



USAF Center for Unconventional Weapons Studies

(CUWS) Outreach Journal

Issue No. 1132, 12 September 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 resources 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.

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FEATURE ITEM: "Exoatmospheric Kill Vehicle Quality Assurance and Reliability Assessment, Part A." Authored by the Inspector General, U.S. Department of Defense; published September 8, 2014; 38 Pages.

<http://www.dodig.mil/pubs/documents/DODIG-2014-111.pdf>

"Our objective was to perform a quality assurance assessment of the Missile Defense Agency's Ground-Based Midcourse Defense, Exoatmospheric Kill Vehicle, which is procured from Raytheon Missile Systems via the prime contractor Boeing. Our assessment resulted in two separate reports."

Part A: Assess Raytheon conformity to Aerospace Standard (AS)9100C, "Quality Management Systems - Requirements for Aviation, Space and Defense Organizations," contractual quality assurance clauses, and internal quality assurance processes and procedures.

Outreach Journal Feedback or sign-up request: cpc.admin@maxwell.af.mil

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The Washington Post – Washington, D.C.

Troops Guarding America’s Nuclear Missile Silos Getting Upgrades

By Dan Lamothe

September 5, 2014

Widespread cheating by Air Force officers who oversee the U.S. nuclear missile arsenal embarrassed the service this year and prompted questions about what can be done to change their culture. But it also did something else: It gave rank-and-file troops who provide security at nuclear missile sites a voice to express concerns about their aging equipment.

The nuclear security forces, as they are known in the Air Force, include hundreds of enlisted troops entrusted with responding rapidly if a terrorist or other enemy force attempts to take over a nuclear missile base or launch facility. There are 450 intercontinental ballistic missiles spread across America’s rural heartland, cared for by troops serving at F.E. Warren Air Force Base in Wyoming, Malmstrom Air Force Base in Montana and Minot Air Force Base in North Dakota.

Air Force officials said in January that dozens of officers watching the missiles — known as missileers — had been caught cheating on a monthly launch officer proficiency test, or knew colleagues who did so and said nothing about it. About 100 of the 190 missileers were eventually ensnared in the probe, and at least 82 received discipline ranging from letters of counseling to non-judicial punishment.

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The scandal prompted Lt. Gen. Stephen Wilson, chief of the Air Force's Global Strike Command, to launch a "force improvement program." The internal study has interviewed everyone from missileers, to helicopter pilots, to the security troops, and then spread to the aviation side of Global Strike Command, which also oversees the care and deployment of nuclear equipped bombers like the iconic B-52H Stratofortress and the bat-winged shaped B-2 Spirit.

On the security forces side, troops expressed concern about driving for hours on narrow, treacherous roads in rollover-prone armored Humvees to get to missile sites. They also expressed an interest in wearing the Army's "Multicam" camouflage and said they need better cold-weather gear because of the time they spend outdoors in the frigid winters of America's Midwest, Air Force officials told this writer for Foreign Policy in April.

Now, it appears they have been heard: the Air Force said in a news release Thursday that nuclear security forces at Minot, Malmstrom, Warren and a training base at Camp Guernsey, Wyo., will get the new uniforms, cold-weather gear and "personal protective equipment that has been redesigned with the missile field mission in mind." The camouflage will replace the "tiger-stripe" pattern that airmen typically wear.

"We are putting together this system for our Security Forces Airmen to operate and survive, both on base and in the missile complex at our northern tier bases," said Gregory Simpson, who oversees equipment requirements for Global Strike Command, in the news release.

"The system we have currently, although it's good, doesn't all work together as a single system; it's a hodgepodge of cold weather garments from different vendors used in conjunction with approved duty gear," Simpson said. "The complete system we're building incorporates cold weather and duty gear, and is more efficient and conducive to the type of environment these troops are operating in."

Wilson had told Foreign Policy in April that he was open to the uniform change. Multicam has proven itself effective on soldiers in Afghanistan, and he did not see why it would not be useful on the wooded sites around missile bases.

"It's a pretty good uniform, and it's pretty good at making sure that under different conditions — day, night — I can blend in, versus stand out," he said at the time. "And it's pretty durable. I'm OK with it."

It's unclear if the security forces will get better vehicles. Troops have expressed interest in using unarmored sports utility vehicles when possible, citing their practicality on country roads and better heating systems in the winter. A smaller fleet of armored vehicles could be kept to respond when newly installed surveillance cameras spot a potential threat, they argue.

There is no update yet on the future plan for vehicles, said Lt. Col. John Sheets, a Global Strike Command spokesman, on Friday. Staff are continuing to examine options.

<http://www.washingtonpost.com/news/checkpoint/wp/2014/09/05/troops-guarding-americas-nuclear-missile-silos-getting-upgrades/>

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Phys.org

Los Alamos Conducts Important Hydrodynamic Experiment in Nevada

By Kevin N. Roark

September 09, 2014

Los Alamos National Laboratory has successfully fired the latest in a series of experiments at the Nevada National Security Site (NNSS).

"Leda is an integrated experiment that provides important surrogate hydrodynamic materials data in support of the Laboratory's stewardship of the U. S. nuclear deterrent," said Bob Webster, Associate Director for Weapons Physics.

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The experiment, conducted on Aug. 12, 2014, consisted of a plutonium surrogate material and high explosives to implode a "weapon-relevant geometry," according to Webster.

Hydrodynamic experiments such as Leda involve non-nuclear surrogate materials that mimic many of the properties of nuclear materials. Hydrodynamics refers to the physics involved when solids, under extreme conditions, begin to mix and flow like liquids. Other hydrodynamic experiments conducted at NNSA use small amounts of nuclear material, and are called "sub-critical" because they do not contain enough material to cause a nuclear explosion.

"This experiment ultimately enhances confidence in our ability to predictively model and assess weapon performance in the absence of full-scale underground nuclear testing," said Webster. These experiments with surrogate materials provide a principle linkage with scaled/full-scale hydrodynamic tests, the suite of prior underground nuclear tests, and scaled plutonium experiments.

"Experiments like Leda are key to enhancing predictive confidence, challenging next-generation weapon designers, and enhancing our capability to underwrite options for managing the stockpile," said Charlie Nakhleh, Theoretical Design Division Leader.

Such hydrodynamic and sub-critical experiments are one of the most useful multi-disciplinary technical activities that exercise the Laboratory's manufacturing capabilities, tests scientific judgment, and enhances the competency of the Nevada workforce in areas of formality of underground and nuclear operations.

Immediately following the experiment, conducted at NNSA's U1a underground complex in collaboration with NSTec and supported by Sandia National Laboratories, Los Alamos scientists and technicians reported a 100 percent data return.

"Multiple diagnostics that captured the hydrodynamic and implosion processes included pit and case velocimetry, dual-axis x-ray radiography, dynamic surface imaging, optical and electrical monitors of the high-explosive drive as well as detonator performance, and very accurate overall system cross-timing," said Mark Chadwick, Program Director for Science Campaigns in the weapons physics directorate. "The experiment was operated within expected parameters, including temperature control, and was performed within the required safety and security specifications."

Scientists will now study the data in detail and compare with pre-shot predictions. The resulting findings will help assess the confidence weapon designers have in their ability to predict weapon-relevant physics.

The successful execution of the Leda experiment enables the follow-on sub-critical experiment series, nicknamed Lyra, to be conducted in 2015. Lyra and other related experiments are an essential component in the NNSA's Science Campaigns and Plutonium Sustainment Programs to support the technical basis for confidence in the nation's nuclear deterrent, and to support future stockpile stewardship.

<http://phys.org/news/2014-09-los-alamos-important-hydrodynamic-nevada.html>

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Great Falls Tribune – Great Falls, MT

Nuke Chief Confident in Malmstrom Mission

By Jenn Rowell, *Great Falls Tribune*
September 10, 2014

The top players in the intercontinental ballistic missile community convened at Malmstrom Air Force Base on Tuesday to discuss operations, areas for improvement and the role of ICBMs in national security strategy.

The man who called the meeting — and is holding others on nuclear bombers and submarines — is Adm. Cecil Haney, commander of U.S. Strategic Command, one of the military's nine unified commands that is responsible for nuclear, cyber and space operations, missile defense, weapons of mass destruction and more.

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During his visit, Haney sat down with the Great Falls Tribune to talk about strategic deterrence and the role of ICBMs within that framework.

Strategic deterrence, he said, is more than just the nuclear triad. It includes the missile defense systems and the ability to detect and respond to threats.

With recent developments in Russia, Haney said his command is paying close attention to Russia but doesn't see any movement away from compliance with New START, the strategic nuclear arms reduction treaty between the U.S. and Russia.

"Everything I've seen is a mutual respect for that treaty," he said.

The treaty also allows for inspections, sharing of information and other aspects that strengthen nuclear security.

"Things are going smoothly," he said. "Clearly, we take treaties seriously."

Haney said that in negotiating nuclear reduction treaties and now implementing them, the military and state department went through a very deliberate process.

"There was a tremendous amount of effort just to get to the treaty in the first place," he said of New START, which entered into force in 2011.

Haney said that he's an advocate for all components of the strategic deterrence framework, including the nuclear triad. All of those parts working together are what create a credible deterrent, he said.

Under New START, those empty silos counted as nondeployed missile launchers. New START limits the U.S. and Russia to 800 nondeployed launchers.

To meet that, the U.S. was required to eliminate 103 deactivated ICBM silos, including the 50 at Malmstrom, by February 2018.

The final 10 silos that were eliminated as part of the former 564th Missile Squadron, which was deactivated in 2008, have entered a 60-day observation period to allow Russia to verify their elimination.

The last silo to be eliminated was Launch Facility T-49, located about 25 miles west of Conrad, according to Malmstrom. Contractors used heavy machinery to bury the site's 110-ton launcher closure door and fill the launch tube with dirt, rendering it unusable as a missile launch site, according to Malmstrom.

The initial phase of elimination began in January and the last one was eliminated in early August. The second phase began July 21 when concrete caps were poured over the first 40 launchers that had completed the first phase, according to Malmstrom.

The completion of all Phase II work will take several months and the sites will remain in caretaker status by the 341st Civil Engineer Squadron until the final disposition of the properties is determined, according to Malmstrom officials.

New START also limits deployed launchers to 700 across ICBM fields, submarines and bomber aircraft.

The Pentagon announced in April it would retain all 450 ICBM silos operated by the Air Force, including the 150 at Malmstrom.

The Air Force will remove missiles from 50 silos, but keep them in a warm status, meaning they can be rearmed at any time.

According to defense officials, the expectation is that the empty silos will be distributed among the three missile wings and will rotate depending on maintenance and operational needs.

As members of Congress continue to deliberate how the treaty should be implemented or propose limitations on nuclear cuts, Haney said he talks to those legislators to inform them of how strategic deterrence works and what it takes to maintain.

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Haney was last at Malmstrom in February, after the cheating investigation was announced.

During that visit and again this week, he met with small groups of airmen and leadership and visited airmen in the field.

"What gives me confidence is the level of patriotism, the level of respect for the mission," he said.

He said the cheating investigations and other problems in the nuclear field allowed for improvements to be made, but that those involved in breaking the rules and trust of the military were a small group.

On Monday night, Haney met with members of the military affairs committee, a function of the Great Falls Area Chamber of Commerce.

He said that in talking to civic leaders and the general public he thanks them for supporting the airmen and also Malmstrom's mission, which he says remains relevant today.

"We're not in a Cold War, we're beyond that time in history," he said. "But, it's an area we cannot ignore."

<http://www.greatfallsribune.com/story/news/local/2014/09/09/nuke-chief-confident-malmstrom-mission/15367137/>

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RT (Russia Today) – Moscow, Russia

Pentagon: Missile Defense 'Kill Vehicle' still Plagued with Problems after Years of Failure

September 09, 2014

A Pentagon investigation of the "kill vehicle" warhead, part of a weapons system plagued with years of failed tests, found dozens of quality control problems, according to a new report.

The Pentagon's inspector general said in the report released Monday that the "kill vehicle," a warhead meant to intercept missiles, fell short of quality standards in 48 specific cases, including issues with software testing, supply chain demands, and design changes, making the kill vehicle "susceptible to quality assurance failures."

The warhead, known as the Exoatmospheric Kill Vehicle (EKV) is built by Raytheon Co. and is part of the Ground-based Midcourse Defense (GMD) system led by Boeing Co. EKVs are launched by a Ground Based Interceptor (GBI), "which is designed to engage high-speed ballistic missile warheads in space," according to Raytheon. The current procurement cost for each GBI is around \$75 million, said Missile Defense Agency Director Vice Admiral James Syring in July 2013.

The inspector general report, the first of two on the EKV, said the US Missile Defense Agency has agreed with concerns over the interceptor warhead and has started to address 44 of the 48 issues identified.

The GMD missile defense system was deployed in 2004 even before it completed testing to be able to counter what the George W. Bush administration claimed was a looming missile threat from North Korea.

