



USAF Center for Unconventional Weapons Studies (CUWS) Outreach Journal

Issue No. 1140, 07 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.**

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FEATURE ITEM: *"The State of Russia's Strategic Forces."* Authored by Mark B. Schneidert; Defense Dossier; October 2014, Edition 12; pages 13-18.

http://www.afpc.org/files/defense_dossier_october_2014.pdf

Russia sees nuclear weapons as central to its "great power" status, critical to its national security and a usable instrument of military power. Nuclear deterrence is incredibly popular in Russia, so much so that it has even been endorsed by the Patriarch of the Russian Orthodox Church.⁴ It is noteworthy that Russia has not announced strategic force eliminations in years. Indeed, during the 2010 Russian ratification of the New START Treaty, Russian Defense Minister Anatoliy Serdyukov said that Russia will increase the number of its deployed nuclear warheads and delivery vehicles up to the New START limits.⁵ Russia is now likely to build up to 2,000-2,500 strategic nuclear warheads, exploiting loopholes and counting rules in the treaty (which count an entire bomber-load of weapons as one weapon).⁶

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Mainichi Daily News.com – Mainichi, Japan

U.S. Conducts Plutonium Tests on Capabilities of Nuclear Weapons

November 04, 2014

WASHINGTON (Kyodo) -- The United States conducted a test using plutonium to examine the capabilities of nuclear weapons in September and October, an official of the National Nuclear Security Administration said Monday.

The tests involved a device called a "Z machine" that generates strong X-rays to create a fusion reaction to assess the performance of nuclear weapons. The United States has repeatedly conducted such tests at the Sandia National Laboratories in New Mexico.

Despite President Barack Obama's much-touted 2009 call for a nuclear weapon-free world, his administration has vowed to maintain existing nuclear arms.

The Z machine is the largest X-ray generator in the world and is designed to test materials in conditions of extreme temperature and pressure.

The NNSA says such experiments are necessary to maintain the safety and capabilities of existing nuclear weapons.

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Great Falls Tribune – Great Falls, MT

Air Force Fires 2 Nuclear Missile Corps Commanders

By Robert Burns, Associated Press (AP) National Security Writer

November 4, 2014

WASHINGTON (AP) — Adding to signs of distress in the nuclear force, the Air Force fired two commanders and disciplined a third in response to internal investigations of leadership lapses and misbehavior at two of its three intercontinental ballistic missile bases.

The most senior officer to be relieved was Col. Carl Jones, the No. 2 commander of the 90th Missile Wing at F.E. Warren Air Force Base, Wyoming, in charge of 150 of the Air Force's 450 Minuteman 3 nuclear ICBMs. He was dismissed "for a loss of trust and confidence in his leadership abilities," and has been reassigned as a special assistant to the wing commander.

The actions Monday were confirmed to The Associated Press in response to an AP inquiry about an internal Air Force investigation of two commanders at the 91st Missile Wing at Minot Air Force Base, North Dakota, which also is responsible for 150 Minuteman 3 missiles. A separate investigation was conducted at F.E. Warren.

The Air Force nuclear missile corps has suffered a rash of recent setbacks, including the firing last year of its top commander.

It is unusual for disciplinary action to be taken against senior officers at two of the Air Force's three nuclear missile bases on the same day. Officials said the timing was a coincidence. It extends a pattern of leadership failures in the ICBM force over the past year.

Last March nine officers were fired at Malmstrom Air Force Base, Montana, which is the third of the three nuclear missile bases, in response to an exam-cheating scandal there. Last year, Maj. Gen. Michael Carey, commander of the entire ICBM force, was fired after an investigation into a drinking binge and other misconduct while he was in Russia as head of a visiting U.S. government delegation.

The nuclear missile force, whose work is arguably the most sensitive in the military, has been beset with problems in discipline, training, leadership and morale, prompting Defense Secretary Chuck Hagel in February to order an independent review. The results of that review are expected to be announced in coming weeks.

In response to an AP inquiry Monday, Lt. Col. John Sheets, spokesman for Air Force Global Strike Command, which is in charge of the Air Force Minuteman 3 force as well as its nuclear bomber fleet, said that as a result of the Minot investigation a missile squadron commander, Lt. Col. Jimmy "Keith" Brown, was relieved of command Monday "because of a loss of confidence in Brown's ability to lead his squadron."

Sheets said the investigation was directed by Maj. Gen. Jack Weinstein, commander of the 20th Air Force, and "substantiated that Brown engaged in unlawful discrimination or harassment." He added that the probe found that Brown "made statements to subordinates that created a perception within his squadron that pregnancy would negatively affect a woman's career."

The probe also substantiated allegations that Brown had failed to ensure the well-being of his troops. In March a two-person crew operating a Minuteman 3 launch control center at Minot felt ill from fumes created by a refurbishment project, but the crew remained at their post because they believed Brown would have taken action against them had they left. They later were hospitalized, Sheets said.

There are three missile squadrons at each of the three nuclear missile wings. Each squadron is responsible for 50 missiles operated by officers in five underground launch control centers.



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The second officer targeted in the Minot investigation was Col. Richard Pagliuco, commander of the 91st Operations Group, which is in charge of the three missile squadrons at Minot, including Brown's.

Sheets said the investigation confirmed that Pagliuco "failed to promote and safeguard the morale, well-being and welfare of the airmen under his command." Pagliuco received administrative punishment in the form of a letter in his personnel file, but Sheets said he could not be more specific about the punishment.

The complaints against Jones, the vice commander of the 90th Missile Wing at F.E. Warren, were the most extensive, according to Sheets' description of the case.

Sheets said Jones' immediate superior, Col. Tracey Hayes, commander of the 90th, removed him following an internal investigation that substantiated allegations of conduct unbecoming an officer and a gentleman, and cruelty and maltreatment of a subordinate.

"In four separate instances, Jones acted in a manner that degraded his status as a senior officer and wing leader including maltreating a subordinate," Sheets said.

The most recent incident involving Jones was in September and occurred at a thrift store operated on F.E. Warren by volunteers, Sheets said. According to the investigation report as described by Sheets, Jones went to the shop, called Airman's Attic, to discuss shopping hour policies.

"He hit the sign on the Airman's Attic door and repeatedly hit the shop's front counter while raising his voice, using profanity" and threatening to shut down the place, Sheets said.

It was this incident which prompted a complaint to the 90th Missile Wing's inspector general, leading to the investigation and the decision by Hayes to remove Jones.

Three other incidents of allegedly inappropriate behavior on base by Jones during 2014 were substantiated in the investigation, including one in May in which his behavior was described by one officer and a witness as shocking.

Sheets said the disciplinary actions at Minot and Warren reflect an effort to ensure that commanders do not behave in ways that detract from the mission.

"Our people must treat each other with dignity and respect," Sheets said. "That applies up and down the chain of command."

<http://www.greatfallstribune.com/story/news/local/2014/11/04/air-force-fires-nuclear-missile-corps-commanders/18455703/>

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China Daily.com – Beijing, China

China, US to Meet on WMD Nonproliferation

(Xinhua)

November 2, 2014

BEIJING -- China and the United States will sit down for the first joint work group meeting on the nonproliferation of weapons of mass destruction in Beijing on Monday, China's Foreign Ministry announced on Sunday.

China and the US decided to establish a joint group on the nonproliferation of WMD during their Strategic and Economic Dialogue in Beijing last July. It is the first time China has established a mechanism for discussion about nonproliferation with other major countries.

Li Yang, Deputy Director-general for the Department of Arms Control in the Chinese Foreign Ministry, and Van Diepen, Principal Deputy Assistant Secretary for International Security and Nonproliferation for the US Department of State, will attend the meeting, the Ministry said.

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The meeting is expected to enhance practical cooperation in nonproliferation and strategic trust between the two countries, which is conducive to the building of a new type of relationship between major countries. It is also expected to promote international nonproliferation process by showcasing the cooperation between big countries.

China has always opposed proliferation in all forms and conducted international cooperation in this area. China and the US have shared interests and concerns in nonproliferation and kept communication and cooperation in implementing the UN Security Council Resolution 1540, arms export control and regional nonproliferation hotspot issues.

http://usa.chinadaily.com.cn/us/2014-11/02/content_18850167.htm

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RIA Novosti – Russian Information Agency

Russia Confirms Refusal to Attend 2016 Nuclear Security Summit in Chicago

5 November 2014

MOSCOW, November 5 (RIA Novosti) - The Russian Foreign Ministry confirmed Wednesday that Moscow is not planning to attend preparatory meetings for the 2016 Nuclear Security Summit in Chicago citing the politicized nature of the event.

"Instead, we are going to focus on strengthening nuclear security cooperation in the framework of the International Atomic Energy Agency, in particular, on participation in the IAEA High Level Conference on Nuclear Security to be held in 2016," the ministry said in a statement.

"We informed our US colleagues about this decision in mid-October," the statement said.

The decision is yet another sign of the rift between Washington and Moscow, which has deepened sharply in recent years.

<http://en.ria.ru/politics/20141105/195166341/Russia-Confirms-Refusal-to-Attend-2016-Nuclear-Security-Summit.html>

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The Korea Times – Seoul, South Korea

US Approves PAC-3 Sale to Seoul

By Yi Whan-woo

November 7, 2014

The U.S. government has approved a possible sale to South Korea of 136 Patriot Advanced Capability (PAC)-3 interceptor missiles and related equipment, according to its defense agency.

The approval comes amid South Korea's move to upgrade its PAC-2 air defense system by 2020 because of continuing military threats from North Korea.

The Defense Security Cooperation Agency (DSCA) in Washington, D.C. said on Thursday (local time) that the U.S. Department of State approved the sale for an estimated \$1.405 billion.

"South Korea is one of the major political and economic powers in East Asia and the Western Pacific, and a key partner of the U.S. in ensuring peace and stability in that region," the DSCA said.

"This proposed sale will contribute to the foreign policy and national security objectives of the U.S. by meeting the legitimate security and defense needs of an ally and partner nation."

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The DSCA is under the U.S. Department of Defense. It provides financial and technical assistance, transfer of defense materials, training and services to allies, and promotes military-to-military contacts on behalf of the U.S. government.

The PAC-3 is more advanced than the PAC-2. It holds more interceptors, uses hit-to-kill technology, and has an onboard radar transmitter and guidance computer.

South Korea has about 300 PAC-2 missiles. In particular, it purchased 48 second-hand PAC-2 elements from Germany in 2007 rather than new PAC-3 units largely due to budget constraints.

The PAC-2 is designed to maneuver close to the incoming target and detonate its explosive fragmentation warhead, but it is primarily for use against aircraft with limited capability to deter missiles.

"On the other hand, the PAC-3 interceptor is designed for hit-to-kill performance utilizing an accurate millimeter wave seeker combined with an agile airframe," a defense ministry spokesman said in Seoul on Friday, on condition of anonymity.

Seoul also has been seeking to purchase the PAC-3 missiles because they are a key part of its plan for its indigenous Korean Air and Missile Defense system.

The PAC-3 is a guided missile system with long-range, medium- to high-altitude, all-weather capabilities designed to counter tactical ballistic missiles, cruise missiles and advanced aircraft.

"This sale will increase interoperability between the ROK's ground and sea-based (Aegis) ballistic missile defense forces and U.S. Forces Korea, which not only affects ROK national security but also the security of the U.S. personnel assigned in the ROK," the DSCA said. The ROK stands for Republic of Korea, South Korea's official name.

"This sale will provide the ROK with the capability to defeat lower tier ballistic missile defense threats and will decrease the ROK's reliance on the deployment of U.S. combat forces to maintain stability in the region," it said.

It added the proposed sale of this equipment and support would not alter the region's basic military balance.

http://www.koreatimes.co.kr/www/news/nation/2014/11/205_167757.html

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RIA Novosti – Russian Information Agency

Russia Free of Nuclear-Related Decisions Made Without Its Involvement: Foreign Ministry

7 November 2014

VIENNA, November 7 (RIA Novosti) – Russia will not consider itself bound by decisions adopted at the Washington summit on nuclear security without its participation, Deputy Foreign Minister Sergei Ryabkov has told RIA Novosti.

"We will not consider ourselves tied by obligations that are worked out without our participation. It doesn't matter if somebody wants these decisions to become universal, they would have to go to the IAEA (International Atomic Energy Agency) and other organizations and take the regular path. There is no other way," Ryabkov said Thursday.

"We would like to avoid situations where these kinds of privately generated solutions become directives," Ryabkov added.

On Wednesday, the Russian Foreign Ministry confirmed that Moscow was not planning to attend preparatory meetings for the 2016 Nuclear Security Summit in Chicago. According to the ministry, Russia informed its US colleagues of the decision in mid-October.

