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MAXWELL AFB, ALABAMA

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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.

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London Daily Telegraph – U.K.

Israel Says Iran Has Pulled Back from the Brink of Nuclear Weapon - For Now

Iran has drawn back from its ambition to build a nuclear weapon but the respite is only temporary and Tehran will still have to be confronted by next summer, Ehud Barak, the Israeli defence minister, said on Tuesday.

By David Blair, Chief Foreign Correspondent

30 October 2012

An immediate crisis was avoided in the summer when Iran quietly chose to use over a third of its medium-enriched uranium for civilian purposes, delaying the moment when it could have built a nuclear bomb. Without this decision, Mr Barak told *The Daily Telegraph*, the situation would “probably” have peaked before the US presidential election.

In the event, Iran delayed the “moment of truth” by “eight to 10 months”, but Mr Barak predicted that sanctions and diplomacy would still fail to resolve the stand-off. If so, he said that Israel and its allies would probably face the decision over whether to strike Iran’s nuclear facilities in 2013.

Israel reserved the right to act alone, added Mr Barak, who stated bluntly that any “operation against Iran” would be less dangerous “now” than when the country had crossed the nuclear threshold.

Mr Barak, the most decorated soldier in Israeli history, became defence minister five years ago with one driving preoccupation. His central task – indeed what he views as his historic responsibility – is to prevent a nuclear-armed Iran from threatening Israel and casting a shadow over the world.

With every passing month, Mr Barak believes that Iran is progressing steadily towards its goal. In his London hotel room, the minister laid out how, on his watch, Tehran’s stockpile of enriched uranium had grown from 850kg to 6.8 tons.

His gnawing concern is that Tehran will fortify its nuclear plants, particularly the enrichment facility dug into a mountainside at Fordow, to the point where they become invulnerable to the striking power of Israel’s air force. If Iran reaches this “zone of immunity”, Israel would lose its ability to deal independently with a crucial threat, forcing the country to trust the rest of the world and break the principle of self-reliance that underlies its very foundation.

Earlier this year, however, Iran delayed the arrival of that moment. Tehran has amassed 189kg of uranium enriched to 20 per cent purity, a vital step towards weapons-grade material. In August, the country’s experts took 38 per cent of this stockpile and converted it into fuel rods for a civilian research reactor, thus putting off the moment when they would be able to make uranium of sufficient purity for a nuclear bomb.

Mr Barak said this decision “allows contemplating delaying the moment of truth by eight to 10 months”. As for why Iran had drawn back, the minister said: “There could be at least three explanations. One is the public discourse about a possible Israeli or American operation deterred them from trying to come closer. It could probably be a diplomatic gambit that they have launched in order to avoid this issue culminating before the American election, just to gain some time. It could be a way of telling the IAEA [International Atomic Energy Agency] ‘oh we comply with our commitments’.”

Mr Barak added: “Maybe it’s a combination of all these three elements. I cannot tell you for sure.”

But this decision had probably avoided a crisis. Asked whether the critical moment would otherwise have arrived “about now”, Mr Barak replied simply: “Probably yes.”

Yet the minister stressed how Iran’s move was not a genuine change of heart. The fuel rods could be converted back into medium-enriched uranium, although this would take months and waste much of the material. In any event, Iran is now using 9,852 centrifuges to enrich uranium, according to the IAEA, so its stockpile is being replenished.

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Mr Barak insisted that Iran was still resolved to build nuclear weapons, predicting that success would trigger an arms race in the Middle East and “make any non-proliferation regime impossible. Saudi Arabia will turn nuclear within weeks – according to them. Turkey will turn nuclear in several years. The new Egypt will have to follow”. The world would start the “countdown” to the “nightmare” of “nuclear material ending up in the hands of terrorist groups”.

Because the possible consequences were so terrible, Mr Barak said that America and Europe shared Israel’s analysis. “We all agree that the Iranians are determined to turn into a military nuclear power and we all share the declaration that we are determined to prevent Iran from turning nuclear and all options are on the table,” said Mr Barak. “We mean it – we expect others to mean it as well. So it’s not something just about us. But we, for obvious reasons, see the Iranian threat in much more concrete terms.”

In the final analysis, Mr Barak insisted that Israel would decide for itself whether to strike Iran’s nuclear facilities. “When it comes to the very core of our security interests and, in a way, the future of Israel, we cannot delegate the responsibility for making decisions even into the hands of our most trusted and trustworthy ally,” he said. “It doesn’t mean that we would be sorry if the Iranians come to the conclusion on their own. The opposite is true. But, if no one acts, we will have to contemplate action.”

He added: “Basically, it’s about the question of when they come into this zone of immunity, where no Israeli surgical attack, probably somewhat later not even an American surgical attack, can delay them significantly. That’s the issue that bothers us.”

As for when Iran will reach the “zone of immunity”, depriving Israel of its military option, Mr Barak forecast this would probably happen “next spring or early summer”.

Mr Barak acknowledged that the sanctions on Iran were “unprecedented in scale and depth”, but he still predicted their failure. “To tell you the truth, out of long experience of the Middle East, I am extremely sceptical about the chances that it will lead the ayatollahs to sit together at any point in the foreseeable future and decide to give up their intention to go in the footsteps of Pakistan and North Korea and turn into a military nuclear power,” he said.

“They think of themselves as a major regional power from the dawn of history and they are determined not to fall into the trap that, in their mind, in their judgment, the late Gaddafi fell into.”

The costs and risks of a preventive war would only mount, so the option of acting “now” must be retained, he stressed. “It’s not a minor decision to contemplate an operation against Iran, but however complicated, dangerous – it probably carries some unintended consequences – an operation against Iran could be now – think of what it means to try it when Iran is already nuclear, several years down the stream,” he said.

“It would be much more complicated, much more dangerous and – with far-reaching, unintended potential consequences – much more costly in terms of human lives.”

Mr Barak offered a message of cold realism. “Don’t misread me,” he said. “We would love to wake up one morning and learn, against my expectations, that the ayatollahs gave it up. I don’t believe it will happen.”

<http://www.telegraph.co.uk/news/worldnews/middleeast/iran/9643647/Israel-says-Iran-has-pulled-back-from-the-brink-of-nuclear-weapon-for-now.html>

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Press TV – Iran

Iran: No Talks with P5+1 Before US Presidential Polls

Wednesday, October 31, 2012

Tehran has no plans to hold talks with the six major world powers of the P5+1 before the US presidential polls, a member of Iran’s Supreme National Security Council (SNSC) tells Press TV.



Speaking to Press TV on Wednesday, the SNSC official rejected media reports that Iran's chief negotiator Saeed Jalili may hold talks with EU foreign policy chief Catherine Ashton before November 6.

On Tuesday, Ashton said that European officials had met last weekend with aides to Jalili, adding that she plans to meet directly with him soon.

Jalili and Ashton last met in Istanbul on September 18 in a follow-up to their previous negotiations.

Iran and the P5+1 group, comprising - Britain, China, France, Russia and the US plus Germany - have held several rounds of multifaceted talks mainly over the Iranian nuclear energy issue.

The United States, Israel and some of their allies have repeatedly accused Iran of pursuing non-civilian objectives in its nuclear energy program.

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

<http://www.presstv.com/detail/2012/10/31/269693/iran-no-talks-with-p51-before-us-polls/>

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New York Times

Iranian Hard-Liners Reject Any Talks With U.S.

By THOMAS ERDBRINK

November 2, 2012

TEHRAN — Angry Iranians gathered in front of the former American Embassy here in Tehran on Friday to celebrate the annual “Day of Fighting the Global Arrogance,” and a senior security official warned against any compromise with the “great Satan.”

Holding up models of missiles, which had “Made in Iran” proudly written on them, bearded youths stood before the former American mission here, almost 33 years after it was seized by Islamic students on Nov. 4, 1979. The hostage crisis that ensued led to 444 days of captivity for 52 American diplomats and the break in diplomatic relations between Washington and Tehran that continues today.

While The New York Times reported last month that Washington and Tehran were testing the waters for direct talks — an idea denied in both capitals — Iranian hard-liners turned the annual commemoration on Friday into a stage for opposing any form of compromise.

“Today we commemorate the conquering of the castle of Satan!” shouted Mohammad Reza Naghdi, the commander of a paramilitary group. “Hear me now, we condemn all sorts of secret talks!”

Senior officials have accused President Mahmoud Ahmadinejad of wanting to start such talks, stressing that decisions about potential relations with the United States can only be made by the supreme leader, Ayatollah Ali Khamenei. While it is unclear if any secret approaches were being made, the speech during the commemoration ceremony seemed aimed at convincing the public that it is better not to have relations with Washington.

Mr. Naghdi said that the embassy seizure had been a turning point in history — the start of America's decline and the rise of the Islamic Republic of Iran.

“In those days, the U.S. could change governments with one phone call,” he said. “But we took their embassy, and today we witness the fallen and miserable America in front of Iran.”

Stringent international sanctions imposed to push Iran to suspend its nuclear ambitions, fear of war and shifting opinion in the growing urban middle class, are prompting many to say privately here that it is time to start negotiations



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with the United States. But the commander made clear that the official state narrative is by no means ready for such a move.

“The Iranian nation will not resume ties with America. There are conditions for America to re-establish tie with Iran. First, it should behave. It should close its military bases in 50 countries. It has more than 86 military bases across the world. Why should a country have military bases in another country?” Mr. Naghdi said.

“It should remove its naval ships from the Persian Gulf, Mediterranean Sea and Pacific Ocean and take them to its own coasts,” he added.

“It doesn’t matter for us who wins the U.S. elections next week,” said Mansour Nouri, 42, a writer. “Who leads America is unimportant, its policies never change.”

http://www.nytimes.com/2012/11/03/world/middleeast/iranian-hard-liners-reject-any-talks-with-us.html?_r=0

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Global Times – China

PLA Sees Major Reshuffle

October 26, 2012

By Yang Jingjie

The People's Liberation Army (PLA) has undergone a major leadership reshuffle ahead of the 18th National Congress of the Communist Party of China (CPC), with a sweeping change of top posts in its four key departments, the website of the Ministry of National Defense showed Thursday.

Military observers say the younger generation of top military officers, who have more professional knowledge and understanding of the outside world, would lead the armed forces down the path of modernization.

According to the ministry's website, Fang Fenghui, 61, Zhang Yang, 61, Zhao Keshi, 65, and Zhang Youxia, 62, were appointed as heads of the General Staff Department, General Political Department, General Logistics Department and General Armament Department respectively.

Fang, Zhao and Zhang Youxia held the posts of commanders at the military regions of Beijing, Nanjing and Shenyang before the promotion, while Zhang Yang served as political commissar in the Guangzhou Military Region.

The reshuffle in the four departments and some military regions as well as the promotion of former PLA deputy chief of general staff Ma Xiaotian to commander of the PLA Air Force this week were seen by media as the largest PLA personnel reshuffle in a decade.

Yang Yujun, spokesman of the ministry, told a monthly briefing Thursday that the personnel adjustment was a normal arrangement, adding there is no need for any in-depth interpretation, China Central Television reported.

The personnel change has triggered speculation about the future lineup of the Central Military Commission (CMC) and future development of the PLA after the 18th CPC Congress next month.

Major General Xu Guangyu, a councilor at the China Arms Control and Disarmament Association, told the Global Times Thursday that as commander of the Air Force, Ma is likely to be promoted.

According to him, the relatively young senior officers who came to the key posts would make sure that China's military goes down the path of modernization, given their knowledge structure and comprehensive qualities.

Li Jie, a senior researcher at the Chinese Naval Research Institute, echoed his sentiments, noting that the officers are inter-disciplinary talents who are more professional and have better field records.

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Ma Xiaotian, who served in the Air Force for nearly 40 years in several military regions, has also served as president of the PLA National Defense University and deputy chief of general staff. Ma's experience gave him an edge compared with traditional commanders, commented Li.

Ma, who was in charge of intelligence and foreign exchanges during his tenure as deputy chief of general staff, headed a series of bilateral security talks with foreign armed forces, including the US and Indian armies.

"His background in foreign exchanges could give him a better understanding of the international situation and foreign troops. It will help us learn from foreign experience and technologies," Li said.

Despite the personnel change, Peng Guangqian, a specialist in military strategy at the PLA Academy of Military Science, told the Global Times that it wouldn't change the fact that the Party commands the military or the PLA's defense policy, which is purely defensive in nature.

Analysts expect that the PLA will further strengthen its Navy and Air Force after the 18th Party Congress to safeguard the country's maritime interests and territorial integrity more actively.

"It will more actively coordinate with local authorities and related administrative departments to safeguard China's expanding national interests," said Li.

Last Friday, the Navy's East China Sea Fleet held a joint exercise with the marine surveillance and fishery management authorities in the East China Sea, simulating a boat clash between law enforcement vessels and foreign patrol boats, against the backdrop of increasing tensions between China and Japan over the Diaoyu Islands.

Li also expected the PLA to shoulder more international obligations, such as marine peacekeeping and ensuring the security of international sea lanes to exert its role as a responsible power.

In addition to further developing the Navy and Air Force, Xu said the country would also continue to develop its strategic force as well as its capacity to fight a cyber war against the backdrop of informatization.

<http://www.globaltimes.cn/content/740516.shtml>

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Yonhap News Agency – South Korea
October 26, 2012

Defense Ministry Denies Possibility of S. Korea Joining U.S. Missile Defense

SEOUL, Oct. 26 (Yonhap) -- The defense ministry strongly denied Friday that South Korea could participate in the U.S. missile defense system, saying the American system is "fundamentally different" from the Korean system.

