

USAF COUNTERPROLIFERATION CENTER CPC OUTREACH JOURNAL MAXWELL AFB, ALABAMA

Issue No. 934, 23 August 2011

Articles & Other Documents:

Featured Article: Laser Advances in Nuclear Fuel Stir Terror Fear

- 1. Iran to Unveil New Cruise Missiles in August
- 2. <u>'Russia May Build New N-Plants in Iran'</u>
- 3. Iran Transferring Centrifuges to New Site
- 4. Ali-Mohammadi Assassin Will Stand Trial Today: Tehran Prosecutor
- 5. Iran Shows Off New Cruise Missile
- 6. NK, Russia Gain Much from Trip
- 7. Agni-II Prime to be Test-Fired again on August 29
- 8. <u>Time for India to Invigorate Disarmament Plan: Panel</u>
- 9. Navy Stealth Frigate 'INS Satpura' Joins Fleet
- 10. After the Fall, U.S. Concerned about Libyan Weapons
- 11. Contradicting News on Trouble Missile
- 12. Russian Navy to Get Bulk of New Generation Nuke-Fighting Submarines
- 13. <u>US 'Disappointed' Belarus Leaving Nuclear Deal</u>
- 14. Cuba Takes Over as Head of Disarmament Body
- 15. MDA Eyes UAS Missile-Tracking Potential
- 16. Laser Advances in Nuclear Fuel Stir Terror Fear
- 17. Loose Nukes: Are They a Real Threat?
- 18. China's Underground Great Wall
- 19. Is India Ready to Give Up Nuclear Weapons?
- 20. FMCT: Securing Pakistan's Interests
- 21. Iran's Japanese Option: Arms within Arms' Reach
- 22. Al Qaeda's Challenge

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

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

Issue No. 934, 23 August 2011

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

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



People's Daily - China

Iran to Unveil New Cruise Missiles in August

(Xinhua) August 21, 2011

TEHRAN, Aug. 20 (Xinhua) -- The Iranian Defense Ministry will unveil the new generation of its long-range cruise missiles later in August, local satellite Press TV reported Saturday.

Mohammad Eslami, deputy head of the Industry and Research Institute of the Iranian Defense Ministry, said Saturday that the projectiles are to be unveiled on Aug. 22 on the occasion of the national "Day of Defense Industry," said the report.

"The (new) missile has a longer reach compared to (Iran's) previous cruise missiles," Eslami was quoted as saying.

"With accurate programming, these missiles can target the enemy quickly and with the speed of lightning," he said.

In July, Iran said that it test-fired two ballistic missiles with the range of 1,900 km into the Indian Ocean from the desert area of Iran's central province of Semnan, in the Iranian Bahman month, Jan. 21 to Feb. 20. And in June, it announced the launching of a radar system which could detect cruise and ballistic missiles.

The Islamic Republic has made considerable progress in the past decades in developing medium and long-range missiles, and Teheran has reiterated that its missile capability is "a defensive tool against invasions."

http://english.peopledaily.com.cn/90777/90854/7575629.html

(Return to Articles and Documents List)

Press TV – Iran 'Russia May Build New N-Plants in Iran'

Sunday, August 21, 2011

The head of Atomic Energy Organization of Iran (AEOI) says Russia has proposed cooperating with the Islamic Republic on building new nuclear power plants in the country.

Fereydoun Abbasi said that Iran and Russia have negotiated the suggestion proposed by Moscow.

"We also shared our views with the Russian side about constructing new nuclear plants in the country [and] this exchange of views and offers will continue until a result is reached," IRNA quoted Abbasi as saying on Saturday.

The Iranian official pointed to the construction of the Bushehr nuclear power plant in southern Iran and said, "If there is going to be a new agreement between Iran and Russia on nuclear facilities, it will be about building new power plants in Iran and the expansion of peaceful nuclear cooperation between the two sides."

"Any future agreement between Iran and Russia will be in a way that serves the interests of both sides," he added.

Iran signed a deal with Russia in 1995, under which the Bushehr plant was originally scheduled to be completed in 1999, but the completion of the project was repeatedly delayed.

On Wednesday, Abbasi announced a plan for the official inauguration of Bushehr's nuclear power plant in mid-November or in December.

According to the AEOI, the first phase of the Bushehr plant is scheduled to go on stream by the end of the holy month of Ramadan (early September) with a 40 percent capacity.

http://www.presstv.ir/detail/194938.html



(Return to Articles and Documents List)

Khaleej Times – U.A.E.

Iran Transferring Centrifuges to New Site

Agence France-Presse (AFP) 22 August 2011

Iran has begun transferring centrifuges, machines which churn out purified uranium, to the secretive Fordo plant, the state television website reported Monday quoting Teheran's nuclear chief.

'The Fordo facility is being prepared and a batch of centrifuge machines have been transferred there,' Fereydoun Abbasi Davani told reporters after a cabinet session on Sunday evening.

'The transfer of centrifuges of the Natanz site to Fordo is ongoing, with full observation of (safety) standards,' he said, adding that Iran was not 'rushing' the process.

The Fordo plant was built secretly deep inside a mountain near the Shia shrine city of Qom, some 150 kilometres (90 miles) south of Teheran.

Revelations by world powers in September 2009 about the facility's existence in defiance of UN resolutions led to the toughening of international sanctions against the Islamic regime.

Abbasi Davani did not say which type of centrifuges were transferred to the site or if they would be used to enrich uranium to 20 percent purity.

In February, Iran informed the UN atomic agency that the Fordo plant was prepared to host centrifuges, and that it would become operational in the summer.

Iran's uranium enrichment work — the most sensitive part of its controversial nuclear programme — is currently undertaken at the Natanz facility in central Iran, visited regularly by UN nuclear watchdog inspectors.

On June 8, Abbasi Davani had announced that Iran would expand its production of 20 percent enriched uranium and eventually move the process from Natanz to Fordo.

Iran is under four sets of UN Security Council sanctions over its refusal to suspend the uranium enrichment work, and officials in Teheran say they remain adamant to push ahead with the programme.

In July, Iran said it was installing more efficient centrifuges, capable of enriching uranium at 5-6 times faster than the older machines.

Enriched uranium can be used to produce both the fuel for a nuclear reactor and the fissile material for an atomic warhead.

Iran says it uses the process to amass fuel material for future nuclear power plants and atomic research reactors it plans to build, dismissing fears in the West that Teheran seeks to acquire a weapons capability.

The Islamic republic has over 8,000 centrifuges of the first generation IR-1, with nearly 6,000 actively purifying uranium to the 3.5 percent level, according to the latest report by the UN nuclear watchdog in May.

http://www.khaleejtimes.com/DisplayArticle09.asp?xfile=data/middleeast/2011/August/middleeast_August526.x ml§ion=middleeast

(Return to Articles and Documents List)

Tehran Times – Iran

Ali-Mohammadi Assassin Will Stand Trial Today: Tehran Prosecutor



Political Desk Tuesday, August 23, 2011

TEHRAN - The session of the trial of Ali Jamali-Fashi, who assassinated nuclear physicist Massoud Ali-Mohammadi in 2010, will be held on August 23, Tehran Prosecutor General Abbas Jafari-Dolatabadi announced on Sunday.

Ali-Mohammadi, an elementary-particle physicist, was assassinated in a bomb attack on January 12, 2010. He had just left his home when a bomb hidden in a motorcycle was detonated.

Speaking to reporters, Jafari-Dolatabadi said the defendant, who was arrested after the assassination of Ali-Mohammadi, has been charged with moharebeh (enmity against God).

According to the Islamic Republic of Iran's penal codes, which is based on Shia Islamic law, any attempt to undermine national security would be regarded as an instance of moharebeh, which carries death penalty.

"The defendant had travelled to Israel to receive training from Mossad and had agreed to assassinate Dr. Ali-Mohammadi in return for 120,000 dollars," Jafari-Dolatabadi explained.

The trial of the defendant will shed light on the Zionist regimes' involvement in terrorist attacks against the Iranian people, he said.

Indictments to be issued against 15 spies

Elsewhere in his remarks, the prosecutor general announced that indictments against 15 people who had connections with an Israeli spy network will be issued within 10 days.

Malekzadeh not in solitary confinement

Jafari-Dolatabadi also dismissed news reports claiming that Mohammad Sharif Malekzadeh is being held in solitary confinement.

The investigation of Malekzadeh's case is ongoing, he added.

Malekzadeh, the secretary general of the High Council of Iranians Abroad, was arrested on charges of financial corruption on June 23.

http://tehrantimes.com/index.php/politics/1848-ali-mohammadi-assassin-will-stand-trial-today-tehranprosecutor-

(Return to Articles and Documents List)

Miami Herald Tuesday, August 23, 2011

Iran Shows Off New Cruise Missile

By NASSER KARIMI, Associated Press

TEHRAN, Iran -- Iran's president claimed on Tuesday the country's military can cripple enemies on their own ground as Tehran put a new Iranian-made cruise missile on display, the latest addition to the nation's growing arsenal.

The state TV reported that the new missile, showcased at a ceremony in Tehran, is designed for sea-based targets, with a range of 124 miles (200 kilometers) and is capable of destroying a warship. The TV said it can travel at low altitudes and has a lighter weight and smaller dimensions.

