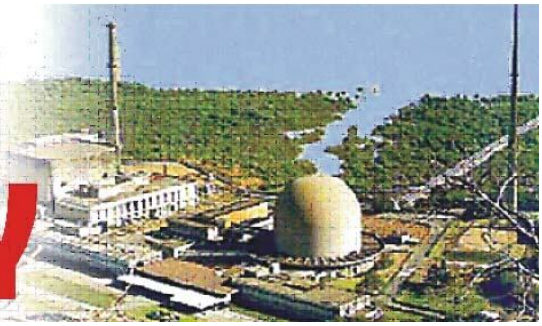
NUCLEAR SECURITY



A FORTNIGHTLY NEWSLETTER ON NUCLEAR DEFENCE, ENERGY AND PROLIFERATION FROM CENTRE FOR AIR POWER STUDIES

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STATEMENT

UN Secretary-General's Message to the Opening Plenary of the NPT RevCon 2015

We all must remember that a world free of nuclear weapons is a critical global public good that benefits all nations. This Review Conference is to ensure that the Treaty retains its central role in our collective security. It is to chart a clear path forward for what the NPT regime will be in 2020 – the fiftieth anniversary of its entry into force.

I call upon States parties to work hard and constructively in the coming weeks to produce an outcome that strengthens the Treaty. We need an outcome that promotes its universality, ensures compliance by all Parties with all provisions, and reinforces the NPT's principal goals which are to prevent the spread of nuclear weapons and bring about their elimination. I urge you to build on common ground, be inclusive and show flexibility.

I encourage all States parties to deepen engagement with civil society groups. They play an important role in strengthening NPT norms and promoting disarmament. In the lead up to this Review Conference, the President of the 2015 NPT RevCon and the UN have received several petitions from civil society groups calling for the successful conclusion of this session and the elimination of nuclear weapons.

These petitions have received millions of signatures from concerned citizens across the world. This is a powerful reminder of the hopes and expectations of the peoples we are here to serve. I thank the many individuals and organizations that have done so much to champion disarmament over the years. I pledge my full support for their principled commitment to this cause.

In 2010, agreement on the 64-point Action Plan, together with progress on the 1995 Resolution on the Middle East

We all must remember that a world free of nuclear weapons is a critical global public good that benefits all nations. This Review Conference is to ensure that the Treaty retains its central role in our collective security. We need an outcome that promotes its universality, ensures compliance by all Parties with all provisions, and reinforces the NPT's principal goals which are to prevent the spread of nuclear weapons and bring about their elimination.

after 15 years of inaction, resulted in a successful Review Conference. Agreement on the Action Plan represented a high point of international consensus, delivering a road-map for achieving the Treaty's aims.

This Conference must now demonstrate how and when the Action Plan will be implemented – or it could risk fading in relevance. Such progress demands that every States Party comply with its obligations under each of the Treaty's mutually reinforcing pillars.

At its heart, the NPT is a grand bargain underpinned by the symbiotic relationship between, on the one hand, nuclear disarmament and, on the other, non-proliferation. One cannot be advanced without the other. Progress on both is in everybody's interest.

Since the last Review Conference, the danger posed by nuclear weapons is still there. Proliferation challenges persist, including with respect to the DPRK. Yet, important understanding between the E3+3, or P5+1, and Iran proves that such challenges can be dealt with by diplomacy. A final agreement, verified by the IAEA, could help ease serious regional security concerns, apart from making progress on non-proliferation.

A Middle East zone free of nuclear weapons and other weapons of mass destruction can provide substantial benefits, in addition to the disarmament and non-proliferation gains that would flow from such an agreement.

It is disappointing that too little progress has been made, despite the determined efforts by the facilitator, Ambassador Laajava, and the expectations of the international community for results. The Review Conference must focus on seeking means to enable the States of the region to move forward on this issue with a shared vision and a shared purpose.

Between 1990 and 2010, the international community took bold steps towards a nuclear weapon-free world. There were massive reductions in deployed arsenals. States closed weapons facilities and made impressive moves towards more transparent nuclear doctrines.

I am deeply concerned that over the last five years this process seems to have stalled. It is especially troubling that recent developments indicate that the trend towards nuclear zero is reversing. Instead of progress towards new arms reduction agreements, we have allegations about destabilizing violations of existing agreements.

Instead of a Comprehensive Nuclear Test-Ban Treaty in force or a treaty banning the production of fissile materials for nuclear weapons, we see expensive modernization programmes that will entrench nuclear weapons for decades to come. Instead of pursuing proposals to accelerate nuclear disarmament, including my Five Point Plan, there has been a dangerous return to Cold War mentalities.

This reversal is a regression for our world. I call on leaders to abandon short-sighted political posturing and instead embrace a bold and global vision that meets the demands of humanity. True national security can only be achieved outside and away from the shadow of the nuclear threat. This shadow must be removed for the sake of present and future generations.

This is the message of the Hibakusha who survived the nuclear attacks seventy years ago this August in Hiroshima and Nagasaki. I challenge anyone who doubts the urgency of nuclear disarmament to listen to their experiences. I defy anyone to look into the eyes of these courageous and resilient individuals and say you know better what nuclear weapons bring. They are here as a sober, living reminder of the horrific humanitarian consequences of nuclear weapons and of the urgent need for their abolition. I thank these witnesses for their participation and urge this Conference to heed their warnings and deliver results.

In this effort, I am heartened by encouraging growing momentum for humanitarian considerations to be placed at the centre of disarmament deliberations. The humanitarian movement has injected the moral imperative into a frozen debate. This imperative should be the subject of serious consideration by the Review Conference.

The next few weeks will be challenging as you seek to advance our shared ambition to remove the dangers posed by nuclear weapons. This is a historic imperative of our time. I call on you to act with urgency to fulfil the responsibilities entrusted to you by the peoples of the world who seek a more secure future for all.

Source: http://www.un.org/sg/statements/index.asp?nid=8581, 27 April 2015.

OPINION – Fransico Galamas

Asia and the 2015 NPT Review Conference

Can the NPT Review Conference help prevent future crises from escalating? Since its ratification in 1970, the NPT has become one of the main pillars of the nuclear nonproliferation mechanisms. In 2015, state parties to the NPT gather in a RevCon to ensure that both the NPT provisions and the major nuclear proliferation challenges are being properly addressed. Given that seven of the world's nine nuclear powers are in Asia, it is important to understand the main nuclear proliferation challenges that this continent presents to the 2015 RevCon.

One way to overcome the current impasse could involve the restart of the Six-Party Talks with more flexible preconditions that do not require the complete dismantlement of North Korea's nuclear infrastructure. It may not be a complete solution, it is certainly better than dealing with a North Korea steadily moving forward on its nuclear weapons program.

Some of the unavoidable topics surrounding this diplomatic assembly will be the ongoing disputes involving nuclear programs in two countries: Iran and North Korea. Pyongyang acceded to the NPT in 1985, but in 2003, after dismissing the Agreed Framework, it withdrew and resumed its nuclear program. Twelve years, numerous ballistic missile tests, and three nuclear tests later, we are likely to witness a 2015 RevCon making renewed calls for Pyongyang to halt all nuclear and ballistic missile activities.

While such calls are hardly unprecedented, it is important for parties to the NPT to understand that the more evolved the North Korean nuclear and ballistic missile program gets, the more difficult the negotiations become and the less credible the nuclear nonproliferation mechanisms look to the international community. One way to overcome the current impasse could involve the restart of the Six-Party Talks with more flexible preconditions that do not require the complete dismantlement of North Korea's nuclear infrastructure. It may not be a complete solution, it is certainly better than dealing with a North Korea steadily moving forward on its nuclear weapons program.

Another very important issue for the NPT concerns the Iranian nuclear program. ... Even though a final agreement would certainly constitute an important triumph for nonproliferation diplomacy, caution is needed to fully understand how the region may react to a final agreement. Not only has Israel publicly stated its opposition to any deal that might see Iran retain any nuclear infrastructure and indigenous uranium enrichment capability, the reaction of other countries in the region namely Saudi Arabia remains a question mark. In recent years, Riyadh has made moves to start its own civilian nuclear program, including agreements with the French nuclear companies Areva and EDF. Although the legality of civilian nuclear programs is not questioned by the NPT provisions, accounts report a Saudi interest in uranium enrichment technology that could indicate nuclear non-civilian interest.

As one nuclear crisis moves closer to a diplomatic resolution, it is imperative that the NPT's nuclear weapons states are able to contain any repercussions that emanate from the Iranian nuclear resolution and prevent any additional erosion of the NPT's credibility.

Moreover, in 2013 the BBC reported on a Saudi Arabia-Pakistan nuclear pact, yet unconfirmed, in which Islamabad manufactures a nuclear weapon for the Saudis. As one nuclear crisis moves closer to a diplomatic resolution, it is imperative that the

NPT's nuclear weapons states are able to contain any repercussions that emanate from the Iranian nuclear resolution and prevent any additional erosion of the NPT's credibility.

During the last RevCon, in 2010, one of the most important planned initiatives envisioned the implementation of a Weapons of Mass Destruction Free Zone (WMDFZ) in the Middle East. In fact, this proposal was presented at the 1995 NPT RevCon but in 2010 the idea found renewed support. Although Syria's accession to the Chemical Weapons Convention (CWC) and Iran's suspension of most of its nuclear activities may sound like good omens for the establishment of a WMDFZ in the Middle East, the chances of an agreement remain remote. Aside from the Saudi interest in nuclear infrastructure and its alleged agreement with Pakistan, Israel remains the sole nuclear power in the Middle East and a state that is not party to the NPT. Even taking into consideration its policy of nuclear ambiguity, news related to the acquisition of new nuclear-capable submarines make clear that Israel intends to keep its nuclear weapons and reinforce its second strike capability, which places an added hurdle in front of this disarmament effort. Other challenges for a WMDFZ are linked to the Egyptian lack of accession to the CWC and the Biological and Toxin Weapons Convention (BTWC). Hence, in spite of several meetings held over the past few years to debate the adoption of a WMDFZ, there is no evidence of progress.