The EKV finally conducted its first successful missile intercept in June after years of failed attempts.

"A combination of cost constraints and failure-driven program restructures has kept the program in a state of change. Schedule and cost priorities drove a culture of 'use-as-is' leaving the EKV as a manufacturing challenge," the report said.

"With more than 1,800 unique parts, 10,000 pages of work instructions, and 130,000 process steps for the current configuration, EKV repairs and refurbishments are considered by the program to be costly and problematic and make the EKV susceptible to quality assurance failures," it added.



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The Pentagon inspector general wrote that most quality management systems on the weapons program were in compliance, but problems were evident. The report found 15 major and 25 minor quality problems with Raytheon's EKV work. Boeing's work on the entire system had six major and one minor problem.

Most of the issues identified in the report have been corrected, the inspector general said, but Raytheon is still working on four issues.

Raytheon has a \$636 million development and sustainment contract to produce the EKV, though the Pentagon is seeking one of the major defense contracting firms to develop a more reliable, second generation EKV, Reuters reported. Weapons giants Boeing, Raytheon and Lockheed Martin Corp. are all in the running.

<http://rt.com/usa/186400-pentagon-kill-vehicle-missile/>

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TODAY online.com – Singapore

Bloc Led by Russia and China Criticizes U.S. over Missile Defense

Reuters

September 12, 2014

DUSHANBE - A security bloc led by China and Russia took a swipe at the United States on Friday, saying the development of unilateral missile defense systems would undermine global security.

The Shanghai Cooperation Organisation (SCO), which also includes four Central Asian states, did not name the United States in a statement issued at a summit in the Tajik capital, Dushanbe.

But Russia in particular has long been critical of Washington over its plans to build a global missile defense shield and Moscow sees the system as a security threat.

"The unilateral and unlimited capacity of individual states' or groups of states' missile defense systems will be detrimental to international security and strategic stability," the statement said.

It said the members of the SCO believed "national security should not be achieved at the expense of the security of other states."

The SCO groups China, Russia and the former Soviet republics of Tajikistan, Uzbekistan, Kazakhstan and Kyrgyzstan.

Russia's relationship with the United States is at its lowest point since the Cold War because of the Ukraine crisis. The SCO statement expressed support for a ceasefire reached by Kiev and pro-Russian separatists in eastern Ukraine and urged them to build on it to secure a lasting settlement.

<http://www.todayonline.com/world/china-and-russia-condemn-unilateral-missile-defense-buildup>

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ITAR-TASS – Moscow, Russia

Russia, United States to discuss INF Treaty — Russian Foreign Ministry

In July this year, the US government accused Russia of violating the Intermediate-Range Nuclear Forces Treaty provisions

September 08, 2014

MOSCOW, September 08./ITAR-TASS/. Russia and the United States will hold consultations on the Intermediate-Range Nuclear Forces Treaty (INF) in Moscow on September 11, a Russian Foreign Ministry official said on Monday.

"We have never tried to avoid a (meaningful) discussion. This is not our rule," Mikhail Ulyanov, the head of the Russian Foreign Ministry department for non-proliferation and weapons control, told ITAR-TASS.

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"For a very long time, we have been posing serious questions to our American colleagues but we have not received any answers. Now, we have agreed that they will pay a visit to us to discuss our reciprocal concerns," Ulyanov said.

"We used to have a special commission to oversee how the INF treaty was implemented and to deal with claims appearing on both sides. But the commission ceased to work as early as 2003 because the treaty was de facto implemented. All verification procedures were over in 2001," Ulyanov explained.

The forthcoming specialized consultations will be the first after this long break. Russia has destroyed all weapons under the INF treaty but it is, nevertheless, ready to listen to US claims if the Americans have anything concrete.

In July this year, the US government accused Russia of violating the INF provisions. The US State Department reflected that conclusion in its annual report on implementation of disarmament treaties. Washington claimed that Russia had breached its commitment not to produce and test a ground-based cruise missile with a range from 500 to 5,500 kilometers or not to possess or produce launchers for this type of missiles. But apart from incoherent references to some secret intelligence data, the United States has so far failed to give any concrete fact of violation.

According to Ulyanov, Russia has much more serious and justified claims to the United States caused by its free interpretation of the INF provisions. In a recent comment, the Russian Foreign Ministry expressed serious concern with the fact that the United States test launched target missiles, which have similar characteristics as intermediate-range missiles, during its air defense exercises.

Russian experts believe that US armed drones can clearly be defined as cruise missiles under the INF classification.

"Questions related to the Mk-41 missile launchers which the United States is planning to deploy in Poland and Romania have become particularly urgent in recent days. These launchers can be used to launch medium-range cruise missiles and their appearance on the surface will be a gross violation of the INF Treaty," the Russian Foreign Ministry said.

The Intermediate-Range Nuclear Forces Treaty was signed by the Soviet Union and the United States on December 8, 1987. In line with the treaty obligations the Soviet Union scrapped a total of 1,752 missiles and 845 missile launching systems, three facilities manufacturing missiles and launching systems and 69 operational missile bases. The United States in turn eliminated a total of 859 missiles and 283 missile launching systems, seven facilities manufacturing missiles and launching systems and 9 operational missile bases.

<http://en.itar-tass.com/world/748624>

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The Moscow Times – Moscow Russia

Russia Proves Nuclear Muscle with Ballistic Missile Launch

By Matthew Bodner
September 10, 2014

A brand-new Russian submarine designed to carry nuclear missiles has successfully conducted a test launch of the long-delayed Bulava Intercontinental Ballistic Missile, or ICBM, showing that Russia remains a nuclear power to be reckoned with even as Moscow's relations with the West sour over Ukraine.

"The parameters of the missile's trajectory worked normally, and the missile's warheads successfully arrived at the Kura test range in Kamchatka," Defense Ministry spokesperson Major-General Igor Konashenkov was quoted by Interfax as saying after the launch on Wednesday morning. The missile was fired from a submerged position below the White Sea by the Vladimir Monomakh, one of Russia's new Borei class ballistic missile submarines.

The test marks the first time that the Bulava missile has been fired since a failed test launch in September 2013, after which Defense Minister Sergei Shoigu ordered a halt to testing while engineers worked the kinks out of the design — a process that has repeated itself several times since 2009.

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In comments carried later on Wednesday by RIA Novosti, Russia's top navy official, Admiral Viktor Chirkov said Bulava will be tested two more times this year — in October and November.

The Bulava missile was designed for the Borei-class submarines, Russia's latest "boomer" boats — whose function is to lurk the ocean depths and await the order to launch a deadly salvo of nuclear warheads at foreign targets, usually big cities such as New York or Washington, D.C.

Capable of carrying up to 10 warheads and with a range of up to 8,000 kilometers, the Bulava is being counted on to replace rapidly aging Soviet-era missiles to maintain strategic parity with the U.S. and was often referred to as Russia's response to the U.S. plans of building anti-missile system in Eastern Europe.

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

The Bulava has been plagued with delays, diminishing the strategic relevance of the new submarines, which entered service in 2009. But the Boreis are useful even without the IBCMs, a high ranking defense official told RIA Novosti last year.

"The Borei-class strategic missile submarines can carry out the tasks of multi-role attack submarines by carrying other weapons on board — torpedoes and rocket-torpedoes. Just like a doctor of science can also teach math in a high school," the official said.

However, Russia already has brand new submarines that perform that role — the Yasen-class attack submarines — "hunter-killers," in naval terminology, designed to seek and destroy the enemy's "boomers" — leaving the Borei submarines as high-priced, bloated boats performing functions they were not strictly designed for until Bulava is fully functional.

The Yasen- and Borei-class submarines represent a two-pronged campaign to rejuvenate the former glory of Russia's submarine fleet, which has largely fallen into disrepair since the collapse of the Soviet Union. As a whole, Russia is currently executing a \$700 billion rearmament program across all branches of its military through 2020.

<http://www.themoscowtimes.com/business/article/russian-submarine-successfully-tests-new-nuclear-missile/506780.html>

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RIA Novosti – Russian Information Agency

Two More Bulava SLBM Launches Scheduled This Year: Russian Northern Fleet Source

10 September 2014

SEVEROMORSK, September 10 (RIA Novosti) – Russia plans to test-fire two more Bulava submarine-launched ballistic missiles (SLBM) later this year, a source in Russia's Northern Fleet told RIA Novosti Wednesday.

"Two more Bulava launches are scheduled to take place from two nuclear-powered Borei-class submarines, the Yury Dolgoruky and the Alexander Nevsky," the source said.

Earlier in the day, the Russian Defense Ministry reported that a Bulava SLBM had been test-fired from northwestern Russia and hit a simulated target in Far East. The missile was launched from the Vladimir Monomakh nuclear-powered submarine from a location off northwest Russia's White Sea.

Maj. Gen. Igor Konashenkov said the launch was part of the state tests of weapons and systems of the Vladimir Monomakh nuclear submarine.

The three-stage Bulava SLBM carries up to 10 independent warheads and has a range of 8,000 kilometers (about 5,000 miles).

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The testing of the Bulava missiles has seen failures in the past. In September 2013, during state trials of the Aleksander Nevsky nuclear submarine a Bulava rocket experienced a malfunction. Following this incident, Russian Defense Minister Sergei Shoigu ordered to hold five additional launches of Bulava missiles.

Despite some test failures, the Russian military insisted there was no alternative to the Bulava as the main armament for Russia's new Borey-class strategic missile submarines that are expected to become the backbone of the Russian Navy's strategic nuclear deterrent force.

http://en.ria.ru/military_news/20140910/192801132/Two-More-Bulava-SLBM-Launches-Scheduled-This-Year-Russian.html

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Business Insider.com – New York, NY

Russia Says Dissatisfied with U.S. Talks over Arms Treaty Concerns

By Thomas Grove, Reuters

September 11, 2014

MOSCOW (Reuters) - Russia said on Thursday it was dissatisfied with talks held with U.S. officials to address concerns that Moscow had violated a Cold War-era arms control agreement by testing a ground-launched cruise missile.

Relations between the two countries are at their lowest since the Cold War because of Russia's role in the crisis in Ukraine, and both Moscow and Washington question the other's commitment to the 1987 Intermediate-Range Nuclear Forces treaty.

Russia argues that Washington's use of drones and other intermediate-range arms amounts to a violation of the treaty and has said that planned U.S. weapons tests in Romania and Poland may also breach the agreement.

The talks in Moscow were attended by U.S. Undersecretary of State for Arms Control and International Security Rose Gottemoeller. The U.S. side had no immediate comment, said a spokesman for the U.S. embassy in Moscow.

"We were not satisfied with their answers," said the Russian Foreign Ministry's arms control chief Mikhail Ulyanov, who represented the Russian side at the talks.

"We would have liked our American colleagues to have formed their concerns more clearly and understandably, not in general, but concretely," he told Russian news agency Itar-Tass.

The INF treaty eliminated nuclear and conventional ground-launched ballistic and cruise missiles with a range of 500-5,500 km (300-3,400 miles) near the end of the Cold War.

Russian Deputy Defense Minister Anatoly Antonov said last month Moscow was committed to the treaty but President Vladimir Putin has questioned whether it meets Russia's interests.

Ulyanov said no further meetings were planned but that he hoped the dialogue on the treaty would continue.

"We have many channels through which it is possible to carry out a conversation and exchange information," he said.

He said Russia had voiced concerns over planned U.S. ground-launched arms tests next year in Romania and in 2018 in Poland, which he said the U.S. side assured him would only use anti-rocket defenses and would not fall foul of the treaty.

Reporting by Thomas Grove; Editing by Raissa Kasolowsky

<http://www.businessinsider.com/r-russia-says-dissatisfied-with-us-talks-over-arms-treaty-concerns-2014-9>

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Russian Strategic Bombers Reportedly Practice Nuclear Missile Strike against US

September 08, 2014

A pair of Russian bomber jets reportedly practiced cruise missile attacks against targets in the United States last week, according to a report published on Monday in the Washington Free Beacon.

Bill Gertz, a writer for the Beacon, reported that two Russian Tu-95 Bear bombers were tracked flying over the Labrador Sea last week in the northern Atlantic Ocean near Iceland, Greenland and Canada as part of a recent training mission.

“Analysis of the flight indicated the aircraft were conducting practice runs to a pre-determined ‘launch box’ — an optimum point for firing nuclear-armed cruise missiles at US targets,” Gertz wrote, citing unnamed defense officials he described as being familiar with intelligence reports.

The aircraft, Gertz added, are outfitted with six AS-15 nuclear-armed cruise missiles, each capable of striking targets as far away as 1,800 miles.

Representatives for the US Northern Command and Northern American Aerospace Defense Command, or NORAD, declined to comment to Gertz ahead of his report, and told RT in an email Monday afternoon that they could not confirm the allegations printed by the Free Beacon. On his part, however, Gertz wrote that neither the US nor Canada responded to the alleged incident because it reportedly occurred outside of the North American Air Defense Identification Zone.

