

Asian Nuclear, Missile & Space Digest

Volume 1, Number 21

A Weekly Newsletter from the Indian Pugwash Society

August 24, 2009

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Contents

Storing Nuclear Waste a \$24-Billion Problem

S. Korean Launch Raises Questions

U.S. Delegation Heads for Asia to Coordinate Implementation of UN Resolution on DPRK

US Welcomes NKorea Steps but Wants More

South Korea to produce Red Shark torpedoes

North Korea Must Come Back to Multilateral Nuclear Talks, U.S. Says

The Challenges of a Nuclear Iran

Iran offers nuclear concessions on eve of crucial meeting

Iran lets in UN inspectors ahead of nuclear report

Iran denies nuclear talks offer

Airborne anti-missile laser clears test

Europe Could Face Iranian Missiles in 3-4 Years, Former Israeli Official Warns

Iran Official Denies He Made Nuclear Talks Statement

UN Watchdog Hiding Evidence on Iran Nuclear Program

Iran Ready to Hold Nuclear Talks With Western States 'without Preconditions'

Israeli Envoy Says No Plans to Strike Iran Nuclear Sites

Pakistan feels heat from nuclear powers over talks block

Japan opposition leader makes pledge on US nukes

Pentagon Seeks to Fill Missile Surveillance Gap by 2016

Controlling Loose Nukes

Italy to Sign Nuclear Protocol with U.S.

Russia and Belarus Plan NPP Together

Stall and spin in Russian air force reform

Wary India frisks North Korean freighter



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All the articles are available from the mentioned sources in original format.

Storing Nuclear Waste a \$24-Billion Problem:

Brian Kemp

There are two million high-level radioactive fuel bundles sitting at temporary storage sites in Canada, as the Nuclear Waste Management Organization wrestles with the mandate of finding a community to host a central storage facility for the waste for perhaps tens of thousands of years.

Throw in the fact that the cost of storing this nuclear waste could be up to \$24 billion — a figure that will likely rise — and environmental groups are dead set against a central facility, and it shapes up to be a challenge of colossal proportions. The process of finding a site to bury the high-level spent fuel has dragged on for decades as reactors keep churning out more spent bundles.

In 1998, after almost 10 years of study, a federal environmental assessment rejected the storage option. People involved at the time with the Seaborn Panel, as it was called, were convinced that the science was good but the central storage option did not have public support, as people feared accidents and contamination. The 1998 decision will end up costing Canadians billions more as the cost of a storage facility rises, pushed by inflation and unfavourable economic conditions.

The waste storage issue languished and lacked direction until the Nuclear Waste Management Organization was mandated by the federal government in 2002 to find a site and build a permanent, underground storage facility for the waste. The NWMO, made up of utilities that create and store nuclear spent fuel waste (each bundle is about the size of a fire log, weighs 24 kilograms, and is radioactive and dangerous to people), has been touring the country recently to gauge the response to a central facility in communities where waste is temporarily stored near reactors.

The group is moving ahead again with a target of 2035 for a central site. In June 2009, the NWMO travelled to New Brunswick, site of the Point Lepreau nuclear generating station, which has been operating a Candu reactor since 1983. Like the nuclear sites in Ontario, Quebec and AECL's nuclear research facility in Manitoba, New Brunswick is storing spent waste (121,000 bundles) in temporary quarters at its site near the Bay of Fundy until a central site is built.

There have been detractors, but people in the province have generally accepted nuclear power and the presence of the plant in Point Lepreau, and there has been serious consideration given to adding an additional reactor. In what could turn out to be one of the biggest construction projects in Canadian history, the NWMO said the host community for the central storage site will have hundreds of skilled workers on site during the construction phase, and that "wealth creation" in the form of personal income and business profits during the construction phase will be in the billions of dollars.

As well, during the first 30 years of operation, when the spent fuel is being transported for storage, NWMO estimates spending will be in the range of \$200 million each year - again benefiting the host community. But despite those big economic numbers consider the New Brunswick government's reaction when it

was suggested by NWMO that any of the four Canadian provinces involved in the nuclear industry could be home to the central storage facility. (The group has yet to even approve the process by which a site is selected for “deep geological repository,” as it is called).

“I don’t care. I mean I don’t care. Have they done research on New Brunswick for nuclear waste? I would suggest they haven’t,” said the province’s Energy Minister Jack Keir. NWMO clearly has work to do in certain areas. The money trail

The NWMO estimates it will cost somewhere in the range of \$16 billion to \$24 billion to site, build and maintain a central storage facility big enough and safe enough to handle the bundles. Some of the money will be used to store bundles at reactor sites before they are moved.

Ontario Power Generation, NB Power Nuclear, Atomic Energy Canada Limited, and Hydro-Quebec have been paying into a trust fund since 2002, building up a nest of \$1.5 billion by 2009. The four nuclear partners are kicking in money to the trust fund each year and will be contributing \$163 million in total by 2011. The overall fund is expected to grow to more than \$2 billion by 2011, and increase to cover the construction costs of the facility. Given the recession and the financial crisis that began in the fall of 2008, the rate of return on the trust fund will likely have to be adjusted, as many funds lost money or saw a much lower rate of return.

“It’s a leap of faith that the trust money will be enough,” said Julie Michaud, with the New Brunswick Conservation Council. Mike Buckthought of the Sierra Club Canada said he has no faith in the cost estimates. “Look at [the nuclear industry’s] track record. Whenever we see an estimate for the cost of a plant, the cost is higher. It’s the same for this,” said Buckthought. Michael Krizanc, communications manager at NWMO, said the nuclear partners are mandated to cover the construction costs and operation of a central storage facility. He is confident the trust fund will cover costs, and said the federal government will not be on the hook for future money.

What is not known is what the effect on everyday ratepayers would be if the price balloons and the utilities must cover those costs somehow. Krizanc admitted that his group does not have access to money (and guaranteed money) that was set aside by reactor operators before 2002 for decommissioning and temporary waste management, a figure that reaches into the billions of dollars. Much of the money set aside at that time will likely go to decommissioning plants, a process that is a huge drain on finances.

The nuclear plants operated for decades without paying into a long-term fund. A spokesman for the Canadian Nuclear Safety Commission said his organization did not require the plants to contribute money to a long-term storage plan but did require money for the temporary sites.

The NWMO essentially started fresh in 2002 with regard to finances, despite the fact reactors were creating spent bundles for more than 20 years previously. A new estimate of the storage costs is expected in the next year, and nobody knows at this point what the tally will be, but given the economic conditions it will be no surprise if it goes beyond \$24 billion, a figure that has more than doubled since the early 1990s.

A recap of the Seaborn Panel's report can be found on the Canadian Environmental Assessment Agency's website, along with a reference to what the cost of the central site would have been about 10 years ago. "The cost of a facility based on the concept, estimated by AECL in 1991 dollars, would range from \$8.7 billion for five million fuel bundles to \$13.3 billion for 10 million bundles, excluding financing costs, taxes, non-routine activities (such as waste retrieval), transportation and any extended monitoring stages," according to the report.

In the United States, the Yucca Mountain central storage project in Nevada was plagued by huge cost overruns, fought by environmentalists and was not welcomed in the end by many residents in Nevada. It was cancelled in February 2009 by President Barack Obama before any fuel was stored, after \$9 billion had been spent.

Environmental concerns, social issues. The bundles will have to be stored for perhaps as long as 10,000 years or more as their radioactive nature decreases. The copper and steel containers will be put underground and built to last as long as 100,000 years and withstand pressure from a two kilometre-thick glacier, if an ice age comes in the meantime.

The storage site, however, will likely include a design so that future generations can access the spent fuel (which still has some juice, so to speak) and use it if they choose, as Canada's easily accessed uranium reserves could diminish within 100 years. The material could be reprocessed, for example, and used in a special reactor. After use in a nuclear power plant the bundles contain radioactive material which can emit X-rays and gamma rays as well as high energy alpha particles and beta particles, which can damage human tissue and cause cancer. There are two ways the material can get into the environment and create havoc - through the air or through the water table. The New Brunswick Conservation Council worries about the transportation of the waste to a central site and the potential that journey offers for an accident which could possibly contaminate water tables for centuries. The group, which is against nuclear power, said the only alternative to a central storage facility is keeping the waste on site at the various reactors, where it is being stored now.

"It's easy to access, easy to manage, rather than trucking it somewhere in the country. That's a terrible idea," said Michaud. In this day and age, terrorism is also a concern, and the issue is being considered. According to the NWMO's website, "the used fuel is shipped in heavy, impact-resistant containers, so it is not easily removed, accessed or damaged. A current typical road transport container weighs about 23 metric tonnes."

"Removal of the container lid requires special tools and lifting equipment. The used fuel is also highly radioactive, and if removed from the transport container, it would present considerable personal hazard to a hijacker." Armed guards will be a consideration, all of which could be daunting for a community considering whether or not to be a host for the facility. Jeremy Whitlock, who works for AECL and is a past president of the Canadian Nuclear Society, said there are likely communities that are willing to step up. A community has to be engaged, "trust the science" and be convinced that the economic benefits are worthy. A community can't be forced to take the facility, he said.

Source: <http://www.cbc.ca/canada/story/2009/08/18/f-nuclear-waste-storage.html>

S. Korean Launch Raises Questions: *R. Jeffrey Smith and Stella Kim*

South Korea plans to launch a satellite into space using technology capable, in theory, of eventually delivering nuclear warheads or other weapons of mass destruction. A successful launch from an island off South Korea's southwestern coast will add that country to an elite club of nine nations that have demonstrated the capability to orbit a satellite and — if they choose — to conduct long-range missile strikes against an enemy. But it will probably not attract the same kind of international criticism heaped on North Korea when it recently attempted a similar launch.

