



**USAF COUNTERPROLIFERATION CENTER**  
**CPC OUTREACH JOURNAL**  
MAXWELL AFB, ALABAMA

**Issue No. 1035, 30 November 2012**

Articles & Other Documents:

**Featured Article:** [K-15 Test Off Andhra Coast Next Month](#)

1. [Middle East Nuclear Talks Cancelled, US Says](#)
2. [Iran to Set Preconditions for Talks with US: MP](#)
3. [Iran Ready for Nuclear Talks with P5+1: Lawmaker](#)
4. [AP Exclusive: Graph Suggests Iran Working on Bomb](#)
5. [Iran: Uranium Enrichment to be Speeded Up](#)
6. [U.S. Gives Iran until March to Cooperate with IAEA](#)
7. [N. Korea Reiterates Plan to Continue 'Peaceful Satellite Launch'](#)
8. [U.S. Warns of Possible N. Korean Missile Launch](#)
9. [Burma Denies Nuclear Plan amid Japanese Claims](#)
10. [Satellite Images Hint at North Korean Missile Test](#)
11. [South Korea Cancels Rocket Launch amid Speculation North Korea Readying Launch of its Own](#)
12. [North Korea Pushing Ahead with New Nuclear Reactor: IAEA](#)
13. [Sources: North Korea Replaces Defense Minister](#)
14. [Satellite Shows North Korean Missile Prep](#)
15. [India Proves Capability of Missile Defence System](#)
16. [Brit MP and Ex-Defence Minister Wants 'Neutron Bomb' Exploded in Pak Border](#)
17. [K-15 Test Off Andhra Coast Next Month](#)
18. [Pak Test-Fires Nuclear-Capable Ballistic Missile Hatf-V](#)
19. [Father of Pakistan's Nuclear Weapons Program becomes Office Seeker](#)
20. [Gaddafi Offered Kazakhstan Billions for 'Muslim Atom Bombs' - UN Official](#)
21. [Russia Ramps Up NATO Shield Demands](#)
22. [Russian Defense Ministry to Develop Global Intelligence System in 2013](#)
23. [Ministers Neglecting Nuclear Security in Scottish Independence Row, MPs Warn](#)
24. [Drill Reveals U.S. Antimissile Shortcomings](#)
25. [NNSA Completes Major Computing Upgrade for Faster Predictions at National Atmospheric Release Advisory Center](#)
26. [Editorial: Axing NNSA Should Be Among Options](#)
27. [Nuclear Arms Control Will Become Harder](#)
28. [Searching for Cyber-Deterrence](#)
29. [Iron Dome and U.S. Takeaways for Missile Defense](#)
30. [DIY Graphic Design](#)
31. [The Problem From Hell: South Asia's Arms Race](#)
32. [Myanmar Must Come Clean On Nuclear Issues](#)
33. [Alarming Evidence Points at Iran Nuclear Bomb Effort](#)
34. [Will Russia Stop the Next START?](#)

*Welcome to the CPC Outreach Journal. As part of USAF Counterproliferation Center's mission to counter weapons of mass destruction through education and research, we're providing our government and civilian community a source for timely counterproliferation information. This information includes articles, papers and other documents addressing issues pertinent to US military response options for dealing with chemical, biological, radiological, and nuclear (CBRN) threats and countermeasures. It's our hope this information resource will help enhance your counterproliferation issue awareness.*

Established in 1998, the USAF/CPC provides education and research to present and future leaders of the Air Force, as well as to members of other branches of the armed services and Department of Defense. Our purpose is to help those agencies better prepare to counter the threat from weapons of mass destruction. Please feel free to visit our web site at <http://cpc.au.af.mil/> for in-depth information and specific points of contact. The following articles, papers or documents do not necessarily reflect official endorsement of the United States Air Force, Department of Defense, or other US government agencies. Reproduction for private use or commercial gain is subject to original copyright restrictions. All rights are reserved.

**Issue No.1035, 30 November 2012**

The following articles, papers or documents do not necessarily reflect official endorsement of the United States Air Force, Department of Defense, or other US government agencies. Reproduction for private use or commercial gain is subject to original copyright restrictions. All rights are reserved.



USAF COUNTERPROLIFERATION CENTER  
**CPC OUTREACH JOURNAL**  
MAXWELL AFB, ALABAMA

Gulf News – U.A.E.

## Middle East Nuclear Talks Cancelled, US Says

*Development likely to anger Arab states but please Israel*

By Reuters

November 24, 2012

Washington: Talks planned for next month on banning nuclear weapons in the Middle East will not take place, the US said on Friday, a development likely to anger Arab states but please Israel.

The State Department announced that the mid-December conference on creating a zone free of weapons of mass destruction, or WMD, would not occur and did not make clear when, or whether, it would take place.

Earlier this month, diplomats said that the talks were likely to be postponed, rather than cancelled outright.

“As a co-sponsor of the proposed conference ... the United States regrets to announce that the conference cannot be convened because of present conditions in the Middle East and the fact that states in the region have not reached an agreement on acceptable conditions for a conference,” State Department spokeswoman Victoria Nuland said in a statement.

Nuland said that “a deep conceptual gap persists in the region” on how to handle regional security and arms control, adding that “outside states cannot impose a process on the region any more than they can dictate an outcome.”

The plan for a meeting to lay the groundwork for the possible creation of a WMD-free Middle East was agreed to at a May 2010 conference of 189 parties to the 1970 nuclear Non-Proliferation Treaty, or NPT.

The US, feared the conference, which was to be held in Finland, could be used as a forum to bash Israel, a concern likely to have increased after eight days of fierce Israeli-Palestinian fighting that ended with a ceasefire on Wednesday.

Iran and Arab states often say Israel’s presumed nuclear arsenal poses a threat to Middle East peace and security. Israel and Western powers see Iran as the main nuclear proliferation threat. Tehran denies any atom bomb ambitions.

The State Department said it would keep working to try to bring about a meeting, adding such a gathering must take into account the security of all the states in the region and operate on the basis of consensus — effectively guaranteeing Israel, and everyone else, a veto.

“We would not support a conference in which any regional state would be subject to pressure or isolation,” Nuland said, in a clear reference to US concerns that other participants might gang up on Israel.

US and Israeli officials have said a nuclear arms-free zone in the Middle East could not be a reality until there was broad Arab-Israeli peace and Iran curbed its nuclear programme.

Like nuclear-armed India and Pakistan, Israel has never signed the NPT. It neither confirms nor denies having nuclear arms, although non-proliferation and security analysts believe it has several hundred atomic weapons.

Even if the talks eventually occur, Western diplomats and others expect little progress any time soon due to the deep-rooted animosities in the region, notably the Arab-Israeli conflict and Israeli concerns about Iran’s nuclear programme.

The Islamic state is in a stand-off with world powers that suspect it is seeking the means to produce nuclear arms. Israel has not ruled out military action against Iranian nuclear sites.

<http://gulfnews.com/news/region/iran/middle-east-nuclear-talks-cancelled-us-says-1.1109423>

[\(Return to Articles and Documents List\)](#)

Press TV – Iran

## Iran to Set Preconditions for Talks with US: MP

**Issue No. 1035, 30 November 2012**

United States Air Force Counterproliferation Research & Education | Maxwell AFB, Montgomery AL  
Phone: 334.953.7538 | Fax: 334.953.7530



Saturday, November 24, 2012

A member of Iran's Majlis says the Islamic Republic will set preconditions for negotiations with the United States, saying Tehran will hold talks with Washington only on an equal footing.

"For negotiations, both sides should be in an equal position," Hossein Nejabat said on Friday.

As long as the issue of tightening the sanctions against the Iranian nation is being raised, one cannot expect Tehran to sit at the negotiating table with Washington, he added.

At the beginning of 2012, the US and the European Union imposed new sanctions on Iran's oil and financial sectors with the goal of preventing other countries from purchasing Iranian oil and conducting transactions with the Central Bank of Iran.

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

Iran refutes the allegation and argues that as a signatory to the nuclear Non-Proliferation Treaty and a member of the International Atomic Energy Agency, it is entitled to develop and acquire nuclear technology for peaceful purposes.

Nejabat said "the US should first build confidence," adding that Washington must also take a practical step to prepare the ground for talks.

*The Iranian lawmaker pointed to US media reports about the possibility of US-Iran direct talks before the presidential election on November 6, saying that such claims are merely "journalistic remarks."*

He stressed the importance of determining the purpose and level of talks between Iran and the US in order for the issue to be considered seriously.

Analysts believe that the US has blocked the possibility of holding logical negotiations with Iran by imposing illegal and inhumane sanctions against the Islamic Republic.

On November 9, Obama extended the state of emergency order against Iran for another one year as American lawmakers plan to impose a set of new sanctions against Tehran over its nuclear energy program.

<http://www.presstv.com/detail/2012/11/24/274250/iran-to-set-preconditions-for-us-talks/>

[\(Return to Articles and Documents List\)](#)

Xinhua News – China

## **Iran Ready for Nuclear Talks with P5+1: Lawmaker**

November 26, 2012

TEHRAN, Nov. 26 (Xinhua) -- An Iranian lawmaker has reiterated the Islamic republic's readiness for the talks with the world powers over the country's controversial nuclear program, local media reported Monday.

Hossein Sobhaninia, a member of the presiding board of Iran's Majlis (parliament), said Monday that holding talks with UN Security Council's five permanent members -- the United States, Britain, China, France and Russia -- plus Germany, known as P5+1, can be beneficial to both sides, according to Press TV.

"The Islamic republic has always welcomed negotiations and considers them to be useful because the continuation of talks can certainly have positive points for both sides and remove ambiguities," Sobhaninia was quoted as saying.

"Up to this stage, we have addressed all questions and ambiguities, but we feel that the Westerners are not seeking full clarity on, or the resolution of, the issue and seek to prolong the issue and ratcheting up pressure (against Iran) under different pretexts," he said.



The Islamic republic would not give up its right to the enrichment of uranium during the talks with the P5+1, he said, adding that "the issue of enrichment is one of our red lines and negotiations do not mean that we would back down from enrichment."

A spokesperson of the European Union (EU) said Wednesday that the world powers are committed to holding a new round of talks with Iran "as soon as possible."

A meeting of representatives from the P5+1 was held in Brussels on Wednesday, chaired by EU foreign policy chief Catherine Ashton.

"The P5+1 remain united in their efforts to seek a diplomatic solution to the Iranian nuclear issue," said Ashton's spokesperson, adding that "necessary contact will be made in the coming days."

The EU is sticking to its dual-track approach, which combines sanctions with political negotiations, towards the resolution of the Iranian nuclear issue.

[http://news.xinhuanet.com/english/world/2012-11/26/c\\_132000257.htm](http://news.xinhuanet.com/english/world/2012-11/26/c_132000257.htm)

[\(Return to Articles and Documents List\)](#)

U.S. News & World Report

## **AP Exclusive: Graph Suggests Iran Working on Bomb**

November 27, 2012

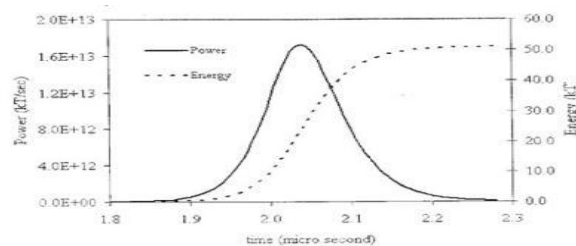
By GEORGE JAHN, Associated Press

VIENNA (AP) — Iranian scientists have run computer simulations for a nuclear weapon that would produce more than triple the explosive force of the World War II bomb that destroyed Hiroshima, according to a diagram obtained by The Associated Press.

The diagram was leaked by officials from a country critical of Iran's atomic program to bolster their arguments that Iran's nuclear program must be halted before it produces a weapon. The officials provided the diagram only on condition that they and their country not be named.

The International Atomic Energy Agency — the Vienna-based U.N. nuclear watchdog — reported last year that it had obtained diagrams indicating that Iran was calculating the "nuclear explosive yield" of potential weapons. A senior diplomat who is considered neutral on the issue confirmed that the graph obtained by the AP was indeed one of those cited by the IAEA in that report. He spoke only on condition of anonymity because he was not authorized to discuss the issue.

The IAEA report mentioning the diagrams last year did not give details of what they showed. But the diagram seen by the AP shows a bell curve — with variables of time in micro-seconds, and power and energy both in kilotons — the traditional measurement of the energy output, and hence the destructive power of nuclear weapons. The curve peaks at just above 50 kilotons at around 2 microseconds, reflecting the full force of the weapon being modeled.



شکل (5) تغییرات توان و انرژی آزاد شده بر حسب زمان طی پالس توان



The bomb that the United States dropped on Hiroshima in Japan during World War II, in comparison, had a force of about 15 kilotons. Modern nuclear weapons have yields hundreds of times higher than that.

The diagram has a caption in Farsi: "Changes in output and in energy released as a function of time through power pulse." The number "5" is part of the title, suggesting it is part of a series.

David Albright, whose Institute for Science and International Security is used by the U.S. government as a go-to source on Iran's nuclear program, said the diagram looks genuine but seems to be designed more "to understand the process" than as part of a blueprint for an actual weapon in the making.

"The yield is too big," Albright said, noting that North Korea's first tests of a nuclear weapon were only a few kilotons. Because the graph appears to be only one in a series, others might show lower yields, closer to what a test explosion might produce, he said.

The senior diplomat said the diagram was part of a series of Iranian computer-generated models provided to the IAEA by the intelligence services of member nations for use in its investigations of suspicions that Iran is trying to produce a nuclear weapon. Iran denies any interest in such a weapon and has accused the United States and Israel of fabricating evidence that suggests it is trying to build a bomb.

Asked about the project, Iran's chief IAEA delegate, Ali Asghar Soltanieh, said he had not heard of it. IAEA spokeswoman Gill Tudor said the agency had no comment.

Iran has refused to halt uranium enrichment, despite offers of reactor fuel from abroad, saying it is producing nuclear fuel for civilian uses. It has refused for years to cooperate with the U.N. nuclear agency's efforts to investigate its program.