According to Gertz, the reported drill occurred last week at the same time that officials from the US, Canada and other allied partners met in Wales for the largest NATO summit of its kind in two years, where on the agenda, among other topics, was the escalating crisis in eastern Ukraine and potential action that could be undertaken to counter perceived Russian aggression. On the heels of that meeting, both the US and the European Union are expected to impose new sanctions against Moscow.

The latest report comes days after Russia’s own recent decision to revise a 2010 military doctrine to identify the US and NATO members as enemies, which *“clearly outline[s] the conditions of a preemptive nuclear strike”* against partner countries, Gertz wrote. With regards to the alliance, NATO Secretary General Anders Fogh Rasmussen said during last week’s summit that at least 4,000 troops from various member states will soon form a *“spearhead”* regiment that will be *“ready to deploy within a few days with air, sea and Special Forces support”* in the event that the Ukrainian crisis spread into allied territory.

Gertz has previously reported for the Beacon that no fewer than 16 Russian bombers incurred the airspace of either US or Canada during the month of August.

“Clearly, we at the US Strategic Command do monitor the strategic environment,” Admiral Cecil Haney, commander of the US Strategic Command, told Gertz last month following reports that Russian bombers came within 50 miles of California on the US West Coast. *“I will say that the business of them coming close to the United States of America, we take very seriously.”*

Meanwhile NATO countries boost their presence in the vicinity of Russian borders. US, Spain, Canada, Romania and Turkey sent warships to take part in the joint naval exercises with Ukraine 'Sea Breeze 2014' in the Black Sea. A total of 12 ships and supply vessels – including seven Ukrainian ships - as well as planes and helicopters will participate in the drills.

NATO ships have been operating in the area since this spring, when tensions started escalating between Kiev forces and rebels in eastern Ukraine. Despite the three-week limit, set up by the Montreux Convention for non-Black Sea states' warships, the alliance has managed to secure its presence in the area by constantly rotating vessels there.



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<http://rt.com/usa/186084-russian-bombers-labrador-gertz/>

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Yonhap News Agency – Seoul, South Korea

In Paper to U.N., China Renews Call for Restart of N. Korea Nuclear Talks

September 8, 2014

BEIJING, Sept. 8 (Yonhap) -- China has renewed its commitment to an early resumption of six-nation talks on North Korea's nuclear weapons program ahead of this month's United Nations General Assembly, while a key North Korean diplomat repeated that the multilateral talks should be resumed "without preconditions."

North Korea withdrew from the six-party talks with South Korea, the United States, China, Japan and Russia in 2009 and conducted its third nuclear test in 2013.

Mindful of Pyongyang's track record of saber-rattling before returning to negotiations for economic concessions, Seoul and Washington insist that they won't resume the talks unless Pyongyang lives up to its previous denuclearization pledges.

South Korea and the U.S. have asked China, North Korea's last-remaining patron, to play a greater role in leading the North to demonstrate with action its denuclearization commitment, but Beijing's diplomatic efforts have been unsuccessful.

In its "Position Paper," dated Friday, to the upcoming U.N. General Assembly, China said it "hopes that the parties concerned will refrain from any action that may raise tensions, engage in contact and dialogue, stay committed to resolving differences through negotiation and work for the early resumption of the six-party talks."

The long-stalled multilateral talks are still a "practical and effective platform for addressing the concerns of all parties in a balanced manner and achieving denuclearization on the (Korean) Peninsula," China said in the paper posted on its foreign ministry's website.

North Korean Foreign Minister Ri Su-yong is expected to visit New York to attend this month's U.N. meeting, Seoul officials said, in what would be the first visit by a top North Korean diplomat in 15 years.

In another sign that Pyongyang is engaging in more active diplomacy, Kang Sok-ju, the key architect of North Korea's nuclear diplomacy whose rank is higher than Ri, embarked on a rare five-nation trip to Europe and Mongolia last week.

In Berlin on Saturday night, Kang, the secretary handling international relations within North Korea's ruling Workers' Party, reiterated the North's long-standing stance that the six-party talks should be resumed "without preconditions."

Asked about the prospects of a resumption of the six-party talks, Kang told reporters that, "The United States always lays out conditions for a resumption of the six-party talks, but we want a resumption of the six-party talks without preconditions."

<http://english.yonhapnews.co.kr/national/2014/09/08/60/0301000000AEN20140908002000315F.html>

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Want China Times – Taipei, Taiwan

China's Five Major Weapons for Air Combat: National Interest

By Staff Reporter

September 08, 2014

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China's five most devastating weapons are a considerable threat to the United States, Japan and India if armed conflict should ever arise between the countries, reports the Washington-based National Interest.

The PLA Air Force is no longer a peasant air force with ancient fighters incapable of projecting power beyond its borders. Facing territorial disputes with Japan, Vietnam and the Philippine over the East and South China Seas, China today needs an air force strong enough to protect its interest beyond its traditional area of interest in East Asia. To challenge the power and influence of the United States, it indeed needs a global air force with global weaponry.

The first weapon system is the WU-14 Hypersonic Glide Vehicle. With a speed of Mach 5 and 10, it can travel farther faster, delivering its payload within minutes of launch. Hypersonic weapons are difficult to be intercepted with current air defense systems. The test flight of the WU-14 on Aug. 7 indicated that the PLA intends to use it to deliver nuclear warheads.

The next weapon is the KJ-2000 Airborne Early Warning and Control Aircraft. Like the American Sentry, Mizokami said that KJ-2000 is a large, wide-bodied aircraft with a rotating disc-shaped radar mounted on top. It is capable of detecting aircraft more than 300 miles away. This aircraft allows China's surveillance network to extend beyond the range of ground-based radars into the South or East China Seas.

The third weapon system is the H-6 strategic bomber designed by Xi'an Aircraft Industrial Corporation. This bomber is designed based on the blueprint of Soviet Tu-16 bomber to drop nuclear warheads. However, it can also be used as conventional bomber, missile carrier, and even aerial refueling tanker today. The bomber's two most useful attributes are its long range and large payload according to the report.

The Il-78 tanker is another weapon system for the PLA to strengthen its force projection capability. The South China Sea, 670 miles away from the closest Chinese air base at Hainan island, is just under twice the combat radius of China's J-10 fighters. The Il-78 is the only system that is able to extend the range of Chinese fighters other than the Liaoning, the first aircraft carrier of China.

China's last most powerful weapon in the sky is the DH-10 cruise missile family. The latest version of the DH-10, the DH-10A or the CJ-10, is estimated to be accurate to within less than ten meters owing to satellite guidance. Its nuclear payload is around 1,000 pounds.

In addition to those five weapons, the J-20 stealth fighter was mentioned as a runner-up. It is now known whether it will be used as fighter or bomber.

<http://www.wantchinatimes.com/news-subclass-cnt.aspx?cid=1101&MainCatID=11&id=20140908000009>

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Strategy Page.com – U.S.

Strategic Weapons: China Produces a Guam Killer

September 8, 2014

China recently revealed (apparently by accident) the existence of the DF-26 IRBM (Intermediate Range Ballistic Missile.) This one appears to have a range of 3,500 kilometers and based on the earlier DF-21. There have been reports of such a missile since 2007 and the DF-26C appears to have been in service for several years. The DF-26C is notable because it has the range to hit American military bases in the Central Pacific island of Guam.

China tends to keep a lot of military data secret, even after foreigners have discovered the new items via satellite photos or curious Chinese taking cell phone photos and posting them. That was how the existence of the DF-41 missile became known in the last few years. In 2012 China tested the DF-41 ICBM equipped with a final stage containing multiple warheads. The U.S. announced the test and had apparently monitored it with satellites and other air, land, and sea based sensors. It was not revealed how many warheads were involved, although it was earlier mentioned that China could put 3-10 warheads in the DF-41 final stage. The DF-41 has not been displayed publicly but thanks to cell phone there are photos of the DF-41 available. The DF-41 appears to have had a lot of

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development problems because few have been built and fewer (less than a dozen) put into service. The DF-41 is the only Chinese ICBM that can reach all of the United States.

China is believed to have over 400 nuclear warheads, most of them installed on ballistic missiles. Only a few dozen of these missiles can reach the United States. These include the older (and about to be retired) DF-5, plus the newer DF-31A and DF-41. About two thirds of Chinese nuclear warheads are believed to be in missile warheads, most of them DF-21s and these will be replaced by DF-26Cs. Normally the nuclear warheads are stored separately and mated to the missiles only for actual use or the occasional training exercise. In 2009 China announced that its nuclear armed ballistic missiles were not aimed at anyone. Like most countries, China has long refused to say who its nuclear armed missiles are aimed at. Most of those missiles only have enough range to hit Russia or India, or other nearby nations. For a long time most were very definitely aimed at Russia, which had rocky relations with China from the 1960s to the 1990s. But after the Soviet Union dissolved in 1991, the new and much smaller Russia became friendlier with the wealthier (more capitalist but still run by communists) China. Relations between China and India also warmed up, then went into a deep freeze during the past decade.

For the last two decades China has had about two dozen DF-5 ICBMs nominally in service because they can reach the United States. Few of these are believed to be operational because of reliability and maintenance problems. The U.S. has since installed 18 ICBM interceptor missile systems in Alaska. These are to deal with North Korean missiles but could also destroy most Chinese missiles headed for the western United States. Thus it makes sense for China to simply say that it is not aiming any of its missiles at anyone. Modern guidance systems can be quickly (in less than an hour) programmed for a new target, so it doesn't really matter that, normally, the missiles have no target information in them. The DF-5s, moreover, are liquid fueled and the considerable activity required to ready them for launch can be detected by spy satellites.

The DF-5s are being replaced by the solid fuel DF-41s, which can be moved, erected, and launched from a special truck. With a 15,000 kilometer range they can reach all of the United States. The third stage multiple warheads each with an explosive yield of at least 100 KT. The DF-41s appear similar to the American 36 ton Minuteman III (a 1960s design that has been much upgraded since then).

India is of growing concern to China but there are shorter range ballistic missiles, like the DF-21, to deal with that threat. The Chinese introduced the DF-21 in 1999, and now has over a hundred in service. Many have non-nuclear warheads. This missile has a range of over 1,800 kilometers and can haul a 300 kiloton nuclear warhead. It's a two stage, 15 ton, solid fuel rocket. Launched from Tibet, the DF-21 can reach most major targets in India.

In the early 1990s China put the larger DF-31 into service, sort of. This was China's first solid fuel ICBM (and had a range of over 8,000 kilometers) and roughly equivalent to the U.S. 30 ton Minuteman I (entered service in 1962 with a range of 9,900 kilometers). The DF-31 weighs about 41 tons and is 20 meters (62 feet) long and 2.25 meters (7 feet) in diameter. It was designed for use on submarines, land silos, and mobile launchers (which would halt at those "parking lots in the middle of nowhere" visible in satellite pictures of Qinghai province). The DF-31 has been shown stored in a TEL (transporter, erector, launcher) vehicle. Driving these vehicles along special highways in remote areas provides more protection from counterattacks than using a reinforced silo. Later, the improved DF-31A appeared, with multiple warheads and more range (up to 12,000 kilometers, which could cover most of the United States).

The DF-31 was in development for over twenty years and only had its first successful launch in 2000. It's now believed to have a reliable and accurate guidance system, as well as a third stage that carries three 50 kiloton warheads. Only about a dozen DF-31s are in service, plus about a dozen DF-31As. Many of these appear to be aimed at European Russia.

Then there is a submarine launched missile the JL (Julang) 2 SLBM (Sea Launched Ballistic Missile). This missile has had a lot of problems as have the SSBNs (ballistic missile carrying nuclear subs) that carried them. The 42 ton JL-2 has a range of 8,000 kilometers and would enable China to aim missiles at any target in the United States from a 094 class SSBN cruising off Hawaii or Alaska. Each 094 boat can carry twelve of these missiles, which are naval versions of the existing land based 42 ton DF-31 ICBM. The JL-2 was supposed to have entered service in 2009 but

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kept failing test launches. No Chinese SSBN has ever gone on a combat cruise because these boats have been very unreliable.

<http://www.strategypage.com/htm/hticbm/20140908.aspx>

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Tengri News – Almaty, Kazakhstan

Russian Colonel General Claims Central Asia Can Be Used By Terrorists to Transport Nuclear Weapons

Tuesday, September 9, 2014

The head of the Anti-Terrorism Center of the Commonwealth of Independent States (CIS ATC), Colonel General of Police Andrey Novikov declared that Kazakhstan, along with other Central Asian countries, may be used by terrorists to transport nuclear weapons, *Tengrinews* reports citing *RIA Novosti*.

He made the statement at the gathering of heads of security and intelligence agencies of the Commonwealth in Almaty.