U.S. Defense Secretary Leon Panetta said Wednesday after annual security talks with his South Korean counterpart Kim Kwan-jin that Washington is still in consultations with Seoul over its future role in a regional missile defense system.

That raised speculations Seoul could take part in the U.S. missile defense system or MD.

"The MD system that the United States envisions is a multi-layered defense system, which is fundamentally different from the Korean type of missile defense system that is oriented to low-layer defense," a defense ministry official told reporters on condition of anonymity.

"We cannot but build a low-layer defense system under operational situations on the Korean Peninsula. Therefore, building the KAMD (Korean Air and Missile Defense) means never participating in U.S. efforts to build a multi-layer defense system," the official said.

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Officials have said it makes no sense for South Korea to participate in the U.S. system because the country cannot rely on the U.S. system when North Korean missiles can reach here in just five to six minutes.

They have, however, stressed the need to cooperate with the U.S. on missile defense as American surveillance and early warning capabilities are critical to monitoring North Korean missile bases and activity.

<http://english.yonhapnews.co.kr/national/2012/10/26/96/0301000000AEN20121026009200315F.HTML>

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People's Daily – China

China Dismisses Reports about Anti-Satellite Missile Test

(Xinhua)

October 26, 2012

BEIJING, Oct. 25 (Xinhua) -- Chinese Defense Ministry spokesman Yang Yujun has dismissed media reports about a planned test launch of an anti-satellite missile in November.

"Such reports did not conform to the fact," Yang said at a regular news briefing on Thursday.

Reports said that China will conduct the test targeting satellites with a high orbit altitude, such as reconnaissance satellites and navigation satellites. Reports said the test would be conducted after the U.S. presidential election next month.

<http://english.peopledaily.com.cn/90786/7992190.html>

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Boston.com

Outspoken China Officers a Challenge to the Party

By CHRISTOPHER BODEEN, Associated Press

October 28, 2012

BEIJING (AP) — China's government has demanded talks with Japan in their latest dust-up over a set of tiny islands, but a high-ranking Chinese military officer has suggested drastically more belligerent responses.

Dispatch hundreds of fishing boats to fight a maritime guerrilla war, says Maj. Gen. Luo Yuan. Turn the uninhabited outcroppings into a bombing range. Rip up World War II peace agreements and seize back the territory, now controlled by Japan but long claimed by China.

"A nation without a martial spirit is a nation without hope," Luo declared at an academic forum this month in the southern city of Shenzhen while officials in Beijing continued to urge negotiations.

Luo's remarks reflect a challenge for China's leadership from a military increasingly willing to push the limits of the ruling Communist Party's official line on foreign relations, territorial claims and even government reforms. It's a challenge that will need to be carefully managed if a once-a-decade leadership transition beginning Nov. 8 is to go smoothly, with China's global reputation and the party's credibility both at stake.

Backed by what is now the world's second-largest military budget behind the U.S., the People's Liberation Army is bristling with new armaments and is becoming increasingly assertive. That has distressed neighbors such as Japan, Vietnam and the Philippines, all locked in disputes with China over island territory potentially rich in oil, and has prompted the U.S. to send more military assets to the region.

Presiding over this force will be a new generation of military leaders taking power at the same time as the new crop of political leaders.

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Up to seven of the 10 uniformed members of the Central Military Commission, which oversees the armed forces, are set to retire. Members of the new panel are expected to demand an even greater say in decision making — and a tougher line in disputes with other nations.

While President Hu Jintao's absolute command over the armed forces had at time been questioned, his presumed successor — Vice President Xi Jinping — may have an easier time keeping officers on-message because of his closer ties with many top military figures as a fellow “princeling” — those with ties to communist China's founding fathers.

He may have to wait, though: Hu will likely seek to hold onto his position as chairman of the military commission for another two years, as his predecessor did. Also, five officers generally considered loyal to Hu were promoted this week to top posts such as air force commander and chief of the general staff, meaning they will sit on the new commission once it is appointed next month.

Officially, China espouses a “peaceful rise” philosophy that stresses a defensive military posture and the negotiated resolution of disputes. But the PLA's newest generation of ships, submarines, stealth planes and the development of its first aircraft carrier suggest the capability for operations far from home.

Hawkish officers such as Luo have a broad audience in the PLA and in a Chinese public that has grown more stridently nationalistic and increasingly impatient with a ruling party seen as bloated, unresponsive and corrupt. Luo, whose father was a top security officer for Mao Zedong, has at times openly questioned the legitimacy of the “peaceful rise” philosophy and warned that it doesn't preclude China from using force to assert its interests.

Their sentiments find a ready audience via books, online sites and even in state media.

There's a “continual tug-of-war between the party and the PLA,” said Denny Roy, an expert on the Chinese military and senior fellow at the East-West Center in Hawaii.

“The party may not want to appear to be trying to stifle a popular nationalistic position expressed by a military man, (which could) turn public anger against the civilian leadership,” Roy said.

The 2.3 million-member PLA is technically the house army of the Communist Party, ultimately loyal to the party rather than the Chinese nation. Its chief mission is ensuring the party's hold on power, as it did in 1989 in the bloody suppression of pro-democracy protests centered on Beijing's Tiananmen Square.

No military officers are openly challenging party control. But some have railed against official corruption and called for a degree of political openness that makes party leaders nervous. Among the boldest has been Gen. Liu Yazhou, whose works espousing greater democracy have been privately published and placed in coffee shops in Beijing's university district.

“Senior officers feel entitled to raise their voices because they believe that the party's corruption has elevated the relative standing of the PLA,” said Washington-based military strategist and historian Edward Luttwak, who knows Luo personally.

In the 2009 book “China Dream,” senior colonel and National Defense University professor Liu Mingfu called for China to upend U.S. dominance in international relations, saying China had a stark choice between becoming the pre-eminent power or one that has “been left behind and eliminated.”

Those sentiments were echoed in the introduction to a 2010 scholarly work by Gen. Liu Yuan, whose father, Liu Shaoqi, was a Chinese head of state in the 1950s and 1960s. The younger Liu called for China to cast aside restraint and praised warfare as a foundation of modern culture.

“Those involved in warfare are the most glorious, wonderful, and mournful,” wrote Liu, a full general in the PLA who serves as a political commissar.

Requests to interview Luo and the three Lius, who are not related, were declined.



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Many observers see a pronounced gap between the headline-grabbing views and bombastic statements of these kinds of officers — most often based in academia — and those of unit commanders who are much more cognizant of the PLA's limitations, as well as top military leaders considered staunchly loyal to the party.

"I would emphasize that, overall, the party leadership wields ultimate decision-making power on key national security issues," said Sarah McDowall, a China analyst with IHS Janes in Britain.

The PLA also has shown the world a friendlier side in recent years, cooperating in anti-pirate patrols off Africa's coast, joining in UN peacekeeping operations and sending a hospital ship to the Caribbean. However, some of that may be as much about testing the ability to operate far afield as about diplomacy.

Xi, the incoming leader, is seen as representing a strain of firm, though not shrill, nationalism. His ties to the military are smoothed by his years in uniform as secretary to former Defense Minister Geng Biao from 1979-1982 — as well as his being the son of a leading communist guerrilla.

The military will continue to yield major sway through its outsized representation on major bodies. It will have 251 delegates at the national party congress opening Nov. 8, three times the number from China's most populous province, Henan.

Its influence has ensured robust spending on such new assets as the prototype J-20 stealth fighter.

McDowall of HIS Jane's said the PLA's influence has been growing in recent years "owing to the increasing resources allocated to it" and that it has a major, behind-the-scenes say in this year's political leadership transition.

"High-ranking military men may feel they have slack in the leash and can speak boldly" when the country's political establishment is in flux, said Roy, the East-West Center senior fellow. "For many in the Chinese military, these outspoken guys are patriotic heroes."

<http://www.boston.com/news/world/asia/2012/10/28/outspoken-china-officers-challenge-the-party/NBnF8fcuUwLvTs03kVOGnK/story.html>

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New York Times

Chinese General Promoted to Lead Missile Corps

By JANE PERLEZ

October 30, 2012

BEIJING — A former deputy chief of the army's general staff, Lt. Gen. Wei Fenghe, has been promoted to commander of the Second Artillery Corps, home of the strategic missile force, the Defense Ministry said Monday.

The new position as head of one of China's most important military units is part of a major turnover in China's armed forces and almost certainly assures General Wei a seat on the Central Military Commission, the military's top decision-making body, currently headed by President Hu Jintao.

The new membership of the commission, which will oversee the rapid modernization of China's military, is expected to be announced after the 18th Party Congress next month.

General Wei's promotion had been anticipated. He served as chief of staff of the corps between 2006 and 2010, and was involved in intercontinental ballistic missile testing in 1989, said Mark Stokes, the executive director of the Project 2049 Institute, in Washington, a nongovernmental organization that studies military issues in Asia.

Bo Zhiyue, a research fellow at the East Asian Institute at the National University of Singapore, said: "He is a professional soldier who has spent his whole career in the missile troops. He is relatively young and will work for another decade. He will add to the professionalization of the Second Artillery Corps."

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<http://www.nytimes.com/2012/10/30/world/asia/wei-fenghe-promoted-to-lead-missile-corps.html>

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Global Times - China

J-31 Fighter Roars Off on Maiden Flight

By Xu Tianran, *Global Times*

November 1, 2012

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China's second stealth fighter made its maiden flight on Wednesday, with experts hailing this as a milestone for the country's military aviation industry, especially in design and manufacturing.

Coinciding with its provisional designation J-31 and serial number 31001, the fighter took off at 10:32 am on Wednesday and landed 11 minutes later on the runway of the Shenyang Aircraft Corporation (SAC), Liaoning Province, one witness told the Global Times.

Major military news websites such as the Netease and mil.huanqiu.com immediately confirmed the maiden flight after witnesses uploaded photos and described the event on defense forums.

Compared with the heavy fighter J-20, the J-31 is a middle sized fighter using Russian middle-thrust engines, although it will later be equipped with Chinese-made WS-13 engines, UK-based *Combat Aircraft Monthly* has reported.

"Just like the US F-22 and F-35 fifth-generation fighters, the J-20 and J-31 will complement each other during future operations," Bai Wei, former deputy editor of the *Aviation World* weekly, told the Global Times.

"The J-31 is almost certainly designed with the intention to have the potential of operating on aircraft carriers, judging from its enhanced double-wheel nose landing gear and two big tail wings, which help increase vertical stability," Bai said. He added the J-31 might replace or supplement China's first land-based fighter, the J-15, which was also developed by SAC.

The spokesman of the Aviation Industry Corporation of China (AVIC) could not be reached for comment yesterday.

But according to its official website, Lin Zuoming, president of AVIC, and Li Yuhai, its vice general manager, arrived at the SAC facility on Tuesday, inspected the aircraft development center and thanked the staff for their "important contributions."

Similarly to the Chengdu J-20 stealth fighter, the Shenyang J-31 was first revealed to coincide with a visit of the US Defense Secretary in mid-September.

The two stealth fighters have made China, after the US, the second country to develop two fifth-generation fighters. "China needs both heavy fighters and cheaper, smaller ones to defend its vast airspace," said Bai, adding that the J-31 might also aim for export market.

"It is encouraging that AVIC developed the two fighters simultaneously. There was a nine-year gap between the maiden flights of the American F-22 and F-35," he added.

Bill Sweetman, editor for the US-based *Aviation Week* magazine, wrote on his blog that the J-31 is a JSF (F-35) without the constraints imposed by the requirements of the F-35's Short Take-Off and Vertical Landing (STOVL) variant, which effectively limited the weapon bay volume and shape of all F-35 models.

"It looks as if the engines are to the rear of the bulkhead that carries the main landing gear... the designers have been able to install long weapon bays," he commented on the J-31.

"If you ever wondered what a JSF (F-35) might look without those constraints, we now have a live, physical example. Unfortunately... it is Chinese," Sweetman wrote.



www.globaltimes.cn/content/741613.shtml

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Economic Times – India

Second Stealth Jet J-31 Puts China on Path to Top Regional Power: Expert

2 November 2012

By Reuters

BEIJING: China's second stealth fighter jet that was unveiled this week is part of a programme to transform China into the top regional military power, an expert on Asian security said on Friday.

The fighter, the J-31, made its maiden flight on Wednesday in the northeast province of Liaoning at a facility of the Shenyang Aircraft Corp which built it, according to Chinese media.

"This is the second entirely new fighter design that's emerged from China in the last two years, which suggests a pretty impressive level of technical development, and puts them ahead, certainly, of all their regional neighbours," said Sam Roggeveen, a security expert with the Lowy Institute in Sydney.

The Chinese military "has been extremely deliberate and well funded and persistent, and it's starting to bear fruit", Roggeveen said.

"What you're now seeing since the early '90s is the slow emergence of a first-class regional military power."

China's Defence Ministry did not respond to a request for comment.

China's previous stealth fighter, the J-20, is a heavier aircraft and believed to be less manoeuvrable than the J-31.

China's military capabilities lag far behind those of the United States, but China is seeking aggressively to boost its strength, including launching its first aircraft carrier - purchased from Ukraine - in September.

The buildup is a worry for neighbours uneasy about China flexing its military muscle, especially in territorial disputes with Japan in the East China Sea and with Vietnam and the Philippines in the South China Sea.

