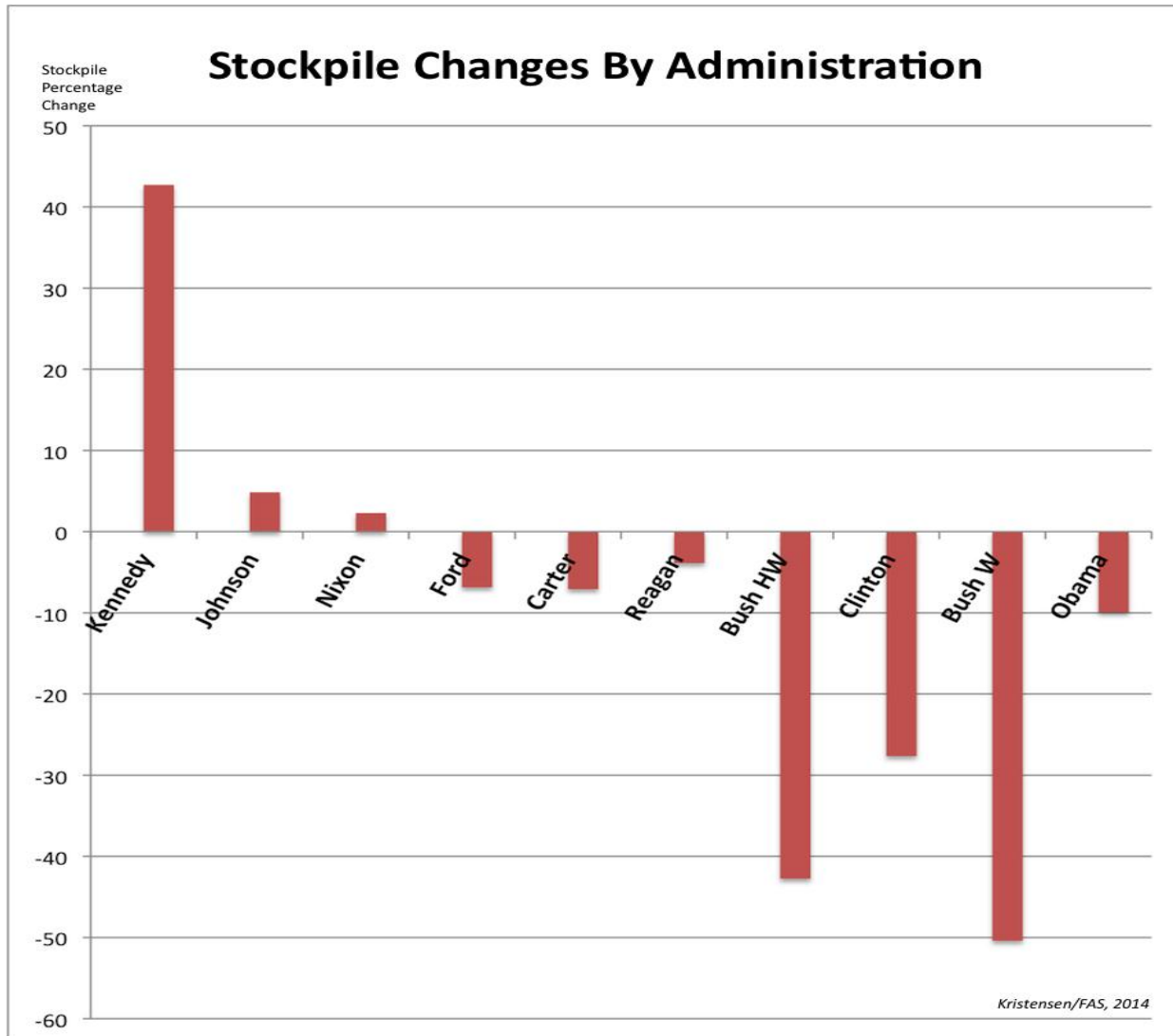
This type of comparison shows that George W. Bush changed the stockpile the most: by a full 50 percent. His father, President H.W. Bush, came in a strong second with a 43 percent reduction. Combined, the Bush presidents cut a staggering 14,801 warheads from the stockpile during their 16 years in office – 925 warheads per year. President Clinton reduced the stockpile by 28 percent during his eight years in office.

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The Obama administration has had less effect on the nuclear weapon stockpile than any other post-Cold War administration.

Despite his strong rhetoric about reducing the numbers of nuclear weapons, however, President Obama so far had the least effect on the size of the stockpile of any of the post-Cold War presidents: a reduction of 10 percent over six years. The remaining two years of the administration will likely see some limited reductions due to force adjustments and management, but nothing on the scale seen during the three previous post-Cold War presidencies.

What Went Wrong?

There are of course reasons for the Obama administration's limited success in reducing the number of nuclear weapons compared with the accomplishments of previous post-Cold War administrations.

The first reason is that the Obama administration during all of its tenure has faced a conservative Congress that has openly opposed any attempts to reduce the arsenal significantly. Even the modest New START Treaty was only agreed to in return for commitments to modernize the remaining arsenal. A conservative Congress does not complain when Republican presidents reduce the stockpile, only when Democratic president try to do so. As a result of the opposition, the United States is now stuck with a larger and more expensive nuclear arsenal than had Congress agreed to significant reductions.