"The best deterrence is that the enemy does not dare to invade," President Mahmoud Ahmadinejad said during the ceremony. As he spoke, the TV showed footage of the weapon, dubbed "Ghader," or "Capable" in Farsi.

"The enemy should be crippled on its own ground and not over the skies of Tehran," said Ahmadinejad.

Issue No. 934, 23 August 2011 United States Air Force Counterproliferation Research & Education / Maxwell AFB, Montgomery AL Phone: 334.953.7538 / Fax: 334.953.7530



He did not name any specific country, though Iran considers Israel and the United States as its enemies.

Iran has an array of short and medium range ballistic missiles capable of hitting targets in the region, including Israel and U.S. military bases in the Gulf.

In 2010, Tehran displayed other Iranian-made cruise missiles but with a shorter range. Cruise missiles are highly advanced, guided missiles that can hit a land- or sea-based targets with great precision.

Also on display Tuesday was a new Iranian-made torpedo, dubbed "Valfajar," or "Dawn" in Farsi.

The West is already concerned about Iran's military capabilities, especially the implications of the country's controversial nuclear program. The U.S. and some of its allies, and as the U.N. nuclear agency, the International Atomic Energy Agency, fear that Iran is trying to produce a nuclear weapon.

Tehran denies the charge and says its nuclear activities are aimed at peaceful purposes, such as power generation.

Iran frequently makes announcements about new advances in military technology that cannot be independently verified.

Iran began a military self-sufficiency program in 1992, under which it produces a large range of weapons, including tanks, missiles, jet fighters, unmanned drone aircraft and torpedoes.

http://www.miamiherald.com/2011/08/23/2370958/iran-shows-off-new-cruise-missile.html

(Return to Articles and Documents List)

Korea Times – South Korea August 21, 2011

NK, Russia Gain Much from Trip

By Kim Young-jin

Pyongyang and Moscow each stand to gain from North Korean leader Kim Jong-il's trip to Russia that appears focused on boosting economic cooperation and reviving stalled denuclearization talks.

The ongoing trip, during which Kim is expected to meet with Russian President Dmitry Medvedev, is his first to Russia in nine years. Analysts say the long break between visits ups the ante for productive talks.

It comes as the North seeks to bolster international relations and secure aid in the run-up to 2012, when it has proclaimed it will become a prosperous state.

The 69-year-old leader could work to secure approval for the power transfer to his youngest son, Jong-un, and decrease economic dependence on Beijing, Pyongyang's main benefactor, analysts said.

"North Korea is seeking stronger economic support in a pre-step for next year," Bahng Tae-seop of the Samsung Economic Research Institute said. "Kim and his son also need to balance their relations with China and Russia.

"It could be his last trip to Russia. In that sense, the sides probably want to establish strong economic cooperation."

Experts say the North is wary of its growing dependence on China, which accounts for over 80 percent of its trade relations. Beijing protected the Stalinist state from international sanctions for its sinking of the warship Cheonan and shelling of Yeonpyeong Island last year.

Moscow, meanwhile, has plenty to gain from sitting down with the mercurial leader.

The Kim-Medvedev talks could cover coveted Russian efforts to build a pipeline through the Korean Peninsula to sell Siberian natural gas to the South and secure the North's cooperation on laying railways.



Any headway on the railway projects would perk the ears of potential European bidders to build high-speed trains, Bahng said. Talk of the pipeline project could get the attention of Japan, a possible destination for gas.

The Kremlin could also use the talks to gain leverage against the growing influence of China, which recently broke ground with the North to develop the North Korean port town of Rason as a special trade zone.

Kim could push for greater Russian investment in Rason, giving Moscow the chance to counter China's increasing influence in the East Sea.

Russia is already believed to have signed a long-term deal to lease part of the port.

"Moscow is looking to maintain its influence in Northeast Asia," Yoo Ho-yeol, an expert at Korea University, said. "The trip shows a kind of a tension among former communist allies."

Russia's policy on the North seeks to maintain stability on its border and in the region to protect its rapidlydeveloping economy, experts say.

Kim could also try to bring Russia to its side in discussing the six-party denuclearization talks, which have been stalled since 2009 when Pyongyang stormed out over international sanctions for its nuclear and missile tests.

But he could have his work cut out for him. Last year, Moscow strongly spoke out against the island shelling and Pyongyang's revelation of a sprawling uranium enrichment program that provides a second path to nuclear weapons.

A recent flurry of diplomacy including the bilateral meetings among the North, Washington and Seoul, have nudged the forum closer to eventual resumption.

Observers say Kim could also request more food aid than the 50,000 tons of grain the Kremlin has offered to help the North cope with severe summer flooding.

"It is very important for it to get aid not only from China, but Russia and South Korea too," as 2012 approaches, Bahng said.

http://www.koreatimes.co.kr/www/news/nation/2011/08/116 93224.html

(Return to Articles and Documents List)

Indian Express – India

Agni-II Prime to be Test-Fired again on August 29

By Debabrata Mohanty Friday, August 19, 2011

Bhubaneswar - After the unsuccessful maiden test-firing of Agni-II prime, a nuclear-capable surface-to-surface missile with a strike range of 2,500 km to 3,000 km in December last year, DRDO is planning to test the missile once again on August 29.

DRDO sources said the test-firing would be done from Wheeler's Island in Bay of Bengal.

On December 10, the maiden test-firing of the missile ended in a massive failure after the missile dropped off into the sea a few seconds after it was launched from Wheeler Island. The Agni-II prime, a modified version of Agni-II, is an intermediary between Agni-II and Agni-III. It has two stages and both are powered by solid propellants.

DRDO officials said they hoped that the test-firing would add teeth to India's nuclear deterrence. The Agni-II prime or A-2, manufactured by DRDO's Advanced System Laboratory (ASL) in Hyderabad, has a longer range and higher performance with respect to the thrust and weight ratio than Agni-II missile. The new missile was expected to perform better at various levels in terms of accuracy, strength and distance covered in comparison to Agni-II.



Agni II prime can carry extra fuel and will have a new motor in its re-entry vehicle for better manoeuvrability, a flex nozzle in the second stage to avoid anti-ballistic missile defences and an improved navigation system. New technologies introduced into the missile to make it lighter have also provided it with greater thrust.

http://www.indianexpress.com/news/agniii-prime-to-be-testfired-again-on-august-29/834220/

(Return to Articles and Documents List)

The Hindu – India New Delhi, August 20, 2011

Time for India to Invigorate Disarmament Plan: Panel

Report suggests steps to carry forward Rajiv Gandhi Action Plan By Special Correspondent

India must breathe fresh life into its proposal for universal disarmament by assuming a high profile in advocating its basic ideas and goals, according to the Report of the Informal Group on carrying forward the Rajiv Gandhi Action Plan (RGAP) on disarmament unveiled in 1988.

Besides initiating a bilateral dialogue on disarmament with all countries possessing nuclear weapons, India should also attempt to build a consensus on reducing the salience of nuclear weapons in their security doctrines, recommended the Group on carrying forward the RGAP in today's changed circumstances – India is now a state with nuclear weapons (SNW) and it has resolved to maintain a credible minimum nuclear deterrent.

The report was presented to Prime Minister Manmohan Singh on Friday, who welcomed its broad thrust.

Engagement with NAM

The Group, headed by Mani Shankar Aiyar, suggested renewed engagement with the Non Aligned Movement and the seven-nation New Agenda Coalition for a treaty incorporating "binding negative security assurances" as well as to "keep the fires burning" in the Conference on Disarmament to push for discussions aimed at bringing countries together for nations on complete elimination of nuclear weapons.

Besides Mr. Aiyar, the Informal Group – which was set up by National Security Adviser Shivshankar Menon last year on the suggestion of the Prime Minister – consists of Amitabh Mattoo, Arvind Gupta, Admiral (Retd.) L. Ramdas, Manpreet Sethi, Satish Chandra, Saurabh Kumar and Siddharth Varadarajan, Uday Bhaskar and Vidya Shankar Aiyar.

Zero nuclear weapons

Most of the Group's recommendations, submitted to coincide with Rajiv Gandhi's 67th birth anniversary, deal with a more forceful advocacy of the goal of zero nuclear weapons.

Under the present circumstances, the Group felt that India can and must play an effective and credible role as leader of a campaign for the goal of universal disarmament.

Moral strength

India can bring in its moral strength from six decades of consistently campaigning for universal disarmament and the weight of its growing presence in the international system.

Moreover, a state with nuclear weapons leading a serious campaign for universal disarmament will be unique, "thus lending tremendous credibility" and increasing India's standing in the international community.

The need for moving towards the goal of a nuclear weapons free world was even more pressing today than during the Cold War years because more states have nuclear weapons and more could be tempted to try and acquire them.



U.S. assertion

The Group was encouraged by US President Barack Obama's speech in which he spoke about "US commitment to seek peace and security of a world without nuclear weapons."

This is the first such assertion by an established nuclear weapon state but a lot of work was needed to push the intermediate steps needed to get to that goal, the report says.

