



A FORTNIGHTLY NEWSLETTER ON NUCLEAR DEFENCE, ENERGY AND PROLIFERATION FROM
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SPEECH – DONALD TRUMP

Iran Nuclear Deal

Thank you very much. My fellow Americans: As President of the United States, my highest obligation is to ensure the safety and security of the American people.

History has shown that the longer we ignore a threat, the more dangerous that threat becomes. For this reason, upon taking office, I've ordered a complete strategic review of our policy toward the rogue regime in Iran. That review is now complete. Today, I am announcing our strategy, along with several major steps we are taking to confront the Iranian regime's hostile actions and to ensure that Iran never, and I mean never, acquires a nuclear weapon. Our policy is based on a clear-eyed assessment of the Iranian dictatorship, its sponsorship of terrorism, and its continuing aggression in the Middle East and all around the world.

Iran is under the control of a fanatical regime that seized power in 1979 and forced a proud people to submit to its extremist rule. This radical regime has raided the wealth of one of the world's oldest and most vibrant nations, and spread death, destruction and chaos all around the globe. Beginning in 1979, agents of the Iranian regime illegally seized the US embassy in Tehran and held

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CONTENTS

- ☞ SPEECH
- ☞ OPINION
- ☞ NUCLEAR STRATEGY
- ☞ BALLISTIC MISSILE DEFENCE
- ☞ NUCLEAR ENERGY
- ☞ NUCLEAR COOPERATION
- ☞ URANIUM PRODUCTION
- ☞ NUCLEAR NON- FROLIFERATION
- ☞ NUCLEAR PROLIFERATION
- ☞ NUCLEAR TERRORISM
- ☞ NUCLEAR SAFETY
- ☞ NUCLEAR WASTE MANAGEMENT

more than 60 Americans hostage during the 444 days of the crisis. The Iranian-backed terrorist group Hezbollah twice bombed our embassy in Lebanon - once in 1983 and again in 1984. Another Iranian-supported bombing killed 241 Americans - service members they were, in their barracks in Beirut in 1983.

In 1996, the regime directed another bombing of American military housing in Saudi Arabia, murdering 19 Americans in cold blood. Iranian proxies provided training to operatives who were later involved in al-Qaeda's bombing of the American embassies in Kenya, Tanzania, and two years later, killing 224

people, and wounding more than 4,000 others. The regime harboured high-level terrorists in the wake of the 9/11 attacks, including Osama bin Laden's son. In Iraq and Afghanistan, groups supported by Iran have killed hundreds of American military personnel.

The Iranian dictatorship's aggression continues to this day. The regime remains the world's leading state sponsor of terrorism, and provides assistance to al-Qaeda, the Taliban, Hezbollah, Hamas, and other terrorist networks. It develops, deploys, and proliferates missiles that threaten American troops and our allies. It harasses American ships and threatens freedom of navigation in the Arabian Gulf and in the Red Sea. It imprisons Americans on false charges. And it launches cyberattacks against our critical infrastructure, financial system, and military.

The US is far from the only target of the Iranian dictatorship's long campaign of bloodshed. The regime violently suppresses its own citizens; it shot unarmed student protesters in the street during the Green Revolution. This regime has fuelled sectarian violence in Iraq, and vicious civil wars in Yemen and Syria. In Syria, the Iranian regime has supported the atrocities of Bashar al-Assad's regime and condoned Assad's use of chemical weapons against helpless civilians, including many, many children. Given the regime's murderous past and present, we should not take lightly its sinister vision for the future. The regime's two favourite chants are "Death to America" and "Death to Israel".

Realising the gravity of the situation, the US and the UNSC sought, over many years, to stop Iran's pursuit of nuclear weapons with a wide array of strong economic sanctions. But the previous administration lifted these sanctions, just before

what would have been the total collapse of the Iranian regime, through the deeply controversial 2015 nuclear deal with Iran. This deal is known as the Joint Comprehensive Plan of Action, or JCPOA.

The Iran Deal was one of the worst and most one-sided transactions the US has ever entered into. The same mind-set that produced this deal is responsible for years of terrible trade deals that have sacrificed so many millions of jobs in our country to the benefit of other countries. We need negotiators who will much more strongly represent America's interest.

As I have said many times, the Iran Deal was one of the worst and most one-sided transactions the US has ever entered into. The same mind-set that produced this deal is responsible for years of terrible trade deals that have sacrificed so many millions of jobs in our country to the benefit of other countries. We need negotiators who will much more strongly represent America's interest.

The nuclear deal threw Iran's dictatorship a political and economic lifeline, providing urgently needed relief from the intense domestic pressure the sanctions had created. It also gave the regime an immediate financial boost and over \$100bn its government could use to fund terrorism. The regime also received a massive cash settlement of \$1.7bn from the US, a large portion of which was physically loaded onto an airplane and flown into Iran. Just imagine the sight of those huge piles of money being hauled off by the Iranians waiting at the airport for the cash. I wonder where all that money went.

We got weak inspections in exchange for no more than a purely short-term and temporary delay in Iran's path to nuclear weapons. What is the purpose of a deal that, at best, only delays Iran's nuclear capability for a short period of time? This, as president of the US, is unacceptable.

Worst of all, the deal allows Iran to continue developing certain elements of its nuclear programme. And importantly, in just a few years, as key restrictions disappear, Iran can sprint towards a rapid nuclear weapons breakout. In other words, we got weak inspections in exchange for no more than a purely short-term and temporary delay in Iran's path to nuclear weapons. What is the purpose of a deal that, at best, only delays Iran's nuclear capability for a short period of time? This, as president of the US, is unacceptable. In other countries, they think in terms of 100-year

intervals, not just a few years at a time. The saddest part of the deal for the US is that all of the money was paid up front, which is unheard of, rather than at the end of the deal when they have shown they've played by the rules. But what's done is done, and that's why we are where we are.

Iranian regime has committed multiple violations of the agreement. For example, on two separate occasions, they have exceeded the limit of 130 metric tonnes of heavy water. Until recently, the Iranian regime has also failed to meet our expectations in its operation of advanced centrifuges. The Iranian regime has also intimidated international inspectors into not using the full inspection authorities that the agreement calls for. Iranian officials and military leaders have repeatedly claimed they will not allow inspectors onto military sites, even though the international community suspects some of those sites were part of Iran's clandestine nuclear weapons programme.

I urge our allies to join us in taking strong actions to curb Iran's continued dangerous and destabilising behaviour, including thorough sanctions outside the Iran Deal that target the regime's ballistic missile programme, in support for terrorism, and all of its destructive activities, of which there are many.

There are also many people who believe that Iran is dealing with North Korea. I am going to instruct our intelligence agencies to do a thorough analysis and report back their findings beyond what they have already reviewed. By its own terms, the Iran Deal was supposed to contribute to "regional and international peace and security". And yet, while the US adheres to our commitment under the deal, the Iranian regime continues to fuel conflict, terror and turmoil throughout the Middle East and beyond. Importantly, Iran is not living up to the spirit of the deal.

So today, in recognition of the increasing menace posed by Iran, and after extensive consultations with our allies, I am announcing a new strategy to address the full range of Iran's destructive actions.

First, we will work with our allies to counter the regime's destabilising activity and support for terrorist proxies in the region.

Second, we will place additional sanctions on the regime to block their financing of terror.

Third, we will address the regime's proliferation of missiles and weapons that threaten its neighbours, global trade and freedom of navigation.

And finally, we will deny the regime all paths to a nuclear weapon.

Today, I am also announcing several major steps my administration is taking in pursuit of this strategy. The execution of our strategy begins with the long-overdue step of imposing tough sanctions on Iran's Islamic Revolutionary Guard Corps.

The Revolutionary Guard is the Iranian Supreme Leader's corrupt personal terror force and militia. It has hijacked large portions of Iran's economy and seized massive religious endowments to fund war and terror abroad. This includes arming the Syrian dictator, supplying proxies and partners with missiles and weapons to attack civilians in the region, and even plotting to bomb a popular restaurant

right here in Washington DC. I am authorising the Treasury Department to further sanction the entire Islamic Revolutionary Guard Corps for its support for terrorism and to apply sanctions to its officials, agents and affiliates. I urge our allies to join us in taking strong actions to curb Iran's continued dangerous and destabilising behaviour, including thorough sanctions outside the Iran Deal that target the regime's ballistic missile programme, in support for terrorism, and all of its destructive activities, of which there are many.

Finally, on the grave matter of Iran's nuclear programme: Since the signing of the nuclear agreement, the regime's dangerous aggression has only escalated. At the same time, it has received massive sanctions relief while continuing to develop its missiles programme. Iran has also entered into lucrative business contracts with other parties to the agreement.

When the agreement was finalised in 2015, Congress passed the Iran Nuclear Agreement Review Act to ensure that Congress's voice would

be heard on the deal. Among other conditions, this law requires the President, or his designee, to certify that the suspension of sanctions under the deal is "appropriate and proportionate" to measure - and other measures taken by Iran to terminate its illicit nuclear programme. Based on the factual record I have put forward, I am announcing today that we cannot and will not make this certification. We will not continue down a path whose predictable conclusion is more violence, more terror and the very real threat of Iran's nuclear breakout. That is why I am directing my administration to work closely with Congress and our allies to address the deal's many serious flaws so that the Iranian regime can never threaten the world with nuclear weapons. These include the deal's sunset clauses that, in just a few years, will eliminate key restrictions on Iran's nuclear programme.

The flaws in the deal also include insufficient enforcement and near total silence on Iran's missile programmes. Congress has already begun the work to address these problems. Key House and Senate leaders are drafting legislation that would amend the Iran Nuclear Agreement Review Act to strengthen enforcement, prevent Iran from developing...this is so totally important - an intercontinental ballistic missile, and make all restrictions on Iran's nuclear activity permanent under US law. So important. I support these initiatives. However, in the event we are not able to reach a solution working with Congress and our allies, then the agreement will be terminated. It is under continuous review, and our participation can be cancelled by me, as President, at any time. As we have seen in North Korea, the longer we ignore a threat, the worse that threat becomes. It is why we are determined that the world's leading sponsor of terrorism will never obtain nuclear weapons.

In this effort, we stand in total solidarity with the Iranian regime's longest-suffering victims: its own

people. The citizens of Iran have paid a heavy price for the violence and extremism of their leaders. The Iranian people long to - and they just are longing, reclaim their country's proud history, its culture, its civilization, its cooperation with its neighbours. We hope that these new measures directed at the Iranian dictatorship will compel the government to re-evaluate its pursuit of terror at the expense of its people. We hope that our actions today will help bring about a future of peace, stability and prosperity in the Middle East - a future where sovereign nations respect each other and their own citizens. We pray for a future where young children - American and Iranian, Muslim, Christian and Jewish - can grow up in a world free from violence, hatred and terror. And, until that blessed day comes, we will do what we must to keep America safe.

Source: <http://www.bbc.com>, 13 October 2017.

OPINION - Ehud Barak

The Iran Nuclear Deal is Bad - and Necessary

North Korea is the proverbial horse that has broken the stable door, but, thanks to the Iran nuclear agreement, the Iranian horse remains in the barn. The US should be attempting to corral the defiant North Korea, not giving Iran a reason to break out, too.