Iran's critics fear it could use the enriched uranium for military purposes. Such concerns grew this month when the IAEA said Iran is poised to double its output of higher-enriched uranium at its fortified underground facility — a development that could put Tehran within months of being able to make the core of a nuclear warhead.

In reporting on the existence of the diagrams last year, the IAEA said it had obtained them from two member nations that it did not identify. Other diplomats have said that Israel and the United States — the countries most concerned about Iran's nuclear program — have supplied the bulk of intelligence being used by the IAEA in its investigation.

"The application of such studies to anything other than a nuclear explosive is unclear to the agency," the IAEA said at the time.

The models were allegedly created in 2008 and 2009 — well after 2003, the year that the United States said Tehran had suspended such work in any meaningful way. That date has been questioned by Britain, France, Germany and Israel, and the IAEA now believes that — while Iran shut down some of its work back then — other tests and experiments continue today.

With both the IAEA probe and international attempts to engage Iran stalled, there are fears that Israel may opt to strike at Tehran's nuclear program. The Jewish state insists it will not tolerate an Iran armed with nuclear arms.

An intelligence summary provided with the drawing linked it to other alleged nuclear weapons work — significant because it would indicate that Iran is working not on isolated experiments, but rather on a single program aimed at mastering all aspects of nuclear arms development.

The IAEA suspects that Iran has conducted live tests of conventional explosives that could be used to detonate a nuclear weapon at Parchin, a sprawling military base southeast of Tehran. The intelligence summary provided to the AP said data gained from those tests fed the model plotted in the diagram. Iran has repeatedly turned down IAEA requests to visit the site, which the agency fears is undergoing a major cleanup meant to eliminate any traces of such experiments.



The intelligence summary named nuclear scientists Mohsen Fakhrizadeh, Majid Shahriari and Fereidoun Abbasi as key players in developing the computer diagrams, adding that Shahriari and Abbasi were also involved in the Parchin testing.

Iran has for years rebuffed IAEA attempts to question Fakhrizadeh for his suspected involvement in secret programs. Shahriari was assassinated in 2010 by what Iran says were Israeli agents. Abbasi, now the head of Iran's nuclear agency, was wounded in a separate assassination attempt the same day that Shahriari was killed.

The senior diplomat, who is familiar with the Iran probe, said the agency has not yet determined any connection between Parchin and the computer models. But Olli Heinonen, who headed the IAEA's Iran investigation until 2010, said using the results of the alleged Parchin tests would "make sense as part of the design and testing of a (computer) model."

<http://www.usnews.com/news/world/articles/2012/11/27/ap-exclusive-graph-suggests-iran-working-on-bomb>

[\(Return to Articles and Documents List\)](#)

Atlanta Journal-Constitution  
Wednesday, November 28, 2012

## Iran: Uranium Enrichment to be Speeded Up

By ALI AKBAR DAREINI, Associated Press

TEHRAN, Iran — Iran will step up its uranium enrichment program by sharply increasing the number of centrifuges used to make nuclear fuel, a senior official said Wednesday, in direct defiance of Western demands.

The statement by Iran's nuclear chief, Fereidoun Abbasi, is likely to escalate tensions. The West suspects Iran's nuclear program could be headed toward weapons production and has imposed punishing sanctions to try to persuade Tehran to stop enrichment.

Iran has denied the charges, saying its program is peaceful and geared toward generating electricity and producing radioisotopes to treat cancer patients.

Uranium enriched to a low level is used to produce nuclear fuel for reactors, but high level enrichment would make it suitable for use in atomic warheads.

Abbasi said Iran is making nuclear advances in the face of the severe economic measures imposed by the U.N. and the West.

"Despite sanctions, we will most likely see a substantial increase in the number of centrifuge machines this year. We will continue enrichment with intensity," Abbasi was quoted by state TV as saying Wednesday. The Iranian calendar year ends on March 20.

Abbasi did not say if Iran's stepped up work would be at the five percent fuel level or the higher 20 percent quality, which has worried the West because it can be purified to weapons grade more quickly. There have been indications that Iran may push its enrichment even higher than the 20 percent acknowledged to U.N. nuclear watchdogs.

His remarks came days after the U.N. agency said Iran is about to double its output of higher enriched uranium at its fortified Fordo underground facility. That could move Iran closer to weapons capability.

A Nov. 8 report by the International Atomic Energy Agency said Iran has installed about 2,800 centrifuges at Fordo and is poised to double the number of operating centrifuges, from the current 700 to nearly 1,400.

Iran says it needs 20 percent enriched uranium to make fuel for a medical research reactor in Tehran that produces isotopes for about 1 million patients annually.



**USAF COUNTERPROLIFERATION CENTER**  
**CPC OUTREACH JOURNAL**  
MAXWELL AFB, ALABAMA

Abbasi also said Iran will soon conduct a test run of its heavy water reactor in Arak in central Iran, despite demands from the U.N. to stop the work. The test will use virtual fuel, not actual radioactive material, he said.

He said construction of the 40-megawatt research reactor is progressing on schedule, but he noted that experts are handling the project with greater care in anticipation of possible sabotage attempts.

"The Arak reactor is progressing without any problem according to the schedule. Only because of security considerations, we are moving with caution, since enemy intends to harm this reactor," he was quoted by state TV as saying. "All the equipment needed to operate this reactor has been purchased."

The West is concerned that the heavy water reactor could produce enough plutonium for a nuclear weapon each year, if the spent fuel is reprocessed. That would be another pathway for bomb-grade material, but Iran is not known to possess a plutonium reprocessing facility

Iran has experienced explosions and malfunctions at its nuclear and industrial sites, partly due to faulty equipment secretly procured on the global market.

Also, Iran says it is the target of a campaign that has included the abduction and assassination of scientists, the sale of faulty equipment and the planting of a destructive computer worm known as Stuxnet, which briefly brought Iran's uranium enrichment activity to a halt in 2010.

<http://www.aic.com/news/ap/defense/iran-nuclear-enrichment-advances-with-intensity/nTHMd/>

[\(Return to Articles and Documents List\)](#)

Trend News Agency – Azerbaijan

## **U.S. Gives Iran until March to Cooperate with IAEA**

30 November 2012

The United States set a March deadline on Thursday for Iran to start cooperating in substance with a U.N. nuclear agency investigation, warning Tehran the issue may otherwise be referred to the U.N. Security Council, Reuters reported.

The comments by U.S. diplomat Robert Wood to the board of the International Atomic Energy Agency signaled Washington's growing frustration at a lack of progress in the IAEA's inquiry into possible military dimensions to Tehran's nuclear program.

Iran - which was first reported to the U.N. Security Council over its nuclear program by the IAEA's 35-nation board in 2006 and then was hit by U.N. sanctions - rejects suspicions it is on a covert quest for atomic bomb capability.

But its refusal to curb nuclear work with both civilian and military applications, and its lack of openness with the IAEA, have drawn tough Western punitive measures and a threat of pre-emptive military strikes by Israel.

A year ago, the IAEA published a report with a trove of intelligence indicating past, and some possibly continuing, research in Iran that could be relevant for nuclear weapons.

The IAEA has since tried to gain access to Iranian sites, officials and documents it says it needs for the inquiry, but so far without any concrete results in a series of meetings with Iran since January. The two sides will meet again in December.

In his statement, Wood requested IAEA Director-General Yukiya Amano to say in his next quarterly report on Iran, likely due in late February, whether Tehran has taken "any substantive steps" to address the agency's concerns.

"If by March Iran has not begun substantive cooperation with the IAEA, the United States will work with other board members to pursue appropriate board action, and would urge the board to consider reporting this lack of progress to the U.N. Security Council," Wood said, according to a copy of his statement.

**Issue No. 1035, 30 November 2012**

*United States Air Force Counterproliferation Research & Education / Maxwell AFB, Montgomery AL*  
Phone: 334.953.7538 / Fax: 334.953.7530



**USAF COUNTERPROLIFERATION CENTER**  
**CPC OUTREACH JOURNAL**  
MAXWELL AFB, ALABAMA

"Iran cannot be allowed to indefinitely ignore its obligations ... Iran must act now, in substance," Wood said.

Amano earlier told the board that there had been no progress in his agency's year-long push to clarify concerns about suspected atom bomb research in Iran, but said he would continue his efforts.

#### EU SEES IRANIAN "PROCRASTINATION"

A simple majority in the IAEA board would be required to refer an issue to the U.N. Security Council, which has imposed four sanctions resolutions on Iran since 2006.

It is unclear whether Russia and China - which have criticized unilateral Western sanctions on Iran - would back any U.S. initiative to report Iran again to the Security Council.

Wood later told reporters he hoped the December talks between the IAEA and Iran would be fruitful. But, he added, "I have my doubts about the sincerity of Iran."

The 27-nation European Union told the board that Iran's "procrastination" was unacceptable. "Iran must act now, in a substantive way, to address the serious and continuing international concerns on its nuclear program," it said.

Iran's ambassador to the IAEA, Ali Asghar Soltanieh, criticised what he called "political noise" and "pressure" from the United States and the EU.

Diplomacy between Iran and the powers - the United States, China, Russia, France, Germany, and Britain - has been deadlocked since a June meeting that ended without success.

Both sides now say they want to resume talks soon, after the re-election of U.S. President Barack Obama, and diplomats expect a new meeting in Istanbul in December or January.

Iran is ready for a "face-saving" negotiated solution to the nuclear dispute, but the West must accept the reality that Tehran would never suspend uranium enrichment, Soltanieh said.

Refined uranium can be used to fuel nuclear energy plants, Iran's stated aim, and also provide bomb material if processed further, which the West suspects is Iran's ultimate aim.

The West wants Iran to suspend enrichment, but Iran is showing no sign of backing down.

Iran "has provocatively snubbed the international community by expanding its enrichment capacity in defiance of multiple United Nations Security Council resolutions," Wood said.

<http://en.trend.az/regions/iran/2093750.html>

[\(Return to Articles and Documents List\)](#)

The Korea Times – South Korea

November 22, 2012

## **N. Korea Reiterates Plan to Continue 'Peaceful Satellite Launch'**

North Korea reiterated on Thursday its plan to continue launches of what it calls "working satellites" following the country's botched attempt in April to send off a satellite, which is believed by neighboring nations to be a veiled missile test.

"We will expand the institutions for space development and go through with launches of working satellites of all kinds essential for the economic development of the country," the (North) Korean Central News Agency (KCNA) quoted the country's delegate to the United Nations as saying in a plenary meeting.

The KCNA report said the country will continue to exercise its independent right to use space, which, the media said, stands above the United Nations' resolution and is recognized by international law.

**Issue No. 1035, 30 November 2012**

*United States Air Force Counterproliferation Research & Education / Maxwell AFB, Montgomery AL*  
Phone: 334.953.7538 / Fax: 334.953.7530





The country has previously expressed its intention to continue to carry out the "satellite launch" in a United Nations meeting last month despite foreign nations' condemnation of the April test.

On April 13, the North launched a long-range rocket, claiming it was a satellite launch. But the lift-off, which ended in failure, drew strong international condemnation as it was believed to be a cover for testing missile technology. (Yonhap)

[http://www.koreatimes.co.kr/www/news/nation/2012/11/485\\_125277.html](http://www.koreatimes.co.kr/www/news/nation/2012/11/485_125277.html)

[\(Return to Articles and Documents List\)](#)

Asahi Shimbun – Japan

## **U.S. Warns of Possible N. Korean Missile Launch**

November 23, 2012

By YOSHIHIRO MAKINO/ Correspondent

North Korea is preparing to launch another long-range ballistic missile, possibly by the end of the month, U.S. government officials told their Japanese and South Korean counterparts.

But there is uncertainty over whether the launch would actually take place so soon with South Korea preparing for a presidential election in December.

According to sources in Japan, the United States and South Korea, cargo that appeared to be missile parts was transferred in early November from a weapons factory in the Sanumdong district of Pyongyang to an assembly plant at the missile launch base at Tongchang-ri, North Phyongan province, in northwestern North Korea.

Satellite photos of the cargo showed similarities to the long-range ballistic missile that North Korea launched in April. That project was a failure as the missile exploded soon after takeoff.

The April launch was conducted about 20 days after the cargo was transported to the launch site, leading analysts to calculate that another launch was technically possible by the end of November.

About a month before the April launch, North Korea said it was planning to launch a rocket carrying a satellite. It also informed the International Maritime Organization of its plans.

According to a report by the Korean Central News Agency, a North Korean official gave a speech at the United Nations General Assembly on Nov. 15 and said that Pyongyang would continue to launch commercial satellites. However, as of Nov. 22, North Korea had not made any announcement about a specific launch date.

A new missile launch at an early date would provoke widespread international criticism. In addition to the South Korean presidential election, a Lower House election will be held on Dec. 16 in Japan.

Japanese and North Korean officials recently held talks on issues separating the two countries. The next South Korean administration is also expected to seek dialogue with its northern neighbor, and Barack Obama will enter his second term as U.S. president in January.

Some analysts said the latest move may be another example of brinkmanship on the part of North Korea. Because Pyongyang is aware of the orbit of U.S. spy satellites, it might have moved the cargo to use as a bargaining chip to obtain economic benefits in exchange for North Korea agreeing to reduce tensions on the Korean Peninsula.

There are also doubts over whether North Korea has uncovered the reason for the failed April launch and improved its missile technology.

Normally, such procedures take between one to two years, so there is skepticism of North Korea making another attempt just seven months after the failed launch.



At the same time, there is the possibility of the North Korean military going ahead with a launch to demonstrate not only its presence, but also the fact that Kim Jong Un has not established as solid a hold on the nation as his late father, Kim Jong Il.

[http://ajw.asahi.com/article/asia/korean\\_peninsula/AJ201211230050](http://ajw.asahi.com/article/asia/korean_peninsula/AJ201211230050)

[\(Return to Articles and Documents List\)](#)

*The Irrawaddy News Magazine – Thailand*

## **Burma Denies Nuclear Plan amid Japanese Claims**

By SAW YAN NAING, *The Irrawaddy*

November 26, 2012

RANGOON—Naypyidaw has denied the existence of a bilateral nuclear program with North Korea as reports emerge that a shipment of uranium enrichment material for missile development was intercepted being transported to Burma via China.