Proliferation experts say the launch is problematic, even if South Korea, a close U.S. ally, says it is for scientific purposes. Under U.S. pressure, South Korea agreed in 2001 to adhere to an international agreement limiting the range of its ballistic missiles. But it has since taken advantage of what many proliferation experts call a loophole exempting “national space programs” that typically involve identical technologies.

“From a nonproliferation purist point of view, it is of concern when any country, in good international standing or not, develops the kind of capability that could be transferred to a ballistic missile,” said Greg Thielmann, a senior fellow at the Arms Control Association who formerly directed the strategic, proliferation and military affairs office at the State Department's intelligence bureau.

The space launch is occurring as South Korea expands its cruise missile programs, and as some officials there are calling for a renegotiation of the ballistic and cruise missile limits agreed to with Washington. “There is some concern” that South Korea might not be complying with the cruise missile limits, said Dennis C. Wilder, who served as a National Security Council official from 2005 until last January and is now at the Brookings Institution.

Getting Russia's Aid

Years ago, the U.S. government spurned South Korea's appeals for assistance under what a diplomatic official last week described as a long-standing policy of “not supporting new space launch vehicles” anywhere. South Korea responded by spending an estimated \$200 million to obtain the assistance of Russia, whose ballistic missile technology has also directly or indirectly benefited North Korea, Brazil, Iran and Syria. Russia and South Korea have pledged to respect the Missile Technology Control Regime, a voluntary group of countries that limits transfers explicitly related to long-range ballistic or cruise missiles but welcomes cooperation on space programs.

According to South Korean officials, Washington subsequently intervened in 2006 with Russia, which is supplying the first stage of the rocket about to be launched, to try to limit the technology transfer and ensure that Moscow would monitor the technology's use. The Obama administration has sought to reassure the South of Washington's commitment to its security in the wake of threatening rhetoric from North Korea; it has been mum about the imminent launch. None of the allied capitals that roundly denounced North Korea's April missile launch — which it maintained was meant to orbit a satellite — has registered complaints.

Japan had pressed the U.N. Security Council to censure North Korea. But Motosada Matano, a first secretary at the Japanese Embassy in Washington, said Tokyo hopes the South Korean launch “will be successful.” That hope emanates in part from the fact that South Korea’s two-stage rocket is supposed to pass through Japanese airspace before orbiting a payload that officials say will be used for scientific purposes over the next two years. But the supportive rhetoric from Tokyo and elsewhere will disappoint officials in North Korea, who issued a warning last week that they “will closely watch” to see if Seoul’s neighbors raise objections and demand similar U.N. sanctions.

‘A Different Context’

“Their reaction and attitude towards South Korea’s satellite launch will once again clearly prove whether the principle of equality exists or has collapsed,” a spokesman for the North Korean Foreign Ministry told the country’s official press agency. Moon Tae-young, a deputy minister at South Korea’s Ministry of Foreign Affairs and Trade, responded that any comparison between the two missile launches is “inappropriate.” He noted that South Korea has pledged to abide by international norms governing the peaceful use of space and missile technology transfers, and has conducted its preparations transparently.

North Korea, in contrast, acted despite a 2006 order by the Security Council to refrain from ballistic-missile-related activities. It also has a nuclear arsenal that could effectively be used only with ballistic missiles, has shrouded its purported space program in secrecy, and has issued military threats against neighbors.

“It is a different context that North Korea operates in,” said a U.S. official involved in proliferation policy, who requested anonymity in order to speak freely. The question is, “are they allies or friends, or people who have generally been belligerent?” Such distinctions vex independent analysts such as Dennis M. Gormley, a senior fellow at the James Martin Center for Nonproliferation Studies. “This is a backdoor way of avoiding an agreement made in 2001” by Washington and Seoul to bar South Korea’s development of long-range missiles that might heighten regional tensions, he said.

“We have a different way of looking at our friends and allies, but creating this differentiation in the end does not do us well. It creates the notion that we only have ground rules that apply in certain places,” Gormley said. Similarly, Henry Sokolski, executive director of the Nonproliferation Policy Education Center, said: “If we wink at this nuclear-capable rocket launch . . . how in the world can we object to North Korean and Iranian tests without looking like hypocrites?”

Relaxing a Policy

Sokolski says Washington has been slowly relaxing a missile nonproliferation policy that led to sanctions or other pressures against South Africa, Australia, Israel, India, Brazil and Argentina. Besides the five permanent members of the Security Council, only Japan, India, Israel and Iran have successfully launched satellites. North Korea’s April launch did not loft a satellite, according to U.S. officials.

Several experts said the administration faces a delicate balancing act in trying to avoid further regional tensions in the face of unconstrained North Korean missile tests and South Korea’s work on at least four cruise missiles, including

one capable of reaching much of southern China and Japan as well as all of North Korea. “To an extent, there is an element of competition against North Korea in terms of acquiring technical advancement,” said Kim Seung-Jo, chairman of the Korean Society for Aeronautical and Astronautical Science in Seoul. “But we don’t want to create undesirable misunderstanding about our motivation, because we gain nothing by that.”

Source:http://www.washingtonpost.com/wp-dyn/content/article/2009/08/17/AR2009081702913_2.html?sid=ST2009081902075

U.S. Delegation Heads for Asia to Coordinate Implementation of UN Resolution on DPRK

A U.S. interagency delegation on Tuesday left for Asia to coordinate implementation of the UN Security Council Resolution 1874 on Pyongyang’s nuclear and missile and proliferation activities. The delegation, led by U.S. coordinator for implementation of UN Security Council Resolution 1874 Philip Goldberg, will visit Singapore on Wednesday, then will travel to Thailand, South Korea and Japan.

“In all of these countries, we’ll share thoughts, ideas, and our impressions on inspections of air, sea and land cargo. We’ll review the financial provisions of the resolutions (Resolution 1718 and Resolution 1874), and we’ll share information when possible on specific cases,” Goldberg told reporters at a press briefing last week.

The Obama administration has voiced to enforce sanctions set in the UN Security Council Resolution 1874, which condemns the Democratic People’s Republic of Korea (DPRK) for its May 25 underground nuclear test that has obviously threatened the Asian-Pacific region’s security and stability. The resolution banned all weapons exports from the DPRK and most arms imports into the country, authorized UN member states to inspect the DPRK’s sea, air and land cargo and required them to seize and destroy any goods transported in violation of the sanctions.

Source:http://news.xinhuanet.com/english/2009-08/19/content_11906404.htm

US Welcomes NKorea Steps but Wants More

The United States welcomed North Korea’s rare conciliatory gestures to South Korea but said that the communist regime needed to do more by moving ahead with denuclearization.

North Korea said it would restart family reunions and a stalled tourism program for South Koreans — while adding it was ready for a “merciless and prompt annihilating strike” if a US-South Korean exercise infringes on its sovereignty.

“Clearly these are welcome steps, in and of themselves,” State Department spokesman P.J. Crowley told reporters, hoping that the gestures “might open the door for renewed dialogue” between North and South. “That said, these marginal steps in and of themselves are not enough. We continue to reiterate what North Korea has to do,” he said.

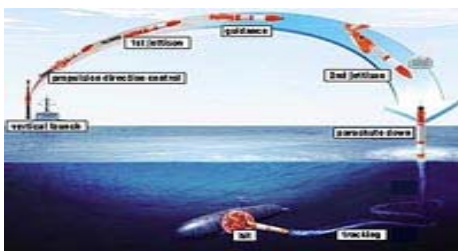
“We want to see them take definitive steps, irreversible steps, towards denuclearization.” North Korea in recent months has tested a nuclear bomb and

a series of missiles and bolted out of a six-nation agreement under which it was to give up its nuclear weapons in return for aid and security guarantees. The United States has said it is open to talks with North Korea but has also pushed to punish the regime over its recent actions.

Crowley said he was not sure what triggered the North Korean gestures to the South, saying that he had no “crystal ball” into the mindset of the reclusive regime. But he added: “One might infer that North Korea is feeling some pressure, whether it’s political pressure, economic pressure or a combination of the two.”

Source: http://news.yahoo.com/s/afp/20090817/pl_afp/koreaskorearelationsmilitaryus_20090817222346

South Korea to produce Red Shark torpedoes



The nearly 18-foot, two-stage, precision-guided torpedoes are launched vertically and fly for around 12 miles before parachuting into the sea and heading for their target.

South Korea has given the production go-ahead for the first 70 Hongsangeo anti-submarine torpedoes for deployment between 2010 and 2012, the government has said. Up to 70 of the long-range ship-to-submarine light torpedoes, called Red Shark in English, will be operational aboard some of South Korea’s newest country’s destroyers, the KDX-I/II, according to the procurement agency Defense Acquisition Program Administration.

After nine years of development, the final tests were completed earlier this year, the DAPA’s sister organization the state-funded Agency for Defense Development announced in June. Deployment is in response to a growing threat from North Korean submarines, the ADD noted. The nearly 18-foot, two-stage, precision-guided torpedoes are launched vertically and fly for around 12 miles before parachuting into the sea and heading for their target.

Production of the torpedoes is expected to cost around \$145 million with more being manufactured beginning in 2013. South Korean missile manufacturer LIG Nex1 co-developed the torpedo with the ADD at a cost of around \$80 million, the ADD said. The 14-foot, two-stage, solid fuel vertical launch ASROC missile was first made by Lockheed Martin in 1993 after nearly 10 years of development and production problems. Range is around 14 miles and they have carried several types of torpedoes, lately the Mark 46.