US President Donald Trump has refused to certify the nuclear agreement with Iran, launching a process by which the US Congress could re-impose sanctions on the country. Fortunately, it seems likely that Congress, rather than pulling the plug on the deal, will seek some alternative that allows Trump to save face with his supporters, to whom he has long promised US withdrawal from the Iran deal. Nonetheless, decertification is a serious mistake.

Like many Israelis, I agree with Trump that the international agreement reached with Iran in 2015 is fundamentally a bad deal. But it is also

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a *done* deal. Even if the US does decide to withdraw from it completely, none of the other parties – not China or Russia or even the Europeans (France, Germany, and the UK) – will follow suit. Iran would continue to reap the agreement's benefits.

At the same time, however, Iran could view the US decision to renege on the deal as justification for reviving its halted nuclear program. After all, the Iran Nuclear Agreement Review Act authorizes the US President to decertify the deal if Iran violates its terms. And, at least technically, Iran has done no such thing. Of course, Iran's behaviour – developing powerful ballistic missiles, helping to spread terror across the Middle East, and running intensive cyber warfare campaigns – is deeply troubling, and measures should be taken to apply pressure on Iran to address these issues. But none of them was part of the nuclear deal.

If Trump does decertify the Iran deal right now, it will undermine America's credibility when it comes to reining in another nuclear threat: North Korea. If the US can default on its international commitments for no reason, why would Kim Jong-un bother to engage in negotiations.

In this context, if Trump does decertify the Iran deal right now, it will undermine America's credibility when it comes to reining in another nuclear threat: North Korea. If the US can default on its international commitments for no reason, why would Kim Jong-un bother to engage in negotiations? Kim might be an extremist of the first order, but his motivations are easy to discern. He views nuclear weapons as the ultimate insurance against a steep and ignominious fall, like those of Libya's Muammar Qaddafi and Iraq's Saddam Hussein.

Moreover, however mighty the US military is, it cannot destroy North Korea's nuclear arsenal without provoking a counterattack inflicting untold destruction on South Korea and perhaps also Japan – both close US allies. That gives Kim substantial leverage. The only possible way to deter Kim is through coercive diplomacy that compels him to freeze his nuclear program at something like its current level. And it was just this sort of coercive diplomacy, backed by sanctions and a united

position among major international actors, that compelled Iran to sign its own deal. If such diplomacy loses its credibility, Kim will inevitably continue to expand his nuclear-weapons program, and global risks will rise exponentially – not least because neighbours like South Korea and Japan will be increasingly eager to develop their own nuclear weapons. With that, the cause of nuclear non-proliferation and disarmament – a goal that the US has pursued for almost 70 years – will be all but dead.

The most immediate threat would be a decision by Iran to relaunch its own nuclear-weapon program. Should that happen, Egypt, Saudi Arabia, and Turkey would be virtually certain to pursue nuclear breakout. In fact, any third-rate dictator in the world watching these developments might decide to pursue nuclear weapons. The entire global order would be fundamentally changed. North Korea is the

proverbial horse that has broken the stable door and bolted. But, thanks to the current agreement, the Iranian horse remains in the barn. The US should be attempting to corral North Korea, not giving Iran reason to bolt, too. This does not mean that the US needs to be passive. In fact, the US should be preparing for a potential future Iranian nuclear breakout – a distinct possibility, even if the current deal is upheld. Iran would be unlikely to pursue nuclear breakout immediately, because the deal still affords it substantial benefits.

A few years from now, however, those benefits would be largely secured, giving Iran less reason to stick to its promises. Given this, rather than parting ways with the other parties that helped to negotiate the agreement, the US should be seeking a consensus on what would constitute an Iranian breakout, in order to help guide the inspections conducted by the IAEA. The US should also coordinate with the agreement's other signatories regarding the sanctions and other punishments that would be meted out if Iran actually did breach the deal.

For any of this to work, however, the “big American stick” must be present. The US must be prepared, in terms of intelligence, weapons, and political will, to intervene – unilaterally, if needed – to stop Iran, should it try to follow in North Korea’s footsteps. Deal or no deal, Iran represents a serious threat – to Israel, of course, but also to the stability of the Middle East and, in a sense, of the whole world. But, as of now, that threat is not existential. Preventing it from becoming so should be a top priority today. We in Israel who have been thinking seriously about this challenge for some time – not to mention working hard to prepare ourselves for various contingencies – recognize that, for now, our security is best served by maintaining the current deal. Over the last 25 years, six countries have tried to turn themselves into nuclear states. Two of them – Libya and South Africa – gave up. Another two – Syria and Iraq – were stopped.

And two – Pakistan and North Korea – succeeded, in defiance of the international community. We must ensure that Iran is not allowed to join their ranks. And, so long as Iran remains compliant, the nuclear deal, however bad it is, remains our best chance to do just that.

Source: <https://www.project-syndicate.org>, 13 October 2017.

OPINION – Matt Brown

Donald Trump’s Iran Nuclear Deal Strategy Leaves Unanswered Questions and Ramps Up Tensions

Donald Trump’s new Iran strategy is a risky gamble. It introduces confusion over US policy on nuclear proliferation in the Middle East while seeking tougher measures on long-standing grievances over Iranian behaviour. It has been met with joy in Israel and defiance in Iran. Well beyond the nuclear program, the strategy signals growing tension over Iran’s conventional weapons program and targets a controversial military unit

that was at the core of an agreement to share intelligence with Australia.

Shortly after Trump’s speech, Iran’s President Hassan Rouhani said, “No President can revoke an international deal Iran will continue to respect it as long as it serves our interests.” But he warned Iran would respond if its interests are harmed and pledged to redouble efforts to build conventional military forces, especially Iran’s controversial long range missile program.

For Israel’s PM Benjamin Netanyahu, it was a landmark moment in a year’s long campaign against the deal. “President Trump has just created an opportunity to fix this bad deal, to roll back Iran’s aggression and to confront its criminal support of terrorism”, he said. When Netanyahu addressed the UN General Assembly in September 2017, he said of the deal, “fix it or nix it”. And he

zeroed in on the sunset clauses which would see limits on Iran’s ability to enrich uranium lifted eight to 13 years from now: “... above all, fixing the deal means getting rid of the sunset clause”.

That’s exactly what Trump has now made a priority. He also wants more aggressive inspections, in particular of military sites. As part of the agreement, the world powers established a Joint Commission on which the US and its allies have the numbers and this could be used to push more aggressively for those military site inspections. But only if the agreement is still in place.

Islamic Revolutionary Guard Corps (IRGC) will be a Focus: Hassan Rouhani has already said “Iran’s deal cannot be renegotiated” and it’s not clear if it will be dead a couple of months for now or simply on life support. What is clear is that there will be immediate, increased confrontation on a critical front. Trump has imposed sanctions on the entire IRGC, a parallel military structure answering to Iran’s Supreme leader, Ali Khamanei.

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The IRGC runs the Quds Force, which is responsible for foreign operations and accused of supporting terrorism and, while individual members have been sanctioned in the past, imposing a blanket ban will have an effect well beyond its military operations. The IRGC has substantial economic interests and trading arms.

It's shared in the billions of dollars of investment that flooded into Iran after the nuclear sanctions were lifted at the start of 2016. But Trump has signalled to potential investors in Iran that they could be walking into a minefield, with US Treasury Secretary Steven T Mnuchin, warning, "the private sector to recognise that the IRGC permeates much of the Iranian economy, and those who transact with IRGC-controlled companies do so at great risk". While the IRGC is accused of supporting terrorism by Hamas and Hezbollah it also trains and supports Shiite militias in Iraq which have played a key role, fighting alongside government forces, in the war on the Islamic State group.

The IRGC's influence and intelligence gathering capability in Iraq were key factors in the Australian government's decision to agree to share intelligence with Iran about IS and Australians fighting for IS. "I believe Iran has information that we would seek and they were very agreeable to share that information with us," Foreign Minister Julie Bishop said in Tehran in April 2015. That made an organisation with an odious reputation, including individuals sanctioned by the US and Australian governments, a de-facto intelligence partner. If the agreement ever bore fruit, it would be interesting to know if the new blanket ban on the IRGC has any effect on Australia's cooperation with Iran. The Iranian backed militias in Iraq may be seen as less important now that the war on IS is devolving to a more unconventional, counter-terrorist conflict. But they have the ability to target US troops working with Iraqi government forces

or to launch attacks on Kurdish troops who are at this moment in a tense armed stand-off with them on the outskirts of the oil-rich city of Kirkuk. And they could turn on Iraq's PM, Haidar al Abadi, who Washington favours over former PM Nouri Al Maliki, who is much closer to Iran and whose sectarian policies aided the rise of IS.

Donald Trump Wants a Tougher Line on Missiles:

While all of this is playing out, Trump will be trying to garner international cooperation for a tougher line on Iran's missile program. In parallel to the nuclear deal a UNSC resolution that said Iran "shall not" develop missiles capable of carrying nuclear weapons was watered down, and replaced with one that merely "called upon" Iran not to do so. And Iran has exploited that loophole,

continuing to test missiles with a range of 2,000 kms.

European powers say they share US concerns about these missiles. But there's doubt about their willingness to do much about it. "When Mr Obama sought to include a prohibition on ballistic missiles in the Iran deal, or at least extend a previous

America's friends in the region, Israel, Saudi Arabia and the UAE, have war chests much better able to handle the economic destruction conflict brings and possess advanced weapons systems for which Iran has no match. That's one reason why stopping Iran from breaking out and leap-frogging up to the next level of nuclear arms was so important to them.

Security Council resolution banning them, not just Russia and China but even our European allies in the nuclear negotiations refused," former Obama White House official Philip Gordon wrote in the *New York Times* in February.

In Iraq and Syria, where Iran is backing the government of Bashar al Assad, it has strategic interests it is unlikely to relinquish, despite increased sanctions. It has successfully used militias and terrorist networks to exert influence over the Middle East. And it's exploited the chaos unleashed by the US-led invasion of Iraq and the brutal civil war in Syria, to deepen that influence to a remarkable degree. But on the broader front, America's friends in the region, Israel, Saudi Arabia and the UAE, have war chests much better able to handle the economic destruction conflict brings and possess advanced weapons systems for which Iran has no match. That's one reason why stopping

Iran from breaking out and leap-frogging up to the next level of nuclear arms was so important to them: and yet now we are entering a period in which the agreement which limits Iran's nuclear program is in doubt and successful international action on its long-range missile program seems unlikely. While the stakes couldn't be higher, the path to put this new strategy into action couldn't be less clear

Civil society actors and governments concerned about disarmament should not be tempted to rest on the laurels of this achievement. If they are to make further progress, they must also focus on practical steps to reduce the risks of nuclear weapons being used. Without such work, the prohibition treaty risks becoming merely a moral victory, rather than contributing to concrete steps towards a world without nuclear weapons.

Source: <http://www.abc.net.au>, 14 October 2017.