India was in a better position today to push for RGAP. In the pre-Pokhran days, India was in advocacy mode. It had little to bring to the negotiation table while making tall demands on others. That is no longer the case, the report argued while pointing out that the best security for India was in universal disarmament.

http://www.thehindu.com/news/national/article2373903.ece

(Return to Articles and Documents List)

Express Buzz – India Navy Stealth Frigate 'INS Satpura' Joins Fleet

By Ritu Sharma, Express News Service 21 August 2011

MUMBAI: The Indian Navy's Eastern Fleet gets more muscles as the Indian Navy on Saturday commissioned its new stealth frigate INS Satpura which has advanced stealth features to dodge enemy's radars and packed with potent firepower. The warship, along with its first vessel in the series INS Shivalik, will be deployed in Bay of Bengal and Indian Ocean region.

The warship is the second of its kind to be built in the country at the Mumbai-based Mazagon Dockyard Ltd under Project 17 and would remain the mainstay of the Indian Navy for the first half of the century.

"INS Shivalik has been deployed in the eastern fleet and Satpura will also go there eventually," a Naval official said. The Indian Navy for years had the Western Naval Command stationed in Mumbai as its "sword arm", but it has been building its assets in the eastern region with the rising concerns about the presence of the Chinese Navy in the Indian Ocean Region.

With the aircraft carrier of the Navy, INS Virat, is in the western fleet, now the force is looking forward to operate two aircraft carriers in both the regions. The ship, which is the second in its class and the largest of its kind in the world, was inducted into the force by the Navy chief Admiral Nirmal Verma and will be commanded by Captain Sharat. The first ship of the series, INS Shivalik, was commissioned last year and the last of the series- INS Shayadari will become operational by next year.

The frigate, conceived, designed and constructed indigenously, will give boost to the capabilities of the Indian Navy in the eastern region. A stealth warship is designed to have low signatures so that they remain undetected to enemy electronic sensors of other navies. It's shape is designed to evade detection by radar; it is engineered to give off minimal infra-red (IR) emissions; and every piece of equipment on board, from engines to toilet flushes, are designed to work silently so that the ship cannot be heard by the enemy's sonar and acoustic sensors. This stealth will allow the INS Satpura to reach near enemy positions undetected and inflict maximum damage.

Features INS Satpura is equipped with state-of-the-art defence against nuclear, biological and chemical attacks. The atmospheric control system filters and controls the temperature and humidity of the air coming into the ship at all times, including the air being used by the engines. It removes any radioactive, chemical or biological impurities, thereby protecting the crew and the systems even during a nuclear, biological or a chemical attack.

The Satpura is equipped with a mix of imported and indigenous weapon systems and sensors, including Barak surface-to-air missiles and Russian-made Klub cruise missiles, 'shtil' air defence system, rapid fire guns, basic anti-



submarine warfare weapons and two helicopters. The ship also has indigenous Kavach chaff-dispensing system to counter incoming missiles and indigenous sonars and anti-submarine warfare systems.

The ship's domestic requirements of fresh water will be met through two reverse osmosis plants, while a fully automated galley will "enable the crew to be fed Indian, Continental and Asian gourmet meals, including freshly baked bread and home-made ice-cream.

The accommodation arrangements for the 35 officers and over 250 cre have been provided by Godrej which met the criteria laid down for crew comfort and space management.

http://expressbuzz.com/nation/navy-stealth-frigate-%E2%80%98ins-satpura%E2%80%99-joins-fleet/306162.html

(Return to Articles and Documents List)

Chicago Tribune

After the Fall, U.S. Concerned about Libyan Weapons

By Tabassum Zakaria and Phil Stewart, Reuters August 22, 2011

WASHINGTON (Reuters) - The United States has pressed for Libyan leader Muammar Gaddafi to step down, but a leadership vacuum raises concerns about the security of Libya's weapons stockpiles and the danger of them falling into the hands of adversaries, officials said on Monday.

Libyan rebels have taken over most of Tripoli, Gaddafi's location is unknown, and great uncertainty exists about who will eventually end up in charge of the country.

House Intelligence Committee Chairman Mike Rogers warned of security concerns while Gaddafi's rule crumbles.

"Even after Gaddafi is out of power we will have to step up and lead to ensure U.S. national security interests are safeguarded," Rogers, a Republican, said in a statement. "In particular, we must ensure that Gaddafi's stockpiles of advanced weapons, chemical weapons and explosives don't fall into the wrong hands."

The Organization for the Prohibition of Chemical Weapons in February said Libya kept 9.5 tons of mustard gas in a secret desert location guarded by the army, but had destroyed aerial bombs designed to deliver chemicals in 2004 as part of a short-lived rapprochement with the West.

Gaddafi's stockpiles of chemical agents are still being closely guarded by forces loyal to the Libyan leader, a U.S. official told Reuters on Monday.

The United States, NATO and the United Nations have been keeping a close eye on the stockpiles during the crisis, officials said.

"The stockpiles at this point appear to be well-guarded," the U.S. official said, speaking on condition of anonymity. "It's worth keeping in mind that Gaddafi did in fact destroy many of his most dangerous weapons, and that much of what remains is outdated or difficult to make operational."

A U.N. official told Reuters that due to their age, Libya's chemical stockpiles might be more of an environmental hazard than a military or terrorist threat.

They consist of "very old chemical components which are not very useful as weapons," the official said. Mustard gas decays with age and Gaddafi's stockpiles are old enough that they are not even necessarily that hazardous, the U.N. official said.

U.S. and European officials also are concerned about keeping secure Libya's stockpiles of conventional weapons -- surface-to-air missiles, anti-tank rockets, armored vehicles, rocket-propelled grenades and explosives.



Libyan forces fired three Scud-type missiles on Monday from the area of Sirte, Gaddafi's home town. That followed the launch of another Scud missile last week, the first time his forces fired the weapon since the conflict began.

Some counter-terrorism officials were much more concerned about Gaddafi's arsenals of conventional weapons being looted than they were about his stockpile of chemical agents, a European security official said.

The fear is that such weapons could either make their way to militant groups or insurgents seeking to destabilize other African governments. But so far there was little evidence of significant weapons leaks or militant involvement in Libyan forces opposed to Gaddafi, a U.S. official said.

"As we move forward, the international community must ensure a peaceful transition where the will of the Libyan people is heard," U.S. Representative C.A. "Dutch" Ruppersberger said.

"We must also ensure radical extremist groups do not take control of the country. Libya has a large stockpile of chemical weapons and explosives that must not fall into the wrong hands," said Ruppersberger, the senior Democrat on the House Intelligence Committee.

Additional reporting by Mark Hosenball; Editing by Jackie Frank

http://www.chicagotribune.com/sns-rt-us-litre77l7c2-20110822,0,6925773.story

(Return to Articles and Documents List)

Barents Observer – Norway

Contradicting News on Trouble Missile

Russia's newest submarine returns to shipyard after White Sea mission without launching the Bulava missile. Speculations take off.

August 21, 2011

Russia's first strategic missile submarine built after 1992, the Borei-class "Yury Dolgoruky" sailed quietly in the White Sea this weekend and made port call to its homeyard, Sevmash in Severodvinsk. The submarine had been on a high-profiled mission to the northern part of the White Sea and was supposed to launch a test-missile on Saturday.

Interfax was Sunday afternoon quoting an official from Sevmash naval yard saying the missile test did not take place due to a malfunction in the submarine's energy system. Other Russian media reported Sunday evening that it was the missile itself that didn't worked properly and couldn't be fired.

RIA Novosti quotes an un-named source in the Defence Ministry saying "We are absolutely convinced that the missile will be passed into service, but considering its importance for the state security, we have decided to check all its qualities one more time." That report sounds somewhat foggy since the same Ministry earlier said "Yury Dolgoruky" would sail out in late August to test-fire a Bulava missile.

BarentsObserver posted an editorial this spring arguing that successful launches of the Bulava missile this summer are of enormous prestige for Moscow. Not only for military officials, but also for top politicians that have proudly announced that the Bulava missile is so high-tech that it can penetrate any US missile defence systems.

Out of 15 Bulava missile tests carried out over the last six years, only seven of them have been considered a success.

The first test-launch of a Bulava missile from "*Yury Dolgoruky*" took place on June 28 and it was then said that also the second submarine in the Borei-class, the "*Aleksandr Nevsky*" would conduct a test launch later this year. Prior to the June test, all Bulava missiles were launched from "*Dmitri Donskoy*" a rebuilt Typhoon-class submarine.



A Defence Ministry official speaking to Itar-Tass on Sunday however says that there will be no test-shooting of the missile from "*Aleksandr Nevsky*" this year. The submarine is now undergoing factory testing (at Sevmash). Missile tests will not take place until spring 2012, the un-named source informed.

http://www.barentsobserver.com/contradicting-news-on-trouble-missile.4950258-58932.html

(Return to Articles and Documents List)

Russia Today (RT) – Russia

Russian Navy to Get Bulk of New Generation Nuke-Fighting Submarines

August 22, 2011

Ten nuclear Yasen-type submarines are scheduled to be constructed in Russia in the next nine years, as part of the state arms program through 2020.

The new generation submarines are capable of combating both other submarines below the surface and weapons on the surface, including aircraft carriers.

The Yasen submarine's length is 119 meters. It weighs in at 13,800 tons, with a cruising capacity of 100 days. The submarines can go up to speeds of 31 knots.