The ADD and LIG Nex1 have cooperated on other so-called shark-series torpedoes, the Blue and Cheongsangeo (Blue Shark) light torpedo and Baeksangeo (White Shark) heavy torpedo.

South Korea first test fired the Cheongsangeo (Blue Shark), missile in 2004. It can be launched from both sea vessels and aircraft such as helicopters and the Lockheed Martin PC-3 Orion maritime patrol aircraft, according to a report in the South Korean national Yonhap News Agency.

Deployment on the KDX-II destroyers, part of a ship-building program to develop several classes of destroyers, will help enhance South Korea’s move into a blue-water navy, meaning operating across wide expanses of ocean.

The lead ship of the Chungmugong Yi Sunshin class, called the ROKS Chungmugong Yi Sunshin, was commissioned in December 2003. All six of the

planned 500-foot ships have been commissioned. Hull design of the 4,400 ton displacement class is by Hyundai Heavy Industries and ships are built by Daewoo Shipbuilding and Marine Engineering. The ships also carry Hyunmoo III (Korean Tomahawk) cruise missiles for land attack as well as RIM-116 rolling airframe missiles and Hae Sung (Korean Harpoon) ship-to-ship missiles.

Source: http://www.spacewar.com/reports/South_Korea_to_produce_Red_Shark_torpedoes_999.html

North Korea Must Come Back to Multilateral Nuclear Talks, U.S. Says



North Korean officials offer a flower wreath in honor of former South Korean President Kim Dae-jung, who died Tuesday. The delegation from Pyongyang was the first to visit the South in nearly two years.

The Obama administration yesterday reaffirmed its position that direct diplomacy with North Korea would only occur alongside resumed multilateral talks on the Asian nation's nuclear program, Agence France-Presse reported.

Pyongyang seemingly abandoned the six-party process, under which it had made some moves toward denuclearization, after being condemned for an April rocket launch that was widely seen as a test of long-range missile technology. The Kim regime subsequently conducted its second nuclear test and launched a number of missiles. However, two North Korean envoys this week

told New Mexico Governor Bill Richardson that their government wanted to discuss the nuclear standoff, but only with the United States.

“We are prepared to have bilateral discussions with North Korea within the framework of six-party talks,” responded State Department spokesman P.J. Crowley, referring to the years-old negotiations that involved China, Japan, Russia, the United States and both Koreas. “As we’ve made clear to North Korea for a long time, within the six-party framework, there’s plenty of room for a bilateral dialogue,” he added. “But North Korea knows what it has to do. It has to come back to a six-party process, be willing to take the kinds of steps that the international community has made clear that it needs to do”.

Financial entities in Asia should keep a wary eye for economic activity that could aid the North's nuclear and missile operations, the official leading Washington's push on international sanctions against the isolated state said yesterday. “In a general sense, there is a feeling that there is a greater awareness among banks of their responsibilities, more information that's been shared and I think that in that sense there's been some success,” U.S. envoy Philip Goldberg said in Singapore, according to AFP. “But it's still fairly early,” he said, noting that the U.N. Security Council only two months ago approved heightened sanctions against North Korea, in the wake of its May 25 underground nuclear blast.

“So we have to continue to advise vigilance and due diligence on the parts of financial institutions, again with the idea being that we should apply a sense of transparency to these transactions as much as possible,” said Goldberg, who is traveling to several Asian nations to spread the message on sanctions. Roughly 30 nations have submitted reports on sanctions activities to the U.N. committee handling the issue, Kyodo News reported today. Among those states are the five

nations that have conducted nuclear talks with Pyongyang and certain European nations, sources said.

A briefing was held yesterday for the Security Council on the issue.

“The cooperation by governments has been very good and satisfactory,” said Fazli Corman, Turkish deputy ambassador to the United Nations and head of the panel on North Korea sanctions. Corman said the committee could expand the number of individuals and entities subject to asset freezes and travel bans for their role in the North’s weapons activities. The list was expanded last month to encompass five people and five organizations.

“There is a possibility of new designations all the time but it is not something that we can say there will be,” Corman said. “There might be depending on the new information that would be available to the committee”. Meanwhile, a group of six high-level North Korean officials was in Seoul today to honor former South Korean President Kim Dae-jung, who died Tuesday, the Associated Press reported.

It has been almost two years since officials from the North visited their neighbor. Relations between the two states have been tense since conservative South Korean President Lee Myung-bak took office in February 2008. Lee has said his nation’s assistance for the North would be based on its moves toward nuclear disarmament, a stand that has prompted regular rhetorical lashings from Pyongyang. In recent days, there have been indications that the North is prepared to re-engage with the South. There was no immediate word on whether the visitors, including Workers’ Party official Kim Ki Nam and intelligence head Kim Yang Gon, would conduct official talks with South Korean officials before heading home tomorrow.

Source: http://gsn.nti.org/gsn/nw_20090821_6810.php

The Challenges of a Nuclear Iran: Corey Flintoff

The turmoil that erupted following Iran’s disputed presidential election in June has put the Islamic republic squarely back into the headlines. But in some ways it has obscured a bigger, on-going concern for the U.S. and the international community: the question of whether Iran’s theocratic regime is on its way to becoming a nuclear-armed state. How will Iran’s current political situation influence its nuclear ambitions? How close could Iran be to building a nuclear bomb? What steps — diplomatic, economic or military — are available to the U.S. and the U.N. to prevent Iran from going nuclear, or to deal with Iran if it does?

This week, an NPR series, “The Challenges of a Nuclear Iran,” looks at the suspected nuclear weapons program and what it means for the world. When President Bush listed Iran, along with Iraq and North Korea, as part of an “axis of evil” in his 2002 State of the Union speech, he asserted that Tehran was aggressively pursuing weapons of mass destruction, including nuclear weapons.

At the time, Israeli officials insisted that Iran was less than three years away from developing a nuclear weapon. Seven years later, Iran is moving forward in its efforts to enrich uranium, but it’s not clear whether Tehran has made the decision to acquire a bomb. Here are some of the factors involved in that decision — and potential U.S. responses to them:

Is U.S. Military Action Against Iran's Nuclear Facilities An Option?

Although the Obama administration has said its priority is to engage Iran diplomatically, the president has not ruled out the possibility that the U.S. could use military strikes to destroy or disable Iran's nuclear facilities. Some analysts have argued that the U.S. military is overstretched already with the wars in Iraq and Afghanistan, making it impossible to take military action against a new adversary.

In a recent commentary in *The Wall Street Journal*, though, retired Air Force General Chuck Wald argued that "an attack on Iranian nuclear facilities would mostly involve air assets, primarily Air Force and Navy that are not strained by operations in Iraq and Afghanistan." NPR's Mary Louise Kelly, who covers national security and defense, talks with Wald about how that might be done. She also speaks with experts who consider the broader consequences of going to war against a strong and well-armed state.

How Close Is Iran To Obtaining The Bomb?

The potential nuclear threat comes down to two elements: Can Iran obtain or process the highly enriched, weapons-grade uranium needed to build a bomb? And, if it succeeds, does it have the means to deliver that bomb to an enemy? In April, the EastWest Institute issued a report by a group of American and Russian analysts who concluded that Iran already has the technical know-how to build a bomb. The experts said that if Iran's leaders decided to proceed, the country could have a crude weapon in a relatively short period of time.

Joseph Cirincione, president of the Ploughshares Fund, was part of the study. "This group of American and Russian scientists concluded that Iran could build a crude nuclear device in one to three years," he says. "But it would take them up to eight years to develop a warhead that could be put on top of a missile." NPR's Mike Shuster, who covers Iran, talks with experts who think that timetable could be even shorter, and looks at what is known about Iran's nuclear capability.

If Iran Gets The Bomb, Would Deterrence Work?

During the Cold War, it was called MAD — mutually assured destruction — a doctrine that suggested that two opposing sides would never use their nuclear weapons because that would effectively result in the destruction of both the attacker and the counter-attacker. The equilibrium essentially worked for several decades with the U.S. and the Soviet Union.

Would a nuclear Iran bring a similar balance to the Middle East, where Israel is widely believed to possess nuclear weapons? Some argue that Iran's leaders espouse an apocalyptic religious vision that would make them immune to threats of retaliation. Others say the regime is far more pragmatic and self-protective. Shuster explores why deterrence worked in the past, along with the potential risks and benefits of trying it with Islamic republic.

What Should U.S. Policy Be Toward Post-Election Iran?

Allegations of fraud in Iran's presidential election galvanized opposition to the government, but what does that mean for U.S. policy toward the Islamic republic? Mohsen Milani, professor of international affairs at the University of South Florida,

says the turmoil in Iran complicates matters for the Obama administration. But it puts pressure on the government of Iran, too, he says.

President Mahmoud Ahmadinejad and his allies of hardliners are trying to use the current situation to buy time. "What they might try to do is prolong this process so they can consolidate power," Milani says. NPR's Michele Kelemen, who covers the State Department, talks with some of the few Americans who have negotiated with Iran about whether the U.S. should look to Iran's opposition, whether more sanctions would work, and what needs to be discussed beyond the nuclear issue.

Should The U.S. Promise To Protect Iran's Neighbors?

Secretary of State Hillary Clinton suggested as much in comments last month, referring to the kind of guarantee that the U.S. has made to defend Japan, South Korea and its fellow NATO members in case of attack.

Clinton later clarified that statement, saying it was a warning to Iran that the U.S. would help build up the defenses of its partners in the region to match any advantage that Iran might gain by having a nuclear weapon. "They won't be able to intimidate and dominate as they apparently believe they can once they have a nuclear weapon," Clinton said.