"We also take into account another potential threat – this is the possibility that the territories of the CIS states and, in particular, the Central Asian region, will be used for transit of nuclear and other hazardous materials, as well as technologies and equipment related to weapons of mass destruction," he said.

Novikov reminded the statement made by the terrorist organisation known as the Islamic State (previously ISIS) in June claiming they got hold of nuclear weapons and were ready to use it.

"Let me remind you that the militants of this organization seized the second-largest city in Iraq Mosul, where they purported to capture dozens of kilograms of nuclear weapons from a local university. They also managed to seize assets worth about a billion dollars," he said.

Iraq's Ambassador to the UN Mohammed Ali Al Hakim told the UN that the Sunni militants captured about 40 kilograms of uranium compounds but a source in the US government said the material in question is not enriched uranium, and hence is difficult to use for weapons production, *Lenta.ru* reports.

Colonel General Novikov's statement comes about a week after the IS issued a statement on YouTube, in which it declared its intentions to oust Vladimir Putin and "liberate" the Caucasus and Chechnya.

"This is a message to you oh, Vladimir Putin! These are the planes you sent to Bashar, we, God willing, will send them to you, remember that!" the Russian captions to the video suggest one of the militants as saying in Arabic. The militant added that Putin's "throne has already tottered" and "will fall when we come".

Head of the Chechen Republic Ramzan Kadyrov has posted a passionate reply on his Instagram account:

"Terrorists from Syria calling themselves the Islamic State, have made a childish threat to start a war in Chechnya and the Caucasus. They only say what they are told by their masters from Western intelligence agencies. These bastards have nothing to do with Islam. They are outright enemies of Muslims around the world. (...) All countries under the control of the United States have announced sanctions against Russia but achieved nothing, and then some unwashed felon decides distinguishing himself, taking on the role of the pug. I state with full responsibility that the one who had the idea to threaten Russia and say the name of the President of our country Vladimir Putin, will be destroyed, where he did it..."

This is the map circulated on the Internet by the Islamic State purporting to show territories they would capture to create a new Caliphate. Territories of Central Asia and Caucasus are all included.



Black color on the map is shaded over the territories that the militants are planning to subdue. These are vast territories stretching from China's Western border and Russia's Southern border with Kazakhstan. India, Pakistan, Afghanistan are also shaded. Further to the West are the Middle East, a large part of Africa, the Caucasus, Mediterranean countries, the Balkans, Hungary, Austria and even Spain.

The jihadists boasted they would redraw the world map in five years.

http://en.tengrinews.kz/politics_sub/Russian-Colonel-General-claims-Central-Asia-can-be-used-by-terrorists-to-256045/

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The Korea Times – Seoul, South Korea

Korea, US to Make Barter Deal

By Kang Seung-woo
September 11, 2014

Korea is expected to allow the United States to deploy missile interceptors on its soil in return for Washington delaying the transfer of wartime operational control of Korean forces to Seoul, experts said Thursday.

The so-called barter deal will be finessed during National Security Office chief Kim Kwan-jin's visit to the U.S. Sunday, they said.

The top presidential security officer will meet his U.S. counterpart Susan Rice during his Washington trip.

The U.S. has been prioritizing the deployment of the Terminal High Altitude Area Defense (THAAD) system on a base here. Defense officials said that they had no objections, saying that it would be for the purpose of protecting U.S. troops.

In return, as requested by Seoul, the U.S. is expected to delay the handover of wartime operational control of Korean troops, scheduled for December 2015.

Kim will likely also visit China and Russia to explain Korea's stance.

His visit comes ahead of the two allies' Security Consultative Meeting (SCM) in Washington in October where defense chiefs of the two countries are expected to finalize the deal.

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"As we strongly hope to put off the OPCON transition amid growing threats from North Korea, there might be a reward for a possible delay," said Shin In-kyun, president of the Korea Defense Network, hinting the U.S. may link the deployment of THAAD to the transition of OPCON.

Paik Hak-soon, a researcher at the Sejong Institute, said that the give-and-take is already a done deal.

"Since North Korea's Musudan missile threat emerged last spring, the U.S. has attempted to boost its missile defense in the region, and it linked the missile defense issue to the OPCON transfer through two Korea-U.S. summits in May last year and April this year — although there was no official announcement," Paik said.

He added that the U.S. has nothing to lose in the postponement, as well.

"When the U.S. agreed to the handover in 2009 to reduce the number of its military forces abroad, it did not have to worry about China. But the situation in the region has totally changed, with the U.S. frequently engaged in clashes with China, and it is now trying to strengthen its presence here," he said.

However, some experts declined to agree on the big deal speculation.

"The biggest issue about which China is concerned is that the X-Band Radar, a part of the THAAD battery, would provide the U.S. detection capabilities extending across much of eastern China," said Yang Uk, a senior research fellow at the Korea Defense and Security Forum.

In 2007, Korea and the U.S. agreed that the transition would be carried out on April 17, 2012, before further delaying it after the Navy ship Cheonan was sunk by a North Korean torpedo in March 2010.

U.S. Secretary of Defense Chuck Hagel said in October that the OPCON transfer should be conditional, saying, "The two nation will regularly assess and review the security environment on the Korean Peninsula."

http://www.koreatimes.co.kr/www/news/nation/2014/09/116_164383.html

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The Chosun Ilbo – Seoul, South Korea
September 12, 2014

IAEA Confirms N.Korea Restarted Nuclear Reactor

The International Atomic Energy Agency last Friday said North Korea has definitely resumed operations at its Yongbyon nuclear facility.

In an annual report, the IAEA said, "Since late August 2013, the agency has observed, through analysis of satellite imagery, steam discharges and the outflow of cooling water at the 5 MW(e) reactor, signatures which are consistent with the reactor's operation."

"The agency has continued to observe building renovation and new construction activities at various locations within the Yongbyon site." This roughly coincides with the North's own announcements.

North Korea's nuclear program "remains a matter of serious concern," the report adds, but since North Korea expelled IAEA inspectors in 2009 the facts are somewhat hazy.

The North blew up the reactor's cooling tower and suspended operation in 2008 under an agreement reached in six-party talks, but the deal later crumbled.

In April last year, the North pledged to reactivate the 5 MW reactor, citing "hostility" from the U.S. and South Korea.

Seoul urged Pyongyang to immediately stop nuclear development. "North Korea should fulfill its international obligations, including its promise to abandon nuclear weapons" in accordance with a Sept. 19, 2005 statement of principles from the six-party talks and UN Security Council resolutions.

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"The IAEA report is a spur to stronger diplomatic measures in cooperation with the international community," a senior Foreign Ministry official here said.

http://english.chosun.com/site/data/html_dir/2014/09/11/2014091100931.html

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Al Jazeera America – New York, NY

Missing Radioactive Material Reignites Debate on Dirty Bomb Threat

Mysterious Kazakh shipment disappearance highlights ongoing concern that such substances might end up in wrong hands

By Peter Moskowitz

September 8, 2014

Last week authorities in Kazakhstan announced that a container holding cesium-137, a radioactive material, disappeared, possibly after falling off a truck.

Details of the incident are sparse. The Kazakh government says it is searching for the container, which weighs over 100 pounds, but would not or could not say where it came from or where it might be headed.

It's unclear how big of a threat the missing cesium poses, but experts say it highlights a growing global problem: As radioactive materials proliferate throughout the world, including in countries that don't have the resources to secure, track or find them, there's mounting fear that they could find their way into the hands of criminals and radical groups who could use them to build radioactive weapons, often referred to as dirty bombs.

"There's concern that these sources are widely spread and easily accessible," said Andrew Bienenawski, vice president of material security and minimization at the Nuclear Threat Initiative and a former top official in the U.S. National Nuclear Security Administration. "They're used in everything from oil wells to the medical industry. You have thousands of these sources around the world, and people don't realize they're a threat."

Analysts believe the radioactive material in Kazakhstan fell off a truck transporting it in the western part of the country. Tom Bielefeld, a German-based physicist and nuclear security analyst says the cesium likely came from an industrial source, possibly from a tool used in the oil industry to measure well depth. But it could also be related to Kazakhstan's decommissioned BN-350 nuclear reactor.

In either case, the cesium probably has relatively low levels of radiation compared with other sources, according to experts. But that doesn't mean its disappearance poses no threat. If even low-level radioactive sources are removed from their containers, they could pose serious threats to human health.

Bielefeld and others say regardless of the threat — or lack thereof — posed by the missing container in Kazakhstan, the incident shows that despite an increased global push to secure radioactive material, the risk it poses remains present in virtually every country on earth, including the U.S.

Radioactive materials are increasingly used in diverse industries, from oil wells to dentists' offices — and those materials go missing from with surprising regularity.

The International Atomic Energy Agency (IAEA) reported about 140 cases of missing or unauthorized uses of nuclear and radioactive materials in 2013. But it's likely that the number of cases is higher, as many cases go unreported, according to Bruce Bennett, a defense analyst at the Rand Corp.

"I don't think we have a full accounting of everything worldwide," he said. "Dentists don't have armed guards patrolling their X-ray machines, and if a dentist's office gets raided, it may not even make the news."

The vast majority of the radioactive material that goes missing isn't used in criminal activity, and the criminal use of radioactive material has been trending downward over the last decade, according to the IAEA.



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The incidents know no borders. Radioactive material has gone missing everywhere from Uzbekistan to the U.S. While experts believe the threat posed by missing radioactive material is larger in less developed countries, where governments often lack the resources to track and find the missing material, more developed countries like the U.S. are nonetheless at risk.

For example, a 2012 congressional panel found that hospitals in the U.S. were failing to secure radioactive materials used in medical procedures and not thoroughly checking the backgrounds of employees who handled the materials.

This year has seen several high-profile cases in which radioactive material was stolen: one in Mexico in July and another that month in a section of Iraq controlled by the armed group Islamic State (IS). The missing material in Iraq likely poses little threat, according to U.S. officials, but experts say IS territory may become a hot spot for stealing radioactive materials.

“A big, nasty terrorist organization in control of swaths of land including science labs and such — that’s scary,” said Matthew Bunn, a professor at Harvard University’s Belfar Center for Science and International Affairs.

Part of the fear among radioactive-material experts is that even people with little knowledge of the materials could make an incendiary device that would spread radioactive particles far and wide.

While a makeshift bomb would likely not be able to kill a large number of people, he said it could still cause substantial economic and social damage to an area. Because of that, he said it’s important to educate people about the risks of nuclear radiation.

“Most of the danger comes from the economic cost and from need to disrupt an area and evacuate people,” he said. “But educating people on the risks of radiation is very hard. People don’t pay attention until something happens.”

Governments around the world have been working on disseminating information about radiation risk and implementing better tracking systems for radioactive material. But the scale of coordination between countries required to strengthen those programs makes the process slow, he said.

The U.S. and 26 other countries still haven’t ratified a 2005 amendment that would expand a treaty meant to oversee international transport of nuclear materials to the domestic transport and storage of nuclear materials.

Without ratifying that amendment, Bunn and others say it will be hard for the U.S. to convince other countries to take the threat posed by nuclear and other radioactive materials seriously.

“The U.S. and [President Barack] Obama were trying to take the lead in securing nuclear material around the world,” Bunn said. “Yet we’re completely failing to take part in the legal instruments necessary for nuclear security. That’s really an embarrassment.”

<http://america.aljazeera.com/articles/2014/9/8/dirty-bomb-kazakhstan.html>

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The Toronto Star – Toronto, Ontario, Canada

Russia Developing New Nuclear, Conventional Weapons, Putin says

Russia is developing an array of new nuclear and conventional weapons to counter recent moves by the U.S. and NATO, President Vladimir Putin says.

By Vladimir Isachenkov, Associated Press (AP)

Wednesday, September 10, 2014

MOSCOW—Russia is developing an array of new nuclear and conventional weapons to counter recent moves by the U.S. and NATO, but will carefully weigh the costs to avoid overburdening its economy, President Vladimir Putin said Wednesday.

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Addressing a Kremlin meeting on weapons modernization plans, Putin said the West shouldn't be surprised about Moscow's efforts in view of U.S. missile defence plans and other decisions he said have threatened Russia's security.

"We have warned many times that we would have to take corresponding countermeasures to ensure our security," Putin said, adding he would take personal charge of the government commission that oversees military industries.

He said the weapons modernization program for 2016-2025 should focus on building a new array of offensive weapons to provide a "guaranteed nuclear deterrent," re-arming strategic and long-range aviation, creating an aerospace defence system and developing high-precision conventional weapons.

Putin wouldn't provide any details of prospective weapons, but he and other officials have repeatedly boasted about new Russian nuclear missiles' capability to penetrate any prospective missile shield.

Putin's emphasis on high-precision conventional weapons reflects government concerns about the U.S. and other NATO countries enjoying a significant edge in that area.

Putin said potential threats must be thoroughly analyzed, and an "adequate response" given to each of them to avoid excessive military spending.