OPINION – Toby Dalton

Between Disarmament and Deterrence

For the second time in the last decade, the Nobel Committee awarded its annual peace prize to the laudable goal of nuclear disarmament. This year's recipient, the International Campaign to Abolish Nuclear Weapons (ICAN), has worked tirelessly to raise awareness of nuclear dangers. The Treaty on the Prohibition of Nuclear Weapons they helped birth at the UN reflects the ambition of many states to rid the world of nuclear weapons. This should be an exciting time for disarmament supporters. But civil society actors and governments concerned about disarmament should not be tempted to rest on the laurels of this achievement. If they are to make further progress, they must also focus on practical steps to reduce the risks of nuclear weapons being used. Without such work, the prohibition treaty risks becoming merely a moral victory, rather than contributing to concrete steps towards a world without nuclear weapons.

The nuclear prohibition movement has no doubt gained momentum thanks to the fear inspired by the idea of Kim Jong-un or Donald Trump with his finger poised over the nuclear launch button. But neither the advent of a nuclear prohibition treaty, nor the increase in nuclear dangers seems to have diminished the belief in nuclear deterrence by officials and many experts from the states possessing such weapons.

Awarding of Ambition: The Nobel Committee's choice reflects an awarding of ambition. As much as the prohibition treaty creates a legal basis for proscribing nuclear weapons among adhering states, it hasn't actually banned such weapons. Nuclear arsenals exist and will continue to exist for years to come. The treaty establishes no new mechanisms to encourage states with nuclear weapons to dismantle them. Instead, it seeks to delegitimise nuclear weapons as tools of statecraft on the grounds of indiscriminate humanitarian effects. Ironically, the Nobel Committee essentially rewarded the same ambition just eight years ago, when it gave the prize to former US President Barack Obama for offering a vision of a world without nuclear weapons. These days, that vision seems especially remote.

Since 2009, when Mr. Obama won the prize, nuclear dangers have increased, as have nuclear arsenals in several states. It is rare to pick up a newspaper or browse Twitter without encountering hair-raising threats traded between Washington and Pyongyang, or between New Delhi and Islamabad. The nuclear prohibition movement has no doubt gained momentum thanks to the fear inspired by the idea of Kim Jong-un or Donald Trump with his finger poised over the nuclear launch button. But neither the advent of a nuclear prohibition treaty, nor the increase in nuclear dangers seems to have diminished the belief in nuclear deterrence by officials and many experts from the states possessing such weapons.

Without nuclear weapons, some argue, there would be more violence, not less. Great power wars not seen since 1945 could return, with catastrophic

consequences. Regional wars could increase in frequency and lethality. It is little surprise that many of the states opposed to the prohibition treaty are located in Europe and East Asia, regions whose politics continue to be shaped by the trauma and outcome of the Second World War.

International Security Problems: For states facing nuclear threats in particular, the logic of nuclear deterrence remains seductive. It is hardly surprising, for example, that opinion polls consistently show more than 60% of South Korean citizens supporting the idea of acquiring nuclear weapons in order to counter the growing nuclear threat from North Korea. It is such international security problems that the current ban movement and the nuclear prohibition treaty have trouble addressing. States facing potentially existential threats find few alternatives to nuclear deterrence. Many states will join the treaty in the hope that it will stigmatise nuclear weapons and shame nuclear weapon possessors into eventual nuclear disarmament. But many states will reject the treaty and continue to hope that nuclear weapons and alliances backed by them will guarantee their security.

Indeed, states with nuclear weapons are now engaged in efforts to modernise their arsenals to be useful for decades to come. The US, for instance, is considering building smaller nuclear weapons to target buried facilities. Pakistan has tested nuclear weapons that could be deployed on the battlefield. Russia may be developing new, intermediate-range missiles in contravention of an arms control treaty with the US India is deploying nuclear weapons on new submarines. China is fielding new long-range missiles with multiple nuclear warheads. North Korea is racing to test and field a scary array of nuclear missiles. None of the weapons possessors seems particularly concerned with the stigma created by the prohibition treaty.

Searching for Middle Ground: For international civil society actors who support the objective of disarmament, this situation presents an uncomfortable choice. They can seek to increase the number of states that join the prohibition treaty, with the knowledge that the treaty itself is unlikely to produce disarmament. Or they can work to reduce sources of nuclear danger, with the knowledge that such efforts, in many ways, legitimise nuclear deterrence.

Though it is notionally possible to work both angles, in reality the prohibition and nuclear disarmament camps are so divided that it is difficult to find credible middle ground. As in all matters of faith — and, increasingly, politics — theological arguments about nuclear weapons tend to further divide rather than bridge these camps. But there are useful means to push both sides towards a safer world.

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In states possessing nuclear weapons, civil society actors can challenge the most expansive and dangerous ideas that extend nuclear deterrence objectives to absurd ends. Sharp analysis can highlight the magical thinking offered by many nuclear weapons advocates to paper over flaws in logic or distract from improbable assumptions. It is useful to foster debate that forces policymakers to justify their investment in nuclear weapons. In such debates, it is possible to question whether expenditures on weapons that can't be used might instead have higher returns if directed towards ventures that create alternative means of international leverage or suasion — economic or international political power.

In states desiring to prohibit nuclear weapons, civil society actors can encourage actions and policies that aim to mitigate security threats that drive demand for nuclear weapons. One such important threat is further proliferation. Strengthening international institutions and mechanisms that

prevent proliferation and enhance the credible peaceful uses of nuclear technology is a critical enabler of disarmament.

Success in expanding the middle ground between nuclear disarmament and nuclear deterrence will require the same ambition and idealism that drove the conclusion of the nuclear prohibition treaty. It will require innovation and perseverance to identify and promote mechanisms to reduce risks of nuclear use. And it will require building trust that states and civil society actors on either side of the debate share the objective of mutual security. Maybe in the future, states, multilateral institutions and civil society actors who join such efforts will be recognised by the Nobel Committee for tangible achievements to reduce nuclear dangers.

Source: <http://www.thehindu.com>, 16 October 2017.

OPINION – Ariel Cohen

Kazakhstan is Opting for Nuclear Engagement, not Deterrence

With North Korea wreaking havoc by testing nuclear weapons and missiles, and with Iranian nuclear program becoming once again the focus of US foreign policy, Washington is searching for solutions to both crises. It is important to keep in mind that there are alternative, safer nuclear energy policies. Pyongyang and Tehran should take note and consider pursuing peaceful nuclear options.

It can be done. For over two and a half decades, the President of a country in the direct

neighbourhood of Russia and China has been leading by example. President Nursultan Nazarbayev of Kazakhstan made the decision to renounce the nuclear weapons his country inherited from the Soviet Union after its collapse and has been sticking to that path — championing nuclear non-proliferation and disarmament. This was not just a symbolic gesture. In 1991, Kazakhstan hosted one of the largest nuclear test sites of the Soviet empire, as well as the fourth largest nuclear

arsenal in the world, larger than those of the UK, France, and China combined. Although wedged between two nuclear-armed giants, Kazakhstan chose to accede to START-I, the NPT, and the CTBT. Under these, Kazakhstan relinquished all nuclear warheads to Russia instead of maintaining and building up an independent deterrent it could ill afford. This was vastly consequential — and highly controversial.

As one study suggests, when full-fledged political and economic chaos immediately ensued after the disintegration of the Soviet Union, Kazakhstan's leadership not only lacked a clear vision of how

to proceed with the massive nuclear arsenal but also the information and capacity to administer it. In that unprecedented and uncertain historic moment, Nazarbayev opted for strategic ambivalence to gain time. But after weighing the decision for half a year and the political and economic costs of both keeping and getting rid of the nukes, the Kazakh leadership finally decided to take a chance and opt for

a nuke-free future. Nazarbayev not only embraced nuclear disarmament but made it a part of his country's brand. The new international identity for

Success in expanding the middle ground between nuclear disarmament and nuclear deterrence will require the same ambition and idealism that drove the conclusion of the nuclear prohibition treaty. It will require innovation and perseverance to identify and promote mechanisms to reduce risks of nuclear use. And it will require building trust that states and civil society actors on either side of the debate share the objective of mutual security.

Nazarbayev not only embraced nuclear disarmament but made it a part of his country's brand. The new international identity for Kazakhstan is widely associated with safe and responsible nuclear policy. For example, Kazakhstan brokered the Treaty of Semipalatinsk, which established the Central Asian NWFZ comprised of all five former Soviet republics of the region, and disposing of highly enriched uranium in cooperation with the US.

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Nevertheless, as the largest producer of uranium ore in the world, Kazakhstan has not renounced civilian nuclear technology. The capital, Astana, recently hosted Expo 2017. The international exposition's theme was "Future Energy", featuring nuclear energy rather prominently. To combine its lucrative nuclear energy business and uniquely determined non-proliferation foreign policy, Nazarbayev's government also came up with an IAEA-sponsored LEU bank – the very first of its kind in the world. By creating this, Kazakhstan seeks to store low enriched uranium (the fuel for civilian nuclear reactors) in their country instead of in other countries under a guarantee of international supervision to assure the uranium hexafluoride is only processed for peaceful civilian purposes, and then shipped back to the customer.

The LEU bank is operated by the IAEA in agreement with nuclear powers, including the US, and neighbouring Russia and China, who hold key strategic positions when it comes to transportation of the nuclear material. Many hail the first LEU bank as a significant achievement for Kazakh foreign policy and for global non-proliferation efforts. Realization of the project enhances nuclear security and potentially exposes proliferators, such as North Korea. It can become an abiding example of international non-proliferation and cooperation. Some also suggest that initiatives like this could be the solution to nuclear proliferation crises such as the one in Iran: by ensuring that nuclear material can only be utilized for peaceful purposes, the LEU bank can eliminate a great deal of uncertainty regarding a country's nuclear ambitions. No more cheating under the banner of civilian nuclear

research and energy production — and developing nukes "under the table".

However, proliferators still abound, especially in South Asia. While Kazakhstan is to be commended for its foreign policy and actions, Pakistan achieved its nuclear arsenal with China's help, while India had Soviet nuclear technology support. Iran has pursued a nuclear program since the time of the Shah, and boosted it under the Ayatollahs. President Trump's de-certification of the JCPOA and referring it to Congress focuses the world's attention on Tehran. Ayatollah Ali Khamenei and President Hassan Roukhani would

Once the North successfully weaponizes an ICBM, it will be one of only three nations, including Russia and China, able to target the US. The US's traditional strategy of deterrence has provided security for the US throughout the Cold War and the post-Cold War era, but despite that success, many in the current administration are looking beyond deterrence to deal with North Korea.

do well to pick up the phone to President Nazarbayev to get advice on how to modify their current nuclear stance and make it entirely peaceful for their people's benefit. In order to follow a more peaceful path away from deadly arsenals and potential nuclear conflict, the example of Kazakhstan's non-proliferation policy should inform decision-

makers on both sides of the Atlantic.

Source: <http://thehill.com>, 23 October 2017.

OPINION – Gary Wetzel

It's Time to Accept that North Korea is a Nuclear State

CIA director Mike Pompeo said North Korea could only be "months away" from having the ability to hit the United States with a nuclear-armed intercontinental ballistic missile. Speaking at the foundation for defense of democracies, Pompeo said America needs to behave with the knowledge that North Korea is "on the cusp" of being able to strike the US with a nuclear weapon. All of which betrays a simple fact: North Korea has become a nuclear power.