NPR's Shuster talks with experts about how far the U.S. should go to assure allies in the region, including Israel, that they would be protected from an Iranian nuclear threat.

Would Israel Launch A Preemptive Strike On Iran?

No country has been more adamant about preventing Iran from acquiring nuclear weapons than Israel. Ahmadinejad's anti-Israel rhetoric in recent years has been punctuated by threats to destroy the Jewish state.

Israelis took alarm when Secretary Clinton made her suggestion of extending a defense umbrella to Iran's neighbors, because that could be taken to indicate that the U.S. was already becoming reconciled to the idea of Iran acquiring the bomb. "This is a mistake," said Dan Meridor, Israel's minister for intelligence and atomic energy. "We cannot act now by assuming that Iran will be able to arm itself with a nuclear weapon, but to prevent such a possibility."

NPR's Lourdes Garcia-Navarro reports from Jerusalem, where officials have been much more open about considering how military strikes might derail any Iranian nuclear weapons program. Israel has done it before, sending warplanes against an Iraqi nuclear facility in 1981, and crippling the Osirak reactor, which Saddam Hussein had explicitly said was intended as a step toward obtaining a nuclear bomb.

The Arab Reaction to the U.S. and Iran?

Polls in the Arab world show that public attitudes toward the U.S. improved after President Obama spoke to the Muslim world from Cairo in June, but the attitudes of Arab governments toward the U.S. and Iran are far more complex.

Sunni Muslim governments, such as the one in Saudi Arabia, have long been wary of Iran's Shiite theocracy, but autocratic Arab regimes also have no interest in seeing Iran's government overturned by a successful popular revolt.

NPR's Peter Kenyon looks at some key questions as the Arab world faces the prospect of a nuclear-armed Iran, including how a bomb-equipped Iran would tip the balance of power in the region, and whether it would lead to further nuclear proliferation among other states in the region.

Source: <http://www.npr.org/templates/story/story.php?storyId=112119429>

Iran offers nuclear concessions on eve of crucial meeting: *David Osborne*

Diplomats at the United Nations and in Western capitals were cautiously hopeful last night that a new agreement between the International Atomic Energy Agency (IAEA) and Iran on the oversight of its nuclear facilities may signal the start of a thaw in the long-running confrontation over its enrichment programmes. Days before the planned release of a new IAEA report that is expected to be highly critical of the Iranian government for failing to co-operate with inspectors, Tehran has made two potentially significant concessions including a green light for them to resume visits to a heavy water reactor near the city of Arak.

Sources in Vienna, where the IAEA is based, also told news agencies that the Iranian authorities simultaneously agreed to amend working practices at its Natanz uranium-enrichment facility to give agency cameras a better view of what is happening on the centrifuge floor where the enrichment happens. But an official in the Obama administration cautioned against excessive optimism. "Iran is still not in compliance with its IAEA obligations and is not providing... full and comprehensive co-operation," he said, on condition of anonymity.

At a key meeting on 2 September, the US, Britain, France and Germany are expected to urge Russia and China to agree to the possibility of yet another round of stringent UN sanctions. The new report from the IAEA will form the basis of those talks.

President Barack Obama has warned that he expects Iran, which is just coming out of the tumult of its contested presidential elections, to offer evidence by mid-September that it is indeed pursuing enrichment for energy-generating reasons alone, as it claims, and not with weaponisation in mind. If he is not satisfied, he will use a G20 summit in Pittsburgh on 24 September to demand new sanctions.

"We must welcome every effort from Iran because we have been asking them to co-operate with the IAEA and they have not been doing so," one European diplomat said of the new gestures. Another diplomatic source was less sure of the significance. "Look at it in context. Iran stonewalls for a year and then allows access right before the IAEA is to issue its report," he said.

After coming to office, Mr Obama made clear overtures to Iran to repair relations on condition that it took steps to ending the nuclear dispute. While the confusion of the re-election of President Mahmoud Ahmadinejad has complicated that strategy severely, the White House still considers the dossier urgent, particularly because pressure may grow inside Israel to launch a military strike against the country.

Interpreting the intentions of Tehran remains a vexing exercise. Meanwhile,

the new head of Iran's Atomic Energy Organisation, Ali Akbar Salehi, is being seen by Western analysts as a moderate who might favour resolving the stand-off as soon as possible. Iran barred IAEA inspectors from the not-yet-completed Arak heavy water plant a year ago, insisting that it was for agricultural research and for the production of medical isotopes. Meanwhile, the IAEA had long complained that it was unable properly to use its cameras at Natanz.

Source:<http://www.independent.co.uk/news/world/middle-east/iran-offers-nuclear-concessions-on-eve-of-crucial-meeting-1775830.html>

Iran lets in UN inspectors ahead of nuclear report: *Julian Borger*

IAEA officials admitted to controversial reactor

Concessions seen as move to deflect UN criticism

Iran has made significant concessions to UN nuclear inspectors days before a highly critical report on the country's nuclear programme is due to be published, diplomats said today. Inspectors from the International Atomic Energy Agency (IAEA) visited Iran's nearly complete heavy water reactor near the central town of Arak last week, after having been barred from the site for a year. Western officials say the reactor could be used to make plutonium, but Tehran maintains it is for research and the production of medically useful isotopes.

IAEA inspectors became alarmed when they were no longer allowed access to the site last year and a roof was constructed over the reactor so they were no longer able to keep track of its progress from satellite photographs. Diplomats also told the Guardian tonight that the Iranian government had made concessions over IAEA monitoring at Iran's highly controversial uranium enrichment plant at Natanz. The UN security council has demanded that Iran suspend uranium enrichment at Natanz until it can prove it is for the peaceful purposes Tehran claims. The Iranian government has refused to comply, defying several waves of financial sanctions.

The IAEA has cameras inside Natanz, but had complained that it could not monitor the operation of the roughly 7,000 uranium-enriching centrifuges there, while new centrifuges were constantly being installed. According to diplomats in Vienna, where the IAEA has its headquarters, the Iranians have agreed to change their work patterns to make it easier for inspectors. The change is important as the IAEA needs to certify that the centrifuges at Natanz are arranged in a way that produces low-enriched uranium (suitable for power generation) rather than highly enriched uranium (used in weapons).

The concessions come days before the publication of a new IAEA report that is expected to be highly critical of Iran's co-operation with the agency. Barack Obama has said that Iran has until the end of the year to show readiness to comply with UN demands, but western officials have said that it should be clear by next month whether the government of Mahmoud Ahmadinejad is ready to compromise in the wake of his disputed re-election.

If not, the US, British and French governments will begin to push for far stiffer sanctions at a G20 meeting in Pittsburgh on 24 September

and at a UN summit in New York. If Russia and China resist, as many western officials expect, Washington and its allies will consider measures by a “coalition of the willing” possibly focused on blocking Iranian access to refined petroleum. Any such move would dramatically raise tensions in the Gulf, but sources in Washington and London believe strong action is essential if there is to be any chance of stopping a nuclear arms race in the Middle East and a possible Israeli military strike against Iranian nuclear targets.

Germany has previously been less enthusiastic about sanctions than the US, Britain and France, but yesterday the chancellor, Angela Merkel, told the Frankfurter Allgemeine Zeitung that “economic sanctions in the area of the energy sector” were being debated. One western official said Iran’s concessions were aimed at defusing some of the momentum towards punitive action. “They always do this. Just before a really bad report they will give something away,” the official said.

Source: <http://www.guardian.co.uk/world/2009/aug/20/iran-un-nuclear-iaea-report>

Iran denies nuclear talks offer

An Iranian official has denied he said Tehran was ready for talks with the West on its nuclear programme based on mutual respect and without conditions.

State television had earlier reported that Ali Asghar Soltanieh, Iran’s envoy to the UN’s nuclear watchdog, had announced its willingness to negotiate. “There have been no comments or interviews with TV networks on nuclear talks or conditions,” he later said. Iran has been given until September to end its uranium enrichment programme. Otherwise it faces tougher sanctions. The West suspects Iran is secretly trying to build nuclear weapons, while Tehran insists its programme is solely peaceful.

‘No change’

In a report broadcast earlier on Tuesday, Iranian state television said Mr Soltanieh had “announced Iran’s readiness to take part in any negotiations with the West based on mutual respect”. “Talks without preconditions is Iran’s main stance in negotiations on the nuclear issue,” Tehran’s envoy to the International Atomic Energy Agency (IAEA) was quoted as saying. But the network later reported that Mr Soltanieh was insisting he had not given any interviews or made any comments on the issue.

“Iran’s main policies are not changed and that is to pursue its peaceful nuclear activities within the framework of the IAEA,” he said. Mr Soltanieh instead said he had referred to a letter he sent to the IAEA calling for its meeting in September to approve an Iranian initiative to prohibit attacks on nuclear facilities across the globe.

“The only issue that was raised was to ban threats and attacks on the world’s nuclear installations, because it is an international issue,” he added. The United States and its ally, Israel, have not ruled out military action to stop Iran’s nuclear programme. Iran’s presidential election in June and its turbulent aftermath plunged the country into internal crisis.

Amid deep divisions within the ruling elite and the population, relations with

the West were put under further strain and seemed to bode ill for Washington's stated aim of re-engagement with Iran. Mr Sotanieh's comments came a day before poll-winner Mahmoud Ahmadinejad, an outspoken antagonist of Western powers, was due to submit his cabinet for approval in parliament.

September deadline

US President Barack Obama said in January that his country was open to dialogue with Iran if its leaders "unclenched their fist". Washington offered talks on trade benefits if Iran stopped enriching uranium. Tehran has not given a direct response and has continued its expansion of enrichment, which could be harnessed for weapons production in the future.