Although they are not parties to the NPT, previous RevCons have always stressed the need to persuade India and Pakistan to join the treaty. These outreach initiatives should be seen as one of the most important objectives for the NPT's future, as both countries are strengthening their nuclear arsenals with significant strategic implications across the region. Pakistan, for instance, is believed to be developing the nuclear-capable short-range ballistic missile called the Nasr, estimated to have a range of 60 kilometers. With operational tactical nuclear weapons, Islamabad may find itself lowering the threshold of nuclear weapons use as this particular type of weapon is seen as more likely to be used accidentally or without authorization, and blurs somewhat the distinction between conventional and nuclear weapons.

The NPT RevCon must start to think about tangible actions that could allow India and Pakistan to address their security concerns and initiate confidence-building measures that can defuse the ongoing nuclear arms race in South Asia, with the ultimate goal of bringing both countries into the NPT. Beijing and Moscow, probably in an effort to circumvent missile interceptor systems deployed to different regions, are also "MIRVing" some of their ballistic missiles or have improved their missile shield countermeasures, actions that may well ignite a qualitative nuclear arms race among nuclear powers in Asia.

India, meanwhile, has invested heavily in its nuclear military nuclear capabilities, for instance modifying the Agni-V ICBM to enable it to carry MIRV warheads. By adopting these particular warheads, India risks destabilizing the nuclear deterrence dynamic with its nuclear rivals Pakistan and China as increasing the number of warheads no a single missile generates additional benefits in a first strike. With this scenario in mind, the NPT RevCon must start to think about tangible actions that could allow India and Pakistan to address their security concerns and initiate confidence-building measures that can defuse the ongoing nuclear arms race in South Asia, with the ultimate goal of bringing both countries into the NPT.

A nuclear weapons modernization process is also ongoing both in Russia and China, as well as in the other NPT recognized nuclear powers (P5). Beijing and Moscow, probably in an effort to circumvent missile interceptor systems deployed to different regions, are also "MIRVing" some of their ballistic missiles or have improved their missile shield countermeasures, actions that may well ignite a qualitative nuclear arms race among nuclear powers in Asia. Article VI of the NPT clearly states that "Each of the Parties to the Treaty undertakes to pursue negotiations in good

faith (…) on a treaty on general and complete disarmament under strict and effective international control." Even taking into consideration the fact that the overall number of nuclear weapons has been decreasing, the nuclear modernization programs bluntly demonstrate a lack of interest in a true nuclear disarmament process, at least in the short and medium terms. Consequently, this topic is likely to be the subject of considerable debate during the RevCon and may call into question the credibility of the P5's nuclear nonproliferation proposals.

Notwithstanding the emergence of new security issues and the Global Zero Movement over the last years, the nuclear factor remains a central element of international politics. Given the globally devastating effects of nuclear weapons use, it is essential that the NPT remains a thriving force behind nuclear nonproliferation efforts. However, the states present at the RevCon must be aware that the usual diplomatic jargon will not do; they must rather establish concrete plans capable of mitigating regional disputes among nuclear powers or other issues that can undermine nuclear nonproliferation endeavors. For Asian participants, the RevCon could be an opportunity to create new confidence building mechanisms among nuclear weapons countries and prevent future crises from escalating.

Source: http://thediplomat.com, 02 May 2015.

OPINION – Saira Bano

Can India Join the Nuclear Suppliers Group?

In 2008, the NSG exempted India from the requirement adopted by the NSG in 1992 banning nuclear cooperation with any state that had not accepted IAEA comprehensive safeguards. That move allowed India to engage in nuclear trade with NSG members. India is now bidding for NSG membership. It is argued that exempting India once again from the NPT condition would undermine the Group. The process of negotiations during the NSG waiver enables us to examine the prospects of India becoming a member.

NSG members were divided into three groups, according to their national policies towards the waiver. The first group of countries, motivated by mercantile interests, strongly supported the exemption. Thus group consisted of France, Russia, and the UK. The second group was "like-minded" countries, small states with a strong nonproliferation stance, and included Austria, New Zealand, the Netherlands, Norway, Ireland, Sweden, and Switzerland, and wanted to include strong nonproliferation conditions in the draft. The third group of countries, which came out in favor of the exemption but were not enthusiastic, included Germany, Japan, Canada, and Australia.

India received the NSG waiver after some tough negotiations. India got its exemption on the basis of certain non-proliferation commitments to which it agreed under the India-US Civilian Nuclear Agreement. These commitments included separating its civilian and military nuclear facilities in a phased manner; placing civil nuclear facilities under IAEA safeguards; signing and adhering to the IAEA's Additional Protocol; continuing its unilateral moratorium on nuclear testing; working with the United States for the conclusion of the FMCT; refraining from the transfer of enrichment and reprocessing technology to states that do not have them and supporting international efforts to limit their spread; introducing comprehensive export control legislation to secure nuclear material; and adhering to the MTCR and NSG guidelines.

It was reported that NSG members were divided into three groups, according to their national policies towards the waiver. The first group of countries, motivated by mercantile interests, strongly supported the exemption. Thus group consisted of France, Russia, and the UK. The second group was "like-minded" countries, small states with a strong nonproliferation stance, and included Austria, New Zealand, the Netherlands, Norway, Ireland, Sweden, and Switzerland, and wanted to include strong nonproliferation conditions in the draft. The third group of countries, which came out in favor of the

exemption but were not enthusiastic, included Germany, Japan, Canada, and Australia.

The like-minded countries wanted to include conditions in the waiver such as a clause that would restate the desire of the Group for universal membership in the NPT, a legally binding nuclear testing moratorium, a "review" provision in case of India's non-compliance with the nonproliferation commitments, and a provision denying the transfer of ENR technology. They failed to get these conditions, as they were unacceptable to India. A compromise formula was suggested, in which the concerns of the like-minded states would be reflected in a chairman's statement, but they were not pleased with this formula. As the like-minded states insisted on strong conditions linking the waiver and the Indian nonproliferation commitments, the US and India had to introduce further changes in the draft. The US had to revise the waiver draft three times to meet their concerns. The final draft contained the minor changes but still lacked substantial changes. After rigorous US diplomacy, and two informal assurances, the like-minded states eventually agreed to the waiver. These assurances were that no member state had a policy to transfer sensitive nuclear technology to India and that the trade would terminate if India resumed nuclear testing.

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This waiver was possible because of intense American diplomacy, with help from France, Russia, and Britain in reaching consensus. The Bush administration was keen to get approval as it had only weeks to get Congressional approval for the US-India agreement before US elections, and receive the credit for the initiative. …India's NSG membership seems to be a distant possibility; the Obama administration has been committed to supporting the bid but in contrast to the Bush administration there is no urgency. The US has urged India to play a more proactive diplomatic role in persuading the hold-outs to support its membership, while India insists that Washington take on the job of achieving a consensus in the NSG, just as the Bush administration did in the waiver negotiations. During the waiver negotiations India made it clear that, according to its reading of commitments in the 2005 agreement, the US was responsible for delivering a "clean and unconditional exemption" from the export guidelines of the NSG. India expects the same US role in the membership negotiations, but for the Obama administration this is not a priority foreign policy issue.

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The waiver negotiation history suggests that India will again face stiff resistance and demands for greater nonproliferation conditions, but one can also assume that India will work hard to avoid any such conditions due to opposition at the domestic level. Like the waiver, India and the US will have to invest significant diplomatic energy to get the required consensus for NSG membership. India is already abiding by the NSG Guidelines without being a member, and the gain of Indian adherence to the guidelines can be kept without adding India to the NSG and compromising the eligibility criterion.

Source: http://thediplomat.com, 09 May 2015.

OPINION – Amit Bhandari

Can Modi's Nuclear Deal Clean Up India's Air?

An agreement with the Canadian company CAMECO, one of the world's largest uranium producers, was one of the highlights of Prime Minister Narendra Modi's recent three-nation (Germany, France, and Canada) trip. CAMECO will supply India with 3,000 tonnes of uranium over six years, enough to keep 1,700 MW of India's 5,780 MW of nuclear-power plants running. A similar agreement was concluded with Uzbekistan in 2013, and India is trying to close a fuel supply agreement with Australia, which has the world's largest reserves of uranium. These agreements are in addition to those already inked with Russia and Kazakhstan.

Nuclear power accounts for 3.5% of India's electricity generation and 1.3% of India's total energy consumption, but the government has set some ambitious targets. It wants to triple nuclear power plant capacity by 2024 from 4,780 MW in 2014 (5,780 MW now). A more recent and extremely ambitious goal is a target of 63,000 MW by 2031-32.

These agreements may be part of the solution to India's air pollution problems. India is trying to move away from using coal, which accounts for almost 80% of India's electricity generation and is highly polluting. Nuclear power accounts for 3.5% of India's electricity generation and 1.3% of India's total energy consumption, but the government has set some ambitious targets. It wants to triple nuclear power plant capacity by 2024 from 4,780 MW in 2014 (5,780 MW now). A more recent and extremely ambitious goal is a target of 63,000 MW by 2031-32.

Nuclear energy does not emit carbon dioxide and other pollutants – major concerns, given the air-quality crisis in Indian cities and the widespread economic effects of local and global climate change. However, nuclear power comes with potentially catastrophic safety risks, which India hopes to keep under check. Other countries weigh the risks similarly, although Germany intends to close nuclear plants by 2022.

China, the biggest user of coal globally (and the biggest polluter) is also trying to aggressively move to nuclear power. China's target: 58,000 MW of nuclear power by 2020 and 150,000 MW by 2030 – this is a key component of China's plans to increase the share of non-fossil fuels (excluding coal, oil, gas) from less than 10% now to 15% by 2020 and 20% by 2030.

... But scaling up nuclear energy is a problem. Of 5,780 MW of nuclear-power capacity that India operates, 3,380 MW relies on imported fuel. Domestic uranium supplies are enough only for the remaining 2,400 MW. Historically, India's nuclear power programme has been constrained by a uranium shortage. The programme started to grow only after the Indo-US nuclear agreement of 2008, which allowed India to import nuclear fuel and ink agreements with fuel suppliers.

India has 3,800 MW of nuclear-power capacity under construction and another 43,100 MW is proposed. Of this, 1,000 MW of under-construction capacity and 31,900 MW of proposed nuclear capacity will be built in collaboration with companies from the US, France and Russia. For these reactors, the contractors must provide fuel throughout a plant's life, which can last up to 50 years. For the remaining 14,000 MW of indigenously designed nuclear capacity, India needs to source fuel. Domestic uranium supplies, as we explained, are inadequate. Moreover, domestic uranium also has other uses – to build nuclear weapons – and using it only for fuel is not something India would like to do.