The ministry said in a statement that the summit suffered from various shortcomings, including discrimination against all participants, except for the host countries of previous and upcoming summits, such as the United States.

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According to the statement, Russia plans to strengthen nuclear security cooperation within the framework of the IAEA instead of focusing on the Nuclear Security Summit in Chicago.

<http://en.ria.ru/politics/20141107/195226018/Russia-Free-of-Nuclear-Related-Decisions-Made-Without-Its.html>

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TASS Russian News Agency – Moscow, Russia

US Aegis Ballistic Missile Defense System Completes Successful Intercept Flight Test

This is the 29th successful intercept in 35 flight test attempts for the Aegis BMD program which began in 2002
November 07, 2014

WASHINGTON, November 7. /TASS/. The United States has successfully conducted a flight test of the Aegis Ballistic Missile Defense (BMD) system which saw three near-simultaneous target engagements over the Pacific Ocean, the US Missile Defense Agency has reported.

“One short-range ballistic missile target was intercepted by a Standard Missile-3 (SM-3) Block IB guided missile, while two low-flying cruise missile targets were engaged by Standard Missile-2 (SM-2) Block IIIA guided missiles near-simultaneously,” the agency said in a statement released on Thursday.

All the three targets were launched from the Pacific Missile Range Facility (PMRF) on Kauai, Hawaii, and later detected by a radar which is part of the Aegis system.

“Program officials will evaluate system performance based upon telemetry and other data obtained during the test,” the statement says.

This is the 29th successful intercept in 35 flight test attempts for the Aegis BMD program which began in 2002.

The agency said will use the test results to “improve and enhance the Ballistic Missile Defense System (BMDS) and support the advancement of Phase 2 of the Phased Adaptive Approach for missile defense in Europe to provide protection of U.S. deployed forces and our European allies and partners.

<http://en.itar-tass.com/world/758491>

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Physics Today – Melville, NY

Nuclear Arms Cuts Could Produce Huge Savings, Says Report

US has no need for so many nuclear-armed submarines, bombers, and missiles to ensure its post-cold war security, says Arms Control Association.

By David Kramer

November 2014

The US could save \$70 billion over the next 10 years by taking “common sense” measures to trim its nuclear forces, yet still deploy the maximum number of warheads permitted under the New START Treaty, according to a new report by the Arms Control Association. Those steps include cutting the number of proposed new ballistic missile submarines to eight from 12, delaying plans to build new nuclear-capable bombers, scaling back the upgrade of a nuclear bomb, and forgoing development of a new intercontinental ballistic missile system.

“In my view, this is really a nuclear ATM that we can cash in on and take money out of and spend it on other things,” said Tom Collina, the report author. Further savings could be achieved if the one-third reduction in the nuclear stockpile proposed by President Obama in 2013 were to be enacted, the report said.

The current plan to rebuild US nuclear forces will cost at least \$355 billion over the next decade, the Congressional Budget Office estimated in a December 2013 report. The CBO put the cost of the US Navy’s plan to design and

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procure 12 new ballistic missile submarines to replace the existing *Ohio*-class boats at \$100 billion. But Collina said that the US could get by with eight new subs simply by having them patrol closer to US shores, instead of deploying them near the coasts of Russia and China.

The Long Range Strike Bomber that the US Air Force wants to build could cost \$80 billion, according to the report. But the existing fleet of B-2s and B-52s are expected to operate into the 2050s. The CBO has estimated that delaying the LRSB program until the mid-2020s would yield a savings of \$32 billion over the next 10 years. Forgoing a new intercontinental ballistic missile to replace the Minuteman III could save \$15 billion by 2023. And cancelling a replacement for the air-launched nuclear-armed cruise missile could save \$3 billion over the next decade.

The Department of Energy's proposal for upgrading five warhead types to extend their lives will cost \$60 billion, the report said. The first in line, the B61, will cost \$8 billion to refurbish according to DOE, and \$10.4 billion, according to the Defense Department. The cost of the B61 program could be halved by upgrading only the strategic versions of the bomb; this would exclude the tactical bombs stationed outside the US in NATO countries, the future role of which is unclear. "Maybe right now is not the best time to remove tactical nuclear weapons from Europe," admitted Collina, alluding to current tensions over Russian forays into Ukraine, "but that doesn't mean we have to spend billions of dollars on extending their life for another 20 or 30 years. The ones we have there will last another decade or so."

<http://scitation.aip.org/content/aip/magazine/physicstoday/news/10.1063/PT.5.1032>

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Reuters – U.S.

U.S. Scientists Say Uncertainties Loom about Ebola's Transmission, Other Key Facts

By Sharon Begley

Monday, November 3, 2014

(Reuters) - Even as government officials express confidence that researchers know the key facts about Ebola, many questions crucial to preventing an outbreak in the United States remain unanswered, scientists told a workshop at the National Academy's Institute of Medicine in Washington on Monday.

Virtually all the unknowns have practical consequences, participants emphasized, making it foolish and perhaps dangerous to base policy on weak science.

For instance, virologists believe that Ebola is spread when people come in contact with the virus-laden bodily fluids of those who are already sick and then touch their eyes, nose or mouth, allowing the virus to pass through mucous membranes and enter the bloodstream.

But penetration through intact skin has not been definitively ruled out, said hemorrhagic-fever expert Thomas Ksiarek of the University of Texas Medical Branch (UTMB), who co-led a session on Ebola's transmission routes.

"Does bleach or hand sanitizer," which people in West Africa are using to protect themselves from Ebola, "make the skin more susceptible" to being penetrated by the virus?, Peters wondered. "It's a question that has to be asked."

Another crucial question is whether the virus can be spread by people who do not show symptoms. For months public health officials in the United States and elsewhere have insisted it cannot.

But the possibility of such "subclinical transmission" remains very much open, said Dr. Andrew Pavia, chief of pediatric infectious diseases at the University of Utah.

Nor do experts know whether the infectious dose of virus depends on how it enters the body, Pavia said.



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Also unknown is whether the time between exposure to Ebola and the appearance of symptoms depends on which bodily fluids someone contacted. If it does, then someone exposed through, say, saliva rather than blood might incubate the virus for longer than the 21 days officials have repeatedly said is the outer limit of the incubation period.

That was the longest incubation time during the 1976 Ebola outbreak, said Dr. C.J. Peters, a field virologist at UTMB. But "I would guess that 5 percent of people" can transmit the virus after incubating it for more than three weeks, said Peters, whose battle against the Ebola outbreak in a monkey colony in Virginia was recounted in Richard Preston's 1994 book "The Hot Zone."

Health officials emphasize the importance of taking the temperature of those exposed to Ebola, since people are not thought to be infectious until they run a fever of 100.4 F. (38 C). But at what temperature patients start shedding virus is not definitively known, said Dr. Michael Hodgson, chief medical officer of the Occupational Safety and Health Administration.

Environmental mysteries also remain. Scientists do not know whether foam, gas, or liquid decontaminants are most effective for cleaning surfaces that might harbor Ebola. Nor do they know whether it can survive in sewers where, said Paul Lemieux of the National Homeland Security Research Center at the Environmental Protection Agency, rats "might pick it up."

Reporting by Sharon Begley; Editing by Cynthia Osterman)

<http://www.reuters.com/article/2014/11/04/us-health-ebola-usa-questions-idUSKBN0I001Q20141104?feedType=RSS>

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C4ISR&Networks.com – Washington, D.C.

Turning UAVs into Chemical, Biological Weapon Detectors

By MICHAEL PECK

November 5, 2014

As chemical and biological weapons continue to be a risk for military personnel and civilians alike, the Pentagon is seeking new ways to detect them. A new demonstration RFI has the goal of developing UAVs that can detect the weapons.

The Thunderstorm Project seeks a battery-powered vertical-takeoff UAV that can fly or hover at altitudes up to 1,000 feet above ground level for at least 30 minutes. The desired UAV also:

- Can be carried in a backpack or in a Humvee.
- Can detect chemical and biological weapons and transmit the data to a receiver at least 1 kilometer away.
- Can be operated by regular Chemical Biological Radiological and Nuclear (CBRN) personnel with minimal training.
- Includes a ground station able to provide visual displays of the sensor readings.
- Offers autonomous operations based on satellite imagery that is pre-loaded, or downloaded from cell phones or Wifi networks.
- Can carry modular payloads capable of detecting G, H and V-type chemical agents, biological agents, and can conduct surveillance of natural flora.
- Is able to collect and return samples for testing.

At this stage, the Deputy Assistant Secretary of Defense for Emerging Capability and Prototyping, Rapid Reaction Technology Office only wants to see technology demonstrations; the document is not a request for proposals.

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On the flip side, the RRTO is also looking for technologies to counter small, man-portable, off-the-shelf UAVs carrying chemical or biological warheads. The Pentagon wants sensors that can detect and identify these small WMD carriers, plus kinetic and non-kinetic weapons to destroy them.

Thunderstorm, which is a technology demonstration program, will hold an industry day in the second quarter of 2015 at Camp Shelby, Mississippi.

<http://www.c4isrnet.com/article/20141105/C4ISRNET08/311050001/Turning-UAVs-into-chemical-biological-weapon-detectors>

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The Korea Herald – Seoul, South Korea

‘N.K. Launched Ballistic Missile Submarine’

By Shin Hyon-hee

November 2, 2014

North Korea has recently launched a submarine capable of firing ballistic missiles, a news report said Sunday, adding to concerns over the evolving missile and nuclear threats posed by the communist country.

Pyongyang imported, reverse-engineered and modified a Soviet-era Golf-class diesel submarine that was built in 1958 and decommissioned in 1990, Yonhap reported, citing an unnamed government source. The regime is believed to have bought the vessel in the early 1990s.

“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 was quoted as saying.

The report is the latest in a recent flurry of articles at home and abroad on the North’s submarine technology.

But Seoul’s military officials expressed skepticism that it has acquired the capability to deploy submarine-launched ballistic missiles, or SLBMs.

The Russian 3,500-ton Golf II class submarine carries the R-21 SLBM, a single-stage, liquid-propellant missile with a 1,180-kilogram warhead that has a maximum range of 1,420 kilometers.

The newly built submarine is identical to the one detected at the Sinpo South Shipyard by the U.S.-Korea Institute at Johns Hopkins University through satellite imagery and released last month on its website, 38 North, according to the Yonhap source.

Located in South Hamgyong Province on the country’s east coast, the dockyard houses the headquarters of its Maritime Research Institute of the Academy of National Defense Sciences and serves as its chief submarine manufacturing facility.

The heavily militarized country has conducted multiple tests both on the ground and at sea to master the technology of mounting a missile tube on the new vessel, another source was quoted as saying. It is expected to take at least one or two years before the completion of the tests.

Last week, arms expert Joseph Bermudez Jr. said on 38 North that Pyongyang had built “a new test stand” at Sinpo for a possible vertical launch of SLBMs. He said that the installation had a 35-by-30-meter concrete pad with an about 12-meter-high test stand.

The North is believed to have some 70 submarines, about 20 of which are the 1,800-ton Romeo-class and about 40 of which are the 325-ton Sangeo-class vessels. Though old and equipped with outdated weapons, they outnumber the South’s submarines.

A SLBM-deployed submarine would pose a grave threat to the South. Experts consider strategic bombers, intercontinental ballistic missiles and SLBMs to be the components of a “nuclear triad” needed to ensure a nation’s nuclear deterrence.

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Seoul has been seeking to beef up its antisubmarine capabilities since a North Korean submarine torpedoed its corvette Cheonan in the West Sea in March 2010, killing 46 sailors. Pyongyang denies responsibility.

<http://www.koreaherald.com/view.php?ud=20141102000296>

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Yonhap News Agency – Seoul, South Korea

N. Korea's new Tactical Missile Believed to be Improved Version of Soviet Missile: Expert

November 3, 2014

WASHINGTON, Nov. 3 (Yonhap) -- North Korea has been testing a new "ultra-precision" tactical missile developed apparently after making improvements to a Soviet-built missile that can be armed with nuclear, chemical or biological warheads, a U.S. expert said Monday.

The North test-fired the missile at least twice, first on June 26 and then on Aug. 14, and an analysis of images released by Pyongyang's state media suggest it could be an extended-range version of the Soviet SS-21 Tochka surface-to-surface missile, nonproliferation expert Jeffrey Lewis said.

The SS-21 is a solid-fuel tactical missile developed in the 1970s to replace the Frog-7 rocket artillery system with greater accuracy. Though normally armed with a fragmentation warhead using conventional explosives, it could also carry nuclear, chemical or biological warheads, Lewis said in a report contributed to the website 38 North.

Scrutiny of test images showed that the Aug. 14 test took place in a location northwest of the North's eastern coastal city of Wonsan and the June 26 launch is also believed to have taken place at a nearby location, the expert said.