Iran last held talks with the major powers, the US, China, Russia, France, Germany and the UK, in Geneva in July 2008. The Obama administration initially set a one-year deadline for reviewing an engagement policy with Iran, but brought it forward to coincide with the G20 summit in late September. Iran is currently under limited UN sanctions on banking, trade and other activities, as well as travel bans on some individuals involved in the nuclear programme. The US has not specified what tougher sanctions it might propose.

Source: http://news.bbc.co.uk/2/hi/middle_east/8207237.stm

Airborne anti-missile laser clears test



disclaimer: image is for illustration purposes only

Boeing and the U.S. Missile Defense Agency have moved closer to developing an airborne high-energy laser weapon that will shoot down an upcoming offensive missile.

The Boeing Co. said the successful first test involved firing the high-energy laser from a modified 747-400F into a calorimeter, also on board, to measure the power of the beam. The test took the aircraft from Edwards Air Force Base to the skies over the California High Desert.

Once there and while still in flight the ABL Jumbo unleashed its laser striking the calorimeter, allowing experts to determine how much more power will be required to make the weapon effective in combat. A Boeing statement in response to a United Press International query said the calorimeter or the "beam dump" — a wall of metal aboard the aircraft — was used to capture the laser energy and measure characteristics of the beam.

Asked if the laser will eventually be designed to respond to a hostile ground-to-air or air-to-air missile or a projectile weapon launched from a ship, Boeing said "the ABL program objective is to provide boost-phase missile defense capability. Further improvements are under development to track post-kill debris."

Analysts said the successful firing of the laser in flight has moved the development of the weapon closer to a demonstration flight when ABL shoots down an upcoming missile.

“This was a significant test of the Airborne Laser’s capabilities, demonstrating that the system has truly moved from the drawing board to reality,” said Greg Hyslop, vice president and general manager of Boeing Missile Defense Systems.

Michael Rinn, Boeing vice president and ABL program director, said the test showed that ABL was on track to shoot down a boosting ballistic missile in a demonstration planned for later in 2009.

After years of development, the team involved with the work is looking forward to perfecting what Boeing calls a “transformational and unique” weapon system, depicted in numerous movies and video games showing characters engaged in laser combat. It will be the first time a megawatt-class laser has been coupled with precise pointing and atmospheric correction in an airborne environment.

Once ABL is deployed in real-time defense systems, it will significantly change warfare, just as radar-beating stealth technology has transformed rules of engagement, analysts said. Unlike stealth technology, which began as a passive countermeasure against increasingly advanced detection technology, airborne laser offers both pre-emptive and offensive paths of development, analysts said.

As the tests continue the developers will be seeking to build ABL’s lethal capabilities and ABL’s applications in defense against aircraft, cruise missiles and surface-to-air missiles. The project is being developed by Boeing Integrated Defense Systems, a Boeing Co. unit that is the world’s largest manufacturer of military aircraft, with headquarters in St. Louis. It is a \$32 billion business employing 70,000 people worldwide. Although Boeing is the prime contractor, ABL’s development is very much the result of team work. Northrop Grumman designed and built ABL’s high-energy laser, Lockheed Martin developed the weapon system’s beam control and fire control system, and Boeing provided the battle management system.

Source: http://www.spacewar.com/reports/Airborne_anti-missile_laser_clears_test_999.html

Europe Could Face Iranian Missiles in 3-4 Years, Former Israeli Official Warns

Iran could produce ballistic missiles capable of reaching most of Europe within four years if it carried out a crash development effort, Israel’s former top missile defense official said yesterday.

“If they push it — put all the budget, put all the engineers — three or four years” is how long Iran would need to increase the range of its current ballistic missile to nearly 2,500 miles, placing London within reach, Uzi Rubin said. “Will they do it? I’m not sure.” The May 20 test-launch of the Sajjil 2 missile marked a “a technological and strategic breakthrough” for Tehran, Rubin added during a missile defense conference in Huntsville, Ala. “Based on its demonstrated achievement in solid propulsion and staging, Iran will face no technological challenges” in doubling the distance its missiles can deliver 1-ton warheads, he said.

The U.S. Air Force National Air and Space Intelligence Center has determined that should Iran receive assistance from other states, it could within six years

possess an ICBM that could reach the United States. “The predictions (about Iran’s growing missile reach) are coming true, perhaps sooner than anyone thought,” Rubin said. “There was an underestimation of Iranian capability.”

The Iranian missile development predicted by Rubin “doesn’t sound crazy if Iran poured resources into it,” said David Wright, a missile defense analyst with the Union of Concerned Scientists. “But there is a lot we don’t know about the program, and technical problems could stretch out the time.” Iran would need at least six years to be able to place a nuclear warhead on a missile, according to analysts. Tehran says it’s nuclear program has no military component.

Source: http://gsn.nti.org/gsn/nw_20090821_9557.php

Iran Official Denies He Made Nuclear Talks Statement

A senior Iranian official has denied he had made any statement saying Tehran was ready for talks with the West on its disputed nuclear program, state television reported.

The same television network earlier said the official — Iran’s envoy to the UN nuclear watchdog, Ali Asghar Soltanieh — “announced Iran’s readiness to take part in any negotiations with the West based on mutual respect.” But it later quoted Soltanieh, Iran’s International Atomic Energy Agency (IAEA) representative, as saying he had not given any interviews or made any comments on the issue, without elaborating where the initial report came from. “Iran’s main policies are not changed and that is to pursue its peaceful nuclear activities within the framework of the IAEA,” Soltanieh said.

U.S. President Barack Obama has given Iran until September to take up a six-power offer of talks on trade benefits if it shelves sensitive nuclear enrichment, or face harsher sanctions.

Iranian officials have made statements in the past about possible discussions on Tehran’s nuclear activities based on mutual respect and without preconditions, while vowing not to back down in the row with the West. But political turmoil in the Islamic state following its June election clouded prospects for dialogue.

‘National Interests’

The West suspects Iran of seeking to build nuclear weapons. Iran, the world’s fifth-largest oil exporter, says its program is aimed at peaceful power generation and has ruled out suspending or freezing its activities. The poll and its turbulent aftermath have plunged Iran into its biggest internal crisis since the 1979 Islamic Revolution, exposing deepening divisions within its ruling elite and also further straining relations with the West.

Obama’s offer of engagement with Iran if it “unclenched its fist” ran into trouble after Iran accused the United States and other Western nations of inciting protests after the election, and Washington strongly condemned the government’s crackdown. Iranian President Mahmud Ahmadinejad has signaled a tougher approach toward the West, declaring last month that his next government “would bring down the global arrogance,” a term used to refer to the United States and its allies.

Ahmadinejad's reformist opponents say the June vote was rigged to secure his reelection. He denies it. The last time Iran held talks with major powers on its nuclear program was in July 2008 in Geneva. The six powers involved in the issue are: United States, China, Russia, France, Germany and Britain.

Source:http://www.rferl.org/content/Iran_Official_Denies_He_Made_Nuclear_Talks_Statement/1802448.html

UN Watchdog Hiding Evidence on Iran Nuclear Program: *Barak Ravid*

The world's nuclear weapons watchdog is hiding data on Iran's drive to obtain nuclear arms, senior Western diplomats and Israeli officials told Haaretz.

The officials and diplomats said that the International Atomic Energy Agency under Director General Mohamed ElBaradei was refraining from publishing evidence obtained by its inspectors over the past few months that indicate Iran was pursuing information about weaponization efforts and a military nuclear program.

ElBaradei, who will soon vacate his post, has said that the agency does not have any evidence that suggests Iran is developing a nuclear weapon. But the sources told Haaretz that the new evidence was submitted to the IAEA in a classified annex written by its inspectors in the Islamic Republic. The report was said to have been signed by the head of the IAEA team in Iran.

The classified report, according to the sources, was not incorporated into the agency's published reports. The details, they said, were censored by senior officials of the IAEA in the organization's Vienna headquarters. American, French, British and German senior officials have recently pressured ElBaradei to publish the information next month in a report due to be released at the organization's general conference.

"We expect the details to appear in the new report and to be made public," a senior Western diplomat told Haaretz. The efforts to release the allegedly censored report is being handled in Israel by Dr. Shaul Horev, director general of the Israel Atomic Energy Commission, and the Foreign Ministry. Asked about this sensitive subject, several Israeli diplomats declined to comment. The Prime Minister's Bureau also declined to comment, but the report was not denied.

Israel has been striving to pressure the IAEA through friendly nations and have it release the censored annex. It hopes to prove that the Iranian effort to develop nuclear weapons is continuing, contrary to claims that Tehran stopped its nuclear program in 2003. A confirmation of these suspicion would oblige the international community to enact "paralyzing sanctions" on Iran.

Throughout his term, Israel has accused ElBaradei of not tackling the Iranian nuclear issue with sufficient determination. As the end of his term in December nears, Israeli diplomats are concerned that he will become less responsive and continue to hide the classified report. Jerusalem is hoping, however, that his successor, Japanese diplomat Yukiya Amano, will take up a tougher line on the Iranian nuclear program.

In its recent references to Iran, the IAEA criticized Iran for barring inspectors

from its nuclear facilities, but did not accuse Tehran of developing nuclear weapons. Most of the reports were concerned with efforts to enrich uranium or to produce heavy water, without making conclusions as to where these resources might be applied.

The international community is expected to examine the issue of nuclear proliferation during three major international conferences over the next six months. On September 14, the IAEA general convention will commence in Vienna, where the next report on the Iranian nuclear program will be officially presented. On September 24, the UN Security Council will meet for a special discussion of weapon control and nuclear weapons proliferation, at the initiative of U.S. President Barack Obama. Obama is also calling an international conference on the security of nuclear installations in Washington on March 9, 2010.