"Just like the US F-22 and F-35 fifth-generation fighters, the J-20 and J-31 will complement each other during future operations," Bai Wei, former deputy editor of the weekly Aviation World, told the Global Times newspaper.

"The J-31 is almost certainly designed with the intention to have the potential of operating on aircraft carriers, judging from its enhanced double-wheel nose landing gear and two big tail wings, which help increase vertical stability," Bai said.

China needs both the heavier J-20 and more nimble J-31 to defend its air space, Bai said.

The J-31 is a mid-sized fighter using Russian-made engines which will later be replaced by Chinese engines, the Global Times reported.

"The big Achilles heel for Chinese aerospace generally, and particularly for both of these two programs, is engines," Roggeveen, a former analyst for Australian government intelligence and editor of the Lowy Institute's blog LowyInterpreter.org.

"They still rely very much on foreign technology, and their progress on developing domestic high-performance engines for combat aircraft has been frustrating and slow," he said.

While the J-31 and J-20 will add to China's offensive as well as defensive capability, "it will take many, many years" for them to enter service with the air force, Roggeveen said.

<http://economictimes.indiatimes.com/news/news-by-industry/et-cetera/second-stealth-jet-puts-china-on-path-to-top-regional-power-expert/articleshow/17060467.cms>

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Xinhua News Agency – China

Moscow Prioritizes Disarmament Talks with U.S.: Russian Deputy FM

October 29, 2012

MOSCOW, Oct. 29 (Xinhua) -- Nuclear disarmament talks remained a priority and Russia had adopted a proactive attitude toward relations with the United States, Deputy Foreign Minister Sergei Ryabkov said Monday.

The hottest topic on the agenda was ratification of an agreement with the United States on a comprehensive ban of nuclear tests and other global security issues, Ryabkov said in an interview published on the ministry's website.

"The disarmament process must be multilateral. Nothing there could be done without the U.S. participation, but the U.S. position is obscure," Ryabkov said.

Moscow could not negotiate that issue within the previous framework, which became obsolete, and no official proposals were expected from Washington until after the U.S. presidential elections, Ryabkov said.

"Regarding the (nuclear disarmament) talks, a multilateral approach is an integral part of strengthening strategic stability. The Russia-U.S. cooperation (over nuclear security) has been unfolding more and more in third countries," Ryabkov said.

Moscow considered preventing nuclear materials from falling into the hands of "potential malefactors" a priority, he said.

The diplomat also demanded Washington withdraw tactical nuclear weapons from Europe and dismantle the infrastructure that would these weapons to return close to Russian borders.

"For the dialogue to take place, it is necessary that the non-strategic nuclear weapons the U.S. deployed in Europe lose the strategic capabilities toward Russia they possess currently," Ryabkov said, naming frontline bombers capable of carrying nuclear bombs.

"All talks over the control and reduction of military potential always take into account the worst case scenario," he said.

In 2010, Russia and the United States signed the New Strategic Arms Reduction Treaty (START), focusing on the reduction of nuclear weapons. Moscow and Washington committed to pursuing a step-by-step approach to further reduce nuclear arms, including settlement on a definition of nonstrategic nuclear weapons.

Earlier in October, Ryabkov said the Nunn-Lugar program, due to expire in June 2013, would not be extended.

The program, also known as the Cooperative Threat Reduction program, dates back to the early 1990s and helped decommission scores of nuclear, biological and chemical weapons after the collapse of the former Soviet Union.

http://news.xinhuanet.com/english/world/2012-10/29/c_131938218.htm

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Russia & India REPORT – India

Russia Is Preparing to Overhaul its Nuclear-Missile Shield

The development of the American global missile defence system has encouraged the Russian Armed Forces to seek an asymmetrical response to serious challenges.

October 30, 2012

By Andrei Kislyakov, especially for RIR

Issue No. 1031, 02 November 2012

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Russia is planning to increase annual defence spending from its current level of 3 percent of GDP to 3.7 percent in 2015, which equates to more than 3 trillion roubles. The Strategic Rocket Forces will consume a substantial part of this money, with the nuclear missile programme benefitting the most from the projected increase in budget allocations. According to Vladimir Komoyedov, head of the State Duma's Defence Committee, spending on nuclear-missiles will reach 101.15 billion roubles in 2013–2015, compared to just 27.4 billion roubles in 2012.

Chairman of the Russian Ministry of Defence's Public Council and editor-in-chief of *Natsionalnaya Oborona* (National Defence) magazine, Igor Korotchenko, calls the increase in spending a natural phenomenon: "This is the objective reality. It reflects the essence of the current and foreseeable global political situation. And if Russia wants to protect its national interests, then it has to respond to this."

Former head of the Ministry of Defence's International Military Cooperation Department Lieutenant-General Yevgeny Buzhinsky notes that the rise in financing for national defence is a direct result of the financing gap of the 1990s. "The failure to adequately build up the armed forces must be made up for in order for the country not to lag behind the global leaders," he explained.

Korotchenko attributes the increase in budgetary allocations for the nuclear weapons programme to the impending mass production of new types of solid-fuel ballistic missiles, specifically, the Bulava and RS-24 Yars. "They are essential to our armed forces, given the plans to discard and decommission a substantial part of our strategic delivery weapons; those with an expired service life that need to be replaced," Korotchenko said.

In early September, Strategic Rocket Forces Commander Colonel-General Sergei Karakayev said that Russia would create a new heavy intercontinental ballistic missile with a carrying capacity of five tonnes – four times the capacity of the Yars or Topol. A month later, the Russian Ministry of Defence approved the graphic design of a new liquid-fuelled intercontinental ballistic missile for the Strategic Rocket Forces.

Commenting on the timeframe for the creation of the missile, deputy director general of the Military Industrial Corporation NPO Mashinostroyeniya Andrei Goryaev said that roughly ten years would be required. "Following a 30-year break, the country might encounter difficulties at various phases that cannot be anticipated," he said.

A submarine nuclear shield component is also being developed. The Borei-class Yuriy Dolgoruki submarine of Project 955 is expected to be put into service in 2013, whereas the first Alexander Nevsky nuclear ballistic missile carrier of the same class and project will become part of the Pacific Fleet in 2014, Defence Minister Anatoliy Serdyukov said on Monday.

Furthermore, Colonel Vadim Koval, the Russian Ministry of Defence spokesperson for the Strategic Rocket Forces, said that Russia was eyeing rail-mobile ballistic missile systems. However, the "final decision on the complexes has not yet been made," Interfax quotes the colonel as saying.

Obviously, nuclear weapons are not designed for local conflicts, but to maintain the balance of power in the geopolitical confrontation with the United States. The development of the American global missile defence system and the implementation of the Prompt Global Strike effort have encouraged the Russian Armed Forces to seek an asymmetrical response to these challenges. Vladimir Putin made this clear when running for presidency back in February 2012 in his article for *Rossiiskaya Gazeta* "Being strong: National Security Guarantees for Russia".

Commenting on the challenge from the US missile defence system, Putin promised that "Russia's military response to the global US missile shield, including its European part, will be effective and asymmetrical, a match for US missile defence policy." He went on to say that Russia would "under no circumstances" give up its strategic deterrent capability.

The new role of Russian nuclear weapons is best described as this: they are here to ensure strategic missile and nuclear parity and rule out the use of nuclear weapons by creating a framework in which neither party will have advantages in countering a nuclear attack.

Rail-mobile ballistic missile systems



Rail-mobile ballistic missile systems are trains with two or three locomotives and special carriages (that look like refrigerator or passenger carriages) that carry transport and launch containers with intercontinental ballistic missiles.

Owing to its mobility and deployment capacity, the rail-mobile ballistic missile system ensures that the location of the missiles is unknown, making it very useful during a potential nuclear war. The last Russian rail-mobile ballistic missile system was removed from combat duty in 2003 as part of the Strategic Arms Reduction Treaty II with the United States signed in 1993.

http://indrus.in/articles/2012/10/30/russia_is_preparing_to_overhaul_its_nuclear-missile_shield_18715.html

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RIA Novosti – Russian Information Agency

Russia Boosts Security at Missile Launch Sites

31 October 2012

The Russian Strategic Missile Forces (SMF) are finalizing the modernization of automated security systems at nine of its major missile bases to counter the growing threat of potential terrorist attacks, an SMF spokesman said on Wednesday.

“The modernization includes the upgrade of warning and surveillance systems, detection sensors, integrated fire control systems and power supply grids,” Col. Vadim Koval said.

The spokesman said that automated security at SMF bases is provided by six different systems, developed and produced by Russian defense industry firms.

“The overhaul is being carried out at the highest levels of secrecy in regard to the specifications of the installed equipment and its operating algorithms,” Koval said.

In addition to the modernization of the existing automated systems, the SMF is tightening rules of engagement and training requirements for security personnel at the bases and around mobile missile launch sites.

According to open sources, the SMF currently operates at least 58 silo-based SS-18 Satan ballistic missiles, 160 road-mobile Topol (SS-25 Sickle) missile systems, 50 silo-based and 18 road-mobile Topol-M (SS-27 Sickle B) systems, and 18 RS-24 Yars systems.

MOSCOW, October 31 (RIA Novosti)

http://en.rian.ru/mlitary_news/20121031/177082894.html

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RIA Novosti – Russian Information Agency

Russia to Keep Silo and Mobile ICBM Launchers in Future

01 November 2012

MOSCOW, November 1 (RIA Novosti) – Russia’s Strategic Missile Forces (SMF) will continue deploying silo-based and mobile ballistic missile launchers in the future, SMF Deputy Commander Lt. Gen. Valery Mazurov said on Thursday.

The two-component structure of the SMF reflects its purpose as part of Russia’s nuclear triad. Silo-based ICBMs serve as a preventive nuclear deterrent of any potential aggression while road-mobile ICBM launchers ensure the capability to respond to nuclear strikes by potential foes.

“This SMF structure will most likely remain unchanged for years or even decades to come,” Mazurov said in an interview with Rossiya 24 television.



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"The composition of ICBM systems [in SMF structure] is based on a thorough analysis of potential military conflicts of varied intensity that involve the use of nuclear weapons," the general said.

According to open sources, the SMF currently operates at least 58 silo-based SS-18 Satan ballistic missiles, 160 road-mobile Topol (SS-25 Sickle) missile systems, 50 silo-based and 18 road-mobile Topol-M (SS-27 Sickle B) systems, and 18 RS-24 Yars systems.

The SMF said last year that the Topol-M and RS-24 ballistic missiles would be the mainstay of the ground-based component of Russia's nuclear triad and would account for no less than 80 percent of the SMF's arsenal by 2016.

http://en.ria.ru/military_news/20121101/177118115.html

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The London Guardian – U.K.

Tories Snub Lib Dems over Trident Future

Philip Hammond announces go ahead for nuclear deterrent replacement before review completed

By Richard Norton-Taylor and Patrick Wintour, *The Guardian*

Sunday, 28 October 2012

Philip Hammond, the defence secretary, will reignite the argument over Britain's independent nuclear deterrent on Monday when he announces a further multimillion-pound contract for a new generation of nuclear missile submarines, making it clear he plans to press ahead with a Trident replacement.

The Ministry of Defence said the £350m contract would sustain 1,200 UK jobs, adding that the investment made "clear the government's firm commitment to maintaining continuous at-sea deterrence for future decades".

Hammond, who will visit the Trident submarine base at Faslane on the Clyde on Monday, said: "Our continuous submarine-based nuclear deterrent is the ultimate safeguard of our national security and the government is committed to maintaining it, both now and in the future.

"This latest expenditure for the next generation of nuclear-armed submarines is an investment in UK security and the British economy, sustaining high-quality jobs and vital skills."

He added: "We are confident that the Scottish people will choose to remain part of the United Kingdom."

The remarks are likely to be viewed as a sign that Hammond intends to ignore a government-commissioned study into a Trident replacement if it fails to support a like-for-like replacement. The Cabinet Office study is due early next year, and Liberal Democrats had been hoping that senior military officials in the MoD might be persuaded to back a cheaper replacement than like-for-like renewal if a cogent case was assembled.

There were hopes that senior figures in the army might also oppose such an expensive commitment. But in a blow to those hoping that the MoD could be persuaded from within, it was decided by the deputy prime minister, Nick Clegg, to sack the armed forces minister Nick Harvey in the autumn reshuffle, and leave the MoD without a Lib Dem minister.

Responsibility for the study has now been handed to the Treasury chief secretary, Danny Alexander.

Clegg has insisted the reshuffle did not indicate any lessening of his commitment to find a cheaper replacement for Trident. He told his party conference: "I am more determined than ever to find the right alternative to such a monumentally expensive replacement for a cold war deterrent."

A Lib Dem official said on Sunday that discussion about the replacement for Trident was still needed. "No final decision on the replacement of Trident will be made until 2016.

"Instead of blind faith in a cold war relic costing billions of pounds, we should be having a debate on how best to maintain our nuclear deterrent in the modern world."

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The official added: "The review being led by the Liberal Democrats in government will inform that debate when it reports next year."

Other senior Lib Dems were concerned that the defence secretary was using his status to insist on a full replacement.

Menzies Campbell, the former leader, said: "There is no doubt about the terms of the agreement between both parties in the coalition that the 'main gate decision' on a replacement for the nuclear deterrent is not to be made until 2016. Danny Alexander and, before that, Nick Harvey have been tasked to look into alternatives to a like-for-like submarine. Liberal Democrats, including myself, would expect that agreement to be maintained."