This is something the Trump administration must accept, despite promises that a nuclear armed North will not be allowed to exist. It has been 21 years since Pyongyang conducted its first nuclear test. Five more have followed, along with dozens of missile tests, including the first flight of an ICBM this past July. Once the North successfully

weaponizes an ICBM, it will be one of only three nations, including Russia and China, able to target the US.

The US's traditional strategy of deterrence has provided security for the US throughout the Cold War and the post-Cold War era, but despite that success, many in the current administration are looking beyond deterrence to deal with North Korea. There is, of course, an American missile defense system that has been operational since 2004 and has received more than \$40 billion in funding. But a former head of the middle defense agency said the system has "at least as good as a coin toss" chance of destroying a warhead before it could detonate above an American city. That, in other words, is far from full proof.

More worryingly, though, is that the long-simmering crisis between North Korea and the US has accelerated this year, with North Korea conducting its sixth underground nuclear test and launching 22 missiles during 15 launch events. Combined with the war of words flowing back and forth between Pyongyang and Washington, the tensions between the two nations is greater than it has been in decades. Former CIA director John Brennan said that while the chances of war are not likely, he did place the odds of a military confrontation occurring as high as 25 percent.

At the same event, national security advisor Gen. H.R. McMaster admitted there was still time to solve the crisis diplomatically, though that window of time is running out. As North Korea marches toward an operational, nuclear-armed ICBM, McMaster reiterated President Trump's position on the matter. "[Trump] is not going to accept this regime threatening the United States with nuclear weapons. There are those who would say, well, why not accept and deter. Well, accept and deter is unacceptable," McMaster said.

Accept and deter may not work for the Trump Administration, but accept and deter has worked for several generations for the United States,

Russia, and China who have been pointing ICBMs at one another since the 1950s. Last year, India tested its latest ICBM design, the Agni V, which is not designed to further deter Pakistan, but is a signal to Beijing of New Delhi's growing military strength—and their level of strategic deterrence.

Strategic deterrence has also prevented the use of a nuclear weapon since August 9, 1945, when Nagasaki was destroyed. And despite decades of intense rivalry and Cold War pressure, the US and the Soviet Union did not clash in some World War III simply due to possession of massive arsenals

of nuclear weapons. Many agree that a similar strategy of deterrence can work with a nuclear-armed North Korea, including Susan Rice, who was the national security advisor for President Obama.

In an August op-ed for *The New York Times*, Rice wrote "But war is not necessary to

achieve prevention, despite what some in the Trump administration seem to have concluded. History shows that we can, if we must, tolerate nuclear weapons in North Korea—the same way we tolerated the far greater threat of thousands of Soviet nuclear weapons during the Cold War."

Indeed, the Trump administration does seem quite determined to dismiss the idea of deterrence when it comes to North Korea. McMaster, appearing on ABC News shortly after Rice's op-ed disagreed with her assessment of the strength of deterrence when applied to North Korea. "No, she's not right," McMaster said. "And I think the reason she's not right is that the classical deterrence theory, how does that apply to a regime like the regime in North Korea? A regime that engages in unspeakable brutality against its own people? A regime that poses a continuous threat to its neighbors in the region and now may pose a threat, direct threat, to the United States with weapons of mass destruction? A regime that imprisons and murders anyone who seems to oppose that regime, including members

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of his own family, using sarin nerve gas in a public airport?"

McMaster, who graduated from West Point and has a doctorate in American history, is no idiot, but you would think he would have a better appreciation of Soviet history, given that, in fact, they have posed a much greater threat to the US than North Korea does. Joseph Stalin was also responsible for more deaths than Hitler, with nearly 20 million Russians perishing in "labor camps, forced collectivization, famine and executions" under his rule.

The UN, meanwhile, has estimated in a report that hundreds of thousands have perished in North Korean prisons reserved exclusively for Pyongyang's political prisoners. Death sentences are handed out for theft of grain and for possessing media produced in South Korea. The government of Kim Jung Un, and those before him, have ruled North Korea with an iron fist, caring little for its citizens.

The North has repeatedly claimed that its true objective was to bring about the reunification of the Korean peninsula by absorbing the South, however, the main objective for Pyongyang has always been survival; indeed, the swift demises of Saddam Hussein and Muammar Gaddafi have also provided some clear motivation. Neither of them had nuclear weapons, and should they have had those weapons, the North believes, both men would still be in power today.

Why Deterrence Must Work: Earlier in October, President Trump told interviewer Sean Hannity, "We have missiles that can knock out a missile in the air 97 percent of the time, and if you send two of them, it's going to get knocked down." He was talking about missile defense and the ability of America to defend itself should North Korea decide to send an ICBM hurtling toward San Francisco or some other American city. But Trump's estimate of the system's abilities is

severely overstated, an overconfidence that suggests he will pursue preventive measures over deterrence.

Which would be a mistake, since the most effective means of stopping an ICBM is to destroy the weapon before it is even launched. Once in the air, the ICBM has a strong advantage over any current missile defense system deployed today, including the Ground-based Midcourse Defense System, the American system. Straightforward in its approach, ballistic missile defense is still an expensive and complicated endeavor filled with technical challenges that have frustrated scientists since President Reagan first suggested shooting down ICBMs in 1983.

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Our Missile Defense System is Questionable:

Several hours north of Anchorage is Fort Greeley, one of the main bases for the GMD system. It is here that most of the Ground-based Interceptors are housed, waiting in silos to be launched to destroy an incoming nuclear warhead.

By the end of 2017, Fort Greeley will be the home for 40 GDIs, with 4 interceptors also being located at Vandenberg Air Force Base in California. The GBIs are the heart of the GMD system, designed to intercept a warhead outside of the Earth's atmosphere at the weapon's highest trajectory. They are the bullet that will hit another bullet. Or at least they will try.

The GMD system was declared operational in 2004, pushed through by the second Bush administration in the shadows of 9/11 and the "Axis of Evil." But GMD has struggled to successfully engage targets during a series of test engagements that stretch back to 1999. In 18 tests, only ten have been successful. Five tests have been conducted since 2010 with only two successes, including the most recent test in May, when an interceptor successfully brought down an ICBM-class target for the first time.

The GMD system is designed to intercept a

nuclear warhead during the second of three phases of flight for an ICBM. The flight path of an ICBM includes an initial “boost” phase, when it launches from the surface into space; a “midcourse” phase, when the warhead separates from the rocket and travels in space above the earth’s atmosphere; and a “terminal” phase, when the warhead streaks back down through the Earth’s atmosphere, descending to its target.

Built around a network of sensors, radars, satellites and GBIs that stretch across 15 time zones, the missile defense system is, in other words, a complicated one that has thus far yielded poor results—failures that may actually embolden North Korea to rapidly grow their ICBM numbers.

That’s because the American missile defense system was never designed to protect against a swarm of ICBMs, and by launching more than one missile, the system could be quickly overwhelmed. It has been estimated that as many as four or five interceptors may have to be launched to achieve one kill.

With only 44 available interceptors, it would not take too many warheads to exhaust the supply. One thing that could make things even harder for the system: if North Korea were to use some means of deception to hide the warhead from American sensors within the so-called “threat cloud,” which might consist of things like metallic chaff and Mylar balloons to confuse radars and sensors.

So far, though, the missile defense system has never had to sort its way through anything like that; the system, indeed, is still struggling with far more basic functions. One organization, the

Union of Concerned Scientists, has said of it, “As it exists today, the system would offer little to no protection in any realistic scenario. It’s also diplomatically counterproductive, and potentially dangerous; policy makers, misled to believe in missile defense’s effectiveness, may act in ways that increase the likelihood of conflict.”

Thus far, North Korea has used its burgeoning nuclear capabilities in much the same way the US and the Soviet Union did, by attempting to coerce behavior out of other actors, achieving goals essentially through nuclear blackmail. North Korea has had nuclear weapons for over 20 years and still has yet to detonate one over Seoul or Tokyo.

Which is not to say Pyongyang has behaved responsibly toward its neighbors, attacking islands with artillery and sinking a naval warship with a submarine in recent years. It is these small miscalculations that make nearby nations nervous. But the Cold War, too, was not without its periods of heightened tensions. And, indeed, deterring North Korea is nothing new for the United States. America has been deterring Pyongyang since 1953, when the Korean War was stopped. It must be continued.

Source: <https://foxtrotalpha.jalopnik.com>, 24 October 2017.

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The Indian Navy has abandoned its plan to acquire an American-style nuclear-powered aircraft carrier because developing a nuclear reactor powerful enough for the same will take a long time. The Indian Navy was eyeing US technology with nuclear propulsion for INS Vishal to boost its range and potency.

NUCLEAR STRATEGY

INDIA

Indian Navy Drops Plans for a Nuclear-Powered Aircraft Carrier

The Indian Navy has abandoned its plan to acquire an American-style nuclear-powered aircraft carrier

because developing a nuclear reactor powerful enough for the same will take a long time, reports *Business Standard*. The Indian Navy was eyeing US technology with nuclear propulsion for INS Vishal to boost its range and potency. Five officials directly connected with the INS Vishal project told the paper that instead of a nuclear-powered aircraft carrier, INS Vishal will now be a conventionally powered 65,000-70,000 tonne vessel, housing some 55 aircraft and incorporating a state-of-the-art "electromagnetic aircraft launch system" (EMALS) to catapult aircraft off the carrier.

The BARC told the Navy that the process would take 15-20 years so that the nuclear reactor has all features to protect the aircraft from the corrosive and dynamic marine environment, said the report. As of now, India has a 190MW reactor for the country's fleet of four-to-six nuclear propelled, nuclear missile carrying submarines which have been commissioned to INS Arihant, the first aircraft carrier. Since INS Vishal would require a reactor capable of generating at least 500-550 Mw, India will have to develop a brand new, miniaturised reactor. There has been some dispute within government bodies regarding the funding for the development of a 550-Mw reactor, which is not yet a part of the development plan. ...

Source: <http://idrw.org>, 27 October 2017.

At UN, India Denounces Call to Give Up Nuclear Arsenal and Sign NPT

India has denounced a call to give up its nuclear weapons and sign the NPT while it "remains committed to universal, non-discriminatory and verifiable nuclear disarmament". "The question of India joining the NPT as NNWS does not arise," India's top disarmament diplomat Amandeep Singh Gill told the General Assembly committee on disarmament on 12 October.

"At the same time, we support upholding and strengthening global non-proliferation objectives." India's Permanent Representative to the

Conference on Disarmament, Gill was reacting to a call by a group calling itself the New Agenda Coalition that India - along with Israel and Pakistan - sign the NPT as NNWS, which would effectively mean giving up its nuclear arsenal. Speaking on behalf of the group, Mexico's Alternate Permanent Representative Juan Sandoval Mendiolea said on 11 October that they were introducing a resolution urging "India, Israel and Pakistan to accede to the (Non-Proliferation) Treaty as non-nuclear-weapon states promptly and without conditions, and to place all their nuclear facilities under IAEA safeguards."