The cargo of around 50 metal pipes and 15 high-specification aluminum alloy bars was seized by Japan on Aug. 22, according to the *Asahi Shimbun* Japanese news agency. According to the report, some of the cargo was of the high strength needed for centrifuges for a nuclear weapons program.

However, speaking with *The Irrawaddy* on Monday, Burmese President's Office Director Zaw Htay said, "We have no nuclear ambition."

He also said that Burma has no such deal with North Korea. Naypyidaw will respect and obey regulations of the UN Security Council and has agreed to sign a nuclear pact, he explained. "We have made a promise and will obey precisely," said Zaw Htay.

Naypyidaw announced the signing of an international agreement to declare all nuclear facilities and materials last week. It will also allow more scrutiny by UN nuclear inspectors, according to the deal.

The disputed cargo was reportedly destined for Rangoon-based construction company Soe Min Htike, which the US believes is a front for Burma's military procurement, according to *Asahi Shimbun*.

Some observers said that the material was likely to be used for missile development rather than a nuclear program.

Bertil Lintner, a veteran journalist who has written on the subject for many years, told *The Irrawaddy* that Burma does not have nuclear connections with North Korea but is developing missiles. "The cooperation with North Korea is about missiles," he said. "And that is still continuing—North Korean technicians are still there working on the missile program."

He said that technology for scud-type missiles has been imported from North Korea with Pyongyang technicians involved in military infrastructure projects—building tunnels and underground bunkers at several places in Burma. They have also exported missile technology and assistance on the ground, he added.

Lintner also claimed that Naypyidaw did once conduct nuclear research in Russia where Burmese scientists were sent.

"[The Burmese authorities] asked the Indians for help but they were turned down, so they began sending people to Russia. [Vice-Snr-Gen] Maung Aye and [ex-Gen] U Thaung were the brains behind Burma's nuclear research program," said Lintner.

Burma Army defector Maj Sai Thein Win, who fled the country in February 2010, said that he spent five years at Moscow State Technical University studying liquid-fueled rocket engines design for missiles.



In an interview with *The Associated Press*, Sai Thein Win said that before leaving for Russia, he attended a May 2001 address to some 300 officers by Maung Aye, then Burma's second highest ranking general, at the National Defense College in Rangoon.

"[Maung Aye] said they wanted us to study about rockets and nuclear reactors. They also said they needed weapons and long-range missiles to protect the country," Sai Thein Win was quoted as saying.

In November 2008, current Lower House Speaker ex-Gen Shwe Mann reportedly led a secret delegation to North Korea where he signed an MoU on bilateral military ties with Pyongyang's armed forces chief during a seven-day visit, but he has since denied that a nuclear program exists.

North Korea was supposed to build or supervise the construction of special Burmese military facilities, including tunnels and caves in which missiles, aircraft and even naval ships could be hidden, according to the leaked MoU.

According to the Asahi Shimbun report, Japanese government officials believe North Korea acquired the aluminum alloy from China. They said North Korea is unlikely to own the technology needed to produce such material.

Sources told Asahi Shimbun that the illicit shipment was loaded onto the 17,138-ton Wan Hai 215, a Singapore-registered cargo vessel operated by a Taiwanese shipping company, in Dalian on July 27. The material was offloaded on Aug. 9 and placed aboard the 27,800-ton Wan Hai 313 in Shekou, China.

On Aug. 14, the cargo was due to change ships again in Malaysia and then dock in Rangoon Port the following day. However, the US asked the Taiwanese shipping company not to proceed with the transshipment in Malaysia after learning about the possible contents. The Wan Hai 313 entered Tokyo Port on Aug. 22 where it was examined by Japanese officials who found the material in question.

<http://www.irrawaddy.org/archives/19802>

[\(Return to Articles and Documents List\)](#)

The Australian – Australia

## **Satellite Images Hint at North Korean Missile Test**

By Rick Wallace, *Tokyo correspondent*

November 28, 2012

SATELLITE images released yesterday show a flurry of recent activity at North Korea's Sohae rocket launch station, suggesting the rogue state could be eyeing a missile test as South Korea embarks on presidential elections.

Reports in Japanese newspapers this week suggested movements at the site in the west of North Korea, and the satellite image provider DigitalGlobe released images yesterday that it said confirmed preparations for a test.

DigitalGlobe said the imagery showed an increase in the number of people, trucks and other equipment at the site to levels seen in the weeks before the failed launch in April last year.

"Given the observed level of activity noted of a new tent, trucks, people and numerous portable fuel/oxidiser tanks, should North Korea desire it could possibly conduct its fifth satellite launch event during the next three weeks," DigitalGlobe said.

North Korea launched a variant of its Taepodong long-range rocket on April 13 - said to be part of its ballistic missile program - but the highly publicised test was an apparent failure with the rocket breaking up and falling into the sea soon after its launch.

Unnamed South Korean officials quoted in local media said South Korean satellite imagery from the country's Arirang 3 satellite had also detected new developments at the North Korean site.

The preparations could be aimed at influencing the presidential election to take place in South Korea on December 19.



**USAF COUNTERPROLIFERATION CENTER**  
**CPC OUTREACH JOURNAL**  
MAXWELL AFB, ALABAMA

Both conservative candidate Park Geun-hye and liberal candidate Moon Jae-in have pledged a return to a more conciliatory stance towards the north in contrast to the tack taken by outgoing conservative President Lee Myung-bak, who presided over cutbacks in aid and diplomatic ties amid two major North Korea attacks on the South's military.

<http://www.theaustralian.com.au/news/world/satellite-images-hint-at-north-korean-missile-test/story-e6frg6so-1226525204630>

[\(Return to Articles and Documents List\)](#)

Fox News

## **South Korea Cancels Rocket Launch amid Speculation North Korea Readying Launch of its Own**

November 29, 2012

By Associated Press

SEOUL, SOUTH KOREA – South Korea on Thursday scrapped an attempt to fire its first satellite into orbit from its own soil amid speculation that North Korea was preparing to fire its own long-range rocket.

Scientists in South Korea cited technical problems with the rocket's flight control system. It's the second time in a month that Seoul has been forced to cancel a launch at the last minute as it attempts to join an elite group of nations that have launched satellites from their own land.

But it is North Korea's rocket program that has raised worry in recent days. Two South Korean officials said Thursday that there are signs of preparations at a North Korean rocket site on the northwest coast. They declined to be named because of office rules preventing them from speaking publicly of intelligence matters.

A North Korean long-range rocket broke apart shortly after liftoff in April, but the attempt drew United Nations condemnation and worsened already tense relations between the Koreas.

Washington and Seoul say Pyongyang uses such rocket launches to develop missiles that could target the United States. Technology employed in scientific rocket launches can be easily converted into use for missiles.

North Korea says its launch attempts are part of a peaceful space program and are meant to put satellites into orbit.

Any North Korean launch in the next several weeks would be seen in Seoul as an attempt to influence South Korea's Dec. 19 presidential election.

South Korea failed in its two previous rocket launches from its own soil in 2009 and 2010. South Korea has launched domestically-made satellites aboard foreign-made rockets from other countries since 1992.

South Korea's 142-ton Naro's first stage is built by Russia. Its South Korean-made second stage is meant to release a scientific satellite once it reaches orbit.

<http://www.foxnews.com/world/2012/11/29/south-korea-cancels-rocket-launch-amid-speculation-north-korea-readying-launch/?test=latestnews>

[\(Return to Articles and Documents List\)](#)

Chicago Tribune

## **North Korea Pushing Ahead with New Nuclear Reactor: IAEA**

By Fredrik Dahl, Reuters

November 29, 2012

**Issue No. 1035, 30 November 2012**

*United States Air Force Counterproliferation Research & Education / Maxwell AFB, Montgomery AL*  
Phone: 334.953.7538 / Fax: 334.953.7530



VIENNA (Reuters) - North Korea has made further progress in the construction of a new atomic reactor, the U.N. nuclear chief reported on Thursday, a facility that may extend the country's capacity to produce material for nuclear bombs.

Pyongyang "has continued construction of the light water reactor and largely completed work on the exterior of the main buildings," Yukiya Amano, director general of the International Atomic Energy Agency (IAEA), said.

But, he told the IAEA's 35-nation governing board that the U.N. agency "remains unable to determine the reactor's design features or the likely date for its commissioning."

North Korea says it needs nuclear power to provide electricity, but has also boasted of its nuclear deterrence capability and has traded nuclear technology with Syria, Libya and probably Pakistan.

The light-water reactor is being built at the North's main Yongbyon nuclear facility, which consists of a five-megawatt reactor, a fuel fabrication facility and a plutonium reprocessing plant where weapons-grade material has been extracted from spent fuel rods.

North Korea was the first country to withdraw from the nuclear Non-Proliferation Treaty in 2003 and has denied IAEA access to its atomic sites, reneging on a February deal to do so after it announced plans to launch a long-range rocket, in defiance of United Nations Security Council resolutions.

It was believed earlier this year to be pushing ahead with plans for a third nuclear test.

Amano said he remained "seriously concerned" about the North's nuclear program, which his inspectors can only monitor via satellite images.

#### IAEA MONITORING

In May, website 38North said North Korea had resumed construction work on the experimental light water reactor (ELWR) after stopping in December.

38North - run by the U.S.-Korea Institute at Johns Hopkins University and former U.S. State Department official Joel Wit - said the ELWR, when operational, could produce enough material for an additional nuclear bomb each year.

U.S. expert David Albright has estimated a higher potential production of about 20 kg of weapon-grade plutonium a year, enough material for four nuclear weapons or more. But he said it could also produce electricity.

A highly enriched uranium program running alongside this could allow North Korea to increase significantly the number of nuclear devices it could produce, giving it a dual track to nuclear weapons as it has big reserves of uranium.

Amano said: "While the agency continues to monitor the reported uranium enrichment facility, using satellite imagery, its configuration and operational status cannot be established."

North Korea carried out nuclear tests in 2006 and 2009 and is under heavy U.N. sanctions for its atomic weapons program.

The IAEA said in August that "significant progress" had been made in the light water reactor's construction since a year earlier, including placing a dome on the containment building.

Also in August, the Institute for Science and International Security - founded by Albright - said satellite imagery from May and June showed construction "progressing apace". It said the reactor could be completed in the second half of 2013.

*Editing by Robin Pomeroy.*

<http://www.chicagotribune.com/news/sns-rt-us-korea-north-nuclearbre8as0ot-20121129,0,7090632.story>

[\(Return to Articles and Documents List\)](#)



USAF COUNTERPROLIFERATION CENTER  
**CPC OUTREACH JOURNAL**  
MAXWELL AFB, ALABAMA

Atlanta Journal-Constitution  
Thursday, November 29, 2012

## Sources: North Korea Replaces Defense Minister

By HYUNG-JIN KIM, Associated Press

SEOUL, South Korea — North Korea has replaced its defense minister with a hardline military commander believed responsible for deadly attacks on South Korea in 2010, diplomats in Pyongyang said Thursday. It is the latest in a series of high-profile appointments leader Kim Jong Un has made since he took power nearly a year ago.

Diplomats in Pyongyang told the Associated Press that they were informed that Kim Jong Gak had been replaced as armed forces minister by Kim Kyok Sik, commander of the battalions linked to two deadly attacks in 2010 blamed on North Korea.

The diplomats declined to be named, saying they had not been cleared to discuss the matter with the media.

South Korean officials said they also received similar information about the North Korean personnel changes but gave no further details. The officials spoke on condition of anonymity, citing government protocol.

The move comes amid speculation that North Korea may be preparing a long-range rocket launch. An April launch that broke apart after liftoff drew U.N. condemnation and deepened animosity between the Koreas. North Korea says its launches are meant to put a satellite into orbit.

Analysts say Kim Jong Un aims to use the personnel change to bolster his grip on the 1.2 million-member military, which forms the backbone of his rule over the country.

Kim Jong Un is trying to put his stamp on the military by building loyalty with troops and also by creating tension among generals through personnel changes, said Baek Seung-joo, an analyst at the state-run Korea Institute for Defense Analyses in Seoul.

The appointment of a hawkish general could also mean North Korea wants to show a tough face to Washington and Seoul, said analyst Hong Hyun-ik at the private Sejong Institute in South Korea.

The new defense minister, Kim Kyok Sik, formerly served as North Korea's military chief and as commander of the units blamed in the 2010 attacks. North Korea acknowledges an artillery bombardment of a South Korean island that killed four South Koreans but denies any role in an explosion that sank a South Korean warship that year, killing 46.

Kim is North Korea's third defense minister since Kim Jong Un took power after his father Kim Jong Il's death in December.

Previous defense chief Kim Jong Gak had been considered a trusted aide of Kim Jong Un. He was made a vice marshal in February and appointed defense minister in April. He was also one of seven men accompanying Kim Jong Un as he walked alongside a limousine bearing Kim Jong Il's coffin during his December funeral.

It's not the first time Kim Jong Un has made high-level personnel appointments.

In July, Kim dismissed military chief Ri Yong Ho, who was seen as one of his key mentors, and named little-known vice marshal Hyon Yong Chol as his new General Staff chief.

In April, Kim also reshuffled top Workers' Party posts by taking on top party posts held by his father and giving other high-level posts to close associates.

In recent months, North Korea has also reshuffled top Cabinet members such as the ministers of sports, electronics industry and agriculture, according to Pyongyang's official Korean Central News Agency.

*Associated Press writers Jean H. Lee and Sam Kim contributed to this report from Seoul.*

<http://www.aic.com/ap/ap/defense/sources-north-korea-replaces-defense-minister/nTH7N/>

**Issue No. 1035, 30 November 2012**

United States Air Force Counterproliferation Research & Education / Maxwell AFB, Montgomery AL  
Phone: 334.953.7538 / Fax: 334.953.7530



[\(Return to Articles and Documents List\)](#)

United Press International (UPI)

## **Satellite Shows North Korean Missile Prep**

November 30, 2012

BALTIMORE, Nov. 30 (UPI) -- A U.S. research group reported Friday that it appears North Korea has delivered parts of a rocket to a missile assembly building near its west coast.

In mid-November, the U.S.-Korea Institute at Johns Hopkins University said information from commercial satellite imagery suggests North Korea has tested at least two rocket motors as recently as September.