It can be equipped with supersonic high-speed missiles and torpedoes, including nuclear weapons and "Onyxes."

"This type of submarine was previously unknown in Russia," Andrey Frolov, from the Center for Analysis of Strategy and Technology, told RT. "It's multifunctional and can be used to attack carrier forces. In Soviet times, they had to use two different types of submarines, but Yasen is uniting them."

Initially it was planned that Russia's Navy would get 30 such submarines, but later the number was cut down to only six due to a lack of funds. Now the authorities are sticking to 10.

The first submarine is expected to hit the water by the end of 2011. Its construction started in 1993. The second submarine, based on a modified Yasen-M project, was begun in 2009.

http://rt.com/news/prime-time/nuclear-submarine-yasen-russia-678/

(Return to Articles and Documents List)

Breitbart News

US 'Disappointed' Belarus Leaving Nuclear Deal

By Agence France-Presse (AFP) August 19, 2011

The United States expressed disappointment Friday over the suspension of plans to eliminate highly enriched uranium from Belarus amid an escalation of a human rights row.

The former Soviet republic announced earlier it would withdraw from the agreement reached with US Secretary of State Hillary Clinton last year, citing a new round of sanctions from Washington on four state companies.

"We are disappointed with Belarus's announcement," State Department deputy spokesman Mark Toner told AFP.

"We hope that Belarus intends to meet its stated objective of the elimination of all of its stocks of highly enriched uranium. This is a responsible contribution to global security."

The Belarussian foreign ministry blasted the US sanctions imposed last week as "politically motivated," saying they forced it to freeze joint projects with the United States on highly enriched uranium exchanges.

Issue No. 934, 23 August 2011



Toner said the US offer to help eliminate highly enriched uranium in Belarus nonetheless "remains on the table."

"The goal of securing nuclear materials remains important to the security of the American people and the people of the region," he continued.

The nuclear agreement freeze in effect represented the most serious response Belarus could have taken against a country with which it has almost no formal trade ties.

December's deal had come as a coup for Clinton and offered the first signs of a thaw between two nations that have had strained relations for most of the past two decades.

But it was followed weeks later by a controversial presidential election in which veteran Belarus leader Alexander Lukashenko secured victory in a poll that led to mass street protests and arrests.

The subsequent human rights crackdown broke a cautious rapprochement in Minsk's relations with the European Union and prompted Washington to impose several rounds of economic and other penalties against Lukashenko's team.

"Respect for democracy and human rights remains central to improving relations with Belarus," Toner said.

"The continuing crackdown and incarceration of political prisoners led the United States to impose additional sanctions this month. Our policy remains a firm call for the immediate and unconditional release of all political prisoners."

http://www.breitbart.com/article.php?id=CNG.dbf01006c24ff68d389a4e709369e8b9.5e1&show_article=1_

(Return to Articles and Documents List)

Boston Globe

Cuba Takes Over as Head of Disarmament Body

Associated Press August 23, 2011

GENEVA — Nearly a half-century after the Cuban Missile Crisis, Cuba is head of the 65-nation Conference on Disarmament.

Cuba succeeded North Korea on Tuesday as chair of the world's main forum against nuclear arms that has been stalemated since it wrote the nuclear test ban treaty in 1996.

Cuba's vice-minister of foreign affairs, Rodolfo Reyes Rodriguez, told diplomats it's unacceptable that almost 23,000 nuclear weapons still exist, including 7,560 ready to use.

Canada boycotted the conference because of North Korea's summer leadership role, which rotates through the body's members alphabetically (in French).

The crisis over the prospect of Soviet missile bases in Cuba brought the world to the brink of nuclear war in October 1962.

http://www.boston.com/news/world/europe/articles/2011/08/23/cuba_takes_over_as_head_of_disarmament_b ody/

(Return to Articles and Documents List)

Aviation Week **MDA Eyes UAS Missile-Tracking Potential** August 18, 2011



By Amy Butler, Washington

The General Atomics Reaper unmanned aerial system (UAS) may eventually go from hunting terrorists to hunting hostile ballistic missiles.

The U.S. Air Force's Predator and Reaper UAS have been well-publicized workhorses providing intelligence and firepower on the front lines in Iraq, Afghanistan and the Arabian peninsula.

Now the Reaper may get a new mission as a frontline cueing system for the burgeoning U.S. missile defense architecture. Missile Defense Agency (MDA) officials say the Reaper and its Raytheon MTS-B sensor are showing promise. The system could plug a longtime gap by providing firing quality data to facilitate early intercept of ballistic missiles. MDA is exploring the technology and operational concepts for using electro-optical/infrared (EO/IR) -equipped UAS to eventually achieve "launch-on-remote" capabilities with Aegis ship- and land-based SM-3 interceptors. This means the fidelity of UAS data would need to be high enough for commanders to launch an interceptor before Aegis radars capture the target.

Ballistic missile patrol is one of many potential missions for the large and growing Predator/Reaper fleet. As the Pentagon plans to draw down combat forces in Afghanistan—combat operations ended a year ago in Iraq— officials insist that intelligence, surveillance and reconnaissance assets (ISR) will continue to support ongoing activities in these areas. But Pentagon planners are considering how these ISR resources can be reallocated or, if need be, modified to fill capability gaps for other missions.

UAS orbits could be placed to provide a "picket fence" of sensors if an area is expected to have hostile ballistic missile activity, says Tim Carey, vice president of intelligence for Raytheon.

MDA officials say data from early experiments show that "just a few orbits can provide substantial sensor coverage" for various regions.

Gen. Robert Kehler, who oversees U.S. Strategic Command, provides advice to the Pentagon on how to allocate ISR resources across the globe. Regional commanders in the Pacific, Africa, Europe and Central and Southern America feel the focus on U.S. Central Command and the wars in Iraq and Afghanistan have curbed their ability to monitor activities in their areas of operation. "Their view is that many of their ISR needs are not being met because of all the things we have placed in Centcom," Kehler says.

A potential near-term application of UAS for missile defense is to support monitoring of North Korea. MDA plans to field the Persistent Tracking Satellite System (PTSS) as soon as fiscal 2016 to provide early launch detection and high-fidelity targeting data from space to ship- and land-based interceptors.

That plan, however, has two problems. First, even if fielded as planned, the sensor gap would not be closed until later this decade. Perhaps a larger issue is that funding for PTSS is in question.

Industry sources say MDA is struggling with a \$4 billion budget gap in fiscal 2013-17, and a project as expensive as building satellites could slip or be axed altogether as Leon Panetta, the new defense secretary, searches for projects to cut in light of diminished funding and deficit reduction pressure.

The interim solution for MDA is to test and possibly field the Airborne Infrared system (ABIR), a UAS carrying the proper EO/IR sensors to support early intercept operations (a kill before a hostile missile reaches apogee), improved target discrimination and enhanced handling of the threat of missile raids (tens or more missiles fired nearly simultaneously).

Last year, MDA selected the Reaper as the platform of choice for the ABIR experimentation phase, which is ongoing. "If fielded, we envision a podded ABIR capability that could ride on a variety of unmanned or even manned platforms," says Rick Lehner, MDA's spokesman. Ultimately, platform decisions would be made in consultation with the Air Force and Navy if the system is fielded, as these services will be the operators.



Since 2009, MDA has conducted 10 flight tests in which ABIR was used for data collection. Six of these trials were observed using MTS-B-equipped Reapers and the remainder featured risk-reduction tests using ground-based sensors (see chart, p. 43). For these trials, at least two Reapers are needed to provide "stereo tracking." Each EO/IR sensor provides a "flat" view, but triangulating the target provides higher-fidelity data.

A main objective in the trials has been to expose the MTS-B—which includes visible, shortwave IR and mid-wave IR sensors—to various scenarios and targets, from short-range to intercontinental ballistic missiles.

"We have been able to improve the pointing accuracy of the sensor [and] we have demonstrated automatic acquisition and tracking of the sensor required to meet system needs," Lehner says. "Modeling indicates the agility of the sensor will substantially improve the raid-handling capability we currently have."

Today, X-band radars—the AN/TPY-2 and Sea-Based X-Band—are used for early tracking. Carey notes that the ABIR experiments are the first time EO/IR data have contributed to generating firing-quality data early in flight. (IR sensors typically provide only a cue to ground- and sea-based X-band radars.)

"They just never thought to look up" with the sensors, Carey says. "Everybody was surprised [by] the range at which we were able to detect the targets after burning and the accuracy with which we were able track them."

The MDA has purchased four MTS-Bs for ABIR experimentation, two last year and two this year, Carey adds. MDA is contributing to a larger Pentagon effort to develop the two-color MTS-C; this will add a long-wave IR detection capability. While the short- and mid-wave bands are optimal during launch and rocket burn, a long-wave detector is better for tracking cold bodies, such as missiles after burnout, or plumes and exhaust.

Packaging short-, mid- and long-wave IR detectors on the same sensor ball, however, presents complex challenges, including design of proper cooling and meeting power requirements. One defense official suggests the MTS-C could be a year or more from being ready for work in this area. Lehner says the MTS-C will be delivered in the summer of 2012 and begin testing shortly thereafter.