As India did not participate in the negotiations or vote for it, New Delhi "cannot be a party to the treaty, and shall not be bound by any of the obligations that may arise from it", Gill said. But "India remains ready to work with the signatories to the treaty for progress in multilateral forums on the shared goal of the global elimination of nuclear weapons.

The group that includes Brazil, Egypt, Ireland, New Zealand, South Africa and Mexico did not make a similar demand on the other nuclear powers — Britain, China, France, Russia and the US - or even North Korea. Gill said India hopes "our friends will renew theirs and focus on the real

implementation deficits on non-proliferation and disarmament". Although it was not a party to the NPT, he said that "India abides by the principles and objectives of the NPT, including its nuclear disarmament aspirations. "India is committed to making its contribution to strengthening non-proliferation." Gill, reiterated India's commitment "as a responsible nuclear power" to "a policy of credible minimum deterrence based on a No First Use posture and non-use of nuclear weapons against non-nuclear weapon states".

"We remain committed to maintaining a unilateral voluntary moratorium on nuclear explosive testing," he added. A contentious issue during the debate was the Treaty on the Prohibition of Nuclear Weapons. Its text was adopted by the General Assembly with 122 votes in July, and the pact itself was open to signatures in September. India, along with the other nuclear-armed nations, boycotted the negotiations on the treaty, although North Korea voted for it. As India did not participate in the negotiations or vote for it, New Delhi "cannot be a party to the treaty,

and shall not be bound by any of the obligations that may arise from it”, Gill said. But “India remains ready to work with the signatories to the treaty for progress in multilateral forums on the shared goal of the global elimination of nuclear weapons”, he added. India has said that the UN Conference on Disarmament is the appropriate forum to negotiate disarmament issues.

Source: <http://www.news18.com>, 13 October 2017.

USA

Air Force Says it's Not Putting Nuclear Bombers on 24/7 Alert

The Air Force is pushing back against a report that claims preparations are underway to put nuclear-armed bombers on 24-hour alert for the first time since the end of the Cold War. The publication *Defense One* reported that the Air Force could soon put its fleet of B-52 bombers on “a ready-to-fly posture” for the first time since 1991. The status means the planes would be loaded with nuclear bombs and parked on special runways, ready to take off on a moment’s notice.

A spokesperson for Air Force Global Strike Command told *VICE News* the report is inaccurate. “We are not planning or preparing to put B-52s on alert,” the spokesperson said. *Defense One* clearly stated that the “alert order had not been given but that preparations were under way in anticipation that it might come,” but that nuance was lost in many subsequent headlines published by other news outlets, including *VICE News*.

... Air Force officials stressed that the military is only examining its capabilities in case an order eventually comes to upgrade the military’s current nuclear posture, which includes keeping nuclear missiles and submarines at the ready but bombers off full-time alert. ...

Source: Paul Vale, <https://news.vice.com>, 23 October 2017.

BALLISTIC MISSILE DEFENCE

IRAN

Iran Says Defence Capabilities Not Negotiable Amid US Pressure

Iran’s defence capabilities are not negotiable, Supreme Leader Ayatollah Ali Khamenei said on 25 October in remarks made previously but which now come amid increased pressure from the US government over Tehran’s ballistic missile programme. Ties between Iran and the US have deteriorated under US President Trump and suffered another deep blow...when he decided not to certify that Tehran is complying with a 2015

nuclear pact and warning he might ultimately terminate it. Iran has reacted defiantly, dismissing Trump’s demands for the pact to be toughened up. Iran’s elite Revolutionary Guards, the most powerful military force in the country, said its

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“The defence capabilities and strength of the country are not negotiable or up for haggling,” Khamenei was cited as saying at a ceremony at the Imam Ali army officer’s academy in Tehran, according to state media. The ramping up of rhetoric on both sides has raised the specter of a possible military confrontation between the two countries. In recent months, small boats from the Revolutionary Guards navy have swarmed close to American warships in the Gulf, prompting the US navy to fire flares and warning shots.

Under the landmark 2015 deal between Iran and world powers, the Islamic Republic agreed to curbs on its nuclear program in exchange for the lifting of a number of sanctions.

The US Senate is considering new legislation which could lead to Washington restoring sanctions on Iran should it test a ballistic missile able to carry a warhead or bar nuclear inspectors from any sites. In response, Khamenei said...that Tehran

would stick to the nuclear accord with world powers as long as the other signatories respected it, but would “shred” the deal if Washington pulled out.

Source: <http://www.news18.com>, 25 October 2017.

RUSSIA

Russia Test Fires 4 Intercontinental-Range Ballistic Missiles

On 26 October, the Russian military test fired three ICBM as part of a routine exercise of the Russian strategic nuclear forces, the Russian MoD said in an October 26 statement. “A squad of the Strategic Missile Force fired a Topol intercontinental ballistic missile from Plesetsk towards the Kura test range in Kamchatka,” the MoD said. The missile was launched from a road-mobile transporter erector launcher. The Plesetsk space center is located in Arkhangelsk Oblast, approximately 800 kilometers north of Moscow.

In addition, “a nuclear submarine of the Pacific Fleet carried out a salvo launch of two ballistic missiles from the Sea of Okhotsk towards the Chizha testing range in the Arkhangelsk region,” the MoD said. “A nuclear submarine of the North Fleet fired a ballistic missile from the Barents Sea towards Kura.”

The military exercise also involved supersonic Tupolev-160, Tupolev-85MS and Tupolev-22MZ strategic bombers. The aircraft launched cruise missiles at ground targets at Kura, Pemboi testing range in the northeastern region of Komi, and Terehta in Kazakhstan, according to the MoD.

All missiles reportedly hit their practice targets. Save the Topol-M, the Russian MoD did not reveal the type of missiles fired from the air and sea. It also did not specify the class of ballistic missile

submarines involved in the drill. The missiles launched from the strategic bombers were likely Kh-101/Kh-102 (the nuclear variant of the Kh-101) air-launched cruise missiles with an estimated range of 2,700 to 5,000 kilometers (1677 to 3,100 miles).

The submarines involved in the exercise are most likely Soviet-era Project 667BDR Kal’mar (Squid) Delta-III, Project 667 BDRM Delta IV-class nuclear-powered ballistic missile submarines (SSBN) armed with the R-29R/R-2S (NATO reporting name: SS-N-18 Stingray) ICBM, or Project 955

Borei-class (“North Wind”) aka Dolgoruky-class SSBNs armed with the Bulava (RSM-56) ICBM — a sea-based variant of the Topol-M — capable of carrying up to ten warheads.

The Borei-class of SSBNs is slated to replace Project 941 Typhoon-class and Delta-class SSBNs in the next few years as these older boats are slowly

getting retired. The Russian Navy has also been working on an improved variant of the Project 955 Borei-class, the Project 955A Borei II-class, which will be capable of carrying up to 20 Bulava ICBMs rather than the 16 carried aboard the original Borei-class.

The only ICBM identified by name in the press release is the nuclear-capable Topol-M (aka RS12M2/NATO reporting name: SS-27), a three-stage solid fueled ICBM with a reported maximum range of 11,000 kilometers (6,835 miles). The missile can carry a single 550-kiloton nuclear-tipped warhead. It can also be upgraded to carry independently targetable warheads. As I explained earlier this year:

Russia has (...) been developing an upgraded Topol-M variant, the more advanced Topol MR (aka SR-24 Yars/NATO reporting name: SS-27 Mod2) first revealed in 2010. The Yars, reportedly fitted with more advanced decoys and countermeasures than the Topol-M and featuring

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a higher speed, has been specifically designed to evade Western anti-ballistic missile defense systems. The Topol-M was last test fired in September.

Source: Franz-Stefan Gady, <https://thediplomat.com>, 27 October 2017.

NUCLEAR ENERGY

AUSTRALIA

Dean Jaensch: Nuclear Power could be the Solution for Australia's Energy Crisis

Australians are well aware that we have a serious electricity crisis. The overwhelming majority of us are waiting for governments to finally do something about it. But all we have been getting is party confrontation. The latest effort came from the Turnbull government, which clearly expected voters to applaud its new policy. Apparently unable to achieve what the public expects — stable, affordable and reliable power — the government is proposing to pay consumers in NSW, SA and Victoria not to use electricity at times of high demand. This is not just a nonsense policy, it was an admission that all governments have given up even trying to deal with the problem. That is a disgrace.

In an energy-rich nation which is exporting coal, gas and uranium as fast as it can, how is it possible to be in this appalling situation? The explanation that the governments are offering Band-Aids where radical surgery is required. In SA, the world's biggest battery is the world's biggest Band-Aid, accompanied by the diesel generator bandaids. The prime purpose is to get the Weatherill Labor government through to the March election without a major blackout.

The overall problem is the apparent commitment up to now to a belief that Australia has a key role in saving the world from climate change. Morally

it does. But to what degree? Australia produces a minuscule 1.3 per cent of the world's emissions. Is the pain and anguish for ordinary people of shortages, Band-Aids, and the world's highest prices for electricity, justified? But maybe there is hope. On 16 October, Turnbull announced his new energy policy; a direction that most people will applaud. The new focus of a Coalition government will be on the stability and reliability of electricity supply at the national level.

The Clean Energy target has been replaced with a National Energy Guarantee based on an enforceable demand that energy producers must have constantly available power. Electricity prices, we are promised, will fall. Most ordinary voters will say "about time." Reliability and affordability should be the keystones of policy. Emissions reduction targets are second order items. How to achieve it? Nineteen nations of the G20 utilise nuclear energy in their power production.

Only Australia has a legislative prohibition. As a process which emits absolutely no carbon, why are we rejecting nuclear energy? Two highly respected experts, Fred Hilmer and Gary Banks, seemed to be losing confidence when they stated that until Australia suffers from massive blackouts, the Band-Aids will continue. The Turnbull policy may well fix that, and be the resolution Australia needs.

Source: <http://www.perthnow.com.au>, 17 October 2017.

CHINA

What's Behind China's Breakthrough in Atomic Energy Production?

China sees the atomic energy boom with the number of nuclear power stations in the mainland soaring. However, the Celestial Empire harbours a more ambitious goal seeking to boost the construction of China-made atomic stations

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abroad, commentators told Sputnik, shedding light on Beijing's competitive advantages. China is determined to gain leading positions on the global nuclear energy market...and Beijing's breakthrough in the development of peaceful atomic technologies is closely connected with the country's OBOR.

"[The construction] of nuclear power plants as well as Chinese high-speed railways is one of the most important fields of cooperation... within the framework of the OBOR project," Wang Zhimin, head of the Center for the Study of the Globalization and Modernization of China with the Institute of Foreign Economy and Trade, said. He explained that the country possesses cutting-edge technologies in the atomic energy sphere: "In particular, Hualong One is the recognized leader in the line of nuclear reactors of the third generation in the world; it reflects the highest level of China's achievements in the nuclear power field."

On the other hand, Wang called attention to the relatively low cost of construction of nuclear power plants by China abroad. Simultaneously, the safety record of China-made atomic power stations is comparatively high...all countries which maintain cooperation with Beijing are interested in China's assistance in the construction of nuclear power plants: "These are, for example, Pakistan, Iran, other countries of the Middle East, Central Asia, and even a number of developed countries," Wang emphasized.

