



# **USAF Center for Unconventional Weapons Studies**

## **(CUWS) Outreach Journal**

**Issue No. 1142, 21 November 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](http://cpc.au.af.mil/au_outreach.aspx).**

The following news articles, papers, and other information sources do not necessarily reflect official endorsement of the Air University, U.S. Air Force, or Department of Defense. Reproduction for private use or commercial gain is subject to original copyright restrictions. All rights are reserved.

**FEATURE ITEM: "2015 Global Forecast: Crisis and Opportunity".** Editors, Craig Cohen and Josiane Gabel; published by the Center for Strategic & International Studies (CSIS); November 11, 2014, 102 pages.

[http://csis.org/files/publication/141110\\_Cohen\\_GlobalForecast2015\\_Web.pdf](http://csis.org/files/publication/141110_Cohen_GlobalForecast2015_Web.pdf)

Maintaining international security and pursuing American interests is more difficult now than perhaps at any time in history. The security environment that the United States faces is more complex, dynamic, and difficult to predict. At the same time, no domestic consensus exists on the purposes of American power and how best to pursue them. The Center for Strategic and International Studies (CSIS) will look ahead in this annual volume at the crises and opportunities that will likely arise in 2015, how best to deal with them, and what lasting effects they might leave for the next American administration and its allies around the world.

Outreach Journal Feedback or sign-up request: [cpc.admin@maxwell.af.mil](mailto:cpc.admin@maxwell.af.mil)

[Return to Top](#)

### **U.S. NUCLEAR WEAPONS**

1. [US to Increase Nuclear Weapons Spending – Pentagon](#)
2. [US to Spend \\$10 Billion to Upgrade its Nuclear Weapons Arsenal](#)

### **U.S. COUNTER-WMD**

1. [MDA Aims for 2020 Fielding of Redesigned Kill Vehicle](#)

### **U.S. ARMS CONTROL**

1. [Russia Has More Ballistic Missile Interceptors than US: Arms Control](#)
2. [NATO Missile Defense Not Targeted at Russia: Senior US Official](#)

### **HOMELAND SECURITY/THE AMERICAS**

1. [Lawrence Livermore Lab set to Get New Supercomputer](#)

### **ASIA/PACIFIC**

1. [North Korea Threatens Nuclear Test and 'Unlimited' Increase in Military after UN Vote](#)
2. [US Report: China's Nukes Getting Bigger and Better](#)
3. [N.K. Nuclear Reactor Remains Shut Down amid Signs of Preparations to Restart Reprocessing Facility: Report](#)
4. [DPRK Ready to Resume Six-Party Talks without Preconditions: Russian FM](#)
5. [U.S. Calls N. Korea's Nuclear Test Threat 'Cause of great Concern'](#)
6. [North Korea Conducts Ejection Test of Sub-Launched Missile](#)

**Issue No.1142, 21 November 2014**

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



### **EUROPE/RUSSIA**

1. [Whispers about Russia's so-called 'Satellite Killer' Grow Louder](#)
2. [Russia's Modernised Tu-160 Bomber Performs First Flight](#)
3. [3rd New Nuclear Missile Submarine Set to Join Russian Navy](#)

### **MIDDLE EAST**

1. [Iranian Legislature Insists on Removal of All Sanctions for Final Deal with Powers](#)
2. [Iran Official: US Proposals in Oman 'Back to Zero'](#)
3. [Final Nuclear Deal Possible Before Deadline: Iran FM](#)
4. [Sticking Points Remain in Iran Nuclear Dispute](#)
5. [Iran Not to Accept any Limit on its Nuclear Development](#)
6. [Russia Has No Intention to Develop Iran Nuclear Weapons, Say Experts](#)
7. [Final Decision on Iran Nuclear Program Expected on Last Day of Vienna Talks](#)
8. [Iran Not to Allow "Special" Nuclear Inspections: Atomic Chief](#)
9. [Nuclear Chief: Agreement with Russia Gives Iran Upper Hand in Talks with Powers](#)
10. [Report: Iran Secretly Continuing Nuclear Weapons Work](#)
11. [Western Leaders Step away from Nuclear Talks with Iran as Deadline Nears](#)

### **INDIA/PAKISTAN**

1. [India Successfully Test-Fires Nuclear-Capable Dhanush Missile](#)
2. [Pak Test-Fires Nuke Capable Hatf IV Ballistic Missile](#)

### **AFRICA**

1. [CDC Chief Drops Worst-Case Ebola Estimate](#)

### **COMMENTARY**

1. [Time to Rebuild America's Declining Nuclear Force](#)
2. [Don't Throw Billions at an Obsolete Nuclear Arsenal](#)
3. [To Go Nuclear or Not: Does the Non-Proliferation Treaty Really Matter?](#)
4. [N.K. WMDs Carry Catastrophic Potential](#)
5. [COMMENTARY: China Should Reduce its Nuclear Arsenal](#)

RT (Russia Today) – Moscow, Russia

## **US to Increase Nuclear Weapons Spending – Pentagon**

November 14, 2014

United States Secretary of Defense Chuck Hagel has announced an overhaul of how the US nuclear weapon arsenal is maintained, calling for billions of dollars in investment to address recent security violations and low morale among nuclear-force management.

Hagel revealed on Friday the results of two reviews - one done by the Pentagon and another external probe - of US nuclear force maintenance protocol that, in recent years, has been beset by scandal. The reviews were ordered after reporting by AP showed security, safety, morale, and leadership lapses among the nuclear force.

*"The root cause has been lack of sustained focus, attention and resources, resulting in a pervasive sense that a career in a nuclear enterprise offers too few opportunities for growth and advancement,"* Hagel said Friday.

The reviews found that the leadership structure of US nuclear forces requires reform given officials have, in the recent past, been unaware of problematic behavior and focus from underlings. The reviews also pointed to *"a nuclear workforce that was dedicated, capable, and performing well in spite of challenges resulting from being*

Issue No.1142, 21 November 2014

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



**USAF Center for Unconventional Weapons Studies**  
**CUWS Outreach Journal**

Maxwell AFB, Alabama

*understaffed, under-resourced, and reliant on an aging and fragile supporting infrastructure in an over-inspected and overly risk-averse environment,"* according to the Defense Department.

The Pentagon's own analysis reported problems, from *"inadequate"* and *"aging"* equipment and facilities to *"a culture of excessive inspections"* to an ill-defined boundary between accountability and perfection in the Air Force.

One example of inadequate US nuclear-maintenance capabilities found in the reviews: There was, until recently, just one tool set available to tighten bolts on the warhead end of a Minuteman 3 missile - and land-based intercontinental ballistic missile (ICBM) - at all three US ICBM bases in North Dakota, Wyoming, and Montana. That one set would be shared via Federal Express delivery, defense officials told AP.

Hagel also announced that billions of dollars are needed in the next five years to boost infrastructure among the nuclear forces. For instance, he has proposed to replace the aging UH-1 Huey helicopter fleet, integral in security at ICBM bases.

The overall increased investment for nuclear forces Hagel proposed will cost about \$10 billion, according to defense officials.

Hagel said he will put a four-star general in charge of nuclear forces to assuage the fundamental flaws exemplified in the reviews, which included more than 100 recommendations to boost nuclear forces.

The reviews' authors found failings with the nuclear force's Personnel Reliability Program, which is used to monitor mental fitness of service members maintaining the world's most robust nuclear arsenal. The program, they reported, has become a burdensome administrative process that has only hindered the mission. Hagel has ordered it to be reformed.

In recent years, both nuclear forces for the Navy, which maintains nuclear-armed submarines, and the Air Force have faced exam-cheating scandals among nuclear reactor training instructors and missile crew members, respectively.

In the past two years, Air Force units charged with keeping up nuclear arsenals have also failed safety and security inspections and twice left open blast doors that protect underground launch control centers at two different bases - once while crew members slept.

In late 2013, AP reported that an independent review for the Air Force found signs of *"burnout"* and high levels of misconduct among missile launch crews and missile security forces.

Experts have already voiced skepticism about Hagel's reforms and whether they would make a difference.

*"Throwing money after problems may fix some technical issues but it is unlikely to resolve the dissolution that must come from sitting in a silo hole in the Midwest with missiles on high alert to respond to a nuclear attack that is unlikely to ever come,"* Hans Kristensen, a nuclear expert with the Federation of American Scientists, told AP.

<http://rt.com/usa/205635-nuclear-weapons-increase-pentagon/>

[Return to Top](#)

The Australian.com – Sydney, Australia

## **US to Spend \$10 Billion to Upgrade its Nuclear Weapons Arsenal**

By David Taylor and Ben Hoyle, *The Times (London)*

November 17, 2014

THE US has begun a \$US10 billion upgrade of its nuclear weapons arsenal after two hard-hitting reviews found decades of neglect have left its most significant line of defence in disrepair.

Emergency spending over the next five years will be required to overhaul ageing facilities that have decayed since the Cold War era, as the nuclear deterrent has fallen victim to cost-cutting.

**Issue No.1142, 21 November 2014**

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



**USAF Center for Unconventional Weapons Studies**  
**CUWS Outreach Journal**

Maxwell AFB, Alabama

The US had already put itself on the path to modernise ageing weapons at a cost of up to \$US1 trillion (\$1.1 trillion) over the next three decades, including a dozen ballistic missile submarines, up to 100 new bombers and 400 land-based missiles.

President Barack Obama made an early commitment to campaign for “a nuclear-free world”, but the policy has been sidelined in an uncertain era in which Russia has become increasingly bellicose, North Korea has threatened to target America’s west coast and the West remains locked in talks to prevent Iran developing atomic weapons.

Russia is also forging ahead with a massive overhaul of its military. Dmitry Rogozin, the hawkish Deputy Prime Minister, said in September that the country would “renovate” its nuclear arsenal in the next few years.

US Defence Secretary Chuck Hagel admitted on Saturday that his department’s most important mission had been allowed to “roll slowly downhill”. Two reviews have exposed failings, from 60-year-old blast doors that no longer close properly to a parts shortage for nuclear submarines, keeping them in dock for long periods.

Mr Hagel admitted three nuclear bases holding 450 intercontinental ballistic missiles between them had to share a single wrench for attaching nuclear warheads, sending it by courier from one to the other as required.

“It’s indicative of the depth and width of what has happened over the last few years,” he said. “Lack of focus. People taking their eye off the ball a little bit.”

He reassured the American people that “this did not affect the safety, security and effectiveness of our nuclear weapons”.

Mr Hagel said the three bases — in Wyoming, Montana and North Dakota — coped “by Federal Expressing the one wrench around each base. They were creative and innovative and they made it work, but that’s not the way to do it. We now have a wrench for each location, we’re going to have two wrenches for each location soon.”

The US spends \$US16bn a year on its nuclear deterrent, and expects an emergency increase of at least 10 per cent a year over the next five years.

“No other mission we have is more important. It deters nuclear attack on the United States and our allies and our partners. It prevents our adversaries from trying to escalate their way out of failed conventional aggression,” Mr Hagel said.

He said that the US’s nuclear deterrent “remains safe, secure and effective”, but conceded staff had been stretched and under-resourced and “there has nationally been a sense of taking it for granted”.

The review discovered that part of the defensive shield surrounding the nuclear bases relied on the oldest working helicopters in the US military; aircraft from 1969 that saw action in Vietnam.

Two ground wars in Iraq and Afghanistan over the past 13 years had contributed to the neglect of the nuclear mission, he said.

The US said the commitment to revamp its nuclear weapons was not inconsistent with the President’s longer-term ambition, but the discussion was a far cry from the moment in 2009 when Mr Obama and his Russian counterpart, Dmitry Medvedev, pledged their commitment to a “nuclear-free world”.

There were reports last week that Russia was abruptly scaling back its co-operation with the US on securing nuclear materials on Russian territory. The program, which has run since the fall of the Soviet Union, is seen by the US as a vital part of its global efforts to prevent nuclear bomb components falling into the hands of terrorists or rogue states.

It has spent billions trying to improve the security of Russian materials, but much remains to be done. Hundreds of buildings in Russia are still believed to contain nuclear material that could be used in weapons.

*THE TIMES*

**Issue No.1142, 21 November 2014**

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



<http://www.theaustralian.com.au/news/world/us-to-spend-10-billion-to-upgrade-its-nuclear-weapons-arsenal/story-fnb64oi6-1227124934746>

[Return to Top](#)

Defense News.com – Washington, D.C.

## MDA Aims for 2020 Fielding of Redesigned Kill Vehicle

November 18, 2014

WASHINGTON — Deployed in 2004 as a bulwark against North Korea’s missile program, the original exoatmospheric kill vehicle (EKV) was rushed into development and fielded as a prototype. But the Missile Defense Agency (MDA) is seeking a redesigned EKV that is more reliable, and easier to produce, likely for fielding in 2020.

The EKV is a component of the “hit-to-kill” Ground-based Midcourse Defense (GMD) missile shield, which uses interceptors to ram and destroy incoming intercontinental ballistic missiles (ICBMs). With \$99.5 million in the president’s 2015 budget for the initial redesign, the kill vehicle is to be built with a modular open architecture, common interfaces and standards, simplifying upgrades and broadening the vendor and supply base.

MDA a month ago asked Boeing, the prime contractor for the system’s ground-based interceptor (GBI) missile, Raytheon Missile Systems, which builds the current EKV, and Lockheed Martin to tweak redesign proposals they have submitted. The agency is expected to announce its decision in early 2015 at the soonest.

Acknowledging the EKV as a “prototype,” Raytheon’s director of advanced kill vehicles, Vic Wagner, said the system’s complexity makes it ripe for redesign.

“It’s really allowing industry to build a kill vehicle with current state of the art production capabilities, to have less complex parts with the same performance,” he said of MDA’s plans.

MDA has also issued a broader call to industry for information about component parts for a redesigned EKV. The request asks companies to provide timelines and methods to demonstrate their redesigned kill vehicles.

“This research will identify mature technologies and qualified parties capable of developing and producing sub-assemblies and/or components for the re-designed kill vehicle,” said the pre-solicitation notice, known as a request for information.

Responses to the request for information were due Nov. 3.