Separate reports from IHS Jane's Defense Week and the Bulletin of Atomic Scientists said North Korea may be engaged in activity related to its nuclear program.

The university group reported Friday that it reviewed commercial satellite imagery published recently showing the first two stages of a rocket were sent to a missile assembly building. This, it said, is "a clear indicator that the rocket stages are being checked out before moving to the pad for an eventual launch."

North Korean nuclear tests in 2006 and 2009 coincided with missile launches. The research group, however, said the timing of the latest activity raised questions as past launches have occurred in the spring or summer. Pyongyang, it added, typically provides specific information regarding launch plans.

"If Pyongyang follows past practice in preparing for a launch, it could be ready to fire a rocket as early as the end of the first week in December," the Johns Hopkins group stated.

[http://www.upi.com/Top\\_News/Special/2012/11/30/Satellite-shows-North-Korean-missile-prep/UPI-12411354296418/](http://www.upi.com/Top_News/Special/2012/11/30/Satellite-shows-North-Korean-missile-prep/UPI-12411354296418/)

[\(Return to Articles and Documents List\)](#)

The Hindu – India

## **India Proves Capability of Missile Defence System**

By Y. Mallikarjun and T. S. Subramanian

HYDERABAD, November 23, 2012

India on Friday demonstrated its capability to intercept multiple missile attacks when a real interceptor destroyed an incoming target missile in endo-atmosphere at a height of 15 km over the Bay of Bengal and another simulated 'hostile' missile was killed in exo-atmosphere at 120 km almost simultaneously.

This was the first time that missile technologists from the Defence Research and Development Organisation (DRDO) conducted such an exercise to test the efficacy of the Ballistic Missile Defence (BMD) system in near deployable configuration against more than a single missile attack.

In less than five minutes of the launch of the real attacker missile, a modified Prithvi from Chandipur, the interceptor, Advanced Air Defence (AAD), was fired from the Wheeler Island. Travelling at a supersonic speed of 4.5 Mach, the interceptor equipped with a unique directional warhead, homed on to the attacker missile and destroyed in a "hit-to-kill" mode at an altitude of 14.7 km in endo-atmosphere at 12.52 pm. The attacker Prithvi missile had a range of 600 km to 1,000 km.

As the AAD came close to the attacker missile, its warhead exploded and smashed the latter to smithereens.

Almost parallelly the radars tracked another incoming missile of range of 1,500 to 2,000 km, simulated electronically. It was intercepted too and destroyed electronically by another interceptor missile in the exo-atmosphere.



USAF COUNTERPROLIFERATION CENTER  
**CPC OUTREACH JOURNAL**  
MAXWELL AFB, ALABAMA

### "We are now in a position to deploy the system"

An elated Scientific Advisor to Defence Minister V.K. Saraswat told *The Hindu* from Wheeler Island later that the mission showed the capability of the BMD system to engage multiple targets. He said the target missile was completely destroyed in an an outstanding achievement.

"We are now in a position to deploy the system", he said and added the first phase of the two-layered Ballistic Missile Defence system to intercept and destroy incoming enemy missiles in endo and exo-atmosphere would be deployed by 2013-14. The first phase envisages to provide protection against enemy ballistic missiles of up to 2,000 km range.

He said the maturity of all the BMD technologies was demonstrated in today's mission, including the directional warhead, radio-frequency seeker as also various networks.

According to Avinash Chander, Chief Controller (Missiles and Strategic Systems), DRDO, two major technologies were used for the first time-- an indigenously-built fibre optic gyro-based INS system and a new class of warhead to provide a much higher velocity and better penetration and damage.

He said the next interceptor ballistic missile test for an exo-atmospheric interception of an incoming target missile would be conducted in January next.

Defence Minister A.K. Antony congratulated DRDO scientists on the success of the mission.

<http://www.thehindu.com/news/national/india-proves-capability-of-missile-defence-system/article4126430.ece>

[\(Return to Articles and Documents List\)](#)

The Indian Express – India

## **Brit MP and Ex-Defence Minister Wants 'Neutron Bomb' Exploded in Pak Border**

By Agencies

Saturday, November 24, 2012

ISLAMABAD: A former British defence minister stunned peers after he suggested that a neutron bomb could be used to create a 'cordon sanitaire' (quarantine line) in troubled border regions like the one between Afghanistan and Pakistan, according to a report.

During a debate in House of Lords on multi-lateral nuclear disarmament, Lord Gilbert said the use of such weapons could 'greatly reduce problems of protecting those borders'.

The Labour minister said that what used to be called a neutron bomb, and was actually an enhanced radiation reduced blast weapon (ERRB), could have 'many uses' today, *The Nation* reports.

"I think you could use an ERRB warhead to create a cordon sanitaire around various borders where people are causing trouble these days," he said, citing the mountainous border region between Afghanistan and Pakistan as an example, where he said no one was living 'except a few goats'.

Acknowledging his idea might seem 'impractical' to peers, Lord Gilbert added, "If you told them there was going to be some ERRB warheads dropped there, it would be a very unpleasant place to go and they wouldn't go there."

Lord Gilbert also said he was 'delighted' that nuclear weapons had been invented because, by acting as a deterrent, they had prevented a possible third world war and helped save lives, the paper said.

However, his comments led Labour former defence secretary Lord Browne of Ladyton to criticise Gilbert, accusing him of being at his 'most challenging and contrarian'.

**Issue No. 1035, 30 November 2012**

United States Air Force Counterproliferation Research & Education | Maxwell AFB, Montgomery AL  
Phone: 334.953.7538 | Fax: 334.953.7530





USAF COUNTERPROLIFERATION CENTER  
**CPC OUTREACH JOURNAL**  
MAXWELL AFB, ALABAMA

Cabinet Office spokesman for Lord Wallace of Saltaire also said the government did not share Gilbert's 'rumbustious' views on the sensitive issue. "The UK retains a firm commitment to the long-term goal of a world without nuclear weapons," he said.

<http://www.indianexpress.com/news/brit-mp-and-exdefence-minister-wants-neutron-bomb-exploded-in-pak-border/1035768/>

[\(Return to Articles and Documents List\)](#)

Indian Express – India

## **K-15 Test Off Andhra Coast Next Month**

By Hemant Kumar Rout - BALASORE

27th November 2012

After the successful trial of AD interceptor missile, DRDO is readying for the developmental trial of submarine-launched ballistic missile K-15 from an underwater platform off the Andhra Pradesh coast in the second week of December.

The much awaited test, scheduled for the last week of November, was postponed owing to inclement weather triggered by a deep depression in Bay of Bengal early this month. DRDO scientists are reportedly contemplating two trials of K-15, one from a pontoon (replica of a submarine) and another from a submarine.

Defence sources said the nuclear capable missile will be tested for the first time from a submarine positioned undersea off Visakhapatnam coast. If everything goes as planned, the missile will be fired any time between December 6 and 8.

The DRDO is eyeing for the successful trial of the missile as few countries have the triad of firing nuclear-tipped missiles from air, land and undersea. The other countries, which have the capability include Russia, the USA, France, Britain and China.

"Scientists are working overtime and constantly cross-checking the system, including the launch platform. We want to achieve near-zero circular error probability (CEP) accuracy," said a defence scientist.

The indigenously developed K-15 missile is about 10 metres in length and about a metre in diameter. Its launch weight is about 10 tonnes. This missile uses solid propellant and can carry a conventional payload of about 500 kg to one tonne and also be fitted with tactical nuclear warhead. After its induction, the missile will equip the country's first nuclear-powered submarine ANS Arihant.

Reports said the K-series missile programme formally began in 2004 as PJ-08 as a tribute to the then DRDO chief and former President APJ Abdul Kalam. The solid-fuel missile had a modest 150-km range but over the years, the missile steadily grew to achieve its desired 700-km range.

"The hybrid K-15 combines aspects of both cruise and ballistic missiles, which use multiple-stage rockets to exit the atmosphere and re-enter in a parabolic trajectory. It flies in hypersonic speed. Launched underwater, the K-15 surges to the surface and is the world's best weapon in this class," the scientist said.

The K-15 is one of the most ambitious projects of the DRDO. After its successful induction, the DRDO would go for the developmental trials of its longer-range K-4 missile to strengthen its undersea attacks. Apart from the K-15, India has the submarine version of BrahMos supersonic cruise missile in its arsenal.

<http://newindianexpress.com/states/odisha/article1356541.ece>

[\(Return to Articles and Documents List\)](#)

The Hindu Business Line – India

## **Pak Test-Fires Nuclear-Capable Ballistic Missile Hatf-V**

**Issue No. 1035, 30 November 2012**

*United States Air Force Counterproliferation Research & Education | Maxwell AFB, Montgomery AL  
Phone: 334.953.7538 | Fax: 334.953.7530*



USAF COUNTERPROLIFERATION CENTER  
**CPC OUTREACH JOURNAL**  
MAXWELL AFB, ALABAMA

By Press Trust of India (PTI)

November 28, 2012

Islamabad, Nov 28: Pakistan today tested the Hatf-V nuclear-capable ballistic missile with a range of 1,300 km, with the military saying that the launch was aimed at strengthening the country's deterrence capability.

A statement from the military described the test as a "training launch" conducted by a strategic missile group of the Army Strategic Force Command.

The test of the medium-range ballistic missile, also known as the Ghauri, marked the culmination of a field training exercise aimed at testing the operational readiness of the Army Strategic Force Command.

The Ghauri is a "liquid fuel missile which can carry both conventional and nuclear warheads over a distance of 1,300 km," the statement said.

"The test consolidates and strengthens Pakistan's deterrence capability and national security," it said.

The statement did not say where the test was carried out.

"The launch was monitored by the 'National Command Centre through the medium of the National Command Authority's fully automated strategic command and control support system," the statement said.

The National Command Authority controls the country's nuclear arsenal.

The military said the strategic command and control support system enables "robust command and control capability of all strategic assets with round-the-clock situational awareness in a digitised network centric environment" for decision makers at the National Command Centre.

President Asif Ali Zardari and Prime Minister Raja Pervez Ashraf congratulated the Army Strategic Force Command on their training, which was "reflected in the proficient handling of the weapon system in the field and the accuracy of the training launch".

Pakistan has tested a wide range of nuclear-capable missiles, ranging from the Hatf-IX tactical missile with a range of 60 km to the Hatf-IV, this year as part of efforts to strengthen its nuclear arsenal to counter India's conventional superiority.

<http://www.thehindubusinessline.com/news/international/pak-testfires-nuclearcapable-ballistic-missile-hatfv/article4142924.ece>

[\(Return to Articles and Documents List\)](#)

Los Angeles Times

## **Father of Pakistan's Nuclear Weapons Program becomes Office Seeker**

By Alex Rodriguez

November 28, 2012,

ISLAMABAD, Pakistan — He's a hero in Pakistan for founding the country's nuclear weapons program, and a pariah in the West for relaying nuclear secrets to rogue states. On Wednesday, aides to A.Q. Khan announced that the retired scientist has become an office seeker in the cutthroat world of Pakistani politics.

The Election Commission has approved Khan's request to register his party, the Movement for the Protection of Pakistan, for the national election slated for spring, said Rafiq Ghuncha, a top official in the new party. The organization was one of 19 new parties given the go-ahead to contest the election, which determines who will run the government.

It's doubtful that Khan, 76, will be able to make much headway with voters. He's been openly talking about his desire to jump into politics since August, and reaction from the media and the public has been lukewarm. The Movement for

**Issue No. 1035, 30 November 2012**

United States Air Force Counterproliferation Research & Education / Maxwell AFB, Montgomery AL  
Phone: 334.953.7538 / Fax: 334.953.7530



the Protection of Pakistan faces a crowded field of powerful, established parties, including President Asif Ali Zardari's Pakistan People's Party, former Prime Minister Nawaz Sharif's PML-N party, as well as a potent new political force, Pakistan Tehreek-e-Insaf, led by former cricket legend Imran Khan.

Nevertheless, Khan, who lives in a heavily guarded compound in Islamabad, is revered by Pakistanis for his work in stewarding the development of a nuclear arsenal that reportedly has grown to an estimated 100 weapons, which Pakistanis see as a bulwark against archrival India's nuclear program.

His aides say Khan is banking on his universal popularity within Pakistan to vault his political career.

"Because he's known as a scientist and a hero, that message resonates strongly and easily with the people," Ghuncha said. "He feels that because the present regime and past regimes haven't been able to deliver to the nation, he has opted to lead the nation and guide it toward prosperity and socioeconomic development."

After revealing in 2004 on Pakistani television his involvement in spreading nuclear weapons technology to Iran, North Korea and Libya, Khan was pardoned and largely confined to his home by then-President Pervez Musharraf. The U.S. has always regarded Khan as a proliferation risk, and through the years has unsuccessfully pressed Pakistani authorities to allow him to be questioned.

Officials ended his house arrest in early 2009, but his ability to move was still constrained. However, on Wednesday, Ghuncha contended that Khan is now able to travel within Pakistan relatively freely, though he still must always be accompanied by a team of security personnel.

"He has been going to universities, colleges, institutions, chambers of commerce," Ghuncha said. "We are approaching almost every part of the country."

Ghuncha said Khan will not adopt the traditional tack in Pakistani politics of holding massive rallies in big cities to build support, and instead will focus his message on the country's educated voters and its youth.

"We are developing with the help of Pakistan's youth and its intelligentsia, though we are also approaching the common man," Ghuncha said, "because the main thing we have to do is to communicate to people that we are there."

<http://www.latimes.com/news/world/worldnow/la-khan-pakistan-nuclear-election-20121128,0,1597024.story>

[\(Return to Articles and Documents List\)](#)

RIA Novosti – Russian Information Agency

## **Gaddafi Offered Kazakhstan Billions for 'Muslim Atom Bombs' - UN Official**

29 November 2012

MOSCOW, November 29 (RIA Novosti) – Libyan leader Muammar Gaddafi offered the former Soviet republic of Kazakhstan "billions" in the early 1990s to retain its nuclear arsenal as the Muslim world's "first atomic weapons," a former Kazakh foreign minister and high-ranking UN official said on Thursday.