He noted that yet another promising area is the development of collaboration with global established economies of Europe and the US. To illustrate his point, he cited the Sino-French cooperation in the construction of the Hinkley Point C in Great Britain.

... Anton Khlopkov, director of the Energy and Security Center think-tank, echoed Wang: "China is especially attractive because being a new player on the world market, that it is ready not only to

build [nuclear power stations] at a quite cheap price, but also to invest in relevant projects," he highlighted adding that "today, when the cost of borrowed money is high enough, it is doubly valuable."

For his part, Sergei Pikin, head of the Energy Development Fund, rates China's potential in the sphere of nuclear energy, noting, however, that the Celestial Empire is becoming a competitor for not just Russia but other global players in the atomic market. "Undoubtedly, China has gained immense experience in the construction of nuclear power plants in cooperation with Russia," Pikin said, adding that the country "is also known for the ability to actively copy the best

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achievements of the global industrial industry." According to the energy specialist, following the Fukushima disaster in Japan the nuclear energy market has shrunk. However, the energy-deficient Asian region is likely to rely on atomic power. At the same

time, the security issues related to the development of atomic technologies has taken on a new significance in the Middle East and Central Asia — the regions heavily affected by the spread of terrorism threat, Pikin pointed out.

According to the commentators, in the next five years, China will be able to increase the share of nuclear power in the country's energy balance. Citing Professor Lin Boqiang of Xiamen University, it was reported...that in the period from 2012 to 2017, China accounted for more than 90 percent of the world's new nuclear projects. ..."the containment dome for the K2 project of Pakistan's Karachi nuclear power plant using Hualong One [atomic reactor] was successfully installed on 13 October."

Besides this, China's nuclear power industry is making progress in the UK and Argentina, Global Times noted, referring in particular to the agreement signed by China General Nuclear Power Corp (CGN), French energy company EDF

and the British government for the Hinkley Point C project in the UK. Additionally, CGN is expected to install its reactor at another plant in the UK at Bradwell in Essex.

Meanwhile, "nuclear power reached a record high of 3.9 percent of China's total power generation in the first half of this year," the media outlet noted, adding that "the number of nuclear power plants that are in operation in the Chinese mainland has reached 36, ranking fourth globally."

Source: <https://sputniknews.com>, 18 October 2017.

NUCLEAR COOPERATION

IRAN–RUSSIA

Iran, Russia Discuss Closer Nuclear Cooperation

Spokesman for the Atomic Energy Organization of Iran (AEOI) Behrouz Kamalvandi, who is on an official visit to Russia, held talks with Rosatom's Deputy Director General for International Affairs Nikolai Spassky on boosting cooperation between the two sides. During the meeting, held in Moscow on 17 October, Kamalvandi and Spassky discussed ways to deepen mutual cooperation in the field of peaceful nuclear energy. Kamalvandi left Tehran for the Russian capital on 15 October to attend an upcoming seminar titled "A Review of 25 Years of Iran-Russia Nuclear Cooperation & the Horizon Ahead". In addition to Iranian and Russian officials, some representatives of the Group 5+1 (Russia, China, the US, Britain, France and Germany) will be also present at the event....

Back in September, Iran and Russia started the construction of the second unit of a nuclear power plant near the Iranian southern port city of Bushehr. A ceremony was held to commence the project, attended by Iranian First Vice-President Eshaq Jahangiri, AEOI Ali Akbar Salehi, and Sergei Kiriyenko, head of Russian state nuclear energy corporation Rosatom. The second unit is expected

to take 9 years to complete (October 2024). A third unit will also begin to be built 18 months later after that (April 2026). A total of \$10 billion has been allocated for the construction of the two units.

Source: <https://www.tasnimnews.com>, 17 October 2017.

USA–JAPAN

US to Extend Nuclear Cooperation Deal with Japan

US Deputy Secretary of Energy Dan Brouillette on 18 October expressed his country's intention to extend the current nuclear cooperation agreement with Japan, which is due to expire next summer, without renegotiating it. In an interview with *The Nikkei* and other media in Tokyo, Brouillette said

there are no grounds for renegotiating the deal. His remark indicates that the deal will not be overhauled, let alone terminated. It was the first time for an US senior government official to clearly state the country's official stance on the deal. He said the US has established a long

relationship with Japan in terms of the peaceful use of nuclear power.

The deal will be automatically extended if neither party proposes negotiation for revision by six months before the deadline. Because the Japanese government is demanding the extension, the deal is on track to be automatically extended now that the US side has clarified its position. The deal took effect in 1988 and will reach its 30-year time limit in July 2018. It permits the peaceful use of plutonium, which can be used to produce nuclear weapons. This is the cornerstone of Japan's nuclear fuel recycling policy, which uses plutonium reprocessed from spent nuclear fuel produced at nuclear power plants.

Source: <https://asia.nikkei.com>, 18 October 2017.

Meanwhile, "nuclear power reached a record high of 3.9 percent of China's total power generation in the first half of this year," the media outlet noted, adding that "the number of nuclear power plants that are in operation in the Chinese mainland has reached 36, ranking fourth globally.

URANIUM PRODUCTION

USA

What You Need to Know about Hillary Clinton, Russia, and Uranium

President Trump says the “real” Russia scandal involves Hillary Clinton and uranium. A closer look has been taken at what he’s referring to. A 2016 campaign attack involving former Democratic nominee Hillary Clinton and her role in a uranium sale that involved Russia is back in the news. With new revelations, increased media attention and reader requests, it was decided to take another look. Because the details of the story are murky and based in part on anonymous sources, we won’t put any claims to the Truth-O-Meter. Instead, we’ll explain what we knew previously, what new information has come to light, and what we still don’t know.

What We Knew Before:

This complex tale involves a company with significant US uranium assets, the Clinton Foundation, and a decision by several federal agencies to allow greater Russian influence in the US’ uranium market. It first emerged in the book *Clinton Cash*, a 2015 investigation by *Breitbart News* senior editor-at-large Peter Schweizer. The book looked into donations to the Clinton Foundation; an April 2015 *New York Times* article also documented the connections. In 2007, Frank Giustra, a donor to the Clinton Foundation, sold his company, UrAsia, to another company, Uranium One, and unloaded his personal stake in it. The combined company kept Uranium One as its name but Toronto as its base. Under the terms of the deal, the shareholders of UrAsia retained a 60 percent stake in the new company.

Uranium One had mines, mills and tracts of land in Wyoming, Utah and other US states equal to about 20 percent of US uranium production capacity. Its actual production is a smaller portion

of uranium produced in the United States, at 11 percent in 2014, according to Oilprice.com.

In 2009, Russia’s nuclear energy agency, Rosatom, bought a 17 percent share of Uranium One. In 2010, Rosatom sought to secure enough shares to give it a 51 percent stake. On the one hand, Russia doesn’t have a license to export uranium outside the United States, so, as Oilprice.com noted, “it’s somewhat disingenuous to say this uranium is now Russia’s, to do with what it pleases.” That said, the possibility that a foreign entity would take a majority stake in the uranium operation meant that the Committee on Foreign Investment in the United States, or CFIUS, had to approve the deal. So did the US Nuclear

Regulatory Commission and Utah’s nuclear regulator. The membership of CFIUS includes the State Department, meaning that the Secretary of State would have had a voice. The panel also includes the attorney general and the secretaries of the Treasury (who chairs the committee), Defense, Commerce, Energy and

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Homeland Security, as well as the heads of the Office of the US Trade Representative and the Office of Science and Technology Policy. CFIUS did approve the proposal, and in 2013, Russia assumed 100 percent ownership of Uranium One and renamed the company Uranium One Holding.

Why would the US Allow the Transfer of a Uranium Company?

As others, including a *New York Times*’ investigation, have suggested, the US was still seeking to “reset” its relationship with Russia and trying to get the Kremlin on board with its Iran nuclear deal. But another factor may have been that, at the end of the day, the Russian deal wasn’t that big. Russia’s purchase of the company “had as much of an impact on national security as it would have if they set the money on fire,” said Jeffrey Lewis, a nuclear nonproliferation expert at the Middlebury Institute and former director at the New America Foundation, in an

interview with PolitiFact last year. “That’s probably why (CFIUS and the NRC) approved it.”

Why Some of the Critics’ Charges During the Campaign Went Too Far:

In June 2016, we fact-checked a statement by then-candidate Donald Trump – who was running against Clinton for president – that Clinton’s State Department “approved the transfer of 20 percent of America’s uranium holdings to Russia, while nine investors in the deal funneled \$145 million to the Clinton Foundation.” We gave the statement a rating of Mostly False. While the connections between the Clinton Foundation and the Russian deal may appear fishy, there was simply no proof of any quid pro quo.

Trump’s allegation went too far in two ways. One, Trump seemed to say that Clinton bears all of the responsibility for the deal’s approval. That is incorrect. Clinton told a New Hampshire TV station in June 2015 that “I was not personally involved because that wasn’t something the secretary of state did.” And Jose Fernandez, who served as assistant secretary of state for economic, energy and business affairs under Clinton and represented the department on the panel, told the *Times* that Clinton “never intervened with me on any CFIUS matter.” But even if you don’t take either Clinton or Fernandez at their word, the reality is that the State Department was just one of nine government agencies that signed off on the transaction.

Second, while we concluded that nine people related to the company did at some point donate to the Clinton Foundation, we found that the bulk

of the \$145 million came from Giustra. Giustra said he sold all of his stakes in Uranium One in the fall of 2007, “at least 18 months before Hillary Clinton became secretary of state” and three years before the Russian deal. We couldn’t independently verify Giustra’s claim, but if he is telling the truth, the donation amount to the Clinton Foundation from confirmed Uranium One investors drops from more than \$145 million to \$4 million.

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The main exception is Ian Telfer, an investor who the *New York Times* found donated between \$1.3 million and \$5.6 million to the Clinton Foundation during and after the review process for the Russian deal. So while Trump was within his right to question links between foundation donors and their ties to Uranium one, his specific charge was exaggerated. Meanwhile, the *Washington Post* Fact Checker subsequently looked at a similar Trump statement: “Remember that Hillary Clinton gave Russia 20 percent of American uranium and, you know, she was paid a fortune. You know, they got a tremendous amount of money.” The Fact Checker came to the same conclusion about Trump’s misleading language, giving Trump’s assertion its worst rating of Four Pinocchios.

By the time CFIUS was weighing the deal, the FBI had been investigating whether Russia was trying to gain influence in the U.S. nuclear industry. The report said that the FBI has already “gathered substantial evidence that Russian nuclear industry officials were engaged in bribery, kickbacks, extortion and money laundering designed to grow Vladimir Putin’s atomic energy business inside the US.

Why this Story is Coming Up Again:

After Trump won the presidency, the Uranium One story received relatively little attention – perhaps because Clinton is now a private citizen rather than serving as President. But that changed in the wake of a report published in the *Hill* newspaper on Oct. 17, 2017. The article’s key finding was that by the time CFIUS was weighing the deal, the FBI had been investigating whether Russia was trying to gain influence in the U.S. nuclear industry. The report said that the FBI has already “gathered substantial

evidence that Russian nuclear industry officials were engaged in bribery, kickbacks, extortion and money laundering designed to grow Vladimir Putin's atomic energy business inside the US."