To counter North Korea’s efforts to develop a mobile ICBM, the MDA aims to field the new EKV by 2020, according to Riki Ellison, of the Missile Defense Advocacy Alliance. This quick turnaround could give Raytheon, as the incumbent, an advantage, although it’s also likely MDA could forge a “shotgun wedding” between any or all of the three companies, he said.

“So now you have a rush, and you’re testing in ’18 and ’19, you have to create a legitimate ability for contractors to produce that,” Ellison said. “I think that’s what’s driving what will happen.”

MDA also has a common kill vehicle (CKV) technology development effort aimed at 2025 and beyond. The program seeks a kill vehicle that could be used by the GMD, Aegis ballistic missile defense and the Terminal High Altitude Area Defense program.

Under CKV concept definition and program planning contracts, Boeing, Lockheed and Raytheon this year provided MDA with concepts and have since been asked to update them.

MDA’s goal is a more accurate GMD system so that fewer interceptors have to be deployed to hit a single ICBM, Ellison said. The kill vehicles would be able to collect and share position data for incoming missiles, and discriminate between the missile and countermeasures.

In March, MDA requested \$7.5 billion to deploy the interceptors, sensors, and command-and-control systems of the ballistic missile defense system, of which GMD is a component.

Issue No.1142, 21 November 2014

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



**USAF Center for Unconventional Weapons Studies**  
**CUWS Outreach Journal**

Maxwell AFB, Alabama

The GMD program, plagued with test failures over the past decade, scored its first hit on June 22. A long-range GBI was launched from Vandenberg Air Force Base, California, six minutes after its target — an intermediate-range ballistic missile target launched from the Army's Reagan Test Site in the Marshall Islands — and the two collided.

The three-stage GBI carries the EKV toward the target's predicted location in space. Once released from the booster, the EKV uses guidance data transmitted from ground support and fire control system components and on-board sensors to identify and destroy the target warhead.

Intense vibration during the interceptor's ascent affected EKV navigation system and caused the interceptor to fail in a 2010 test — since remedied ahead of the June test.

"We do not have any issues like that that have not been addressed," Wagner said. "We're very confident right now."

Capability enhancements I and II are the two EKV variants. The I configuration includes connector upgrades from the first prototype to address obsolescence issues. The II version has an upgraded processor, which allows the EKV to track a greater number of objects.

According to Boeing, during the June test, the GMD system defeated countermeasures, viewed as a new threat. Further, Boeing said, the test re-created the conditions of space.

Boeing spokesman Terrence Williams said the company is upgrading interceptors as part of an ongoing fleet refurbishment and reliability enhancement program.

"We've remained steadfast on our commitment to quality, to ensure we provide the best to our customer and to our nation," Williams said.

GMD itself is composed of 30 interceptors located in missile fields in Fort Greely, Alaska, and Vandenberg, with fire control nodes in Colorado and Alaska. The Pentagon plans to increase the number of GBIs by 14 for a total of 44. (Orbital ATK provides the GBI booster vehicles.)

In 2004, the original EKV was rushed into production and bypassed standard milestone decision review process and the product development phases, according to a Defense Department Inspector General's report.

<http://www.defensenews.com/article/20141118/DEFREG02/311180045/MDA-Aims-2020-Fielding-Redesigned-Kill-Vehicle>

[Return to Top](#)

Sputnik News.com – Russian Information Agency

## **Russia Has More Ballistic Missile Interceptors than US: Arms Control**

*A senior US arms control official claimed that the United States currently has 30 interceptors, deployed in Alaska and plans to deploy an additional 14, is 24 less than Russia has, commenting on the anti-ballistic missile systems and NATO's missile shield.*

19 November 2014

WASHINGTON, November 19 (Sputnik) — Russia has 24 ballistic missile interceptors more than the United States, a senior US arms control official claimed.

"We [the United States] are not concerned about the impact to strategic stability of Russia's deployment of 68 interceptors at the Moscow Anti-Ballistic Missile (ABM) system," Under Secretary for Arms Control and International Security Rose Gottemoeller said on Tuesday during her speech in Romania.

"Sixty eight deployed interceptors is 24 more than the United States even has plans to deploy," Gottemoeller added.

The senior arms control official said the United States currently has 30 interceptors, deployed in Alaska and plans to deploy an additional 14.

**Issue No.1142, 21 November 2014**

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



**USAF Center for Unconventional Weapons Studies**  
**CUWS Outreach Journal**

Maxwell AFB, Alabama

Gottemoeller was discussing anti-ballistic missile systems and NATO's missile shield, making the point "based on logic, physics and math" that Russian concerns regarding the missile defense system are unfounded.

In addition to the interceptors, mentioned by Gottemoeller, the United States and NATO allies have a number of other land and sea-based ballistic missile defense systems, with plans to deploy more.

Under NATO's planned missile defense system, radars and interceptors will be placed in phases in several NATO countries, including Romania, Turkey, Spain and Poland. The defense shield is also bolstered by the sea-based systems such as the Aegis.

Russia argues the missile defense shield could undermine the strategic nuclear balance between the United States and Russia.

**United States in 'Complete Compliance' With INF Treaty**

The United States strictly abides by the Intermediate-Range Nuclear Forces (INF) Treaty, Under Secretary for Arms Control and International Security Rose Gottemoeller said.

"We [the United States] are in complete compliance with the INF Treaty," Gottemoeller stated.

"We can describe, in detail, why each of our systems complies with the [INF] Treaty," she added.

Over the past few months, Moscow and Washington have been accusing each other of breaching the 1987 INF Treaty, which provides for elimination of nuclear and conventional ground-launched ballistic and cruise missiles with intermediate ranges defined as between 300-3,400 miles.

In July, Washington accused Russia of violating the INF agreement by testing a prohibited ground-launched cruise missile.

In September, Russia and the United States held consultations on the subject in Moscow. According to Russian Foreign Minister Sergei Lavrov, Washington failed to provide satisfactory answers to the questions addressed by the Russian side.

<http://sputniknews.com/military/20141119/1014901247.html>

[Return to Top](#)

Sputnik News.com – Russian Information Agency

**NATO Missile Defense Not Targeted at Russia: Senior US Official**

*A senior US arms control official announced that the NATO ballistic missile defense system is aimed at defending US allies against a limited number of ballistic missile strikes from rogue groups or states such as Iran and North Korea and not targeted at Russia.*

19 November 2014

WASHINGTON, November 19 (Sputnik) — The NATO ballistic missile defense system is not targeted at Russia and aims to improve regional stability, a senior US arms control official said.

"Limited ballistic missile defense capabilities are not capable of threatening Russia's strategic nuclear forces and are not a threat to strategic stability," Under Secretary for Arms Control and International Security Rose Gottemoeller said Tuesday during a speech in Romania, where a missile defense site will be completed in 2015.

Gottemoeller pointed out the limited scope of the missile defense system, which US officials say is aimed at defending US allies against a limited number of ballistic missile strikes from rogue groups or states such as Iran and North Korea, would have no impact on Russia.

Ground Based Interceptors (GBI), designed to shoot down ballistic missiles, are deployed to take down incoming ballistic missiles. The US currently has 30 deployed in Alaska and plans to deploy 14 additional interceptors.

**Issue No.1142, 21 November 2014**

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



**USAF Center for Unconventional Weapons Studies**  
**CUWS Outreach Journal**

Maxwell AFB, Alabama

"Technologically, GBIs cannot counter Russia's sophisticated Intercontinental Ballistic Missile (ICBM) capabilities and countermeasures," Gottemoeller said, noting that no missile defense system would be able to prevent even a fraction of Russia's nearly 1,600 warheads from striking their target.

Under NATO's planned missile defense system, radars and interceptors will be placed in phases in several NATO countries, including Romania, Turkey, Spain and Poland. The defense shield will also be bolstered by the sea-based systems.

Russia has been saying the missile defense shield could undermine the strategic nuclear balance between the United States and Russia.

<http://sputniknews.com/military/20141119/1014899096.html>

[Return to Top](#)

SFGate.com – San Francisco, CA

## **Lawrence Livermore Lab set to Get New Supercomputer**

By David Perlman and Carolyn Lochhead

Saturday, November 15, 2014

The Energy Department said Friday that it has signed a \$450 million deal to build the fastest supercomputers in the world for its national laboratories in Livermore and Oak Ridge, Tenn., and to aim for even faster computers in the future.

The powerful new machine at the Lawrence Livermore National Laboratory, code-named Sierra, will be used primarily for the lab's "stockpile stewardship" program designed to assure the safety and reliability of the nation's nuclear weapons without having to test them.

The computer will also be used for its multibillion-dollar National Ignition Facility, where scientists are seeking to achieve controlled thermonuclear fusion in the laboratory.

The new supercomputer at Oak Ridge, named Summit, will be used by scientists seeking improvements in nuclear energy and in forecasting the effects of climate change and global warming.

Michel McCoy, the Livermore lab's manager for advanced simulation and computing, said that when the Sierra supercomputer is operating by 2018 it will be more than seven times faster than the lab's fastest computers today.

The lab's new computer also will be used by scientists at the Los Alamos National Laboratory in New Mexico and Sandia National lab's two facilities in Albuquerque and Livermore, McCoy said.

The two computers are being built by a consortium led by IBM, and joined by two other computer companies, Nvidia in Santa Clara and Mellanox in Sunnyvale.

Already on the drawing boards are concepts for what ultimately will be a new generation of "exascale" supercomputers, which are intended to operate 1,000 times faster than the newly ordered ones, McCoy said.

In the language of supercomputing, the new machines at Livermore and Oak Ridge will operate at speeds of 100 and 150 petaflops, or quadrillions of floating point operations per second. The fastest known supercomputer today reportedly operates at 55 petaflops and is located at China's National Computing Center.

The Department of Energy will spend \$325 million for the two new supercomputers and an additional \$100 million for the department's program aimed at pushing the boundaries of extreme-scale supercomputing even further.

*David Perlman and Carolyn Lochhead are San Francisco Chronicle staff writers.*

<http://www.sfgate.com/nation/article/Lawrence-Livermore-lab-set-to-get-new-5893772.php>

[Return to Top](#)

**Issue No.1142, 21 November 2014**

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226





USAF Center for Unconventional Weapons Studies

CUWS Outreach Journal

Maxwell AFB, Alabama

The London Guardian – London, U.K.

## North Korea Threatens Nuclear Test and 'Unlimited' Increase in Military after UN Vote

*Kim Jong-un's regime reacts angrily to landmark UN resolution on human rights violations*

Associated Press (AP)

Wednesday, 19 November 2014

North Korea threatened on Thursday to bolster its war capability and conduct a fourth nuclear test to cope with what it calls US hostility that led to the approval of a landmark UN resolution on its human rights violations.

A UN committee on Tuesday adopted the resolution urging the security council to refer the North's rights situation to the International Criminal Court. It's the first time a UN resolution included the idea that North Korea's absolute leader Kim Jong-un could be targeted by prosecutors.

Before the UN vote, a North Korean envoy threatened a nuclear test.

On Thursday, Pyongyang's foreign ministry called the resolution's approval a "grave political provocation", saying it was orchestrated by the US though it was drafted by the European Union and Japan.

An unidentified ministry spokesman told state media that North Korea's war deterrence will be strengthened in an "unlimited manner" to cope with US hostility, which is "compelling us not to refrain from conducting a new nuclear test any longer".

His comments on the nuclear test were near identical to what Choe Myong-nam, a foreign ministry adviser for UN and human rights issues, said at the UN.

North Korea has used similar rhetoric previously when there has been increased tension with other countries. Analysts say it's unlikely North Korea will follow through on its threats to conduct a nuclear test because that would invite further international condemnation and derail efforts to attract foreign investment and aid to revive its moribund economy.

China and Russia, which hold veto power on the security council, will not let the council refer North Korea's rights situation to the criminal court, but North Korea also knows the two countries do not want another nuclear test by Pyongyang, said Lim Eul Chul, a North Korea expert at South Korea's Kyungnam University.

China and Russia voted against the non-binding resolution, which goes to the general assembly for a vote in the coming weeks.

North Korea, however, often confounds outside analysts' predictions and doesn't always act according to a set pattern. Two deadly attacks blamed on Pyongyang that killed 50 South Koreans in 2010 were a surprise because they came amid relatively easing tensions with the US and South Korea.

The US-Korea Institute at Johns Hopkins School of Advanced International Studies said Wednesday the North may be restarting a plant that can reprocess nuclear fuel into weapons-grade plutonium for the first time in six years.

The finding is based on analysis of recent commercial satellite imagery at North Korea's main nuclear facility.

North Korea conducted an atomic bomb test in 2006, 2009 and 2013, each time inviting international sanctions.

A fourth test would mark another defiant response to US-led international pressure on North Korea to abandon its nuclear weapons program, because that could put the country a step closer to the goal of producing warheads small enough to mount on a missile capable of reaching the US.

<http://www.theguardian.com/world/2014/nov/20/north-korea-threatens-nuclear-test-increase-military-un>

[Return to Top](#)

Defense News.com – Washington, D.C.

Issue No.1142, 21 November 2014

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



## US Report: China's Nukes Getting Bigger and Better

By WENDELL MINNICK  
November 19, 2014

TAIPEI, TAIWAN — A new congressional-funded report paints a dark picture of China's nuclear weapons and missile modernization efforts.

The report, issued Nov. 19, by the US China Economic and Security Review Commission, states China will pose a threat to all US military forces, bases and assets in the Western Pacific within the next 10 years.

China will also be able to attack US national security satellites in a variety of ways — kinetic, laser, electronic jamming and seizing. According to the report, China's capabilities will hold at risk all US national security satellites in every orbital regime in the next five- to 10 years. "In space, China in 2014 continued to pursue a broad counter-space program to challenge U.S. information superiority in a conflict and disrupt or destroy U.S. satellites if necessary."

Beijing also calculates its space warfare capabilities will enhance its strategic deterrent as well as allow China to coerce the US and others "into not interfering with China militarily."

The report said China's growing nuclear warfare capabilities are ominous. Over the next five years, China's nuclear force will rapidly expand and modernize, providing China with an extensive range of military and foreign policy options and "potentially weakening U.S. extended deterrence, particularly with respect to Japan."