"At the start of 1992, the [Kazakh] Foreign Ministry received through diplomatic channels a letter to the president of Kazakhstan from the leader of the Libyan revolution, Muammar Gaddafi, proposing that he keep the country's nuclear arsenal in the capacity of, as he wrote, the first Muslim atomic bombs," said Kassym-Jomart Tokayev at an international forum in the Kazakh capital of Astana, the Tengrinews.kz news website reported.

Tokayev, who served as Kazakhstan's foreign minister from 2003 to 2007 and is currently the director-general of the United Nations Office in Geneva, also said Gaddafi had pledged "many billions" to fund the project. Tokayev did not specify a currency.



He also said that Kazakhstan's long-serving president, Nursultan Nazarbayev, had declined the offer over concerns for global "strategic order" and suggested the decision demonstrated that the country's "national leader" possessed the "political and moral right to head a global anti-nuclear movement."

A spokesman for Nazarbayev told RIA Novosti he would "find out" about Tokayev's comments, but did not respond to later attempts to contact him, as of late Thursday afternoon.

The theme of Tokayev's report at the forum was "the input of the people's leader of Kazakhstan Nursultan Nazarbayev to the assurance of international security."

Tokayev also suggested the letter be recovered from Kazakhstan's files.

Kazakhstan, a Central Asian, Muslim majority state, gained independence from the Soviet Union in 1991 and gave up its nuclear arsenal of 1,410 nuclear warheads shortly after.

Gaddafi is widely believed to have pursued nuclear weapons up until 2003, when he agreed to dismantle Libya's chemical, nuclear, and biological weapons.

<http://en.rian.ru/world/20121129/177821405.html>

[\(Return to Articles and Documents List\)](#)

RT (Formerly "Russia Today") – Russia

## Russia Ramps Up NATO Shield Demands

30 November 2012

By Robert Bridge, RT

Moscow's permanent representative to NATO has informed his colleagues in the military alliance that Russia needs clear technical documentation that the US missile defense will not pose a security risk for his country.

Russia says it wants solid guarantees "*expressed in a legally-binding manner*" that the US missile defense shield will never target Russian territory, Aleksandr Grushko said on Friday. He stressed, however, that the document should not be draped in the "*language of political declarations*," but in clear military-technical fashion.

Moscow needs an assurance that the system is specifically designed to counter potential missile threats outside the Euro-Atlantic area without undermining the strategic balance, that is, intercept Russian strategic nuclear weapons, he added.

"*Today, they offer us missile defense cooperation without understanding its ultimate goal*," he said. "*We believe that first it is necessary to reach an agreement on the framework of this cooperation.*"

The technical data provided to Russia should include geographical location of interceptors, radars, the speed of warheads and many other elements that are absolutely clear to the military, Grushko noted.

The Russian envoy to NATO admitted that the debate over the US missile defense shield is "*practically deadlocked*," and the negotiation process within the framework of the NATO-Russia Council (NRC) has come to a standstill.

Nevertheless, Grushko said there still remains a "*window of opportunity*" and a crisis may be avoided if the necessary amount of "*political will is demonstrated.*"

Progress is possible, he said.

The envoy also mentioned recent computer exercises involving "*theater missile defense operations*," which took place in Germany this year that "*proved the advantage of a joint missile defense system between Russia and NATO.*"

"*If we reach an agreement on missile defense, it would mean that Russia and NATO are really pooling their resources for the sake of common security*," Grushko concluded.



<http://rt.com/politics/russia-nato-missile-defense-us-958/>

[\(Return to Articles and Documents List\)](#)

RIA Novosti – Russian Information Agency

**Russian Press – Behind the Headlines**

30 November 2012

Izvestia

## **Russian Defense Ministry to Develop Global Intelligence System in 2013**

Russia's Defense Ministry is completing the discussion of project specifications and financing for a planned multi-positional intelligence and information system (MRIS). The system will go online in late 2013, a ministry source said.

"This system will be capable of detecting and tracking aircraft and warships from a distance of several thousand kilometers. This 'seeing eye' is far more effective for long distances than existing air, space or radar intelligence systems," he added.

Although the system's technical parameters are classified and cannot be disclosed, the source shared with Izvestia some of its basic operating principles.

"Any civilian or military target in the air or on the ground has several systems that emit radio waves – radar stations, GPS and GLONASS navigation systems, radio-altimeters and other equipment. An airplane also emits heat and other kinds of energy. The fundamental laws of physics apply even to U.S. stealth aircraft like the B-2 and F-22, which are almost invisible to radar. The MRIS system will be able to detect this kind of radiation, determine the coordinates and track target movement," he explained.

He said MRIS is already capable of tracking several kinds of radiation, but that range is likely to be expanded.

"The system receives signals but emits nothing, therefore the enemy will not know they have been detected," he added.

MRIS components will be installed in an area of several dozen square meters, for aerials, and will be almost undetectable to air or space intelligence systems.

"The system was first tested in 2009. We used Russian aircraft and warships as practice targets. An MRIS post located in the Moscow Region detected and tracked various types of aircraft above the Barents Sea. Comparing the routes produced by the system with the planes' actual routes showed an error of only a few meters," the Defense Ministry official continued.

British Aerospace (BAE) Systems has been working on a similar project for the last few years. Their NAVSOP technology was as secret as the Russian MRIS, and the information only became known last August. Britain officially acknowledged in a press release that conventional GPS technology was not always comprehensive, as evidenced by recent incidents on the South Korean borders, when South Korean ABM equipment failed to detect North Korean missiles.

NAVSOP is a comprehensive solution, and can track targets with mobile phone towers, Wi-Fi access points, radio towers, TV aerials and nearly all sources of radio signals, BAE said. The technology was designed exclusively for military applications.

Russia's MRIS is a dual purpose system.

Russia is currently far behind with its intelligence and information gathering equipment, said Alexander Konovalov, head of the Moscow-based Institute of Strategic Assessment. "If the MRIS is truly capable of guiding precision weapons with high reliability, it would open up remarkable opportunities for destroying enemies at any location across the globe. This "seeing eye" should be included in all intelligence or information systems produced in Russia," he said.

<http://en.rian.ru/papers/20121130/177842553.html>



USAF COUNTERPROLIFERATION CENTER  
**CPC OUTREACH JOURNAL**  
MAXWELL AFB, ALABAMA

[\(Return to Articles and Documents List\)](#)

London Telegraph – U.K.

## **Ministers Neglecting Nuclear Security in Scottish Independence Row, MPs Warn**

*Ministers are neglecting the threat to Britain's nuclear deterrent of an independent Scotland by refusing to make contingency plans for a "yes" vote, MPs and peers have warned.*

By Tom Whitehead, Security Editor

22 November 2012

The Government is failing to address the likely impact on national security of a break away despite concerns raised nine months ago, a report said.

It is also ignoring the threat to Britain's security from a collapse of the Eurozone by insisting it is not pose a "direct risk", according to the Joint Committee on the National Security Strategy.

The committee first warned in February that the Coalition's National Security Strategy failed to consider the issue of Scottish independence.

That was despite the fact it could have impact on a range of security issues including "the basing of forces and the future of the UK's nuclear deterrent".

Britain's nuclear arsenal, made up of Trident missiles on Vanguard class submarines, is based on the Clyde.

Facilities at the Royal Naval Armaments Depot at Coulport is unique in Britain and

Royal Navy chiefs have said this means the deterrent would have to remain in Scotland even if it became independent.

But the Government response to the report, published yesterday, said the concerns were not "well-founded" and concentrated instead on issues over when a referendum should be held.

In reply, the committee concluded that was "reinforcing our belief that the possibility that independence might actually happen is being neglected in strategic planning".

The committee also criticised the lack of attention to the potential fall out of a collapse of the Eurozone such as an outbreak of "domestic social or political unrest" and a surge of economic migrants within the European Union.

The Government said the national security strategy did not consider "economic instability as a direct risk to UK national security in its own right".

<http://www.telegraph.co.uk/news/uknews/law-and-order/9696638/Ministers-neglecting-nuclear-security-in-Scottish-independence-row-MPs-warn.html>

[\(Return to Articles and Documents List\)](#)

Global Security Newswire

## **Drill Reveals U.S. Antimissile Shortcomings**

November 27, 2012

A confidential, high-level drill drew attention last December to shortcomings in U.S. preparations to counter ballistic missile threats in certain areas, *Inside the Air Force* reported on Friday.

U.S. Strategic Command is seeking to address the situation, according to the report.

**Issue No. 1035, 30 November 2012**

United States Air Force Counterproliferation Research & Education / Maxwell AFB, Montgomery AL  
Phone: 334.953.7538 / Fax: 334.953.7530



**USAF COUNTERPROLIFERATION CENTER**  
**CPC OUTREACH JOURNAL**  
MAXWELL AFB, ALABAMA

"Increasing the depth of our integrated global missile defense capability" has been a major goal over the last year for the Strategic Command Joint Forces Component Command for Integrated Missile Defense, command spokeswoman Lt. Cmdr. Stephanie Murdock stated.

Calls by combatant commands for antimissile systems "will always exceed" existing assets, according to findings from the drill. The exercise, which involved no field operations, took place under the supervision of senior officials from every area combatant command as well as the armed services, the Joint Staff and the Defense Department's Missile Defense Agency.

"The shortfall highlights the need for an offense/defense integration approach to missile defense," Murdock stated earlier this month. "We must be able to address some of the ballistic missile threats before they are in the air."

The spokeswoman said Strategic Command would act in the near future to "address this mismatch" using administrative procedures within the Defense Department. Personnel advise the Global Force Management Board following careful studies of antimissile needs and resources, she said.

"Over the longer term, we will continue to assess the evolving threat and look at procurement pathways to meeting surging demand while emphasizing deterrence alternatives, to include diplomatic, information and economic strategies," Murdock said. Strategic Command had provided no specifics on the acquisition plans as of last Wednesday.

The Missile Defense Agency can prepare and deploy assets with consideration to the battle requirements of combatant commands at a quicker pace than Pentagon procedures generally allow. Murdock said the Strategic Command and its Joint Forces Component Command for Integrated Missile Defense "synchronize and coordinate these processes between all stakeholders."

"The findings of the [December 2011] sessions are classified but it did inform the increasing demand for missile defense capability and capacity," she said.

"While homeland defense remains the missile defense priority, the U.S. is expanding regional capabilities to deployed forces, friends and allies through the regionally tailored phased adaptive approach," according to Murdock. "The PAA is meant to address the unique regional threat environments and partnerships that, in turn, will serve to further homeland defense."

"Given many of the challenges associated with implementation of these architectures," Murdock added, the Joint Functional Component Command for Integrated Missile Defense and the combatant commands together "assess and address the cross-regional gaps in the areas of planning, policy, capabilities and operations to enhance our global defense capabilities."

The government has continued to pursue goals outlined in the 2010 Ballistic Missile Defense Review. Murdock said the effort "is accomplished in conjunction with developing a seamless, integrated, multitheater and theater ballistic missile defense."

<http://www.nti.org/gsn/article/drill-reveals-us-antimissile-shortcomings/>

[\(Return to Articles and Documents List\)](#)

National Nuclear Security Administration (NNSA)  
Press Release

## **NNSA Completes Major Computing Upgrade for Faster Predictions at National Atmospheric Release Advisory Center**

November 27, 2012

WASHINGTON, D.C. – The National Nuclear Security Administration (NNSA) today announced that it recently sponsored the installation of a 336-processor computing cluster at the Lawrence Livermore National Laboratory (LLNL)

**Issue No. 1035, 30 November 2012**

*United States Air Force Counterproliferation Research & Education / Maxwell AFB, Montgomery AL*  
Phone: 334.953.7538 / Fax: 334.953.7530



USAF COUNTERPROLIFERATION CENTER  
**CPC OUTREACH JOURNAL**  
MAXWELL AFB, ALABAMA

National Atmospheric Release Advisory Center (NARAC). This new cluster allows consequences predictions for hazardous material releases to be completed approximately 50 times faster than with the previous cluster.

NARAC provides critical atmospheric modeling predictions and analysis to emergency managers and decision makers throughout the country. These predictions inform actions that may be warranted to protect the public and the environment in the event of a hazardous release. Potential accident scenarios include releases from nuclear power plants as well as transport and fallout from nuclear detonations or radiological dispersal devices. In 2011, NARAC was extensively utilized by the U.S. government to model releases from the damaged Fukushima Daiichi nuclear power plant following the tragic earthquake and tsunami in Japan.

“I am very pleased to announce the completion of important hardware upgrades to the NARAC computing cluster,” said Joseph Krol, Associate Administrator for Emergency Operations. “Lessons learned from the Fukushima response highlighted the importance of providing rapid atmospheric modeling products to a variety of users, from responders in Japan, to senior level policy makers in D.C. This strategic investment will allow us to continue to address all of their needs and advance this vital national capability.”

NARAC creates maps predicting the deposition of hazardous materials using current or forecast weather conditions and complex atmospheric transport and dispersion models, and refines initial predictions using field measurement data. For example, a 3-D calculation of radioactive material transported from Japan to the U.S. that required almost three hours of computer time can now be run in less than three minutes.

Additional software modifications are planned to provide results even faster in the future.

NARAC is part of NNSA’s extensive emergency response mission.

<http://nnsa.energy.gov/mediaroom/pressreleases/narac112712>

[\(Return to Articles and Documents List\)](#)

Albuquerque Journal

OPINION/Editorial

## **Editorial: Axing NNSA Should Be Among Options**

By Albuquerque Journal Editorial Board

Sunday, November 25, 2012

It’s past time to take a hard look at what to do with the U.S. agency that manages the nation’s nuclear weapons complex.

In a rare bit of bipartisan common sense, New Mexico Sen. Tom Udall, a Democrat, and Sen. Jon Kyl, an Arizona Republican who is retiring at the end of the year, have introduced an amendment to the pending Defense Authorization Bill seeking to establish an advisory panel to take just such a look at the National Nuclear Security Administration.

Udall wants the panel to come up with ways to reform the NNSA, which is responsible for the security of the nation’s nuclear weapons, nuclear nonproliferation and naval reactor programs. It oversees the U.S. nuclear laboratories, including Los Alamos National Laboratory and Sandia National Laboratories in New Mexico. Together they employ about 20,000 people here.