Hammond, who succeeded Liam Fox as defence secretary in October last year, will frame the announcement of extra spending on a possible Trident replacement as a boost for those opposing an independent Scotland, as the successor project sustains hundreds of jobs on the Clyde.

The £350m contract is part of the £3bn awarded last year to BAE Systems to pursue work on a new Trident fleet.

To drive home the point, Hammond will announce government plans to make Faslane the base for the UK's fleet of nuclear-powered but conventionally armed Astute and Trafalgar class attack submarines, as well as for Trident. The move will create a further 1,500 jobs in addition to the existing 6,500 at Faslane.

Admiral Sir Mark Stanhope, the head of the navy, made clear he strongly supported plans to build a new fleet of Trident submarines, officially estimated to cost up to £25bn, despite the lack of a joint agreement by the coalition government to press ahead.

"One of the core roles of the Royal Navy, the continuous at-sea deterrent, remains an enduring strategic capability, underpinning our nation's commitment to the preservation of peace in our uncertain world," Stanhope said.

BAE Systems, which has shed jobs in the fast jet aircraft market, will say on Monday that it is now looking for mechanical, electrical power, propulsion, quality and safety engineers, and naval architects to fulfil the latest contract.

The Scottish Campaign for Nuclear Disarmament (SCND), which obtained new figures from a Freedom of Information Act request to the MoD, said Labour and the Conservatives were trying to scare the public by exaggerating the economic implications of nuclear disarmament. Just 520 civilian jobs at Faslane and nearby Coulport were directly dependent on Trident, the SCND said.

Stephen Boyd, assistant secretary at the Scottish Trades Union Congress, which commissioned an expert study along with SCND into the economic consequences of cancelling Trident, told the Sunday Herald that suggestions as many as 11,000 jobs would be lost in Scotland if Trident were not replaced were inaccurate.

Britain's nuclear weapons system is made up of four Royal Navy Vanguard submarines, based at the Faslane naval base on the Clyde, which can deploy Trident ballistic missiles carrying nuclear warheads.

SNP MSP Bill Kidd, a vice-president of the international organisation Parliamentarians for Nuclear Non-proliferation and Disarmament, said: "For the UK government to boast about spending hundreds of millions of pounds on weapons of mass destruction – while at the same time implementing brutal welfare cuts and slashing investment in the economy – is obscene.

"More than that, Philip Hammond's weak attack on the Scottish people's choice in the independence referendum continues to use fantasy figures relating to the number of jobs associated with Trident at Faslane."

<http://www.guardian.co.uk/uk/2012/oct/29/tories-lib-dems-trident?INTCMP=SRCH>

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London Daily Mail – U.K.

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Royal Navy Nuclear Missile Test Sends Strong Warning of UK's Military Strength to Iran and Argentina

- *Royal Navy holds first missile test in three years*
- *Launch 'confirms credibility' of Britain's nuclear deterrent*
- *Test announced amid doubt over nuclear submarine site in Scotland*

By Sam Webb

29 October 2012

The Royal Navy launched an unarmed warhead in an awe-inspiring display of Britain's powerful nuclear deterrent.

The Trident II was blasted into the sky by HMS Vigilant, a nuclear-powered Vanguard Class submarine, in the Atlantic just off the coast of Florida. The Navy has not test-fired a ballistic missile since 2009.

Navy chiefs said the successful launch confirms the credibility of the UK's nuclear deterrent.

First Sea Lord Admiral Sir Mark Stanhope said: 'The Royal Navy has for over 43 years continuously operated the UK's nuclear deterrent to stringent safety standards and HMS Vigilant's latest test firing before she returns to the patrol cycle reflects that successful deterrence is based upon strong determination.

'One of the core roles of the Royal Navy, the Continuous At Sea Deterrent remains an enduring strategic capability, underpinning our nation's commitment to the preservation of peace in our uncertain world.'

News of the launch comes at the same time Defence Secretary Philip Hammond announced an additional £350M worth of funding for the next stage of design work for Successor, the future generation of UK nuclear-armed submarines.

He added that the investment will sustain 1,200 UK jobs and makes clear the Government's commitment to maintaining a deterrence for future decades. The funding follows the initial £350M of design work announced earlier this year.

The Vanguard submarines will be replaced from 2028 by the Successor, which is currently being designed by British companies.

Britain's nuclear subs are based at Faslane on the River Clyde in Scotland and uncertainty surrounds its future should the Scottish vote for independence in 2014.

The SNP wants to remove the subs from the site, but the Royal Navy says all Royal Navy submarines will be based at Faslane by 2017, including the Astute and Trafalgar class attack submarines.

Mr Hammond claims the site is secure. He said: 'We are confident that the Scottish people will choose to remain part of the United Kingdom.

'The Faslane complex is the largest employment site in Scotland with over 6,500 jobs underpinning the local economy.

'We have no plans to move the nuclear deterrent from the Clyde. On the contrary, we intend to move the Astute and Trafalgar Class attack submarines to Faslane, creating a further 1,500 jobs.

'The Scottish Government needs to explain how their policy would benefit Scotland's economy and safeguard Scottish jobs.'

<http://www.dailymail.co.uk/news/article-2224736/Fire-sky-Royal-Navy-displays-nuclear-Trident-missile-test.html?ito=feeds-newsxml>

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The Independent – U.K.



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Dirty Bomb Terror Threat Breakthrough: British Scientists Build Machine to Detect Smuggling of Nuclear Materials

Technology expected to be rolled out across Britain's ports and airport as part of the UK's secret Cyclamen nuclear monitoring system

By Oliver Wright

Thursday, 01 November 2012

British scientists have created a machine that can detect terrorist attempts to smuggle nuclear material through ports and airports - even if it has been shielded from giving off radiation.

The Independent understands that prototypes of the machine - developed using a technique first established by experiments using the Large Hadron Collider - have already been tested by researchers at Britain's Atomic Weapons Establishment.

It is now expected to be rolled out across Britain's ports and airport as part of the UK's secret Cyclamen nuclear monitoring system.

The technology is unique because, unlike existing nuclear detectors, the new Muon-based machines can thwart attempts to disguise or hide radioactive material.

It works by passing tiny Muons - a type of subatomic particle - through containers and bags and monitoring how they bend as they pass through solid objects. As all nuclear materials have a unique density the machine can identify them even if they have been prevented from emitting radiation.

Results of early trials are to be discussed at a meeting of nuclear scientists and security experts from around the world in London today.

"The point of this machine is that you would need so much lead to stop detection that no tyres would be able to support a car or a truck carrying it," said one British official.

"It is a significant step forward in our ability to be able to prevent nuclear proliferation or a dirty bomb attack."

Statistics from the International Atomic Energy Authority reveal that last year there were 147 incidents of nuclear material being discovered outside state control.

Among the incidents were examples of loss of material from nuclear sites as well as targeted theft.

The Foreign Office Minister Alistair Burt revealed at the meeting that nuclear detection facilities had been in place at the Olympic Park as part of security preparations.

It is also understood that some baggage scanning machines now in place at Heathrow and Gatwick also have basic ability to "sniff out" radioactivity.

Such machines might, for example, have been able to detect the polonium responsible for the death of the Russian dissident Alexander Litvinenko.

However they do not have the capability to detect nuclear substances shielded by lead. The new machines would not have that problem.

Speaking at the meeting of the Global Initiative to Combat Nuclear Terrorism, Mr Burt said it was clear that Britain faced a threat from a "thriving" global smuggling network.

"Nuclear terrorism is a real and global threat," he said.

"A successful attack, no matter where in the world it came, would be catastrophic. Such an attack was unthinkable just a generation ago. But it is now a possibility we need to confront with the utmost vigilance.

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He added: "The number of incidents of nuclear material detection and loss has been growing.

"It emphasises the importance of work like this to keep one step ahead and continue to keep acknowledging the importance of the threat."

Speaking about the Olympics Mr Burt said that it had been an important test of Britain's capability in the area.

"In preparing for all sorts of threat against the Olympics - a nuclear attack was considered and work was done to make sure we had in place sufficient detectors to counter that," he said.

"We are confident from the readings and results that our equipment was up to scratch and did its job. Nothing was detected that was in anyway untoward."

GICNT, which first met in South Korea last year, is a grouping of more than 85 nations committed to strengthening the global capacity to prevent, detect and respond to nuclear terrorism.

The symposium in London today brought together scientists and experts around the world to discuss development in Muon technology and how it could be effectively rolled out across the world.

The Muon machines highlight how theoretical physics work - such as that done using the Large Hadron Collider - can have practical benefits in the 'real world'. It also helps explain why the project received such extensive financial support from European Governments.

<http://www.independent.co.uk/news/uk/crime/dirty-bomb-terror-threat-breakthrough-british-scientists-build-machine-to-detect-smuggling-of-nuclear-materials-8273751.html>

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Vesti News – Russia

The Boeing Company Has Experienced a New Microwave Weapons

30 October 2012

Author: Ivan Zagorski

Company Boeing and the United States AIR FORCE research laboratory (AFRL) reported the successful testing of a rocket CHAMP (the name stands for Counter-Electronics High Power Microwave Advanced Missile Project).

This is a completely new type of nekinetičeskogo weapons, which do not require a direct hit at purpose for her defeat. The missile is equipped with a powerful microwave emitters, which when activated, disable electronic devices in range "charge".

The first test runs were still the CHAMP a year ago, but the details remain secret. You know, that one flight CHAMP can affect multiple targets. She flies around them in turn, and by, turns to microwave pulses that affect electronic networks and equipment. This radiation is safe for people.

In the latest test, which took place in mid-October at the test site in Utah, in turn brought down all electronics installed in seven two-storey buildings, simulating a military base of the enemy. This affected not only the "enemy" computers and equipment, which registered the impact of radiation.

"This marks a new era in the conduct of wars," says Project Manager Keith Coleman (Coleman), in the near future, a similar rocket could be used to bring dilapidated electronic and information systems of the enemy before the occurrence of the first aircraft. "

The developers claim that because the missile is not explosive, it can be used in densely populated areas.

Add that unit of Boeing Defense, Space & Security is one of the largest developers in the field of Defense and aerospace technology. It employs more than 61 thousand. Project CHAMP is the result of many years of work involving the most modern technologies.

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<http://www.vesti.ru/doc.html?id=945973&cid=2161>

<http://www.microsofttranslator.com/bv.aspx?ref=IE8Activity&from=&to=en&a=http%3a%2f%2fwww.vesti.ru%2fdoc.html%3fid%3d945973%26cid%3d2161>

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Global Security Newswire

U.K. Lawmakers Eye Basing Submarines at U.S. Port, if Expelled by Scots

October 31, 2012

By Elaine M. Grossman, Global Security Newswire

WASHINGTON -- A new report issued by a British parliamentary panel suggests that the United Kingdom might consider temporarily basing its nuclear-armed submarines at a U.S. military seaport if Scotland achieves independence and refuses to continue hosting the nation's nuclear arsenal.

Naval Submarine Base Kings Bay, located in southeast Georgia, has been identified as a potential option for absorbing one or more U.K. Vanguard-class vessels; maritime facilities in France are another possible alternative, according to the panel of British legislators.

"Any agreement whether to relocate the U.K. nuclear deterrent outside the British Isles, possibly in France or the USA, would be a decision for the U.K. in discussion with its allies," states the Oct. 25 report, authored by the House of Commons Scottish Affairs Committee.

Four days earlier, Alex Salmond -- the first minister of Scotland and head of the Scottish National Party -- said he thought London might do well to arrange basing for the Trident D-5 missile-carrying submarines elsewhere in the United Kingdom or even abroad.

The British government "could either relocate Trident to another facility in the rest of the U.K. or, alternatively, they could use the nuclear facilities in America, or in France for that matter," Salmond said on a BBC news show. "Trident is effectively an American weapon."

The parliamentary assessment warns, though, that it "would be very difficult, both logistically and politically," to base the U.K. nuclear force abroad. Defense Secretary Philip Hammond last week said his government is "confident that the Scottish people will choose to remain part of the United Kingdom" and "we have no plans to move the nuclear deterrent from there."

Yet, with the matter as-yet unresolved, the question of how Scottish independence might affect London's deterrence force is beginning to loom. Lawmaker Nick Harvey, a former armed forces minister, said it was "hard to think of any single item that would be larger in [British-Scottish] negotiation."

All four U.K. ballistic missile-armed submarines currently use Faslane on the River Clyde's Gareloch as their home port, while warheads are stored and mated with the missiles at Coulport, eight miles away on Loch Long. The nation maintains one Vanguard submarine on patrol at all times.

Future basing has been thrown into doubt in the run-up to a 2014 Scottish referendum on independence. Salmond has said his organization's long-sought expulsion of nuclear arms from an independent Scotland could be formalized in a new constitution. Earlier this month, the party said an SNP government would "negotiate the speediest safe transition of the nuclear fleet from Faslane."

There are no clear alternative naval facilities in the United Kingdom that offer both deep-water access for military submarines and secure areas for warhead-marrying operations, which must be located a safe distance from industry and population centers, according to some experts.

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If secession proceeds, it might be possible for the U.K. government to negotiate a transition plan under which the nuclear-armed submarines could remain stationed temporarily in Scotland. However, it is far from clear if this option would prove politically viable.

“Nuclear weapons in Scotland could be disarmed within days and removed within months,” and the submarines that carry them could be banished within two years, according to the parliamentary report.

Salmond last week indicated some interest in imposing on an estranged United Kingdom “curtains for Trident,” using the separation as a means of effectively denuclearizing London, possibly for decades.