Over the next three- to five years, China's nuclear program will also become more lethal and survivable with the fielding of additional road-mobile nuclear missiles; five nuclear-powered ballistic missile submarines, each of which can carry 12 sea-launched intercontinental-range ballistic missiles (ICBM); and ICBMs armed with multiple independently targetable re-entry vehicles (MIRV).

In 2013 the Pentagon reported that China's nuclear arsenal consisted of only 50- to 75 ICBMs, with the number of ICBMs capable of reaching the United States could expand to more than 100 within the next 15 years. However, the report said some analysts assess China may be obscuring a much larger nuclear effort and have much larger stockpiles.

China's growing sea-based nuclear deterrent began in 2007 with the commissioning of three Jin-class ballistic missile submarines (SSBN) and the expected introduction of two additional SSBNs by 2020.

The Jin's SSBN's JL-2 submarine-launched ballistic missile, appears to have reached initial operational capability, "giving China its first credible sea-based nuclear deterrent." The JL-2's range of 4,598 miles gives China the ability to "conduct nuclear strikes against Alaska if launched from waters near China; against Alaska and Hawaii if launched from waters south of Japan; against Alaska, Hawaii, and the western portion of the continental United States if launched from waters west of Hawaii; and against all 50 U.S. states if launched from waters east of Hawaii."

Besides submarines, the major concern in the report is China's proliferation of road-mobile nuclear-capable ballistic missiles, such as the DF-31. In 2006, China deployed the DF-31 ICBMs and, in 2007, the more advanced DF-31A ICBMs. Road-mobile systems allow for faster launch times and make them difficult to locate and attack. "The DF-31A has a maximum range of at least 6,959 miles, allowing it to target most of the continental United States."

China is testing a new road-mobile ICBM, the DF-41. The DF-41, which could be deployed in 2015, could carry 10 MIRVs and have a range of 7,456 miles, "allowing it to target the entire continental United States." China might have modified the DF-5 and the DF-31A to carry MIRVs. "China could use MIRVs to deliver nuclear warheads on major U.S. cities and military facilities as a means of overwhelming U.S. ballistic missile defenses."

Issue No.1142, 21 November 2014

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



**USAF Center for Unconventional Weapons Studies**  
**CUWS Outreach Journal**

Maxwell AFB, Alabama

The report cites a Chinese media depiction of the potential destructive effect of a MIRV-capable ICBM on Los Angeles. The article, "China Has Undersea Strategic Nuclear Deterrent Against United State for the First Time," appeared in the Global Times on Oct. 13, 2013.

The author, Pei Shen, included a map of Los Angeles under nuclear attack by a JL-2. "After a nuclear missile strikes a city, the radioactive dust produced by 20 warheads will be spread by the wind, forming a contaminated area for thousands of kilometers."

The article notes that the survival probability for people outdoors in a 746 to 870 mile radius was zero. "Based on the actual level of China's one million tons TNT equivalent small nuclear warhead technology, the 12 JL-2 nuclear missiles carried by one JIN nuclear submarine could cause the destruction of five million to 12 million people, forming a very clear deterrent effect."

Noting that there was not a "dense population" in the Midwest region, the best way to increase the destructive effect was to target the main cities on the West Coast, such as Seattle, Los Angeles, San Francisco, and San Diego.

<http://www.defensenews.com/article/20141119/DEFREG03/311190050/US-Report-China-s-Nukes-Getting-Bigger-Better>

[Return to Top](#)

Yonhap News Agency – Seoul, South Korea

## **N.K. Nuclear Reactor Remains Shut Down amid Signs of Preparations to Restart Reprocessing Facility: Report**

By Chang Jae-soon

November 20, 2014

WASHINGTON, Nov. 19 (Yonhap) -- North Korea's main nuclear reactor is believed to have been shut down for more than two months amid signs Pyongyang may be preparing to restart the nearby reprocessing facility to extract weapons-grade plutonium from spent fuel, a U.S. think tank said Wednesday.

Satellite imagery shows that the 5-megawatt reactor at the Yongbyon nuclear complex has been closed for about 10 weeks, longer than what is required for routine maintenance, according to 38 North, a website run by the U.S.-Korea Institute at the Johns Hopkins School of Advanced International Studies.

The assessment was made based on the continued absence of two key indicators of reactor operations: vented steam and discharged water. Neither was seen in imagery from Oct. 28 to Nov. 3, said 38 North in a report.

"New evidence is accumulating that suggests the shutdown may have allowed the North to remove a limited number of fuel rods, possibly failed, from the reactor, and Pyongyang may be preparing to restart the Radiochemical Laboratory," where spent fuel rods are reprocessed to extract weapons-grade plutonium, 38 North said.

It is not clear why the reactor was shut down, but speculation has focused on such possibilities as routine maintenance; more serious problems, possibly with the cooling systems; a partial unloading of fuel rods, possibly defective; and the removal of the entire core, the report said.

Evidence from the most recent imagery seems to reinforce the hypothesis of a partial unloading of fuel rods, the report said. Those rods would be transported underground from the reactor to the spent fuel cooling pond and then moved to the reprocessing facility by vehicles, it said.

The shutdown assessment could run counter to that of South Korea's government.

When a separate U.S. think tank, the Institute for Science and International Security (ISIS), said in early October that it believed the reactor was shut down temporarily, Seoul's foreign minister, Yun Byung-se, said he believes the reactor was up and running.

**Issue No.1142, 21 November 2014**

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



## USAF Center for Unconventional Weapons Studies

### CUWS Outreach Journal

Maxwell AFB, Alabama

It was not clear if Seoul still stands by the assessment.

With regard to the reprocessing facility, there was little activity throughout the summer and into the fall. However, on Nov. 4, steam was seen rising from a large cooling tower at auxiliary buildings just southeast of the plutonium separation building, it said.

Such steam is consistent with activities before commencing operations, it said.

In the same image, three vehicles -- two trucks and one unidentified vehicle -- were seen on the road in front of the door to the reprocessing complex building, to which spent fuel rods are transported for reprocessing, the report said.

Satellite imagery also showed piles of gray material outside the old pilot fuel fabrication facility, which may indicate that a chemical process is taking place, possibly related to the production of new rods for the 5-megawatt reactor, the report said.

38 North said Pyongyang may also be trying to mask indicators of reactor operations.

The imagery taken on Oct. 28 indicates that the North may be building a new pipeline running from the pipe that carries hot water and steam from the reactor turbine building to the river, a move that would complicate future efforts to monitor reactor operations, 38 North said.

"Observing the white froth from the steam and water discharged into the river helped private analysts determine that the reactor restarted in August 2013 as well as the short period when it has been shut down over the past year," it said. "Without this indicator, determining what is happening at the facility will become more difficult."

<http://english.yonhapnews.co.kr/national/2014/11/20/26/0301000000AEN20141120000251315F.html>

[Return to Top](#)

Xinhua News.com – Beijing, China

## **DPRK Ready to Resume Six-Party Talks without Preconditions: Russian FM**

(Xinhua)

November 20, 2014

MOSCOW, Nov. 20 (Xinhua) -- The Democratic People's Republic of Korea (DPRK) is ready to resume six-party talks on the nuclear issue on the Korean Peninsula without preconditions, Russian Foreign Minister Sergei Lavrov said Thursday.

"We have received assurances ... that Pyongyang is ready to resume six-party talks without preconditions, based on the joint statement that the participants in the six-party format of the negotiations adopted in September 2005," Lavrov told reporters after talks with Choe Ryong Hae, special envoy of the DPRK's top leader Kim Jong Un.

He said Choe, who arrived in Moscow on Monday for an eight-day visit, had handed Russian President Vladimir Putin a message from Kim that "confirmed the readiness to develop our bilateral ties and cooperate in resolving the problems which persist on the Korean Peninsula."

Noting that Russia-DPRK trade and economic relations "are reaching a whole new level," Lavrov said the two countries will further interact in the future.

"As for the schedule of contacts, we have confirmed our readiness to carry out contacts at all levels, including the summit level, within the timeframe agreed for both sides," he said.

Lavrov also stressed that recent media reports over the DPRK's nuclear reactor activity in the Yongbyon nuclear complex should be verified.

Issue No.1142, 21 November 2014

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



**USAF Center for Unconventional Weapons Studies**  
**CUWS Outreach Journal**

Maxwell AFB, Alabama

"Such claims should be backed by facts, not by media allegations," he said, adding that the working group on the peninsula's security issues should resume its activity so that all concerns could be professionally discussed.

Choe's visit followed a series of high-ranking visits by DPRK officials this year. Vice Marshal Hyon Yong Chol, minister of the People's Armed Forces, met Putin in Moscow on Nov. 8 and conveyed Kim's greetings. DPRK Foreign Minister Ri Su Yong visited Russia on Sept. 30.

Choe will also visit Russia's Far East cities of Khabarovsk and Vladivostok on his way back home.

[http://news.xinhuanet.com/english/world/2014-11/20/c\\_133803774.htm](http://news.xinhuanet.com/english/world/2014-11/20/c_133803774.htm)

[Return to Top](#)

The Korea Herald – Seoul, South Korea

## **U.S. Calls N. Korea's Nuclear Test Threat 'Cause of great Concern'**

November 21, 2014

North Korea's threat to conduct a nuclear test in anger over a U.N. human rights resolution is a "cause of great concern," the State Department said Thursday, urging Pyongyang to take steps to give up its nuclear program.

The North's foreign ministry formally issued the nuclear threat earlier Thursday, saying the resolution compels the regime "not to exercise restraint any longer in conducting a new nuclear test" and vowing to strengthen its "war deterrence" against the United States.

It also accused the U.S. of orchestrating the resolution's passage.

The resolution, which passed through the Third Committee of the U.N. General Assembly on Tuesday, calls for the North's referral to the International Criminal Court for human rights violations, and targeted sanctions for those most responsible.

"The fact that the DPRK (North Korea) would respond to the legitimate international interest in the human rights situation there by threatening to resume nuclear testing is something that is a cause of great concern," said Jeff Rathke, a State Department spokesman, at a regular briefing. "It only underscores that there is a necessity for North Korea to take steps, the steps that are called for under the 2005 Joint Statement, to come into compliance with the applicable Security Council resolutions through irreversible steps leading to denuclearization."

The Joint Statement refers to a deal that commits the North to abandoning its nuclear program in exchange for diplomatic recognition and other political and economic concessions. The agreement fell apart as Pyongyang backtracked on its commitment.

Rathke reiterated that the U.S. welcomes the resolution, saying it sends a clear message from the international community that the "egregious human rights record of the DPRK is noticed and taken seriously by the international community."

Even if the resolution passes through the General Assembly, there is virtually no chance of the North actually getting referred to the ICC because China and Russia, two of the five permanent Security Council members, are sure to veto such a proposal.

Russia reiterated its opposition to the resolution, with Foreign Minister Sergei Lavrov calling it "counterproductive."

Lavrov made the remark after talks with Choe Ryong-hae, a special envoy of North Korean leader Kim Jong-un.

Rathke declined comment on Lavrov's reaction, only saying that Russia remains an important part of the international effort to deal with denuclearization in respect to North Korea. (Yonhap)

<http://www.koreaherald.com/view.php?ud=20141121000230>

[Return to Top](#)

**Issue No.1142, 21 November 2014**

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



The Washington Free Beacon – Washington, D.C.

## North Korea Conducts Ejection Test of Sub-Launched Missile

*Test indicates progress in submarine missile development*

By Bill Gertz

November 21, 2014

North Korea recently conducted a test of an ejection launcher that U.S. intelligence agencies assess is part of Pyongyang's recently discovered submarine-launched ballistic missile program.

The test simulated the initial stage of boosting a missile out of a submarine launch tube and is a sign that the rogue state is moving ahead with plans for underwater missile strike capabilities for a future nuclear-tipped missile, said defense officials.

U.S. intelligence agencies observed the land-based test of the ejection launcher in late October at a facility known to be a key development center for the communist state's submarine-launched ballistic missile (SLBM) program, according to two officials with access to intelligence reports.

The launcher also could be used by North Korea to launch ballistic or cruise missiles from the deck of a freighter or other kinds of surface vessels.

A Pentagon spokesman declined to comment on the ejection test, citing a policy of not discussing intelligence matters.

The *Washington Free Beacon* first reported in August that North Korea had launched a program to develop ballistic missile submarines. The program remains clouded in secrecy. North Korea's government has not responded to reports of the program.

The officials said the land-based test took place at a facility in Sinpo, along the central part of the west coast of North Korea.

Google Earth satellite imagery of the Sinpo South Shipyard has revealed a testing stand at the site that military analysts say is part of a new submarine missile program.

The Sinpo launcher is located close to a new North Korean submarine photographed at a nearby dock. The test launcher and sub were first disclosed by Joseph Bermudez, a specialist on the North Korean military.

The semi-official South Korean news agency Yonhap, quoting government sources, stated earlier this month that North Korea has begun refurbishing a Soviet-era Golf-class diesel submarine capable of firing three missiles.

The news agency report said the refurbishment is part of the North's secret missile submarine program at Sinpo.

North Korea "is believed to have completed construction of the new submarine after importing a Soviet-era Golf-class diesel submarine and reverse-engineering it," the South Korean government source told Yonhap.

"The new submarine is 67 meters long with a beam of 6.6 meters, and has a dived displacement in the 3,000-ton range," the source said, adding that the new submarine was disclosed in a report by the U.S. online newsletter *38 North* to be docked at the Sinpo facility where the test launcher was seen.

The South Koreans believe the North will require "dozens" of tests over two years before deploying the missile submarine.

North Korea acquired Golf submarines in the 1990s that were supposed to be used for scrap metal. It now appears they were reverse engineered.

U.S. intelligence agencies several years ago reported that North Korea acquired SS-N-6 SLBM missiles covertly from Russia. That missile was adapted by the North Koreans into a new intermediate-range ballistic missile.

The missile was designed to be ejected from a submarine launch tube prior to ignition.