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A second reason is that Russian president Vladimir Putin has rejected additional arms reductions beyond the New START Treaty. Because the Obama administration has made additional reductions conditioned on Russian agreement, the United States today deploys one-third more nuclear warheads than it needs for national and international security commitments. Ironically, because of Putin's opposition to additional reductions, Russia will now be "threatened" by more U.S. nuclear weapons than had Putin agreed to further reductions beyond New START. As a result, Russian taxpayers will have to pay more to maintain a bigger Russian nuclear force than would otherwise have been necessary.

A third reason is that the U.S. nuclear establishment during internal nuclear policy reviews was largely successful in beating back the more drastic disarmament ambitions president Obama may have had. Even before the Nuclear Posture Review was completed in April 2010, a future force level had already been decided for the New START Treaty based largely on the Bush administration's guidance from 2002. President Obama's Employment Strategy from June 2013 could have changed that, but it didn't. It failed to order additional reductions beyond New START, reaffirmed the need for a Triad, retained the current alert and readiness level, and rejected less ambitious and demanding targeting strategies.

In the long run, some of the Obama administration's policies are likely to result in additional unilateral reductions to the stockpile. One of these is the decision that fewer non-deployed warheads are needed in the "hedge." Another effect will come from the decision to reduce the number of missiles on the next-generation ballistic missile submarine from 24 to 16, which will unilaterally reduce the number of warheads needed for the sea-based leg of the Triad. A third effect will come from a decision to phase out most of the gravity bombs in the arsenal. But these decisions depend on modernization of nuclear weapons production facilities and weapons and are unlikely to have a discernible effect on the size of the stockpile or arsenal until well after president Obama has left office.

The Next Two Years

During its last two years in office, the Obama administration's best change to achieve some of the stockpile reductions it failed to demonstrate in the first six years would be to initiate reductions now that are planned for later. In addition to implementing the reductions planned under the New START Treaty early, potential options include offloading excess Trident II SLBMs and retiring excess W76 warheads above what is needed for arming the future fleet of 12 SSBNX submarines; there are currently nearly 50 Trident II SLBMs too many deployed and about 800 W76s too many in the stockpile, so many that the Navy has asked DOE to accept transfer of excess W76s from navy depots faster than planned to free up space and save money. It also includes retiring excess warheads for cruise missiles and gravity bombs above what's required for the B61-12 and LRSO programs; most, if not all, B61-3, B61-10, B83-1, and W84 warheads could probably be retired right away. Moreover, several hundred W78 and W87 warheads for the Minuteman ICBMs could probably be retired because they're in excess of what's needed for the force planned under New START.

But in addition to retiring excess warheads, there are also strong fiscal and operational reasons to work with congressional leaders interested in trimming the planned modernization of the remaining nuclear forces. Options include reducing the SSBNX program from 12 to 10 or 8 operational submarines, reducing the ICBM force to 300 by closing one of the three bases and ending considerations to develop a new mobile or "hybrid" ICBM, delaying the next-generation bomber, canceling the new cruise missile (LRSO), scaling back the B61-12 program to a simple life-extension of the B61-7, canceling nuclear capability for the F-35 fighter-bomber, and work with NATO allies to phase out deployment of nuclear weapons in Europe. Such reductions would have the added benefit of significantly reducing the capacity needed for warhead life-extension programs and production facilities.

Achieving some or all of these reductions would free up significant resources more urgently needed for maintaining and modernizing non-nuclear forces. The excess nuclear forces provide no discernible benefits to day-to-day national security needs and the remaining forces would still be more than adequate to deter and defeat potential adversaries – even a more assertive Russia.

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<http://fas.org/blogs/security/2014/10/stockpilereductions/>

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ABOUT THE USAF CUWS

The USAF Counterproliferation Center was established in 1998 at the direction of the Chief of Staff of the Air Force. Located at Maxwell AFB, this Center capitalizes on the resident expertise of Air University, while extending its reach far beyond - and influences a wide audience of leaders and policy makers. A memorandum of agreement between the Air Staff Director for Nuclear and Counterproliferation (then AF/XON), now AF/A5XP) and Air War College Commandant established the initial manpower and responsibilities of the Center. This included integrating counterproliferation awareness into the curriculum and ongoing research at the Air University; establishing an information repository to promote research on counterproliferation and nonproliferation issues; and directing research on the various topics associated with counterproliferation and nonproliferation .

The Secretary of Defense's Task Force on Nuclear Weapons Management released a report in 2008 that recommended "Air Force personnel connected to the nuclear mission be required to take a professional military education (PME) course on national, defense, and Air Force concepts for deterrence and defense." As a result, the Air Force Nuclear Weapons Center, in coordination with the AF/A10 and Air Force Global Strike Command, established a series of courses at Kirtland AFB to provide continuing education through the careers of those Air Force personnel working in or supporting the nuclear enterprise. This mission was transferred to the Counterproliferation Center in 2012, broadening its mandate to providing education and research to not just countering WMD but also nuclear deterrence.

In February 2014, the Center's name was changed to the Center for Unconventional Weapons Studies to reflect its broad coverage of unconventional weapons issues, both offensive and defensive, across the six joint operating concepts (deterrence operations, cooperative security, major combat operations, irregular warfare, stability operations, and homeland security). The term "unconventional weapons," currently defined as nuclear, biological, and chemical weapons, also includes the improvised use of chemical, biological, and radiological hazards.

The CUWS's military insignia displays the symbols of nuclear, biological, and chemical hazards. The arrows above the hazards represent the four aspects of counterproliferation - counterforce, active defense, passive defense, and consequence management.

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