North Korean defectors have long said that Wonsan is home to a missile facility, and the launch area contains a number of revetments for rocket and missile launchers, Lewis said. There are also a number of nearby sites that appear to be housing for instrumentation, such as radars, to observe missile tests, he added.

Images of the impact area also showed the missile traveled 220 km, just as South Korea's military told Yonhap News Agency after the August launch, he said.

"The tests naturally raise the questions about when such a missile will become operational and, perhaps more importantly, whether North Korea will develop a new series of long-range ballistic missiles based on the solid-fueled SS-21," Lewis said.

"Solid-fueled missiles are far more survivable than missiles that use liquid propellant, which must be pumped into the missile before launch," he said.

<http://english.yonhapnews.co.kr/search1/2603000000.html?cid=AEN20141104000200315>

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Bloomberg News – New York, NY

North Korean Submarine Threat Overstated, Arms Analysts Say

By Sam Kim and David Tweed

November 3, 2014

North Korea remains years away from being able to launch ballistic missiles from a submarine even as its leader Kim Jong Un seeks to expand the fleet's range and firepower, weapons analysts said.

"If the North decides to pursue such a capability, it is likely to take years to design, develop, manufacture, and deploy an operational submarine-launched ballistic missile force," Joseph S. Bermudez Jr., chief analytical officer at



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AllSource Analysis, wrote last week on 38 North, a blog run by the U.S. - Korea Institute at Johns Hopkins School of Advanced International Studies in Washington.

A North Korean submarine with working missile silos would mark a giant stride in Kim's ability to threaten distant rivals, including the U.S., as his regime claims it can now make warheads small enough to be deployed on missiles.

The U.S. and South Korea remain vigilant on North Korean submarines among an array of threats the country poses, Kwon Ki Hyun, a spokesman for Seoul's Defense Ministry, said today by phone. He declined to confirm a Yonhap News report yesterday that the North modified a Soviet-era diesel submarine to build its own vessel that could eventually be capable of firing ballistic missiles. Yonhap cited an unidentified South Korean government official.

Nuclear Tests

North Korea, which has conducted three nuclear tests since 2006, has been trying to modify Soviet-era submarines so they can be used to launch SSN6 missiles, South Korean Defense Ministry spokesman Kim Min Seok said in September. He said then that the North hadn't yet succeeded in making its subs capable of firing missiles.

"The North Koreans are poor, but not stupid, and they do have some pretty good engineers, especially in weapons areas," Dean Cheng, who specializes in military capabilities as a research fellow at the Heritage Foundation in Washington, said in an e-mail. "But modifying a submarine is no mean feat, and would take a lot of time and be risky, especially as it would require compromising the hull's integrity and would likely make a fairly noisy boat even noisier."

North Korea has built a test pad in its eastern coastal city of Sinpo that is "probably intended to explore the possibility of launching ballistic missiles from submarines or of a shipboard vertical launch ballistic missile capability," Bermudez wrote, citing commercial DigitalGlobe images from July.

Warship Torpedoed

North Korea has 1.2 million troops and operates about 70 submarines, while the South has 10 of the vessels, according to a 2012 South Korean defense white paper. South Korea accused the North of torpedoing one of its warships in 2010, resulting in the deaths of 46 sailors, a charge the North denies.

In June, North Korea released photos of Kim boarding a submarine during drills. He has also stepped up efforts to expand his regime's missile arsenal, personally overseeing the launch of "ultra-precision" guided missiles in June. North Korea is banned from developing ballistic missiles under sanctions imposed by the United Nations for nuclear testing.

Putting ballistic missiles on submarines may also limit Kim's ability to control the weapons, Bermudez said.

"It also assumes that Pyongyang would entrust an operational nuclear-armed missile to the captain of a submarine who would, in time of war, most likely be out of communication with the leadership," he said.

Atomic Bombs

North Korea may have made "considerable" progress in miniaturizing its atomic bombs, South Korean Defense Minister Han Min Koo said today at a parliamentary hearing. Army General Curtis Scaparrotti, the commander of U.S. forces in Korea, said last month that the North may now be able to miniaturize a nuclear weapon to fit on a mobile missile warhead that could hit parts of the U.S.

While Kim hasn't yet deployed a ballistic missile that could hit the mainland U.S., "he's showing us the signs that he's trying to get there," Admiral Samuel Locklear, head of U.S. forces in the Pacific, said in a Bloomberg Government interview in September.

<http://www.bloomberg.com/news/2014-11-03/missile-firing-submarines-remain-no-mean-feat-for-north-korea.html>

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Korea JoongAng Daily.com – Seoul, South Korea

North Operates New Uranium Plant

Four to five weapons can be made yearly with the enriched fuel

BY JEONG YONG-SOO, SER MYO-JA

November 5, 2014

North Korea has started operating a new plant to produce weapons-grade uranium, doubling its capability to make fuel for atomic bombs, a senior South Korean official told the JoongAng Ilbo yesterday.

"In 2012, the North started building a new facility next to its old uranium plant, about 120 meters long and 15 meters wide," the official in charge of handling North Korean intelligence said. "The new facility is about the same size as the old one. It recently completed construction and has started operation."

The new plant to produce highly enriched uranium is in the Yongbyon nuclear complex, the center of the country's nuclear arms program. It was built next to a uranium facility that was shown to a visiting U.S. scientist in 2010. The North invited former Los Alamos National Laboratory director, Siegfried S. Hecker, to Yongbyon and showed him the facility with about 2,000 gas centrifuges to enrich uranium.

Infrared cameras used by Korean and U.S. intelligence authorities have detected heat that was emitted when the centrifuges in the new plant began operating, the source said. "We have to monitor a little longer to see if the new plant actually started producing weapons-grade materials, but it is our assessment that it is in operation," he said.

In August, the Institute for Science and International Security said construction materials inside the Yongbyon nuclear complex had disappeared while a train was detected on a railway linked to a building. It concluded that work was continuing to expand the centrifuges and reactor facilities.

The newly built facility is about the same size as the old one, according to the source, leading to the estimate that it is also equipped with about 2,000 centrifuges.

"If the North operates all 4,000 centrifuges year-round, it can produce about 80 kilograms [176 pounds] of highly enriched uranium annually," said a nuclear engineer from a state-run institute who requested anonymity. "That is enough to build four to five nuclear bombs."

The operation of the new facility is expected to worsen fears about Pyongyang's nuclear program.

"Although warheads using highly enriched uranium are less powerful than plutonium-based bombs, they are relatively easier to build," said Lee Choon-geun, a research fellow at the Science and Technology Policy Institute. "They can be built without a nuclear test."

Lee said the North can also produce highly enriched uranium at other clandestine facilities outside of Yongbyon.

With the progress, the last remaining hurdle in the North's nuclear arms program will be acquiring the technology to miniaturize nuclear warheads so they can be fitted onto ballistic missiles. Although Korean and U.S. intelligence authorities have not obtained hard evidence that the North had succeed in producing a nuclear-tipped ballistic missile, they suspect that Pyongyang has almost mastered the technology.

The North started its nuclear arms program by producing weapons-grade plutonium, but made a switch to producing weapons from highly enriched uranium. It admitted to the existence of the uranium-based program in 2002.

Since then, the North conducted three nuclear tests. The first one took place in 2006 and two additional tests followed. The first and second in 2006 and 2009 were believed to test plutonium-based devices, but the most recent one in February last year was believed to be a test of a uranium-based device.

Defense Minister Han Min-koo testified at the National Assembly on Oct. 27 that the North has technology capable of building a bomb using its uranium enrichment program. He also said it is believed that the North's

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miniaturization of its nuclear technology has improved considerably, although there was no confirmation on how far.

A nuclear expert in Washington said the time has come for the South to assume that the North is a nuclear-armed state, saying it takes a minimum of two years or a maximum of seven years for a country to succeed in miniaturization of nuclear warheads after a nuclear test.

“We continuously monitored the Punggye-ri nuclear test site of the North and the amount of earth detected before last year’s nuclear test was just a little more than half of what was observed at the time of the first test,” said a South Korean intelligence official who exchanged information with U.S. authorities. “That shows that the space for the place where the nuclear explosive device was installed was reduced.”

For a nuclear-tipped missile, it is required to miniaturize an atomic warhead to smaller than 90 centimeters (35 inches) in diameter and less than one ton in weight. Detonation technology for the highly enriched uranium inside the warhead is also key.

The Korean government believes that the North has tested detonation devices since the early 1990s and the frequency of the tests rapidly increased recently. Intelligence analysts, therefore, suspect that the North is in the last stage of miniaturization.

Concerns are also high because highly enriched uranium weapons can be produced without explosion tests. The type is known as “Little Boy,” which the United States dropped in Hiroshima in August 1945.

“If the North uses the ‘gun’ method, like the Little Boy for which the United States used 64.1 kilograms of highly enriched uranium, the North can create nuclear bombs without tests,” said a South Korean government official. “If the North attempts to create nuclear arms by secretly using the gun-type bombs, it is hard to detect and stop the program.”

Although the South Korean government’s official stance is that there is no evidence that the North has succeeded in miniaturization, concerns are growing that Pyongyang is just one step away from possessing nuclear-tipped missiles.

Gen, Curtis Scaparrotti, the commander of U.S. Forces Korea, already addressed the issue. “Personally, I think that they certainly have had the expertise in the past,” Scaparrotti said last month. “They’ve had the right connections, and so I believe have the capability to have miniaturized a device at this point, and they have the technology to potentially actually deliver what they say they have.”

<http://koreajoongangdaily.joins.com/news/article/Article.aspx?aid=2996908>

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Global Post.com – Boston, MA

N. Korea's New Missile Launch Pad 'Almost Completed': Report

Kyodo News International

November 5, 2014

North Korea has "almost completed" a new missile launch pad that is double the height of one used to test-fire a long-range missile two years ago, sparking concerns it may launch longer-range missiles, a South Korean daily reported Thursday.

Citing a South Korean government official, the Dong-A Ilbo said the construction of the pad at its Dongchang-ri launch site in North Pyeongan Province, with a height slightly lower than 60 meters, is in its final stage.

North Korea launched the Unha-3 long-range rocket, which had a range of 13,000 kilometers, from the same site on Dec. 12, 2012 in defiance of sanctions and international warnings, marking the first time for it to make successful use of a three-stage rocket to put a satellite into orbit.



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It was estimated that the rocket was launched from a pad with a height of 30 meters, the report said.

North Korea appears to have been making progress toward fielding intercontinental ballistic missiles that could deliver nuclear weapons as far as the mainland United States.

<http://www.globalpost.com/dispatch/news/kyodo-news-international/141106/n-koreas-new-missile-launch-pad-almost-completed-repor>

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The Korea Herald – Seoul, South Korea

S. Korea Faces Tough Decision on THAAD

Experts call on Seoul to make decision strictly based on security interests

By Song Sang-ho

November 6, 2014

South Korea is facing a tricky decision over whether to consent to the U.S. deployment of an advanced missile defense system on the peninsula, with deepening diplomatic and political concerns overshadowing its security potential.

The U.S. is seeking to deploy the Terminal High-Altitude Area Defense system, a key element of the multilayered U.S. missile defense program, to counter North Korea's evolving missile and nuclear threats.

But the move has triggered strong resistance from opponents. They argue that the deployment would turn South Korea into the U.S.' front-line missile defense base and cause diplomatic friction with China, forcing Seoul to bear the brunt of an intensifying Sino-U.S. rivalry.

A flurry of rumors about Washington's intentions has put Seoul in an increasingly difficult position. Whipping up anti-American sentiment, some say the U.S. seeks to use the THAAD to defend its own security interests rather than strengthening Korea's defense.

Experts called on Seoul not to waver, stressing that Seoul should prioritize its security interests based on the accurate analysis of North Korea's escalating threats.

"The Seoul government should confidently respond to the controversy rather than wincing back for fear of public criticism. It should present its clear position about the THAAD and dispel the rumors," said Park Hwee-rhak, political science professor at Kookmin University in Seoul.

Dilemma for Seoul

Washington's push for the THAAD deployment here leaves Seoul with a diplomatic dilemma, given that it has sought to enhance its strategic partnership with China — its crucial partner for trade, tourism and efforts to denuclearize North Korea.

Aware that the relationship with China has deteriorated due to the previous government's inordinate focus on the Korea-U.S. alliance, the Park Geun-hye administration has paid much foreign policy attention to restoring the ties with Beijing.

Seoul has yet to start any official consultation with Washington over the THAAD issue. But it maintains a positive stance on the system's security role for the peninsula.

"While the assets that are available to cope with the North's nuclear and missile threats are limited, the THAAD deployment would help ensure South Korea's security and defense," Seoul's Defense Minister Han Min-koo said during a parliamentary audit last month.