Issue No.1142, 21 November 2014

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



**USAF Center for Unconventional Weapons Studies**  
**CUWS Outreach Journal**

Maxwell AFB, Alabama

The Pentagon's annual report to Congress on North Korea's military said Pyongyang uses its large missile force as part of a strategy of coercion, despite its current peace offensive in the region.

"North Korea's stated intent to advance its nuclear program and continue ballistic missile/space launch vehicle efforts implies that it will eventually return to coercive actions to achieve its goals in the future," the report, produced in March, stated.

North Korea recently raised the status of its Strategic Rocket Forces (SRF), which is in charge of missile and nuclear forces, to levels equal to its Army and Air Force, and the government has said the long-range goal is to attack the United States, the report said.

"In March 2013, North Korea made the SRF the focus of its threat to launch a nuclear attack on U.S. and ROK targets," the report said. "The targets included the U.S. mainland, Hawaii, Guam, U.S. bases in the ROK, and the ROK President's residence."

The development of nuclear missile capabilities is being carried out despite resource shortages, and the pace of development will depend on the amount of foreign technology and other aid the North Koreans obtain from abroad.

China has been a major supplier of both technology and materials for North Korea's missile program. Beijing supplied North Korea with missile transporter-erector launchers that are now used for six KN-08 road-mobile ICBMs.

Bruce Bechtol, a former intelligence official who specializes in North Korea, said the ejection test shows the missile submarine program is advancing.

"It is very unusual for a country like North Korea to be interested in this kind of sophisticated technology," said Bechtol, a professor at Angelo State University in Texas. "Nevertheless, the evidence certainly suggests that they have acquired a submarine capable of launching an SLBM, and are now testing the missile that would potentially be launched from this submarine."

A submarine missile capability would allow North Korea to launch strikes from either coast of the United States or against Alaska and Hawaii, Bechtol said, noting that because of the technical challenges it could take many years before the North Koreans will actually field a missile submarine.

"Of course, if foreigners are in fact helping them to develop this system—such as the Russians—that time table could be moved up considerably," he said.

Bechtol said the most likely warhead for the missile would be nuclear, something the North Koreans appear to be capable of doing with the medium-range Nodong missile.

"There is no evidence to suggest that they can do this with any other kind of ballistic missile—at least not yet," he said. "One would think that if North Korea is going to go to all of the trouble to develop an SLBM—and the submarine to launch it—that they would also be working on the technology to match a nuclear warhead with the missile."

Rick Fisher, a military analyst with the International Assessment and Strategy Center, said North Korea's submarine launched missile program is disturbing.

However, "questions remain regarding its potential capability," Fisher said. "Is it liquid or solid fueled? That may have a bearing on its size and payload. This, in turn, will affect the size of the submarine needed for transport."

Fisher said a large canister-launched missile also could be fired from a surface ship.

"North Korea has a fleet of bulk cargo and some container cargo ships that could be modified to conceal a large missile container," he said. "By using ship platforms for launching potentially nuclear warhead armed missiles, North Korea can greatly complicate the task of the defender."

<http://freebeacon.com/national-security/north-korea-conducts-ejection-test-of-sub-launched-missile/>

**Issue No.1142, 21 November 2014**

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



[Return to Top](#)

Space Daily.com – Sydney, Australia

## Whispers about Russia's so-called 'Satellite Killer' Grow Louder

By Brooks Hays

Washington, United Press International (UPI)

November 18, 2014

Earlier this year, Russia rocketed several satellites into space. They also deposited what was at the time believed to be a piece of space junk. With no declared orbit, the object was tracked by most of the world's space agencies, as well as amateur astronomers. Now, whispers are growing the so-called junk might actually be a "satellite killer."

The Russian name for satellite killer is "Istrebitel Sputnikov," and during the Cold War this pair of words would have been quickly recognized by U.S. security experts. It was a widely known that one of the main objectives of the Soviet Union (and most other world powers) was to launch anti-satellite weaponry. Most experts, however, assumed such ambitions died with the collapse of the empire.

But Russia's suspicious piece of space junk -- for which an orbital route was never publicly shared -- have some suggesting the Istrebitel Sputnikov mission was never abandoned.

"There's always confusion with these sort of things, because no one knows exactly what these satellites are up to," Robert Christy, a space expert and veteran amateur satellite tracker, told The Washington Post.

The U.S. Air Force keeps a database of all objects orbiting Earth -- except U.S. military crafts -- allowing people like Christy to track foreign satellites on their own time. As Christy and others saw, this piece of debris turned unidentified satellite, now known as Object 2014-28E, was able to link up with the remains of the rocket stage that had carried it into orbit. If it could track and link up with friendly pieces of debris, it could potentially cozy up next to an enemy object.

While it could simply be used to rendezvous with Russian satellites and perform repairs -- albeit anonymously -- it could also be used to more sinister ends, like to destroy or interfere with military communication satellites.

"Autonomous rendezvous by small satellites has always been considered a useful capability, for purposes of resupply, repair, inspection or even negation," Dr. James Oberg, a former NASA engineer, told The Moscow Times. "The fact that the recent Chinese and Russian experiments have been done with no official announcements, and appear independent of already existing [civilian] rendezvous systems, does suggest to me they are not for peaceful purposes."

If the speculation is true, it wouldn't actually be all that surprising, Christy says. He thinks Russia, China and the U.S. have all been developing similar technologies.

"In a nutshell, you've got all three countries doing the same thing," he said.

[http://www.spacedaily.com/reports/Whispers about Russias so-called satellite killer grow louder 999.html](http://www.spacedaily.com/reports/Whispers_about_Russias_so-called_satellite_killer_grow_louder_999.html)

[Return to Top](#)

TASS Russian News Agency – Moscow, Russia

## Russia's Modernised Tu-160 Bomber Performs First Flight

*The Tu-160 missile carriers are undergoing the first stage modernisation with replacement of nearly all the onboard radar equipment and avionics*

November 19, 2014

MOSCOW, November 19. /TASS/. Russia's strategic bomber Tupolev Tu-160 has performed the first flight after modernisation, the United Aircraft Corporation (UAC) said on its website on Wednesday.

Issue No.1142, 21 November 2014

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226





**USAF Center for Unconventional Weapons Studies**  
**CUWS Outreach Journal**

Maxwell AFB, Alabama

“On November 16, 2014 the Tu-160 bomber performed the first flight after a major overhaul with modernisation,” UAC says. The Tu-160 (“White Swan”) was in the air for 2 hours and 40 minutes.

At present the Tu-160 missile carriers are undergoing the first stage modernisation with replacement of nearly all the onboard radar equipment and avionics.

The supersonic strategic missile-carrying Tu-160 swing-wing jet is designed to engage targets in geographically remote areas and deep behind enemy lines in the continental theatres of operations. The bomber’s practical range with normal load is 13,200 kilometers and with maximum load - 10,500 kilometers. The strategic aircraft has a crew of four.

Last year, the Tu-160 missile carriers performed a long-distance flight from Russia’s Volga area to Venezuela. They took off from the Engels base in the Saratov region, flying over the Caribbean Sea and the eastern Pacific, along the southeast coast of the North American continent and landed at the Simyn Bolivar International Airport near the Venezuelan capital Caracas.

The planes flew more than 10,000 kilometers during 13 hours. After that they performed a flight from the Venezuelan Maiquetia airport to Managua airport in Nicaragua. The strategic bombers covered a distance of more than 2,500 kilometres in three hours.

The Russian Air Force planes have performed and perform all the flights in strict compliance with the international rules of airspace use, the Russian Defense Ministry said in a statement then.

<http://en.itar-tass.com/russia/760621>

[Return to Top](#)

The Moscow Times – Moscow, Russia

## **3rd New Nuclear Missile Submarine Set to Join Russian Navy**

*The Moscow Times*

November 21, 2014

Amid a buildup of Moscow's naval power, the Russian Navy is set to commission its third brand new Borei class nuclear missile submarine, the K-551 Vladimir Monomakh, a senior Defense Ministry source was quoted as saying by the TASS news agency on Friday.

The Navy's flag will be raised over the boat on Dec. 19, marking its official induction into the fleet four months after completing sea trials, the source said, although the boat will be signed over to the Navy on December 10.

The Borei-class submarines are Russia's next-generation "boomers" — large submarines packed with nuclear tipped intercontinental ballistic missiles (ICBMs) that lurk in the safety of the ocean depths, ensuring that Russia will always have a reserve of missiles to fire at its enemies if its land-based strategic nuclear forces are obliterated.

However, in this role, the Borei's have struggled to make the mark. Delays in the development of the Bulava-type ICBMs that the new boats were designed to carry have prevented the submarines from being strategically relevant and useful to the Navy.

The missile, which has been in development since 2009, was successfully test fired by the Monomakh in September, but is still several successful launches away from incorporation into Russia's armory.

The Boreis — capable of carrying up to 12 Bulava missiles — are post-Soviet Russia's replacement for the aging Typhoon and Delta IV-class boats, which were an integral part of the Soviet Union's nuclear deterrence force. Russia plans on building at least 8 of the new ships.

The navy has also ordered 8 next-generation hunter-killer submarines, known as the Yasen-class, which hunt enemy submarines and surface ships.

**Issue No.1142, 21 November 2014**

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



USAF Center for Unconventional Weapons Studies

CUWS Outreach Journal

Maxwell AFB, Alabama

Together, Russia's new submarine fleet aspires to reclaim Russia's role as a major player on the high seas. However, this goal will be elusive, as Russia's surface fleet has so far not enjoyed the same level of investment as its submarine fleet.

<http://www.themoscowtimes.com/business/article/3rd-new-nuclear-missile-submarine-set-to-join-russian-navy/511631.html>

[Return to Top](#)

FARS News Agency – Tehran, Iran

Saturday, November 15, 2014

## Iranian Legislature Insists on Removal of All Sanctions for Final Deal with Powers

TEHRAN (FNA) - Head of the Iranian Parliament's National Security and Foreign Policy Commission Alaeddin Boroujerdi described the lifting all sanctions against Tehran as a precondition for any comprehensive deal with the world powers.

"All sanctions should be removed at once because these embargos were imposed for nuclear issues and when nuclear issues are resolved within framework of a bilateral agreement, the continuation of these pressure levers has no logic," Boroujerdi said on Saturday.

He noted that Iran has always acted sincerely in the nuclear negotiations and it has taken practical steps under the interim agreement reached with the six world powers on November 24, 2013.

On Sunday, the Iranian parliament in a statement stressed that any possible nuclear agreement with the world powers should include removal of all sanctions.

The parliament urges the nuclear negotiating team to take good care of certain points in its continued talks with the Group 5+1, including the necessity for "the full removal of nuclear (-related) sanctions and other types of embargos (imposed against Iran) immediately after any agreement", the statement said, reminding that the same point has been repeatedly emphasized by President Rouhani as well.

The statement also urged the Iranian negotiators to reject any limitations on enrichment R&D and other activities related to the nuclear fuel production cycle.

The Iranian parliamentarians asked the negotiating team not to accept any inspection, supervision and cooperation with the International Atomic Energy Agency (IAEA) beyond the Non-Proliferation Treaty (NPT).

Iran and the six major world powers have already held 9 rounds of nuclear negotiations after inking an interim agreement in Geneva on November 24, 2013, and have less than two weeks time to strike a final deal before the November 24 deadline.

Tehran and the six powers have already held one round of talks in Muscat, Oman, seven rounds in Vienna, and one more round in New York and on the sidelines of the UN General Assembly.

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=13930824001288>

[Return to Top](#)

AI Monitor – Washington, D.C.

## Iran Official: US Proposals in Oman 'Back to Zero'

Issue No.1142, 21 November 2014

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



**USAF Center for Unconventional Weapons Studies**  
**CUWS Outreach Journal**

Maxwell AFB, Alabama

*The head of Iran's parliamentary nuclear committee said during the latest nuclear talks in Oman that the United States presented an 8-page recommendation that took the nuclear negotiations between Iran and the five permanent members of the UN Security Council plus Germany (P5+1) "back to zero."*

By Arash Karami

November 16, 2014

In an interview with Tasnim News Agency, Ebrahim Karkhaneh said that during the Nov. 9 trilateral talks between Iran's Foreign Minister Mohammad Javad Zarif, US Secretary of State John Kerry and former European Union foreign policy chief Catherine Ashton a proposal was recommended by the United States that would turn Iran's nuclear program into nothing more than "decoration."

Karkhaneh claimed that with the recommendations, the United States had "thrown off the equations in the negotiations" and called it a "nuclear Turkmenchay treaty," referring to the 1828 treaty in which Iran signed over territories to Russia after military defeats. According to him, "without a doubt" Iran's negotiators would not agree to these terms.

While Karkhaneh did not specify the number of centrifuges recommended by the United States, he said that it was a "decorative spinning of centrifuges." Iran currently has 9,400 spinning centrifuges. Iran Nuclear, a website close to former nuclear negotiator Saeed Jalili, reported that in the Oman talks, Iran was offered 4,500 centrifuges. This has not been verified by any other source and the website in general has had a hard-line view with respect to the negotiations.

Karkhaneh said that Iran would also be limited to "research and development to [first] generation centrifuges." These would be IR-1 centrifuges, which are based on a 40-year-old European design.

Iran's Supreme Leader Ayatollah Ali Khamenei, who has a final say on the nuclear program, has previously said — without offering a timetable — that ultimately Iran needs 190,000 separate work units (SWU), which at the IR-1 generation would be 190,000 centrifuges. If Iran is offered newer generation centrifuges that produce more SWU per centrifuge, this could require a far lower number of centrifuges.

On other points presented at the Oman talks, Karkhaneh also said that the United States proposed a "long-term suspension" of the Arak heavy water reactor "under the excuse of redesigning and changing it to a light water reactor." Under the US proposal there would also be "unlimited and intrusive inspections of all the nuclear sites," which according to Karkhaneh, would "include military sites."

He said that years before parliament had already issued a statement with the signature of 200 members of parliament stating that Arak and Fordow should reach self-sufficiency and that any limitations on research and development and inspections by the International Atomic Energy Agency beyond what is required by the Non-Proliferation Treaty (NPT) is not acceptable. For Iran to accept additional NPT protocols it would need to be ratified by parliament.