“We recognize that such speedy action would inevitably create the prospect of unilateral nuclear disarmament being imposed upon the Royal Navy and U.K., since the construction of facilities elsewhere could take upwards of 20 years,” stated the committee, comprising seven Scottish and four English members of Parliament. “It is not clear how quickly the U.K. could restore continuous at-sea deterrence.”

Committee Chairman Ian Davidson is a Labor Party lawmaker representing southwest Glasgow; his bipartisan panel includes just one member of the Scottish National Party.

The top British defense official last week said his government would never allow such a forced denuclearization to occur.

“Our continuous submarine-based nuclear deterrent is the ultimate safeguard of our national security,” Hammond said in response to the parliamentary report. “We have made a clear commitment to maintain that deterrent and there is absolutely no question that the U.K. will unilaterally disarm.”

“The U.K.’s preferred option is for nothing to change,” according to the committee’s 30-page document. “Failing that, the next best option would be securing an agreement that enabled the submarines to operate out of Faslane until an alternative base was found elsewhere.”

If Scotland were to drive out the Trident-carrying submarines, one domestic British option might be to store warheads and mate them to missiles at upgraded nuclear facilities in Berkshire, about 50 miles west of London, the document states. Under this scenario, the submarines could be based at Devonport on England’s southwest coast, where they now go for routine maintenance, the analysis states.

Francis Tusa, editor of the U.K. monthly *Defense Analysis*, told legislators that although it would not be an ideal setup, “it does not mean you cannot do it,” the report states.

Norman Polmar, a naval expert who has advised several top U.S. Navy civilians and brass, agreed, saying of the Devonport option: “Why not? Just expand the port.”

Interviewed on Tuesday, he played down the safety risks of attempting to duplicate Coulport functions proximate to a population center, saying similar activities typically take place near large U.S. cities.

The Scottish Affairs Committee said it could not estimate relocation costs, but experts said the price tag would probably reach billions of dollars. The question of who would foot the costs to develop new Vanguard basing likely would be a major focus of any Scotland secession negotiations.

The lawmakers called the storage and loading of warheads outside the British Isles a possible “temporary measure,” noting that two deep-water ports with submarine-servicing capacity being mulled are “French facilities in Brittany or the U.S. facilities in Georgia.”

Kings Bay is currently home to six of the U.S. Navy’s 14 U.S. Ohio-class nuclear-armed “SSBN” vessels, as well as two conventionally armed “SSGN” submarines, according to base spokesman Scott Bassett.

The facility likely could accommodate additional submarines from the United Kingdom in the near term, some experts said. More space will be freed up as the U.S. Navy reduces its Trident ballistic missile-carrying fleet to 12 vessels by 2028, and to just 10 vessels between 2032 and 2040, according to these sources.



The British government intends to replace its Vanguard-class boats with Successor submarines beginning in 2028, though there remains heated debate within the leadership coalition over whether results of an analysis of alternatives expected early next year might alter those plans.

With most federal offices in the Washington area closed on Monday and Tuesday because of Hurricane Sandy, a U.S. Defense Department spokeswoman did not respond by press time to a reporter's query regarding basing prospects or any bilateral discussions on the issue.

Washington and London have long had a close relationship in nuclear-weapons matters, to include significant cooperation in submarine and ballistic missile operations.

Among the joint activities today is a leasing arrangement under which the Royal Navy operates with Trident D-5 missiles from the U.S. arsenal, which are assembled, stored and maintained at Kings Bay, Bassett said. Missile loading onto British Vanguard-class submarines -- each of which can carry 16 D-5s -- also takes place at Kings Bay, Bassett said.

Since 2010, U.K. policy has been to carry no more than 40 warheads on each vessel, though the Trident missile has a capacity of up to 12 warheads.

Polmar said the logistics of basing British submarines at Kings Bay would be so challenging as to rule out the option entirely.

"Absolutely not," in part "because of the support facilities involved," he said, noting that the Vanguard submarines and nuclear reactors "are all different from ours."

However, another nuclear-arms expert did not find the notion to be altogether far-fetched.

"There is infrastructure there" for Trident-armed submarines at Kings Bay, said Hans Kristensen, who directs the Nuclear Information Project at the Federation of American Scientists. "The only question is whether they can squeeze in more."

Polmar also cited two additional factors why such an arrangement would be "totally impossible": cost and transit time to U.K. patrol areas.

Kristensen agreed the long steaming distances could be an obstacle, saying, "That burns up a lot of core fuel."

"Setting up a base two to three thousand miles away is ludicrous," Polmar said. "It would be easier and cheaper to buy the city of Faslane."

Even if logistics were determined to be feasible, U.S. basing might prove politically unworkable, according to experts.

Home-porting the submarines overseas could "raise questions about how independent the U.K.'s deterrent was," the parliamentary panel said.

When Trident was first procured, the idea of mating warheads to missiles in the United States was explored but "was seen as just a step too far to being perceived as not having an independent deterrent," Malcolm Chalmers, a defense policy expert at the Royal United Services Institute, told the panel. That view prevailed, leading to the use of Coulport for this sensitive task.

Nor would sending the submarines to French naval facilities be an easy fix, in the view of some.

"The idea of dumping off the boats there for a few years while we sort out a long-term solution would be a little tricky to manage," British legislator Peter Luff, a defense equipment minister at the time who has since lost his post, told the committee in June.

The notion of a "sovereign base" located in a newly independent Scotland -- or perhaps sovereign or jointly run facilities in the United States or France -- might be explored as a means of preserving independent nuclear control, the parliamentary report suggests.



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As things stand, some Kings Bay military commands, including the Strategic Weapons Facility-Atlantic, fly both the U.S. flag and the Union Jack to reflect the ongoing Trident partnership, Bassett said.

Given the “special relationship” between the United States and the United Kingdom, basing the Vanguard vessels at a U.S. port would not be such a stretch, one former U.S. nuclear officer said last week.

“We probably won’t go to nuclear war without them,” said the former officer, who asked not to be named in discussing sensitive military and diplomatic matters. “So what difference does it make where you’re stationed?”

“We rely on Diego Garcia,” a British territory in the Indian Ocean, for staging bomber operations, said the ex-officer. “We station our nuclear bombs in Europe on foreign soil. I don’t see it as that big of an issue.”

In London, though, indications are mounting that the U.K. government and Royal Navy actually would see basing abroad as a huge issue, given that the entirety of the nation’s nuclear arsenal is in question, rather than logistics for a select few assets.

Still, there remain many bridges yet to be crossed, not the least of which is the 2014 referendum vote that might, in the end, dispense with the notion of Scottish independence -- an outcome that many in the British capital are hoping for.

For the time being, “we were told that the Ministry of Defense was not making contingency plans for the event of Scotland becoming a separate country,” according to the parliamentary report.

The ministry, legislators learned, “had not been approached or had discussions with the Scottish government about defense matters” should independence be formally embraced, the report states.

<http://www.nti.org/gsn/article/uk-lawmakers-eye-basing-submarines-us-port-if-expelled-scots/>

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Government Security News

NNSA Completes 50th Shipment under Threat Reduction Program

Friday, November 2, 2012

By Mark Rockwell

Almost 200 lbs of highly-enriched uranium (HEU) left Uzbekistan in the 50th shipment of the dangerous nuclear fuel under a threat reduction agreement between the U.S. and Russia.

The National Nuclear Security Administration (NNSA) said on Nov. 1 it had successfully removed of 72.8 kilograms (160 lbs) of spent HEU fuel from the Institute of Nuclear Physics (INP) in Tashkent, Uzbekistan, a former territory of the Soviet Union. The HEU will be stored in a specialized location in Russia.

HEU can be used to make nuclear weapons and the U.S. has been working to reduce and protect vulnerable nuclear and radiological material located at civilian sites worldwide.

The Nov. 1 shipment is the 50th under NNSA’s Global Threat Reduction Initiative (GTRI) cooperative program with Russia to return Russian-origin HEU. Since the program began 10 years ago, NNSA said it and its Russian counterparts have cooperated to successfully return more than 1,900 kilograms or over 4,000 lbs of Russian-origin HEU to Russia -- enough material to stock 75 nuclear weapons, said NNSA. The agency said the program has completely removed all Russian-origin HEU from six countries.

The HEU in the 50th shipment was securely transported by air to a specialized facility in Russia, said NNSA. The complex operation was the culmination of a multi-year effort between the NNSA, Uzbekistan, numerous Russian partners including the nuclear regulator and the Russian Federation’s Nuclear Energy State Corporation (ROSATOM), and the International Atomic Energy Agency, said NNSA.

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“In the wrong hands this material could be used to make a nuclear weapon,” said NNSA Administrator Thomas D’Agostino. “This shipment and our ongoing partnership with Russia demonstrate the positive effect our efforts have on the global effort to secure, consolidate and minimize the use of highly enriched uranium across the globe.”

NNSA said its GTRI program and Uzbekistan’s INP share a long history of cooperation on nuclear and radiological security issues. This is the seventh shipment of HEU from INP since 2006 and marks the complete clean-out of all HEU from the facility, said NNSA. GTRI also worked with INP to convert its research reactor from HEU to low enriched uranium (LEU) use, and to secure radiological sources that could be used for a dirty bomb, it said.

http://www.gsnmagazine.com/node/27744?c=cbrne_detection

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Center for Strategic and International Studies
OPINION/Project on Nuclear Issues

Are Missile Tests Good for Strategic Stability?

October 26, 2012

By Matthew Fargo

Last week, Russia conducted its largest strategic nuclear exercise since the end of the Cold War. According to reports of the exercise, Russia fired an RS-12M Topol (SS-25 Sickle) road-mobile intercontinental ballistic missile (ICBM), four air-launched cruise missiles from Tu-95 Bear and Tu-160 Blackjack bombers, and a submarine-launched ballistic missile (SLBM – likely an SS-N-18) from the Svyatoy Georgiy Pobedonosets, a Delta III ballistic missile submarine. This dramatic show of force on the heels of Russia’s announcement that it would withdraw from the twenty-year old Nunn-Lugar Cooperative Threat Reduction Program is likely designed to remind the world – and the people of Russia – of the strategic importance of Russia despite the decline of its military capabilities and infrastructure since the dissolution of the Soviet Union. Paradoxically, successful tests such as this may actually help to improve strategic stability by reminding Russian and other military leaders of the effectiveness of the Russian nuclear triad.

As the Russian military struggles to modernize, exercises such as this may help to build confidence within Russian leadership circles. If Russia’s ultimate guarantor of safety – its nuclear arsenal – can perform as anticipated and required, Russian leadership will be reassured that its nuclear deterrent will continue to operate as expected. Similarly, the Russians may hope that such exercises remind the U.S. and other nations that Russia must be dealt with as a nuclear peer. As it has for decades, maintaining this balance will regulate relations with the United States and other major world powers.

Russia Still Relevant, Putin Insists

Despite U.S-Russian efforts at bilateral nuclear arms reduction, nuclear weapons continue to play a major role in war prevention, in deterring significant conventional aggression, and in stabilizing great power interaction. In addition, previous strategic weapons reductions treaties have been predicated on mutual interest in cost-savings rather than dramatic shifts in the strategic postures of either the United States or Russia.

Since the end of the Cold War, the United States has reduced its reliance on nuclear weapons through “the growth of unrivaled U.S. conventional military capabilities.” However, Russia’s military capabilities – both nuclear and conventional – have deteriorated over the past two decades. In recognition of their relatively cost-effective contribution to Russia’s security, the Russian military is energetically modernizing its strategic nuclear forces - the goals of which remain unclear and are interpreted as threatening by some American observers.

Russia first outlined its nuclear modernization plans in 2011, estimated to cost approximately \$650 billion. In 2012, the Russian Defense Ministry signed a contract for five of ten planned Borey ballistic missile submarines expected to be in service by 2020. After a series of test failures and schedule overruns, the first Borey is expected to enter service next year and will deploy with a new generation mixed liquid and solid-fueled SLBM, the RSM-56 Bulava (SS-NX-30). In

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addition, a new heavy ICBM is expected to replace the R-36M2 (SS-18) by 2018 which will be better able to penetrate missile defenses and can carry a payload four times larger than its predecessor.

While such developments are frequently viewed with suspicion and apprehension from U.S. foreign policy analysts, the development of more modern and reliable Russian strategic weapons may actually be in the best interest of the United States. Developing systems that vastly outpace U.S. strategic capabilities or that could negate the U.S. second-strike capability would negatively impact strategic stability, but current Russian modernization plans – limited by New START – will not cross this threshold. Developing systems that ensure strategic parity for the foreseeable future may increase Russian confidence in the credibility and reliability of their nuclear deterrent. Most critically, it was reported that the Russian military exercise involved tests of communications and command and control systems which are vital to ensure a Russian second-strike capability.

Given Russian fears that, “The growing counterforce capability of U.S. [conventional forces] may present a considerable threat to the survivability of Russia’s strategic forces,” exercises which develop clear command and control scenarios for Russia’s nuclear forces will be instrumental in easing their concerns.

Although it would be preferable to move beyond the Cold War strategic posture of mutually assured destruction, there is little indication that “mutually assured stability” is anything more than political rhetoric. Moreover, the United States cannot unilaterally alter Russian perceptions about threats to its existence that may also drive nuclear modernization.

The United States will not and should not accept a nuclear capability that is inferior to that of any other nation. However, until nuclear modernization efforts can reestablish Russia’s sense of security, the U.S. must continue to anticipate and discount further military exercises that appear designed to demonstrate Russia’s military strength.