The New Mexico labs and other NNSA installations have been plagued with untenable cost overruns, spiraling budgets and bureaucracies mired in red tape.

Cases in point:

- A recent report from DOE internal auditors put the DOE on the Inspector General’s “watch list” for its inability to find cost-effective ways to modernize the aging nuclear weapons complex infrastructure.

**Issue No. 1035, 30 November 2012**

*United States Air Force Counterproliferation Research & Education / Maxwell AFB, Montgomery AL*  
Phone: 334.953.7538 / Fax: 334.953.7530





USAF COUNTERPROLIFERATION CENTER  
**CPC OUTREACH JOURNAL**  
MAXWELL AFB, ALABAMA

- A badly needed new plutonium lab at LANL was shelved after its cost estimate escalated from \$800 million in 2007 to as high as \$6 billion in 2010.
- A new security system at LANL's Technical Area 55, where plutonium research is done and nuclear bomb parts are made, doesn't work. The seven-year \$213 million project was scheduled to be finished early next year. Instead, it will be delayed indefinitely. The cost to fix it: a mere \$41 million.

If the bipartisan panel is established, one option it should consider is eliminating the NNSA, which Congress established as a separate agency within the U.S. Department of Energy in 2000 after several scandals and security breaches.

Although Udall's amendment is not aimed at dismantling the NNSA, New Mexico's other senator, Jeff Bingaman, who is retiring at the end of the year, says that idea is worth considering.

"I've always had problems with the NNSA as another level of bureaucracy between the secretary of energy and the labs," Bingaman told the Journal earlier this month. "It doesn't give me any heartburn to think that we would revisit the decision to set up the NNSA. I think it would make some sense."

The agency's track record is appalling. Not only is it a questionable duplication to the DOE, it has turned the nuclear weapons complex into a bureaucratic quagmire that defies attempts at efficiency. Its inability to move forward with essential projects is itself a threat to our nuclear security.

Congress should approve the panel but demand a report with clear recommendations that either put this turkey on the chopping block or figure out how to make it earn its feed.

*This editorial first appeared in the Albuquerque Journal. It was written by members of the editorial board and is unsigned as it represents the opinion of the newspaper rather than the writers.*

<http://www.abqjournal.com/main/2012/11/25/opinion/axing-nnsa-should-be-among-options.html>

[\(Return to Articles and Documents List\)](#)

Financial Times – U.K.  
OPINION/Book Review  
November 25, 2012

## **Nuclear Arms Control Will Become Harder**

*The US and Russia have made progress in cutting their arsenals but Putin could put obstacles in the way of further reductions*

Review by James Blitz

**The Opportunity: Next Steps in Reducing Nuclear Arms**, by Steven Pifer and Michael E. O'Hanlon, *Brookings Institution Press*.

Can the US and Russia agree to make fresh cuts in their bloated nuclear arsenals? As President Barack Obama prepares for a second term in the White House, the question is much on the minds of arms control experts around the world.

In 2010, Mr Obama and Dmitry Medvedev, the then Russian president, agreed a significant round of matching cuts in their nuclear stockpiles, giving a firm underpinning to the "reset" in the US-Russia relationship.

Many hope Washington and Moscow can now go further, taking both sides below their latest treaty commitment to have no more than 1,550 deployed strategic warheads each.

Cutting nuclear stockpiles is a goal to which Mr Obama was committed long before he became US president. In a speech in Prague in 2009, he declared "America's commitment to seek the peace and security of a world without nuclear weapons".

Mr Obama has endorsed the work of Global Zero, the international movement that believes the world should work towards the abolition of nuclear weapons. As many US officials have said, this is an issue that he really "gets".

**Issue No. 1035, 30 November 2012**

United States Air Force Counterproliferation Research & Education | Maxwell AFB, Montgomery AL  
Phone: 334.953.7538 | Fax: 334.953.7530



That said, negotiating new cuts in US and Russian stockpiles is going to be much harder in 2013 than was the case in 2009. For one thing, the president has a huge array of issues on his table – America’s fiscal cliff, the rebalancing of US security policy towards Asia and the upheaval generated by the Arab spring in the Middle East.

Why focus on arms control, where he has already established something of a legacy? Besides, with President Vladimir Putin back in full command in the Kremlin, Russia is in a far more belligerent mood towards the US than was the case four years ago – and will be far harder to negotiate with. As one wag puts it: “In his first term, Obama reset the US-Russia relationship with Medvedev. Now it’s Medvedev who has been reset.”

Still, this does not stop Steven Pifer and Michael O’Hanlon, two leading national security experts at the Brookings Institution, from arguing that another US-Russia arms control treaty should be firmly on the president’s second-term agenda.

In *The Opportunity*, they review the history of east-west nuclear arms reductions going back to the 1950s. But more significantly, their book is a practical and hard-headed analysis of how another Strategic Arms Reduction Treaty might be achieved – recognising that success must overcome sceptical Republicans in Congress as well as hardliners in the Kremlin.

The authors’ central argument – one directed at the hawks back home – is that it is in America’s national interest to get a new US-Russia treaty signed. They argue that in spite of all the cuts achieved in recent decades, Russia still has the opportunity to destroy the US many times over.

Modernising US nuclear weapons is an immense financial burden at a time when the rest of the Pentagon budget is under pressure. Moreover, it is only by making more cuts in US and Russian stockpiles (both still possess about 95 per cent of the world’s nuclear weapons) that other nuclear powers can be persuaded to make their own cuts.

The authors also tackle Russia’s concerns. Moscow’s biggest worry is about US and Nato plans to develop a ballistic missile defence system across Europe. The US and its allies want this system because they seek protection against future long-range missiles from Iran and North Korea.

Yet the Kremlin believes Nato’s interceptors will ultimately undermine Russia’s own offensive capability, and are therefore stalling any discussions about cuts in their existing arsenals. The authors acknowledge that the Russians have a “legitimate concern” about Nato’s missile defence plans. But they spell out concessions the US could take, such as relocating key parts of the west’s missile defence plan, to try to get Moscow off the fence.

For all the authors’ efforts to sketch out a new Start deal, the question that lingers is whether the Kremlin really wants one. “Ultimately, the Russian position will turn on [Mr] Putin’s decision and will be shaped in part by his view of how the issue plays in Russian domestic politics,” the authors concede.

It is in Russia’s interests to agree a new deal (not least because it would reduce the cost of maintaining its own nuclear arsenal). But by portraying the US as an adversary, Mr Putin knows he can distract attention from Russia’s domestic problems.

Where we are left in no doubt, however, is that this is a pressing agenda. The growth in the number of nuclear weapons in some states – most notably Pakistan – alarms most people who follow these issues. In a sane world, the “opportunity” would now be taken.

*The writer is the FT’s defence and diplomatic editor.*

<http://www.ft.com/intl/cms/s/2/e9bf2c5e-349f-11e2-8b86-00144feabdc0.html#axzz2DNleleAe>

[\(Return to Articles and Documents List\)](#)

Center for Strategic & International Studies (CSIS)  
OPINION/ Project on Nuclear Issues

**Issue No. 1035, 30 November 2012**

United States Air Force Counterproliferation Research & Education / Maxwell AFB, Montgomery AL  
Phone: 334.953.7538 / Fax: 334.953.7530



USAF COUNTERPROLIFERATION CENTER  
**CPC OUTREACH JOURNAL**  
MAXWELL AFB, ALABAMA

## Searching for Cyber-Deterrence

November 26, 2012

By Sarah Weiner

Throughout human history, technological advancements have exercised a transformative influence over defense and war-fighting. Horses, steel, gunpowder, tanks, nuclear weapons – each of these changed the nature of the game, rewarding their possessors with huge advantages and forcing military planners to rethink the ways they maintained security in peacetime and fought battles in war. Increasingly it appears that the advent of the Internet – and all the capabilities dependent on this newly-created cyberspace – will be the next paradigm-shifting development in defense. As military strategists attempt to wrap their heads around the offensive capabilities and defensive vulnerabilities presented by cyber-warfare, they will need to create new models for understanding defense in a cyber-age.

Developing a new strategic model is no easy task, and many analysts have been looking to past paradigms to find concepts worth borrowing for the new challenge. One oft-cited but controversial concept originates in the nuclear field. Many, some more carefully than others, have drawn parallels between nuclear deterrence and the potential for cyber-deterrence. These planners hope that through a combination of declaratory and operational policy, as with nuclear and conventional weapons, the US can raise the costs of a potential adversary's cyber-attack to unacceptably high levels. By using cyber and tangible assets, they argue, the US can dissuade others from mounting cyber-attacks against the US.

Others vehemently disagree with this presupposition. Jim Lewis, for example, argued earlier this month at an event at the Stimson Center that deterrence will not work in the cyber domain. He emphasized that difficulties in attributing attacks, "holding hostage" adversaries' cyber and physical assets, and achieving a proportional response all decrease the credibility of US threats and reduce the costs of an adversaries' hostile cyber operations. And Dr. Lewis has considerable evidence on his side: public and private entities in the US experience cyber-attacks on a daily basis. If these attacks are deterrable, we are doing a terrible job of leveraging our capabilities.

For a number of reasons, trying to apply nuclear deterrence logic to cyber warfare feels a bit too much like trying to fit a square peg into a round hole. That does not mean, however, that we should abandon all attempts to draw analogies between cyber and nuclear strategy. Despite a few close calls, the basic principles of nuclear deterrence and mutually assured destruction have prevented the use of nuclear weapons for over 60 years. Understanding the reason why this largely effective and stable model of deterrence cannot map cleanly onto the cyber world may help us better conceptualize strategies for cyber-deterrence.

The first difficulty is establishing an analogue between a nuclear attack and a cyber-attack. We know when a nuclear bomb explodes, and we know it is unacceptable. The spectrum of cyber-attacks, however, spans far, far below the destructiveness of a nuclear strike. Denial-of-service attacks, such as Iran's recent shutdown of several banks' websites, are a world away from the detonation of any weapon, not to mention a nuclear weapon. This creates the problem of credibility and proportionality Dr. Lewis spoke about: responding to such low-level attacks with a military use of force is so disproportionate that it is not a credible threat.

If the US instead decides to use cyber capabilities to deter cyber-attacks, it runs into a second problem. Cyber "weapons" cannot be used in the same way we use nuclear weapons because, unlike nuclear weapons, the demonstration of a cyber-capability quickly renders that capability useless. If the US were to release the details of a cyber-weapon, intended to signal a retaliatory capability, potential adversaries could attempt to steal the technology and/or harden their cyber defenses against the US weapon's specific attributes. This is the opposite of nuclear deterrence, in which the US pursues the most credible and reliable force so that other nations know *precisely* how damaging a US counterstrike would be. Demonstrating that a nation could effectively mount a second-strike in response to a nuclear attack creates a stabilizing dynamic of mutually assured destruction in which no nation believes it could gain militarily by launching a nuclear attack. The trouble with cyber weapons, however, is that they cannot be so transparently deployed. The only effective cyber-attack is an unexpected attack, and that does nothing for signaling or deterrence.

**Issue No. 1035, 30 November 2012**

United States Air Force Counterproliferation Research & Education | Maxwell AFB, Montgomery AL  
Phone: 334.953.7538 | Fax: 334.953.7530



USAF COUNTERPROLIFERATION CENTER  
**CPC OUTREACH JOURNAL**  
MAXWELL AFB, ALABAMA

What do these differences tell us about developing a cyber-deterrent? First, planners must stop treating “cyber” as a discrete and homogenous category. Most of the cyber-attacks government and private enterprises experience on a daily basis are more like cyber-nuisances. Electronic espionage, intellectual property theft, and even denial-of-service attacks may hurt economic productivity, but they come nowhere close to threatening physical assets or human life. The US cannot credibly deter cyber-nuisances with cyber counterattacks because it cannot *signal* an ability to respond or find appropriate *targets* that make the cost of cyber-attacks unacceptably high. Similarly, the US cannot deter cyber-nuisances with threats of military force because such a disproportionate response is simply not credible. If the US cannot raise the cost of attacks it must instead focus on reducing the benefits, and that requires improving cyber defenses in the public and private sectors.

If defense strategists develop an understanding of cyber-security that differentiates between cyber-nuisances and higher-level cyber-attacks, however, countries can begin to more credibly establish deterrence doctrines and red lines. Hacking into a commercial bank is one thing, but taking down the electric grid, causing the release of toxic chemicals, or damaging essential infrastructure is quite another. The US could credibly threaten to retaliate against such devastating cyber-attacks with conventional force. But to do so, it must clearly distinguish non-deterrable, low-impact cyber-nuisances from high-impact attacks so Washington can establish a credible pattern of response and non-response. The US has begun to develop such policies, but significantly more definitional and doctrinal clarity will be necessary before it has a cyber-doctrine capable of signaling clear red lines.

The most devastating cyber-attacks – the kind that would accompany or precede offensive military operations – are almost certainly deterrable. If an adversary believes their actions are likely to begin a war with the US, then the heft of the US’s substantial conventional capabilities will weigh against their decision to strike. That said, the stability of cyber-deterrence is unlikely to ever reach the levels we currently experience in the nuclear domain, where the offensive use of such weapons is almost unthinkable. But that may not necessarily be a bad thing. Nuclear deterrence works so well because the costs are so high; mutually assured destruction really does mean *total destruction* if deterrence fails. Most cyber-attacks could never come close to such levels of damage. And although that means we may be unable to deter low-level cyber-nuisances, it also means that the threat posed by cyber-weapons is much lower than the risk created by other historical revolutions in military technology. On the whole, that seems like a bargain worth accepting.

*Sarah Weiner is a research intern for the Project on Nuclear Issues. The views expressed above are her own and do not necessarily reflect those of the Center for Strategic and International Studies or the Project on Nuclear Issues.*

<http://csis.org/blog/searching-cyber-deterrence>

[\(Return to Articles and Documents List\)](#)

The Heritage Foundation  
OPINION/The Foundry

## **Iron Dome and U.S. Takeaways for Missile Defense**

By Michaela Bendikova and Baker Spring  
November 27, 2012

In the past two weeks, the terrorist organization Hamas launched about a thousand ballistic missiles on Israel. Since then, the Iron Dome short-range missile defense system has occupied the front pages of the media.