Source: http://www.indiaspend.com, 08 May 2015.

OPINION – The Economist

Fractious, Divided but Still Essential

The conference of the 191 signatories of the NPT got under way at the UN headquarters in New York. The last such meeting, in 2010, produced agreement over a 64-point action plan. This time

it is likely to be a much more divisive affair. The aim of "RevCon", as it is known, is to take stock of progress (or otherwise) over the previous five years in strengthening the three pillars on which the NPT's "grand bargain" rests: the commitment to pursue disarmament by the five "official" nuclear weapons states America, Russia, Britain, France and China, also known as the P5; action to stop the proliferation of nuclear weapons; and promotion of the peaceful use of nuclear energy. RevCons are high both on obscure technical discussion, and on diplomatic grandstanding. And the NPT has often been under stress since it came into force in 1970. But without it the world would be a more dangerous place. Only three countries have never signed up—India, Pakistan and Israel. Only one, North Korea, has ever left.

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...If a comprehensive deal can be reached by the end of June and then successfully implemented, it will go a long way towards vindicating the NPT and the tools it provides to bring those who violate its safeguards back into compliance.... Progress in most other areas since 2010 has been modest. The countries that do not have nuclear weapons are most concerned by the failure of the five that do to take further steps to reduce the size of their own nuclear arsenals. The previous RevCon was held in the afterglow of a New START deal between America and Russia to limit the number of deployed strategic nuclear weapons to 1,550 on each side, and the inspirational speech in Prague 2014 by Obama, America's president, in which he held out the prospect of a world without nuclear weapons.

Since then, despite the establishment in 2009 of the so-called P5 process as a forum for discussing multilateral disarmament, not much has happened. The main reason is the chilling of relations between Russia and the West, which predated Russia's annexation of Crimea. An offer by Mr Obama in 2013 of new negotiations to reduce each side's stock of warheads by a third was met with stony silence.

Since then, despite the establishment in 2009 of the so-called P5 process as a forum for discussing multilateral disarmament, not much has happened. The main reason is the chilling of relations between Russia and the West, which predated Russia's annexation of Crimea. An offer by Mr Obama in 2013 of new negotiations to reduce each side's stock of warheads by a third was met with stony silence. More recently Russia has, according to America, violated both the 1987 Intermediate Nuclear Forces treaty, by testing a banned missile, and the Budapest Memorandum of 1994 that guaranteed Ukraine's security when it gave up the nuclear weapons it had inherited on the break-up of the Soviet Union. The Russians are also refusing to attend next year's Nuclear Security Summit, a meeting to prevent fissile material falling into the wrong hands.

Without further cuts in American and Russian nuclear forces (which account for more than 90% of the world's nuclear weapons), China, the most opaque of the P5 powers, will block attempts to get multilateral disarmament talks going. However, Gottemoeller, America's under-secretary of state for arms control, praises China for its leading role in producing a common glossary of nuclear terminology. This may not sound much, but it is seen within the P5 as essential for future negotiations. ...despite the Russian impasse, America has tried to meet its obligations. It is eliminating "excess" warheads at the rate of almost one a day and closing down old bits of nuclear infrastructure. In 2013 it completed the elimination of 500 tonnes of Russian and American fissile material (equivalent to about 20,000 warheads) under a highly enriched uranium purchase agreement. In December it

launched a scheme to bring together nuclear and non-nuclear weapons states to develop new approaches to verification.

It is doubtful whether these modest, incremental efforts will cut much ice with the Humanitarian Impacts of Nuclear Weapons Initiative, a movement supported by civil-society groups and championed by Austria, Norway and Mexico. Faced with what they see as foot-dragging by the P5 (which are modernising their nuclear forces to maintain their long-term effectiveness), the initiative's backers, some of which want to make nuclear weapons illegal, may question whether working through the NPT serves any purpose. Britain and America sent representatives to a conference on the humanitarian initiative in Vienna December 2014 attended by 156 other countries, but Russia, France and China stayed away. Nobody disputes the horror of nuclear weapons, but moral fervour is not a policy. Progress on nuclear disarmament must take account of the complex deterrence relationships between the P5.

Another source of friction is the failure to hold the conference on creating a WMD-free zone in the Middle East that was promised in 2010. Israel, an undeclared nuclear-weapons state, has joined preparatory meetings at a high diplomatic level and is attending the RevCon as an observer. But it insists that regional security arrangements must precede any talks on disarmament, whereas Egypt says the first step is for Israel to accede to the NPT—a non-starter.

Another source of friction is the failure to hold the conference on creating a WMD-free zone in the Middle East that was promised in 2010. Israel, an undeclared nuclear-weapons state, has joined preparatory meetings at a high diplomatic level and is attending the RevCon as an observer. But it insists that regional security arrangements must precede any talks on disarmament, whereas Egypt says the first step is for Israel to accede to the NPT—a non-starter. ...For this RevCon to rediscover the spirit of 2010, what is needed is an outbreak of realism among countries without nuclear weapons—and a willingness by the P5, above all Russia, to demonstrate that they are prepared to pay more than lip-service to the vision of eventual nuclear disarmament. That may be a tall order, but, imperfect though the NPT is, most of its signatories know that keeping it alive is better than any alternative.

Source: http://www.economist.com, 02 May 2015.

OPINION – The New York Times

Beyond the Nuclear Deal

President Obama's meeting with Arab leaders is an opportunity to reassure the deeply skeptical Gulf states that America's engagement and probable nuclear deal with Iran is not a threat but an opportunity for regional stability. Iran is a Shiite nation; the Gulf states are majority Sunni, and the closer Iran and the big powers get to a deal (the self-imposed deadline is June 30) the more anxious the Sunni leaders have become. On this score, Mr. Obama can offer a convincing response: an Iran restrained by a strong and verifiable nuclear agreement is a lot less threatening than an unfettered Iran.

But there is another aspect to the deal that has unsettled Gulf leaders. In exchange for limitations on its nuclear program, Iran will be freed from economic sanctions, thus unleashing billions of dollars in frozen assets and new foreign investments. The Gulf states fear this could strengthen Iran's influence in the region and give it more resources to support militant groups like Hezbollah and continue its meddling in Iraq, Yemen and Syria, where, with Russia, it is a major enabler of President Assad of Syria.

They also worry that the US, eager to end three decades of hostility with Iran, can no longer be counted on to guarantee their security. Here Mr. Obama's answer is a bit more complicated. He is expected to make more explicit the security assurances, but he should flatly reject any idea of a formal pact similar to that of the NATO that some Arab leaders have pressed for. The US must be extremely cautious about being dragged into

Middle East conflicts. Getting the balance right won't be easy. It is one thing for Mr. Obama to say the US will defend Saudi Arabia against an invasion by Iran. But what would America's responsibility be if Iran uses proxies to stir trouble in Saudi Arabia, which is a more plausible scenario? There should be a clear understanding that America will not defend any of these regimes against their domestic political opponents.

The US has already sold billions of dollars in weapons to the Gulf states and held scores of joint military exercises. More aid, and more joint exercises, lie ahead. The most important step now is to integrate the Gulf nations' military systems so they can better defend themselves. Iran is not the only threat the Gulf states face, or even the main one. As Mr. Obama told *The Times*'s Friedman, there are internal threats — "populations that, in some cases, are alienated, youth that are underemployed, an ideology that is destructive and nihilistic, and in some cases, just a belief that there are no legitimate political outlets for grievances." Few people see democracy taking root in the region anytime soon, but the political systems have to be made more inclusive, including for Islamists.

There is one other important point Mr. Obama can make: Iran is too often discussed as a force to be contained. Iran's history certainly does not inspire confidence. But as Laipson, president of The Stimson Center, a think tank, has argued, the nuclear deal should be seen as "a great moment of opportunity" for the Arabs (with Israel's tacit agreement) to embark on new regional ventures with Iran on energy, climate change, water scarcity and arms control. If the nuclear deal is completed, the administration would try to encourage Iran to play a more constructive role in Syria. Many are skeptical that this will produce results, but testing the possibility of expanded cooperation beyond the nuclear deal is certainly worth the effort.

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Source: www.nytimes.com, 09 May 2015.

OPINION – Ward Wilson

How Nuclear Realists Falsely Frame the Nuclear Weapons Debate

There has never been as much dissatisfaction with the international framework governing nuclear weapons as there is today. The treaty is being reviewed and debated at the UN in New York this April, and for the first time in 35 years there are serious concerns that it might tear apart at the seams. Increasingly, there are those who feel strongly that the world would be safer without nuclear weapons, and that the nuclear-armed states (whose promise to work seriously toward disarmament in Article VI of the treaty is one of the tender spots creating anger and resentment) are not fulfilling their obligations.

The potential unraveling of the NPT is causing a careful reexamination of the assumptions that underlie the entire nuclear weapons debate. And like a captain who waits too long to put his boat into dry dock to look for rot under the waterline, the results have been shocking. Much of the intellectual structure supporting the rationale for nuclear weapons is made up of anachronistic ideas from the Cold War.

The potential unraveling of the NPT is causing a careful reexamination of the assumptions that underlie the entire nuclear weapons debate. And like a captain who waits too long to put his boat into dry dock to look for rot under the waterline, the results have been shocking. Much of the intellectual structure supporting the rationale for nuclear weapons is made up of anachronistic ideas from the Cold War. Much of what we thought we knew

has turned out to be wrong or inadequate. This has led to some sharp, interesting exchanges. Rather than being a stale debate that occasions stifled yawns, the debate about nuclear weapons is suddenly full of surprising new developments.

Perhaps the most interesting new thinking involves the familiar framing of the debate as a contest between realists and idealists. It turns out this division was not really a distinction created for intellectual clarity but a sort of gerrymandering that aimed to fix the outcome of the debate. This gerrymandering has been so successful, with one side in the debate losing so consistently, that most people now hesitate to be associated with the losers. In the US, where this framing is most prevalent and shapes the debate most strongly, enthusiastic support for disarmament (except in the most far-off, one-day, maybe-someday terms) is tantamount to professional suicide.