In June, U.S. Forces Korea Commander Gen. Curtis Scaparrotti revealed that he had recommended the THAAD deployment here to the Pentagon. Since then, a torrent of speculations about the U.S. intentions and projections for the Korea-China relations have circulated.

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Under the alliance treaty, the U.S. is required to secure consent from the South over the dispatch of new military equipment to its ally's sovereign territory. With the public divided over the THAAD, Seoul has been agonizing over what decision it should make over the highly divisive issue.

Seoul recognizes the need to strengthen its missile defense as the North has been pushing to develop its missile and nuclear technologies. In December 2012, Pyongyang launched a long-range rocket, which experts presume has a range of some 10,000 km. After the third nuclear test last February, the North claimed that it succeeded in miniaturizing its nuclear warhead.

Before the apparent changes in the security landscape here, Seoul remained reluctant to bring in any U.S. missile defense assets due to strong objections, including some anti-American campaigners.

"South Korea has been reluctant to participate in the THAAD or other alternative TMD (theater missile defense) programs on the basis that a more serious threat stems from North Korea's long-range artillery deployed along the Demilitarized Zone," said Michael Raska, research fellow at the S. Rajaratnam School of International Studies, Nanyang Technological University.

"Seoul has for many years argued that South Korea's mountainous terrain, the proximity of Seoul to the DMZ, and diplomatic concerns would make its participation in TMD/THAAD architectures imprudent."

A slew of speculations about the U.S. intentions behind the THAAD deployment have made it difficult for Seoul to make considerations based wholly on its strategic security interests. Apparently for fear that it could be embroiled in more political wrangling, Seoul has so far kept a low profile over the issue, which critics say has even contributed to the spread of conspiracy theories behind the THAAD.

"The government should not leave an impression that it is holding something back from the public," said Nam Chang-hee, a security expert at Inha University. "It should reach out to civil society and help them better understand what's going on to garner their support in its efforts to improve national security."

In efforts to fend off additional arguments over the U.S. missile defense system, Seoul has been pushing to establish its own Korean Air and Missile Defense system, a low-tier, multiple-interception program that destroys incoming missiles at altitudes of around 40 km.

Amid rising calls for a more enhanced missile shield, Seoul also plans to develop L-SAM surface-to-air missiles, which would shoot down hostile missiles at altitudes of above 40 km. This indicates that Seoul also recognizes the need to possess a missile defense system equivalent to the THAAD.

Would THAAD also target China?

Most speculations about the THAAD's introduction revolve around whether it would be used to shoot down Chinese missiles. Military experts argue that such speculations originate from a lack of understanding about the THAAD system.

The THAAD is a defensive system to intercept incoming hostile missiles at altitudes of 40-150 km after detecting the missiles with land-based radar that has a maximum range of about 1,800 km.

Experts say the THAAD could not be used to hit China's intercontinental ballistic missiles headed for the U.S. mainland as they would travel far above the altitudes that the THAAD could reach. On top of this, the THAAD is designed to intercept missiles falling toward the Earth in a so-called terminal phase, not missiles flying far beyond the peninsula.

Apart from the altitude, the operational range of the THAAD is also only 200 km — too short to intercept Chinese or Russian missiles.

The experts also say that should it have to fire ICBMs at U.S. targets, China might fly the missiles over the Arctic, rather than over the Korean Peninsula and Pacific Ocean, given that the ranges of Chinese missiles — placed in China's central inland areas rather than in the vulnerable coastal regions — were not yet long enough to reach the U.S. over the Pacific route.

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Another major bone of contention is the coverage of the radar that is embedded with the THAAD system. The AN/TPY-2 radar can cover areas of China and Russia — the reason why the two powers think that the radar could be used to glean intelligence about their militaries.

Some experts say that the radar could gather intelligence about Chinese military activities, but it is mainly designed to trace the trajectories of missiles. Nam of Inha University said that should the radar be deployed here, it should focus only on North Korean missile sites — the pressing concern for the U.S. and South Korea.

“The purpose of the THAAD radar is to monitor North Korean missiles, not Chinese missiles. With this purpose in mind, the radar would be used solely for peninsular defense,” said Nam. “Chinese concerns may be somewhat exaggerated as the most urgent thing for the allies is to counter the North Korean threats until the threats are removed.”

Addressing the concerns over the radar, Park of Kookmin University noted that it was inappropriate to highlight only the capability of the THAAD radar when China and Russia are already under the scrutiny of a host of U.S. intelligence, surveillance and reconnaissance assets.

“China and Russia have also put the Korean Peninsula under scrutiny through various monitoring activities. Since when did South Korea start caring so much about their security concerns on their behalf?” he said.

Before talking about the deployment of the missile defense system, Seoul should think about the Chinese missiles that are capable of hitting targets in South Korea, some observers said.

“If China decided to launch missiles at the South, the THAAD could help shoot some of them down, and therefore help to deter China from taking such action,” said Bruce Bennett, a senior analyst at the RAND Corporation think tank.

“Of course, few people in either South Korea or the U.S. expect China to launch missiles at South Korea, but having the THAAD would hedge against that low-probability kind of threat.”

Bennett added, “Telling China that it cannot freely launch missiles at the South would not ‘keep China in check’ — the THAAD would have a small contribution to overall security in the South relative to potential Chinese threats.”

The controversy over the THAAD escalated as the U.S. pushed for a rebalancing policy toward the Asia-Pacific under which it has sought to deepen military and diplomatic engagement in the region — the emerging center of power and wealth. The policy has apparently been perceived by China as a systematic strategy to encircle China and ultimately counter its rise as a dominant power in the region.

Pointing to the plethora of disputes over the THAAD some raised the question of why the U.S. should insist on bringing in the THAAD despite strong resistance from opponents in South Korea, China and Russia.

Kim Tae-hyung, a security expert at Soongsil University, said that the U.S. may want to link its core Asian allies of South Korea and Japan to strengthen the trilateral missile defense cooperation to keep China in check.

Rask noted that in addition to countering the North Korean threats, the U.S. is also eyeing China’s growing missile arsenal, particularly in the context of China’s “counterintervention” strategies designed in the long term to deny U.S. freedom of action in the region.

Professor Nam said the USFK might be seeking the deployment to better protect its personnel and bases in the South.

<http://www.koreaherald.com/view.php?ud=20141106001119>

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Want China Times – Taipei, Taiwan

China Conducted Two Anti-Satellite Tests: Voice of Russia

Staff Reporter

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China had conducted two anti-satellite tests recently with its new laser technology, Konstantin Sivkov, the first deputy head of the Moscow-based Academy of Geopolitical Problems, told the Voice of Russia on Nov. 6.

Sivkov said that several exercises against tank and unmanned aerial vehicles had been launched by the PLA with its new laser weapons. The China Academy of Engineering Physics' low-altitude air defense system designed to intercept aircraft below 500 meters was used in several drills against drones. Yi Jinsong from the China Academy of Engineering Physics told the Beijing-based Sina Military Network that unmanned aerial vehicles can be operated by terrorists against the Chinese homeland.

The PLA carried out two anti-satellite exercises with its laser weapon system as well, Sivkov also said, adding that it is crucial for China to destroy US satellites at the beginning of a conflict, should one arise. By shooting down US satellites, the PLA will be capable of blinding American air, ground and naval forces on the battlefield. After China tested its anti-satellite weapon for the first time in 2007, US satellites have been periodically disturbed by the Chinese laser weapon several times in orbit, the Defense News reported.

A source from the US government told the Defense News that Washington decided to keep quiet regarding the those events because Beijing is an important trade partner. At the same time, the US needs China to seek a peaceful solution on the Korean peninsula. Realizing that lasers are capable of destroying every advanced weapon systems, including aircraft carriers, China has invested huge sums in the development of such weaponry since the 1960s.

During an exercise held in 2009, the PLA successfully destroyed incoming rockets with a laser cannon. After the Shenguang 1 and Shenguang 2, the China Academy of Engineering Physics put the Shenguang 3 high-energy research center in service at Sichuan province located in southwestern China. Once the project is completed, it will help the PLA to speed up and promote the development of its future laser weaponry.

<http://www.wantchinatimes.com/news-subclass-cnt.aspx?cid=1101&MainCatID=11&id=20141106000166>

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Barents Observer.com – Kirkenes, Norway

Russia Plays Nuclear War-Games in Barents Region

Russia has over the last 72 hours tested its entire nuclear triad consisting of strategic bombers; submarines and this ICBM launched Saturday morning.

By Thomas Nilsen

November 01, 2014

At 09:20 am (Moscow time), this silo-based Topol-M intercontinental ballistic missile was launched from Plesetsk in Arkhangelsk Oblast. A few minutes later, the dummy nuclear warhead hits its target on the Kamchatka Peninsula in Russia's far eastern corner, the Ministry of Defense reports.

The Ministry adds that the Topol-M missile has an "extremely high accuracy of target destruction."

Strategic bombers

On Friday, Norwegian F-16s were scrambled from Bodø airbase for the second time this week as a group of four Tu-95 strategic bombers were approaching from the northeast, Norway's TV2 reports.

The bombers, flying out over the Barents Sea from Russia's Kola Peninsula, were accompanied by four Il-78 tankers.

On Wednesday, a similar group of four strategic bombers and four tanker aircrafts were flying southbound along Norway's northern coast. Six of the aircrafts turned around and flew north again over the Norwegian- and Barents Seas before heading home to Russia. The two last flew all the way south to outside Portuguese airspace before heading north again.



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After scrambling fighter jets from Norway and Great Britain, NATO said in a statement that the Russian bombers pose a risk to civilian air traffic.

“The bomber and tanker aircraft from Russia did not file flight plans or maintain radio contact with civilian air traffic control authorities and they were not using on-board transponders. This poses a potential risk to civil aviation as civilian air traffic control cannot detect these aircraft or ensure there is no interference with civilian air traffic,” NATO said.

Tu-95 is a turboprop aircraft built during the Cold War to carry nuclear weapons and is because of its long range included in the strategic nuclear forces.

Strategic submarines

The third arm of Russia’s nuclear triad, the submarine based ballistic missiles (SLBM), were tested on Wednesday, when “Yury Dolgoruky” launched a Bulava missile from submerged position in the Barents Sea.

This was the first operational test launch of Bulava in line with the program of combat training. All previous launches were part of development testing of the new weapon.

It is also the first time a Borey-class submarine had a full set of missiles on board when the launch was conducted. The Borey-class submarine carries 16 missiles that each may hold as many as 10 nuclear warheads. “Yury Dolgoruky” got her full set of Bulava missiles in June this year.

<http://barentsobserver.com/en/security/2014/11/russia-plays-nuclear-war-games-barents-region-01-11>

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Interfax-Ukraine.com – Ukraine News Agency

Russia Moves Iskander Missile Systems to Border with Ukraine – Tymchuk

4 November 2014

Russia has moved Iskander tactical missile systems to the border with Ukraine, Information Resistance group leader Dmytro Tymchuk has said.

"The arrival of six Iskander tactical missile units has been sighted in the border zone of the Russian Federation, opposite Ukraine's Donetsk region," he wrote on his Facebook page on Tuesday.

In addition, according to the group, in Russia's border areas, opposite the northern districts of Luhansk region, the personnel of the FSB border troops have been placed on a higher degree of combat readiness.

"The forces and means of Russian-terrorist troops are still being moved to the area of Alchevsk, Stakhanov and Pervomaisk. Armored vehicles arrived from Russia for the Prizrak (Ghost) mechanized brigade (commander – Oleksiy Mozgovy). Conventional artillery is arriving through the settlement of Krasnodon," he said.

He also said that Russian air defense units were being deployed in the area from Yenakiyev to Makiyivka. In particular, the deployment of Russian S-300 surface-to-air missile systems has been recorded in the area of Shakhtarsk. However, the work of the systems' radars has not been recorded.

Tymchuk also said that in Makiyivka weapons and military vehicles had been arriving from Russia, disguised as military equipment of the Ukrainian Armed Forces, painted matte green, with two parallel white stripes. The numbers of the vehicles have been painted over, he said.

<http://en.interfax.com.ua/news/general/232631.html>

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Xinhua News – Beijing, China

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Russia Test-Fires Submarine-Based ICBM

November 5, 2014

MOSCOW, Nov. 5 (Xinhua) -- Russia has successfully tested a submarine-based inter-continental ballistic missile (ICBM), the Defense Ministry said Wednesday.

"The Sineva ICBM was launched from the underwater position. The warhead reached targets at the Kura range on the Kamchatka Peninsula," the ministry's press service said.

The Sineva was launched by the Tula nuclear-powered submarine in the Barents Sea, a marginal sea in the Arctic Ocean, to test the reliability of marine strategic nuclear forces, according to the ministry.

The Sineva, which is a liquid-propellant missile with a maximum range of over 10,000 km and capable of carrying four to 10 nuclear warheads, has been in Russian Navy service since July 2007.