This time frame will be a key deciding point for the future of the program. Also next summer, MDA plans to conduct a launch-on-remote exercise. "To demonstrate launch on remote, we will provide real-time tracking data to [ballistic missile defense (BMD) command-and-control] nodes," Lehner says. "The BMD command-and-control nodes then send [the data] to Aegis in a simulated engagement in the summer of 2012."

Carey notes that in trials thus far, ABIR has generated virtual targeting data that can be compared against data from other sensors used in the tests. But he says more command-and-control and system architecture work is needed to make the system operational.

Early tests were highly manpower intensive; targets were acquired by hand and tracked by people. Software has been developed to automate that process. But officials need to develop an operational concept of how many UAS must be orbiting in what locations for an optimum chance of achieving early launch data if there is an unpredicted hostile launch. "If you put the aircraft in the right place and we know the test is coming, we turn it on and it will perform," he says.

Through fiscal 2012, MDA has requested \$178.5 million for ABIR. Depending on results of the flight trials, the agency plans to make a development and fielding decision around 2014.

http://www.aviationweek.com/aw/generic/story_channel.jsp?channel=defense&id=news/awst/2011/08/15/AW_08_15_2011_p48-355952.xml&headline=MDA%20Eyes%20UAS%20Missile-Tracking%20Potential

(Return to Articles and Documents List)

New York Times August 21, 2011

Laser Advances in Nuclear Fuel Stir Terror Fear

Issue No. 934, 23 August 2011 United States Air Force Counterproliferation Research & Education / Maxwell AFB, Montgomery AL Phone: 334.953.7538 / Fax: 334.953.7530



By WILLIAM J. BROAD Page – A1

Scientists have long sought easier ways to make the costly material known as enriched uranium — the fuel of nuclear reactors and bombs, now produced only in giant industrial plants.

One idea, a half-century old, has been to do it with nothing more substantial than lasers and their rays of concentrated light. This futuristic approach has always proved too expensive and difficult for anything but laboratory experimentation.

Until now.

In a little-known effort, General Electric has successfully tested laser enrichment for two years and is seeking federal permission to build a \$1 billion plant that would make reactor fuel by the ton.

That might be good news for the nuclear industry. But critics fear that if the work succeeds and the secret gets out, rogue states and terrorists could make bomb fuel in much smaller plants that are difficult to detect.

Iran has already succeeded with laser enrichment in the lab, and nuclear experts worry that G.E.'s accomplishment might inspire Tehran to build a plant easily hidden from the world's eyes.

Backers of the laser plan call those fears unwarranted and praise the technology as a windfall for a world increasingly leery of fossil fuels that produce greenhouse gases.

But critics want a detailed risk assessment. Recently, they petitioned Washington for a formal evaluation of whether the laser initiative could backfire and speed the global spread of nuclear arms.

"We're on the verge of a new route to the bomb," said Frank N. von Hippel, a nuclear physicist who advised President Bill Clinton and now teaches at Princeton. "We should have learned enough by now to do an assessment before we let this kind of thing out."

New varieties of enrichment are considered potentially dangerous because they can simplify the hardest part of building a bomb — obtaining the fuel.

General Electric, an atomic pioneer and one of the world's largest companies, says its initial success began in July 2009 at a facility just north of Wilmington, N.C., that is jointly owned with Hitachi. It is impossible to independently verify that claim because the federal government has classified the laser technology as top secret. But G.E. officials say that the achievement is genuine and that they are accelerating plans for a larger complex at the Wilmington site.

"We are currently optimizing the design," Christopher J. Monetta, president of Global Laser Enrichment, a subsidiary of G.E. and Hitachi, said in an interview.

The company foresees "substantial demand for nuclear fuel," he added, while conceding that global jitters from the crisis at the Fukushima Daiichi plant in Japan "do create some uncertainty." G.E. made those reactors.

Donald M. Kerr, a former director of the Los Alamos weapons lab who was recently briefed on G.E.'s advance, said in an interview that it looked like a breakthrough after decades of exaggerated claims.

Laser enrichment, he said, has gone from "an oversold, overpromised set of technologies" to what "appears to be close to a real industrial process."

For now, the big uncertainty centers on whether federal regulators will grant the planned complex a commercial license. The Nuclear Regulatory Commission is weighing that issue and has promised G.E. to make a decision by next year.



The Obama administration has taken no public stance on plans for the Wilmington plant. But President Obama has a record of supporting nuclear power as well as aggressive efforts to curtail the bomb's spread. The question is whether those goals now conflict.

The aim of enrichment is to extract the rare form of uranium from the ore that miners routinely dig out of the ground. The process is a little like picking through multicolored candies to find the blue ones.

The scarce isotope, known as uranium 235, amounts to just 0.7 percent of mined uranium. Yet it is treasured because it splits easily in two in bursts of atomic energy. If concentrations are raised (or enriched) to about 4 percent, the material can fuel nuclear reactors; to 90 percent, atom bombs.

Enrichment is so difficult that successful production is quite valuable. A pound of reactor fuel costs more than \$1,000 — less expensive than gold but more than silver.

The Laser Race

The first laser flashed to life in 1960. Soon after, scientists talked excitedly about using the innovation to shrink the size of enrichment plants, making them far cheaper to build and run.

"It was in the air," recalled Leonard R. Solon, a physicist who worked for a New York company that in early 1963 suggested the idea to the federal government.

The plan was to exploit the extraordinary purity of laser light to selectively excite uranium's rare form. In theory, the resulting agitation would ease identification of the precious isotope and aid its extraction.

At least 20 countries and many companies raced to investigate the idea. Scientists built hundreds of lasers.

Ray E. Kidder, a laser pioneer at the Livermore nuclear arms lab, estimated that the overall number of scientists involved globally ran to several thousand.

"It was a big deal," he said in an interview. "If you could enrich with lasers, you could cut the cost by a factor of 10."

The fervor cooled by the 1990s as laser separation turned out to be extremely hard to make economically feasible.

Not everyone gave up. Twenty miles southwest of Sydney, in a wooded region, Horst Struve and Michael Goldsworthy kept tinkering with the idea at a government institute. Finally, around 1994, the two men judged that they had a major advance.

The inventors called their idea Silex, for separation of isotopes by laser excitation. "Our approach is completely different," Dr. Goldsworthy, a physicist, told a Parliamentary hearing.

An old black-and-white photograph of the sensitive technology — perhaps the only image of its kind in existence publicly — shows an array of pipes and low cabinets about the size of a small truck.

'Game Changing' Technique

In May 2006, G.E. bought the rights to Silex. Andrew C. White, the president of the company's nuclear business, hailed the technology as "game-changing."

Mr. Monetta of Global Laser Enrichment, the G.E.-Hitachi subsidiary, said the envisioned plant would enrich enough uranium annually to fuel up to 60 large reactors. In theory, that could power more than 42 million homes — about a third of all housing units in the United States.

The laser advance, he added, will promote energy security "since it is a domestic source."

In late 2009, as G.E. experimented with its trial laser, supporters of arms control wrote Congress and the regulatory commission. The technology, they warned, posed a danger of quickening the spread of nuclear weapons because of the likely difficulty of detecting clandestine plants.



Experts called for a federal review of the risks. In early 2010, the commission resisted.

Late last year, the American Physical Society — the nation's largest group of physicists, with headquarters in Washington — submitted a formal petition to the commission for a rule change that would compel such risk assessments as a condition of licensing.

"The issue is too big" to leave to the federal status quo, Francis Slakey, a physicist at Georgetown University and the society official who drafted the petition, said in an interview. He added that Mr. Obama or Congress might eventually have to get involved.

This year, thousands of citizens, supporters of arms control, nuclear experts and members of Congress wrote the commission to back the society's effort. Many of them cited well-known failures in safeguarding secrets and detecting atomic plants.

But the Nuclear Energy Institute, an industry group in Washington, objected. It said new precautions were unnecessary because of voluntary plans for "additional measures" to safeguard secrets.

A commission spokesman said the petition would be considered next year. In theory, the risk-assessment plan, if adopted, could slow or stop the granting of a commercial license for the proposed laser plant or could result in design improvements.

A POSITIVE ASSESSMENT

G.E., seizing the initiative, did an assessment of its own. It hired Dr. Kerr, the former director of Los Alamos and a former senior federal intelligence official, to lead the evaluation. He and two other former government officials concluded that the laser secrets had a low chance of leaking and that a clandestine laser plant stood a high chance of being detected.

"It's a major industrial facility," Dr. Kerr said of the planned Wilmington complex in an interview. "Our observation was this was not something that would sit in a garage or be easily hidden."

Global Laser Enrichment declined a request by The New York Times for a copy of the Kerr report. It said the document ran to seven pages.

In the interview, Mr. Monetta, the company's president, said the Kerr review had confirmed that the laser complex would "not result in the proliferation of enrichment technology." His position seemed to go beyond Dr. Kerr's citing of likelihoods.

Mr. Monetta added that the technical complexity and "significant size" of the laser plant were major barriers to its covert adoption abroad.

Global Laser Enrichment plans to build its complex on more than 100 acres at the Wilmington industrial park, with the main building covering nearly 14 acres. That, like Iran's main enrichment plant, is roughly half the size of the Pentagon.