He said that Russian defence industries must rid themselves of dependence on imports and quickly become capable of producing key components at home — a nod to recent Western sanctions against Russia barring arms sales.

Russia-West relations have plunged to their lowest point since the Cold War times over the crisis in Ukraine. A NATO summit last week decided to create a rapid-reaction "spearhead" force to protect Eastern Europe from Russian bullying.

Putin accused the West of using the crisis to reinvigorate NATO.

http://www.thestar.com/news/world/2014/09/10/russia_developing_new_nuclear_conventional_weapons_putin_says.html

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RT (Russia Today) – Moscow, Russia

'Deterrence Not Arms Race': Russia Hints it May Develop Rival to US Prompt Global Strike

September 11, 2014

A highly-placed Defense Ministry official says that Russia may be forced to match the US Conventional Prompt Global Strike (CPGS) doctrine, which prescribes that a non-nuclear US missile must be able to hit any target on Earth within one hour.

"Russia is capable of and will have to develop a similar system," Deputy Defense Minister Yuri Borisov said during a public discussion of the Russian rearmament program for the decade of 2016 through 2025.

"But mostly we will concentrate on countering CPGS, as our military doctrine is a defensive one."

But the official denied that the Kremlin was setting off for another Cold War-style arms race with the West.

"This is not in these plans, and I hope will never happen," said Borisov. *"We simply want to protect our civilian population from outside threats."*

While Prompt Global Strike is often treated as a futuristic super-weapon, it is simply a system that ensures that strike areas of existing technologies cover the entirety of the planet. The concept of CPGS was first explicitly stated in official US documents during the first George W. Bush administration, and in more than a decade on, it has gone

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through various iterations, from ones that would see kinetic weapons fired at targets on the ground from space, to hypersonic missiles, to conventional solutions of placing short and medium range missiles around the world. There is no deadline for the program's official completion, which is just as much a subject to budget constraints as other articles of the defense budget, or consistent status updates on whether its aims may have already been achieved through existing armaments.

Despite its vague remit and gradual implementation, the program has caused considerable consternation in Moscow and Beijing. A previous US study showed that up to 30 percent of enemy nuclear launchers could be taken out with conventional weapons that would form part of the CPGS. Russian officials have said that together with the missile defense system the US is deploying around the world, this could mean that the current nuclear balance could be undermined.

This was clearly on Vladimir Putin's mind when he spoke of creating new *"assault capabilities, including maintaining a guaranteed solution to the task of nuclear deterrence"* at the same Wednesday meeting.

But most experts agreed that Russia's current abilities are already sufficient to withstand CPGS, even if it lacks the same attack capabilities.

"We already have a system of swift retaliation," said Yuri Baluyevsky, former Chief of the General Staff of the Russian Armed Forces. The retired general is helping to develop the Kremlin to develop a new military doctrine by the end of the year, in the face of geopolitical changes in Ukraine, NATO's increased presence in Eastern Europe, and the NATO missile shield.

"Russia has missiles, such as the long-range, air-based X-101 strategic cruise missile, which is able to strike at distances of 5,000 kilometers (about 3,100 miles)," the president of the Academy of Geopolitical Problems, Konstantin Sivkov, told RIA news agency.

"It also has high-precision ballistic missiles that could strike ground targets, providing they had normal warheads. These are the two main elements of a rapid long-range strike, that is, it can be done now. Basically, existing long-range aviation would be sufficient."

Another expert suggested that Russia's air defense systems – which cost considerably less than launches of ballistic missiles to operate – should form the backbone of the country's response to CPGS.

"To create an adequate aerospace defense system it is important to develop interceptor systems, such as the S-500. It is capable of hitting targets not only in the air but also in near space at an altitude of 200 kilometers above the Earth, which are moving at a speed of up to 8 kilometers per second," said Igor Korotchenko, editor-in-chief of National Defense magazine.

The unveiling of CPGS has not only bred stiff resistance around the world, but also doubts at home in the US itself. A Carnegie Center study from last year said that the system held some of the same risks as a nuclear attack, and was much more likely to be used. Within the allocated 60-minute timeframe, incoming conventional missiles could be mistaken for nuclear warheads, their trajectory could be misunderstood, or they could simply hit the wrong target – all situations that may unleash a rapid response, which Russia and China, at the very least, appear to be very capable of already.

<http://rt.com/news/187092-russia-prompot-global-strike/>

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RT (Russia Today) – Moscow, Russia

Russia's Newest Borei-Class Nuclear Sub Completes Sea Trials

September 12, 2014



USAF Center for Unconventional Weapons Studies
CUWS Outreach Journal

Maxwell AFB, Alabama

Russia's third Borei-class nuclear-powered strategic submarine, Vladimir Monomakh, has finished state sea trials, the vessel's builders at Sevmash shipyard announced. The advanced vessel is virtually ready for deployment by the Navy.

Vladimir Monomakh has just returned from a trial run in the White Sea, during which the sub successfully test-fired a Bulava strategic missile.

"This is basically the last stage of the state trials. Now the submarine's mechanisms will be re-examined, finishing work completed, and spare parts, tools and accessories furnished," Mikhail Budnichenko, Sevmash CEO, is cited by Itar-Tass news agency.

According to Budnichenko, the new submarine might be officially handed over to the Russian Navy as early as December 10.

Vladimir Monomakh is the third Borei-class – or Project 955 according to the Russian disambiguation – vessel to be built by Sevmash, based at the Russian White Sea port of Severmorsk.

The fourth Borei-class submarine, Knyaz Vladimir, is currently under construction at the shipyard, while the fifth one, Knyaz Oleg, was laid down at Sevmash in July.

Knyaz Oleg will become the first of the upgraded Project 955A submarines, which will boast smaller hulls and cons as well as better acoustic characteristics and lower noisiness.

The first two Borei-class submarines, head vessel of the series Yuri Dolgoruky and Aleksandr Nevsky, joined the Russian Navy in 2013.

By 2020, the Russian Defense Ministry plans to have eight Borei-class submarines that should become the backbone of the naval component of the country's strategic nuclear deterrent.

Each Project 955 submarine, designed by the Rubin Naval Design Bureau from Saint Petersburg, can carry up to 12 Bulava intercontinental ballistic missiles. The advanced 955As are designed to be armed with 16 SLBMs.

The safety measures at the subs include a rescue chamber, which can host all 17 crew members.

A Borei-class submarine is 170 meters long and 13.5 meters wide and can dive up to 450 meters.

According to the Russian military, Project 955 are state-of-the-art submarines, featuring characteristics superior to any submarine currently in service such as the ability to cruise silently and be less detectable by sonars.

They have a compact and integrated hydrodynamically efficient hull for reduced broadband noise and are the first to use pump-jet propulsion among Russian submarines.

The Bulava missiles, which have an operational range of 10,000 kilometers, are able to carry 10 hypersonic, individually guided, maneuverable nuclear warheads with a yield of 100–150 kilotons each.

<http://rt.com/news/187216-russia-borei-submarine-bulava/>

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FARS News Agency – Tehran, Iran
Saturday, September 06, 2014

Source: No Agreement on Number of Centrifuges

TEHRAN (FNA) - Sources privy to the Iranian team of negotiators in the nuclear talks with the world powers denied the reports that Tehran might be willing to scale down the number of centrifuge machines that it wants to keep.

"No agreement has been struck over the issues which are under negotiation," a source close to the Iranian team told FNA on Saturday, rejecting a report by Al-Monitor which alleged that Iran is willing to reduce the number of its centrifuge machines to 7,000.

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Al-Monitor quoted an unnamed Iranian source as saying that Iran might be willing to scale down from 10,000 centrifuges to 7,000, which would entail a breakout period of about six months.

Much will depend on the duration of a deal and how long any restrictions on the Iranian program would remain in place, added the report.

<http://english.farsnews.com/newstext.aspx?nn=13930615001597>

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The Jordan Times – Amman, Jordan

Tehran Says it Never Agreed to August 25 Nuclear Deadline

Agence France-Presse (AFP)

September 06, 2014

VIENNA — Iran said Saturday it never agreed to a deadline to provide answers on its controversial nuclear programme, after the UN atomic watchdog accused Tehran of failing to deliver on time.

"Iran had warned the International Atomic Energy Agency (IAEA) that because of the complexity of the issues, implementing all five points by August 25 was not possible," said Behrouz Kamalvandi, spokesman of the Atomic Energy Organisation of Iran, quoted by state news agency IRNA.

"The IAEA was aware of this," he said.

"We do not have any commitment on a date... But we have always said we will try to deliver all the clarifications as soon as possible."

The Vienna-based IAEA said Friday Iran had failed to meet an August 25 deadline to provide information on five points to allay concerns it was developing nuclear weapons, something it denies.

Not answering the long-standing questions over the allegations could harm the chances of a potentially historic deal between Iran and world powers focused on Tehran's current activities.

New talks between Iran and the five permanent members of the UN Security Council plus Germany are due to resume in New York on September 18 ahead of a November 24 deadline.

The mooted deal, after a decade of rising tensions, would kill off fears that Iran might use its nuclear facilities — which it says are for peaceful purposes — to develop atomic weapons.

To do this the United States, China, Russia, Britain, France and Germany want Iran to scale back its nuclear programme in exchange for relief from painful sanctions.

Vital to the deal is the IAEA's probe into what it calls the "possible military dimensions" of Iran's atomic programme — work on developing a nuclear weapon that the watchdog suspects took place before 2003 and possibly since.

In May, Tehran agreed to exchange information on large-scale tests of explosives that could be used in a nuclear bomb and calculations on the size of a nuclear explosion.

It is these two areas that Iran has so far failed to provide answers, with the IAEA saying Friday that the two sides had merely "begun discussions".

<http://jordantimes.com/tehran-says-it-never-agreed-to-august-25-nuclear-deadline>

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The London Guardian – London, U.K.

Iranian Nuclear R&D Centre 'Visited by UN Inspectors'

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CUWS Outreach Journal

Maxwell AFB, Alabama

IAEA inspectors gained rare access to plant where centrifuges for enriching uranium are developed as part of transparency deal, reports say

By Kevin Rawlinson and agencies

Saturday, 6 September 2014

UN inspectors have gained rare access to an Iranian nuclear facility, giving them a "better understanding" of Tehran's disputed programme, it has been reported.

They observed a plant where centrifuges for enriching uranium were developed as part of a transparency deal but acknowledged that Iran remains resistant to an International Atomic Energy Agency (IAEA) investigation.

According to a confidential IAEA report obtained by Reuters, inspectors visited a research and development centre for centrifuges on 30 August. It gave neither details nor the location of the site. But such access could be crucial to helping the agency determine how far along Iran might be in developing more modern models of the machines.

Iran's efforts to replace the breakdown-prone, 1970s vintage IR-1 centrifuge it is now operating at its Natanz and Fordow enrichment plants are closely watched by the west since success could lead to more efficient equipment enabling the country to amass material that could be used for atomic bombs more quickly.

Iran says it is refining uranium to fuel a planned network of nuclear power plants. If enriched to a high concentration of the fissile U-235 isotope, uranium can also be turned into the explosive core of an atomic bomb.

"It is of importance to see the R&D to understand the full scope and status of the programme," former IAEA chief inspector Olli Heinonen, now at Harvard University's Belfer Centre for Science and International Affairs, told Reuters.

Apart from an R&D centrifuge plant at Natanz to which the IAEA already has regular access, Iran has a facility called Kalaye Electric in Tehran that the UN agency has seldom visited. Heinonen said R&D work was also done at other locations.

It is not clear when the IAEA was last able to examine an R&D site but such visits are believed to be rare. One was made in 2011 and another in 2008, though it is not known whether they were to Kalaye or some other location.

Iran denies allegations its enrichment programme is part of a covert bid to develop the capability to make nuclear weapons, but western states have imposed economic sanctions to make it scale back its atomic activities.

Friday's IAEA report, which has not yet been made public, said Iran missed a deadline on 25 August to address suspicions about activities in the past that could be relevant to any attempt to assemble nuclear bombs.

It said Iran had implemented just three of five nuclear transparency steps that it had agreed to carry out by last month's target date.

The two measures it had failed to implement concerned providing information about alleged research that is part of the IAEA's long-running investigation into what it calls the "possible military dimensions" of Iran's nuclear programme.

<http://www.theguardian.com/world/2014/sep/06/iranian-nuclear-centre-iaea-inspectors>

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FARS News Agency – Tehran, Iran
Monday, September 08, 2014

Senior Legislator: Ukrainian Nuclear Spy Hired by US to Impair Iran-Russia Ties

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TEHRAN (FNA) - A senior Iranian lawmaker said a Ukrainian spy has been arrested by the security forces at Bushehr nuclear power plant, adding that he had been hired by the US to damage the relations between Tehran and Moscow through sabotage operations.