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

<https://csis.org/blog/are-missile-tests-good-strategic-stability>

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Foreign Policy
OPINION/National Security

Strategic Misdirection

Are the latest U.S. moves on missile defense making it less safe?

BY TOM Z. COLLINA

October 26, 2012

To counter missile programs in Iran and North Korea, the United States is expanding missile defense capabilities in Asia, the Middle East, and Europe. So far, the United States has fielded short- and mid-range defensive systems against similarly limited threats. But in expectation of Iranian and North Korean missiles that can reach the United States, Washington is planning to deploy mobile, sea-based interceptors that can take out long-range missiles.

And this has Moscow and Beijing worried.

So worried, in fact, that Russia and China are questioning the viability of their strategic nuclear forces, leading Moscow to resist U.S. calls for bilateral arms reductions and motivating both countries to build new weapons to counter future defenses.

This creates a problem for the United States: by planning to counter long-range missile threats in Iran and North Korea that do not yet exist, Washington is making it more difficult to reduce threats from Russia and China that are all too real.

As part of its effort to shift defense resources to Asia, the United States is expanding missile defense cooperation with Japan, South Korea, and Australia. The Pentagon announced in August that it would field a second missile-tracking X-



band radar in Japan, after deploying the first in 2006. Japan has purchased U.S. Aegis-equipped ships with Standard Missile-3 (SM-3) interceptors, as well as Patriot interceptors, early-warning radars, and command-and-control systems. The United States and Japan are co-developing the SM-3 IIA missile, which would also be deployed in Europe.

South Korean Defense Minister Kim Kwan-jin and U.S. Defense Secretary Leon Panetta met in Washington on Oct. 24 and agreed to continue to cooperate on missile defense and to "enhance the interoperability" of their command-and-control systems. The U.S.-ROK partnership would reportedly include joint research on a "Korea Air and Missile Defense" system involving a new radar and Standard Missile interceptors for Aegis-equipped destroyers. Seoul is pursuing its missile defense relationship with Washington cautiously, so as not to needlessly antagonize China.

An August 23 *Wall Street Journal* story said that U.S. officials were evaluating sites in Southeast Asia for a third X-Band radar, possibly in the Philippines, "to create an arc that would allow the United States and its regional allies to more accurately track any ballistic missiles launched from North Korea, as well as from parts of China."

The U.S. X-band radars, known as AN/TPY-2s, would be networked with mobile missile interceptors deployed on U.S. Aegis ships at sea and with land-based interceptors in the region. In effect, the United States is pre-positioning radars that could be used to support the long-range ship-based interceptors when they would be fielded around 2020.

Beijing fears that a U.S. missile interceptor system could undermine China's strategic deterrent. China's Ministry of National Defense responded to the August radar announcement by stating that countries should avoid situations "in which one country tries to let its own state security take priority over other countries' national security." Beijing objected to the first radar in Japan in 2006.

Beijing, which is secretive about its nuclear program, is reportedly responding to U.S. moves by expanding its relatively small nuclear arsenal, working on a new mobile missile, the DF-41, and countermeasures to evade U.S. defenses. Even so, the United States has a 30-to-1 advantage over China in long-range nuclear-capable missiles.

In Europe, the United States is spending billions of dollars to deploy an array of missile interceptor systems, such as hundreds of SM-3 interceptors based on dozens of Aegis-equipped ships at sea and at two land-based sites in Romania and Poland, in four phases through 2020. NATO announced at its May summit in Chicago that the first phase of the system -- a ship with SM-3 IA interceptors in the Mediterranean and an X-band radar in Turkey -- has established an "interim capability." (Nevermind that the SM-3 IA interceptor failed a Missile Defense Agency intercept test on Oct. 25.)

Russia sees the ongoing U.S. and NATO missile defense deployments in Europe through 2020 as a threat to its strategic deterrent. In response, Moscow is resisting further bilateral reductions in nuclear stockpiles beyond the 2010 New START treaty and is planning to modernize its forces, including a new ten-warhead ICBM by 2018 optimized to penetrate missile defenses. This is an unwelcome development for U.S. security, as these fixed-silo, liquid-fueled missiles are highly vulnerable and destabilizing.

Russian Deputy Prime Minister Dmitry Rogozin told NATO representatives Oct. 18 that Russia's response to NATO's missile defense plan "is currently mostly virtual, political and diplomatic in character, but under certain circumstances we would be forced to deliver a technical response, which I don't think you'll like."

In the Middle East, a number of states are considering buying longer-range systems, and last year the United Arab Emirates became the first country to buy the U.S. Terminal High Altitude Area Defense intermediate-range interceptor system, for \$3.5 billion. Israel has an X-band radar and various short-range systems, such as Iron Dome, and this month took part in major missile defense exercises with the United States.

As more Gulf states buy U.S. missile interceptor systems, the United States will "work to promote interoperability and information sharing" among those states, according to the State Department. This aspect of the plan is similar to the one for Europe, where NATO is integrating the new, U.S.-supplied interceptor systems with existing NATO short-range interceptors and sensors.



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In the future, as the United States deploys additional Navy ships with SM-3 interceptors, it could assign some of those ships to the Gulf, Asia, or NATO. U.S. mobile systems "can be relocated to adapt to changing regional threats and provide surge defense capabilities where they are most needed," Frank A. Rose, the deputy assistant secretary of state for arms control, verification and compliance, said Sept. 10 at a missile defense symposium in Berlin.

Neither Iran nor North Korea has successfully tested a long-range missile that could reach the United States. Moreover, if they did, it is not at all clear that the technologies being deployed would be effective.

For example, the SM-3 missile being deployed in Europe would seek to intercept incoming warheads while in space, or in the "midcourse" of their trajectory, where decoys or "countermeasures" must be dealt with. A September report by the National Research Council found that "there is no static answer to the question of whether a missile defense can work against countermeasures." The answer "depends on the resources expended by the offense and the defense and the knowledge each has of the other's system."

After the November elections, the next president will have a choice to make. Will the United States continue to chase potential future threats with inherently unreliable defenses, or will it instead prioritize working with Russia and China to reduce the real threats we face today? Let's hope the new administration brings a more balanced approach to U.S. missile defense policy.

Tom Z. Collina is research director at the Arms Control Association in Washington.

http://www.foreignpolicy.com/articles/2012/10/26/strategic_misdirection?page=full

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USA Today
OPINION/Column

Column: Nuclear Terror Threat Goes 'POOF'

We're losing focus on a danger with unimaginable consequences. We can still stop it.

By Michael Levi and Micah Zenko

October 29, 2012

President George W. Bush called it his "ultimate nightmare." Sen. John Kerry, running for president in 2004, said that it was "the greatest threat that we face." They were both talking about the terrifying possibility that a terrorist group could acquire a nuclear weapon and attack the United States. Yet this year, over the course of three presidential debates, the issue barely surfaced. That is dangerous: Nuclear terrorism remains one of the very few vital risks to America, and the next president, whoever he is, will need to work vigilantly to prevent it.

Fears about the prospect of nuclear-armed terrorists date to the 1970s, and more recently to the immediate aftermath of the Cold War, when strategists feared that a crumbling Soviet empire might be unable to protect its vast stocks of weapons-grade uranium and plutonium. Over the next decade, though, many people's concerns subsided as their attention turned to a series of crises of the day.

They were jolted out of that slumber on Sept. 11, 2001, when al-Qaeda revealed an appetite for mass destruction and demolished the old dictum that terrorists wanted "a lot of people watching, not a lot of people dead."

Post-9/11 focus

In the years that followed, Bush pumped money and diplomatic muscle into efforts to secure nuclear weapons and materials around the world. Barack Obama, upon entering office, seized on nuclear terrorism as a priority, turbocharging previous initiatives and launching a series of Nuclear Security Summits to galvanize global efforts to prevent it.

Yet if the recent debates are any indication, the cycle of shock and trance is setting in again, as politicians and the public tire of worrying about the threat. Republican presidential nominee Mitt Romney referred to it obliquely Monday

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night when he claimed that Russia is abandoning Nunn-Lugar, a core U.S. program aimed at securing nuclear materials. Obama quickly asserted that it would be "unacceptable" to allow Iran "to be able to provide nuclear technology to non-state actors" and then moved on. This is a far cry for the attention that nuclear terrorism received in the past.

Crying 'wolf'?

This can partly be explained by excessive hype about the possibility that terrorists might acquire nuclear arms, particularly prominent in the years after 9/11. With no attack in the years since, some might be tempted to recall the boy who cried wolf. That has made warnings about nuclear terrorism less powerful today.

But one needn't believe that a nuclear attack is probable to conclude that it should be a top-tier priority. Nuclear terrorism, however unlikely, is one of the few prospects that could truly devastate the USA. An atomic bomb detonated in a crowded downtown area could kill hundreds of thousands of Americans promptly. On this scale, no other threat — such as fears of a cyber Pearl Harbor or ongoing turmoil in the Middle East — compares.

Act now

The good news is that there are still steps that the U.S. and the world can take to reduce the odds of a catastrophic attack. The United States should work with the thirty-four countries that still have weapons-useable nuclear materials to remove those whenever possible. It should help others reduce the risk that corrupt or extremist workers at nuclear facilities could divert any dangerous materials that remain. The next president should also broker a new agreement with Russia to build on the gains of the past 20 years in securing the former Soviet arsenal.

The threat of nuclear terrorism has diminished markedly over the past decade, but it has not been eliminated. The next U.S. president will still face a vital challenge that he cannot ignore.

Michael Levi and Micah Zenko are fellows at the Council on Foreign Relations.

<http://www.usatoday.com/story/opinion/2012/10/28/column-nuclear-terror-goes-pooof/1664299/>

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Wall Street Journal
OPINION/Letter

We Have Time to Stop Iran's Nukes

October 30, 2012

Page – A22

Regarding your editorial "Tick-Tock Tehran" (Oct. 20): Our breakout estimates on Iran represent the length of time Iran would need to produce enough weapon-grade uranium for a nuclear weapon, if it decided to build one. We estimate that Iran would currently need more than two to four months to breakout, leaving adequate time for the U.S. to detect and respond to the breakout before Iran could accumulate enough weapon-grade uranium for a nuclear weapon. Because Iran fears a military attack, it is unlikely Iran will currently breakout. During at least the next year, our breakout estimates support that the chance of an Iranian breakout will also be low.

We assess that Hiroshima-style, gun-type nuclear weapons are an unlikely choice for Iran and will not save a significant amount of time in fielding a nuclear device for an underground test. A gun-type weapon would require double the amount of weapons-grade material of an implosion design. Thus, the time necessary to accumulate sufficient weapons-grade uranium for one weapon would increase from two to four months to four to eight months. Additionally, there is no evidence Iran has worked on a gun-type device. But there is considerable evidence that Iran has worked on an implosion-type device in a well-structured program until 2004 and perhaps on an ad hoc basis afterwards. Thus, Iran's implosion design has a significant headstart. Moreover, the available information about Iran's implosion design supports that the device is unlikely to require a full-scale test to ensure it works as planned, offsetting another perceived advantage of a gun-type design.

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David Albright

President

Institute for Science and International Security
Washington

<http://online.wsj.com/article/SB10001424052970204598504578080792992525024.html>

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Bulletin of the Atomic Scientist
OPINION/Columnist

The Myth of Strategic Stability

By Pavel Podvig

31 October 2012

Strategic stability is one of those ideas that seem to enjoy almost unqualified support among nuclear and non-nuclear weapon states, nuclear disarmament advocates and skeptics, as well as nuclear abolitionists and nuclear hawks. And it is probably because of this universal support that the pursuit of strategic stability became the single most serious obstacle on the way toward nuclear disarmament.

Strategic stability usually refers to a state of affairs in which countries are confident that their adversaries would not be able to undermine their nuclear deterrent capability. It is generally believed that, if the nuclear deterrence potentials are secure, nuclear powers would not feel the need to build up their strategic arsenals and, most important, would not be under pressure to launch their missiles in a crisis. Understood this way, strategic stability does not seem a particularly controversial concept. Few people would advocate instability in matters that involve nuclear weapons. But the problem is that the key elements of the concept are so poorly defined that it has no useful meaning and virtually no practical value.

First of all, the numbers that are used to judge the effectiveness of deterrence have always been completely arbitrary. For example, in the early 1980s, the US intelligence agencies estimated that, in the event of a surprise Soviet attack, surviving launchers in each of the three legs of the US strategic triad could independently destroy about 70 percent of the Soviet economic value -- a task that would require thousands of surviving warheads. And still the United States was concerned that this might not be enough to deter the Soviet Union. The Soviet Union, on the other hand, had a different view of what was necessary for effective deterrence: A Soviet official document from the late 1980s estimated that its retaliatory strike would destroy about 80 targets on US territory. Given that the Soviet strategic force still included more than 10,000 nuclear warheads at the time, this number does not seem particularly large. However, the authors of the estimate seemed quite confident that such a capability would provide the Soviet Union with an adequate deterrence potential.