Source:<http://www.haaretz.com/hasen/spages/1108564.html>

Iran Ready to Hold Nuclear Talks With Western States ‘without Preconditions’

The Bushehr nuclear power plant in southern Iran while under construction file a top Iranian nuclear official says Tehran is ready to hold talks with Western nations on its disputed nuclear program “without preconditions.”

Iranian state media quoted Iran’s envoy to the UN nuclear agency, Ali Asghar Soltanieh, as saying “negotiations without preconditions is Iran’s main stance on the nuclear issue.” Iranian officials have made similar statements in the past about possible talks on Tehran’s nuclear activities, while vowing not to back down in its dispute with the West. The United States and other Western nations have accused Iran of working to develop a nuclear weapon. Iran says the purpose of its atomic program is to produce electricity.

Washington has given Iran until the opening of the U.N. General Assembly in September to take up an offer from six Western nations to discuss trade benefits if it freezes uranium enrichment. Enriched uranium is needed to make nuclear weapons. The U.S. says Iran could face harsher international sanctions if it refuses to hold talks.

Iran said earlier this month that it asked the International Atomic Energy Agency to propose a ban on armed attacks against nuclear facilities. It says the issue of protecting nuclear installations is of urgent concern for all countries. Israel, which sees Iran’s atomic program as a growing threat, has not ruled out military strikes on Iran’s nuclear facilities. The IAEA passed a resolution in 1990 banning strikes on nuclear facilities devoted to peaceful purposes, but Iran says it is important to have a fresh proposal on the issue.

Source:<http://www.turkishweekly.net/news/87137/-iran-ready-to-hold-nuclear-talks-with-western-states-without-preconditions-.html>

Israeli Envoy Says No Plans to Strike Iran Nuclear Sites

Israel’s ambassador to the United States said on Sunday that his country was not planning an attack on Iran’s nuclear facilities.

In an interview with CNN, Michael Oren also said that Israeli Prime Minister Benjamin Netanyahu's government supported US President Barack Obama's outreach toward the Islamic Republic. Asked about suggestions that Israel was likely to attack Iran before the end of this year, Oren said: "I don't think it's true. I think that we are far from even contemplating such things right now." "The government of Israel has supported President Obama in his approach to Iran – the engagement, the outreach to Iran," he added.

Israel, the United States and its European allies suspect Iran is using the guise of a civilian nuclear program to acquire a nuclear weapons capability, a charge Tehran denies.

The United States and Israel have not ruled out a military strike on Iran's nuclear facilities if diplomatic measures fail to resolve the ongoing nuclear dispute. Oren also dismissed remarks that Israel was uncomfortable and nervous about Washington's engagement with Tehran.

"We were, but we were greatly comforted during the prime minister's Netanyahu visit here [Washington] in May, when the president told him, assured him, that there would be a serious reassessment of the policy before the end of the year," he told CNN. He said that Israel was "further reassured" since the Obama administration said that it was giving Iran until late September to respond to an offer of talks on its nuclear program, or face action, including tougher sanctions. Iran is already under three sets of United Nations Security Council sanctions for defying international calls to suspend its uranium enrichment program.

Source:http://televisionwashington.com/floater_article1.aspx?lang=en&t=1&id=13167

Pakistan feels heat from nuclear powers over talks block

Pakistan came under severe pressure from the major nuclear powers to end its defiance of 64 other countries in blocking international disarmament talks.



AFP file image

Despite warnings that the blockage could discredit the world's principal disarmament forum, Pakistan's ambassador Zamir Akram held firm against an unusual joint offensive by Britain, China, Russia and the United States.

Citing unspecified national security concerns, Pakistan has been alone in stalling since the 65 states took a landmark decision in May to break more than a decade of deadlock in the Conference on Disarmament (CD) by agreeing on a work plan for 2009.

US representative Garold Larson on Thursday criticised the blockage as "procedural fault finding," underlining that there was room to deal with national security issues in the talks once they get under way.

"We therefore are left wondering as to the motivations of those who have blocked agreement since we reconvened in early August," he said. "The international community is watching and will draw the correct conclusions as to whether the CD is to regain its relevance

and stature as the world's multilateral negotiating forum, or revert to inertia and the failed patterns of the past," Larson added.

China's ambassador Wang Guangya called for work to start as soon as possible: "We must do it, we must start work." Russian ambassador Valery Loschinin said: "In our view this is a compromise that is sufficiently balanced and should be acceptable to everyone." "The CD is on a cliff," Japan's ambassador Akio Suda commented.

But Akram reiterated his country's objections to part of the structure of the talks that has been accepted by all the other countries in recent weeks, stating: "That remains our official and formal stance." The talks are slated to include full "negotiations" on an international ban on the production of new nuclear bomb-making material, as well as discussions on full nuclear disarmament, the arms race in outer space, and security assurances for non-nuclear states.

Source: http://www.spacewar.com/reports/Pakistan_feels_heat_from_nuclear_powers_over_talks_block_999.html

Japan opposition leader makes pledge on US nukes

Japan's opposition leader said Sunday he was determined to make President Barack Obama promise not to let US forces bring nuclear arms onto Japanese territory, one week ahead of general elections.



Yukio Hatoyama. Photo courtesy AFP.

"I wouldn't let them in," said Yukio Hatoyama, seen as the likely new prime minister, as he appeared in a television debate before elections that are widely expected to see the end of the ruling party's long reign. "I can only work with resolution. I would hold out until I make him okay it (a ban)," said Hatoyama, who may meet Obama in the United States in September. He added he was "confident" on persuading the US president.

Although not inscribed in law, Japan in 1968 adopted the "three non-nuclear principles" — not possessing or producing nuclear weapons, or allowing them on its territory. Suffering devastation from the two US atomic attacks towards the end of World War II, Japan regularly speaks out in favour of a nuclear-free world. But former top diplomats have told local media that a secret pact allowing visits by US ships carrying nuclear arms exists.

Hatoyama told the debate that it was "highly probable" that the two countries have the secret accord, although the Japanese government has denied this. The opposition leader has said he would visit the US for UN general assembly meetings and a global finance summit next month if he comes to power. Japanese media said a Japan-US summit would likely take place around September 23.

Source: http://www.spacewar.com/reports/Japan_opposition_leader_makes_pledge_on_US_nukes_999.html

Pentagon Seeks to Fill Missile Surveillance Gap by 2016

The United States plans to eliminate a blind spot in its space-based missile tracking capability within the next seven years, *Aviation Week* reported yesterday.

An enemy ballistic missile now could be spotted by the Space-Based Infrared System or the Defense Support Program satellites shortly after launch, but the Defense Department must prepare the Space Tracking and Surveillance System for tracking a missile immediately after its boost phase, said Missile Defense Agency head Lt. Gen. Patrick O'Reilly.

The Space Tracking and Surveillance System demonstration satellites, slated for launch in September, are intended to prove the effectiveness of space-based missile-tracking technology ahead of the wider system's production and deployment. The United States must eliminate the tracking gap to improve its odds of shooting down enemy missiles as they ascend, O'Reilly said. Improving U.S. capabilities to target missiles early in flight was one goal named in the Missile Defense Agency's fiscal 2010 budget request. O'Reilly hopes his agency can increase the velocity of U.S. missile interceptors by 2020. Such an improvement would help interceptors reach enemy missiles early in their flight, he said.

Source: http://gsn.nti.org/gsn/nw_20090821_3847.php

Controlling Loose Nukes: *Kenneth N. Luongo*

A prerequisite for the abolition of nuclear weaponry is that international leaders must effectively and comprehensively address the evolving global nuclear dangers of the 21st century. Thus, they should launch a Nuclear Security Initiative that would include a comprehensive suite of next-generation nuclear security policies and tools.

The new realities are that non-traditional influences, including global energy demand, climate change concerns, new economic development forces and technological advances are increasingly reshaping the nuclear security environment. Adapting nuclear proliferation prevention strategies and programs to this new environment will require significantly increasing programmatic budgets, creating a robust globalized agenda, harmonizing US and international programs, establishing new partnerships with nongovernmental partners, removing legal impediments to action and utilizing new tools to defeat new threats.

In the short-term, the core international nuclear security programs, including the Cooperative Threat Reduction (CTR) program, should be strengthened with new metrics, expanded authorities, and increased budgets. The budget ramp-up should be occurring now to support President Obama's efforts "to secure all vulnerable nuclear material around the world within four years" and prevent nuclear terrorism. Also, the US agencies participating in global nuclear security activities should be assigned specific roles and responsibilities so that the agency best suited to carry out a particular task can do so as rapidly and successfully as possible. These agencies also need some unrestricted funding and the latitude

to quickly reprioritize their activities based on changing conditions. Furthermore, US programs should be able to accept non-US contributions for nuclear nonproliferation activities and have the legal flexibility to address nuclear challenges in all foreign countries.

The Global Nuclear Security Initiative also needs to incorporate new stakeholders. For instance, a Nonproliferation Enterprise Fund could be created to allow government programs to partner with the nongovernmental and university communities to provide fresh nonproliferation analyses. Part of this Fund could also be dedicated to the development of the next generation of nuclear security and nonproliferation experts who would perform a period of government service in exchange for educational and training support.

There is also a need to more robustly engage the private sector. For example, the nuclear energy industry could be asked to contribute a portion of the cost of each new nuclear plant built to a fund that supplements the IAEA safeguards budget or other nonproliferation activities. Establishing such a fund could yield millions in new funding for global security enhancements, recognize explicitly the security implications of the expansion of nuclear power, and provide a reputational benefit to the nuclear industry.