The implication of the *Hill* article is that Clinton either did know, or should have known, about problems with the Russian bid for Uranium One before deciding whether to let it go forward. (Clinton, the FBI and the Justice Department did not provide a comment on this story.) The article cited FBI, Energy Department and court documents showing that the FBI had gathered "substantial evidence well before the committee's decision that Vadim Mikerin — the main Russian overseeing Putin's nuclear expansion inside the US — was engaged in wrongdoing starting in 2009." However, rather than bringing immediate charges in 2010, the article said, the Justice Department "continued investigating the matter for nearly four more years, essentially leaving the American public and Congress in the dark about Russian nuclear corruption on U.S. soil during a period when the Obama administration made two major decisions benefiting Putin's commercial nuclear ambitions."

What Remains Unclear After the Newest Report? The relevance of the *Hill* report for Clinton's role would be whether she knew anything about this investigation at a time when she could have used her role in CFIUS to block the Russian deal. (It could also be relevant for the actions by then-Attorney General Eric Holder, whose department has a seat on CFIUS.) For now at least, we aren't aware of any evidence that Clinton knew anything about the FBI investigation. If anything, the *Hill*'s reporting suggests the opposite. ... At least one key lawmaker — then-Rep. Mike Rogers, R-Mich., who chaired the House Intelligence Committee at the time — also said he did not know about the investigation. If the assistant FBI director at the time knew nothing of the investigation, then Clinton — someone in a different department and several rungs higher in the organizational chart — might not have known

about it. ...

Source: <http://www.politifact.com>, 24 October 2017.

NUCLEAR NON-PROLIFERATION

IRAN

How Arab Attitudes Vary Toward Trump's New Iran Strategy

The attitudes of some Arab states varied towards the Trump administration's recent strategy, announced on October 13, which denounced Tehran over its nuclear program of ballistic missiles. The spectrum ranged from those who supported and welcomed the announcement to

those who condemned the strategy.

Egypt and Kuwait Follow with "Concern": Egypt and Kuwait did not explicitly support Trump's strategy toward Iran, as the two countries insisted they were "interested" about the new

Kuwait has already welcomed the Iranian Nuclear Agreement because of its "concern for regional security and stability and for the necessity of achieving commitment to reach a free zone from weapons of mass destruction in the Middle East.

strategy's details. Egyptian Foreign Ministry spokesman Ahmed Abu Zeid said in a statement that "Egypt is following with concern the details of Trump's new strategy, and we are deeply concerned about Iran's policies, which lead to regional instability and which affect Arab national and regional security, both of which are an integral part of Egypt's national security." Egypt's firm stance calls for the necessity of freeing the Middle East region from nuclear weapons and all weapons of mass destruction and of respecting the principles of good neighbourhood, as well as non-interference in the internal affairs of Arab countries that would consequently enhance the stability of the Middle East, Abu Zeid added.

In a similar vein, the Kuwait News Agency quoted an official source at the Foreign Ministry as saying that "Kuwait has followed with great concern what has come in US President Trump's last speech about the new strategy to deal with Iran."...Kuwait has already welcomed the Iranian Nuclear Agreement because of its "concern for regional security and stability and for the necessity of

achieving commitment to reach a free zone from weapons of mass destruction in the Middle East." The official called on Iran to work to "build confidence in the region by adopting policies based on the principles of the UN Charter and the rules of international law, particularly respecting the sovereignty of states, not interfering in their internal affairs, and maintaining good neighborly relations."

Saudi Arabia, UAE and Bahrain Bolster and Welcome Trump's New Strategy toward Iran:

Saudi Arabia, the UAE and Bahrain announced their support of the Trump administration's new strategy toward Tehran. Saudi Arabia stressed its full support of the announced strategy, pledging to work with US and its allies in the region to confront shared challenges, particularly "Iran's aggressive policies and manoeuvres," ... "Iran took advantage of the lifting of sanctions and used it to continue to destabilize the region, especially through its ballistic missile development program and its support of terrorism in the region, including Hezbollah and Houthi militias," the Saudi statement said. "Iran had transferred these capabilities and expertise to its affiliated militias, including the Houthi militia, which used those missiles to target the Kingdom," it added.

The UAE's Foreign Ministry said, "the Iranian regime seeks to spread turmoil and destabilization in the region," as the UAE announced its "strong support for the new US strategy toward Iran" and stressed on the commitment by the UAE to work with US allies in the region to curb Iranian policies that bolster terrorism in the region and the world.

In the same course, Bahrain has supported Trump's new stance toward Iran, which it described as "an appropriate policy to curb the

prevalence of turmoil and face attempts to spread terrorism by Iran."

Syrian Regime Denounces Trump's Recent Attitude Toward Iran:

The Syrian Foreign Ministry defended its Iranian ally and condemned what it described as "aggressive policies of the American administration against the interests of the world's peoples, which would increase the atmosphere of tensions in the region and the world".... It further said that "the US administration's coup on the Iranian Nuclear Agreement and its use of threatening language is unacceptable and breaks international norms and conventions, though Iran has strictly complied with the agreement." He added that "the threat of the U.S. administration to cancel the Nuclear Agreement with Iran and imposition of new coercive sanctions on Iran clearly shows lack of respect by the department for the Charters and their obligations under international treaties and conventions, as well as a

The US administration's coup on the Iranian Nuclear Agreement and its use of threatening language is unacceptable and breaks international norms and conventions, though Iran has strictly complied with the agreement." He added that "the threat of the U.S. administration to cancel the Nuclear Agreement with Iran and imposition of new coercive sanctions on Iran clearly shows lack of respect by the department for the Charters.

lack of confidence in the stance of this administration toward international security and stability."

Source: <https://www.egypttoday.com>, 16 October 2017.

NUCLEAR PROLIFERATION

N Korea's Nuclear Proliferation Linkages Must be Probed: Sitharaman

India on 24 October sought a probe into North Korea's nuclear proliferation linkages and demanded that those responsible for it be held accountable, in a veiled reference to Pakistan. Nirmala Sitharaman...said here in the capital of the Philippines that the nuclear and missile tests conducted by North Korea were in violation of its international commitments and have triggered serious concerns.

... Addressing the 4th ASEAN Defence Ministers'

meeting.... Sitharaman said India had criticised North Korea's nuclear and missile tests. "India has deplored these tests. We remain concerned about the proliferation of nuclear and missile technologies which has adversely impacted India's national security and that of the entire region," she was quoted as saying by an official statement. "It is important that North Korea's proliferation linkages are investigated and those who have supported its nuclear and missile programme are held accountable," she said, in a veiled reference to Pakistan's links with Pyongyang.

Pakistan had secretly supplied North Korea with nuclear enrichment technology when AQ Khan headed the country's nuclear programme. According to western media reports, Pakistan supplied vital machinery, drawings and technical advice to North Korea, allowing Pyongyang to enrich uranium as early as 2002....

Source: <http://www.business-standard.com>, 24 October 2017.

NUCLEAR TERRORISM

INDIA

Terrorism, Online Radicalisation Security Challenge: Nirmala Sitharaman

Terrorism and radicalisation through social media pose a "serious" security challenge to all countries and a strong collective action is required to fight the "scourge", Defence Minister Nirmala Sitharaman said on 24 October. Speaking at the 4th ASEAN Defence Ministers' meeting in the Philippines, Sitharaman said the global strategic and security situation was constantly evolving and had thrown up fresh and

Sitharaman said the global strategic and security situation was constantly evolving and had thrown up fresh and serious challenges. "The defence and security scenario in our shared region has also witnessed significant changes recently. Our countries now need to simultaneously prepare for traditional (military) and non-traditional threats," she said.

serious challenges. "The defence and security scenario in our shared region has also witnessed significant changes recently. Our countries now need to simultaneously prepare for traditional (military) and non-traditional threats," she said. Terming terrorism a "trans-national phenomena" which needed strong collective action, Sitharaman praised the Philippines for resolutely

addressing the threat posed by terrorists in the southern part of the country. "New developments in social media and cyberspace have expanded the threat, as these are exploited by terrorists to develop less visible but lethal ways and means of manipulating minds of the people," she said in a statement. "I wish to commend the Philippines for reiterating India's zero tolerance for terrorism anywhere and under any circumstances. There are no good terrorists," she said.

Sitharaman said the transnational activism of terrorist groups and the "spectre" of returning foreign fighters as well as the conduct of irresponsible states that provide safe havens, funding and even encouragement to terrorist groups all needed to be addressed jointly and comprehensively. "Terrorism anywhere is a threat everywhere," she said. "India has taken resolute measures to fight the scourge of terrorism from across its borders. We fully recognise the role of

India has taken resolute measures to fight the scourge of terrorism from across its borders. We fully recognise the role of joint mechanisms with our partners and the role of international and regional forums in fighting this menace.

joint mechanisms with our partners and the role of international and regional forums in fighting this menace. "The recent, BRICS Summit Declaration condemning all forms of terrorism and identifying a number of terrorist organisations engaged in dastardly acts was a positive step... We should be clear and unequivocal in our condemnation of terrorism," she was quoted as saying in the statement.

Sitharaman said the maritime security was another key concern and India supports freedom of navigation, overflight and commerce throughout the region. "Nations should resolve maritime disputes peacefully and in accordance with international law. We support a rules based order for oceans and sea that is critical for the continued growth and development of the Indo-Pacific region," she said. She also said that the nuclear and missile tests conducted by North Korea were in violation of its international commitments and have triggered serious concern. "India has deplored these tests. We remain concerned about the proliferation of nuclear and missile technologies which has adversely impacted India's national security and that of the entire region. "It is important that North Korea's proliferation linkages are investigated and those who have supported its nuclear and missile programme are held accountable," she said.

Source: <http://www.moneycontrol.com>, 24 October 2017.

INDIA-EU

India, EU Resume Negotiation on Civil Nuclear Agreement

India and the EU have restarted negotiations on a civil nuclear agreement that was virtually mothballed after being signed in 2009. EU experts from Brussels held discussions with officials from DAE in October in Mumbai. With Europol beginning a working relationship with India's NIA to tackle terrorism and track terror groups that might target either side, there is a greater emphasis on security, counter-terrorism and foreign policy between India and the EU. It is important because India and the EU are moving beyond the stalled free trade agreement and bilateral relations to focus more on foreign policy and security.

The India-EU civ-nuke agreement, unlike others,

focusses on nuclear safety and "non-power technologies in the areas of water, healthcare & medicine, environment, etc." Indicating a new interest in cooperating on maritime security, EU has asked India to escort World Food Program (WFP) ships through the Indian Ocean as they travel to African states with food aid, recognizing India's capacities and intentions of becoming a security provider in the Indian Ocean. ...

Source: <https://timesofindia.indiatimes.com>, 18 October 2017.

NUCLEAR SAFETY

CENTRAL ASIA

Central Asia a Crucial Partner in Promoting Nuclear Safety, Says Leading Expert

It is important because India and the EU are moving beyond the stalled free trade agreement and bilateral relations to focus more on foreign policy and security. The India-EU civ-nuke agreement, unlike others, focusses on nuclear safety and "non-power technologies in the areas of water, healthcare & medicine, environment, etc.