It will remain to be Russia's principal ICBM for sea deployment until 2030, as it was designed as an alternative for Bulava, Russia's most advanced three-stage solid fuel ICBM.

http://news.xinhuanet.com/english/europe/2014-11/05/c_133768387.htm

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Gulf News.com – Dubai, U.A.E.

Iran Nuclear Talks to Go Into High Gear

Kerry, Zarif to meet in Oman on November 9 as 'critical' period begins

Agence France-Presse (AFP)

November 1, 2014

Washington: Global powers wrestling to hammer out a ground-breaking deal with Iran to curb its nuclear ambitions are moving complex talks into high gear with a "critical" three weeks left for an accord.

The main players — US Secretary of State John Kerry, his Iranian counterpart Mohammad Javad Zarif and outgoing EU foreign policy chief Catherine Ashton — will crisscross the globe ahead of the November 24 deadline seeking to narrow the gaps.

Ashton will first meet in Vienna on November 7 with political directors from the so-called P5+1 grouping — Britain, China, France, Russia and the United States as well as Germany — her spokesman Michael Mann said.

She will then fly to Oman to meet Kerry and Zarif in closed meetings on November 9 and 10, in the country that first hosted secret talks between old foes Iran and the United States.

Those meetings between the two nations, which still do not have diplomatic ties, are credited with bringing Tehran back to the stop-start negotiations.

Kerry has warned the coming weeks will finally reveal whether the Islamic Republic is truly prepared to make the tough decisions needed to curb its suspect nuclear programme and win a lifting of international sanctions.

"We have critical weeks ahead of us," Kerry told PBS television.

"The stakes for the world are enormous. I hope the Iranians will not get stuck in a tree of their own making, on one demand or another, in order to try to find a way together.

"I'm hopeful, but it's a very tough negotiation."

Any historic accord would aim to ease fears, after a decade of rising tensions, that Tehran might develop nuclear weapons under the guise of its civilian atomic programme.

In return for reducing the scope of its activities and allowing closer UN inspections, Iran, which denies wanting the bomb, wants painful UN and Western sanctions lifted which have crippled its economy.

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Months of intense negotiations, including between Kerry and Zarif in mid-October in Vienna, have made some progress but appear deadlocked on the key issues of uranium enrichment and the pace of any sanctions relief.

Enrichment renders uranium suitable for nuclear power generation and other peaceful uses but also, at high purities, for a nuclear bomb.

Kerry said his meeting in Oman would be “beginning a slog of going into the last two weeks”.

After their Oman talks, Ashton will travel back to Vienna for P5+1 meetings starting on November 18.

Kerry suggested both he and Zarif would also return to the Austrian capital, which has been hosting the negotiations in recent months, for the last stretch.

“We’ll be in Vienna for the final days with the P5 plus 1, all of us together trying to come to some kind of an agreement,” he told PBS.

There is growing speculation about whether the talks will be extended again, after an earlier July deadline was missed.

Washington has so far insisted that US negotiators are focused on the November 24 date, and have not yet discussed an extension.

Under the interim deal reached in late November 2013, Iran agreed to halt most of its enrichment activities in return for an injection of around \$7 billion (Dh25.71 billion) in frozen oil revenues in bank accounts around the world.

Daryl Kimball, executive director of the Arms Control Association, said he did not believe the interim deal would be extended again.

He predicted though that negotiators may announce they have made substantial progress “but need more time to work out the technical details”.

“I think the P5+1 believe, and I think the Iranians believe, that if there is going to be a comprehensive multi-year agreement the decisions necessary to reach that agreement can and should be made now,” he told a forum this week.

<http://gulfnews.com/news/region/iran/iran-nuclear-talks-to-go-into-high-gear-1.1406783>

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Press TV – Tehran, Iran

Lifting all Iran Bans Inevitable Requisite for Nuclear Deal: Shamkhani

Sunday, November 2, 2014

A senior Iranian official says the removal of all sanctions against Tehran is an inevitable requisite for the signing of a comprehensive nuclear agreement between the Islamic Republic and the P5+1 group.

In a Sunday meeting with Norwegian Foreign Minister Borge Brende in Tehran, Secretary of Iran’s Supreme National Security Council (SNSC) Ali Shamkhani added that the Iranian nuclear negotiating team would use all possible initiatives to reach a final nuclear agreement that safeguards the Islamic Republic’s nuclear rights.

Shamkhani further reaffirmed the “completely transparent and peaceful” nature of Iran’s nuclear activities and said as a victim of weapons of mass destruction, Iran is “one of the most resolute opponents” of the production and stockpiling of such arms.

“We expect that the [International Atomic Energy] Agency and member states of the Board of Governors to seriously follow up on the strategy of a Middle East free of nuclear weapons and [enforcement of] the non-proliferation policies with regard to countries that possess nuclear weapons,” the SNSC secretary added.

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He urged the UN nuclear agency to adopt technical and legal approaches and avoid the politicization of issues.

Iran and the P5+1 group of countries -- Russia, China, France, Britain, the US and Germany -- are in talks to work out a final deal aimed at ending the longstanding standoff over the Islamic Republic's nuclear energy program before a November 24 deadline for the talks.

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.

The Norwegian minister, for his part, said Iran has played a constructive role in the establishment of stability and peace in Iraq and Syria.

He reiterated Iran's right to peaceful use of nuclear energy and expressed hope that Tehran and the P5+1 would reach a final nuclear agreement.

<http://www.presstv.ir/detail/2014/11/02/384534/lifting-iran-bans-requisite-for-ndeal/>

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FARS News Agency – Tehran, Iran

Tuesday, November 04, 2014

Envoy: Iran Not to Cut Any Deal on Redlines

TEHRAN (FNA) - Caretaker of Iran's Permanent Mission to the UN Gholam Hossein Dehqani underlined that Tehran will never accept to make a deal through crossing or ignoring its redlines in the talks with the Group 5+1 (the US, Russia, China, France and Britain plus Germany).

"As stated by Iran's high-ranking officials, areas related to our national security such as the defense capabilities are not subject to any negotiations at any level," Dehqani said, addressing a meeting of the United Nations General Assembly in New York on Monday.

The Iranian envoy, however, said that based on Tehran's principled position, the Iranian negotiators will continue to talk with the representatives of the western powers.

The remarks by Dehqani came amid repeated calls by some western officials, specially the US, who want Iran's missile program to be included in the nuclear talks between Tehran and G5+1.

On Sunday, Iranian Foreign Minister Mohammad Javad Zarif once again underlined the peaceful nature of Iran's nuclear program, and stressed that the Iranian nation is standing firm on its nuclear rights.

"Iran is ready to ink a comprehensive nuclear accord with the six major world powers if the Islamic Republic's nuclear rights are recognized," Zarif said in a meeting with his Norwegian counterpart Borge Brende in Tehran.

He reiterated the Iranian nation's insistence on its inalienable nuclear rights.

The top Iranian diplomat also pointed to friendly Tehran-Oslo relations in different areas, and said, "Ground has been prepared more than before for the enhancement of bilateral ties."

Iran and the six major world powers ended their 8th round of nuclear negotiations in Vienna in mid-October.

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

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

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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=13930813000413>

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The Los Angeles Times – Los Angeles, CA

Iranian Website Reports US Giving Ground on Nuclear Centrifuges

By Paul Richter and Ramin Mostaghim

November 4, 2014

WASHINGTON — The Obama administration has agreed to allow Iran to operate 6,000 centrifuges to enrich uranium, up from a ceiling of 4,000 reported two weeks ago, as part of negotiations for a nuclear deal, according to a website approved by the Iranian government.

The claim appeared to be the latest sign that the pace of bargaining is intensifying between Iran and six world powers as they face a Nov. 24 negotiating deadline.

The two sides are seeking a comprehensive deal that would lift international sanctions on Iran's economy in exchange for verifiable limits on Iran's nuclear program to prevent the country from being able to build a bomb.

The size of Iran's centrifuge inventory is a key sticking point in the talks that began in January.

Iran, which denies that it seeks to build a bomb, has insisted that it must maintain its current inventory to provide fuel for electricity and other peaceful purposes. It has 9,400 operating centrifuges and roughly 10,000 others that are not in operation.

The six world powers — the United States, France, Britain, Russia, China and Germany — want to reduce the number of centrifuges so Iran would require at least one year to attain a nuclear bomb-making capability should it decide to throw out international inspectors and race for such a weapon.

The Iranian website said the Obama administration has repeatedly given ground on the centrifuge count, starting early this year with a ceiling of 500 centrifuges, then being raised in negotiations to 1,500 and then 4,000.

The Persian-language irannuc.ir website is government approved, and is closely aligned with the viewpoint of Iran's foreign ministry and national nuclear organization. It was unclear from the website, however, if the U.S. position is contingent on other details in a deal.

The White House declined comment Tuesday, saying it does not discuss details of the ongoing negotiations.

Skeptics of a potential deal, including many U.S. lawmakers and Israel, worry that the administration may be too lenient in allowing Iran to keep centrifuges. But it is not clear that 6,000 is a large enough inventory to galvanize political opposition to a deal in Congress and among allies.

"You really need to see the whole deal to know if it would be sellable in Washington," said Ray Takeyh, an Iran specialist at the nonpartisan Council on Foreign Relations in Washington. "We're only hearing about possible pieces of a deal."

The disclosure comes as both sides appear to be leaking information from the closed-door talks to pressure the other side to make compromises, and to position themselves to deflect blame if the talks fail.

The New York Times, quoting senior administration officials, reported Monday that Iran has tentatively accepted a proposal to send most of its stockpile of enriched uranium to Russia to be made into fuel for Iranian nuclear power plants.



Such a move, which officials have proposed for a decade, could be an important ingredient in forging a final deal because it could significantly extend Iran's "breakout time" to build a bomb should it decide to do so.

It thus could make it easier for the Obama administration and Congress to accept a larger centrifuge inventory, analysts said.

Russia has been a commercial nuclear partner of Iran for years and provides fuel for its power reactor at Bushehr.

In a statement, Bernadette Meehan, a spokeswoman for the National Security Council, declined comment on the proposed transfer of enriched uranium, but she praised Russia for playing a "very helpful role" in the negotiations.

The Iranians denied the report. Marzieh Afkham, a foreign ministry spokeswoman, described it as "speculations and rumors ... circulated for political ends."

Russian foreign ministry officials could not be reached for comment late Tuesday, but a senior analyst in Moscow said the issue has been under discussion for months.

"Such a compromise deal would be an option which should suit all parties involved in the process," said Vladimir Sazhin of the Institute of Oriental Studies.

Mohammad Javad Zarif, Iran's foreign minister, said in September that negotiators had found "a satisfactory way" to deal with the stockpile issue.

Iran has agreed in previous negotiations to ship out portions of its uranium stockpile to Russia or other countries, only to backtrack and reject the transfer as an infringement of national sovereignty.

A deal on centrifuges and enrichment capacity could be the key that opens the way for resolution of other outstanding issues between the two sides, analysts said.

Cliff Kupchan, an Iran watcher and chairman of the Eurasia Group risk consulting firm, said the leaks suggest "a deal is more likely today than it was two weeks or a month ago."

Yet he and many others who closely follow the talks remain cautious as the deadline looms.

"We're seeing Hail Mary passes now, toward the end of the game," he said. "They're throwing them, but that doesn't mean there will be somebody there to catch them."

Times staff writer Richter reported from Washington and special correspondent Mostaghim from Tehran. Staff writer Sergei L. Loiko in Moscow contributed to this report.

<http://www.latimes.com/world/middleeast/la-fg-iran-nuclear-20141104-story.html>

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RT (Russia Today).com – Moscow, Russia

Political Speculation? Iran Denies 'Tentative Agreement' to Ship Uranium Stockpile to Russia

November 05, 2014

Iran has denied reports of a "tentative agreement" to transport a large portion of its uranium stockpile to Russia for conversion into fuel rods if it can wrangle a comprehensive nuclear deal with world powers.

According to a New York Times report, Russia would essentially act as a middleman when it comes to converting uranium into fuel rods for Iran's nuclear reactor in Bushehr. After these rods are made and the conversion process is completed, using them to manufacture nuclear weapons becomes unfeasible.

Details of the ongoing negotiations were revealed by anonymous officials and diplomats "involved" in the talks. Neither the proposal nor Iran's purported willingness to go along it have been confirmed by heads of state or other officials.

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"None of the speculations and rumors by foreign media, which are circulated for political ends, is confirmed," said Iranian foreign ministry spokeswoman Marzieh Afkham, as quoted by the official IRNA news agency. She added that Iran will continue to consider only its own national interests and rights.

Meanwhile, US State Department officials have yet to comment on the matter.