Politicians, for example, rightly see that in the current environment taking an anti-nuclear position is a quick way to be branded as starry-eyed, inexperienced, and unrealistic. ...Opinion shapers and thought leaders draw back as well. Journalists, particularly, like to think of themselves as hard-boiled, worldly cynics. Because opposition to nuclear weapons has been cast as "idealism," journalists who take disarmament arguments seriously risk their credibility with colleagues. Even anti-nuclear activists are likely to see themselves as Don Quixotes, tilting valiantly at targets they know they cannot dislodge, but bound by honor to keep on with the hopeless fight.

Yet the emerging arguments paint this presumed dichotomy between the hard-headed and the hopeful-hearted as no more than clever salesmanship on the part of nuclear weapons believers. It works for them to claim that they are "realists" and to cast the debate as "realists v. idealists." ...The framework of the debate is wrong. This should be a discussion about whether nuclear weapons are *useful.* The clever (but false) framing of this as a contest about who is a "realist" and who an "idealist" has helped one side regularly win the debate, but it has also biased the discourse, obscured important facts, and dangerously misled governments for 70 years. Grave misconceptions have been fostered. Important failures overlooked. Continuing with this false framing risks wholesale destruction.

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***Realists vs. Idealists*:** ...Nuclear weapons "realists" parade their toughness and insist that only they can bravely face the dark realities. But for all their self-proclaimed hard-headedness, they are not realists. At least, not according to any known definition of that word. They believe in an Enlightenment version of human nature- a complete rationality- that seemed like a stretch even in Rousseau's time. They shut their eyes and willfully ignore plain facts that contradict their faith. They believe unquestioningly in our ability to turn away from a dark and bloody past of thousands of years of war toward a shining, pacific future...

When a crisis occurs and leaders consider going to war, they will according to nuclear deterrence theory make a rational calculation of the costs and benefits and then decide what to do. In that moment of crisis and danger, in other words, they will be rational. The evidence that leaders will likely *not* be entirely rational in a crisis is plentiful and worn smooth with repetition.

***Irrationality and Deterrence*:** Hegel famously claimed that, "What is rational is real, and what is real is rational." Nuclear weapons proponents are all good Hegelians. Their whole conception of nuclear deterrence is based on rationality. When a crisis occurs and leaders consider going to war, they will according to nuclear deterrence theory make a rational calculation of the costs and benefits and then decide what to do. In that

moment of crisis and danger, in other words, they will be rational. The evidence that leaders will likely *not* be entirely rational in a crisis is plentiful and worn smooth with repetition. Any objective observer would have to admit that the case against complete rationality is strong and persuasive. The interesting question is: Why have nuclear "realists" clung to rationality so long? Why do they continue to insist that it is the cornerstone of nuclear deterrence, when humans are so obviously not that rational? Why is "rational choice" still hotly propounded in nuclear deterrence debates?...

It might have been possible to believe in nuclear deterrence theory in the late 1600s when Voltaire wrote and the Enlightenment was still arcing toward its greatest influence. But serious scholars have known for hundreds of years and the process of discovery has accelerated in the last two decades that undivided human rationality is a chimera. ...Science has shown that we are largely ruled by emotion, instinct, urge, and desire. Certainly human beings *can* be rational. But the conclusion that leaders in a crisis will *always* decide on a rational basis simply cannot be true based on the evidence. Believing that we can rely on rationality in a nuclear crisis that nuclear deterrence will always work is one of the strongest and clearest indicators that nuclear weapons "realists" are not true realists.

The record of nuclear deterrence in Cold War crises is an important proving ground for whether nuclear deterrence can be safe and reliable. To be fair, it is true that nuclear believers refer to this record *as a whole* as proof that deterrence works. But they seem curiously reluctant to debate the individual facts. This is surprising, because the facts contain a goldmine of debatable points.

***Willfully Resisting Facts*:** Realists welcome the fact-stream of daily events that make up history. They dip into it and examine the individual drops. They like the details. Idealists are known for disdaining the everyday and focusing instead on the "big picture." Details are for accountants; they see the grand sweep of history. Given that realists like facts rather than grand visions, you might imagine that nuclear "realists" love a good factual debate about nuclear weapons history. But you would be wrong. They show a curious reluctance to get involved in the details of the evidence for nuclear deterrence. The record of nuclear deterrence in Cold War crises is an important proving ground for whether nuclear deterrence can be safe and reliable. To be fair, it is true that nuclear believers refer to this record *as a whole* as proof that deterrence works. But they seem curiously reluctant to debate the individual facts. This is surprising, because the facts contain a goldmine of debatable points.

From a certain perspective, one could make the case that the facts of the Cold War crises show that nuclear deterrence has failed quite often. Stalin blockades Berlin in 1948. Why didn't the US nuclear monopoly persuade him to forego such a risky move? China comes into the Korean war on the side of the North Koreans. Why didn't the US shifting of nuclear-capable bombers to Guam, a move that was deliberately leaked to the press, deter China from going to war? President Kennedy blockades Cuba in October 1962 during the Cuban Missile Crisis. He knows that if he does, he runs the risk of nuclear war. Why didn't the danger of nuclear war restrain him? Egypt and Syria attack Israeli forces in the occupied territories in 1973. Why didn't Israel's nuclear weapons deter them from launching a war? Argentina attacks the Falkland Islands (which they call the Malvinas) in 1982. Why didn't British nuclear weapons contain this aggression? And so on.

The point is not that these incidents are proven failures of nuclear deterrence. Each one would have to be examined and weighed individually. The point is that these troubling incidents are rarely examined or debated. Nuclear "realists" haven't carefully checked, rechecked, and dismissed these arguments; they don't seem to have looked into them carefully at all.... The lack of real discussion about potential nuclear deterrence failures makes it seem as if nuclear deterrence is not a phenomenon to be carefully and objectively explored, but a faith to be

defended and sustained. Genuine realists don't turn a blind eye to facts that is an idealist's sin.

***Our New, Pacific Nature*:** Of all their claims, the nuclear "realists'" assertion that nuclear deterrence will prevent war is the most damning evidence that they are not interested in reality. Even a cursory inspection of what Winston Churchill once called "the dark lamentable catalog of human crime" shows that human beings have been fighting wars with stubborn persistence for at least 6,000 years. There is not an era of history or a region of the world that has not been visited by war with disheartening regularity. There are sometimes pauses and gaps, but war always returns.... If humans were to stop fighting wars it would be epochal, a revolution in human nature. Losing our taste for war would be like renouncing our predisposition for religion it would mean that a trait that had been an integral part of human nature had somehow been forsaken. What advocates of nuclear weapons are claiming, therefore, when they say that human beings will no longer fight major wars because of nuclear weapons, is that these weapons have radically altered human nature. Nuclear weapons, according to nuclear "realists," have somehow permanently suppressed the heretofore unquenchable desire for war.

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It's a remarkable claim. First, technology rarely changes human nature... Second, even when technology does seem to have had an impact (harnessing fire or simple farming; for instance), it has taken hundreds or thousands of years for that impact to be fully felt. Nuclear weapons have only been with us for 70 years. It seems highly unlikely, based on the evidence of human history, that nuclear weapons could have changed our nature so completely in so little time. But the most important problem with this claim is the way it denies the pessimism that is supposed to characterize realism. ... Nuclear believers don't claim that it is a sweet and inspiring book that has changed human nature; they claim it is a tool a piece of technology that has brought about the magic transformation. The underlying transformation is the same: Human nature has been fundamentally altered, and what was a constant is now forever gone.

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But nuclear weapons have not magically transformed our warlike natures into passivity and goodness. Unbridled war, fought with savage abandon, is still likely, perhaps even inevitable. The belief that large-scale war has been banished is nothing more than dangerous fantasy. All the evidence of history, and everything we know about ourselves, tells us that our warlike natures cannot change overnight. ...Claims that we can change our nature are unsurprising in the mouths of gentle, pot-smoking dreamers. On the lips of nuclear proponents, such claims disbar them from "realist" status.

***Nuclear Romantics*:** Far from being realists, proponents of nuclear weapons seem to be "nuclear romantics." In their enthusiasm for technology, they have exaggerated the weapons'

significance in world affairs, and they have imbued them with quasi-magical powers (which mostly go by the name "nuclear deterrence"). When there is a conflict between the weapons they so admire and the facts, the facts are elbowed roughly aside. They are impressed with nuclear weapons and afraid of them, and they have been superbly good at arguing their case. But their claim that they are realists does not stand up to scrutiny. Realism is pessimistic, even about the powers of technology. Realism doesn't believe that human nature can be easily remade. And realism believes in facts on the ground.

There are pragmatic arguments *for* nuclear weapons, but there are alsosensible,prudent,and pragmatic arguments *against* nuclear weapons. What is needed is a debate that respects pragmatic arguments on both sides.

The entire framework of the nuclear weapons debate is wrong. Both sides have practical, down-to-earth arguments to make. …There are pragmatic arguments *for* nuclear weapons, but there are also sensible, prudent, and pragmatic arguments *against* nuclear weapons. What is needed is a debate that respects pragmatic arguments on both sides. The pragmatic case against nuclear weapons is relatively easy to make. …Even when you try to use nuclear weapons in a carefully limited way, huge numbers die. If you want to destroy a target in a city you have to destroy three quarters of the city to do it. How does that make sense? The crooked line drawn across the map of this debate claiming to divide realist from idealist is dangerously misleading. This should not be a debate about the realism (or not) of the debaters. It should be a debate about *the utility of nuclear weapons*. But for 60 years the question of utility has been elided. If we had framed the debate as being about utility, we would have quickly discarded a whole series of fallacious issues, beginning with the "bigness is decisive" canard.

Bigness is not the yardstick against which to judge nuclear weapons. Utility is the yardstick. Bigness is not the same as utility, otherwise workmen would ask their assistants, "Did you bring the *biggest* tool for the job?" rather than whether they brought the *right* one for the job. Utility is about the appropriateness of means to ends. …The utility of nuclear weapons is the key to deciding whether they should go or should stay.

