



Nuclear, Missile & Space Digest

A Fortnightly Newsletter from the Indian Pugwash Society

Volume 12, Number 4

February 29, 2020



Convenor

Amb. Sujan R. Chinoy

Executive Council

Cdr. (Dr.) Probal K. Ghosh

Air Marshal S. G. Inamdar (Retd.)

Dr. Roshan Khanijo

Amb. R. Rajagopalan

Dr. Rajesh Rajagopalan

Shri Dinesh Kumar Yadvendra

Prepared by

Ms. Diya Deep Singh

Ms. Rajrajeshwari Singh



Contents

India

- Lok Sabha Unstarred Question No.511
- Lok Sabha Unstarred Question No. 680
- India-Pakistan nuclear war would harm ocean life: Study
- India to Test Nirbhay Cruise Missile With Indigenous Propulsion System
- Russia, India May Cooperate To Build Nuclear Plants In Middle East, Africa
- Transforming nuclear waste into wealth

China

- China's lunar rover travels 367 meters on moon's far side
- PLA air force dispatches 8 transport aircraft to support Wuhan's coronavirus fight
- Wuhan defies rising pressure
- China develops new gyroplane for border plateau operations
- China's Long March-5B carrier rocket arrives at launch site
- PLA Air Force to perform in Singapore despite epidemic
- Taiwan scrambles jets as mainland Chinese air force flies around island
- US military build-up threatens global arms control: Chinese FM
- Chinese military never engages in cyber espionage: Defense Spokesperson

Pakistan

- Lt Gen (r) Kidwai warns India not to take Pakistan's nuclear capability as a 'bluff'
- Don't take Pak nuclear capability as a bluff: Lt Gen Kidwai
- Pakistan touts its nuclear security measures
- 'Pak nuclear safety regime as per world standards'
- 'Seek China's help to counter India's military modernisation'

USA

- U.S. pressure on Iran to continue despite lifting sanctions on China's COSCO unit, official says
- Nuclear part of US Northwest's optimal clean energy mix, study shows
- Framatome wins TVA fleet contracts
- US to start negotiating with Russia on nuclear arms control soon
- US Adds 'Low Yield' Nuclear Weapon to Its Submarine Arsenal
- US cleanup mission set for big advances in 2020

- **Grossi sets out vision to 'recalibrate' the IAEA**
- **DOE invites feedback on advanced reactor programme**
- **Trump halts support for Yucca Mountain, Nevada nuclear waste dump**
- **Trump Budget Calls for New Nuclear Warheads and 2 Types of Missiles**
- **Trump budget proposes \$150 million for creation of uranium reserve**
- **Trump's Pentagon budget bolsters nuclear weapons, weapons research**
- **US budget request includes USD150 million for uranium reserve**
- **BWXT to support HALEU research reactor fuel programme**
- **Containment concreting milestone at Vogtle 3**
- **Canada, USA complete used fuel return**
- **US uranium reserve proposal receives positive response**
- **U.S. renews pressure on China to join nuclear talks**

Europe

- **EU foreign policy chief to visit Iran amid regional tensions**
- **Europe Extends Time Limit to Resolve Nuclear Deal Disputes with Iran**
- **France's Macron calls on Europe to push international nuclear arms control**
- **Macron seeks leading role in post-Brexit EU nuclear strategy**
- **Mideast peace plan, Iran top EU diplomat's agenda in US**
- **EU's only remaining nuclear power France demands centre stage in EU army**
- **Europe Puts What Remains of the JCPOA in Limbo**
- **Iran seeks compromise from Europe on nuclear deal**

Russia

- **Russia reaches milestone with Kursk II RPV**
- **Russia eyes raising thousands of radioactive relics from watery Arctic graves**
- **Only equal dialogue can mitigate nuclear conflict risks — Russian senate speaker**
- **Moscow concerned over low-yield nuclear warheads deployed on US submarines**
- **Russia's top brass uploads video of upgraded Tu-160M bomber's debut flight**
- **Russia starts automated system hot tests on Leningrad II-2**
- **Lavrov calls for extending New START**
- **Bellona's Russian nuclear project celebrates its 25th anniversary**
- **Russia ready to discuss its weapons with US in context of possible treaties — Lavrov**
- **Shipbuilders to deliver advanced nuclear-powered sub to Russian Navy in 1.5 months**
- **Russia Could Build Nuclear Power Plant in Sri Lanka: Ambassador**
- **Extending New START could help Russia, US ease bilateral tensions — ex-diplomats**
- **Russia seals Akkuyu reactor vessel**
- **Protective shield installation gathers pace at Kursk II-1**

- **Threats and risks for humankind so high as never before in post-WWII period, warns Lavrov**