If true, however, the agreement could break the current gridlock hanging over the negotiations and lead to even more, an unnamed American official told the Times.

"If the Iran-Russia deal works, it could be the cornerstone of something much larger," the official said. This individual is reportedly *"deeply involved"* in the talks.

Notably, the Times reported that cooperation between the United States and Russia during these discussions has not been negatively affected by disagreements over a host of other disputes that have recently strained ties between the countries.

"Despite differences of opinion on other foreign policy matters, Russia has remained completely unified with other countries in the negotiations," the official said.

Even if Iran has agreed to shipping out its uranium stockpile, multiple prickly issues remain to be sorted out between Iran and the P5+1 (the US, Russia, China, United Kingdom, and France, plus Germany). For example, there is still significant distance between the two sides regarding the number of centrifuges Iran should be allowed to keep functioning, the amount of leeway international inspectors would have to examine facilities, and the rate at which sanctions against Iran would be rescinded.

Selling a deal – either in Iran or in the US – could also be difficult. In a separate New York Times report last month, it was revealed that the White House is looking to avoid bringing it to Congress. Instead, Obama administration officials said they would opt for a gradual relaxation of sanctions – a course of action which would not require Congress to permanently suspend sanctions for years.

As the November 24 deadline inches closer, talks continue to intensify. On November 9 and 10 in Oman, Secretary of State John Kerry will meet Iranian Foreign Minister Mohammad Javad Zarif and the EU's outgoing foreign policy head Catherine Ashton to try and make more progress.

<http://rt.com/news/202307-iran-russia-nuclear-agreement/>

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Voice of America (VOA) News.com – Washington, D.C.

US, France Say Iran Can Have Nuclear Program, Not Bomb

By Pamela Dockins

November 05, 2014

STATE DEPARTMENT— U.S. Secretary of State John Kerry says he and his French counterpart, Laurent Fabius, agree that Iran has a right to a peaceful nuclear program but "not a track to a bomb."

Kerry and Fabius met in Paris where they discussed ongoing nuclear negotiations with Iran and other issues, ahead of Kerry's trilateral meeting in Oman on Iran's nuclear status.

Kerry says he and Fabius believe that it would be "pretty easy" for a country to prove to the world that its nuclear plan is peaceful.

The secretary of state said the U.S. and France share a common goal as they take part in negotiations to resolve Iran's nuclear crisis before a November 24 deadline.

"We are hand-in-hand linked in this effort and we will work extremely close together in the next weeks to try to find a successful path," Kerry said.

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On Sunday, Kerry, Iran's foreign minister Mohammad Javad Zarif, and EU representative Catherine Ashton will try to make headway on Iran's nuclear status during talks in Oman.

Iran insists on its right to enrich uranium. Western powers have voiced concern that Iran wants to produce nuclear weapons.

Kerry says a unified P5 + 1 grouping - the five permanent members of the U.N. Security Council and Germany - has presented Iran with "creative ideas" to help achieve its objectives.

"Now we will see if Iran is able to match the public words that they are prepared to prove to the world that they have a peaceful program, to match those words with the tough and courageous decisions that need to be made by all of us," Kerry said. "The time is now to make those decisions."

President Barack Obama says the United States and its P5 +1 allies have handed Iran a framework for a nuclear agreement, but says it will be weeks before anyone knows if there will be a deal.

Obama said during a White House news conference Wednesday the deal would let Iran meet its peaceful energy needs.

Former U.S. ambassador to Bahrain Adam Ereli says Iran has been engaging in what he calls a "shell game" of stalling and misleading the international community.

"What are they trying to hide or what are they trying to disguise? They're trying to disguise a commitment to a nuclear program that they've not given up and that they're not going to give up," Ereli said.

Brookings Institution Middle East analyst Riccardo Alcaro says Iran's President Hassan Rouhani may have difficulties "selling" a final nuclear deal to his domestic audience, if it appears Tehran has made concessions to the West.

But, he says there are several reasons why an agreement would be in Iran's best interests.

"It would give Iran the chance to be reintegrated into the international community," Alcaro said. "It would give a boost to its economy which has been severely damaged by the sanctions."

He says it would also help Rouhani's government in terms of its international reputation and credibility.

<http://www.voanews.com/content/us-france-say-iran-can-have-nuclear-program-not-bomb/2509774.html>

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Press TV – Tehran, Iran

US Can't Destroy Iran's Nuclear Program by Airstrikes: Dempsey

Thursday, November 6, 2014

Top US military commander General Martin Dempsey says Washington cannot destroy Iran's nuclear energy program through military action.

Dempsey, chairman of the US military's Joint Chiefs of Staff, made the remarks in a speech at the Carnegie Endowment for International Peace in Washington on Thursday.

He said airstrikes against Iran's nuclear facilities would only set back Tehran's capabilities temporarily.

"We do have the capability -- were we asked to use it -- to address an Iranian nuclear capability," he said. "But... as we look at using the military instrument if necessary to address the Iranian nuclear issue, that would delay it, it will not eliminate it."

Dempsey said that it is not the centrifuges or missiles that make it impossible to eliminate Iran's nuclear capability, "but rather the human capital that has the expertise to regenerate the program."

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The United States and its regional ally Israel have repeatedly threatened to attack Iran over its nuclear program. Tehran, however, has said that it will give a befitting response to any aggression on its soil.

Iran also strongly rejects the allegations that it is seeking to develop nuclear weapons. Tehran says it needs the nuclear program for peaceful purposes, including generating electricity and producing radio-isotopes for medical purposes.

In addition, the Islamic Republic says its missile program is defensive in nature and poses no threats to other countries.

The illegal US-engineered sanctions on Iran have been imposed based on the unfounded accusation that Tehran is pursuing non-civilian objectives in its nuclear energy program.

Iran rejects the allegation, arguing that as a committed signatory to the nuclear Non-Proliferation Treaty (NPT) and a member of the International Atomic Energy Agency (IAEA), it has the right to use nuclear technology for peaceful purposes.

In November last year, Iran and the five permanent members of the UN Security Council -- Britain, China, France, Russia, and the United States -- plus Germany signed an interim nuclear agreement, which took effect on January 20, 2014 and expired six months later.

Under the Geneva accord, the Sextet agreed to provide Iran with some sanctions relief in exchange for Tehran agreeing to limit certain aspects of its nuclear activities during a six-month period.

Both parties agreed to extend their talks until November 24 as they remained divided on a number of key issues.

Iran and the P5+1 group will open a new round of talks about Tehran's nuclear energy program in the Omani capital Muscat on November 11. A final round of talks is then scheduled to take place in Vienna from November 18 to 24.

<http://www.presstv.ir/detail/2014/11/06/385048/us-cant-destroy-irans-nuclear-program/>

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Ahram Online.org – Cairo, Egypt

Iran Hardliners Want Nuclear Deal but No Ties with Washington

Reuters

Thursday, 6 November 2014

Iran may be ready to reach a nuclear deal with world powers to revive its economy, but is in no rush to go further by restoring relations with the United States, calculating this would imperil its domestic support.

According to one official, hardline loyalists of Supreme Leader Ayatollah Ali Khamenei have reached a compromise with supporters of the pragmatic president: Tehran should try to win relief from international sanctions by resolving the nuclear dispute, but not normalise ties with "the Great Satan".

However, some allies of President Hassan Rouhani may not have given up on re-establishing relations with Washington, which were severed after the 1979 Islamic Revolution.

Hostility to the United States has always been a rallying point for the clerical establishment, despite the decades of political isolation and sanctions-related economic hardship that estrangement has cost. Take this bogeyman away, and the ideological glue that holds together the faction-ridden leadership would weaken, analysts say.

"Hardliners understand that a nuclear deal will benefit the establishment, but they see normalisation of ties with America as a threat to their authority," said a pro-reform former senior official.

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Iran and six powers - the United States, Russia, France, Germany, China and Britain - are in talks on curbing Iran's atomic activity in exchange for a gradual lifting of sanctions. They face a self-imposed Nov. 24 deadline to conclude a comprehensive deal, after missing an original July target.

The United States and some of its allies suspect Iran is using its nuclear programme as a cover to develop atomic bombs. Iran denies this, saying it is solely for civilian purposes.

Iran's policy-making establishment, composed of hardline Islamists, pragmatists and reformers, agrees at least on one issue - that a comprehensive nuclear deal will help Iran to grow richer and politically stronger through the easing and eventual lifting of the sanctions.

Khamenei's hardline allies are willing to tolerate top Iranian diplomats sitting down with U.S. counterparts to discuss the nuclear issue. However, they fear a deal might pave the way for full relations with the United States, eventually weakening their influence, the authority of Khamenei and, by extension, the legitimacy of the Islamic Revolution.

HOSTILITY

While Rouhani's camp believes it is vital to end the hostility with Washington to improve the economy, analysts and officials say, Khamenei's conservative supporters want only a limited thaw between the arch-enemies. Normalisation of ties with Washington would mean crossing a red line for them.

Washington and Tehran cut diplomatic relations after students seized the U.S. embassy in Tehran 35 years ago this week, holding 52 Americans hostage for 444 days.

"The event this year is imbued with a spirit of antagonism toward arrogant powers. It calls for even louder slogans against America," hardline cleric Alireza Panahian told a crowd gathered outside the former U.S. embassy compound in Tehran, called the "Den of Spies" in Iran since the seizure.

"We will never come to terms with savage Americans, even if we have chosen to negotiate. Those cannibals, the Americans, shouldn't jump to any conclusion with these talks," he said to chants of "Death to America" and "Death to Israel", state television reported.

A COMPROMISE

Since Rouhani's election in 2013, there has been a tug-of-war between the hardline and pragmatic camps about foreign policy and particularly on how to deal with the United States.

"They have reached a compromise: resolving the nuclear dispute but no normalisation of ties with the Great Satan," said a senior Iranian official, who asked not to be named.

The state of the economy - weakened by U.S. and European Union restrictions on Iran's oil exports and international financing as well as rising prices, high unemployment and investors keeping a tight hold on their purses - have persuaded Khamenei to back the nuclear talks.

Khamenei has shot down Rouhani's hardline critics by repeatedly urging unity and faith in the government, and calling the nuclear negotiators "the children of the Revolution". Rouhani will enjoy Khamenei's blessing as long as his power does not surpass the leader's authority, analysts say.

"Some Rouhani allies desire resumption of ties with the United States. This is where the problem arises," said a pro-reform former senior official.

Under the Iran's system of rule by a religious legal scholar, Khamenei controls the judiciary, security forces, the Guardian Council that vets laws and election candidates, public broadcasting and foundations that own much of the economy.

Khamenei has always tried to ensure no group, even among his conservative allies, gains enough power to challenge his authority. He blocked attempts by previous presidents to boost their authority, such as when

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reformist Mohammad Khatami tried to create a freer society and hardliner Mahmoud Ahmadinejad tried to implement populist policies.

CORE SUPPORTERS

Hardliners fear that by normalising ties with the United States, the establishment will lose the backing of its core supporters that will lead to a weakening of their position domestically and globally, analysts say.

Khamenei has said the establishment's hostility towards the United States will remain, despite a willingness among some Iranian officials for wider engagement with Washington.

"Improving the economy is important but not at the price of sacrificing the pillars of the revolution," said the senior Iranian official.

Tehran and Washington have common interests and threats across the Middle East. They have cooperated tactically in the past and relations have improved modestly since the election of Rouhani, who promised "constructive engagement" with the world.

Alarmed by the rise of Sunni militants in Syria and Iraq, the upheaval of the Arab Spring and the civil war in Syria, Iranian leaders have started to weigh the costs and benefits of continuing their hostility towards the United States.

"Also, considering the prospect of a nuclear deal and its impact on Iran's economy have further encouraged the establishment to soften its tone," said the former official.

But Iran still backs Syrian President Bashar al-Assad, its sole regional ally. Western adversaries say Tehran is supporting Assad with arms, cash and Revolutionary Guardsmen to train militia to help win the war. Iran denies providing military and financial support to Syria.

Many at the grassroots level across Iranian society want a "good" relationship with the United States, desiring a freer society and improved economic conditions. Western business delegations have already started to visit Iran, paving the ground for the day sanctions are eased.

"These days I feel proud of being an Iranian again. The Western countries are racing with each other to invest in Iran," said private-sector employee Mohammad Reza Asgari in the southern port city of Bandar Abbas.

But perhaps not surprisingly, given the decades of hostility, some Iranians remain suspicious of Westerners. "They are not our real friends. They see Iran as a great opportunity to earn money, like hungry wolves," said Zahra Safari, 19-year-old philosophy student in Tehran.