But critics say a clandestine bomb maker would need only a tiny fraction of that vast industrial ability — and thus could build a much smaller laser, perhaps like the modest apparatus in the old photograph. Each year, they note, the enrichment powers of the Wilmington plant would be great enough to produce fuel for more than 1,000 nuclear weapons.

Iran began its laser program in the 1970s during the global rush. But it kept the results secret. The silence violated Iran's agreement with the International Atomic Energy Agency, an arm of the United Nations that is based in Vienna and acts as the world's nuclear police.

The cover-up ended in early 2003. Soon, the I.A.E.A. learned of contracts, enrichment runs and even a prototype plant. Iran insisted that it dismantled the facility in May 2003 and dropped laser enrichment.



But then, out of the blue, President Mahmoud Ahmadinejad in February 2010 praised Iranian scientists for their "relentless efforts" to build lasers for uranium enrichment. Ever since, the I.A.E.A. has sought unsuccessfully to learn more.

When experts cite possible harm from the commercialization of laser enrichment, they often point to Iran. The danger, they say, lies not only in pilfered secrets, but also in the public revelation that a half-century of laser failure seems to be ending.

Their concern goes to the nature of invention. The demonstration of a new technology often begets a burst of emulation because the advance opens a new window on what is possible.

Arms controllers fear that laser enrichment is now poised for that kind of activity. News of its feasibility could spur wide reinvestigation.

Dr. Slakey of the American Physical Society noted that the State Department a dozen years ago warned that the success of Silex could "renew interest" in laser enrichment for good or ill — to light cities or destroy them.

That moment, he said, now seems close at hand.

http://www.nytimes.com/2011/08/21/science/earth/21laser.html? r=1&pagewanted=all

(Return to Articles and Documents List)

The Epoch Times – New York OPINION

Loose Nukes: Are They a Real Threat?

By Felipe Umana August 20, 2011

The illicit market of nuclear weapons and nuclear materials puts the world's population at risk of an attack that could decimate cities and kill millions of people. A lone wolf might get a hold of fissile material, the technical knowledge to build an atomic weapon, or a nuclear weapon itself. Or a whole host of criminal agents—rogue scientists, opportunist civilians, thieves, terrorists, or even government officials—could obtain radioactive materials (or bombs themselves) through informal means.

The illicit market of nuclear weapons and related materials spans a whole host of suppliers, middlemen, and buyers. Moreover, it involves almost every country in the world. In the cross-border movement of nuclear materials, from storage sites to transit stops and hubs and finally to points of reception, every stop is susceptible to the dangers of a nuclear accident.

Most instances of theft have occurred in Russia and the Commonwealth of Independent States (CIS), the group of independent republics that originally formed part of the Soviet Union. The region's low economic status after the end of the Cold War severely curtailed any intended improvement and upgrading of many research facilities and nuclear storage sites.

Likewise, low salaries led to increased instances of theft by people seeking to sell machine parts and radioactive materials for money. The illicit trade of nuclear materials by the mid-1990s was well established, with plenty of suppliers and potential buyers. In 1996 alone there were more than 230 documented cases of unsuccessful trafficking in and from the CIS region. Some sources report that attempted transactions doubled in the 2000s from figures in the 1990s.

Yet, a nuclear attack by a belligerent actor who obtained materials through the black market is unlikely. The supply and demand for nuclear materials is not very robust, and the suppliers and buyers constitute a relatively limited black market. Potential nuclear suppliers face the difficulty of finding a buyer. States and the international



community have also developed numerous deterrent methods to stop the trade. And non-state actors generally lack the nuclear know-how to put plans into practice.

Loose nukes are a frightening scenario. But they remain only a marginal threat.

Nuclear Containment

Actors seeking to acquire an atomic weapon—or the capability to produce one—generally do not have the essential training, knowledge, or materials. Nor do they generally have the necessary resources to achieve nuclear capabilities. In fact, for non-state actors, smuggling already-manufactured weapons or available materials is the only practical way to go nuclear.

Without the money and resources, these belligerent actors must rely on smuggling and theft. But most stolen materials are not enough to make a bomb. Analyses of reported cases of nuclear material theft reveal that trafficking incidents normally involve scrap metal and small amounts of highly enriched radioactive elements.

It takes at least 10 to 15 kilograms of highly enriched uranium, for example, to make a useable weapon. In reality, most thefts involve only grams of radioactive materials. Other instances of theft involve materials that cannot be applied to bomb-making, like low enriched or depleted uranium, suggesting that most of these robberies are the work of amateurs.

A second reason the illicit nuclear materials trade has not resulted in the creation of a useable nuclear weapon is the low probability of finding a buyer. Although not entirely impossible to find, since middlemen are found commonly throughout the network of this illegal market, buyers for these types of commodities are very specific and do not advertise openly. There has never been a successful recorded transaction between a buyer and a seller, other than police set-ups aimed at capturing would-be criminals.

Lastly there are a number of deterrent strategies that dissuade actors with atomic capability from selling the technology and know-how to buyers. One way to deter actors from trafficking radioactive materials across borders, for example, is to boost detection methods at major points of entry.

The United States has installed radiation detectors at borders and ports of entry, with cities like Washington, DC and the borough of Manhattan getting increasing attention. Through 2006, there were 318,000 false-positive detections of radiation. Moreover, efforts to install detectors at highway weighing stations are also moving ahead. The widespread adoption of these radioactive detectors serves as a warning signal for those who wish to illicitly move these sensitive commodities.

In order to combat the worrisome trade in nuclear materials, the United States should create and improve global partnerships aimed at dealing with the black market in nuclear materials.

The United States should also lobby for tighter export regulations in international forums, especially for items that fall under the trigger list, namely "dual-use" items that have other industrial uses or can be used in peaceful nuclear programs. The transfer and reception of many of these goods can be abused.

By helping out in the shaping more effective policies to fight the black market of nuclear weapons materials, the United States can contribute to making the world a safer, less nuclear-obsessed world.

Felipe Umana is a contributor to Foreign Policy In Focus. This is an abridged version of the article published on www.fpif.org .

http://www.theepochtimes.com/n2/opinion/loose-nukes-are-they-a-real-threat-60595.html

(Return to Articles and Documents List)

THE DIPLOMAT – Japan OPINION/Flashpoints



China's Underground Great Wall

Chinese reports that the country has a vast network of tunnels for its nuclear missiles have been oddly overlooked. August 20, 2011 By James R. Holmes

The impending sea trials of China's first aircraft carrier set commentators abuzz in the West and Asia over the past couple of months. I weighed in myself. And for good reason. The cruise of the yet-to-be-officially-named flattop, which finally took place last week, heralded a decisive break with the People's Liberation Army Navy's Maoist past as a coastal defence force. This is a development worth exploring in detail. As it happened, the Naval War College also convened its first Asian Strategic Studies Conference in Newport last week, in conjunction with the American Enterprise Institute and the *Journal of Strategic Studies*. My assigned topic was to determine whether there exists a common Asian culture of sea power (no, say I) and how influential the Western canon of maritime theory is among seafaring Asian nations (very, mainly by default).

To me, though, the most provocative presentation delivered at our conference related not to the sea but to the future of China's land-based nuclear arsenal. In March 2008, China's state-run CCTV network broke the news about a 5,000-kilometre-long network of hardened tunnels built to house the Chinese Second Artillery Corps's increasingly modern force of nuclear-tipped ballistic missiles. Tunnelling evidently commenced in 1995. Located in, or rather under, mountainous districts of Hebei Province, in northern China, the facility is reportedly hundreds of meters deep. That makes it an exceptionally hard target against conventional or nuclear counterstrikes. *China Defense Daily*, a publication of the People's Liberation Army (PLA), confirmed the CCTV account in December 2009.

What should have been a blockbuster story occasioned barely a peep in the Western press, and elicited little response even in Asia. For lack of a catchier metaphor, call it the dragon that never roared. The most prominent outlet to report on what Chinese pundits dubbed the 'underground Great Wall' was *Chosun Ilbo*, in South Korea. The Washington-based Jamestown Foundation's *China Brief* covered the story shortly afterward. That was basically it for original reporting. The story isn't so much that Beijing has constructed hardened sites to safeguard its missile force. An invulnerable second-strike capability has been the gold standard of nuclear deterrence since the early Cold War. In theory, a military able to ride out an enemy first strike with a substantial portion of its missile force intact can deter such an attack. No sane adversary would launch a first strike if it knew its actions would summon forth a cataclysmic reply.

A more survivable nuclear deterrent, then, should bolster strategic stability between China and the United States. China has long contented itself with a 'minimalist' deterrent posture, fielding a small, rudimentary force of intercontinental ballistic missiles. The logic of minimalism—sound in my view—is that so long as even a single missile survives to retaliate against an enemy's homeland, that adversary will desist from actions China deems unacceptable. Estimates of the total number of Chinese warheads even today, well into Beijing's nuclear modernization effort, generally range from 150 to 400 devices. Even in this age of renewed US-Russian arms control, this remains a modest force. But minimal deterrence could employ a more robust force than the People's Liberation Army fielded in past decades. 'Minimal' is a squishy term. Furthermore, Chinese officials and pundits have taken to debating adopting a 'limited deterrent' strategy. 'Limited' too remains hazily defined.