The system managed to intercept about 300 missiles and evaluated that about additional 700 missiles did not threaten civilian populations or other high-value areas and therefore did not need to be intercepted. This experience confirms that the missile defense criterion of cost effectiveness has been defined too narrowly in the U.S.

For more than three decades, most U.S. decision makers argued that each ballistic missile defense interceptor must be less expensive than an adversary’s missile. In the case of Iron Dome, one Tamir interceptor costs about \$50,000, many times more than a Hamas rocket.

**Issue No. 1035, 30 November 2012**

United States Air Force Counterproliferation Research & Education | Maxwell AFB, Montgomery AL  
Phone: 334.953.7538 | Fax: 334.953.7530



USAF COUNTERPROLIFERATION CENTER  
**CPC OUTREACH JOURNAL**  
MAXWELL AFB, ALABAMA

Yet this calculation does not take into account the value of the protected area or the costs associated with restoring the area after an incoming missile destroys it. The Iron Dome experience also shows that it is not necessary to shoot down all incoming missiles, but just the ones that threaten what the leadership values.

Beyond physical protection of important assets, Iron Dome provides the Israelis with the space and time to decide on the most appropriate course of action following a ballistic missile attack. Without the missile defense system, Israel could either absorb an attack or conduct retaliatory strikes against its enemies. As *The Wall Street Journal* sums up, "If missiles were landing willy-nilly in Israeli cities, the pressure would be great either for a ground incursion into Gaza, or a possibly humiliating accommodation with Hamas."

It is essential that the U.S. support further development of the system. President Obama took an important step when he signed the United States–Israel Enhanced Security Cooperation Act. The House of Representatives version of the National Defense Authorization Act provides \$680 million to fund the Iron Dome system over fiscal years (FY) 2012 through 2015.

Such an increase strengthens the Israeli and U.S. deterrence posture and opens up an opportunity for making Iron Dome a joint U.S.–Israeli production program. Such a program would be one of several appropriate ways to advance U.S.–Israeli security interests in the region.

With the exception of the U.S.–Israeli cooperative effort, the U.S. missile defense program has suffered significant setbacks in recent years. The Obama Administration cancelled the Airborne Laser, Multiple Kill Vehicle, and Kinetic Energy Interceptor programs and proposed \$1.6 billion in cuts in FY 2010 compared to the prior year's budget estimate.

The Administration has also virtually ignored the space-based missile defense systems and the threat of short-range ballistic missiles launched off the U.S. coasts from either surface ships or submarines—modes of deployment that U.S. adversaries have tested already. Such an attack could cause an electromagnetic pulse (EMP), which would damage or destroy all electronic devices within the line of sight.

The U.S. should develop tools to protect itself from the ballistic missile threat and a potential EMP attack. As Iron Dome shows, the benefits go beyond protecting civilian lives and property.

*Michaela Bendikova specializes in missile defense, nuclear weapons modernization and arms control as research associate for strategic issues in The Heritage Foundation's Allison Center for Foreign Policy Studies. Baker Spring is the F.M. Kirby Research Fellow in National Security Policy at The Heritage Foundation and specializes in examining the threat of ballistic missiles from Third World countries and U.S. national security issues.*

<http://blog.heritage.org/2012/11/27/iron-dome-and-u-s-takeaways-for-missile-defense/>

[\(Return to Articles and Documents List\)](#)

Bulletin of the Atomic Scientist

OPINION/Op-Ed

## DIY Graphic Design

By Yousaf Butt and Ferenc Dalnoki-Veress

28 November 2012

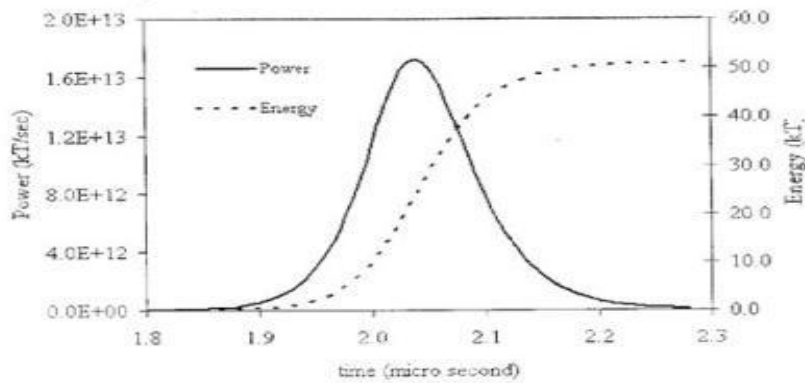
This week the Associated Press reported that unnamed officials "from a country critical of Iran's nuclear program" leaked an illustration to demonstrate that "Iranian scientists have run computer simulations for a nuclear weapon that would produce more than triple the explosive force of the World War II bomb that destroyed Hiroshima." The article stated that these officials provided the undated diagram "to bolster their arguments that Iran's nuclear program must be halted."

**Issue No. 1035, 30 November 2012**

United States Air Force Counterproliferation Research & Education | Maxwell AFB, Montgomery AL  
Phone: 334.953.7538 | Fax: 334.953.7530



The graphic has not yet been authenticated; however, even if authentic, it would not qualify as *proof* of a nuclear weapons program. Besides the issue of authenticity, the diagram features quite a massive error, which is unlikely to have been made by research scientists working at a national level.



شکل (5) تغییرات توان و انرژی آزاد شده بر حسب زمان طی پالس توان

The image released to the Associated Press shows two curves: one that plots the energy versus time, and another that plots the power output versus time, presumably from a fission device. But these two curves do not correspond: If the energy curve is correct, then the peak power should be much lower -- around 300 million ( $3 \times 10^8$ ) kt per second, instead of the currently stated 17 trillion ( $1.7 \times 10^{13}$ ) kt per second. As is, the diagram features a nearly million-fold error.

This diagram does nothing more than indicate either slipshod analysis or an amateurish hoax.

In any case, the level of scientific sophistication needed to produce such a graph corresponds to that typically found in graduate- or advanced undergraduate-level nuclear physics courses.

While such a graphic, if authentic, may be a concern, it is not a cause for alarm. And it certainly is not something proscribed by the Comprehensive Safeguards Agreement between the International Atomic Energy Agency and Iran, nor any other international agreements to which Iran is a party. No *secrets* are needed to produce the plot of the explosive force of a nuclear weapon -- just straightforward nuclear physics.

Though the image does not imply that computer simulations were actually run, even if they were, this is the type of project a student could present in a nuclear-science course. The diagram simply shows that the bulk of the nuclear fission yield is produced in a short, 0.1 microsecond, pulse. Since the 1950s, it has been standard knowledge that, in a fission device, the last few generations of neutron multiplication yield the bulk of the energy output. It is neither a secret, nor indicative of a nuclear weapons program.

Graphs such as the one published by the Associated Press can be found in nuclear science textbooks and on the Internet. For instance, *The Effects of Nuclear Weapons*, by physicists Samuel Glasstone and Philip Dolan, features a similar diagram as its Figure 7.84. This iconic book is freely available online and is considered to be the open-source authority on the subject of nuclear weapons and nuclear weapon effects. Another graphic can be found in Figure 2.11 of the textbook *The Physics of the Manhattan Project*.

It is important to note that other non-nuclear states party to the Nuclear Non-Proliferation Treaty have conducted much more serious computational research on nuclear weaponry. For example, a military institute in Brazil published



USAF COUNTERPROLIFERATION CENTER  
**CPC OUTREACH JOURNAL**  
MAXWELL AFB, ALABAMA

a 2009 doctoral thesis titled "Numerical Simulation of Thermonuclear Detonations in Fission-Fusion Hybrids Imploded by Radiation," which is directly relevant to nuclear weaponization.

The amateurish and technically incorrect graph published by the Associated Press, even if authenticated, pales in comparison to that detailed study.

*Yousaf Butt is a research professor and scientist-in-residence at the James Martin Center for Nonproliferation Studies at the Monterey Institute for International Studies. Ferenc Dalnoki-Veress is scientist-in-residence at the James Martin Center for Nonproliferation Studies.*

<http://www.thebulletin.org/web-edition/op-eds/diy-graphic-design>

[\(Return to Articles and Documents List\)](#)

The Diplomat – Japan  
OPINION/Diplomat Blogs

## **The Problem From Hell: South Asia's Arms Race**

*India has responded to Pakistan's nuclear build-up by innovating and adopting a controversial concept called "Cold Start."*

November 29, 2012

By Paul Bracken

South Asia is going through what can be called the first bounce of the nuclear ball, an arms buildup. This is a time when Pakistan and India focus on acquiring fissile material and building weapons. This drives Pakistan's plutonium mills and India's commercial nuclear power deal with the United States.

The second bounce of the ball may be quite different than the first. For example, it may see intense crises and shocks – aggravated by the enlarged nuclear forces. So it would be a mistake to assume the current environment will be the environment of the future. Like the first nuclear age, the Cold War, there are likely to be ebbs and flows in competition, with different problems and shocks developing over time, interspaced with periods of relative calm.

India has mainly responded to Pakistan's nuclear buildup not with one of its own, at least not yet anyway, but with strategy innovation, improved intelligence, missiles, and a nuclear triad. Strategy innovation is especially important because it is one of the great drivers of competition, and may transcend the political issues that are the original source of rivalry.

In the first nuclear age innovation – technological and strategic – was a major factor in the arms buildup. The appearance of strategic innovation in South Asia is important, therefore, in a way that goes beyond the particulars of any one innovation. An example of India's strategy innovation involves new ways of using conventional forces in a nuclear environment. India's "Cold Start" strategy, for example, calls for prompt mobilization of fast-moving battle groups made up of armor, helicopters, and mechanized forces to thrust into Pakistan as punishment for a Pakistani attack or a terrorist outrage.

Cold Start's subnuclear option recognizes the nuclear threshold explicitly. The concept behind it is to fight below this threshold, if possible. But Cold Start has a nuclear element, too. Should Pakistan fire nuclear weapons at this Indian force, India can escalate with nuclear strikes of its own.

Cold Start provides fascinating insight into the dynamic interactions of the two military systems on the subcontinent. It shows how both countries have shifted from conventional war-fighting to escalation strategies. I do not believe this is a matter of a conscious choice by either country. Rather, it is an emergent property of the interacting nuclear systems in South Asia. They have little choice but to play the game this way, short of a sweeping arms control or disarmament initiatives.

**Issue No. 1035, 30 November 2012**

United States Air Force Counterproliferation Research & Education | Maxwell AFB, Montgomery AL  
Phone: 334.953.7538 | Fax: 334.953.7530



Escalation as a strategy has come into being not because anyone wanted it too, but from the mutual interaction of both sides having nuclear weapons. While escalation strategies have always existed in South Asia, they are now front and center. This marks a fundamental change from the conventional attrition strategies of previous wars.

Cold Start shows something else, too. The dynamics in the region go beyond nuclear weapons in the narrow sense. There is no rigid arms race with each side matching the other in atomic bombs. If this were the case it would actually be easier to control. But the arms race is more complicated because it involves parallel changes in other key subsystems, and these have their own momentum.

If the arms race in South Asia was limited merely to nuclear weapons, which is the way many observers look at it, it would be one thing. But the competition is broadening, with India tightening linkages among intelligence, command and control, cyberwar, and strategy innovations like Cold Start. For example, the “front end” of Cold Start is better intelligence to determine exactly what Pakistan has done and the readiness of its conventional and nuclear forces. India has invested heavily in satellites, advanced radars, signals intelligence, and reconnaissance to give its commanders an accurate picture of what Pakistan is up to. The “tight coupling” of these elements, in turn, is linked to a rapid mobilization of India’s army and air force. Any delay in mobilization would undermine the entire strategy of counter-escalation against Pakistan.

Cold Start is controversial for good reason. The United States, in particular, has tried to discourage India away from it because it looks like a fast way to produce a nuclear war in South Asia. This is especially true if Pakistan, as many suspect it is in the process of doing, deploys tactical nuclear weapons on its border with India in response to Cold Start.

I wouldn’t be surprised if India changed the name, Cold Start, because it connotes going to war quickly, from a cold start. But while the name may change, the broader strategic concept probably won’t, because India has to come to grips with nuclear realities of South Asia in some way, and because its army and navy want to play a role in the defense of India – even in a nuclear context.

As to where the arms race in South Asia is headed, there are several different possibilities. There is a tendency for some analysts to use the past and simply extrapolate it into the future. But this straight-lining of past trends into the future can be misleading. India is a much richer country than it was in the past, and much of this wealth comes from technological and business innovation.

India’s military in the past was a gigantic, inefficient, sluggish infantry with bloated headquarters and support staffs. But there are more dynamic possibilities for the future, ones that do not involve across the board modernization of every single element of the Indian armed forces. In fact, India is currently in the process of reallocating its defense capital from “old” programs to “new” ones, including nuclear weapons, missiles, submarines, intelligence, stealth, cyberwar, and satellites. One reason for this shift is that India already has a large edge over Pakistan in the old military programs of tanks, artillery, and aircraft, and investing more capital in these capabilities results in diminishing marginal returns. The greater opportunity for India lies in the new program areas, especially in a nuclear context and with respect to China.

The arms race in South Asia now underway is only the first act of a longer drama. Acts two and three could look quite different than the current situation does. For this reason, new, additional frameworks are needed to understand what is taking place. At the moment, the deterrence and nonproliferation are the frameworks most often used to understand the subcontinent. Both put the spotlight on the number of nuclear weapons in each country’s respective arsenals. But future acts require new, different frameworks. The two discussed here are escalation and counterescalation, and the tight coupling that develops among key subsystems like intelligence, cyberwar, and nuclear weapons. In order to understand the nuclear dynamics of South Asia a wider set of frameworks are needed, ones that go beyond traditional approaches.