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The trend is perhaps even more evident in conventional weapons. Smaller, smarter, more accurate weapons are increasingly used in warfare. Smart bombs, drones with small missiles—there is an unmistakable evolution toward weapons that kill the fewest number of bystanders possible. The future of weapons is small, smart, accurate weapons, not big, blundering weapons that cause out-sized destruction. It may be that the remarkable record of 70 years without any use of nuclear weapons is evidence of their awesome, horrifying nature. Or it may be evidence that they are just not very good weapons. There is a debate here, an important debate about the future of nuclear weapons (and potentially about the shape and future of civilization). But it's not about idealism. There's nothing idealistic about saying we should get rid

of dangerous and ineffective technology. That's just common sense just pragmatism.

The ground is shifting under the nuclear weapons debate. What was once steady and unshakable is now doubtful and vague. As the delegates from around the world review the NPT, new arguments and new ideas about what to do with nuclear weapons are surfacing and taking hold. After 70 years, the world of nuclear weapons is changing. Proponents of nuclear weapons have long framed this debate in a way that helps them win, but they have obscured and confused the issues. Those old framings, however, are crumbling. This is no longer a debate about the nature of the debaters who is a realist, who an idealist? ...This is not about the debaters; it is a vitally important discussion about enormously dangerous *weapons*. Are nuclear weapons too dangerous and clumsy to still be useful? This is the question the pragmatic question that the delegates at the UN are increasingly asking.

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Source: http://thebulletin.org, 07 May 2015.

NUCLEAR STRATEGY

CHINA

India a Driver Behind China's Nuclear Modernisation, Says Pentagon Report

India's nuclear force is an additional driver behind China's nuclear force modernisation, a report by the US Department of Defence has said. The Pentagon report, titled Military and Security Developments Involving People's Republic of China, was presented to the US Congress on May 8. It has said China is likely to continue investing considerable resources to maintain a limited, but survivable, nuclear force to ensure that the PLA can deliver a damaging responsive nuclear strike despite its No First Use policy. The report comes just before Prime Minister Narendra Modi's visit to China on May 14.

In 2014, PLA Navy deployed its Shang-class nuclear submarines in IOR, a fact that demonstrates its capability to operate in the region to safeguard its interests. The report adds that China, with an estimated military budget of USD 165 billion growing at 9.5 per cent per annum is modernising its military hardware, organising its military force structure and augmenting its cyber warfare capabilities to ensure that its footprints are felt in its areas of interest like the South China Sea, IOR—two regions that are significant for India too.

... According to the report, China's nuclear arsenal currently consists of 50-60 Inter Continental Ballistic Missiles besides nuclear capable ballistic missile submarines — four commissioned and one under development with an eventual ability to carry ballistic missiles with a 7400 km range. In what may interest India, the report suggests that China is pursuing "long term, comprehensive" military modernisation programme to fight "short duration, high-intensity regional conflicts". "China is seeking high-profile leadership in the region and globally and is taking initiatives to establish multi-lateral mechanisms such as the Asia Infrastructure Investment Bank," says the report. It observes that while the Chinese leadership officially supports the Deng Xiaoping dictum to "observe calmly, secure position...hide capabilities, maintain low-profile", Chinese interests from "Deng's era have changed". Xi's interpretation of Deng's dictum is China defending its interests "especially territorial sovereignty," the report notes.

The 93-page report which pegs the Chinese potential conflict with Taiwan briefly mentions the September 2014 standoff between Indian and Chinese troops in Ladakh that coincided with the visit of Chinese president Xi Jinping. It also refers to the increasing Chinese presence in Indian Ocean Region (IOR) and notes that in 2014, PLA Navy deployed its Shang-class nuclear submarines in IOR, a fact

that demonstrates its capability to operate in the region to safeguard its interests. The report adds that China, with an estimated military budget of USD 165 billion growing at 9.5 per cent per annum is modernising its military hardware, organising its military force structure and augmenting its cyber warfare capabilities to ensure that its footprints are felt in its areas of interest like the South China Sea, IOR—two regions that are significant for India too. The report underlines that Pakistan remains China's prime partner in exports and notes that China continues to offer conventional weapons and industrial cooperation to Islamabad.

Source: The Indian Express, 11 May 2015.

NORTH KOREA

North Korea Says it Test-Fired a 'World-Level Strategic Weapon'

North Korea announced on 09 May 2015 the successful test-firing of a submarine-based ballistic missile- a technology that would offer the nuclear-armed state a survivable second-strike nuclear capability. North Korean leader Jong-Un, who personally oversaw the test, hailed the newly developed missile as a "world-level strategic weapon," according to a report.... There was no immediate independent confirmation of the test, which would mark a major breakthrough for the North's missile programme and violate UN resolutions prohibiting Pyongyang from conducting ballistic missile tests.

Development of a submarine-launched missile capability would take the North Korean nuclear threat to a new level, allowing deployment far beyond the Korean peninsula. Satellite images earlier 2015 had shown the conning tower of a new North Korean submarine, which US analysts said appeared to house one or two vertical launch tubes for either ballistic or cruise missiles. According to the KCNA report, the test was carried out by a sub that dived to launch depth on the sounding of a combat alarm. ...It gave no detail of the size or range of the missile, nor did it specify when the test was carried out. Kim described the test as an "eye-opening success" on a par with North Korea's successful launch of a satellite into orbit in 2012. The satellite launch was condemned by the international community as a disguised ballistic missile test and resulted in a tightening of UN sanctions.

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'World-level' Weapon: Kim said the underwater test meant the Korean military now possessed a "world-level strategic weapon capable of striking and wiping out in any waters the hostile forces infringing upon (North Korea's) sovereignty and dignity." The announcement of the test came a day after the Korean People's Army (KPA) warned that it was prepared to fire on sight, without warning, at South Korean naval vessels it accused of violating their disputed Yellow Sea border. While there is no doubt that the North has been running an active BMD programme, expert opinion is split on just how much progress it has made.

The North has yet to conduct a test showing it has mastered the re-entry technology required for an effective intercontinental ballistic missile. There are also competing opinions on whether the North has the ability to miniaturise a nuclear device that would fit onto a delivery missile. North Korea's small submarine fleet is comprised of largely obsolete Soviet-era and modified Chinese vessels, but suggestions that it was experimenting with a marine-based missile system have been around for a while. The South Korean Defence Ministry cited intelligence reports September 2014 that Pyongyang was understood to be developing a vertical missile launch tube for submarine use.

Adapted Submarine: Ministry officials said the North's 3,000-ton Golf-class submarine could be modified to fire medium-range ballistic missiles. And in October 2014, a separate satellite image

analysis by the US-Korea Institute at Johns Hopkins University identified a new missile test stand at the Sinpo South Shipyard in northeastern North Korea. The size and design of the stand suggested it was intended to explore the possibility of launching ballistic missiles from submarines or a surface naval vessel, the institute said. While submarines carrying ballistic missiles could provide the North Korea with a survivable second-strike nuclear capability, the institute had suggested that Pyongyang was likely "years" from achieving the required technology.

Source: http://www.businessinsider.com, 09 May 2015.

BALLISTIC MISSILE DEFENCE

GULF STATES

Obama Expected to Push for Gulf Missile Defence at US Summit

President Barack Obama is expected to make a renewed US push to help Gulf allies create a region-wide defence system to guard against Iranian missiles as he seeks to allay their anxieties over any nuclear deal with Tehran, according to US sources. The offer could be accompanied by enhanced security commitments, new arms sales and more joint military exercises, US officials say, as Obama tries to reassure Gulf Arab countries that Washington is not abandoning them.

Obama faces a formidable challenge in deciding how far to go to sell sceptical Sunni-led allies on his top foreign policy priority, a final nuclear deal with Shi'ite Iran due by a June 30 deadline. Failure to placate them could further strain ties, though additional defence obligations would carry the risk of the United States being drawn into new Middle East conflicts.

With little more than a week to go before Obama hosts the six-nation Gulf Cooperation Council at the White House and then at Camp David, aides are discussing the options in pre-summit meetings with Arab diplomats. Officials say no final decisions on possible US proposals have been made.

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Gulf Arab neighbours, including key US ally Saudi Arabia, worry that Iran will not be deterred from a nuclear bomb and will be flush with cash from unfrozen assets to fund proxies and expand its influence in countries such as Syria, Yemen and Lebanon.

"***Two-Way Street***": US officials with knowledge of the internal discussions concede that Obama is under pressure to calm Arab fears by offering strengthened commitments. "It's a time to see what things might be required to be formalised," a senior US official said. Obama is all but certain to stop short of a full security treaty with Saudi Arabia or other Gulf nations as that would require approval by the Republican-controlled Senate and risk stoking tensions with Washington's main Middle East ally Israel. A second US official insisted the summit would be a "two-way street," with Washington pushing Gulf leaders to overcome internal rivalries and find ways to collaborate better in their own defence.

Obama is likely to press Gulf allies to do more to integrate their disparate militaries and work towards a long-delayed anti-missile shield against an Iranian ballistic missile threat, the sources familiar with the discussions said. This could take the form of a new high-level joint working group led by the Pentagon, one of the sources said.

Gulf countries have already bought US missile

defence systems such as the Patriot system built by Raytheon Co (RTN.N) and the THAAD system built by Lockheed Martin Corp (LMT.N). But the Obama administration is now expected to press them to implement the initiative touted in late 2013 by then-Secretary of Defence Chuck Hagel. The programme allows the GCC to purchase equipment as a bloc and start knitting together radars, sensors and early warning networks with US assistance but has been held up by distrust among some of the Gulf monarchies. The Obama administration is concerned about shortcomings in the Gulf states' joint operational capacity exposed by a Saudi-led bombing campaign in Yemen that has failed to push back Iran-allied Houthi fighters.

Concrete Steps: It was unclear specifically what Washington would offer the Gulf nations - which already operate some of the most evolved US-made weaponry - in order to advance the missile shield. Lingering rifts between GCC members, especially Qatar and the United Arab Emirates, would need to be put aside before a joint missile system would be viable. Experts now believe the time is ripe for greater cooperation because of deteriorating security across the region. ... An announcement is expected in coming weeks, according to people familiar with the deal. ...

Source: http://www.firstpost.com, 07 May 2015.