"The espionage operations had been ordered by the US and Britain to disturb the relations between Iran and Russia on the threshold of the endorsement of a contract (with Moscow) on the construction of the second and third nuclear power plants in Bushehr," Vice-Chairman of the parliament's National Security and Foreign Policy Commission Mansour Haqiqatpour said in an interview with the parliament's news website on Monday.

Stressing that the espionage operations of the Ukrainian national needs to go under a thorough investigations, he called for the trial and punishment of the spy through cooperation with Russia and the Iranian Judiciary to prevent similar cases in future.

His remarks came after a Sunday report in the Persian-Language Hamshahri paper said that Iran's law enforcement police have detained a Ukrainian citizen, who is suspected of sabotage on the country's only nuclear power plant in Bushehr.

The "Ukrainian expert" infiltrated Bushehr being affiliated with a Russian contractor.

The report did not specify the time of the incident and the type of the sabotage acts.

<http://english.farsnews.com/newstext.aspx?nn=13930617000580>

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Xinhua News – Beijing, China

Iran Vows Not to Stand Further U.S. Sanctions

September 9, 2014

TEHRAN, Sept. 9 (Xinhua) -- Iran will no longer stand further sanctions by the United States against the interests of the country, Iran's senior nuclear negotiator Abbas Araqchi was quoted as saying by official IRNA news agency on Tuesday.

"In our (bilateral) talks with the U.S. officials, we have announced it clearly that we will not stand these measures (by the United States) any longer," Araqchi said.

Last few months, the United States imposed new sanctions on a number of Iranian individuals and entities while pledging continued work toward a comprehensive solution to the Islamic republic's controversial nuclear program.

The U.S. Treasury Department targeted the networks for their alleged support to Iran's missile and nuclear programs as well as terrorism and for helping Tehran evade the existing sanctions.

"These kinds of sanctions go contrary to the spirit of goodwill that should govern the (nuclear) talks," Araqchi said.

The Iranian official referred to the recent talks between Iran and the United States over the issues pertaining to the former's sensitive nuclear program, saying that "there is a good interaction between the sides, but it does not mean that we have solved all our existing problems."

He expressed concerns about any failure to clinch a comprehensive nuclear deal, adding that the outcome will further complicate region's problems and it will be "very dangerous."

Iran and the P5+1 group, including the five permanent UN Security Council members plus Germany, agreed on July 19 to extend the talks until Nov. 24 as disagreements remained over Tehran's uranium enrichment capacity and other issues.

http://news.xinhuanet.com/english/world/2014-09/09/c_133630444.htm

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Iran Says IAEA Nuclear Inquiry Not Stalled, Will Address Concerns

Reuters

September 10, 2014

VIENNA: Iran said on Tuesday it would still address concerns about its nuclear program, even though it missed a deadline last month for providing information about its suspected atomic bomb research.

Iran's envoy to the International Atomic Energy Agency suggested his country had not fully implemented five nuclear transparency measures by Aug. 25, as agreed with the IAEA, in part because of the "complexity" of the issues involved.

Iranian and IAEA officials would meet soon again, perhaps by the end of September, Ambassador Reza Najafi told reporters.

Western diplomats have often accused Iran of stonewalling the IAEA, but Najafi said: "There is no deadlock. We are sure we can implement that ... We are ready to complete that."

An IAEA report showed - on Friday that Iran had carried out only three of the five steps to help allay international fears about its nuclear program, which the West suspects is working to develop nuclear weapons.

Iran, which has been promising to cooperate with the IAEA since Hassan Rouhani, seen as a pragmatist, was elected president last year, says the program is peaceful.

The two issues that have not been fully addressed are alleged experiments on explosives that could be used for an atomic device, and studies related to calculating nuclear explosive yields.

A lack of progress in the IAEA probe would further complicate efforts by six world powers to negotiate a resolution to a wider, decade-old dispute with Iran and curb its nuclear work in exchange for a gradual ending of sanctions.

Western officials say Iran must address the IAEA's concerns and that, although there is no chance of the probe being completed before the scheduled end of the six-power talks, some of the sanctions relief Iran is seeking would probably depend on its cooperation with the IAEA.

It remains unclear, however, to what extent Iran must own up to any past illicit work as part of a broader diplomatic deal.

NO CHANCE OF KNOWING EVERYTHING

Some diplomats suggested the IAEA's investigation was unlikely to yield a "black-and-white" conclusion.

"I think the chances of us knowing everything are nil," one diplomat in Vienna, where the IAEA is based, said on Tuesday.

"It is highly unlikely that the Iranian authorities will open the door ... and give access to every single person and every single piece of information and every single site that the agency wants to see."

Another diplomat familiar with the Iran file said the inquiry could not go on forever, and at some point it would produce an assessment based on the information it had.

It would then be up to the IAEA board - with members including the United States, Russia and others - to decide on future action, the diplomat said. "This is not an endless process."

The IAEA report did say other transparency steps implemented by Iran - including access to some sites - had helped inspectors gain a "better understanding" of Iran's nuclear program.

Rouhani's election raised hopes of a solution to the stand-off with the West after years of tension and fears of a new Middle East war, and an interim accord was reached between Iran and the six powers in Geneva in November last year.



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But Iran and the United States, France, Germany, Britain, Russia and China did not meet a July target date for a comprehensive deal, and now face a new deadline of Nov. 24, with talks due to resume in New York this month.

"If Iran can't even meet pledges of cooperation with the IAEA, it's hard to see how it can it summon the collective political will to accept the kind of cutbacks in its nuclear program that would be necessary for a deal," said Mark Fitzpatrick, director of the non-proliferation program at the International Institute for Strategic Studies (IISS) think-tank.

<http://thehimalayantimes.com/fullNews.php?headline=Iran+says+IAEA+nuclear+inquiry+not+stalled%26sbquo%3B+will+address+concerns&NewsID=426986>

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FARS News Agency – Tehran, Iran

Friday, September 12, 2014

Senior Negotiator: Difficult Path Ahead for Iran, G5+1

TEHRAN (FNA) - Iran and the Group 5+1 (the US, Russia, China, France and Britain plus Germany) have a hard path to pave as the two sides try to reach a final comprehensive agreement on Tehran's nuclear program, Iranian Deputy Foreign Minister Seyed Abbas Araqchi said.

"We are always optimistic, but we have a difficult way to go," Araqchi, who is also a senior Iranian negotiator in the talks with the G5+1, said after a meeting with the EU3 (France, Britain and Germany) representatives in Vienna on Thursday.

"The discussions were useful, but the differences still remain," he added.

The Iranian deputy foreign minister expressed the hope that Iran and the G5+1 would make progress in their upcoming negotiations in in New York next week.

The Thursday meeting preceded a new round of nuclear negotiations between Iran and the G5+1 which is slated to be held on the sidelines of the UN General Assembly session in New York on September 18.

Last November, the two sides signed an interim deal in Geneva, which took effect on January 20 and expired six months later. In July, Iran and the six countries agreed to extend the negotiations until November 24 after they failed to reach common ground on a number of key issues.

<http://english.farsnews.com/newstext.aspx?nn=13930621000731>

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The Economic Times – India

Nuclear Capable Agni-I Missile Successfully Test-Fired at Wheeler Island

By Press Trust of India (PTI)

11 September 2014

BALASORE: India today successfully test-fired its indigenously built nuclear capable Agni-I missile, which has a strike range of 700 km, from a test range off Odisha coast as part of a user trial by the Army.

The surface-to-surface, single-stage missile, powered by solid propellants, was test-fired from a mobile launcher at about 11.11 hrs from launch pad-4 of the Integrated Test Range (ITR) at Wheeler Island, about 100 km from here, Defence Research and Development Organisation (DRDO) spokesman Ravi Kumar Gupta said.

Describing the trial as fully successful, Gupta said the ballistic missile was launched by the Strategic Forces Command (SFC) of the army as part of a training exercise.

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"The entire exercise was conducted in a perfect manner and the trial was totally successful," he said.

"The DRDO developed medium range ballistic missile from the production lot was launched as part of regular training exercise by the armed forces," said another official.

Agni-I missile has a specialised navigation system which ensures it reaches the target with a high degree of accuracy and precision.

The missile, which has already been inducted into Armed Forces has proved its excellent performance in terms of range, accuracy and lethality.

Weighing 12 tonnes, the 15-metre-long Agni-I, which can carry payloads up to 1000 kg, has already been inducted into the Indian Army.

Agni-I was developed by advanced systems laboratory, the premier missile development laboratory of the DRDO in collaboration with Defence Research Development Laboratory and Research Centre Imarat and integrated by Bharat Dynamics Limited, Hyderabad.

The last trial of the Agni-I missile was successfully carried out on April 12, 2014 from the same base. It was first trial that was launched after sunset.

<http://economictimes.indiatimes.com/news/politics-and-nation/nuclear-capable-agni-i-missile-successfully-test-fired-at-wheeler-island/articleshow/42250375.cms>

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Reuters.com – India

As Ebola Grows Out of Control, WHO Pleads for More Health Workers

** More than 2,400 dead in worst Ebola outbreak in history*

** Cuba to send 165 health workers to help in Sierra Leone*

** WHO's Chan calls for more international support*

By Kate Kelland and Tom Miles

Friday, September 12, 2014

LONDON/GENEVA, Sept 12 (Reuters) - The number of new Ebola cases in West Africa is growing faster than authorities can manage them, the World Health Organisation (WHO) said on Friday, renewing a call for health workers from around the world to go to the region to help.

As the death toll rose to more than 2,400 people out of 4,784 cases, WHO director general Margaret Chan told a news conference in Geneva the vast nature of the outbreak -- particularly in the three hardest-hit countries of Guinea, Liberia and Sierra Leone -- required a massive emergency response.

Sarah Crowe, a spokeswoman for UNICEF, said the U.N. children's agency was using innovative ways to tackle the epidemic, including telling people to "use whatever means they have, such as plastic bags, to cover themselves if they have to deal with sick members of their family".

"The Ebola treatment centres are full, there are only three in the country. Families need help in finding new ways to deal with this and deal with their loved ones and give them care without exposing themselves to this infection," she said via phone from Monrovia.

"It is quite surreal and everywhere there is a sense of this virus taking over the whole country," Crowe said. "We do not have enough partners on the ground. Many Liberians say they feel abandoned."

Survivors of the disease, who are immune to reinfection, were being used to look after thousands of children of people with suspected Ebola. About 2,000 children have lost one or both parents in Liberia alone, she said.

The key to beating the disease, said the WHO's Chan, was people power. Pledges of equipment and money are coming in, but 500-600 foreign experts and at least 1,000 local health workers are needed on the ground.

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"The number of new patients is moving far faster than the capacity to manage them. We need to surge at least three to four times to catch up with the outbreaks," Chan said.

CUBA HELPS

Cuban Health Minister Roberto Morales Ojeda, sitting alongside Chan, said his country would send 165 healthcare workers to help in the fight - the largest contingent of foreign doctors and nurses to be committed so far. However, they will arrive in October and will go to Sierra Leone, while thousands of new patients are expected in Liberia within weeks.

Chan said the real death toll is probably far higher than the latest number of 2,400.

"We are very cognizant of the fact that any number of cases and deaths that we are reporting is an underestimate." she said.

The Ebola infection rate and death toll have been particularly high among health workers, who are exposed to hundreds of highly infectious patients who can pass the virus on through body fluids such as blood and excrement.

Almost half of the 301 healthcare workers who have developed the disease have died.

Some foreign healthcare workers in West Africa, including several Americans and at least one Briton, have also been infected. Two Dutch doctors who may have been exposed to the disease in Sierra Leone are set to be evacuated.

Chan's call chimed with pleas from leading Ebola specialists, including Peter Piot, one of the scientists who first identified the Ebola virus in 1976.

Writing in the online scientific journal *Eurosurveillance* with his colleague Adam Kucharski, Piot, now director of the London School of Hygiene and Tropical Medicine, said it was hard to track an outbreak with exponential growth in case numbers.

"There are currently hundreds of new Ebola virus disease cases reported each week; with the number of infections increasing exponentially, it could soon be thousands," they said, adding that case numbers could double every fortnight.

"Fear and mistrust of health authorities has contributed to this problem, but increasingly it is also because isolation centres have reached capacity. As well as creating potential for further transmission, large numbers of untreated - and therefore unreported - cases make it difficult to measure the true spread of infection, and hence to plan and allocate resources."

The U.N. health agency has previously warned there could be as many as 20,000 cases in the region before the outbreak is brought under control.

In a glimmer of good news, the WHO said eight districts with previous Ebola cases - four in Guinea, three in Sierra Leone and one in Liberia - had reported no new cases for three weeks.

And 67 people who had contact with a person who had taken the disease to Senegal on Aug 20 had been traced, and none had so far tested positive for the disease.

The International Monetary Fund said on Thursday that economic growth in Liberia and Sierra Leone could decline by as much as 3.5 percentage points due to the outbreak, which it said has crippled their mining, agriculture and services sectors.