The very scale of the underground network opens up new vistas for Chinese nuclear strategy. The presenter at our conference reported piecing together various bits of data, and concluding that China may have constructed a far larger warhead inventory than most estimates hold. He projected an upper limit of 3,600 doomsday devices and delivery platforms, namely ballistic missiles of various types. The underground Great Wall could presumably accommodate such a force with ease. At a minimum, it presents Beijing new options. Think about it. The 'New START' accord inked by US President Barack Obama and Russian President Dmitry Medvedev last year limits US and Russian nuclear forces to 1,550 deployed warheads apiece. Because of the fudge factor often built into international treaties, notes the Federation of American Scientists, the actual numbers permitted under New START come to over 2,000 warheads for each side.



Even so, if the PLA has covertly departed from minimal deterrence—secreting hundreds of new weapons in the Hebei tunnel complex—then it could upend the strategic balance overnight, achieving parity or near-parity with the United States and Russia in deployed weaponry. I'm not sure how much of this to credit, and the presenter freely admitted that there was a significant guesswork quotient in his figures. But then there was a significant guesswork quotient in the Chinese aircraft carrier project, a project of far smaller consequence than a clandestine Chinese nuclear build-up. At a minimum it would be worthwhile to inquire into the veracity of Chinese reporting on the underground Great Wall, and to ponder the implications if reports are accurate. Let the debate begin—at last.

James Holmes is an associate professor of strategy at the US Naval War College and co-author of Red Star over the Pacific. The views voiced here are his alone.

http://the-diplomat.com/flashpoints-blog/2011/08/20/chinas-underground-great-wall/

(Return to Articles and Documents List)

Tehelka Magazine – India OPINION August 22, 2011

Is India Ready to Give Up Nuclear Weapons?

An informal group formed by the PM pushes Rajiv Gandhi's action plan for a nuclear-weapon free and non-violent order

By Iftikhar Gilani, New Delhi

Buoyed by the United States hinting support for a nuclear-free world off late, India has dusted off Rajiv Gandhi's action plan for a nuclear-weapon free and non-violent order, which the late prime minister had failed to push at the United Nations General Assembly in 1988.

An informal group set up by Prime Minister Manmohan Singh last October including former senior diplomats and strategic nuclear experts presented a 284-page report revisiting the action plan and recommending actions on how the idea could be carried forward.

Significantly, the report underlines that possession of nuclear weapons does not infuse any sense of security in the country and calls for a massive campaign highlighting the threat of a nuclear conflict and terrorist nuclear attack.

The group, under Congress mp Mani Shankar Aiyar, was constituted after US President Barack Obama warned that the dangers of nuclear proliferation and nuclear weapons falling into the hands of terrorists were 'the most dangerous legacy of the Cold War.' The group pointed out since India faced the biggest and most tangible threats from nuclear use, whether by nuclear attack or nuclear terrorism, it argued that 'the best security for India lies in universal nuclear disarmament'.

The members admitted that they have drawn confidence from the US support, which was unavailable in 1988. The report presented to the prime minister and external affairs minister SM Krishna suggests the appointment of a special coordinator who would seek a consensus on setting up a committee on nuclear disarmament as the first step to revive the 23-year-old proposal.

A seven-point roadmap presented in the report includes India reiterating its commitment to eliminating its own arsenal as part of a universal, non-discriminatory and verifiable global process and promoting de-legitimising of nuclear weapons to set the stage for negotiating a Nuclear Weapons Convention that would discuss a world without nuclear weapons in a specified time frame.

It makes 14 recommendations that entail India taking a leadership role on disarmament issues in various global organisations, including the UN, the Non-Aligned Movement and the Conference on Disarmament, with a view to launching multilateral negotiations for the complete elimination of nuclear weapons.



Iftikhar Gilani is a Special Correspondent with Tehelka.com.

http://www.tehelka.com/story_main50.asp?filename=Ws220811Defence.asp

(Return to Articles and Documents List)

The Nation – Pakistan OPINION/Column

FMCT: Securing Pakistan's Interests

By Momin Iftikhar August 22, 2011

The pressure is yet again building on Pakistan to give up its objection to the agenda concerning the deliberations on the Fissile Material Cut-Off Treaty (FMCT) in the Geneva-based Conference on Disarmament (CD). The conference is the highest forum for addressing the nuclear disarmament issues; not only globally, but also in the realm of outer space. As the US-led campaign to buckle Pakistan's resolve in defending its vital concerns about the production of fissile material is mounting, there is a rightful urge on the Pakistani side to firmly stand its ground and fend it off. It is an unreasonable and unjustified pressure because it is being brought to bear exclusively upon Pakistan. The production of fissile material is basic to the evolution of a nuclear deterrence, and unless the inequity of US partiality to India's nuclear capability is rationalised with Pakistan's overall defensive deterrence, Islamabad should not be expected to oblige.

Pakistan's principal concern related to the FMCT is that the Indo-US nuclear deal, coupled with the Washington sponsored and accrued privilege for New Delhi to engage in nuclear trade within the Nuclear Suppliers Group (NSG), has placed Pakistan in a highly disadvantageous position. The lifting of restrictions in nuclear trade has added manifold to the fissile material production capability of India, adding to Pakistan's fears that when, if ever, the FMCT freezes the production of the fissile material, it will be left with a frozen inequality, whereby the gap would have reached unbridgeable proportions. It will not be inaccurate to assume that India will convert its vast stock of fissile material into nuclear weapons, eroding the stability of nuclear deterrence in South Asia.

It is in this context that Pakistan has objected even to the term 'FMCT'; a treaty that seeks cutting off the fissile material production without taking into account the accumulated holdings of the nuclear weapons States. Pakistan backed by many third world countries has proposed that the treaty be termed as Fissile Material Treaty (FMT). It ought to be noted that India and Pakistan are the only States currently engaged in the production of fissile materials with its possible usage in the building up of nuclear arsenals. That is why Pakistan has insisted that a cut-off in the manufacturing of the fissile material must be accompanied by a mandatory programme of the elimination of asymmetries in the possessions of the fissile material stockpiles by various countries. In 2006, Pakistan's Ambassador to the CD said: "A fissile material treaty must provide a schedule for a progressive transfer of existing stockpiles to civilian use, and placing these stockpiles under safeguards so that the un-safeguarded stocks are equalised at the lowest level possible." Hence, Pakistan insists that while deliberating on the prospects to cut-off fissile material production, the conference ought to bring in the calculus not only India's nuclear weapons holdings, but also its fissile material stockpiles.

With the signing of the nuclear deal with the US and lifting of restrictions on the nuclear trade, India's capability of producing fissile material has surged manifold. New Delhi is now free to import uranium for its civil programme, easing constraints on its indigenous resources and enabling it to divert all of its domestic uranium for the nuclear weapons programme. It is estimated that India can now produce up to 200kg a year of weapons grade plutonium in its un-safeguarded heavy water power reactors; enough for fabricating 40 nuclear weapons per year. The imbalance is further accentuated when India's insecure power reactor plutonium is taken into account. It is estimated that it may have separated almost seven metric tons of plutonium by 2009. Assuming that 10kg of such reactor grade plutonium is sufficient for a weapon, we are looking at a figure of around 700 weapons. Such



calculations are not hypothetical; there are reports that at least one Indian nuclear weapon test in 1998 used plutonium that was less than weapons grade.

Such worrying statistics from Pakistan's perspective, backed by an active US sponsorship of India's nuclear weapons programme, explains New Delhi's smugness in taking a rather cavalier position on the FMCT. In a statement to the CD's May 29, 2009, plenary, Ambassador Hamid Rao of India said: "The scope of such a treaty would focus on the future production of the fissile material for nuclear weapons or other nuclear explosive devices......We will not accept obligations not in keeping with or prejudicial to our national security interests or which hinder our strategic programme, our R&D as well as three-stage nuclear programme." What he implied was that the country's interests were in line with and being safeguarded by the US. That by the time any FMCT comes into force, India, taking advantage of an accelerated production of the fissile material, would have accumulated enough material, in the manner of other recognised nuclear weapons States to have outstripped the need for continued production.

Pakistan needs to stand firm against the US induced pressure to agree towards commencement of the FMCT proceedings, which is its legitimate right; the CD being a multilateral forum. In its present form, the FMCT does not take into account Pakistan's genuine security concerns aroused by a burgeoning Indian nuclear and conventional military threat taking shape against the backdrop provided by an emerging US-India strategic relationship. Pakistan's stand at the CD forum is genuinely realistic, principled, and needs to be pursued with unswerving resolve in line with the dictates of the national security imperatives.

The writer is a freelance columnist.

http://nation.com.pk/pakistan-news-newspaper-daily-english-online/Opinions/Columns/22-Aug-2011/FMCT-Securing-Pakistans-interests

(Return to Articles and Documents List)

Jerusalem Post – Israel OPINION/Op-Ed Contributors

Iran's Japanese Option: Arms within Arms' Reach

Japan remains at the nuclear threshold, enjoying legitimacy conferred by transparency, while knowing that, nuclear weapons are within reach. By YOEL GUZANSKY and JONATHAN SCHACHTER August 22, 2011

Despite the focus on the dramatic political change taking place in the Middle East, Tehran's barely hidden drive toward nuclear weapons remains justifiably high on the international agenda. Iran's nuclear efforts and lack of cooperation with IAEA inspectors have led to international and unilateral sanctions, innumerable diplomatic discussions, and a near-constant flow of op-eds. Much of the debate, however, has examined Iran's nuclear potential in binary terms; either Iran will have nuclear weapons or it won't.