INDIA

Interceptor Missile Tested 7 Times, DRDO's Rajinikanth Moment Still Far

DRDO's promises and seven tests notwithstanding, the plan to put a nuclear missile defence shield over Delhi remains a work in progress. The unsuccessful test of an interceptor missile last month swung the spotlight back on the proposed BMD system. Think of Rajinikanth firing a bullet to destroy the bullet fired by the villain in mid-air. That's what a BMD system does: it provides a city with a protective shield where an incoming enemy ballistic missile is shot down by interceptor missiles.

Besides the interceptors, a BMD consists of radars — satellite-, ground-, and sea-based — to detect and track a missile and its warhead, data communication links to pass on the information, and a command and control system. DRDO first spoke of a BMD system in December 2007. All building blocks for Phase 1 of a two-layered, fully integrated system were to be in place by 2010. In March 2010, Dr VK Saraswat of DRDO promised initial systems deployment by 2013.

On May 7, 2012, DRDO declared it had developed a Missile Defence Shield that could be put in place at short notice at two selected locations in the country, presumably Delhi and Mumbai. The system would be able to tackle incoming ballistic missiles of range up to 2,000 km. DRDO also said that long-range tracking radars, real-time data-link and mission control systems needed for the perationalisation of the BMD had been "realised".

The fact is the BMD system is at the moment not even close to being put into operation. Last month's unsuccessful test at the Chandipur range was the seventh time the BMD interceptor missile has been tested. It was its second failed test, although the first failure was not of an interceptor, but due to a faulty target missile.

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Source: The Indian Express, 04 May 2015.

NUCLEAR ENERGY

USA

House Approves $936 Million for DOE Nuclear Energy Programs

Nuclear energy programs would receive $936 million in fiscal 2016 under a $35.4 billion energy and water spending bill approved May 1 by the House of Representatives. That is an increase of $23 million from the current fiscal year and $28.5 million more than the administration's request for

the 2016 fiscal year that begins 01 October. The bill provides $175 million for the US Department of Energy and the Nuclear Regulatory Commission to continue the Yucca Mountain licensing process....

The House approved just over $1 billion for the NRC, about 90 percent of which the NRC derives from fees charged to licensees. The legislation reduces NRC corporate support by $25 million as a step toward accelerating recommendations the NRC made as part of the commission's Project Aim 2020. The House also required the NRC to return to commission-driven rulemaking development and not delegate its authority to staff in order to provide greater discipline, transparency and accountability.

The Yucca Mountain funding represents a "rejection of the practical solutions proposed in the President's nuclear waste strategy." The House of Representatives supported the $345 million requested by the administration for continued construction of DOE's Mixed Oxide Fuel Fabrication Facility while pushing back against amendments to reduce funding.

The House further directed the NRC to accelerate changes in its budget and planning process to align more closely with the industry's budgeting schedule and to provide a list of all activities related to planned rulemakings and their schedules. Several members of Congress took to the House floor to speak in favor of imposing greater discipline on the NRC and returning the agency to its core mission of protecting public health and safety in a manner that does not add to the economic headwinds the industry faces. Rep. Bill Flores (R-Fla.) also offered, and withdrew, an amendment to further accelerate the NRC's reduction in corporate support by an additional $25 million. The appropriations bill (H.R. 2028) passed 240-177, with 10 Democrats joining an overwhelming majority of Republicans. President Obama said he would veto the legislation if it reaches his desk in its current form.

A Statement of Administration Policy released by the White House objected to many aspects of the bill. The statement's objections to nuclear energy program funding largely centered on the Yucca Mountain project. The administration said the Yucca Mountain funding represents a "rejection of the practical solutions proposed in the President's nuclear waste strategy." The House of Representatives supported the $345 million requested by the administration for continued construction of DOE's Mixed Oxide Fuel Fabrication Facility while pushing back against amendments to reduce funding. The South Carolina facility proved contentious 2014 also, with the administration's request to stop construction turned back by Congress. When finished, the plant will fulfill a treaty obligation with Russia to blend 34 metric tons of surplus weapons-grade plutonium into MOX fuel for civilian nuclear reactors. Other nuclear energy provisions remained much as they were when offered by the House Appropriations Committee. The full chamber retained the committee's reductions to the NRC's budget. The legislation will be reconciled with the Senate version before it is sent to the president.

Source: http://www.nei.org, 07 May 2015.

NUCLEAR COOPERATION

INDIA–RUSSIA

Steady Progress on Indo-Russia Civil Nuke Cooperation: FS

India has said there is "steady progress" on Indo-Russia civil nuclear energy cooperation and the second unit of the Kudankulam project is "progressing satisfactorily" towards commissioning as the two countries aim to boost their strategic ties in spheres of space and energy. President Mukherjee, in Russia on a five-day visit, 09 May held a 45-minute meeting with his Russian counterpart Putin in a "wide-ranging review of our bilateral cooperation", the Ministry of External Affairs said in a statement on 10 May. "On civil nuclear energy cooperation, there has been steady progress. The KKNP2 is progressing

satisfactorily towards commissioning. Contracts for supply of equipment for KKNP3 and 4 have been concluded," the statement quoted FS S Jaishankar... "We had also in December constituted three Joint Working Groups to discuss different aspects of nuclear cooperation to take the level of cooperation to a higher plane. One of the three Joint Working Groups has already met; two others are likely to meet very soon," he said....

Source: http://www.business-standard.com, 10 May 2015.

USA–CHINA

Obama's 'Secretive' Nuclear Accord with China Raises Proliferation Concerns

A secret nuclear co-operation agreement between the United States and China has reportedly come to light after President Barack Obama issued a notification to Congress which said that he intended to renew the deal with China. The deal will allow Beijing to buy more US-designed reactors and pursue a facility or the technology to reprocess plutonium from spent fuel. It will also pave the way for China to buy reactor coolant technology that experts say could be modified to make its submarines quieter and harder to detect, stuff.co.nz reported.

The unheralded release of the notification on April 21 showed the administration's anxiety that it might alarm the Congress members and nonproliferation experts who have expressed concerns over China's growing naval powers and the possibility of nuclear technologies falling into the hands of third parties having nefarious intentions. In a closed-door meeting, the Senate Foreign Relations Committee will hear from five Obama officials to examine the commercial, political and security implications of extending the pact.

The White House's keenness to renew the nuclear accord with Beijing demonstrates the evolving relationship between the two countries. However, the new version of the nuclear accord, called 123 agreement under the Atomic Energy Act of 1954, would give China the liberty to buy US nuclear energy technology at a time when the Obama administration has been trying to rally support among lawmakers and the public for a deal that would curb Iran's nuclear programme. Congress can vote to block the agreement but if it takes no action during a review period, the agreement would go into effect.

Source: http://www.dnaindia.com, 11 May 2015.

USA–RUSSIA

The US is Spending $60 Million on Russian Nuclear Security

The Energy Department plans to spend more than $60 million in Russia for nuclear security activities at the same time US and EU sanctions are punishing Moscow for aggression against Ukraine. The Energy Department's NNSA, which is in charge of nuclear arms and nuclear security, has budgeted the funds to be spent this 2015 through an international organization called the Multilateral Nuclear Environmental Program in Russia (MNEPR), a little-known group, said administration officials familiar with the funding plan. It is not clear how the funds will be used. One official said talks between US and Russian officials were held earlier this year 2015 regarding a program to remove nuclear material dumped in the Arctic Ocean by the Russians as waste fuel. A second official said the funds would be used for an array of talks and other "feel good" measures on nuclear nonproliferation with the Russians.

Russia in January canceled its role in the Cooperative Threat Reduction Program, also known as the Nunn-Lugar program, which since the 1990s spent millions of dollars in a bid to secure nuclear materials in Russia after the 1991 fall of the SU. Moscow announced it no longer would receive US funds from the program that was administered by the Pentagon's Defense Threat Reduction Agency.

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secure nuclear materials in Russia after the 1991 fall of the SU. Moscow announced it no longer would receive US funds from the program that was administered by the Pentagon's Defense Threat Reduction Agency. However, arms control activists within the Obama administration sought to continue the program by shifting to the MNEPR..... A State Department official said MNEPR activities are not related to Ukraine sanctions imposed on Moscow. ... "Even before the crisis in Ukraine, the US and Russia were working to transition nuclear security engagement from one of assistance to one of partnership." ...there are concerns within the administration that Russia will divert the funds to help mitigate the impact of the economic sanctions, or that the money will be misused in other ways. ...The cooperative threat reduction program made sense after the Soviet collapse, but Russia is no longer a poor country and has oil revenues that can be used to pay for securing its own material... .

...Russia is currently engaged in a major buildup of its strategic nuclear forces that include several new missile systems, new submarines, and a new strategic bomber. Moscow also has threatened to deploy nuclear missiles in occupied Crimea. The House will debate legislation that includes provisions that would restrict US funding for nuclear non-proliferation programs in Russia. ...The current defense bill language contains a provision that bars all funding for nuclear nonproliferation activities and assistance in Russia. However, the provision allows the energy secretary to waive the curb. Bolton, the former US ambassador to the UN, also criticized the plans to fund Russian nuclear security programs. ...Disclosure of the NNSA funding plan comes as senior military and defense officials in recent weeks voiced new fears of Russian threats and aggression in Eastern Europe.

Defense Secretary Carter told a Senate hearing on 06 May that Russia appears to be preparing for new violations of the ceasefire with Ukraine by preparing for new military action in the eastern part of the country. Carter said European sanctions on Russia are having an impact on Moscow's economy. ...

Source: http://www.businessinsider.com, 08 May 2015.

URANIUM PRODUCTION

GENERAL

Asia's $800 Billion Nuclear Splurge to Unlock Uranium Motherlode

A nuclear-power boom in Asia that's set to drive up uranium prices is triggering a resurgence in mining in Australia, home to the world's largest reserves. Almost $800 billion of new reactors are under development in the region, driven by China and India where demand is climbing for the emission-free energy. The value of uranium plunged in the wake of the 2011 Fukushima nuclear disaster in Japan. Now, with contract prices forecast to jump more than 60 percent, suppliers in Australia are planning about half a dozen new mines. "Australia is very well placed," said Reilly, managing director of Canadian miner Cameco Corp.'s local unit.... "China and India will be very significant customers down the track." The mines on the drawing board in Australia, which holds a third of the world's known uranium reserves, include the Kintyre project, a joint venture between Cameco and Mitsubishi Corp. that won government approval in April 2015.