Karkhaneh said after one year of nuclear negotiations, these recommendations by the United States "would completely suspend the nuclear progress of Iran" and "destroy a considerable part of nuclear stockpiles," and thus the recommendations has brought the nuclear negotiations "back to zero." He added that there is still time for Iran's negotiators to "decisively defend the nation's nuclear rights."

One of the main sticking points in the talks is the manner in which sanctions would be removed. Karkhaneh did not address this in his interview. Many Iranian officials have said they want all nuclear-related sanctions removed. The article by Iran Nuclear claimed that one of the US proposals for removal of sanctions was a 10-year plan for removal of part of the sanctions. This information was not verified by other sources.

<http://www.al-monitor.com/pulse/originals/2014/11/iran-nuclear-centrifuges-p5-1-proposal-khamenei-iaea.html#>

[Return to Top](#)

Press TV – Tehran, Iran

**Issue No.1142, 21 November 2014**

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



## Final Nuclear Deal Possible Before Deadline: Iran FM

Tuesday, November 18, 2014

Iranian Foreign Minister Mohammad Javad Zarif says it is possible to reach a final nuclear deal before the November 24 deadline should six world powers show political will.

Zarif said on Tuesday that the Islamic Republic has put forward various proposals during its nuclear talks with six world powers to assure them of the peaceful nature of Iran's nuclear work.

"We have entered the final phase of the negotiations," said the top Iranian diplomat, adding that Tehran and the world powers could reach a final nuclear agreement "if the opposite side has the political will to reach a solution" to Iran's nuclear issue.

Zarif expressed hoped that the ongoing nuclear negotiations between Tehran and the six powers would lead to a result that guarantees the country's peaceful nuclear rights.

*"Whatever the outcome, either an agreement or resistance against excessive demands, we hope that November 24 will become a national victory in achieving the objectives we were pursuing in theses negotiation," he added.*

The top Iranian diplomat voiced optimism that any permanent nuclear agreement between Iran and the world powers would both respect the Iranian nation's rights and allay "legitimate" concerns of the international community.

Zarif made the comments upon his arrival in the Austrian capital, Vienna, which is slated to host one week of intense negotiations between Tehran and the six countries – Russia, China, France, Britain, the US and Germany from November 18 to 24.

Sources close to the Iranian negotiating team say the main stumbling block in the way of resolving the Western dispute over Iran's nuclear energy program remains to be the removal of all the bans imposed on the country, and not the number of centrifuges or the level of uranium enrichment.

Tehran wants the sanctions entirely lifted while Washington, under pressure from the pro-Israeli lobby, insists that at least the UN-imposed sanctions should remain in place.

<http://www.presstv.ir/detail/2014/11/18/386514/ndeal-possible-before-nov-deadline/>

[Return to Top](#)

Deutsche Welle (DW).com – Bonn, Germany

## Sticking Points Remain in Iran Nuclear Dispute

*On Tuesday, the P5+1 group will return to the negotiation table to resolve its nuclear conflict with Iran. A deadline for an agreement has been set for November 24. Both sides are confident, but differences remain.*

By Thomas Latschan  
18 November 2014

Time is running out. The international community and Iran have set a deadline of November 24 to come to an agreement in the dispute over Iran's nuclear program, a conflict that has dragged on for years.

From Tuesday, the P5+1 group - representatives from the United States, Britain, France, Russia, China and Germany - will once again meet with Iran for talks on a potential breakthrough. At this point, complete failure is highly unlikely. But the negotiating partners are still at arm's length from a final settlement. The compromise is snagged mainly on two major points and a few minor technical questions.

### Uranium enrichment

Issue No.1142, 21 November 2014

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



**USAF Center for Unconventional Weapons Studies  
CUWS Outreach Journal**

Maxwell AFB, Alabama

Iran has about 19,000 centrifuges. About half of those are used for uranium enrichment, while the others are not yet in operation. According to the International Atomic Energy Agency (IAEA), about 1,000 centrifuges are newer models, and particularly efficient. Iran says these centrifuges are also part of its civilian nuclear program. In theory, however, they could be used to quickly produce uranium for a bomb.

Russia may be able to play a key role here. Just last week, Moscow and Tehran signed an agreement allowing Russia to build eight new nuclear plants in Iran. Russia will also provide the fuel rods to run the plants.

Iran apparently made concessions in the negotiations, with Tehran said to have conditionally agreed to ship a large part of its uranium supplies to Russia for storage.

Iranian uranium could possibly be enriched in Russia - under the watchful eyes of the IAEA. If Iran's nuclear material were to be stored elsewhere, the development of nuclear weapons would at least take considerably longer.

### **Lifting the sanctions**

Iran wants to see all sanctions against it lifted immediately, while the international community wants to ensure that Iran won't develop the necessary skills to build a nuclear bomb. The negotiating partners must find a way between these two extremes to alternate, step by step, increasing concessions and the lifting of sanctions.

Due to great opposition on both sides, this point is particularly complicated. In Iran, those in conservative circles are against excessive concessions; for them, the lifting of sanctions is not going fast enough.

In addition, influential groups such as the Revolutionary Guard have even benefited from the West's sanctions. They now control large parts of the lucrative import and export business, along with border smuggling operations.

Israel and many Republican politicians in the US, however, have warned against a hasty relaxation of the sanctions.

### **The Arak factor**

All sides have been able to come to an agreement on the future of the heavy water reactor in Arak. In contrast to other nuclear power plants, this type of reactor can be operated with unenriched natural uranium. Iran has large deposits of natural uranium, and so the use of such reactors is particularly attractive.

However, the operation of such reactors results in the production of more plutonium than other reactor types. This plutonium could, in turn, be used in the production of nuclear weapons. For this reason, the West has called for the reactor to be altered so that it will produce significantly less weapons-grade plutonium.

According to the terms in the Geneva agreement, Iran has since frozen its uranium enrichment program, altered the plans for its Arak reactor and approved stricter international controls of its nuclear facilities. In turn, some sanctions have been eased.

### **Controls by IAEA inspectors**

There has also been some progress in one of the most controversial issues, that of the inspections by the IAEA. The international community has called for full, regular access to all of Iran's nuclear facilities, but has complained about a lack of transparency on Iran's part, including blocked inspections and secret nuclear facilities.

For that reason, the P5+1 has insisted on comprehensive and tighter controls of the Iranian nuclear program, even after a deal, to ensure that Tehran complies with all terms of the agreement.

In the interim deal, signed by the negotiating parties last November, Iran pledged more transparency. But to date, the IAEA claims it has not had unrestricted access to Iranian facilities.

<http://www.dw.de/sticking-points-remain-in-iran-nuclear-dispute/a-18070490>

[Return to Top](#)

Mehr News.com – Tehran, Iran

**Issue No.1142, 21 November 2014**

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



## Iran Not to Accept any Limit on its Nuclear Development

November 19, 2014

TEHRAN, Nov. 19 (MNA) – The head of Parliament Nuclear Commission has said any comprehensive nuclear deal should have the Parliament approval according to the law.

Ebrahim Karkhanei told Mehr News that operation of ‘a few centrifuges’ now was not an issue for Iran, since Article 4 of NPT allowed no restrictions in Iran’s research and development. “The Islamic Republic of Iran’s nuclear peaceful program should be always in the control of Iranian indigenous experts; enrichment is only an aspect of the industry, and definitely the nation would oppose ‘nominal nuclear program,’” he added.

“An issue of importance now is the number of centrifuges and the fact that they should vindicate the full rights of Iran in the nuclear industry,” said the head of Nuclear Commission. “Iran has done much to improve transparency for inspectors of the IAEA; 7,000 hours of transparency for inspectors of the nuclear facilities are unparalleled by any other country, and inspectors had not succeeded to prove any deviation in Iran’s nuclear program to weapons,” said Karkhanei.

He emphasized that according to Article 4 of the NPT, Iran had the right to ‘indefinite development and research access to nuclear program,’ and that “Iran would not accept any restrictions on its nuclear programs.”

“Sanctions, either nuclear or non-nuclear, are the real issue at stake for Iran’s economy as well as people; and we demand sanctions be removed altogether,” the parliamentarian asserted. “The majority of 32 sanction drafts by the UN, US Congress and the White House have non-nuclear causes; the US officials should come to terms with the fact that if they do not reassess their bullying rhetoric and still continues its allegations of Iran’s secret nuclear activity, negotiations will go nowhere,” Karkhanei said.

“We believe that the US should accept and acknowledge that Iran has no secret nuclear program, and they should also abandon futile accusations, otherwise no sustainable agreement would be clinched,” said the head of the commission, “the Commission has set the redlines for nuclear negotiators, and the parliament has emphasized that any deal should have parliament’s approval with itself to remain effective.”

<http://en.mehrnews.com/detail/News/104715>

[Return to Top](#)

Daily Sabah – Istanbul, Turkey

## Russia Has No Intention to Develop Iran Nuclear Weapons, Say Experts

*Russia made a challenging move by signing a deal with Tehran to build more nuclear reactors in Iran. The deal strengthens nuclear cooperation between the two countries and gives mixed signals to the West*

By Büşra Akin Dinçer

19 November 2014

LONDON — On the anniversary of the interim deal signed by the P5+1 (the U.S., U.K., France, Russia, China and Germany) and Iran, these six world powers and Iran are once again preparing to meet in Vienna for make or break talks on Nov. 24. As the talks near their deadline, Russia has agreed to build at least two new nuclear reactors in Iran only days ahead of the critical nuclear talks, raising questions in the West. Russian officials said the deal will help make Iran's nuclear activities more transparent, but the details of the arrangement between the two countries were not made clear.

Even though Ali Akbar Salehi, the head of the Atomic Energy Organization of Iran, said the timing of deal was "merely coincidental," it makes Russia more powerful among P5+1 countries.

On the subject, speaking to Daily Sabah, Sir Andrew Wood, former U.K. ambassador to Russia, said, "Russia is not interested in nuclear weapons, Russia is offering, as I understand it, to take the lower enriched uranium from Iran

Issue No.1142, 21 November 2014

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



to make it into fuel rods, and to compensate for that by building new nuclear power stations. Russia has an interest in Iran not developing nuclear weapons, not least because of the wider consequences of such an outcome. If Iran acquired nuclear weapons, then other states in the region would develop them too, which would add to the present instability in the area. Moscow may perhaps suppose that this may happen anyway. But the Kremlin is not entirely predictable, and Russia also has an interest in nurturing a cooperative relationship with Tehran as well as a fraught relationship with the West and Washington in particular. So the details of an arrangement on the lines suggested need to be worked through along with guarantees as to how they would be enforced. Trust is essential here."

Last week President Hassan Rouhani of Iran said that Iran has compromised enough to reach an agreement. "Iran has made its utmost efforts and made the necessary adjustments to its demands and we hope that all the P5+1 countries, particularly the U.S., which occasionally seeks excessive demands in the nuclear talks, will understand the circumstances," Rouhani said.

Wood said Rouhani's statements may be a good sign. "When someone says that they have compromised enough, it is as often as not a sign that they realize that a decision point is not far off, and that they, as well as the other parties to the negotiation, need to make further unwelcome moves to reach an agreement. In that sense what Rouhani said may be a good sign. We should all hope so. The agreed aim of the negotiations is clear enough, however much the details can be made complex and disputable, and however much questioning there may be within the Iranian and other parties to the negotiations. Trust is not easily secured, and trust is of the essence."

Dr. Patricia Lewis, the research director of international security at Chatham House, said in a conference that Iran actually took some positive steps to build trust. "The IAEA [International Atomic Energy Agency] reported at the beginning of November that a number of things have happened that have improved the situation. They say that Iran no longer has a stock of 20 percent enriched uranium hexafluoride [the gaseous form]. It's all been changed into the solid form. That's a very big step. As a confidence-building measure, that's significant. And it's continued to decrease the gaseous form of 5 percent enriched uranium, into solid form. So that's a continuation," Lewis said.

Lewis said that even though there are some improvements, Iran has not yet proposed the new practical measures that it was supposed to do by the beginning of September, in terms of the next step in relation to the framework for cooperation. She said that there were some really good and important improvements but some were not so good, which indicated that the negotiations still have ground to cover.

<http://www.dailysabah.com/europe/2014/11/19/russia-has-no-intention-to-develop-iran-nuclear-weapons-say-experts>

[Return to Top](#)

Sputnik News.com – Russian Information Agency

## **Final Decision on Iran Nuclear Program Expected on Last Day of Vienna Talks**

*There is no clear agenda for the final round of the P5+1 talks on the Iranian nuclear program with the decision to be made on the last day of the negotiations, a source in the Iranian delegation told Sputnik news agency.*

19 November 2014

VIENNA, November 19 (Sputnik), Daria Chernyshova — The final decision on the Iranian nuclear program will be made on the last day of the negotiations that are currently underway in the Austrian capital, Vienna, a source in the Iranian delegation told Sputnik news agency Wednesday.

"Everything will be decided on the last day of the negotiations. Talks continue," the source said adding that there is no clear agenda at the moment, as all the participants stay in the same hotel and arrange meetings by calling each other's rooms.



**USAF Center for Unconventional Weapons Studies**  
**CUWS Outreach Journal**

Maxwell AFB, Alabama

Answering the question on when US Secretary of State John Kerry is expected to arrive in Vienna, the source did not give any exact date.

"He might arrive on Thursday night, but he might arrive Friday morning," the source in the Iranian delegation stressed.

The source also said that it is not clear at this stage whether the talks will move to the ministerial level.

The final round of Tehran's talks with the P5+1 group, which comprises Russia, the United States, the United Kingdom, France, China and Germany, began in Vienna on Tuesday.

Iran's nuclear program has been a matter of concern for many countries. The West has accused Iran of attempting to develop nuclear weapons under the guise of a civilian nuclear program, claims Tehran has denied. Iran is currently under sanctions imposed by the UN Security Council and the European Union, as well as the United States and a number of other countries.

During talks in Geneva in November 2013, the P5+1 group agreed to reach a deal with Iranian authorities guaranteeing the peaceful nature of the Iranian nuclear program by July. The deadline for the agreement was later extended to November 24.