In addition to the administration's goals to ratify the Comprehensive Test Ban Treaty and negotiate a follow-on to START, there are a number of other internationally-focused nonproliferation and disarmament opportunities that the US could lead as part of its global nuclear security strategy. In advance of the 2010 Nuclear Non-Proliferation Treaty (NPT) Review Conference, the US could coordinate an official statement by the five NPT nuclear weapon states announcing that they have ended the production of fissile material for weapons purposes. This would formalize the unofficial moratorium that is already observed and could be a first step toward a global fissile material cut off treaty.

Another option to consider is to extend the G-8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction for another 10 years and reconceptualize it to have global and operational focus. For example, given the unpredictable nature of weapons of mass destruction (WMD) crises, establishing a multilateral WMD rapid reaction force under the G-8 (with provisions for the participation of non-G-8 nations just as the Global Partnership currently allows) could lay the groundwork for effective, coordinated multilateral action to quickly and effectively respond to a WMD crisis or disarmament opportunity anywhere on the globe.

The Obama administration and other international leaders must think beyond the incremental expansion and adaptation of existing arms control and threat reduction programs as they work to develop a next-generation suite of nuclear security and nonproliferation policies. The Global Nuclear Security Initiative could serve as an effective and robust element in any nuclear weapons elimination strategy.

Source: <http://www.partnershipforglobalsecurity.org/8182009102144AM.html>

Italy to Sign Nuclear Protocol with U.S.

Italy will sign a nuclear protocol with the United States next month which will give American companies the chance to compete to build

nuclear power stations in Italy, the country's industry minister told a newspaper. Claudio Scajola told La Stampa newspaper in an interview the protocol would cover research and development and "give American companies the chance to compete to build one or more of the 8-10 power stations which the government plans in the next 20 years."

He said he would travel to Washington at the end of September to sign the protocol. Italy decided on a return to nuclear power last month after quitting two decades ago and the government is currently drawing up rules for reviving the sector. Italy is the only Group of Eight (G8) industrialised nation without nuclear power and relies on oil and gas imports for about 80 percent of its energy needs.

Scajola said that the four countries involved in construction of the ITGI pipeline, which will bring Azeri gas to Italy via Turkey and Greece, will meet in Istanbul in October to finalise discussions. "It's a project we have been working on for four years and it is much further advanced than South Stream or Nabucco," Scajola told La Stampa.

The South Stream pipeline will bring Russian gas under the Black Sea to south-eastern Europe and is a venture between Italian oil group Eni (ENI.MI: Quote, Profile, Research) and Russia's Gazprom. Nabucco is backed by the European Union and will transport Caspian gas to central Europe.

Source:<http://in.reuters.com/article/oilRpt/idINLI974620090818>

Russia and Belarus Plan NPP Together

Russia has cooperated with Belarus for the initial text of the intergovernmental agreement on constructing the Belarusian nuclear power plant, Interfax reported. The document will be presented to Russian and Belarusian ministries. The two countries have also signed an action plan for 2009.

A feasibility study of prospective investments in the Belarusian nuclear plant will be discussed soon at Atomenergoproyekt, the general designer of the project. It is planned to construct two power units, each with the capacity of 1,200 megawatts, in the Grodno region.

Russia and Belarus are still required to coordinate on financial terms of the project. Interfax reported. In June 2009, Belarus asked Russia to consider a possible loan of \$9 billion for the nuclear power project and related infrastructure. No decision has yet been made.

Source:<http://www.neimagazine.com/story.asp?sectionCode=132&storyCode=2053885>

Stall and spin in Russian air force reform: *Roger N McDermott*

In a series of interviews in August, the Russian Air Force (VVS) commander-in-chief, Colonel-General Aleksandr Zelin, outlined reform plans to enhance air power. He linked the reforms, including development of the new "S-500" air and space defense system, to the future "threat" posed by the United States' activation in January of the US Air Force Global Strike Command - a new organization that brings nuclear and conventional strike systems under a single command. Zelin also highlighted the need to reform and modernize the VVS to deal with any local conflicts on Russia's periphery.

While much of what Zelin said related to the development of future platforms and their procurement by the VVS, he said little about what the government and top brass plan in the meantime. Zelin said the air force reform will be carried out in three stages, as it progresses towards a “permanent readiness” force by 2020.

This will focus on adding personnel, equipping them with the necessary weapons and hardware, and improving pilot training. He argued during a press conference in Moscow on August 11 that given the currently undermanned levels of VVS units, the air force cannot adequately fulfill tasks within a set time scale. Therefore, he said, “We are now going back to our Soviet-era practice.” Some elements of Zelin’s statements were in fact quite odd, such as his admission that by 2025 the air force will not be capable of adequately conducting operations in support of a local war, despite 17 years of “modernization”.

New priorities

On August 12, he elaborated on the upheaval that the reform agenda will bring to the air force. In setting up the *Novvy Oblik* (New Look) armed forces, he said the air force and air defense armies will be axed, giving way to new commands.

“The operational-strategic command of the air-and-space defense and the operational commands of long-range aviation and military-transport aviation, as well as the air force and air defense commands, have been included into the future combat composition of the air force,” he said.

The new organizational structure of the VVS will resemble closely the structure and composition of functional groups in wartime combat management. Zelin noted that aviation bases and brigades of the air-and-space defense units will be subordinated to the commands as tactical combined units. Zelin also claimed that in addition to these structural changes, more than half the VVS will be equipped with new or modernized aviation, while modern helicopters will account for a significant portion of the force. He said the VVS is receiving improved MiG-29s, MiG-31s, and Su-27 aircraft and that this will continue.

It is now awaiting the final testing of Kamov Ka-52 “alligator” helicopters, and Zelin said others are being developed on the basis of the Mi-8 and Mi-26. He stressed a design emphasis on light helicopters with around a 1,000 kilogram lift capacity. In relation to the aging strategic bomber fleet, he suggested that by 2015 one third of all aircraft will be modernized. The long-range bomber Tu-22M3, further developed as a deterrent against local wars and regional conflicts, will also be upgraded. “Due to its high flight standards, it will use various methods and tactics while working on ground and surface targets in a wide range of flight regimes,” Zelin said.

“The prospect of its further modernization involves a deep renewal of its avionics systems and the availability of smart weapons, based on guided air-to-surface bombs and missiles,” the general said. By 2015, 60% of the Il-76 military-transport aircraft, which will account for about 70% of the entire military-transport aircraft fleet, will also be modernized. They will have improved navigation and communications equipment and a longer service life. During his press conferences, Zelin was clearly more comfortable in talking about “future” air force development, deflecting attention from its urgency.

Procurement from abroad?

Since November 2008, Russian aircraft repair plants have been under the control of “Oboronservis”, which oversees the work of nine defense companies. The rationale behind this “optimization” was to free the Defense Ministry from “activities outside its area of responsibility” and to negate the impact of corruption among military officials. All repair and maintenance is at present overseen by an Oboronservis affiliate, OAO Aviaremont. Consequently, the maintenance and repair of air force hardware is the responsibility of a commercial company whose main concern is to maximize profits - not raise operational capabilities.

In this context, Zelin seemed particularly sensitive over the issue of unmanned aerial vehicles (UAV's), which he said must remain the responsibility of the VVS. But clearly there are problems surrounding their domestic development and procurement in sufficient numbers. Contracts for UAV's have been agreed with Israel, and he did not rule out seeking to procure more from foreign suppliers. Zelin suggested that the Russian defense industries will be able to supply the VVS with advanced UAV's by 2011.

On August 12, Zelin went into greater detail on the troubled fifth generation fighter - the Su-34, which he said was equal to two Su-27's. Its maiden flight will take place “in November, or maybe December”. “I think that this year we will take the aircraft into the air,” said Zelin, confirming that three fifth-generation jets had already been built, with the construction of a flying model already completed.

The Su-34, he said, will feature a “highly-intellectualized board, a circular information field and an all-angle field of fire”, and that it will be capable of destroying both air and ground targets in all weather conditions, in the day or at night. The Su-34, said Zelin, will be highly maneuverable and capable of flying at low speeds and high angles of attack and of sustaining supersonic speeds for long periods.

He said it will also be able to use landing strips as short as 300-400 meters for takeoff and landing, and feature low optical, infrared and radar signatures, “qualitatively new electronic equipment and maximum automation of flight processes”, and “high flight efficiency and safety”. However, Zelin said state trials will only begin in 2015, and he offered no comment on the timescale for introducing the aircraft in larger numbers into the VVS.

In reality, new equipment is simply not reaching the VVS in any significant quantity. Despite the high ideals offered by the reform agenda, it is clear that the VVS has made little tangible progress since its poor showing in the five-day war with Georgia in August 2008. That conflict exposed the overall ineffectiveness of an aging and cumbersome conventional force; the VVS losses notoriously included Tu-22M3 bomber sent on a reconnaissance mission staffed by a training crew, in the absence of sufficient trained pilots. Zelin, however, demonstrated a curious penchant for a revisionist reinterpretation of VVS failings in the war, even suggesting that its losses were not to be blamed on the air force. Zelin also wanted to stress his intention to preserve army aviation under VVS control.

Many challenges

The serial production of basic aircraft types for Russian military aviation needs has almost ceased since the early 1990s. This is compounded by problems within the Russian defense industries, and consequently a host of inter-related issues has beset the repair and maintenance of aircraft. Senior commanders report that no more than 30% of aircraft are operational. Shortages in spare parts are severe, and this is also apparent in the lack of equipment for operating and maintaining airfields, as well as the necessary numbers of drivers and technicians to service such equipment.