*Paul Bracken is professor of management and political science at Yale University. This article is adapted from his new book *The Second Nuclear Age, Strategy, Danger, and the New Power Politics* (Times Books).*

<http://thediplomat.com/2012/11/29/nuclear-south-asia-the-problem-from-hell/?all=true>

**Issue No. 1035, 30 November 2012**

*United States Air Force Counterproliferation Research & Education | Maxwell AFB, Montgomery AL  
Phone: 334.953.7538 | Fax: 334.953.7530*





USAF COUNTERPROLIFERATION CENTER  
**CPC OUTREACH JOURNAL**  
MAXWELL AFB, ALABAMA

[\(Return to Articles and Documents List\)](#)

The Nation – Thailand  
OPINION/Editorial

## Myanmar Must Come Clean On Nuclear Issues

*Inspections and assurances will allow Asean to take a more united stand on its stated aim of keeping the region free of nuclear weapons*

By *The Nation*

November 29, 2012

Beyond the banner headlines about the normalisation of US-Myanmar relations, the nuclear weapons issue is still one of the most important that the two countries will have to deal with as their renewed friendship evolves. For years, Washington has tracked the development of Myanmar's nuclear ambition and its alleged willingness to satisfy North Korea's eagerness to find foreign clients and patrons.

Myanmar's President Thein Sein has promised the US that his country will end its controversial interest in Pyongyang's missile technology and nuclear-related programmes. However, despite repeated assurances from Nay Pyi Taw, some scholars and experts believe that cooperation on missile technology still continues unabated between the two Asian countries. The interception of components for weapons of mass destruction and missile-related technology in Japan in August was very disturbing.

Over the past two months there have been extraordinary developments in US-Myanmar relations. The six-hour visit by US President Barack Obama to Myanmar earlier this month was an epoch-making event for the former pariah country. Obama's visit hinged on the promise that Myanmar has, or will, cut all controversial ties with North Korea.

After the North's bombing of a South Korean airliner in 1983, Myanmar and North Korea strengthened their relationship based on their regimes' mutual disgust at foreign interventions. North Korea was able to convince Myanmar's military leaders to buy in to its military technology, including some construction of physical facilities.

However, all of these programmes are said to have stopped, due to the positive outlook that Washington has adopted as a result of tangible reforms in Myanmar. It is hoped the new relationship will be a lasting one that will prevent further dangerous liaisons between Myanmar and North Korea.

Myanmar's nuclear ambition was an issue of concern to Asean in recent years. During the Hanoi summits in 2010, Asean leaders asked repeatedly for Myanmar to clarify its stance. The generals in Nay Pyi Taw often dismissed these questions without any explanation.

Now that the country has been recognised and accepted in the international community, it is imperative that Myanmar puts the record straight by allowing on-site inspections and detailed reports. Otherwise, its reputation could remain suspect. Myanmar thus needs to give a final assurance to its Asean friends that its military connections to North Korea have been severed.

Asean is working hard to ensure the region is free from nuclear weapons. The regional grouping has asked the world's nuclear powers to honour its non-nuclear agreement, signed in 1995. At the moment, although all the nuclear powers have expressed interest in signing the treaty, they still have the right not to inform their hosts whether they have nuclear weapons on board their vessels during port visits to Asean member countries.

Asean is moving forward to engage all the major powers under the framework of the East Asia Summit (EAS). The EAS has become one of the most dynamic region-wide, leaders-only forums. It discusses strategic and security issues as well as Asean's connectivity with other powers. This is a good sign. With the world's most powerful countries engaging with Asean on such issues, the group can still have a say on issues pertaining to nuclear non-proliferation. But first of all, Asean has to show unity in its nuclear-free ambition. Without such a firm footing, the group's bargaining power could be weakened.

**Issue No. 1035, 30 November 2012**

United States Air Force Counterproliferation Research & Education / Maxwell AFB, Montgomery AL  
Phone: 334.953.7538 / Fax: 334.953.7530



<http://www.nationmultimedia.com/opinion/Myanmar-must-come-clean-on-nuclear-issues-30195209.html>

[\(Return to Articles and Documents List\)](#)

New Scientist – U.K.  
OPINION/Threatwatch

## **Alarming Evidence Points at Iran Nuclear Bomb Effort**

29 November 2012

By Debora MacKenzie

A graph showing two smooth curves tracing the energy of a nuclear explosion, with a caption in Farsi: is this definitive evidence that Iran is building nuclear weapons? By itself, no, say experts contacted by *New Scientist* – but when combined with other recent clues, some feel it is starting to add up to something.

The graph was leaked this week by a country hostile to Iran's nuclear research, in an apparent attempt to stir up a meeting of the International Atomic Energy Agency in Vienna, Austria, which starts today. Among other matters, the IAEA member states will consider charges that Iran is developing a nuclear bomb. Iran insists its nuclear activities are peaceful.

The graph shows how a 50-kiloton nuclear explosion, about three times the size of the Hiroshima bomb, releases energy and power over a few microseconds. It could simply be a theoretical model – Iran's rate of publication in the nuclear engineering field is growing faster than any other country's. It may also be wrong – experts at the Monterey Institute for International Studies say the graph contains an elementary mathematical error.

But there are reasons for concern. In November 2011, the IAEA reported that two countries' intelligence services had given it modelling studies performed by Iranian researchers in 2008 and 2009, aimed at determining the "nuclear explosive yield" of highly-enriched uranium (HEU) spheres "subjected to shock compression, for their neutronic behaviour". The graph is said to come from these studies.

### **Design hurdle**

In fact, it reflects a tricky design problem. If Iran is developing a bomb, it is thought likely to use a design in which the explosive "core" includes a neutron generator, such as the hydrogen isotope deuterium or the element polonium. This allows the core to be lighter and more stable. Neutron generators feature in all modern nuclear weapons.

In these cores, conventional explosives arrayed around a hollow sphere of fissile material – say, HEU - are detonated, compressing the HEU so that it exceeds critical mass, starting a chain reaction. This also compresses a neutron generator inside the HEU sphere, triggering fusion reactions that release fast neutrons. They boost the chain reaction in the HEU, so more of it undergoes fission.

But not always. The whole process must produce enough neutrons at just the right point in the chain reaction. Too few, too early or too late, and fission can fizzle; the bomb's explosive force depends on how many neutrons emerge and when.

Engineers solve this problem by detonating cores with conventional explosives and neutron generators, but using a substitute for the HEU. They then measure the neutrons produced, says David Albright of the Institute for Science and International Security, a nuclear monitoring group that tracks Iran.

The results are then plugged into computer models based on commercial models used in the nuclear industry, to calculate what the released neutrons would have done if the core contained HEU. The graph leaked this week, says Albright, could be from such a model.

### **Real data?**



USAF COUNTERPROLIFERATION CENTER  
**CPC OUTREACH JOURNAL**  
MAXWELL AFB, ALABAMA

The worry is that the data could have come from suspected tests at the Parchin military site in Iran in 2003. Iran refused the IAEA's request last February to inspect Parchin. On the other hand, "it could be just a modelling exercise, not based on any real data at all", warns Albright.

Even if it is, "the application of such studies to anything other than a nuclear explosive is unclear", the IAEA remarked drily in 2011, saying it would ask Iran to explain. This month the IAEA said it was "unable to report any progress on clarifying the issues." Talks between it and Iran resume on 13 December.

"I am not worried about this one paper, but together with everything else, it is alarming," says Olli Heinonen of Harvard University, who was the IAEA's anti-proliferation chief until 2010. We need to consider the different kinds of evidence, he says.

### **Satellite images**

For example, the IAEA report this month said satellite images of Parchin show removal of buildings and equipment, "run-off of large amounts of liquid... over a prolonged period" from the containment building thought to have housed the tests, and replacement of "considerable quantities of earth". The containment building vented to the outside, says Albright, so any explosive tests there might have released telltale chemical or radioactive traces. There are fears that these are being removed before the IAEA can inspect.

Moreover, the IAEA report says Iran has so far made 233 kilograms of uranium enriched to nearly 20 per cent, which takes little effort to enrich further to 90 per cent, weapons-grade. Iran is also poised to treble its rate of production, supposedly to fuel a medical isotopes reactor in Tehran. But Albright calculates that the reactor would need at most 18 kg a year. "Even the current rate of production of 20 per cent [enriched uranium] far exceeds Iran's need" for the medical isotopes reactor, he says in an ISIS report.

*Debora MacKenzie is trained as a biomedical scientist, but left the lab for journalism, and has written for the British scientific weekly New Scientist since 1982.*

<http://www.newscientist.com/article/dn22560-explosive-evidence-points-at-iran-nuclear-bomb-effort.html>

[\(Return to Articles and Documents List\)](#)

Russia Beyond the Headlines

OPINION/Commentary

## **Will Russia Stop the Next START?**

*Russia may withdraw from the New Start (Strategic Arms Reduction Treaty) it signed with the United States in Prague two years ago.*

November 30, 2012

By Yevgeny Shestakov

This is not a hypothetical threat, but a very real scenario about which Sergei Ryabkov, the deputy foreign minister, warned this month.

The documents signed in the Czech capital envisaged equal cuts by Moscow and Washington of deployed and non-deployed defense systems. The treaty was part of the "reset" of Russian-American relations. Moscow signed the New Start with a proviso that it could withdraw from the agreement if the US's missile defense system posed a threat to Russia's national interests. At the time, that proviso seemed an unnecessary precaution on Russia's part. But not so now.

Why does Moscow feel further disarmament initiatives are unacceptable? The most obvious reason is the continuing build-up of the American ballistic missile defense (BMD) system. According to the Russian military, there is no guarantee that this large-scale missile defense system will not be targeted against Russian strategic arms.

**Issue No. 1035, 30 November 2012**

United States Air Force Counterproliferation Research & Education | Maxwell AFB, Montgomery AL  
Phone: 334.953.7538 | Fax: 334.953.7530



Unlike other joint initiatives with the West, such as the control over fissionable materials, or the Treaty on Conventional Armed Forces in Europe, where the obligations of the parties are sealed on paper, the US is only prepared to agree verbally on missile defense, although the issue affects Russia's defense capability and calls for very specific guarantees.

The White House says the US Congress would not vote for a written treaty with Moscow that imposes restrictions on the BMD system. Russia sees this as indirect proof that the US missile defense may be used against Russian strategic arms. The fewer warheads Russia has, the easier they can be neutralised by the missile defense system, Russian experts say. Against this backdrop, calls from international institutions for Moscow to further cut armaments defy common sense.

Computer-assisted exercises to practise the interaction of Russian and Nato defenses in the event of a missile threat from third countries were recently held in Germany. The common system proved to be highly effective in intercepting medium- and short-range missiles, according to Anatoly Antonov, the Russian deputy defense minister. But the results of the exercise have still not been confirmed by the US. No wonder, because if it admitted positive results, Washington would be hard pushed to explain why Europe has to turn down Moscow's offer of creating a common missile defense system.

Addressing a recent international conference in Moscow on nuclear weapons and international security in the 21st century, an American expert argued that continuing to disarm Russia would set a positive example to its nuclear neighbours – China, India and Pakistan. In theory, it would inspire them to start thinking about reducing their own arsenals. Do I really need to explain how Utopian that assumption is, especially if you consider that the simmering old conflicts in Asia and the Arab East are heating up again?

Moscow is convinced that a new strand of the global arms race is about to start, if it has not started already. Western armies possess high-precision systems, missiles capable of moving at hyper-speeds making them almost as effective as nuclear weapons. Russia has to react to these new threats.

First Vice-Premier Dmitry Rogozin, who is in charge of the military-industrial complex, has cited some figures: Moscow will spend 20 trillion roubles on the procurement of new military hardware and a further three trillion to replenish its test bench fleet by 2020. The draft Russian budget for the coming years also earmarks hefty sums for defense. Meanwhile, spending on education, science and health care has been slashed as the Russian leadership considers defense spending so vital that it is ready to sacrifice the budget's social items. Rogozin suggested that corruption in the military-industrial complex be equated to high treason.

A retired Russian military commander recalled how in Soviet times, he distributed warheads required for a pre-emptive strike on the potential enemy. Everybody at the Ministry of defense knew the rules of the game: if experts said the Soviets needed no more than eight to 10 nuclear missiles to hypothetically wipe out New York, the figure fixed on paper would be 10 times higher: that is, not eight but 80 missiles.

The Pentagon faced a similar problem in its own planning. A report by Global Zero, an international organisation that analyses surplus weapons in Russia and the US, says that for America to counter the nuclear threat from Russia, it should allocate 80 warheads for the hypothetical destruction of Moscow. Experts say that this is 10 times the number needed but it would assure parity with the Russian nuclear potential. The authors of Global Zero believe that the nuclear weapons reduction parameters envisaged under New Start could easily be increased without damaging the defense capabilities of the two sides. Russia, however, takes a more guarded view of such international initiatives.

While not renouncing further nuclear arms reduction talks, Russia thinks they should only be conducted on a multilateral basis and should involve all countries with nuclear programmes, and only after nuclear missile defense guarantees are received from the Americans and all the New Start provisions are implemented.

For now, the Kremlin is expected to disarm even as the US missile defense system is being strengthened and new nuclear countries are emerging and building up their arsenals. All of these factors are not conducive to Moscow's participation in the struggle for a nuclear zero.

**Issue No. 1035, 30 November 2012**

*United States Air Force Counterproliferation Research & Education / Maxwell AFB, Montgomery AL  
Phone: 334.953.7538 / Fax: 334.953.7530*



**USAF COUNTERPROLIFERATION CENTER**  
**CPC OUTREACH JOURNAL**  
MAXWELL AFB, ALABAMA

Unless the West convinces Russia by signing concrete agreements that the building of BMD does not threaten its security, Moscow will start making adjustments to the New Start agreement, arguing that the wording of the document no longer meets the needs of the times.

*Yevgeny Shestakov is the editor of the international politics desk at Rossiyskaya Gazeta.*

[http://rbth.ru/articles/2012/11/30/will\\_russia\\_stop\\_the\\_next\\_start\\_20565.html](http://rbth.ru/articles/2012/11/30/will_russia_stop_the_next_start_20565.html)

[\(Return to Articles and Documents List\)](#)

**Issue No. 1035, 30 November 2012**

*United States Air Force Counterproliferation Research & Education / Maxwell AFB, Montgomery AL*  
*Phone: 334.953.7538 / Fax: 334.953.7530*