<http://sputniknews.com/politics/20141119/1014921966.html>

[Return to Top](#)

Xinhua News.com – Beijing, China

## **Iran Not to Allow "Special" Nuclear Inspections: Atomic Chief**

(Xinhua)

November 20, 2014

TEHRAN, Nov. 20 (Xinhua) -- The head of the Atomic Energy Organization of Iran has said Tehran will not allow any "special" inspections into the country's nuclear facilities, state IRIB TV reported on Thursday.

"We will not accept any special inspections" by the International Atomic Energy Agency (IAEA) that are exclusively planned for Iran's nuclear facilities, Ali-Akbar Salehi said.

There is no room for "special regulations" to be set for Iran, which is a signatory to the nuclear Non-Proliferation Treaty and observes all nuclear regulations, Salehi said.

The IAEA has carried out more than 7,000 person-hours of inspection at Iran's nuclear sites over the past years and its cameras are constantly monitoring Iran's nuclear activities, Salehi said.

The remarks came as Iran and major world powers try to reach a deal over Tehran's disputed nuclear program in the run-up to the Nov. 24 deadline.

On Thursday, IAEA director general Yukiya Amano asked Iran "to increase its cooperation with the agency and to provide timely access to all relevant information, documentation, sites, material and personnel."

[http://news.xinhuanet.com/english/world/2014-11/20/c\\_133803582.htm](http://news.xinhuanet.com/english/world/2014-11/20/c_133803582.htm)

[Return to Top](#)

FARS News Agency – Tehran, Iran

Thursday, November 20, 2014

## **Nuclear Chief: Agreement with Russia Gives Iran Upper Hand in Talks with Powers**

**Issue No.1142, 21 November 2014**

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226





**USAF Center for Unconventional Weapons Studies**  
**CUWS Outreach Journal**

Maxwell AFB, Alabama

TEHRAN (FNA) - Head of the Atomic Energy Organization of Iran (AEOI) Ali Akbar Salehi stressed that the recent agreement between Tehran and Moscow on the construction of two new nuclear power plants for Iran would further strengthen the country's stance in the nuclear talks with the six world powers.

Salehi said in a televised interview that the recent agreement between Iran and Russia for construction of two power plants and the protocol to produce nuclear fuel in Iran "will make our stances stronger in talks with Group 5+1 (the US, Russia, China, Britain and France plus Germany".

Reacting to certain reports by Western media about transfer of Iran's produced fuel to Russia , he said rumors that Iran agreed to transfer its fuel to Russia or other countries, or is negotiating on the issue, are not correct. "There is no reason to send our fuel to Russia," Salehi added.

The top nuclear officials of Iran and Russia in a meeting in Moscow earlier this month signed an agreement on the construction of two new nuclear power plants for Iran.

The agreement was signed by Salehi and Head of Russia's Rosatom State Atomic Energy Corporation Sergey Kiriyeenko in the Russian capital.

Upon arrival in the Russian capital, Salehi told reporters that he is also due to "discuss mechanisms for nuclear fuel swaps" with the Russian side.

<http://english.farsnews.com/newstext.aspx?nn=13930829000745>

[Return to Top](#)

The Washington Free Beacon – Washington, D.C.

## **Report: Iran Secretly Continuing Nuclear Weapons Work**

*Research, construction of nuke never stopped, expert report says*

By Adam Kredo

November 20, 2014

VIENNA—Iran never halted its clandestine nuclear weapons program despite repeated assurances to the West, according to a report that sheds new light on Tehran's current and ongoing research into the creation of a nuclear warhead.

As the Nov. 24 deadline for nuclear talks between the West and Iran approaches, the report provides evidence that Iran continues to "vigorously" pursue a nuclear weapon.

The analysis, authored by leading former American and European officials, bolsters research conducted by the United Nations indicating that Iran continues to hide a great deal of its nuclear work.

The findings coincide with comments issued Thursday by the head of the U.N.'s nuclear agency, the International Atomic Energy Agency, stating that Iran still refuses to explain its research into an atomic weapon.

"Iran has vigorously pursued its ambitions to obtain nuclear weapons," according to the report, published by the International Committee in Search of Justice.

"No serious indications that Tehran has stopped or abandoned this project or intends to do so were observed" in multiple internal reports issued by the U.N. over the past years, according to the report.

"On the contrary, all the available information points to the conclusion that it has resorted to further secrecy and concealment to keep its program intact and unhindered," the report concludes. "Further revelations and information all point to the fact that a military program and military related activities are at the heart of the Iranian nuclear program."

The report was jointly authored by former U.S. Ambassador the UN John Bolton, former U.S. Under Secretary of State for Arms Control and International Security Robert Joseph, and former European Parliament Vice President Alejo Vidal Quadras.

**Issue No.1142, 21 November 2014**

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



**USAF Center for Unconventional Weapons Studies  
CUWS Outreach Journal**

Maxwell AFB, Alabama

“Tehran has worked systematically on all the necessary aspects of obtaining nuclear weapons, such as enrichment, weaponization, warhead, and delivery system at some stage,” according to the authors. “In other words, Iran has worked on specific programs and projects to master all necessary aspects of obtaining a nuclear weapon.”

Multiple U.N. reports analyzed by the authors, including ones as recent as September 2014, indicate that “two [nuclear-related] systems have been fully functional [in Iran] during the whole period of the study,” according to the report.

These include Iran’s civilian nuclear programs as well as its military ones, which operate together in tandem, often in secrecy, the report states.

“These two structures resemble two concentric circles, working in tandem,” the authors write. “Over the years, the military part of the program has gone through reorganization or name changes but has moved forward including recent activities.”

Rather than halt the military components of its nuclear program, Iran has reshuffled its structure in order to obfuscate its efforts from international inspectors, who have repeatedly warned in recent weeks that Iran has been blocking efforts to investigate this work.

“According to available information, records, and documents, the military aspect of the program has been and remains at the heart of Iran’s nuclear activities,” the report says.

At least “five specific projects for enrichment” were identified by the report’s authors, who note Iran has never provided the IAEA with information of access to these sites.

Iran’s assurances that its nuclear program is for peaceful civilian use has enabled it to procure many key pieces of technology that also can be used for military purposes.

“A significant portion of the equipment for the military aspect has been obtained and procured under this guise,” according to the report. “Some organs at the highest level of the Iranian regime, including offices and centers affiliated with the president’s office have all been involved in smuggling or skirting sanctions to obtain illicit or dual-purpose equipment for these projects.”

A large number of Iranian military officials also have been identified as working on the nuclear program. The report’s authors interpret this as a sign that the nuclear program has military dimensions that go beyond civilian use.

Iranian Revolutionary Guard Corps (IRGC) “commanders have been involved in the nuclear program from its early stages,” according to the report. “A number of the most senior officers and top brass of the IRGC have been following this project over the years.”

It remains unclear just how the United States will interpret these findings, or those warnings issued by the IAEA on Thursday.

State Department Spokeswoman Jen Psaki informed reporters Thursday morning that Secretary of State Kerry will travel from Paris to Vienna to “check in” on the nuclear negotiations as they proceed.

Kerry’s “date of departure from Vienna is not yet determined,” Psaki said.

<http://freebeacon.com/national-security/report-iran-secretly-continuing-nuclear-weapons-work/>

[Return to Top](#)

Reuters – India Edition

## **Western Leaders Step away from Nuclear Talks with Iran as Deadline Nears**

Issue No.1142, 21 November 2014

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



**USAF Center for Unconventional Weapons Studies**  
**CUWS Outreach Journal**

Maxwell AFB, Alabama

By Jonathan Allen and John Irish  
FRIDAY, NOVEMBER 21, 2014

VIENNA (Reuters) - With three days to go to the deadline for a deal to defuse stand-off with Iran over its nuclear ambitions, Western power foreign ministers stepped away for consultations on Friday while Tehran's chief envoy canceled plans to leave the negotiations.

The United States, Britain, France, Germany, Russia and China began the final round of talks with Iran on Tuesday, looking to clinch a pact under which Tehran would curb its nuclear work to help ensure it cannot be diverted to bomb-making in exchange for a lifting of economically crippling sanctions.

But officials close to the negotiations in Vienna said at mid-week the two sides remained deadlocked on key issues, were unlikely to secure a definitive accord by Nov. 24, and might need to extend the deadline.

Russian Foreign Minister Sergei Lavrov and Kerry agreed "additional efforts" were needed to reach a deal by the self-imposed deadline, Russia's Foreign Ministry said.

"The sides did not rule out the possibility of holding a ministerial meeting of the parties to the talks on Iran's nuclear programme, if the prospect for progress appears," the ministry said in a statement.

British Foreign Secretary Philip Hammond said after separate meetings on Friday with big power peers in Vienna: "These are complex issues and there are still significant gaps between the parties. We're all going away to have technical discussions with our experts and we'll resume again over the ... weekend."

Western powers suspect Iran has aimed to covertly acquire a nuclear bomb capability from its enrichment of uranium. Iran says the programme is for producing civilian energy only. The decade-long dispute has raised fears of a wider Middle East war.

Iranian Foreign Minister Mohammad Javad Zarif canceled announced plans to return to Tehran for top-level discussions with the deadline looming, Iranian media reported. The reason for his reversal of course was not immediately known.

"The talks have not reached a stage that necessitates Zarif to go to Tehran," an unnamed senior member of the Iranian delegation told the IRNA and ISNA news agencies. "Therefore he is not going to Tehran and the talks will continue."

U.S. and French officials said earlier that U.S. Secretary of State John Kerry and French Foreign Minister Laurent Fabius would return to Paris later in the day for consultations.

Kerry spoke on the telephone with Russian Foreign Minister Sergei Lavrov on Friday and the two men agreed that "additional efforts" were needed to secure a deal by Monday, Moscow's Foreign Ministry said.

A source close to the talks told Reuters that Zarif had received a document from the powers that outlining the main principles of a possible agreement on removing sanctions on Tehran in exchange for limits on its nuclear programme.

#### STICKING POINTS

Western diplomats told Reuters earlier this week that a U.S.-drafted proposal shown to Iran at preparatory talks in Oman earlier this month called for the Islamic Republic to reduce the number of its uranium enrichment centrifuges to 4,500, well below the current 19,000 Tehran now has in operation.

Iran has about 10,000 of those machines in operation. Iranian officials have refused to reduce the volume of uranium they are capable of enriching, a stand Western officials say is unacceptable as this would potentially allow Tehran to amass enough fissile material for an atomic bomb in little time.

This is a major sticking point in the talks.

**Issue No.1142, 21 November 2014**

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



Another sticking point is the pace and sequencing of sanctions relief. Iran wants them terminated swiftly, not suspended and gradually scrapped, depending on the degree of Iranian compliance with the deal terms, as the West wants.

Another dispute is over the deal's duration - the powers want it to be up to 20 years, Iran wants this much shorter.

It was not clear when Kerry would be back in Vienna. State Department spokesman Jen Psaki said he was leaving "for consultations with his European counterparts about the ongoing Iranian nuclear negotiations".

Aides said Fabius would return to Vienna over the weekend.

"We have to get more flexibility from the Iranians," Britain's Hammond told reporters upon arrival. "In return we are prepared to show some flexibility on our side. But time is short, we are up against a deadline here."

An interim accord struck on Nov. 24 last year yielded steps by Iran to curb some sensitive nuclear activity, such as higher-grade enrichment, in return for some sanctions relief. That pact will expire on Monday.

*Additional reporting by Parisa Hafezi, Louis Charbonneau and Fredrik Dahl; Editing by Mark Heinrich*

<http://in.reuters.com/article/2014/11/21/iran-nuclear-talks-idINKCN0J51DE20141121>

[Return to Top](#)

Xinhua News – Beijing, China

## India Successfully Test-Fires Nuclear-Capable Dhanush Missile

November 15, 2014

NEW DELHI, Nov. 15 (Xinhua) -- India successfully test-fired its home-made, nuclear-capable Dhanush ballistic missile from a naval ship off the coast of the eastern state of Odisha late Friday night, sources said Saturday.

"The surface-to-surface as well as ship-to-ship missile was test-fired from a naval vessel in the Bay of Bengal and it hit the designated target with high precision. The missile has been developed by state-owned Defense Research and Development Organization," the sources said.

The test-firing of the missile came hours after India successfully test-fired Prithvi-II surface-to-surface missile, which has a strike range of 350 km, from a military base at Chandipur in the state.

Dhanush has already been inducted into the armed services and is capable of carrying a nuclear payload of up to 1,000 kg TNT and can hit both land and sea-based targets.

[http://news.xinhuanet.com/english/sci/2014-11/15/c\\_133792049.htm](http://news.xinhuanet.com/english/sci/2014-11/15/c_133792049.htm)

[Return to Top](#)

Pakistan Observer – Islamabad, Pakistan

## Pak Test-Fires Nuke Capable Hatf IV Ballistic Missile

Staff Reporter

Tuesday, November 18, 2014

Islamabad—Pakistan on Monday conducted a successful test launch of intermediate range Hatf IV (Shaheen I-A) ballistic missile which is capable of carrying nuclear and conventional warheads to a range of 900 kilometres, a statement from the Inter-Services Public Relations said.

'Shaheen I-A' missile is an upgraded version of the 'Shaheen-I' with a longer range and is estimated to have a payload capacity of 1,000 kilograms.

The missile's impact point was in the Arabian Sea.



**USAF Center for Unconventional Weapons Studies  
CUWS Outreach Journal**

Maxwell AFB, Alabama

The launch was witnessed by Chief of Naval Staff Admiral Muhammad Zakaullah, Director General Strategic Plans Division Lieutenant General Zubair Mahmood Hayat, Commander Army Strategic Forces Command Lieutenant General Obaid Ullah Khan, senior officers from the strategic forces and scientists and engineers of strategic organisations.

Chief of Naval Staff Admiral Muhammad Zakaullah congratulated the scientists and engineers for their dedication, professionalism and commitment towards achieving Pakistan's full spectrum credible minimum deterrence capability.

Shaheen I-A with its highly accurate and indigenously developed guidance system is amongst the most accurate missile systems.

The naval chief reiterated Pakistan's desire for peaceful co-existence in the region. He appreciated the professional attributes of all concerned towards accomplishment of the sacred mission.