<http://english.ahram.org.eg/NewsContent/2/8/114897/World/Region/Iran-hardliners-want-nuclear-deal-but-no-ties-with.aspx>

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Minneapolis Star Tribune – Minneapolis, MN

UN Report says Iran Not Answering Questions about Alleged Nuclear Weapons Work

By GEORGE JAHN, Associated Press (AP)

November 7, 2014

VIENNA — The U.N. nuclear agency said Friday that its attempts to probe allegations that Tehran worked on nuclear weapons were deadlocked — a finding that all but rules out hopes of full nuclear deal between six world powers and Iran by the Nov. 24 target.

Iran agreed in February to work with the International Atomic Energy Agency, in what was seen as a test of Tehran's professed new willingness to reduce tensions over its nuclear program.



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Since then, the agency has sought information on alleged experiments with detonators that can be used to set off nuclear explosions; work on high-explosive charges used in nuclear blasts, and alleged studies on calculating nuclear explosive yields.

Iran denies wanting — or ever working on — nuclear arms. Since February, it has provided information only on the detonators, insisting that they were used for oil exploration or non-nuclear military purposes. The agency says interconnected information suggests that they were being tested for nuclear weapons use.

"Iran has not provided any explanations that enable the agency to clarify the outstanding practical measures," said the confidential report from the IAEA obtained by The Associated Press.

The finding is significant in recording where the investigation stands for the U.S. and five other world powers negotiating with Iran.

The U.S. and its allies say no final agreement will be reached until the IAEA says it's satisfied with its inquiry. With the IAEA investigation stalled, the agency has little hope of reaching final conclusions by Nov. 24.

Diplomats have told The Associated Press that — if agreement is reached constraining Iran's uranium enrichment program and other activities that could be turned to making nuclear arms — Washington was willing to extend the IAEA investigation.

That would likely be opposed by hardliners in Tehran and U.S. congressional critics, particularly after this week's Republican sweep of Congress.

<http://www.startribune.com/world/281905271.html>

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The Economic Times – Mumbai, India

Indigenous Nuclear-Armed Submarine INS Arihant's Sea Trials by Year-End

By Anjali Ojha, Indo-Asian News Service (IANS)
November 2, 2014

New Delhi -- In a major boost to indigenisation of defence manufacturing, India's first nuclear-powered and nuclear-armed submarine INS Arihant will head out for sea trials by the year-end.

"INS Arihant will be ready for sea trials by the end of this year," an official aware of the developments relating to the 6,000-tonne submarine told IANS, speaking on condition of anonymity.

Once the trials are through and the submarine enters service, India will not only complete its nuclear triad of delivering nuclear weapons from land, sea and air, but also join an elite club of six nations that operate nuclear submarines carrying ballistic missiles. The US, Russia, France, Britain and China are the other nations with this capability.

The INS Arihant's miniaturised nuclear reactor, built with Russian help, had gone critical last year and the vessel has been going through a series of harbour trials since then at Visakhapatnam, where it is being built.

The submarine has also been going through the power-up cycle of its nuclear reactor and has now achieved a nearly 100 percent power level, the official said.

"Its reactor had gone critical last year. We are now close to attaining 100 percent its power," the official said, adding: "The nuclear reaction is highly controlled. It is something similar to nuclear power plants, but extra caution is needed. The reactor is now functioning perfectly well," the official said.

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Once the submarine attains 100 percent power, it will head out to sea for its final trials, which will include the firing of the indigenous Bo5 missile that has a 700-km range and can carry a one tonne nuclear warhead. INS Arihant can carry 12 such missiles.

The vessel, the lead ship of the Arihant-class submarines, was launched in 2009. Its design is based on the Russian Akula-1 class submarines and its 83MW pressurised heavy water reactor has been built with significant Russian assistance.

While its 100-member crew has been trained by Russian specialists, Indian scientists at Mumbai's Bhabha Atomic Research Centre have received significant expertise in reducing the size of the reactor to help it fit into the 10 metre diameter hull of the submarine.

The Indian Navy currently operates the INS Chakra nuclear-powered submarine leased for 10 years from Russia in 2012.

Nuclear submarines stay out at sea for longer periods than diesel-electric powered boats and can also remain under water for longer durations. Conventional submarines have to surface at regular intervals for re-charging their batteries, making them vulnerable to detection.

Two other vessels of the Arihant class are also believed to be under construction at Visakhapatnam's state-owned Hindustan Shipyard Limited.

http://articles.economictimes.indiatimes.com/2014-11-02/news/55682528_1_ins-arihant-sea-trials-bo5

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The New York Times – New York, NY
OPINION/Sunday Review

Which President Cut the Most Nukes?

By WILLIAM J. BROAD
November 2, 2014
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DOVES who once cheered President Obama for his antinuclear crusades and later fell silent as he backpedaled are now lining up to denounce him. A recent skewering by the Federation of American Scientists details how Mr. Obama, despite calling repeatedly for “a world without nuclear weapons,” has reduced the size of the nation’s atomic stockpile far less than did any of his three immediate predecessors, including both Presidents Bush.

Critics are calling out the president not only for modest cuts but also for spending more than previous administrations to modernize the remaining arms and for authorizing a new generation of weapon carriers. They call the upgrades an enormous waste of money, citing estimates that put the nation’s costs over the next three decades at up to a trillion dollars.

Mr. Obama should “suspend plans to develop a new arsenal,” Joe Cirincione, president of the Ploughshares Fund, a private group in San Francisco, wrote recently in an op-ed article in The Los Angeles Times. He argued that the move would save money and advance global security. “Unless something is done soon,” he wrote, “we will buy thousands of new hydrogen bombs and mount them on hundreds of new missiles and planes.”

The Alliance for Nuclear Accountability, a Washington-based network of organizations, recently condemned the administration’s plans as “the largest expansion of funding on nuclear weapons since the fall of the Soviet Union.”

Some critics, while conceding short-term gains from Mr. Obama’s cuts, say the benefits pale in comparison to the risks the administration runs in rebuilding bomb plants and modernizing arms. Some warn that the upgrades could allow a future president to rapidly expand the nation’s atomic forces and have already set a bad example for other nations.

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The Arms Control Association, a private group in Washington, recently issued a report, “The Unaffordable Arsenal,” that argued that more cuts “could help induce other nuclear-armed states to exercise greater restraint.”

For its part, the White House defends its record as sensible for the times, noting that previous cuts were easy after the collapse of Cold War tensions and that today Congress has fought major reductions. Indeed, it took the administration’s backing of wide modernization to get Senate Republicans to ratify a modest 2010 arms treaty with Moscow. And officials have defended the weapon upgrades as paving the way for future arms cuts and have called the high costs unavoidable, since old arms require more extensive refurbishments.

For his part, Mr. Obama has declared that “we have more nuclear weapons than we need,” implicitly faulting the continuing opposition to further cuts.

Even so, the transformation of cheerleaders into detractors marks a turning point for a vocal part of Mr. Obama’s base. Early on, peace activists hailed the new president for making nuclear disarmament a centerpiece of American defense policy. Crowds cheered when, in an 2009 speech, he said the United States had a moral obligation to seek the “security of a world without nuclear weapons.”

That October the Norwegian Nobel Committee, citing his antinuclear efforts, awarded Mr. Obama the Peace Prize.

Early this year, a report by the Monterey Institute of International Studies questioned the wisdom of the modernization push as well as the nation’s ability to pay the bill.

And last month, the Federation of American Scientists, a private group in Washington, joined the fray with a report that compared Mr. Obama’s record with that of all presidents who held office during the nuclear age. “It’s a funny thing,” Hans M. Kristensen, the report’s author, wrote. “The administrations that talk the most about reducing nuclear weapons tend to reduce the least.” So far, he added, Mr. Obama has cut fewer warheads (in numbers, not percentages) than “any administration ever.” Mr. Kristensen, director of the group’s nuclear information project, noted that, in recent decades, “the biggest nuclear disarmers” have been Republicans, not Democrats.

The most aggressive? President George W. Bush, who during his two terms cut the nation’s arsenal in half. His father, while serving a single term, came in a close second with reductions of 41 percent. Together, Mr. Kristensen noted, the two men cut “a staggering 14,801 warheads from the stockpile.”

He said Mr. Obama’s reductions to date total 507 arms, or about 10 percent of the stockpile when he entered office.

Mr. Kristensen conceded that Mr. Obama’s policies of atomic modernization “in the long run” could result in more reductions. But these steps, he noted, would reduce the arsenal only “well after President Obama has left office.”

During his presidency, Mr. Obama’s public remarks on disarmament seem to have grown less frequent and urgent.

In 2009, he spoke to the United Nations of a historic “shared commitment” to the nuclear-free goal. Later that year, he spoke proudly at a Miami Beach fund-raiser of his “vision for reducing nuclear stockpiles.”

Yet some of his recent comments seem almost wistful. Last year, addressing an audience in Berlin, Mr. Obama said that abolishing the weapons was important to pursue “no matter how distant that dream may be.”

To applause, he added that the new arms treaty had already reduced warhead numbers to their “lowest levels since the 1950s.” Yet a glance at the accompanying weapons chart shows that President Bush could have made a similar boast a decade ago.

William J. Broad is a science reporter for The New York Times.

http://www.nytimes.com/2014/11/02/sunday-review/which-president-cut-the-most-nukes.html?_r=1

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Defense News.com – Washington, D.C.
OPINION/Commentary

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Commentary: Missile Defense Can't Wait

By STEPHEN BLANK
November 3, 2014

Russia shows no sign that it is willing to de-escalate tensions with the West. Indeed, Foreign Minister Sergei Lavrov has made clear that he anticipates a long-term freeze in ties with Washington.

Meanwhile, Russian troops remain in Ukraine and continue to violate the cease-fire there, even as the Kremlin launches multiple military probes into the Baltic littoral states. In response, Washington and its allies are being forced, virtually every day, to scramble military assets in response to Russian incursions.

This state of affairs suggests that a broader US strategy is in order. America's response cannot be confined to the European regional theater. It must also incorporate investments in those technologies that keep our strategic deterrent and our citizens safe, and that includes missile defense.

Domestic constraints abound, to be sure. The pressure on the Pentagon's finances has never been greater. And budgetary concerns are now driving a debate about whether to continue production of the exo-atmospheric kill vehicle (EKV), an essential component of modern missile defense. Some in Washington argue that the EKV program should be shelved in order to build a new interceptor from scratch.

That proposal is both fiscally imprudent and strategically dangerous. Because missile threats from Russia, as well as China and rogue state actors such as Iran and North Korea, already exist, the US simply cannot afford to remain undefended for the years that would be needed to erect a new system.

Marine Corps Gen. James Mattis, who just stepped down as commander of US Central Command, was fond of noting that when formulating military strategy, "the enemy gets a vote." When it comes to missile defense, this is sage advice; numerous nations already pose a threat to the United States today, and they certainly won't wait for American officials to navigate our long and costly procurement cycle.

Moscow is just one such actor disrupting international order and threatening America's safety. There are many others. North Korea, for example, continues to process nuclear material for a long-range weapon. Negotiations with Iran appear to have gone nowhere, and the Islamic Republic remains perilously close to a nuclear capability.

The chaos wrought by the Syrian civil war could open a power vacuum in the Middle East, making it even easier for terrorist groups to get their hands on dangerous missiles. Meanwhile, China continues building up its defense capabilities. Investing in improving existing systems — the EKV prominent among them — is the most effective way to meet these threats.

The science behind the current approach is sound. The EKV catches a ride with a rocket into space, then has the job of targeting and destroying an incoming enemy missile. This technology was originally rushed into the field by the Bush administration in response to the threat posed by North Korea.

At the time, the EKV was little more than a highly complex prototype. However, it has evolved considerably since, and a series of successful tests have demonstrated that ongoing design upgrades are working to make the EKV more accurate.

This year, the Missile Defense Agency will decide whether to spend an additional \$300 million to \$400 million on near-term improvements to the EKV, or alternatively, to pledge more than \$1 billion and launch a competition to build a new one. Some critics are already claiming that continuing investment in the EKV would be tantamount to throwing good money after bad.

But that thinking doesn't fit the evidence. The technology behind the EKV has steadily improved in recent years. And the military can bring insights from other successful missile programs — such as the highly effective SM-3 interceptor — to further expedite EKV refinements.



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What's more, spending \$1 billion on a brand-new interceptor is fiscally irresponsible. The Pentagon should be looking for ways to trim budgets, not inflate them. Meanwhile, history shows that new investments in the EKV will almost certainly lead to better technology.

Russia, China, North Korea and Iran are all building up their military capabilities. Some of their leaders are dead-set on attacking the United States. We must answer this threat by keeping our missile defenses progressing, thereby sending a clear signal that America is prepared to protect itself and its allies. Defense officials must ignore the calls to start from scratch.

Stephen Blank is a Senior Fellow at the American Foreign Policy Council.