West Asia

Iran

- **Iran says to advance nuclear program with more determination**
- **Top EU diplomat holds talks in Iran 'to de-escalate tensions'**
- **Iran's reasoning convinced E3 against activating trigger mechanism: spox**
- **Iran rocket launch fails to put satellite into orbit**
- **Iran unveils ballistic missile, 'new generation' engines**
- **Iran's Salehi in Vienna to attend nuclear security conference**
- **US accuses Iran of developing missiles through satellite bid, vows 'enormous pressure**
- **Iran's nuclear chief: U.S. JCPOA move undermining diplomacy**
- **If redesign of Arak reactor delayed Iran will return to previous one: Salehi**
- **Iran will never decide under pressure: Salehi**
- **Iran's satellite carriers have no military aspect: defense minister**
- **Zafar Satellite or producing nuclear intercontinental ballistic missiles?**
- **Zarif says Iran's nuclear decisions are reversible if Europe takes 'meaningful' steps**

Turkey

- **1st reactor vessel welding for Akkuyu NPP completed**

UAE

- **How UAE's Barakah nuclear energy plant promises a sustainable future**

Israel

- **Nuclear Tension: Israel vs. Iran**

East Asia

Japan

- **U.N. Secretary-General Guterres to attend Aug. 6 Hiroshima event**

North Korea

- **North Korea's Kim offers condolences to China's Xi about virus outbreak: KCNA**
- **Burdened by sanctions, North Korea sees coronavirus threaten economic lifelines**
- **Rash moves only make things worse**
- **Trump to nominate envoy for North Korea to United Nations job**
- **U.S. ready to allow North Korea sanctions exemption to combat coronavirus**
- **Former chief of staff Kelly rejects Trump North Korea approach as futile: report**

South Korea

- **U.S. military in South Korea imposes quarantine for troops returning from China**
- **'Security-sovereignty-development' nexus in denuclearization**

Misc

- **Russia ready to share its experience in nuclear energy sector with Indonesia – Lavrov**
- **Brazil, USA promote cooperation in nuclear energy**
- **Tomorrow's nuclear reactors: small but beautiful**
- **Countries with most nuclear warheads: US is not No 1; with 135 weapons India at 7th spot**
- **US, Ukraine to conduct Open Skies observation flight over Russia**
- **Uzbekistan updates IAEA on progress as nuclear 'newcomer'**

Op-Ed

India

- **Here Are Five Deadly Weapons India Would Use Against Pakistan In a War**
- **India's Hypersonic Missile Could Start A Nuclear War**

China

- **China won't join trilateral arms talks with US and Russia**
- **Chinese reactor design clears hurdle**

Pakistan

- **Toying with nuclear stability**

USA

- **How Donald Trump Can Stop a Nuclear Arms Race**
- **Donald Trump Is About to Make One Big Giant 'Nuclear' Mistake**
- **A Plea to Save the Last Nuclear Arms Treaty**
- **Here's what happens in a nuclear apocalypse**

Europe

- **European insights into new nuclear**
- **France's Nuclear Weapons Have Kept It A Military Powerhouse In Europe**
- **Algeria: 60 years on, French nuclear tests leave bitter fallout**

Russia

- **Step to nuclear doomsday: US puts low-yield nukes on submarines to counter made-up Russian 'strategy'**
- **Trouble: Russia Is Helping China Build Its First Nuclear-Powered Aircraft Carrier**
- **Russia's Tsar Bomba Nuke Is So Destructive That It Was Only Tested Once**
- **Arctic Aggression: Russia Is Better Prepared for a North Pole Conflict Than America Is**

West Asia

Iran

- **Scholar says nuclear activity back to pre-JCPOA level, predicts change in Majlis composition, slams 'deal of century'**
- **Europe's dependence on U.S. impedes efforts to preserve nuclear deal: expert**

Israel

- **Everything You Ever Wanted to Know About Israel's Nuclear Weapons**
- **A War In The Middle East Could Go Nuclear (And That Can Only Mean 1 Thing)**

East Asia

Japan

- **Final disposal of Fukushima nuke water should reflect local input**
- **Deployment of 'usable nuclear weapons' could spark arms race**

North Korea

- **North Korea enhanced nuclear, missile programs in 2019 in breach of sanctions - U.N. report**
- **Dimming prospects of talks**

South Korea

- **Trump and N. Korea**

Interviews

- **Interview: Trump's nuclear insecurities and other secrets from the author of "The Bomb"**

Think Tanks

- **Russia killed arms control. Why does it want to keep New START?**
- **The Last Remaining Nuclear Arms Control Treaty Between the U.S. and Russia Could Expire in One Year, Here's Why That's Dangerous**
- **Don't let New START die**
- **Toward Accountable Nuclear Deterrents: How Much is Too Much?**
- **Trump's New Nuclear Budget Is Bad News for Russia**
- **Trump's 2021 budget: More nuclear spending, less of almost everything else**
- **Pakistan Streamlines its National Nuclear Power Programme with IAEA Support**

India

Lok Sabha Unstarred Question No.511

February 5, 2020

The details of the precautionary steps being taken to minimise risk factors associated with nuclear accidents?