Eddie Maier, Deputy Head of unit at the European Commission Directorate-General for International Cooperation and Development's Instrument for Stability and Nuclear Safety, discussed nuclear safety and the regional projects and activities of

the International Science and Technology Centre (ISTC) in Central Asia in a recent interview with *The Astana Times*.

Maier was visiting Astana to take part in the Oct. 12 international seminar organised by the ISTC and bringing expertise from ISTC partner countries and beyond to share ideas and suggest solutions in the increasingly important field of dual use goods strategic trade control. The seminar also marked the launch of the second project on dual use goods export control funded by the EU and implemented by the ISTC.

... To that objective, instruments are essential, as they serve as a "kind of agreement between major countries in the security domain," according to Maier, helping increase the effectiveness of the activities and improving the ability to react quickly, an important factor amidst the rising activities of

non-state actors. He also noted the EU's contribution to the ISTC and its activities in the Central Asian region, activities that saw nearly 1.5-3 million euros transferred every year to the centre. "In addition, we allocated around 15 million euros over the last three years for specific large scale projects," said Maier.

Among these key projects in the region is Project 53, a biosafety and biosecurity project in Central Asia worth 6.5 million euros. The project is developed under the EU CBRN risk mitigation Centres of Excellence initiative and involves 59 countries in eight regions with the centre's Central Asian office located in Uzbekistan. It seeks to assist the Central Asian countries in improving their biosafety and biosecurity legal framework in compliance with international standards and regulations. The second project on dual use goods strategic trade control that was unveiled as part of the October 12 seminar in Astana follows the previous EU P2P project, which, unlike the second one, involved only Kazakhstan and Jordan.

... Speaking about the EU contribution to nuclear safety field worldwide, Maier noted the EU was also among the major donors to the IAEA and its low-enriched uranium bank that was recently unveiled in Ust-Kamenogorsk in eastern Kazakhstan. The EU contribution extends farther, with its strict nuclear safety standards reaching out worldwide. ...

Source: <https://astanatimes.com>, 23 October 2017.

SOUTH KOREA

Disputes Remain over S. Korean Govt Nuclear Phase-out Policy

South Korean President Moon Jae-in remarked on October 22 that the South Korean government

would resume the construction of the fifth and sixth units of the Singori Nuclear Power Plant without delay while adhering to its policy for zero nuclear power generation. He made the remarks in response to the recently completed public discussion on the resumption of the construction. He also said that the government would scrap every plan for new power plant construction and shut down the first unit of the Wolsong Nuclear Power Plant, which already reached the end of its service life, in the near future.

President Moon went on to say, "The Korean government is planning to focus on natural gas, new and renewable energy sources for the next administration to continue the nuclear phase-out policy," adding, "I will give my full support to decommissioning nuclear power plants to lead the overseas nuclear decommissioning market," without any comment on the development of overseas nuclear power plant market. According to

Experts point out that only three countries have any decommissioning experience as of now, no less than 15 out of the 19 have been decommissioned by the United States alone, and it takes at least 10 years for South Korea to have its own decommissioning technology and techniques. Korea Hydro & Nuclear Power (KHNP) is planning to start the development of soil and site decontamination equipment and automatic classification equipment in the first half of 2026.

the IAEA, 150 nuclear power plants are currently in a permanent shutdown state around the world, only 19 out of those have been decommissioned so far, and 216 are expected to be decommissioned by 2050. According to consulting firm Deloitte, the size of the nuclear power plant decommissioning market is estimated to have reached 440 trillion won three years ago.

Experts point out that only three countries have any decommissioning experience as of now, no less than 15 out of the 19 have been decommissioned by the United States alone, and it takes at least 10 years for South Korea to have its own decommissioning technology and techniques. Korea Hydro & Nuclear Power (KHNP) is planning to start the development of soil and site decontamination equipment and automatic classification equipment in the first half of 2026. In addition, mobile workspace development is

slated to start in March 2019. This means KHNP can have its own decommissioning technology in 2027 at the earliest.

... Disputes have risen to the surface over the government's plan to shut down the first unit of Wolsong and stop the construction of the six plants including Shin Hanul and Cheonji. According to the government and industry sources, KHNP has already spent approximately 340 billion won on the construction of Shin Hanul and Cheonji, divided into 270 billion won on the design of Shin Hanul and the rest on land purchase for Cheonji. Besides, local governments have granted more than tens of billions of won in subsidies. Landowners in Yeongdeok, North Gyeongsang Province, where the two units of Cheonji were scheduled to be built, filed a suit against KHNP, claiming that it should buy their land. KHNP bought 587,295 square meters, 18% of the scheduled total, from July last year before the land purchase has been recently stopped.

Wolsong reached the end of its service life in November 2012 and its service life was extended to 2022 in February 2015 by the Nuclear Safety and Security Commission after years of arguments. Locals living in the vicinity of the power plant filed a suit to stop the operation of the plant and the court ruled in favor of them in February this year, saying that the commission's decision lacked the latest technology, due deliberation and proper voting. The commission submitted a written appeal on February 14.

For Wolsong to be shut down earlier than planned, KHNP should decide to do so at its board meeting or the commission should decide to do so after safety and security investigations. The former option can lead to a breach-of-trust lawsuit and the latter can compromise political neutrality. The commission may withdraw its appeal under the pressure from the President and government. Seven out of its nine members, including the chairperson, are recommended by the ruling party and the government.

Source: <http://www.businesskorea.co.kr>, 24 October 2017.

USA

Nuclear Leak Sends Worker Fleeing to Shower

A solution toxic enough to cause chemical burns sprayed a worker at a S.C. nuclear-fuel factory, forcing the employee to take an emergency shower to wash the material off his arms. The solution, uranyl nitrate, leaked when a hose disconnected while the material was being unloaded at the Westinghouse plant southeast of Columbia.

Nuclear Regulatory Commission spokesman Roger Hannah said the incident isn't serious enough to warrant a special investigation. The worker's quick action prevented burns or any serious injury, according to Westinghouse. But Tom Clements, an adviser to the environmental group Friends of the Earth, said the spill is worth noting, considering the company has had other safety issues in the past year.

"This is, in fact, an accident of serious nature as it resulted in radioactive contamination of a worker and spillage of a uranium solution in the facility," Clements said. "This accident merits a special investigation by the NRC and full explanation to the public about why a radioactive solution was spilled and how the spill was dealt with."

Westinghouse spokeswoman Sarah Cassella said her company is looking into the incident. In the meantime, it has taken safety precautions to prevent workers from being exposed in the future. Among those is requiring workers to wear protective suits while connecting pressurized hoses.

"We have opened a formal investigation into the incident as part of our corrective action program and will take additional measures as a result of that investigation's findings and recommendations," Cassella said in a statement.

The spill follows a detailed safety investigation by the NRC last year at the fuel plant. In 2016, Westinghouse discovered that uranium had built up in an air pollution scrubber at levels high enough to have caused a minor nuclear reaction, or explosion.

No one was injured in the 2016 incident, but Westinghouse pledged to make safety improvements after the NRC's probe. The company also brought in new management.

... Six to eight gallons leaked outside the Westinghouse plant in a loading area atop a concrete pad, the company said. Although the worker was sprayed, the general public was not at risk, the company said.

According to Westinghouse, uranyl nitrate is a feed product for making uranium dioxide, a key ingredient in the production of nuclear fuel at the Bluff Road plant. The plant has two lines equipped to run uranyl nitrate, Cassella said. The material can cause acid burns and contamination of the skin. It also can be toxic if ingested.

Westinghouse's Richland County plant, located between Congaree National Park and Interstate 77, is one of a handful in the country that makes fuel for commercial atomic energy plants. The Bluff Road plant employs about 1,000. Westinghouse, a division of Toshiba, filed for bankruptcy earlier this year after a nuclear construction project north of Columbia ran over budget and behind schedule.

Source: Sammy Fretwell, <http://www.thestate.com>, 24 October 2017.

NUCLEAR WASTE MANAGEMENT

FRANCE

Wood Secures Contract to Recover 50 Tonnes of Radioactive Waste in France

Wood, the recently formed conglomerate resulting from the merger of Wood Group and Amec Foster Wheeler, has secured a waste recovery contract from the French nuclear agency. The company explained that under the contract it will recover

and package low-level radioactive waste from a storage silo at a major nuclear site in France.

The contract, from Commissariat à l'Énergie Atomique et aux Énergies Alternatives (CEA), the French government's atomic and alternative energy agency, was won in partnership with AREVA Projets SAS. Its scope covers project management, safety case, detailed design, commissioning and the first six months of operations.

Wood and AREVA Projets will work together to retrieve 50 tonnes of waste which have been stored at CEA Marcoule, 25km north-west of

Avignon, for more than 50 years. As part of the deal Wood will design a remotely operated robotic arm to remove the waste elements from the silo and also design a manufacturing unit to encapsulate them.

Once treated, the waste package can then be made ready for long-term storage in a geological disposal facility. The work is

expected to take five years. "This contract advances our strategy to grow our business in France by applying our ingenuity and expertise to solve nuclear problems for a growing range of customers," said Robin Watson, Wood chief executive. "We look forward to working in collaboration with AREVA Projets in the safe and successful execution of this contract," he concluded.

Source: Ben Messenger, <https://waste-management-world.com>, 26 October 2017.

JAPAN

Fukushima Radioactive Waste Storage Starts Full Operation

The government started full operation of its Fukushima facility to store radioactive waste resulting from the 2011 nuclear disaster after

No one was injured in the 2016 incident, but Westinghouse pledged to make safety improvements after the NRC's probe. The company also brought in new management. Six to eight gallons leaked outside the Westinghouse plant in a loading area atop a concrete pad, the company said. Although the worker was sprayed, the general public was not at risk.

running it on a trial basis for about four months. While the facility near the crippled Fukushima Daiichi nuclear complex is designed to store contaminated soil and other waste, collected in decontamination work in the eastern Japan prefecture, for up to 30 years, the storage is only half completed over six years after the disaster.

An estimated 22 million cubic meters of contaminated waste exists in Fukushima, but the facility does not yet have enough capacity to accept all of it, and local residents fear the waste will sit there permanently in the absence of a final disposal site. The government plans to secure a total of 1,600 hectares of land for the facility, expecting 1.6 trillion yen in construction and related costs. It has been able to buy only 40% of land needed for the storage from land owners so far.

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Still, completion of the storage is urgently needed when 13 million cubic meters of waste from cleanup work is scattered around the prefecture and waiting to be transported to the storage facility. Prolonged disposal work, among other concerns, is also said to be keeping evacuated residents from returning to Fukushima even after evacuation orders are lifted. On 29 October, the government started full-fledged operation of the facility where waste for incineration such as trees and plants are removed from the rest.

Contaminated soil is sorted into different categories depending on the level of radioactive cesium before storage.

Source: [https://japan today.com](https://japan.today.com), 29 October 2017.



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, Dr. Poonam Mann, Wg Cmdr Kaura

Composed by: CAPS

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