Admiral Zakaullah showed his confidence over the armed forces' capability to safeguard the country against any aggression.

The successful test launch was also appreciated by President Mamnoon Hussain and Prime Minister Nawaz Sharif who congratulated the participating troops and the scientists and engineers.

On November 13, Pakistan had conducted a successful training launch of intermediate range Shaheen II (Hatf-VI) ballistic missile.

<http://pakobserver.net/detailnews.asp?id=256567>

[Return to Top](#)

Atlanta Journal-Constitution – Atlanta, GA

## **CDC Chief Drops Worst-Case Ebola Estimate**

By MIKE STOBBE, Associated Press (AP)

Wednesday, November 19, 2014

The government's worst-case scenario forecast for the Ebola epidemic in West Africa won't happen, a U.S. health official said Wednesday.

In September, the Centers for Disease Control and Prevention estimated the number of people sickened by the Ebola virus could explode to as many as 1.4 million by mid-January without more help.

Things have changed. On Wednesday, CDC Director Dr. Tom Frieden said, "We don't think the projections from over the summer will come to pass."

Frieden did not provide new estimates. He was speaking in Washington at a U.S. Senate hearing on preparedness and response to public health threats.

The earlier projection was a worst-case scenario for reported and unreported illnesses in Liberia and Sierra Leone, based on conditions in late August — before an international surge in medical aid and supplies. That seems to have helped slow the epidemic in Liberia, one of the three hardest-hit countries. However, the epidemic has been fierce lately in Sierra Leone; it remains unpredictable in Guinea,

When he released the Ebola projections two months ago, Frieden said he was confident the most pessimistic numbers would not occur. Since then, "there has been very effective intervention with USAID, ourselves, the global community, and most importantly the countries and the communities most affected," he said Wednesday.

Since spring, there have been more than 14,000 Ebola cases and more than 5,100 deaths in the epidemic, according to World Health Organization figures.

**Issue No.1142, 21 November 2014**

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



**USAF Center for Unconventional Weapons Studies**  
**CUWS Outreach Journal**

Maxwell AFB, Alabama

Frieden said the CDC thinks that now between 1,000 and 2,000 new cases are occurring in West Africa each week. That seems to be in the neighborhood of the CDC's best-case estimates for the epidemic by mid-January.

Also on Wednesday, a Pentagon spokesman said the U.S. military is scaling back the size and number of Ebola treatment facilities it is building in Liberia from 17 to 10 centers.

<http://www.ajc.com/ap/ap/health/cdc-chief-drops-worst-case-ebola-estimate/njBGz/>

[Return to Top](#)

Investor's Business Daily – Los Angeles, CA  
OPINION/Editorial

## **Time to Rebuild America's Declining Nuclear Force**

November 14, 2014

Geopolitics: A study from a mainstream think tank warns of a degraded U.S. nuclear capacity. This comes as Russia makes increasingly aggressive moves and China is on the march. Will the Obama administration ever wake up?

Pundits and the national security community have relegated America's nuclear deterrent to the sidelines, an unwelcome relic of the Cold War that's been over for 24 years. Yet under President Obama, our nuclear deterrent has weakened considerably, and even the Pentagon is in panic mode.

Defense Secretary Chuck Hagel on Friday announced a sweeping five-year Pentagon program to, as the New York Times put it, "make emergency fixes to (U.S.) nuclear weapons infrastructure." This in the wake of two studies by the Pentagon warning of "systemic problems across the nuclear enterprise," including a number of serious personnel issues in recent years.

We wish that were the extent of it, but it's not.

The very basis of our nuclear deterrent is in question as Russia builds a larger nuclear force, China continues to expand its conventional and nuclear forces, and rogue nations such as North Korea and Iran pursue their nuclear weapon agendas that include, perhaps, putting nukes in the hands of terrorists.

In its "2015 Global Forecast: Crisis and Opportunity," the Center for Strategic and International Studies (CSIS) — not known for its hawkishness or pro-nuclear stance — argues that recent cuts have gone too far.

"We are in a second nuclear age, and denial is no longer an option," says the report, which was first reported by the Washington Examiner's Paul Bedard.

Clark Murdock, the author of the CSIS report, warns that recent actions of Russia, China and North Korea show that simply disarming ourselves hasn't worked. If anything, potential foes have redoubled their nuclear efforts in the face of U.S. weakness and lack of resolve.

He cuts to the chase: While the U.S. acts as if "nuclear war is unthinkable," our foes do just the opposite.

"Like our potential adversaries," he concludes, "we should develop and procure new nuclear weapons."

That seems unlikely. President Obama in 2009 expressed the naive and utopian idea of a "nuclear zero" — a world with no nuclear weapons. That's the policy he's been wedded to ever since.

Unfortunately, even as Obama works to eliminate U.S. nukes, our adversaries — especially Russia — ignore past deals and aggressively build their nuclear forces.

As defense analyst Rebecca Robison wrote this year on the Heritage Foundation's Daily Signal blog: "Reports have shown that Russia has violated the Intermediate-Range Nuclear Forces Treaty, the 1972 Biological Weapons Convention, the 1972 Anti-Ballistic Missile Treaty, the 1990 Conventional Forces in Europe Treaty and the 1993 Chemical Weapons Convention."

**Issue No.1142, 21 November 2014**

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



USAF Center for Unconventional Weapons Studies

CUWS Outreach Journal

Maxwell AFB, Alabama

<http://news.investors.com/ibd-editorials/111414-726632-with-growing-global-threat-us-must-reverse-nuclear-decline.htm>

[Return to Top](#)

The Huffington Post.com – U.S. Edition

OPINION/The Blog

## Don't Throw Billions at an Obsolete Nuclear Arsenal

By William Hartung

November 15, 2014

This week Secretary of Defense Chuck Hagel announced the results of two reviews of current practices for maintaining the nation's nuclear arsenal. A hard look at the troubled nuclear enterprise was certainly needed in the light of the scandals it has experienced in the past several years, from widespread cheating on competency exams to mishandling of weapons. But unfortunately the review panel's recommendations miss the forest for the trees.

Perhaps no element of the Pentagon's narrative about what's ailing its nuclear force is more emblematic of the department's misdiagnosis of the problem than the tale of the lonely wrench. Secretary of Defense Chuck Hagel reported that the nation's three Intercontinental Ballistic Missile (ICBM) sites had been sharing a single wrench kit needed for specialized maintenance, Fedexing it back and forth as needed. The implication seemed to be that the nuclear enterprise was so starved for funds and attention that it couldn't even keep basic tools in stock.

But other lessons can and should be drawn from this incident. Obviously, if having more than one wrench kit was truly essential to our national security, the Pentagon could easily have afforded it out of its multi-billion dollar budget for strategic forces, without a new infusion of funds. This was clearly an issue of mismanagement, not lack of funding.

But another lesson may be drawn as well. ABC News learned that the wrench kit has barely been used in recent years:

*The wrench in question is officially known as a Heat Shield Counter-bore Tool and was originally used for the now-defunct Peacekeeper missile. But it was needed again when the Minuteman III's weapon system was upgraded, but it has seldom been used. The toolkit has been used less than five times since 2008.*

So, if the Pentagon needs a few more wrenches, by all means buy them. But don't try to use this story as part of a plea for billions in additional funding.

There are no doubt issues related to training, morale and equipment that should be addressed as part of sustaining the nuclear arsenal. But the real question is what that arsenal is for. In a comment on this issue for a piece done by Mark Thompson for Time magazine, Kingston Reif of the Arms Control Association gave an excellent summary of what purpose our current arsenal serves and why it is much larger than it needs to be:

*Apart from deterring a nuclear attack, nuclear weapons play an increasingly limited role in U.S. national security policy, but our arsenal is still configured for a Cold War world that no longer exists. There are simply no plausible military missions for these weapons given their destructive power, the current security environment and the prowess of U.S. conventional forces.*

Put another way, we should use the attention that the two recent reviews have brought to the Pentagon's nuclear enterprise to think about restructuring the force to bring it into line with our actual security needs. Separate studies by analysts at the Air War College and the Naval War College have suggested that a few hundred deliverable warheads are sufficient to deter any nation from attacking the United States or its allies with nuclear weapons. And even the Pentagon has acknowledged that we could cut deployed warheads by one-third from the levels established in the New START treaty and still fulfill its vision of the nuclear mission.

Issue No.1142, 21 November 2014

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



## USAF Center for Unconventional Weapons Studies

### CUWS Outreach Journal

Maxwell AFB, Alabama

The best policy at a time of constrained resources is to hold off on building a new generation of nuclear delivery vehicles while we take a closer look at what is really needed. A report by the James Martin Center for Nonproliferation Studies at the Monterey Institute of International Studies has estimated that modernizing and sustaining the nuclear triad of bombers and land- and sea-based ballistic missiles will cost roughly \$1 trillion between now and the mid-2030s. Just one new ballistic missile submarine is estimated to cost \$5.5 billion, even before the inevitable cost overruns. Depending how they are configured and deployed, a new generation of Intercontinental Ballistic Missiles could cost anywhere from \$20 billion to \$120 billion. And the Air Force wants 100 new nuclear capable bombers at \$550 million a pop. All of these projects are at an early enough stage in their development that a much needed course correction would be relatively easy to accomplish, given the will and the wisdom to do so.

Even a modest restructuring of the force could save tens of billions of dollars. In a recent report entitled "The Unaffordable Arsenal," the Arms Control Association proposes changes in nuclear modernization plans that would save \$70 billion over the next decade. The proposals include delaying the development of a new bomber and a new ICBM; canceling the planned Air-Launched Cruise Missile; and reducing the buy of new ballistic missile submarines to eight from 12 while maintaining the capability to launch the same number of warheads. Further reductions in the size of U.S. nuclear forces would drive these savings numbers even higher.

So before we spend billions on various short-term fixes to the Pentagon's existing nuclear enterprise, let's rethink the hundreds of billions the department wants to spend on nuclear weapons we don't need at prices we can't afford. Meanwhile, you'll be glad to know that Chuck Hagel has announced that the Pentagon will spring for some more wrenches.

*William D. Hartung is the director of the Arms and Security Project at the Center for International Policy.*

[http://www.huffingtonpost.com/william-hartung/dont-throw-billions-at-an\\_b\\_6164012.html](http://www.huffingtonpost.com/william-hartung/dont-throw-billions-at-an_b_6164012.html)

[Return to Top](#)

The National Interest.org – Washington, D.C.

OPINION/Feature

## To Go Nuclear or Not: Does the Non-Proliferation Treaty Really Matter?

*"For many, the NPT is the foundation of nuclear order. Actually, the NPT is much less influential in international security than is commonly believed."*

By Christine M. Leah and Andreas Lutsch

November 18, 2014

The nuclear status quo of the world is in flux. The rise of China and the growing Russian challenge have implications for proliferation incentives. This poses an extraordinary challenge to the nuclear order, which is codified by the Non-Proliferation Treaty (NPT), a fundamentally status quo-oriented treaty. The 2015 Review Conference takes place in New York next year. For many, the NPT is the foundation of nuclear order. Actually, the NPT is much less influential in international security than is commonly believed. The decision by countries of whether or not to go nuclear is first and foremost about strategy and geopolitics given a state's specific position in contingent historical situations. The focus in current debates on "strengthening" the NPT and the nonproliferation regime to assure non-nuclear states that they are safer without nuclear weapons per se misses the point. Rather, it is a feeling of long-term security that diminishes the incentives for states to go nuclear. Signing the NPT may have a certain value in making states feel safer, but it is not the central factor.

One should not fall victim to a nonproliferation-centered perspective. This perspective is alarmist by tendency. It attributes highest value to the NPT regarding individual nonproliferation choices. But it puts the superior politico-strategic perspective into brackets, which has greater influence on individual proliferation choices than often assumed. In a stimulating essay, Elbridge Colby argued that the United States should favor geopolitical

Issue No.1142, 21 November 2014

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226





considerations over the goal of nonproliferation in its alliance policies. Alliances may be regarded as nonproliferation tools. But first of all, they should be seen as geopolitical tools that will not necessarily “prevent” proliferation. Additionally, new research on nuclear history has shown that the United States is far from having a consistent nonproliferation track record. Nonproliferation policy was not an end in itself, but rather one of many competing foreign-policy interests.

Our own research on West Germany and Australia during the Cold War confirms that the NPT had no effect on Bonn and Canberra’s decision whether or not to go nuclear. Additionally, our research shows that U.S. alliances should primarily be regarded as political instruments to maintain U.S. interests and the U.S. power position in geopolitical terms.

In the case of West Germany, the NPT had in fact no nonproliferation effect. Even if the Federal Republic of Germany’s (FRG) accession to the treaty (signing 1969, ratification 1975) cemented the non-nuclear status of the FRG, the NPT was not a necessary or sufficient tool to keep Germany non-nuclear. Given the persistence of the Cold War, the division of Germany, the FRG’s undisputed *Westbindung* and the national interest to achieve reunification, there was no “danger” that the FRG would go nuclear sooner or later without the NPT. Bonn had constantly pursued a *limited nuclear revisionism* since the late 1950s when West Germany had started to develop a peculiar form of nuclear policy that was oriented towards NATO and the U.S. nuclear umbrella. In Bonn, any assessment of costs (like a potential loss of protection in NATO and a military intervention at least by the Soviet Union) and gains let the policy option to strive for a national nuclear capability look totally unbearable. The German government even shared a basic thesis of nonproliferation policy: the spread of nuclear weapons would be destabilizing. The German government was in favor of nonproliferation policy. But it did not accept any means to deal with the prospect of proliferation. It rejected the NPT as a means of power politics to consolidate the relative “margin of power” of the nuclear *beati possidentes*. Originally, the German government rejected the NPT for a couple of other complex reasons, but not because of an interest in becoming an atomic power. According to Germany’s *limited nuclear revisionism*, Bonn envisaged to bolster the FRG’s position in NATO as a nuclear alliance and to expand Bonn’s influence in nuclear matters without becoming an atomic power. The overall function of German nuclear policy was deeply political. By pursuing a *limited nuclear revisionism*, West Germany intended to fortify her ties to the West. Thus, Bonn’s nuclear policy ultimately had a geopolitical function. Consequently and regarding West Germany during the Cold War, U.S. extended nuclear deterrence and NATO can be regarded as geopolitical tools and not as positive security assurances, which decisively incentivized Bonn not to seek the national control of nuclear weapons.