The manufacture and deployment of a nuclear weapon ("unacceptable," according to President Obama) would be an obvious violation of Iran's obligations under the Nuclear Non-proliferation Treaty (NPT), and would subject the country to harsher punitive measures than it currently faces.

Abandoning its nuclear weapons efforts, though decreasingly likely, would include cessation of Iran's entirely superfluous uranium enrichment activities and compliance with the transparency requirements of the NPT.

Rarely raised is a third possibility: that Iran will pursue the "Japanese option" of becoming and remaining a nuclear threshold state. Japan is widely acknowledged to have both the technological ability and the stockpile of plutonium (the by-product of its peaceful nuclear energy generation) required to produce over 1,000 nuclear weapons (by comparison, China is estimated to have around 175). The saying goes that Japan is just a "screw-turn"



away from being a nuclear armed state, but for historical, ideological and political reasons, as well as because of its comprehensive defense agreement with the United States, it has chosen not to turn the screw. Japan thus remains comfortably at the nuclear threshold, enjoying the legitimacy conferred by nuclear transparency, while knowing that, if needed, nuclear weapons are well within reach.

Iran, though currently far from transparent, and with a record of nuclear obfuscation, might be pursuing a technically similar path, opening some of its facilities to observers, while developing the technology and infrastructure needed to field and deliver nuclear weapons within months, but not planning to take that last step. The threshold is not a single point; depending on a state's progress to date, it includes a variety of activities that could be completed in anywhere from days to months. Regardless of whether Iran is at the threshold, a nuclear weapon could be little more than a decision away.

IN SOME ways the nebulousness inherent in Iran remaining a threshold state threatens to put the US as well as its Middle Eastern allies in a tougher spot than would be the case if Iran unmistakably developed nuclear weapons. Such a situation could nevertheless strengthen domestic support for and enhance the regional and international prestige of the Iranian regime, making efforts to influence or undermine it more difficult.

Iran could exploit its posture by pairing diplomatic demands with explicit or implied threats that it will cross the threshold. Avoiding this outcome is likely to cost the international community dearly in political, economic, and other terms. The much-feared prospect would likely result in a constellation of nuclear threshold states. It also would be more difficult to build diplomatic support for further sanctions against an Iran thought to have "responded" to previous pressure by stopping just short of developing nuclear weapons. Iran therefore could glean many of the strategic benefits of nuclear weapons without actually having them.

One could argue that Iran's nuclear development program has already made it a threshold state. However, an Iranian decision to remain so for an extended period is likely to introduce increasing uncertainty to an already unpredictable region, which could be dangerously destabilizing. To avoid strategic surprise, states might feel increasingly compelled to invest intelligence and early-warning resources toward understanding where Iran is, as Saudi Arabia might be doing. As uncertainty rises, these states might become decreasingly willing to take chances. Though Iran undoubtedly sees deterrence value in its nuclear efforts, lingering at the threshold could make ostensibly pre-emptive war more, rather than less, likely.

IF BEING a threshold state is so treacherous, why is Japan's threshold status tolerated? Because Japan is fully compliant with its NPT obligations, its facilities are regularly and fully inspected by the IAEA, and it is governed by a democracy accountable to its citizens, its allies and the international community.

Iran's nuclear efforts, whether intended to produce a bomb or to stop short of doing so, would be far less ominous and arouse far less suspicion and opposition if the country's regime did not have a well-deserved reputation for menacing neighbors, financing and equipping terrorist groups, and brutally suppressing internal opponents.

Given the dangers posed by Iran as a threshold state and its record of NPT violation, it is essential to ask if the US administration's and its allies' current approach is sufficient. A more comprehensive stance would broaden its scope to define explicitly and consistently what these states' red lines are, and what the penalties will be for crossing them, and ensure that these messages are unambiguously conveyed to Tehran.

The consequences of too little, too late, might prove catastrophic.

While the United States, Israel, Saudi Arabia and other Middle Eastern states might not agree completely about the threat posed by Iran as a nuclear threshold state, all can agree that the uncertainty is itself threatening, more so every day.

The writers are research fellows at the Institute for National Security Studies, Tel Aviv University.

http://www.jpost.com/Opinion/Op-EdContributors/Article.aspx?id=234965



(Return to Articles and Documents List)

New York Times OPINION/International Herald Tribune Op-Ed Contributor

Al Qaeda's Challenge

By WILLIAM MCCANTS August 23, 2011

Osama bin Laden's long-sought revolutions in the Arab world are finally happening, and the upheaval would seem to give Al Qaeda a rare opportunity to start building the Islamic states it has long sought.

Ideally, these states would not have parliaments (human lawmaking usurps God's role as lawgiver) and would be hostile to U.S. interests. But so far at least, the revolutions have defied bin Laden's expectations by empowering not jihadists but Islamist parliamentarians — Muslims who engage in parliamentary politics to increase the influence of Islamic law but who refuse to violently oppose U.S. hegemony in the region.

In Tunisia, the Islamist Renaissance Party leads in the polls ahead of legislative elections in October. In Egypt, the Freedom and Justice Party, the new faction created by the Muslim Brotherhood, is likely to gain a large number of seats in parliament this fall. Should countries that have experienced more violent revolutions also hold elections, such as Libya, Syria, and Yemen, Islamist parliamentarians are well positioned to compete in those nations as well.

Although bin Laden's death was a major setback for Al Qaeda's organization, in some ways its new chief, Ayman al-Zawahiri, is better suited to the revolutionary climate of the Arab world than his predecessor. Unlike bin Laden, Zawahiri sees violence as but one tool among many for overthrowing Arab regimes. Nevertheless, Zawahiri's hostility toward parliamentary politics leaves the levers of political power to those Islamists who know how to pull them once the revolutions end.

The outcome in Egypt is particularly personal for Zawahiri, who began his fight to depose the Egyptian government as a teenager. Zawahiri understands that Egypt is the grand prize in the contest between Al Qaeda and America given its geostrategic importance and its status as the leading Arab nation. In his recent six-part message to the Egyptian people and in his eulogy for bin Laden, Zawahiri suggested that absent outside interference, the Egyptians and the Tunisians would establish Islamic states without parliaments that would be hostile to Western interests.

Zawahiri is too optimistic. Having suffered under one-party rule for decades and wary of rival Islamist parties, the Arab world's Islamist parliamentarians (like their secular counterparts) will be unwilling to support such a system in the future. And although they will certainly seek to implement more conservative social laws, the Islamist parliamentarians will come to accept that their countries require the economic and military aid of the United States or its allies in the region.

Although some Islamists rhetorically support Al Qaeda, many, especially the Muslim Brotherhood, are now organizing for their countries' coming elections — that is, they are becoming Islamist parliamentarians. Even Egyptian Salafists, who share Zawahiri's distaste for parliamentary politics, are forming their own political parties. Most ominous for Al Qaeda's agenda, Gama'a Islamiyya — parts of which once allied with Al Qaeda — forswore violence and recently announced it was creating a political party to compete in parliamentary elections. That these groups are now willing to enter parliamentary politics shows that Al Qaeda is losing sway even among its natural allies.

This dynamic limits Zawahiri's options. For fear of alienating the Egyptian people, he is not likely to end his efforts to reach out to Egypt's Islamist parliamentarians or to break with them by calling for attacks in the country before the elections. Instead, he will continue urging the Islamists to advocate for Shariah and to try to limit U.S. influence.



In the meantime, Zawahiri will press for attacks on the United States and seek to exploit less stable postrevolutionary countries, such as Libya, Syria, and Yemen, which may prove more susceptible to Al Qaeda's influence.

Still, the continued predominance of the United States in the region and the growing appeal of Islamist parliamentarians mean AI Qaeda is unlikely to get the states it desires. Even supporters of AI Qaeda now doubt that it will be able to replace existing regimes with Islamic states anytime soon. In a recent joint statement, several jihadist online forums expressed concern that if Muammar el-Qaddafi is defeated in Libya, the Islamists there will participate in U.S.-backed elections, ending any chance of establishing a true Islamic state.

As a result of all these forces, Al Qaeda is no longer the vanguard of the Islamist movement in the Arab world. Having defined the terms of Islamist politics for the last decade by raising fears about Islamic political parties and giving Arab rulers a pretext to limit their activity or shut them down, Al Qaeda's goal of removing those rulers is now being fulfilled by others who are unlikely to share its political vision. Should these revolutions fail and Al Qaeda survives, it will be ready to reclaim the mantle of Islamist resistance. But for now, the forces best positioned to capitalize on the Arab Spring are the Islamist parliamentarians, who, unlike Al Qaeda, are willing and able to engage in the messy business of politics.

William McCants is an analyst at CNA's Center for Strategic Studies and author of the forthcoming book "Founding Gods, Inventing Nations: Conquest and Culture Myths From Antiquity to Islam." This article is adapted from a longer version in the September/October issue of Foreign Affairs.

http://www.nytimes.com/2011/08/23/opinion/23iht-edmccants23.html

(Return to Articles and Documents List)