The Minister Of State For Personnel, Public Grievances & Pensions And Prime Minister's Office (Dr. Jitendra Singh):

Department of Atomic Energy (DAE) has been successfully operating all its nuclear facilities for the past six decades by ensuring radiological safety both to its workforce and every member of public. Nuclear Power Plants (NPP) are designed adopting safety principles of redundancy, diversity and provided fail-safe design features following a defence-in-depth approach which ensures multiple layers of safety to minimize the probability of any accident and quantity of release to the environment in case of a hypothetical accident. Additionally, DAE has a rugged regulatory mechanism to monitor design, manufacturing, installation, commissioning and operation of nuclear facilities. These EPPs are tested through periodic exercises to confirm the decision making capabilities, response timeline, co-ordination among response agencies and availability of necessary resources.

The operations are performed adopting well laid out procedures by highly qualified, trained and licensed personnel. Appropriate Personal Protection Equipments and monitoring aids are provided to all the personnel working in the nuclear power plants. The safety of nuclear power plants is continuously monitored and reviewed by the Atomic Energy Regulatory Board (AERB). Subsequent to Disaster Management Act, 2005 and formation of National Disaster Management Authority (NDMA), the plan for implementing response actions in public domain is further strengthened. The Department of Atomic Energy (DAE) has also set up Emergency Response Centres (DAE-ERCs) at various DAE units, which are operational round the clock, to support and coordinate emergency response actions.

<http://164.100.24.220/loksabhaquestions/annex/173/AU511.pdf>

Lok Sabha Unstarred Question No. 680

February 5, 2020

The timeline of the three stage nuclear power projects; (whether there is a deadline to achieve self-sufficiency by developing a closed Thorium based Nuclear power cycle; and if so, the details thereof and if not, the time by when the three stage is likely to be fully realised?

Answer The Minister Of State For Personnel, Public Grievances & Pensions And Prime Minister's Office (Dr. Jitendra Singh) : (a)to(c)With a view to optimally utilise limited Uranium reserves and

large Thorium reserves in the country, the Department of Atomic Energy has adopted a three stage nuclear power programme, based on a closed nuclear fuel cycle, for generation of nuclear power and for achieving long term energy security. The three stage nuclear power programme, which is to be implemented sequentially, aims to multiply the domestically available fissile resources through the use of natural Uranium in Pressurised Heavy Water Reactors (first stage), followed by use of Plutonium obtained from the spent fuel of Pressurised Heavy Water Reactors in Fast Breeder Reactors, in the second stage. Large scale use of Thorium, in third stage, will subsequently follow making use of Uranium-233 that will be bred in Fast Breeder Reactors, when adequate nuclear installed capacity in the country has been achieved. The first stage comprising of Uranium fuelled Pressurised Heavy Water Reactors (PHWR) has reached commercial maturity and presently there are eighteen (18) PHWRs in operation and six (6) under construction.

<http://164.100.24.220/loksabhaquestions/annex/173/AU680.pdf>

India-Pakistan nuclear war would harm ocean life: Study

Outlook, February 05, 2020

A nuclear war between India and Pakistan could worsen the impact of ocean acidification on corals, clams, oysters and other marine life with shells or skeletons, says a study. "We found that the ocean's chemistry would change, with global cooling dissolving atmospheric carbon into the upper ocean and exacerbating the primary threat of ocean acidification," said the study's co-author Alan Robock, Distinguished Professor at Rutgers University in the US. For the study, published in Geophysical Research Letters journal, the researchers looked at how climate changes stemming from nuclear war would affect the oceans.

They used a global climate model in which the climate reacted to soot (black carbon) in smoke that would be injected into the upper atmosphere from fires ignited by nuclear weapons. They considered a range of hypothetical nuclear wars, including a relatively small one between India and Pakistan and a large one between the US and Russia. Excess carbon dioxide from the burning of fossil fuels enters the ocean and reacts with water to form carbonic acid, which decreases ocean pH (makes it more acidic) and lowers levels of carbonate ions.