As a new book shows, in Australia’s case, the decision about whether or not to go nuclear was not determined by U.S. security guarantees, which were pitifully weak anyway. It was because by the early 1970s, the Asia-Pacific had become a much more stable region. That and the conclusion made by policy makers that Australia would not face any major nuclear or conventional threats without the United States being involved. Furthermore, Washington did little to dissuade Canberra from seeking the bomb. Secretary of Defense Robert McNamara admitted himself it would be an entirely sensible option for Australia. Prime Minister Gough Whitlam signed the NPT in 1973, effectively classing Australia as a Non-Nuclear Weapon State (NNWS). It would be misleading to believe, however, that consequently policy makers did not consider nuclear weapons and nuclear deterrence as integral to Australian security. A careful examination of the language contained in successive Defence White Papers since the 1970s shows quite the opposite to be true. For example, the 1994 Defence White Paper would state:

*... the use of nuclear weapons remains possible... although it is hard to envisage the circumstances in which Australia could be threatened by nuclear weapons, we cannot rule out that possibility. We will continue to rely on the extended deterrence of the US nuclear capability to deter any nuclear threat or attack on Australia.*

The decision to sign the NPT did not mean that Australia did not strongly believe in maintaining nuclear deterrence, but rather that policy makers were willing to “outsource” deterrence to Australia’s new primary security partner—the United States; strategically, it was a more cost-effective option. This decision, however, was premised on the fact that Asia had become a pretty stable region in which to live.



Our research about two non-nuclear U.S. allies, West Germany and Australia—which were located in two entirely different political and strategic environments, but both profited from U.S. extended nuclear deterrence—suggests that historical analysis of individual proliferation choices should above all appreciate paramount politico-strategic calculations by decision makers and administrative elites. In both cases, the NPT had no effect on individual proliferation choices. It was really strategic and geopolitical considerations that were integral to remaining non-nuclear and thus being able to accede to the NPT. Now the geopolitical order that underpinned the NPT is on shaky foundations, which should push us to think about the real value of the NPT in international security.

*Christine Leah is a Chauncey Postdoctoral Fellow in Grand Strategy at Yale University. Andreas Lutsch is an Assistant Professor, Modern History, University of Wuerzburg, Germany. Both are members of the Nuclear Proliferation International History Project.*

<http://nationalinterest.org/feature/go-nuclear-or-not-does-the-non-proliferation-treaty-really-11698>

[Return to Top](#)

The Korea Herald – Seoul, South Korea  
OPINION/Commentary

## N.K. WMDs Carry Catastrophic Potential

By Bruce Bennett  
November 19, 2014

Estimates of weapons of mass destruction threats usually focus on the quantity of weapons an adversary possesses. But it's really the potential for mass destruction that's important.

In the case of North Korea, its chemical, biological and nuclear weapons could probably kill 1 million people, and perhaps as many as 10 million if employed effectively. The United States and South Korea must be ready to deal with this vast and growing arsenal, should the North turn aggressive or suffer a government collapse.

North Korea appears to have at least hundreds of tons of chemical weapons and may have as much as 2,500 to 5,000 tons. Fired into a densely populated urban area, 1 ton of the chemical weapon sarin could cause tens of thousands of fatalities. Thus, if North Korea possesses mainly sarin, it could potentially cause hundreds of thousands to millions of chemical fatalities.

Less is known about the quantity of biological weapons that North Korea possesses. Still, given the North Korean focus on special forces, which are ideal for delivering biological weapons, it seems likely that North Korea possesses or could produce at least hundreds of kilograms of biological weapons like anthrax (not contagious) and perhaps smallpox (contagious). Each kilogram of anthrax could infect thousands to tens of thousands of people, while smallpox would spread from those initially infected to infect many others. Without proper medical treatment, hundreds of thousands to millions could perish.

North Korea likely has sufficient plutonium and highly enriched uranium to produce five to 30 nuclear weapons or so. Detonated in a densely populated urban area, one North Korean 10-kiloton nuclear weapon could likely kill 100,000 or more people. Moreover, that same nuclear weapon detonated in Seoul could cause perhaps \$1 trillion in losses to the South Korean economy over a number of years.

How could the U.S. and South Korean governments have let these threats develop? The United States had hoped that it could convince North Korea to abandon its nuclear weapons by offering a variety of incentives that would help the North Korean people. But the North Korean regime appears to have little real concern for its people, focusing instead on its own survival. And the regime has tied its survival to a public perception of strength rooted in the possession of vast weapons stockpiles.

It is partially in recognition of these threats that U.S. forces are still based in Korea some 60 years after the end of the Korean War. If North Korea at some point decides to attack one or more of its neighbors, South Korea and Japan being the most likely targets, the U.S. military needs to be positioned to act rapidly to eliminate as much of

Issue No.1142, 21 November 2014

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



the North Korean WMD threat as possible. The United States must pay particular attention to preventing North Korean WMDs from being proliferated to third parties like terrorist groups that would likely target the United States. U.S. and South Korean air forces would take the initial role in destroying North Korean WMDs, but would face challenges in locating the weapons and making sure they are destroyed and not just scattered by air strikes.

Thus in a North Korean conflict or government collapse, U.S. and South Korean ground forces would need to advance rapidly into North Korea to find and secure the WMDs. Given time, North Korean forces would likely disperse the WMDs, their production means, the WMD scientists and related documentation. At the same time, North Korean ground forces would likely use WMDs to defend themselves, slowing the operation still more. Finding and securing all WMDs in North Korea could take years. U.S. forces would need to remain committed: The cost of such a military operation would be much less than the cost of proliferated WMD being used against the United States.

North Korea has roughly 1,000 tactical ballistic missiles that could be used to attack South Korea, Japan and other areas. This threat motivates the U.S. consideration of deploying the THAAD missile-defense system in Korea. Despite the arguments of opponents, the THAAD interceptors would be able to destroy at least some of the Scud and especially the Rodong missiles that North Korea could use to target South Korea and Japan. Spending even \$10 billion on such defenses would appear to be a reasonable trade against the potential cost in lives and damage that just one nuclear weapon could cause.

The bottom line is that the failure of the United States and South Korea to prevent North Korea from gaining significant quantities of WMDs saddles those governments with serious military responsibilities, should North Korea go to war or should its government collapse. Resolving the WMD threat will not be easy. In planning its national security requirements, the United States cannot afford to underestimate the severity of the North Korean WMD threats and the difficulty it will face in resolving them.

*Bruce Bennett is a senior defense analyst at the nonprofit, nonpartisan RAND Corporation and a professor at the Pardee RAND Graduate School.*

<http://www.koreaherald.com/view.php?ud=20141119000576>

[Return to Top](#)

Asahi Shimbun – Osaka, Japan  
OPINION/Commentary

## **COMMENTARY: China Should Reduce its Nuclear Arsenal**

By YOICHI KATO, National Security Correspondent  
November 21, 2014

The nuclear security situation in Northeast Asia has been continuously deteriorating over the last several decades. Of course, the biggest nuclear threat for the regional states, including Japan, comes from North Korea. But China also poses a grave concern.

The reason is China is still expanding its nuclear arsenal and also developing new delivery systems.

Among the five legally recognized nuclear weapon states (China, France, Russia, Britain and the United States), China is the only country that increased the number of nuclear warheads, from 240 in 2012 to 250 in 2013, according to the latest annual nuclear forces data that Stockholm International Peace Research Institute (SIPRI) released in June.

To be fair, the ratio of China's inventory compared to that of the entire world is only 1.5 percent if 250 is accurate.

And if nuclear weapon states not legally recognized are included, such as India, Pakistan, Israel and North Korea, China is not the only one that has been expanding its nuclear arsenal. According to the SIPRI study, India and Pakistan did so as well.



**USAF Center for Unconventional Weapons Studies**  
**CUWS Outreach Journal**

Maxwell AFB, Alabama

China is also developing new delivery systems for nuclear weapons.

According to the statement by Adm. Samuel J. Locklear, commander of the U.S. Pacific Command, before the Senate Armed Services Committee on March 25, China is close to deploying its strategic ballistic missile submarines (SSBNs) with nuclear-capable ballistic missiles (SLBMs).

His statement is as follows:

“China continues the production of ballistic missile submarines. The platform will carry a new missile with an estimated range of more than 4,000 nautical miles (approximately 7,400 km). This will give the China its first credible sea-based nuclear deterrent, probably before the end of 2014.”

Here Locklear referred to Type 094, or Jin-class, SSBNs and JL-2 SLBMs. If their range is about 8,000 km, as Locklear noted, the missiles could reach Guam and Alaska, even from the Yellow Sea and the East China Sea. If the range is 10,000 km, they can threaten Hawaii.

This means China will have a new sea-based, credible second-strike capability on top of already deployed land-based intercontinental ballistic missiles (ICBMs).

Among these ICBMs, DF-31s on transporter erector launchers are considered already possessing second-strike capabilities by Japan and the United States because of the difficulty in locating and tracking them, much less destroying them.

I hear from experts in China that China is trying to establish its “nuclear triad”--nuclear arsenal that consists of three components: strategic bombers, ICBMs and submarine-launched ballistic missiles (SLBMs)--just like the United States possesses.

By achieving the initial operational capabilities of Type 094 submarines with JL-2 missiles, China will have succeeded in acquiring this goal of having a nuclear triad.

If I ask the Chinese experts why China is pursuing this path of enhancing nuclear capabilities, the answer I often get is that the Chinese feel threatened that their nuclear deterrence could be substantially weakened, if not totally neutralized, by the deployment of ballistic missile defense (BMD) systems by the United States, Japan and South Korea, as well as by the U.S. development of a Conventional Prompt Global Strike (CPGS) system, which is designed to strike any target on Earth within one hour with a precision-guided conventional weapon.

China’s response, according to the experts, is the development of both its own nuclear triad and BMD system.

I can understand the concern and approach of China from a purely tactical point of view. But I have to point out that such a stance creates two problems.

First, the build-up of a nuclear arsenal is against the spirit of the Treaty of the Non-Proliferation of Nuclear Weapons (NPT), if not an outright violation of it.

Under Article VI of the NPT, parties pledge to pursue negotiations “in good faith” for nuclear disarmament. China is a party to this treaty but has never engaged in or initiated such a negotiation. I believe that increasing the number of nuclear warheads exacerbates this state of violation.

On top of this legal argument, there is a realistic, strategic problem as well.

China’s behavior substantially weakens the sense of nuclear security among the non-nuclear states in the region, including Japan. That could lead to a further deterioration of the credibility of the NPT regime, which is already seriously damaged.

And eventually, it could lead to strategic instability of the region, from which China’s economy and therefore the legitimacy of China’s Communist Party rule could severely suffer.

Theoretically, one of the possible strategic instabilities is the nuclear arms race among the regional states. But it is highly unlikely that Japan would, in fact, take part in such a nuclear arms race.

**Issue No.1142, 21 November 2014**

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



**USAF Center for Unconventional Weapons Studies**  
**CUWS Outreach Journal**

Maxwell AFB, Alabama

I believe there are only two scenarios, in which Japan would, and could, decide to acquire its own nuclear weapons.

One is when the United States stops extending its nuclear umbrella to Japan. The other is where the United States says that it still covers Japan with its extended deterrence, but Japan does not trust it or does not think it is effective enough.

I do not think the United States would ever stop providing extended deterrence to Japan because such a decision would instantly deprive the United States of the status of security guarantor for its partners and allies. Its regional leadership would also be seriously questioned.

But the latter is more likely to happen. It is a matter of perception.

The sense of aversion to nuclear armament has not faded away and remains very strong among the Japanese people even though it has been already 69 years since the atomic bombings of Hiroshima and Nagasaki.

I do not think the Japanese government will decide to go nuclear, even if China keeps developing its nuclear capabilities, as long as the United States assures Japan with its extended deterrence.

Should the Japanese government decide to do so, it would be virtually impossible unless the United States agrees and extends its technical and political support.

But public opinion is another political creature.

If the nuclear states allow the situation to deteriorate further without discharging their responsibilities stipulated by the NPT, it remains to be seen where public opinion in Japan will be swayed to.

Depending on where it goes, it could be harder for the Japanese government to maintain the policy stance of nuclear aversion.

Under these circumstances, what China can and should do is two-fold.

One way is to start bilateral nuclear arms reduction talks with the United States or multilateral talks with the United States and other nuclear weapon states, such as Russia, Britain and France.

Secondly, as a premise for such a policy initiative, China should increase the transparency of its nuclear capabilities. At the very least, the country should fully disclose the current status of its nuclear capabilities, including the type of warheads, their numbers, locations and details of delivery systems.

To be fair, I should make the same demand to other nuclear weapon states, including the United States. As far as I know, the United States is not interested in starting a new round of nuclear arms reduction talks with China, at least for now.

A U.S. government official told me that the position of the U.S. government is that it would consider such talks only after finishing another round of talks with Russia. In the meantime, the U.S. focus is--and will be--to maintain "strategic stability" with China.

The nuclear states in the region--China, the United States and Russia--should take serious note of the fact that the sense of nuclear security of Japan, and other U.S. partners and allies in the region, consists of not just the coverage of extended U.S. deterrence but also the credibility of the NPT regime.

The nuclear states should make their policy decisions based on the clear-eyed recognition of this reality.

<http://ajw.asahi.com/article/views/column/AJ201411210046>

[Return to Top](#)

## **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

**Issue No.1142, 21 November 2014**

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226



**USAF Center for Unconventional Weapons Studies**  
**CUWS Outreach Journal**

Maxwell AFB, Alabama

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.

[Return to Top](#)

**Issue No.1142, 21 November 2014**

United States Air Force Center for Unconventional Weapons Studies | Maxwell AFB, Alabama

<http://cpc.au.af.mil> \ [https://twitter.com/USAF\\_CUWS](https://twitter.com/USAF_CUWS)

Phone: 334.953.7538 | Fax: 334.953.7226