Writing by Tom Miles and Kate Kelland; Editing by Sonya Hepinstall

<http://in.reuters.com/article/2014/09/12/health-ebola-idINL5N0RD1DS20140912>

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China Daily USA – Beijing, China

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US Can Untie the Nuclear Knot

By Sha Zukang(China Daily USA)

September 9, 2014

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Politicians should show some vision and promote the early entry into force of the Comprehensive Nuclear Test Ban Treaty

In the early spring of 1995, I was appointed by former Chinese president Jiang Zemin as the ambassador for disarmament affairs in Geneva, and I became the chief Chinese negotiator for the Comprehensive Nuclear Test Ban Treaty. The CTBT was finally concluded in 1996. Since then, and to this day, as a member of the Group of Eminent Persons, I have been working unrelentingly for the early entry into force of the treaty.

What is the key to the treaty entering into force?

I think looking back and analyzing the history behind it can help us to find the answer.

As is well known, the United States and the Soviet Union were the major driving forces of the CTBT negotiations. In order to accelerate the process, the US forced the United Kingdom to halt its nuclear tests, supported global demonstrations against France for its nuclear testing in the South Pacific, and exerted great pressure upon China as well. If the US had followed the logic of this path, it should have become the most active country in seeking to ratify and promote the CTBT.

However, after the CTBT was concluded and the five permanent members of the UN Security Council committed themselves to the moratorium on nuclear tests, the US Senate refused to ratify the treaty, and the George W. Bush administration went even further, declaring that it wouldn't even seek ratification.

One should know that the US conducted 1,032 nuclear tests, more than half the world's total number. France conducted 210 nuclear tests, while the UK and China each conducted 45 tests. Obviously, the real intention of the US was, and is, to ensure the overwhelming superiority of its nuclear arsenal, both in quantity and quality.

Naturally, the actions of the US triggered doubts among the international community, including China. Some have asked me why the National People's Congress of China hesitates to ratify the CTBT. Personally I think it is because of US behavior. I firmly believe that, were the US to ratify the treaty, China would definitely follow.

My conviction is rooted in China's consistent approach to international security issues. As President Xi Jinping reiterated recently, China firmly pursues the path of peaceful development, hegemony or militarism is simply not in the genes of the Chinese. For the sole purpose of self-defense, China developed nuclear weapons under compulsion at a certain point in history.

Over the 50 years since it first possessed nuclear weapons, China has consistently and continually advocated and promoted the complete prohibition and thorough destruction of nuclear weapons. China's nuclear policy is in harmony with the goals and objectives of the CTBT, and its support for the CTBT will never change. In fact, the efforts and contributions made by China in promoting the entry into force of the treaty are no less than those of the ratified states.

Coming back to the present and looking forward to the future, I believe that the US holds the key that will open the door for the treaty entering into force. We should, as a priority, encourage the US to open the door, instead of staying out of a legally binding instrument.

First of all, the US should undertake its responsibility earnestly. The US has its own difficulties over ratification, which can be understood but cannot be used as an excuse. In recent years, the Barack Obama administration has made some positive commitments on ratification, but it is actions that count. Serious efforts should be made to encourage US lawmakers to change the idea of seeking absolute security at the cost of leaving all other countries feeling insecure, and then to support ratification of the treaty.

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Second, joint international efforts should be made to push the US in this direction. The international community, when promoting the entry into force of the CTBT and wider global nuclear governance, should be aware that the stance of the US on the CTBT has an adverse effect on achieving common security. Clear and strong signals in support of early ratification should be sent to the US. The UK and France, as allies of the US, can play a special and important role here.

Third, China and the US could conduct dialogues on CTBT issues. As long as the US adopts a responsible stance, the CTBT can become an important part of promoting China-US strategic mutual trust and building a new model of major-country relations.

Meanwhile, I believe, in upholding the authority of the international nuclear non-proliferation regime and dealing with regional nuclear issues, both China and the US will benefit from the moral and systemic effect brought by the entry into force of the Treaty.

The author is former United Nations under-secretary-general for the department of economic and social affairs.

http://usa.chinadaily.com.cn/epaper/2014-09/09/content_18568214.htm

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The London Daily Telegraph – London, U.K.

OPINION/Blog

The United States Should Be Nervous about the Scottish Independence Referendum

By Nile Gardiner

September 9th, 2014

Next week's referendum on Scottish independence has largely flown under the radar screen here in the United States. The cable news networks have devoted little attention so far to the issue, as the Isil threat in the Middle East continues to dominate international coverage. There has been no polling conducted on the Scottish question in the US, and it is doubtful that many Americans outside of the Washington policy bubble or the financial milieu of New York are particularly exercised by the outcome of a vote taking place over 3,000 miles away.

They should be concerned, however. What happens in Scotland will reverberate on this side of the Atlantic, and not for the better. Here are five reasons why Americans should be nervous about the outcome of next week's vote if Scotland votes for independence.

1. The Special Relationship will be undercut.

The United Kingdom is far and away America's biggest and most important ally. Anything that weakens Britain, and chips away at the Special Relationship, is a big negative for the United States. This fear has been amply expressed by dozens of members of the United States Congress, both Republican and Democrat, who are backing a resolution in the House of Representatives declaring that a "united, secure, and prosperous United Kingdom" is vital to US interests.

The Special Relationship is too powerful a partnership to be set adrift by a Scottish vote for independence, but there can be no denying that it will not be the same without the valuable contribution to the alliance made by Scottish soldiers, sailors, airmen and marines, as well as statesmen, scholars and entrepreneurs, who helped make it the global force it has been for the last seven decades.

2. Britain's nuclear deterrent will have to be moved

The UK's entire nuclear deterrent is based in Scotland, and all Britain's nuclear bases and warheads will have to be moved out of the country, a huge headache not only for London, but also for Washington. Any threat to Britain's status as a nuclear power is a matter of great concern for the United States. The Nato alliance was originally conceived as a nuclear alliance, one that has been underpinned since its founding by the American, British and (at

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times) French nuclear deterrents. Anything that undermines Britain's position as an independent nuclear power and weakens Nato is a matter of significant concern to the United States.

3. The coalition against Isil will be weakened

Britain is central to Washington's strategy of building an international coalition to confront and defeat Isil, in Iraq and Syria. The timing of the Scottish referendum could not be worse for the White House, which is depending upon Downing Street to help rally countries in Europe and the Anglosphere to contribute militarily to the air war against Isil. A defeat for the No campaign could dramatically weaken David Cameron's position, making it harder for him to move forward with British military action, especially if there is a leadership challenge within the Conservative Party. The prime minister's ability to win a vote in the House of Commons and take Britain to war again in the Middle East, would undoubtedly be called into question by defeat in the Scottish referendum.

4. US markets will take a hit

If Scotland votes for independence, expect significant turmoil not just in the City, but on Wall Street as well. 2014 has been a year of significant volatility in American stock markets, driven in part by events in Europe. Fears over the economic fallout from Scotland breaking off from the UK, will spook US markets, frighten investors, and add to an air of uncertainty exacerbated in recent months by Russia's invasion of Ukraine. Add to this the prospect of a Scottish economy set adrift from the pound, with potentially huge costs incurred in transitioning to an independent financial system, and you have every reason to fear more market turbulence.

5. An independent Scotland will be an insignificant ally to the U.S.

As part of the United Kingdom, Scotland is a valuable ally to the United States, home to Britain's independent nuclear deterrent and submarine bases, as well as several British military regiments. It is also home to important NATO early warning air defences, increasingly important in the face of Russian aggression. As an independent entity, with a meagre projected defence budget of just \$2.5 billion, significantly less than the \$4.1 billion budget of London's Metropolitan Police (hat tip: Luke Coffey), and just 15,000 members of the Armed Forces, Scotland's role as a US partner would be practically non-existent. Edinburgh would struggle to gain entry to Nato, with countries such as Spain and Italy likely to veto Scottish membership for fear of encouraging nationalist movements within their own borders.

Nile Gardiner is a Washington-based foreign affairs analyst and political commentator. A former aide to Margaret Thatcher, Gardiner has served as a foreign policy adviser to two US presidential campaigns. He appears frequently on American and British television, including Fox News Channel, BBC, and Fox Business Network.

<http://blogs.telegraph.co.uk/news/nilegardiner/100285670/the-united-states-should-be-nervous-about-the-scottish-independence-referendum/>

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Real Clear Defense.com – U.S.

OPINION/Article

How Do You Bomb a Nerve Gas Factory?

DOD Wants a Safer Bomb for Destroying WMDs

By Michael Peck

September 9, 2014

Destroying a tank with a smart bomb is easy. Destroying a factory that makes chemical weapons is not.

In fact, it's absolutely perilous. The problem isn't blowing up factories—the U.S. military is proficient enough at that. The problem is blowing up nerve gas bombs *without* triggering a catastrophe.

Saving the world from weapons of mass destruction by poisoning several square miles and killing thousands of people isn't an acceptable tradeoff.

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Disposing of WMDs through peaceful means is already difficult and dangerous. Even with the Syrian government's cooperation, it took months to safely transfer and destroy Syria's stockpile of chemical weapons in a disposal facility aboard a U.S. government ship.

But what if the WMDs are buried in, say, a North Korean chemical weapons factory that's so strongly fortified that only a powerful missile can destroy it? Experts say there's really no safe way to accomplish this.

That's why the Defense Threat Reduction Agency—the Pentagon organization that works to counter WMDs—is looking for weapons that can safely destroy them without also releasing a toxic cloud.

DTRA says current weapons “have typically focused on the integration of thermal or reactive formulations with traditional high explosive fills to neutralize CBW [chemical and biological warfare] airborne agents inside target structures prior to venting.”

But incorporating chemical neutralizing agents into a bunker-buster bomb still leaves the risk that toxic substances will escape.

The agency also notes that chemical plumes resulting from the destruction of storage facilities are extremely hard to measure, thus “limiting confidence in weapon performance.” In other words, even if the U.S. successfully bombs an anthrax storage facility, the military could have trouble tracking any lethal gases that escape.

Not surprisingly, the Pentagon wants a weapon that doesn't just go boom. It should have “zero to minimal amounts of high explosive” that result in “near-zero blast and overpressures.”

As usual for such a cutting-edge Pentagon wish list, there isn't any mention of just *what* technology might destroy a mustard gas bomb in a fortified bunker while also guaranteeing that that the mustard gas won't escape.

Interestingly, the DTRA proposal speaks of denying access to WMDs by preventing anyone from removing or using them for days or weeks. This suggests that if the U.S. military can't destroy WMDs, it at least wants to make sure that they can't be spirited away to another hiding place.

Or, that some terrorist group like Islamic State doesn't get its hands on them.

Michael Peck is a defense writer, avid gamer and history buff. He is currently a contributing editor for Foreign Policy Magazine, a writer for the War is Boring defense blog and of course a contributor at Forbes.

http://www.realcleardefense.com/articles/2014/09/09/how_do_you_bomb_a_nerve_gas_factory_107424.html

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ITAR-TASS News Agency – Moscow, Russia
OPINION

Russia Has Capability to Respond to US Concept of Prompt Global Strike

By Tamara Zamyatina
September 11, 2014

MOSCOW, September 11. /ITAR-TASS/. Russia has capability for an appropriate response to the US concept of the Prompt Global Strike, military experts said in an opinion round-up organized by ITAR-TASS.

Development of a state program for armaments for the years 2016-2025 was discussed on Wednesday at a conference chaired by President Vladimir Putin, who said the US was promulgating a so-called theory of the global incapacitating strike and this meant many new threats were emerging.

Russia's Deputy Minister of Defense said Russia could set up its own system of a global instantaneous strike but it would proceed from a concept of Armed Forces Development based on defense. “Russia can do it and will be compelled to do it,” one of the experts said.

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The US has not only designed a program for delivering prompt global strikes, the concept of which was endorsed by George W. Bush back in 2003. Now Washington is boosting it, believes Colonel-General Leonid Ivashov, Ret., the president of the International Center for Geopolitical Problems.

“The Russian community of military experts was issuing signals of alarm back then in the connection with the challenge that had been thrown to us,” said Gen Ivashov who was the head of the Defense Ministry’s department for international military cooperation.

“The Prompt Global Strike is an initiative of the US Armed Forces that aims to develop a system enabling Washington to deliver a strike with the aid of conventional weapons in any part of the planet within a period of just one hour,” he went on. “Such strikes will be effectuated by several thousand cruise missiles capable of eliminating up to 70% of the Russian nukes.”

“The US plans to unfold a system of anti-missile missiles so as to intercept the remaining Russian missiles in the boost phase, in the flying-by space phase, in the orbital path and then to destroy them by ground-based and sea-based armaments,” Gen Ivashov said.

“In these conditions, Russia’s potential of nuclear missiles stops being the guarantor of our national security,” he said.