<http://www.defensenews.com/article/20141103/DEFFEAT05/311030013/Commentary-Missile-Defense-Can-t-Wait>

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Defense News.com – Washington, D.C.
OPINION/Commentary

Commentary: Time to Save, Not Spend More on Nukes

By TOM COLLINA and KINGSTON REIF
November 3, 2014

The United States is planning to spend hundreds of billions of dollars it does not have to rebuild its nuclear arsenal to last another 50 years. But the Cold War threats and budgets that sustained the stockpile in the past are long gone. Before we move forward with expensive plans to address yesterday's threats, we should stop and ask, "Why?" and "At what cost?"

Rebuilding the arsenal in its Cold War image is unaffordable and unnecessary, and must be rethought. The payoff for doing so would be huge. Instead of investing scarce resources in unneeded nuclear weapons, the Pentagon could redirect funds to higher priorities, such as stopping Ebola, fighting the Islamic State and shoring up conventional forces.

A December 2013 Congressional Budget Office report estimated the cost of the Obama administration's nuclear weapons spending plans at \$355 billion over the next decade. But this is just the tip of the spending iceberg. Over the next 30 years, the bill could add up to \$1 trillion.

This massive price tag comes at a time when other US military costs are coming due, the federal budget is shrinking and the role of nuclear weapons in US national strategy is declining.

The Obama administration announced in August that it is overseeing an interagency review of its multibillion-dollar plans. However, it remains to be seen whether this review will prompt the tough choices the president and Congress need to make.

A new report by the Arms Control Association outlines ways to save roughly \$70 billion over the next decade across all three legs of the triad and the warheads they carry. If necessary, these savings can be achieved without further cuts to the still massive number of strategic nuclear warheads deployed on subs, land-based missiles and bombers.

While spending on nuclear weapons is slated to shoot up in the coming years, the military budget is declining. In 2011, Congress approved the Budget Control Act, which requires significant reductions in military spending from current projections over the next decade. In contrast, the last major modernization of the nuclear triad took place in the mid-1980s to counter a similar Soviet buildup.

Faced with increasing pressure to reduce military spending, a bipartisan, independent report commissioned by Congress and the Defense Department recently called the Obama administration's plans to rebuild the nuclear arsenal "unaffordable" and a threat to "needed improvements in conventional forces."

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The United States retains approximately 4,800 nuclear weapons, far less than during the Cold War, but far more than is necessary to deter a nuclear attack. This oversized arsenal is irrelevant to the most urgent security challenges the United States and its allies face in the 21st century, including cyber threats, weak and failing states, global pandemics such as Ebola, climate change, terrorism, energy blackmail, and smaller-scale Russian and Chinese land- and island-grabbing.

The only conceivable purpose for US nuclear forces is to deter an attack on the United States from Russia's similarly sized nuclear arsenal, or from China, which has no more than 300 weapons.

Despite their current tensions over Ukraine, the United States and Russia aren't global ideological rivals like they were during the Cold War. US nuclear forces have not played a significant role in the current crisis. If anything, the presence of bloated stockpiles threatens to dangerously raise the stakes of any escalation or miscalculation between the two sides. And given the catastrophic impacts of using just a handful of nuclear weapons, deterring their use can be achieved with a far smaller nuclear force than the US fields.

In fact, US military leaders concluded last year that the United States can reduce the size of its deployed strategic arsenal by up to one-third below the level of deployed nuclear forces planned under the New Strategic Arms Reduction Treaty, which is about 1,550 warheads. Twenty-five years after the end of the Cold War, it would be reckless for the United States to overspend on nuclear weapons, especially since this spending will come at the expense of other, more urgent national security programs.

Now is the time to re-evaluate nuclear weapons spending plans before long-term budget decisions are made. The United States can save \$70 billion over the next decade by scaling back or delaying expensive new nuclear weapon delivery systems and taking a more disciplined approach to refurbishing existing warheads.

Examples of savings include scaling back plans to replace Ohio-class nuclear-armed submarines by buying eight new boats instead of 12. Each is estimated to cost in excess of \$7 billion. The United States could delay plans for building new nuclear-capable long-range bombers, which could cost \$80 billion, and rely on its current bomber fleet. At least \$3 billion more can be saved over the next decade by canceling the purchase of a new nuclear-armed air-launched cruise missile.

Plans to rebuild the US nuclear arsenal pose financial and opportunity costs that can't be justified in the current economic and security climate. Washington can safely reduce spending on nuclear weapons and redirect funds to where they are needed most.

Tom Z. Collina is the Director of Policy at the Ploughshares Fund. **Kingston Reif** is the Director for Disarmament and Threat Reduction Policy at the Arms Control Association.

<http://www.defensenews.com/article/20141103/DEFBEAT05/311030011/Commentary-Time-Save-Not-Spend-More-Nukes>

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The Washington Times – Washington, D.C.

OPINION/Commentary

Shooting Down Minimum Nuclear Deterrence

Cold reality leaves Obama's nuclear-free designs on the drawing board

By Keith B. Payne

Tuesday, November 4, 2014

Anti-nuclear activists in the United States want to reduce drastically or eliminate U.S. nuclear capabilities, unilaterally if need be. They recently have complained that the Obama administration is moving too slowly to eliminate U.S. nuclear arms and are campaigning hard to persuade the Obama administration to take up their nuclear-disarmament agenda as its legacy for the nation.

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Some in the Obama administration came into power seemingly sympathetic to such a crusade against U.S. nuclear capabilities, but its nuclear policy has since reflected a more realistic appreciation of the need for nuclear capabilities to deter threats and to reassure nervous allies — leading activists to ask plaintively, “What went wrong?”

In truth, the nation should be thankful that the Obama administration has not satisfied the nuclear-disarmament policy agenda. Why so? Because its recommendations, typically presented as avant-garde thinking, are instead based on ideologically driven arguments that collapse when confronted by cold reality. When ideology trumps reality in government policies, people usually suffer. In the arena of nuclear policies, the risks of favoring feel-good ideology over reality could not be higher.

This absence of reality underlies virtually the entire nuclear-disarmament narrative. A few examples will suffice to illustrate the point. One is the claim that the U.S. nuclear posture is unchanged from Cold War days, and so, drastic nuclear reductions are long overdue. This is sheer nonsense. Since the end of the Cold War, the United States has reduced its deployed nuclear arsenal by more than 85 percent, with some further cuts scheduled under the administration’s 2010 New START Treaty.

Another demonstrably false assertion is that U.S. nuclear capabilities are irrelevant to America’s improved post-Cold War relations with Russia and China, and will remain so for the future. This claim of no serious nuclear challengers, now or in the future, leads to the conclusion that U.S. nuclear capability is a relic of a bygone age and can safely be discarded.

Former Secretary of Defense Robert McNamara claimed in 1991 that the Cold War was over and, “hardly more likely to be revived than the religious wars of the 16th and 17th centuries it is hard to construct even a semi-plausible military threat to the United States or to Europe west of the Soviet border.” Consequently, a minimum U.S. nuclear deterrent capable of threatening “a dozen” enemy targets would suffice. This claim of no serious current or future nuclear foes is now standard issue in the minimum-deterrence argument and explains why its advocates typically look at Russian misbehavior and choose to see no evil.

The danger of basing U.S. policies on such pretense has been amply demonstrated by the decade-long resurgence of Russian nuclear weapons, Russia’s intense hostility, explicit nuclear threats to U.S. allies, and manifest willingness to flagrantly violate arms-control limits as well as to change recognized territorial borders in Europe by force. Russia’s military campaigns against Georgia and Ukraine demonstrate Moscow’s driving ambition to restore the earlier Soviet sphere of power. The dangers of this Russian drive and the corresponding potential great value of U.S. nuclear forces to help deter the escalation of crises are realities obvious to all but U.S. anti-nuclear activists.

Another demonstrably false staple of the campaign against U.S. nuclear forces is that superior American conventional forces can deter foes and reassure jittery allies. Thus the United States can delay modernization, and reduce or eliminate its remaining nuclear forces without risk.

This claim, too, crashes hard against reality. Two-thousand years of history prior to the nuclear era demonstrate that deterrence via conventional forces often fails with catastrophic consequences. The approximately 100 million deaths in little more than 10 combined years of warfare during the first half of the 20th century remind us of the fragility of conventional deterrence. The renowned deterrence theorist, Thomas Schelling, replied to the claim that U.S. conventional forces can now deter reliably with the devastatingly realistic comment: “One might hope that major war could not happen in a world without nuclear weapons, but it always did.”

In addition, the United States may not have the claimed superior conventional forces in areas that are potential flash points. There reportedly are now deep concerns within NATO that Western conventional forces are inadequate to defend some NATO allies against a Russian conventional incursion. Russian President Vladimir Putin has boasted that Russian troops could march into five NATO capitals in two days.

Correspondingly, some key U.S. allies in Europe and Asia have been explicit that they are not assured by American conventional power alone. They see a credible U.S. nuclear umbrella as indispensable to their security and are, therefore, concerned about talk of further reductions in U.S. nuclear weapons. The continuing need for a credible

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U.S. nuclear umbrella was recently suggested by Poland's first elected president, Lech Walesa: "Putin has been trying to intimidate us with his nuclear weapons we should borrow, [or] lease nuclear weapons and show Putin that if a Russian soldier puts one foot on our land uninvited, we will attack." The collapse of credible U.S. nuclear-deterrence capabilities would unleash this proliferation dynamic — hardly a future the United States should encourage.

Democratic and Republican presidents of the nuclear age have wrestled with and ultimately rejected minimum-deterrence arguments. While today's nuclear policy leaves room for improvement, to date the Obama administration has not adopted much of the nuclear-disarmament agenda — explicitly stating that its 2013 nuclear-employment policy is not a "minimum-deterrence' strategy." That vexes America's anti-nuclear activists, but it is a legacy the rest of us in the free world appreciate.

Keith B. Payne is the director of the Graduate School of Defense and Strategic Studies at Missouri State University and a former deputy assistant secretary of defense.

<http://www.washingtontimes.com/news/2014/nov/4/payne-shooting-down-minimum-deterrence/>

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38 North.org – Washington, D.C.
OPINION/Article by Editor

Media Busters: Is North Korea Building a Ballistic Missile Submarine?

By 38 North
04 November 2014

A recent article in *Yonhap* citing unnamed ROK Ministry of Defense sources as well as articles in *38 North* came to the conclusion that North Korea has built a submarine capable of carrying and launching ballistic missiles that may be operational in 1-2 years. This article has received widespread international attention. While we do not take responsibility for what unnamed sources in the Ministry of Defense have told *Yonhap* and the veracity of their claims, we do take responsibility for analysis that appears on our website.

In that context, we would like to make a number of points clear:

- **First**, the new class of submarine we identified at the Sinpo naval shipyard is **not** a Cold War-era GOLF II-class Soviet ballistic missile submarine. Our analysis is that the submarine is significantly smaller and bears a close resemblance to the former Yugoslav SAVA and HEROJ-class patrol submarines, neither of which carried ballistic missiles.
- **Second**, based on the limited quality (e.g., 50-cm and 70-cm resolution) and quantity of commercial satellite imagery available to us we have not identified any hatches, missile launch tubes or other indications that this new class of submarine is configured for the vertical launch of ballistic missiles. However, due to the strategic significance and strong public interest in such a development we are working with our commercial satellite imagery partners to collect high-resolution (e.g., 40-cm and 30-cm resolution) imagery upon which to conduct further analysis.
- **Third**, in conducting a review of available commercial satellite imagery of North Korea's submarine shipyards and bases since 2010 we **did not** identify a GOLF II-class Soviet ballistic missile submarine or any other submarine configured to carry and launch ballistic missiles. We would presume that government intelligence agencies have more information than *38 North*. However, given the source of the *Yonhap* article—unnamed officials in the Defense Ministry—as well as the absence of any other open source information—we would prefer to keep an open mind on this issue.
- **Fourth**, *38 North* did identify a newly constructed test stand at the Sinpo naval shipyard that could be used to test a vertical launch tube system that could be used to launch ballistic missiles. This facility began construction in 2013 and appears to have been completed by April 2014. How often it has been used since then and how far the DPRK may have progressed in an effort to develop a submarine launching system and associated ballistic missiles remains unclear based on our limited information.

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- **Finally**, we would emphasize the great difficulties involved in developing both a functioning submarine vertical launch ballistic missile system and the submarine to carry it appear to be underestimated in the *Yonhap* article and other media reports. The challenges in developing such a system are great although it is quite possible that the North is exploring this possibility. As our analyst, Joseph S. Bermudez, Jr., states in the piece, "While the potential threat from a future North Korean capability to launch ballistic missiles from submarines should not be ignored, it should also not be exaggerated."

<http://38north.org/2014/11/editor110414/>

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ABOUT THE USAF CUWS

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

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

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

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

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