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China will need the equivalent of about 1,000 nuclear reactors, 500,000 wind turbines or 50,000 solar farms as it steps up its fight against climate change. The country in March approved construction of its first nuclear power project since Fukushima brought the program to a standstill.

Global Warming: India also views its push for new

power plants as part of its effort to curb global warming. Cameco agreed in April 2015 to sell uranium from its Canadian mines to India. Australia's PM Abbott in 2014 signed an agreement with India that opens the door for uranium sales and may help producers such as BHP Billiton Ltd. and Rio Tinto Group-controlled Energy Resources of Australia Ltd. Similar accords were signed last decade with China and Russia. ...Cameco's Yeelirrie mine and the Vimy Resources Ltd.-led Mulga Rock project are also planned in Western Australia, which lifted a ban on uranium mining in 2008. Exports from the four projects could exceed A$1 billion ($790 million) a year by the end of the decade if prices recover, the state government estimated.

Exports from Australia are forecast to rise at an average annual rate of 8 percent, according to government estimates. The country supplies about 11 percent of global output and has about 31 percent of the world's reserves. The expansion of new mines in Australia has been dogged in the past by government prohibitions and opposition from environmentalists.

Exports Forecast: Exports from Australia are forecast to rise at an average annual rate of 8 percent, according to government estimates. The country supplies about 11 percent of global output and has about 31 percent of the world's reserves. The expansion of new mines in Australia has been dogged in the past by government prohibitions and opposition from environmentalists. The Labor Party dropped its more than two-decade long ban on new uranium mines in 2007, while leaving state governments with the power to reject mining proposals. While the nuclear-power boom in China and India bodes well, the industry faces headwinds in the form of bulging inventories as the planned mines in Australia wait for higher prices to kick in. Both Cameco, which says price uncertainty makes it too hard to estimate when Kintyre will begin, and Toro need long-term contract prices to jump more than 35 percent from current levels of about $50 a pound to make their projects viable. Contract prices are forecast to rise to about $80 a pound in 2020, according to JPMorgan Chase & Co....

Source: http://www.bloomberg.com, 08 May 2015.

PERU

Plateau Uranium Increases Resource Estimates for Macusani Plateau Properties

Plateau Uranium (TSXV:PLU) continues to make progress at its uranium projects on Peru's Macusani Plateau, and most recently significantly increased the collective mineral resource estimate for those properties. The indicated resource for all of those projects now sits at 51.9 million pounds at 248 parts per million (ppm) U3O8, while the inferred resource comes to 72.1 million pounds at 251 ppm U3O8. Those numbers were obtained using a cut-off grade of 75 ppm U3O8, but a higher-grade cut off of 200 ppm U3O8 results in an indicated resource of 32.8 million pounds at 445 ppm U3O8 and an inferred resource of 45.9 million pounds at 501 ppm U3O8. The resource estimates were updated following Plateau's acquisition of the Minergia projects from Azincourt Uranium (TSXV: AAZ) in September 2014. Plateau has now integrated information from all its properties and has removed former property boundaries.

***Bottom of Form*:** In terms of what all the company now controls, it explains in its release that it holds the rights to all known uranium deposits on the Macusani Plateau. Those include the Kihitian Complex, which hosts the Chilcuno Chico, Quebrada Blanca, Tuturumani and Tantamaco deposits; the Isivilla Complex, which includes the Isivilla, Calvario Real, Puncopata and Calvario I deposits; and the Corani Complex, which includes the Calvario II, Calvario III and Nueva Corani deposits. Plateau secured all of those deposits and more through five corporate transactions that took place over an eight-year period, and according to CEO Ted O'Connor, the new resource has exceeded expectations and "strengthened [the company's] belief in the potential of this emerging uranium district as a future source of

low-cost uranium." He also said the new estimates show higher grades and indicate that there are substantial uranium resources available at higher cut-off grades.

Moving Forward: Now that Plateau has compiled a resource estimate for all its Macusani Plateua properties, it should be able to move forward in a timely manner. O'Connor said that one upcoming milestone will be the completion of an updated preliminary economic assessment. Plateau will also need to advance uranium production permitting discussions with Peruvian authorities, but considering the relationship the company has built with them and the Peruvian government's position towards uranium mining, that should go smoothly.... Working in a jurisdiction that values mining is definitely a plus, particularly with uranium, which often falls victim to complaints on environmental grounds. And indeed, mining exports are a crucial part of Peru's economy, accounting for 60 percent of the country's total exports. Its rich resource and economic success in the mining sector has allowed legal processes to be designed to support the industry. Another goal for Plateau moving forward will be to return to active delineation and exploration drilling later 2015. The company's share price was flat at end of 06 May 2015 at a price of $0.65. It's up 80.56 percent year-to-date.

Namibia is the 5th largest uranium producing country – will jump to 2nd when Husab commences production in 2016. The heap leach demonstration program is underway – a key point in project development and development financing process.

Etango has the world's fourth largest Ore Reserve of 119 million pounds U3O8 and is anticipated to produce between 7 million and 9 million pounds of U3O8 per annum over a 15 year mine life.

Source: http://uraniuminvestingnews.com, 06 May 2015.

NAMIBIA

Bannerman Resources: CEO Len Jubber Updates on Etango Uranium Project

Namibian uranium developer Bannerman Resources' Etango Uranium Project is one of few global top 10 uranium projects likely to progress to development in the medium term.

The project is one of the most advanced with a DFS completed and a granted environmental permit. It has a strong balance sheet support and a project located in a highly regarded investment jurisdiction. Namibia is the 5th largest uranium producing country – will jump to 2nd when Husab commences production in 2016. The heap leach demonstration program is underway – a key point in project development and development financing process.

This will showcase the project - demonstrating the heap leaching process, further de-risks the Etango development path. It is also likely to be watched by potential JV / funding partners....

Etango has the world's fourth largest Ore Reserve of 119 million pounds U3O8 and is anticipated to produce between 7 million and 9 million pounds of U3O8 per annum over a 15 year mine life. It is an open pit mine located near to Rio Tinto's (ASX: RIO) Rössing uranium mine, Paladin Energy's (ASX: PDN) Langer Heinrich uranium mine and CGNPC's Husab uranium mine – under construction. The project is well located in regards to external infrastructure.

Source: http://www.proactiveinvestors.com.au, 08 May 2015.

NUCLEAR PROLIFERATION

IRAN

UK Tells UN of Iranian Attempts to Buy Nuclear Technology

If confirmed, efforts to procure uranium enrichment equipment would violate Security Council resolutions at crucial time in nuclear negotiations. Britain has informed the UN Iranian of attempts a year ago in 2014 to buy uranium

enrichment technology on the black market.... Such procurement efforts would, if confirmed, represent a violation of UNSC resolutions placing Iran under sanctions, but analysts said they were unlikely to derail a comprehensive nuclear agreement between Iran and six world powers. Under the agreement, due to be completed by 30 June, Iran would accept strict limits on its nuclear programme, particularly on uranium enrichment, in return for sanctions relief. ...KEC is under Security Council sanctions while TESA is under American and EU sanctions because of their suspected involvement in developing centrifuges for a uranium enrichment programme banned by the UN.

The UN panel said the British report was too recent to have been assessed independently. ...However, all UN sanctions on Iran remain in force. Until there is a new UNSC Resolution that changes this, all UN member states have a responsibility to enforce these sanctions, including through investigation of possible breaches. ... According to the broad parameters of the nuclear deal provisionally agreed in Lausanne on 2 April, Iran would accept a 70% cut in its uranium enrichment capacity, and a reduction in its stockpile of low-enriched uranium of up to 97%, in return for the lifting of sanctions. The exact sequence of reciprocal steps is one of the main issues that have to be resolved before the deadline.

In New York on 29 April, the Iranian FM, Zarif, signaled some flexibility over the sequence, saying Tehran would be prepared to wait a few weeks for the lifting of sanctions to allow for verification of self-imposed curbs on its nuclear programme.

Source: http://www.theguardian.com, 30 April 2015.

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USA

Former US Energy Department Employee Accused of Attempting to Steal, Sell Nuclear Secrets

Charles Harvey Eccleston, a former employee of the US Department of Energy and the US NRC, was indicted on charges of attempting to extract sensitive, nuclear weapons-related information and sell them to a foreign country. According to the indictment unsealed on 08 May, Eccleston allegedly attempted to extract this information from computers at the Department of Energy through "spear-phishing" emails. A spear-phishing attack involves crafting an email that appears to be from a trusted source, and infects the recipient's computer with a virus when opened. According to the FBI, Eccleston sent such emails to over 80 computers in January. However, no computer virus or malware was transferred to these systems....

Eccleston's activities came to light during an undercover FBI operation when he offered to design and send spear-phishing emails that could be used to damage the computer systems used by his former employer. He also went to the embassy of an unnamed foreign nation and offered to sell classified information. Eccleston, 62, had been living in the Philippines since 2011 after he was fired from the NRC in 2010, reportedly for failing to meet the requirements of a two-year probationary period. He was detained by Philippine authorities in Manila on March 27, 2015, and deported to the US to face criminal charges. He will remain in detention pending his hearing on May 20. "This prosecution demonstrates federal law enforcement's vigorous efforts to neutralize cyber threats that put consumers, our economy, and our national security at risk,"....

Source: http://www.ibtimes.com, 09 May 2015.

NUCLEAR NON-PROLIFERATION

IRAN

Senate Overwhelmingly Passes Iran Nuclear Bill

The Senate overwhelmingly passed a bill to give Congress the authority to review an emerging nuclear agreement with Iran, despite vocal opposition from some conservative Republicans who said the bill was not strong enough. The vote was 98 to 1. The lone dissenter was freshman Tom Cotton of Arkansas, a staunch advocate against an Iran deal.

Next, the measure will go to the House, which plans to take it up. If passed there, it would go to President Barack Obama, who has said he would sign it so long as it didn't change dramatically from when it was approved a few weeks ago by the Senate Foreign Relations Committee in a rare unanimous vote. Senate leaders and bill managers had fended off a series of amendments they considered "poison pill" proposals from Republicans on the right flank that could have scuttled the legislation. Two were defeated on roll call votes. The rest got bottled up in negotiations that ultimately went nowhere after Cotton went around his leaders and tried to force floor votes on two other controversial amendments opposed by many senators of both parties. One would have required Iran's hardline regime to recognize Israel's right to exist as a condition for a nuclear agreement and the lifting of long-imposed sanctions against Iran.