The threat this doctrine poses consists in the fact it furnishes the Pentagon with an ability to neutralize Russia’s nuclear potential and to inflict an irreparable damage to military facilities, industries and activities of the countries friendly to Russia,” Dr. Konstantin Sivkov, the President of the Academy of Geopolitical Problems, told IITAR-TASS.

“Russia is capable of creating a system similar to the American Prompt Global Strike,” he said. “We also have strategic cruise missiles in our non-nuclear arsenal, among them the missiles for Kalibr family submarines and air-based missiles X-555.”

“New air-based non-nuclear cruise missiles X-101 have been entered in the tales of equipment,” Dr. Sivkov said. “Their physical and operational characteristics are on a par with the American missiles and some characteristics, like the effective range of fire, are superior.”

The expert cited the precise data saying, the X-555 missiles could hit targets at a distance of about 2,000km, while the X-101 missiles had a range of over 5,000 km and a prospect for extending it to 10,000 km.

Dr. Sivkov indicated that a Tupolev-160 strategic bomber could take up to twelve missiles of this kind aboard and a Tupolev-95 MS bomber - up to eight missiles.

The combat load of the Tupolev-22M3 allowed it to take four cruise missiles aboard and some 32 sea-based missiles could be installed on Yasen submarines.

“This means Russia has quite up-to-date samples of strategic non-nuclear armaments and it can design a global strike system of its own in the coming few year - a system parallel to the American one.”

“Analysis of the military threats this country is faced with shows it would be reasonable to vest the following tasks in the Russian system of this type,” Dr. Sivkov said. “First is strategic nuclear deterrence compound with a threat of inflicting unacceptable damage to a potential aggressor.”

“Number two, it should disorganize and destroy terrorist organizations and other multinational criminal entities, which endanger the national security of Russia and its allies,” he said. “Number three is to suppress various facilities by way of supporting the operations of multinational forces carried out under UN mandates.”

Tamara Zamyatina is the author of 230 articles and opinion pieces for the IITAR-TASS News Agency.

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Forbes.com
OPINION/Article

The Biggest Threat Dirty Bombs Pose is Panic

By Scott Stewart
September 11, 2014

The government of Kazakhstan announced Sept. 2 that it was searching for a container of radioactive cesium-137 that fell off a truck in the western part of the country. Such radioactive sources are commonly used for medical, commercial and industrial purposes, and from time to time are reported lost or stolen. The material was recovered, but the incident highlighted the risks of radioactive material falling into the wrong hands.

Occasionally, the loss or theft of a radioactive source will result in an accidental dispersal of radioactive material. For example, in 1987, a small radiotherapy capsule of cesium chloride salt was accidentally broken open in Goiania, Brazil, after being salvaged from a radiation therapy machine at an abandoned health care facility. Over the course of 15 days, the capsule containing the radioisotope was handled by a number of people who were fascinated by the faint blue glow it emitted. Some victims reportedly smeared the substance on their bodies. These people then further spread the radiation to various parts of the surrounding neighborhood, and some of it was even taken to nearby towns. In all, more than 1,000 people were contaminated during the incident, and some 244 were found to have significant radioactive material in or on their bodies.

In another case, this time in a slum outside New Delhi, India, eight people were admitted to hospitals in 2010 for radiation exposure after a scrap dealer dismantled an object containing cobalt-60. The cleanup operation was easier in the Indian incident because, unlike the cesium in Goiania, the radioactive material was in metallic form and in larger pieces.

Stolen radioactive material is sometimes released accidentally, but it could also be used to make dirty bombs or other radiological dispersal devices intended to cause harm. However, this threat is sometimes dramatically hyped, creating unnecessary fear and panic.

Even if the radioactive source lost in Kazakhstan had fallen into the wrong hands, it is highly unlikely that it could have been transported to the United States or Europe for an attack. Nevertheless, this is a good opportunity to once again place the threats — and very real limits — of dirty bombs in perspective.

Radiological Dispersal Devices

A dirty bomb is a type of radiological dispersal device (RDD), and RDDs are, as the name implies, devices that disperse a radiological isotope. Depending on the motives of those planning the attack, an RDD could be a low-key weapon that surreptitiously releases aerosolized radioactive material, one that dumps out a finely powdered radioactive material or something that dissolves a radioactive material in water. Such methods are intended to slowly expose as many people as possible to the radiation for as long as possible without becoming detected. Unless large amounts of a very strong radioactive material are used, however, the effects of such exposure are limited. To cause adverse effects, radiation exposure must occur either in a very high dose over a short period of time or in smaller doses sustained over a longer period. This is not to say that radiation is not dangerous, but only that small amounts of radiation exposure do not necessarily cause measurable harm. In fact, people are commonly exposed to heightened levels of radiation during activities such as air travel and mountain climbing.

By their very nature, RDDs are prone to be ineffective. To maximize the harmful effects of radiation, victims must be exposed to the highest possible concentration of a radioisotope. But by definition and design, RDDs dilute the radiation source, spreading smaller amounts of the substance over a larger area. Additionally, the use of an explosion to spread the radioisotope alerts the intended victims, who can then evacuate the affected area and be decontaminated. These factors make it very difficult for an attacker to administer a deadly dose of radiation through a dirty bomb.



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It is important to note that a dirty bomb is not a nuclear device, and no nuclear reaction occurs. A dirty bomb will not produce an effect like the nuclear devices dropped on Hiroshima or Nagasaki. A dirty bomb is quite simply an RDD that uses explosives to disperse a radioactive isotope; the only blast effect or damage produced is from conventional explosives and not from the radioactive material itself. In a dirty bomb attack, radioactive material is spread in an obvious manner, causing mass panic. In other words, the RDD is a weapon intended to create fear and terror.

The radioisotopes that can be used to construct an RDD are fairly common. Those materials considered most likely to be used in an RDD, such as cobalt-60 and cesium-137, have legitimate medical, commercial and industrial uses. Organizations such as the International Atomic Energy Agency warn that such radioisotopes are readily available to virtually any country in the world, and they are almost certainly not beyond the reach of even moderately capable non-state actors. Indeed, given the ease of obtaining radiological isotopes and the simplicity of constructing a dirty bomb, it is surprising that we have not yet seen one successfully used in a terror attack, especially considering jihadist groups in Iraq, Syria and Libya have captured cities that likely contain radioactive sources. In light of this, let's examine what effectively employing a dirty bomb would entail.

Creating An Effective Dirty Bomb

Like nonexplosive RDDs, unless a dirty bomb contains a large amount of very strong radioactive material, the radiological effects of the device are not likely to be immediate or dramatic. In fact, the explosive effect of the RDD is likely to kill more people than the device's radiological effect. Moreover, the need for a large quantity of a radioisotope not only creates challenges for obtaining the material but also means the resulting device would be large and unwieldy — and therefore difficult to smuggle into a target such as a subway or stadium.

In practical terms, a dirty bomb can produce a wide range of effects depending on the size of the improvised explosive device (IED) and the amount and type of radioactive material involved. (Powdered radioisotopes are easier to disperse than materials in solid form.) Environmental factors such as terrain, weather conditions and population density also play an important role in determining the effects of such a device.

Significantly, while the radiological effects of a dirty bomb may not be instantly lethal, the radiological impact of an RDD would likely affect an area larger than the kill radius of the IED itself and persist far longer. The explosion from a conventional IED is over in an instant, but radiation released by an RDD can remain for decades unless the area is decontaminated. While the radiation level may not be strong enough to affect people exposed briefly during the initial explosion, the cumulative effects of such radiation could prove very hazardous. Again, the area contaminated and the ease of decontamination depends on the type and quantity of the radioactive material used. Materials in a fine powdered form are easier to disperse and harder to clean up than solid blocks of material. In any case, it would be necessary to evacuate people from the contaminated area, and people would need to stay out of the area until it could be decontaminated, a process that could prove inconvenient and expensive.

Though dirty bombs are not truly weapons of mass destruction like nuclear devices are, they are frequently referred to as "weapons of mass disruption" or "weapons of mass dislocation" because they can temporarily render areas uninhabitable. The expense of decontaminating a large, densely populated area, such as a section of London or Washington, would be quite high. This cost also makes a dirty bomb a type of economic weapon.

Historical Precedents

The world has not yet witnessed a successful dirty bomb attack by a terrorist or militant group. This does not necessarily mean groups are not interested in using radiological weapons. Chechen militants have perhaps been the most active in the realm of radioactive materials. In November 1995, Chechen militants under the command of Shamil Basayev placed a small quantity of cesium-137 in Moscow's Izmaylovsky Park. Rather than disperse the material, however, the Chechens used the material as a psychological weapon by directing a TV news crew to the location, thus creating a media storm and fostering public fear. It is believed the material in this incident was obtained from a nuclear waste or isotope storage facility in the Chechen capital of Grozny.

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In December 1998, the pro-Russian Chechen Security Service announced it had found a dirty bomb consisting of a land mine combined with radioactive materials next to a railway line frequently used to transport Russian troops. It is believed that Chechen militants planted the device. In September 1999, two Chechen militants who stole highly radioactive materials from a chemical plant in Grozny were incapacitated after carrying the container for only a few minutes each; one reportedly died later. This highlights another hurdle to producing an effective dirty bomb: The strongest radioactive material is dangerous to handle, and even a suicide operative might not be able to move and employ it without being disabled first.

Still, none of these Chechen incidents provide a clear example of what a dirty bomb detonation would actually look like. To do this, we need to look at incidents where radiological isotopes were dispersed by accident, such as the Goiania and New Delhi incidents mentioned above. Despite widespread contamination and sustained exposure to the radioactive material in the Goiania case, only four people died from the incident. However, in addition to the human toll, the cleanup operation in Goiania cost more than \$100 million. Many houses had to be razed and substantial quantities of contaminated soil had to be removed from the area.

Perhaps the largest radiological dispersal incident in history was the 1986 Chernobyl nuclear disaster in northern Ukraine, in which a 1-gigawatt power reactor exploded. It is estimated that more than one hundred times the radiation of the Hiroshima bomb was released during the accident — the equivalent of 50 million to 250 million grams of radium (55 to 275 tons). More than 40 different radioisotopes were released, and there was a measurable rise in cesium-137 levels across the entire European continent. No RDD could ever aspire to anything close to such an effect.

Chernobyl wrought untold suffering, and estimates suggest that it may ultimately contribute to the deaths of 9,000 people. But many of those affected by the radiation are still alive more than 20 years after the accident. While Stratfor by no means seeks to downplay the tragic human or environmental consequences of this disaster, the incident is helpful when contemplating the potential effects of a dirty bomb attack. Despite the incredible amounts of radioactive material released at Chernobyl, only 31 people died in the explosion and its immediate aftermath. Today, 5.5 million people live in the contaminated zone. Many are within or near the specified EU dosage limits for people living close to operational nuclear power plants.

It is this type of historic example that makes us so skeptical of claims that a small dirty bomb could cause hundreds or even thousands of deaths. Instead, the most strategic consequences of this sort of destruction are economic. By some estimates, the Chernobyl disaster will ultimately cost well in excess of \$100 billion. Again, in our opinion, a dirty bomb should be considered a weapon of disruption — one that could cause significant economic loss but that would not cause mass casualties or any real mass destruction.

Fighting Panic

Analytically, based on how easily dirty bombs can be manufactured and the historical interest militants have shown in them — which ironically, may be partly caused by the hype around the RDD threat — it is only a matter of time before militants successfully employ one. Because the contamination created by such a device can be long-lasting, more rational international actors would probably prefer to detonate such a device against a target outside their own country. In other words, they would lean toward attacking a target within the United States or Europe rather than against an American or European embassy in their home country.

Considering that it is not likely to produce mass casualties, a dirty bomb attack would likely be directed against a highly symbolic target, such as one representing the economy or government of a Western nation, and would be designed to cause the maximum amount of disruption at the target site. The device would not destroy these sites but would limit access to them for as long as it took to decontaminate them.

As noted above, we believe it is possible the panic created by a dirty bomb attack could well kill more people than the device itself. This analysis is necessary because people who understand the limitations of dirty bombs are less likely to panic than those who do not. An important way to avoid panic is to carefully think about such an incident before it happens and to craft a contingency plan for your family and business. Contingency plans are especially important for those who work in close proximity to a potential dirty bomb target, but they are useful in any

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disaster, whether natural or man-made, and are something that should be practiced by all families and businesses. Such knowledge and planning will enable individuals to conduct an orderly and methodical evacuation of an affected area, allowing them to minimize their exposure to radioactivity while also limiting their risk of injury or death due to mass hysteria. Although a dirty bomb attack could well be messy and disruptive, it does not have to be deadly.

Scott Stewart is the Stratfor Global Intelligence VP of Tactical Analysis. He supervises Stratfor's analysis of terrorism and security issues. Before joining Stratfor, he was a special agent with the U.S. State Department for 10 years and was involved in hundreds of terrorism investigations.

<http://www.forbes.com/sites/stratfor/2014/09/11/the-biggest-threat-dirty-bombs-pose-is-panic/>

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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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