These numbers are probably much lower today, but they are almost certainly as arbitrary as they were in the 1980s. All evidence suggests that the estimations of the number of weapons that might be required for deterrence have always been determined by the number of weapons available -- rather than the other way around. So, once nuclear states start cutting down their nuclear arsenals, they have no problem adjusting their views of efficient deterrence accordingly. In August, for example, a former commander of the US Strategic Command stated on record that "the retaliatory capability of 300 nuclear weapons on anybody's territory is catastrophic." But there is no reason to believe that the retaliatory capability of, say, 30 nuclear weapons -- or even three -- is anything but catastrophic. Indeed, the experience of the Cuban Missile Crisis or concerns about the emerging nuclear capabilities of countries like North Korea and Iran tells us that just a small probability of having a single nuclear weapon delivered to someone's territory is a very strong deterrent.

The arbitrary nature of the assumptions that underlie the idea of strategic stability makes this concept extremely malleable and politically charged. Depending on the politics of the moment, just about any configuration of strategic

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forces could be declared sufficiently stable or dangerously unbalanced, and any imaginable threat could be brought into the equation or conveniently ignored. On the surface it may not look this way -- there is, after all, an intellectual tradition that explains, for example, why silo-based multiple-warhead missiles are destabilizing weapons or why missile defense undermines strategic stability. Historically, however, it has always been the politics and not the theoretical arguments that have had the upper hand in most of these discussions; even the most difficult strategic stability problems are usually resolved by a simple decision that they are not problems anymore.

Somewhat surprisingly, one of the best examples of the triumph of politics over theory is the Anti-Ballistic Missile Treaty (ABM), which has long been believed to embody the essence of strategic stability calculations by limiting destabilizing missile defenses and introducing a measure of predictability into the nuclear arms race. In reality, however, the decision to limit defenses came only after the United States and the Soviet Union had enough experience with missile defense to conclude that it would not be able to provide any useful protection. By the time the ABM negotiations began, neither country believed missile defense was going to be a serious problem.

During the MX missile debate in the late 1970s -- in which the United States built its most advanced intercontinental ballistic missile to date -- there was a great deal of controversy over the seemingly insurmountable problem of multiple-warhead land-based missile vulnerability. For a time, the missiles were supposed to be shuttled around the United States in an intricate, expensive, and wildly uncertain ploy to make them less vulnerable to Soviet attack. And yet, the matter was quickly resolved once the large-scale strategic modernization of US forces got underway in the early 1980s -- the missile vulnerability controversy had served its political purpose and the missiles were deployed in silos, even though they were as vulnerable as before.

Another example is Russia's recent position on missile defense, which -- despite all the harsh rhetoric -- turns out to be surprisingly flexible. The alleged grave destabilizing effects of missile defenses were conveniently overlooked every time the political benefits of moment felt right -- whether it was the Strategic Arms Reduction Treaty (START) in 1991; the brief US-Russian rapprochement after the 9/11 attacks, which the United States used to withdraw from the ABM Treaty; or the success of New START in 2010.

Missile defense, of course, is back on the agenda, but only because the politics changed: Having secured an arms control agreement with the United States, Russia now needs a cover for its strategic modernization program. Besides, missile defense is far from the only problem that is being added to the strategic stability mix; there are weapons in space, conventional strategic weapons, upload potential, cruise missiles, and the balance of conventional forces.

Though as tempting as it might be to try to find a formula that would balance all these factors in one neat, strategically stable package, it is never that simple. The only reliable way to deal with the many alleged threats to strategic stability is to build a system of relationships in which countries make conscious decisions to exclude these "threats" from their national security calculations. This approach is, of course, a rather tall order; it would probably require a fundamental change to the architecture of international security, as well as to US policy and to the policies of other nuclear weapon states. But, unless the international community commits itself to a more rational security regime, the world could get bogged down in a quest for strategic stability -- which is increasingly becoming nothing more than a cover for obstructionism and cynicism in nuclear disarmament.

Pavel Podvig is a Moscow Institute of Physics and Technology trained physicist. Podvig works as a research associate at Stanford University's Center for International Security and Cooperation. His expertise is in the Russian nuclear arsenal, U.S.-Russian relations, and nonproliferation.

<http://www.thebulletin.org/web-edition/columnists/pavel-podvig/the-myth-of-strategic-stability>

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Foreign Policy

OPINION/National Security

Letting Go of 'Loose Nukes'

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Relax. It's okay if Russia wants to pay for its own security.

By DOUGLAS BIRCH

October 31, 2012

The Kremlin's refusal to renew a U.S. program that has spent more than \$10 billion since 1992 on security for Russia's nuclear and unconventional weapons has caused angst, hand-wringing and finger-pointing. Who'd have thought a foreign aid program could be so popular?

In last week's debate Mitt Romney called Russia "a geopolitical foe," echoing his campaign's theme that the White House was coddling an intransigent Moscow. But shortly thereafter he criticized President Obama for the Kremlin's refusal to accept any more money for Russia's weapons security programs from U.S. taxpayers.

"Russia said they're not going to follow Nunn-Lugar anymore," he said. "They're back[ing] away from a nuclear proliferation treaty that we had with them. I look around the world, and I don't see our influence growing around the world."

A *New York Times* editorial (though blaming Vladimir Putin, not Obama) warned that pulling the plug on Nunn-Lugar meant that "Russia's unsecured weapons and materials remain a temptation for terrorists of all varieties."

But it's likely Moscow would have stopped accepting Nunn-Lugar aid even if we'd been tougher on them. And it's doubtful that Russia is about to become a candy store for jihadists in search of WMD.

Instead, it was probably inevitable that Russia one day would decide that, yeah, the world's ninth richest nation should pay the freight for protecting its own nuclear arsenal. "At some point Russia has to do for itself what other states do for themselves, which is provide security for the weapons and material they chose themselves to produce," said Sharon Weiner, an associate professor at American University and an expert on U.S. counter-proliferation programs. "Russia needs to step up to the plate."

Russia's image as a country in the grip of political turmoil and poverty is amazingly persistent in the United States. But visitors to Moscow find spiffy skyscrapers, billboards advertising Italian sports cars and private jets, and bureaucrats wearing Swiss watches worth tens of thousands of dollars.

After the ailing Soviet Union finally gave up the ghost in the waning days of 1991, Russia inherited its vast stores of nuclear, chemical, and biological weapons. And they were a mess. Western visitors to weapons depots and labs were shocked to find AWOL guards, broken fences and unlocked doors. Two million nerve gas shells were discovered sitting in rotting barns in a patch of forest in western Siberia.

Senate Democrat Sam Nunn and Republican Richard Lugar, in an act of bipartisanship that might be impossible today, pushed for creation of an emergency aid effort that grew into a multi-agency effort that is now generally called the Nunn-Lugar Cooperative Threat Reduction program.

The program has channeled about a half-a-billion dollars each year into efforts to beef up the safety and security of Russia's unconventional arms. And in the early years, at least, it helped insure the grim downside of what Russian President Vladimir Putin has called "the greatest geo-political catastrophe" of the 20th century didn't extend much beyond the U.S.S.R.'s former borders.

The United States helped remove all of the nuclear weapons in Ukraine, Kazakhstan, and Belarus and return them to Russia. U.S. taxpayers financed the demolition of thousands of Soviet weapons, including missiles, submarines, bombers, and of course city-shattering nuclear warheads. Most of the dismantled weapons were obsolete or surplus, but still could have made dangerous toys for desperate boys.

Americans even paid the salaries of some of the Soviet Union's tens of thousands of weapons scientists, engineers and technicians impoverished by the economic crises of the early 1990s, to discourage them from working for rogue states.

The programs weren't 100 percent successful. The CIA complained repeatedly to Russia that former weapons scientists were freelancing abroad. Vyacheslav Danilenko, who worked at one of the Soviet Union's two premier nuclear



weapons labs, is the "foreign expert" the International Atomic Energy Agency **suspects** of having spent several years in Iran in the late 1990s and early 2000s helping develop conventional explosive systems that could initiate a nuclear blast.

Small amounts of weapons-grade uranium and plutonium were diverted from former Soviet weapons and other nuclear facilities.

But Russian officials were saying by 2000 that Nunn-Lugar programs had accomplished their core mission. Russia's economy was booming thanks to surging oil prices, and the Kremlin was busy restoring the power of Russia's central government -- in particular its security services. The White House, skeptical of Moscow's new leadership, seemed poised to cancel the program and move on to other matters.

Then 9/11 happened, unleashing a wave of U.S. spending on counter-terror efforts and fresh support for Nunn-Lugar. Putin and other top Russian officials, meanwhile, tried to reassure the West that Russia's nuclear facilities were safe. But Washington was determined to make certain the next 9/11-style attack didn't feature a mushroom cloud. Which led to a situation where the U.S. was pressing a country to accept hundreds of millions of dollars in annual aid that the recipients protested they didn't need. (Of course, they didn't protest too loudly. Who would?)

On one point, there is no dispute that the Russians were right. They didn't need the money. The country recovered rapidly through the 2000s, paying off its debts and pouring hundreds of billions into a sovereign wealth fund. Today, Russia's mineral riches have made it one of the world's largest economies, and in recent years the country has waged a see-saw battle with Saudi Arabia for the title of the world's leading oil producer.

Militarily, Russia is still regarded by the West as a pitiful helpless giant. And to a large extent it is, because it inherited the Soviet Union's bloated, poorly equipped, and badly trained fighting forces. But the Kremlin launched a program of administrative military reforms a few years ago. And Putin has embarked on a 10-year, \$775 billion buildup that will add thousands of modern weapons, including missiles, submarines, warplanes and tanks, to the country's arsenal. (The \$775 billion figure is roughly what the Pentagon spends in a single year, of course, but it's a start.)

Many U.S. arms control advocates argue that Nunn-Lugar's mission is still critical in Russia because Moscow is far too sanguine about nuclear security. And in truth Russian officials and experts don't seem to worry about their nuclear security nearly as much as the United States does.

But maybe they know something the U.S. doesn't.

Alexander Golts, a highly-respected, Moscow-based independent expert on the Russian military, told me in a conversation last year that his country's nuclear weapons and weapons-grade materials were "more or less safe" from theft or diversion. "I never read any criticism on how Russia keeps its nuclear materials, nuclear weapons and so forth. I don't think it's a basic problem."

Writing about the end of Nunn-Lugar in the *Moscow Times* on Oct. 23, Golts said the effort prevented "a global catastrophe" in the 1990s. But he dismissed fears that ending Nunn-Lugar could have disastrous consequences today. "While it is true that basic security guidelines are often ignored with respect to conventional weapons [in Russia], this cannot be said for nuclear and chemical weapons," he wrote.

There were occasional reports of the theft of Russian nuclear warheads in the 1990s, but those fears turned out to be unfounded. "Reports of Russian 'loose nukes' appear to have been greatly exaggerated," former CIA officer Rolf Mowatt-Larssen, now at Harvard, wrote in the *Bulletin of the Atomic Scientists* in 2010.

U.S. arms control experts have long worried about the emergence of an organized black market in Russian enriched uranium and plutonium, which terror groups might use to cobble together an improvised nuclear device.

"Undetected smuggling of weapons-usable nuclear material has likely occurred, and we are concerned about the total amount of material that could have been diverted or stolen in the last 15 years," a 2006 report by the National Intelligence Council warned. According to a 2008 study by researchers Lyudmila Zaitseva and Rob McCusker, a total of



about 38 kilograms (84 pounds) of weapons-usable material -- mostly enriched uranium -- is either known or suspected of having been diverted from Russia's nuclear centers.

That's a worrisome number, and probably doesn't reflect all of the missing materials.

But about 100 pounds of highly-enriched uranium would be needed to build a single crude nuclear weapon, the kind terrorists could make. And the total was seized in small amounts, mostly sub-kilogram size shipments, from small-time hustlers in sting operations carried out over almost two decades.

Many of these seizures occurred in Georgia. A 2010 study by Alexander Kupatadze for the Monterey Institute of International Studies concluded that in Georgia those caught with nuclear materials tended to be amateurs and opportunists who grabbed a small amount of material and passed it along, rather than professional smugglers or terrorists with an established pipeline into a nuclear facility. "Based on current evidence, it appears that traditional and professional organized crime groups are rarely involved in the smuggling of radioactive materials," he wrote.

U.S. nuclear experts like Matthew Bunn of Harvard's Kennedy School of Government have questioned whether in the absence of U.S. aid Russia would spend the money needed to guarantee its warheads, plutonium and uranium are safe. "They should be paying for it themselves," Bunn said in an interview last year. "But we're in a situation where they don't see it yet as as high a priority as we see it."

That may be because they see the problem from a different angle.

American University's Weiner says that Russia understands the importance of nuclear security but approaches it differently than the U.S. does. "The U.S. has different standards on nuclear security than the Russians do," Weiner said. "They're not better or worse, they're just different." In a 2002 report to Congress, the National Intelligence Council said Russia's nuclear security was geared toward preventing outside attacks, while the United States was more concerned about the "pre-eminent" threat posed by insiders with sinister aims. "The U.S. thinks it has to work vigilantly to deal with these [insider] threats," Weiner says. "Russia thinks it certainly has to do some things, but isn't as obsessed."

The Nunn-Lugar announcement came a few weeks after Moscow said it would cancel all United States Agency for International Development programs, which provided funding for democracy-building, health, human rights, and development. The United States has spent almost \$3 billion on USAID efforts in Russia since the early 1990s. Partly, the move may reflect tensions over Syria and Russia's conviction that the West has encouraged the emergence in the last year of an active opposition movement.