In response, Senate Majority Leader Mitch McConnell, a proponent of the bill, set up procedural vote on the question of whether to end debate on the measure. McConnell strongly supported the bill because, like a lot of Republicans, he is deeply suspicious about whether the Obama administration will strike a tough deal with Iran.

... The bill would block the President from using his authority to waive congressionally-mandated sanctions against Iran for close to two months while Congress studies an agreement and decides whether to vote on a resolution of disapproval. Still, the measure gives a strong advantage to the President to seal a deal. That's because the President could veto a disapproval resolution and then block an override effort with just 41 votes. 2016 presidential candidate Sen. Ted Cruz, R-Texas, and other Republicans were furious their leaders had agreed to the disadvantage....

Source: Ted Barrett, CNN, 07 May 2015.

NUCLEAR DISARMAMENT

RUSSIA

Is Russia Headed Towards Nuclear Disarmament?

Is Russia stepping up its game regarding the disarmament of nuclear weapons? This was the news when Russia sent a letter to a NPT Review Conference, describing the steps Russia has taken to fulfill the aims of the NPT. ... In the letter to the conference, Russia's President Putin assured members that, "We have reduced our nuclear weapons stockpiles to minimal levels, thereby making a considerable contribution to the process of comprehensive and complete disarmament."

While Putin stands by his claims made in the letter, it wasn't long ago that the US was accusing Russia of violating the NPT. At the same conference, Kerry admitted that the US and Russia are responsible for 90 percent of all the world's nuclear weapons. However Kerry said that while the US is trying to comply with the treaty, Russia has been playing by their own rules.

Putin went on to write that Russia, "plan[s] to continue this work, as well as maintain the balance between the development of peaceful nuclear [programs] and the strengthening of the non-proliferation regime, including the guarantees system of the IAEA." Yet while Putin stands by his claims made in the letter, it wasn't long ago that the US was accusing Russia of violating the NPT. At the same conference, Kerry admitted that the US and Russia are responsible for 90 percent of all the world's nuclear weapons. However Kerry said that while

the US is trying to comply with the treaty, Russia has been playing by their own rules: "I want to emphasize our deep concerns regarding Russia's clear violation of its obligations under the Intermediate-Range Nuclear Forces Treaty. We are urging Russia to return to compliance," Kerry stated. Meanwhile Russia had their own barbs to trade… .

…A look at the Federation of American Scientists fact sheet shows us that while Russia has a few more nuclear weapons (Russia has 7,500 while the US has 7,200), the US has more weapons strategically deployed. But the real shame is that the US and Russia are busy pointing fingers at each other, because when these two sides work together on nuclear disarmament they can achieve some monumental goals. The Megatons to Megawatts program, which started in 1993, helped to rid the world of the equivalent of 20,000 nuclear warheads. It was a 10-year agreement that took Russia's highly enriched uranium and converted it into electricity in the United States. This helped Russia rid itself of excess weapons, while powering about 10 percent of the US' electricity needs. The program ended in 2013, and so far there have been no talks on reinstating a similar deal. Regardless of how these two countries go head-to-head, there is evidence that Russia has been steadily reducing their number of nuclear weapons and complying with the NPT. An independent peer review of Russia by the IAEA in 2013 revealed, "the Russian Federation had made significant progress since an earlier review in 2009. It also identified good practices in the country's nuclear regulatory system". Although many will wait on another independent review before taking Russia's claims to heart, most can agree that anything that conforms with the NPT is a step in the right direction.

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Source: http://www.truth-out.org, 03 May 2015.

NUCLEAR SAFETY

USA

Transformer Failure Causes Fire at N.Y. Nuclear Power Plant

A transformer failure at the Indian Point nuclear power plant caused an explosion and fire at the facility on 09 May evening, sending billows of black smoke into the air near Buchanan, New York. The fire broke out on the non-nuclear side of the plant, about 200 yards away from the reactor building, according to Entergy spokesman Nappi. "The fire is out and the plant is safe and stable," Nappi said. Federal officials said one reactor unit automatically shut down. No one was injured in the blaze. There was "no threat to public safety at any time," the facility said in a tweet…. A sprinkler system doused the fire with the help of personnel on the scene, Nappi said. Multiple emergency services agencies responded to the explosion at the plant, located approximately 50 miles north of Manhattan, including the Westchester County and New York State Police.

Gov. Cuomo …called the incident "relatively minor" but added, "these situations we take very seriously. This is a nuclear-powered plant; it's nothing to be trifled with." The blast sent the facility into an emergency response situation classified as an "unusual event," according to Nappi. The event was declared at 5:50 p.m. and the fire was out by 6:15 p.m. Sheehan, a spokesman for the federal Nuclear Regulatory Commission, said the agency had three inspectors respond. "They're cooling down the reactor and we'll have to investigate the cause of the fire," he said. The facility houses two nuclear reactor units and produces approximately 25% of the electricity for New York City and Westchester County….

Source: http://edition.cnn.com, 09 May 2015.

NUCLEAR WASTE MANAGEMENT

AUSTRALIA

Nuclear Waste Dump Unlikely in NT after Land Councils, Stations Refuse to Nominate Site

The Federal Government began a renewed search for a site to store Australia's intermediate-level nuclear waste and dispose of low-level waste in March this year. A formal application process closed on the May 5. The ABC confirmed the Northern Land Council, Central Land Council, and Northern Territory Government had not nominated any land. Gilnockie and Supplejack Downs Stations also decided against participating in the process.

In a statement, the Federal Government refused to confirm whether any other organisation had nominated land. "Details on nominations will be made public following the close of the nomination process and consideration by the Minister for Industry and Science. On current timeframes, this is expected in July 2015," the statement read.

The decision to expand the search for a storage site to the rest of Australia came after the proposal to house waste at Muckaty Station, near Tennant Creek, was abandoned last year. Until then, Aboriginal people in the Territory had the exclusive right to nominate a site. But under a legal settlement, traditional owners abandoned the nomination and no new sites on NT Aboriginal land were nominated. ...

Source: Anthony Stewart, http://www.abc.net.au, 11 May 2015.

CANADA

Kincardine Nuclear Waste Site Gets Federal Seal of Approval

Deep Geologic Repository proposed by Ontario Power Generation at its Bruce site is "not likely to cause significant adverse environmental effects," report concludes. A federal panel has given an overall seal of approval to the controversial nuclear waste disposal site proposed for a subterranean crypt below the Bruce nuclear station near Kincardine, Ont. "The Panel concludes that the project is not likely to cause significant adverse environmental effects" given the measures contemplated to curb them, says the report by the Joint Review Panel. The panel's favourable view of the project, proposed by Ontario Power Generation, overcomes a major regulatory hurdle in the construction of the Deep Geologic Repository (DGR) in industry jargon, which would see nuclear waste buried hundreds of metres underground near the shore of Lake Huron.

OPG proposes to bury 200,000 cubic metres of low- and intermediate-level radioactive waste from its nuclear power plants in a thick layer of limestone 680 metres below ground, about a kilometre from Lake Huron. The company says the rock is so solid and stable it will contain any possible leakage of harmful radioactivity.

Supporters and opponents there are 152 communities opposed to the project, including Toronto and Chicago were poring over the report after it was released late on 06 May, examining closely the conditions that the panel says should be imposed before the project can proceed. OPG released a brief statement saying it is generally pleased with the report. "OPG developed the DGR with one goal in mind: to create permanent, safe storage for Ontario's low- and intermediate-level nuclear waste," said senior vice-president Swami.... However, environmentalists in Canada and the US are likely to step up their opposition. Dozens of municipal councils around the Great Lakes are on record against it. Resolutions have also been presented in both houses of the US Congress.

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hearings in the Kincardine area in 2014. Interveners who participated in those hearings have 120 days to file further comment, at which point the minister can approve the project and ask the panel to write detailed conditions for a construction licence. OPG figures shovels could go in the ground by 2018 at the earliest, with the $1-billion facility opening no sooner than 2025.

Environmental approval is not all the project needs, however. OPG says it will not go ahead with the project over the objections of the Saugeen Ojibway Nation, in whose traditional territory the site lies. Talks are continuing, but Saugeen has not yet given its agreement. Kevin Kamps, a spokesperson for Beyond Nuclear...raised several concerns, including the risk of transport accidents involving vehicles shipping materials to the DGR, and potential leaks from the crypt into the environment, including the Great Lakes. ...

... Though OPG decided to construct the waste storage facility at the Bruce site without thoroughly investigating alternative sites, the panel said the Bruce was a good choice. "The relative environmental effects of constructing a DGR on an undeveloped site would be higher than on the already disturbed Bruce nuclear site," it concludes. "There would be socio-economic challenges at an undeveloped site. ... In addition, the Bruce nuclear site is highly secure; thus, the risk of malevolent acts is already managed and low."

The panel's proceedings were jolted in February, 2014, when an underground nuclear waste site in Carlsbad, N.M., leaked radiation to the surface, exposing a dozen workers to low doses of radioactivity. The panel made several recommendations stemming from a review of that accident, but concluded that over-all any accidents or "malevolent acts" are not likely to damage humans or other life forms. ...Overall, the report says, the risk posed by a nuclear waste site is much less of a threat to the Great Lakes than numerous other factors, including invasive species, climate change and other forms of pollution. ...

Source: http://www.thestar.com, 06 May 2015.

Centre for Air Power Studies

The Centre for Air Power Studies (CAPS) is an independent, non-profit think tank that undertakes and promotes policy-related research, study and discussion on defence and military issues, trends and developments in air power and space for civil and military purposes, as also related issues of national security. The Centre is headed by Air Marshal Vinod Patney, SYSM PVSM AVSM VrC (Retd).

Centre for Air Power Studies
P-284
Arjan Path, Subroto Park,
New Delhi - 110010
Tel.: +91 - 11 - 25699131/32
Fax: +91 - 11 - 25682533
Email: capsnetdroff@gmail.com
Website: www.capsindia.org

Edited by: Director General, CAPS

Editorial Team: Dr. Sitakanta Mishra, Hina Pandey, Arjun Subramanian P, Chandra Rekha

Composed by: CAPS

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