The lack of high-precision ordnance - air-launched cruise missiles (KRVP) and dirigible bombs - has been largely overlooked in favor of looking forward to a day when "modernization" will bring better times for the VVS. Indeed, the munitions arsenal of the air force has witnessed little improvement in the past decade. Long-range forces are equipped with Kh-55 and Kh-55SM cruise missiles that were developed in the early 1970s and mostly built in the 1980s and 1990s.

The standard-issue heavy ordnance in tactical aviation (which accounts for most of the VVS inventory) comprises free-fall bombs, and rockets designed and manufactured in the 1970s. Moreover, Zelin said Russian air force pilots at present fly an average of 60-70 hours annually, which represents an improvement on the lower standards of the 1990s but is less than half the North Atlantic Treaty Organization minimum of 180 hours, which is often much higher within many of the member states' air forces. The reduction in the numbers of flight personnel and improved fuel supplies has contributed to this higher figure.

Zelin admitted that young lieutenants currently fly an average of 20-30 hours annually, while they are faced with the prospect of serving in remote bases on no more than 15,000-20,000 rubles (US\$628) annually. On June 5, chief of the general staff Army-General Nikolai Makarov said at a press conference in Moscow: "Now we will have as many aviators as is allowed for by the amount of operational equipment. Then we will be able to give these aviators 200-220 hours of flying time per year, as is the case with air force pilots in leading nations. We are bringing 100% of our units to permanent readiness, instead of the former 17%." Judging from Zelin's comments, the VVS is certainly several years away from achieving these improved standards.

Back to the future?

The VVS underwent large-scale systemic structural reform in the late 1990s, yet today the air force is still confronted with the challenge of modernizing its aging platforms and procuring new aircraft. Zelin's recent public comments, while offering some inconsistencies and apparent slips from the Defense Ministry line on reform, largely serve to indicate that generally in the effort to reform the armed forces the focus is currently on personnel, rather than the hugely expensive issue of modernization.

This more expensive process seems likely to commence around 2011-12. In the meantime, there is a gap opening in Western and Russian understanding of these processes underway in the Russian air force, since the sources either reveal the mantra of the disaffected (retired officers) criticizing the reform agenda, or the unrealistic assertions of the service commander.

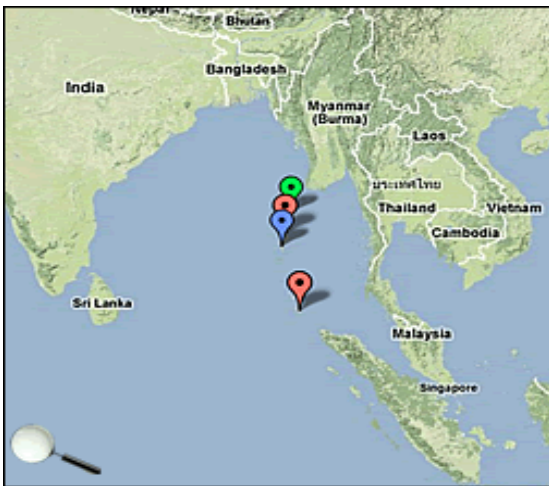
The VVS now faces the prospect of 11 years of reform and modernization, with all its inherent upheaval, change and being led by a commander who doubts whether it will emerge better equipped to conduct operations in a future local conflict.

Source: http://www.atimes.com/atimes/Central_Asia/KH22Ag01.html

Wary India frisks North Korean freighter: *Sreeram Chaulia*

After the international suspense thriller in June over the movements of the North Korean cargo ship *Kang Nam I* ended with the freighter beating a retreat and returning home, an equally intriguing case has emerged off the southern coast of India. Another North Korean vessel, the *Mu San*, is currently in the custody of Indian authorities after it dropped anchor without permission at Hut Bay, the entry point to India's Andaman and Nicobar Islands on August 6.

If the case of *Kang Nam I* was curious, the *Mu San* has its own mysteries that are deepening by the day. When the ship first approached Andaman and Nicobar, India's coast guards sent an aircraft overhead to communicate, but the North Koreans refused to respond. A Coast Guard ship then tailed it and found that the 39 North Korean sailors on board were unwilling to halt. On being approached, the *Mu San* attempted to escape and Indian authorities fired in the air. After a tense six-hour chase, the ship finally "obeyed" and was dragged to the nearby city of Port Blair for inspection.



According to the captured sailors, the ship was carrying 16,500 tons of sugar bound for Iraq - a fact confirmed by searching its contents. One theory being bandied about is that the craft decided to dock in India for purely commercial reasons after learning that New Delhi had just announced zero import duties on sugar, a commodity that has fallen short this year due to a failed crop. Sugar as merchandise on the high seas is a seemingly innocuous mission, except that the ship's crew frequently changed their versions when interrogated.

The claim that they came to make a quick killing on eased tariffs did not dovetail with the other assertion of the ship's captain that they changed direction towards the Andaman Islands because of "mechanical failure". Moreover, the other stops the vessel made along the way were erratic and suspicious.

Indian officials have learned that the *Mu San* docked unscheduled in Singapore without following the routine passport stamping procedure. Investigators also say that the same ship had in the past "made several voyages between North Korea and China without maintaining proper records". As North Korea's nuclear program - which is now a matter of global concern and subject to United Nations sanctions - has been a beneficiary of Chinese technology and materiel transfer, India's military and civilian intelligence agencies rushed to the site where the *Mu San* is being held.

As with the *Kang Nam I*, the proliferation potential of the *Mu San* had to be thoroughly checked by India owing to obligations under UN Security Council Resolution 1874, which encourages member states to search North Korean cargo on land, sea and air for fissile substances or related technologies. When the detention of the *Mu San* was publicized, US ambassador Philip Goldberg, the coordinator for implementing Resolution 1874, said in Washington that the Indians “might have acted under international law or their own domestic laws”. The ambiguity stems from New Delhi’s own reticence about being openly seen as participating in a US-driven agenda to beef up the sanctions regime against Pyongyang after it conducted its second nuclear test in May.

When North Korea triggered its latest nuclear explosion this year, India condemned it as “unfortunate” and “a development of serious concern”. Yet, New Delhi has had reservations about participating in previous American-led ventures to actively intercept and inspect ships of “rogue states” that could be ferrying nuclear parts or designs.

When the George W Bush administration launched the multi-national Proliferation Security Initiative (PSI) in 2003 to interdict third-country ships for suspected nuclear material, India opted out, even though some 90 states signed on. New Delhi was worried that joining the PSI would raise questions about the international legality of the proposed strong-arm actions and also that it might oblige India to open its own nuclear facilities to comprehensive safeguards inspections by the International Atomic Energy Agency.

Although the PSI was primarily aimed at pre-empting the North Korean model of nuclear and missile component smuggling using civilian ships as covers, India was concerned that the phrase “states of proliferation concern” could one day be turned against it. Given the continued tug-of-war between American non-proliferation lobbies and India over the privileges and conditions of the civilian nuclear deal inked last year, New Delhi has again not shown any overt enthusiasm for muscular non-proliferation approaches outlined in Resolution 1874.

All that the Indian side will admit presently is that the *Mu San* will be booked under the Indian Maritime Act for illegal trespassing. While it is difficult to decode whether India has finally overcome its reservations to PSI-like coalitions and entered a similar arrangement with the US through the backdoor via the *Mu San*, the China factor features uppermost in New Delhi’s approach to North Korea’s sanctions-busting oceanic nuclear commerce. Indian strategists have been ringing alarm bells at China’s maritime reconnaissance and intelligence station on the Coco Islands, which were leased by Myanmar in the early 1990s. These Islands are an ideal location for China to monitor Indian naval and missile launch facilities in the Andaman and Nicobar Islands as well as the Indian Navy’s maneuvers throughout the eastern Indian Ocean.

The fact that the *Mu San*, with a history of traveling back and forth to China, approached the strategically sensitive Andaman Islands is an angle that India’s external intelligence agency, the Research and Analysis Wing (RAW), will necessarily probe. Apart from China, India also has memories of North Korean ships transferring missile and nuclear parts to Pakistan and Iran. The clandestine network of disgraced Pakistani nuclear scientist Abdul Qadeer Khan, who ran an extended “nuclear Wal-Mart”, treated North Korea as a lynchpin. In 1999,

India actually seized a cache of North Korean missile fragments headed for Pakistan when the ship docked at a port on India's western coast.

After thorough frisking, the *Mu San* has been cleared of any weapons of mass destruction, but India's naval sentinels are still puzzled why one of its detained crew members was a North Korean government agent. Why should a merchant navy ship have on board a state official? The answers are hard to come by, as only one of the North Korean sailors is said to be conversant in English.

Unlike the American stalking of *Kang Nam I*, which drew outrage from Pyongyang as one step prior to a declaration of "war", the reaction of the North Korean government to the grounding of the *Mu San* has been dead silence. The incident does not contain enough incendiary circumstances to blow out into a major diplomatic row or a confrontation between the governments of North Korea and India, which anyway have minimal relations. But by taking the bull by the horns and not releasing the ship nearly two weeks after it was seized, New Delhi has opened new possibilities for cooperation with Washington and also sent unmistakable signals to hostile proliferation racketeers and intelligence agencies not to snoop around its waters.

Source: http://www.atimes.com/atimes/South_Asia/KH21Df03.html

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This newsletter is part of the project "Emerging Nuclear Order in Asia: Implications for India" sanctioned to us by Department of Atomic Energy-Board of Research in Nuclear Sciences (DAE-BRNS).

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