But Russia has been gradually turning the screws on various foreign aid programs for years, including nonproliferation programs. Last year then-President Dmitry Medvedev announced that Russia would phase out the International Science and Technology Center in Moscow by 2015. The center, run under the Nunn-Lugar umbrella, has channeled \$1 billion into salaries and grants to scientists working in Russia's weapons complexes since the early 1990s. As they have with the broader Nunn-Lugar effort, Russian officials called the ISTC a relic of the bad old days of the 1990s. "The mission has been accomplished," Russia's U.S. ambassador, Sergey Kislyak, told The Associated Press at the time. "It is a little bit outdated." The center may also be another window on Russia's weapons program the Kremlin would prefer closed.

Weiner and many other U.S. experts said Nunn-Lugar cooperation helped build confidence between the two former Cold War rivals by granting access to otherwise closed weapons sites and facilities. But Russia's security services have long been suspicious of these programs for precisely the same reason.

U.S. experts say the dialogue between Americans and Russians was another major benefit of Nunn-Lugar -- even when the two sides spent a lot of time arguing over U.S. insistence on accountability in spending its aid dollars. "We'll miss beating each other up," Weiner said. "It reduces the tension."

If Russian and U.S. scientists and officials can no longer meet to talk about joint arms control efforts, she said, they should try to find other issues to explore. "Let's talk about climate change, let's talk about HIV research, let's talk about a common problem that's one step removed from the national security sphere," she said.



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Douglas Birch is a science journalist and former Moscow correspondent for The Baltimore Sun and Associated Press who has written extensively about nuclear and other weapons of mass destruction programs.

http://www.foreignpolicy.com/articles/2012/10/31/letting_go_of_loose_nukes?page=full

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

A Homeless Nuclear Arsenal

November 1, 2012

By Sarah Weiner

In 2014 Scotland will hold an independence referendum, asking Scottish citizens to approve a formal and full break with the United Kingdom (UK). While certainly important for European citizens and political scientists, such an event wouldn't normally earn much notice from the nuclear community. In this case, however, the state in question happens to be a nuclear-weapon state, and that nuclear-weapon state happens to keep its entire arsenal stationed in the seceding territory. If the citizens of Scotland approve the referendum, the UK's nuclear arsenal will suddenly exist in a foreign country. But that is the least of London's headaches. The Scottish National Party (SNP), the majority party in the Scottish Parliament, has pledged to ban all nuclear weapons in an independent Scotland. Theoretically that should be good news; Scotland has no plans to engage in a custody battle with the UK over its nuclear weapons. But there is a catch: the United Kingdom would have nowhere to put the returned arsenal. If the SNP sticks to its de-nuclearization pledge, then an independent Scotland would mean a disarmed UK.

At first, this is a difficult scenario to wrap one's head around. How could the UK not have a base to store its nuclear submarines? The trouble is not the nuclear subs per se, but the infrastructure necessary to support their nuclear mission. The UK's four nuclear-armed Vanguard-class submarines are stationed at Her Majesty's Naval Base (HMNB) Clyde in Scotland, which contains two crucial sites for the subs: Faslane Naval Base and the Royal Navy Armaments Depot (RNAD) at Coulport. Faslane is ideal for the nuclear subs because of its access to deep water, but this could be replicated elsewhere. The nuclear subs already routinely dock at Devonport, on the southwest coast of England, for maintenance. The function served by Coulport, however, would be much more difficult to replace. Coulport houses nuclear warheads and serves as the site for loading and unloading warheads from the Trident missiles inside the subs. This dangerous work requires the facility to be located a sufficient distance away from populated areas yet close enough to Faslane to facilitate efficient mating and de-mating between patrols. When the Clyde was chosen as the nuclear deterrent's home in the 1960s, several other options were considered but all found to provide insufficient siting options for the RNAD. More recent reviews of these older studies confirm the same basic problem exists: no base other than the Clyde offers the right mix of proximity to deep water and distance from populated areas. Choosing a different location within England to base the UK's nuclear subs would necessitate a dramatically different siting scheme for the RNAD, likely one in which the naval base is much farther away from its armament's depot. This could potentially interfere with patrol schedules and the UK's ability to maintain its "Continuous At Sea Deterrence" (CASD) posture.

Even if the UK were able to find an alternative base for the Vanguard subs and their supportive nuclear infrastructure, constructing such a facility would take years. A recent report issued by the Scottish Affairs Committee of the UK Parliament predicted such a move could take two decades. Such a prediction seems overblown at first, but the compounded delays of finding a site, gaining local approval, designing appropriate facilities that meet safety requirements, and constructing an incredible amount of infrastructure all add up to quite a bit of time. If Scotland declared independence and expelled the nuclear subs, the UK would be forced to disarm its missiles until substitute facilities could be found or built. That could mean functional disarmament for years and potentially decades.

Such an outcome is unacceptable to London, and the UK has made this opinion clear. London's preferred outcome is a failed referendum, and current polling suggests this is the most likely outcome. Only 30 percent of the Scottish

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electorate currently supports independence. Much could change in the next two years, but for now much of the doom-saying seems highly theoretical. If Scotland does vote for independence, however, the UK will have ample leverage to extract a favorable deal on the nuclear issue. Scotland needs amicable relations with the UK to resolve essential economic questions, including its use of the British pound and its share of offshore oil revenues. These issues will affect the pocketbook of Scottish voters, and the SNP would be hard-pressed to sacrifice them on the altar of its nuclear principles. Furthermore, Scotland will depend on the UK's support for its bid for membership in the European Union and the North Atlantic Treaty Organization, especially since a newly independent Scotland will have minimal indigenous defense capabilities. The UK could use any or all of these issues to negotiate an acceptable resolution to the Vanguard's homelessness, including a permanent or extended lease of HMNB Clyde to facilitate a phased removal of the Vanguard subs.

Strong-arming an independent Scotland into housing its nuclear arsenal may not be the best policy for the UK, however. In the event of a breakup, the UK and Scotland would be in uncharted legal waters (pardon the pun). The UK will need cooperation – not just consent – from Scotland to craft a lease agreement, address ambiguities over territorial waters, win support from local Scottish governments in the surrounding area, and deal with personnel and custody issues. If the UK-Scottish military relationship becomes strained, the UK may find its nuclear arsenal operating in territory controlled by a begrudging and foot-dragging partner, hardly the ideal foundation to project a capable, flexible deterrent.

The Ministry of Defence's current policy is to avoid "making contingency plans for the event of Scotland becoming a separate country." Sticking its head in the sand is not a viable strategy for London. Even if the Scottish referendum fails, the episode shows the precariousness of leaving the entirety of the UK's nuclear arsenal in a territory with an anti-nuclear government bent on independence. A failed referendum in 2014 does not preclude future attempts, and these are unlikely to offer the UK the courtesy of 20 years' notice. And if the referendum does succeed, then the UK's lack of contingency planning may prove to be disastrous for its nuclear force.

Instead, the UK should begin *now* to think seriously about the future of its naval nuclear deterrent. Several options exist:

1. Move the subs to Davenport and the warheads to the United States. The UK's Vanguard subs already make the journey across the Atlantic to pick up their Trident missiles from the U.S. naval base at King's Bay, Georgia. The UK could look into options for relocating its mating and de-mating activities to the US as well. Although moving such a significant portion of its nuclear operations to a foreign country would be politically contentious, the UK must confront the fact that a leased base in an independent Scotland would offer largely the same situation.
2. Move the subs to Davenport and build a new RNAD. This RNAD would need to be farther away from Davenport than the Coulport is from Faslane, but a serious reconsideration of patrol schedules and some advance warning may allow the UK to change locations without losing CASD capabilities.
3. Build a new weapons system that can be more easily accommodated in England. The UK is already looking into subs to replace the Vanguards, scheduled to begin retiring in 2028. Investigating smaller missiles with smaller warheads for these new subs, while changing the nature of the British deterrent, may allow the UK to reduce the radius of the safety requirements currently constricting the siting of the RNAD.

All three options would significantly impact the structure of the UK's nuclear deterrent, offering a compelling explanation for London's current insistence on staying in Scotland. But seriously studying these options now would offer the UK two advantages at little financial or political cost. First, it may provide a better back-up plan if Scottish independence fails in the short term but resurfaces in the intermediate- or long-run. If the UK will need roughly two decades to build an indigenous base for its nuclear subs, then it must begin planning before succession is obviously imminent. Especially given austerity measures, England is unlikely to begin physical construction of such a replacement facility. However, many steps including conducting siting studies, requesting permits, and commissioning facility designs could be done now at relatively little cost and shave years off an eventual move. Second, if the current referendum succeeds and the UK must negotiate continued access to HMNB Clyde, London could use proactive planning to show it has already made good-faith efforts to accommodate the SNP's wishes to make Scotland nuclear-



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free. The Scottish government is much more likely to agree to a term-limited lease than an indefinite agreement, and such confidence-building measures may be the difference between a contentious and a cooperative nuclear partnership.

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/homeless-nuclear-arsenal>

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AOL Defense

OPINION/Op-Ed

Keep Triad 'Best Blend' Of ICBMs, Boomers, Bombers; 'We Can Afford Them'

By Maj. Gen. William Chambers

November 1, 2012

One of the biggest debates in the defense world centers on the nuclear triad. Is it too expensive? Does it actually deter anyone? Is it a Cold War relic or a crucial tool for managing risk? Some experts have argued that land-based missiles just aren't needed. Others say nuclear-capable bombers are a big fat waste of money. A very few say boomers, as nuclear missile submarines are known, are just too expensive to invest in. None of this is being discussed very publicly so when the top general who oversees the Air Force weapons that deliver nuclear warheads, Maj. Gen. William Chambers, offered us an op-ed addressing the issue we jumped at the chance to run it. The Editor.

We have just marked 50 years since the Cuban Missile Crisis, two long weeks of terror embedded in the early years of the Cold War, itself an extended period of nuclear war angst.

For that fortnight in October 1962, when we and the Soviet Union teetered on the edge of destruction our nuclear forces played a central role in winning the peace.

Many today don't remember how events on an island 90 miles away led us to the brink. In his 1953 farewell address President Harry Truman had claimed success in averting World War III and establishing conditions that would keep the peace "as far as man can see."

This bold optimism, just seven years after the end of the war, came from the only leader to have authorized the use of nuclear weapons. Fewer than 10 years later, during the Cuban Missile Crisis, such optimism was proven misplaced as the United States and Soviet Union threatened an unthinkable nuclear exchange. We averted catastrophe then and must remain prepared to do so again.

Today, some contend that we no longer need the nuclear triad of Intercontinental Ballistic Missiles (ICBM), submarine-launched ballistic missiles, and heavy bombers [the next generation of these will be the system known as Long Range Strike] -- arguing that only two of the three are essential. Such a view actually -- and ironically -- represents a position mired in Cold War thinking and fails to consider that the number of nuclear armed states is increasing, and the real potential for complex regional crises to approach the nuclear threshold in the near future. Detailed analysis done for the Nuclear Posture Review explored a range of force structures and determined we should retain the three delivery systems. In our Post-Cold War era, the triad continues to provide the best blend of capabilities to guarantee a safe, secure and effective nuclear deterrent.

In times of tight budgets, some claim we can no longer afford the triad and should eliminate one leg. Such an argument contains two fallacies. The first is that budget pressure should drive us to eliminate the ICBM. On the contrary, an enduring ICBM is an existential security requirement, true in flush times and lean. The second is that no future enemy

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would consider nuclear use or coercion. The existence of our credible nuclear deterrent is the very thing that turns that hope into reality.

Some also argue for eliminating the nuclear role of our bomber force, seeing little likelihood that they would be employed. The nuclear capable bomber remains a highly flexible deterrent critical in many potential crises. And, it is the most visible leg of the triad and therefore invaluable in demonstrating national resolve.

In neither flush times nor lean do we have room for unnecessary military forces. Indeed, not only do we need the ICBM and bomber forces, we can afford them. In 2011, the Air Force provided two legs of the triad for less than 1 percent of the total defense budget, the entire defense budget accounting for 4.5 percent of the gross domestic product (GDP). By comparison, defense accounted for 14.2 percent of GDP in 1953 when President Truman made his remarks.

During the Cold War, the fear was sometimes palpable. A generation of children endured more than 30 years of "Duck and Cover" exercises in school. Those days are long past. Those being promoted to colonel in today's military entered the service after the fall of the Berlin Wall. We are in the Post-Post Cold War and we use nuclear weapons every day to generate the stability that underpins every tool of statecraft foundational to free and open markets. It's a stability that prevented the deaths of tens of millions of civilians in wars between great powers that did not occur.

It's difficult to imagine that an enemy would contemplate a nuclear attack on the United States. That's in part a result of the success of our nuclear deterrent. But it's also a result of internalizing ill-founded optimism, such as President Truman expressed. We didn't foresee October 1962 and we can't foresee the next major crisis, but we can ensure our nuclear forces remain flexible and resilient.

President Truman's optimism may have been misplaced, but it was not naïve. It is naïve to think restraint is self-sustaining, a peaceful equilibrium on autopilot. As President Obama made clear in Prague, "we will reduce the role of nuclear weapons in our national security strategy, and urge others to do the same. Make no mistake: As long as these weapons exist, the United States will maintain a safe, secure and effective arsenal to deter any adversary, and guarantee that defense to our allies..." Today and tomorrow, the vigilance of our nuclear forces remains critical to ensuring the unforeseen challenges of the future are, like the Cuban Missile Crisis, resolved below the nuclear threshold.

Maj. Gen. Chambers is the Air Force's assistant chief of staff for strategic deterrence and nuclear integration.

<http://defense.aol.com/2012/11/01/keep-best-blend-of-icbms-boomers-bombers-we-can-afford-the/>

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