<https://www.outlookindia.com/newscroll/indiapakistan-nuclear-war-would-harm-ocean-life-study/1726920>

India to Test Nirbhay Cruise Missile With Indigenous Propulsion System

Franz-Stefan Gady

The Diplomat, February 07, 2020

The Indian Ministry of Defense's (MoD's) Defense Research and Development Organization (DRDO) will test fire a nuclear-capable Nirbhay Long Range Land Attack Cruise Missile (LRLACM) fitted with an indigenous propulsion system in April, according to an Aeronautical Development Establishment (ADE) official who spoke to IHS Jane's during the February 5 to 9 Defexpo 2020 exhibition in Lucknow, northern India. The indigenous Small Turbo Fan Engine

(STFE) is under development by DRDO's Gas Turbine Research Establishment (GTRE). The new engine along with a new radio frequency seeker is expected to be tested during two developmental trials in April, with a live firing slated to take place in January or February 2021. Development of the LRLACM is scheduled to be completed the same year.

The Nirbhay is a subsonic LRLACM that can be armed with a 200-300-kilogram warhead. The nuclear-capable, solid fuel missile can reportedly reach top speeds of 0.6-0.7 Mach and can strike land targets at a distance of up to 1,000 kilometers. It can be launched from multiple platforms — the first test of the air-launched variant is expected to take place in 2021. The Nirbhay reportedly has loitering capability.

<https://thediplomat.com/2020/02/india-to-test-nirbhay-cruise-missile-with-indigenous-propulsion-system/>

Russia, India May Cooperate To Build Nuclear Plants In Middle East, Africa

Palash Ghosh

International Business Times, February 09, 2020

Russia and India could potentially form a partnership to build nuclear power plants across Africa and the Middle East. "There are also good prospects for cooperation of Russia and India in nuclear energy in third [party] countries," said Indian Ambassador to Russia Venkatesh Varma.

"Now Russia is also pretty active in the construction of nuclear power plants in the Middle East and Africa. That opens a new pathway of cooperation for us," Varma added. "Russia already has agreements in this field with a number of African countries. Ethiopia is one of them, and there are some countries in the Middle East. It will be Russian projects but with Indian cooperation. The discussions are still at a preliminary stage, but we hope that this will be a new area of cooperation. It is related to the success of the Indo-Russian cooperation in Bangladesh."

<https://www.ibtimes.com/russia-india-may-cooperate-build-nuclear-plants-middle-east-africa-2918741>

Transforming nuclear waste into wealth

Hindustan Times, February 15, 2020

Nuclear waste is wealth, as long as its management and regulation are given utmost importance by the states, said CP Kaushik, associate, director, Nuclear Recycle Group, Bhabha Atomic Research Centre (BARC). He was speaking during the international conference on nuclear waste management conducted at Symbiosis Law College on Saturday. Experts from across the globe gave inputs as to how India and the world need to focus on nuclear energy since its applications are increasing.

Kaushik, who was invited to give the inaugural address, said, "India being a developing country needs to bridge the gap between supply and demand of electricity to meet the growth. Nuclear waste is wealth, as long as its management and regulation are given utmost importance by the states. "Nuclear energy's importance cannot be denied since its applications are increasing. For example, it

has become indispensable in the medical field. India is in the “international driver-seat” for utilisation of nuclear technology for power production and societal benefits,” he said. The conference also showcased lecturers from Germany wherein experts spoke on how the country is now looking towards alternative sources of energy which are considered to be less risky than nuclear sources of energy.

<https://www.hindustantimes.com/cities/transforming-nuclear-waste-into-wealth/story-aOtp25gTvyI9SIutPXSTEJ.html>

China

China's lunar rover travels 367 meters on moon's far side

Xinhua, February 3, 2020

China's lunar rover Yutu-2 (Jade Rabbit-2) has driven 367.25 meters on the far side of the moon to conduct scientific exploration. Both the lander and the rover of the Chang'e-4 probe ended their work for the 14th lunar day on Saturday (Beijing Time), and switched to dormant mode for the lunar night, according to the Lunar Exploration and Space Program Center of the China National Space Administration. During the 14th lunar day, Yutu-2 continued to move along the planned route. The scientific instruments on the lander and rover worked as planned. The neutron radiation detector and low-frequency radio spectrometer on the lander worked normally and acquired first-hand scientific data. On the rover, the near-infrared spectrometer, panoramic camera, neutral atom detector and lunar radar carried out scientific exploration as planned.

http://www.xinhuanet.com/english/2020-02/03/c_138752489.htm

PLA air force dispatches 8 transport aircraft to support Wuhan's coronavirus fight

Xinhua, February 3, 2020

Eight large transport aircraft dispatched by the Chinese People's Liberation Army (PLA) air force Sunday landed at Wuhan Tianhe International Airport, delivering 795 military medical staff and 58 tonnes of supplies to help the city fight against the novel coronavirus epidemic. Under the command of the Central Military Commission, the aircraft took off in the early hours of Sunday from a military airport and headed for the cities of Shenyang, Lanzhou, Guangzhou and Nanjing. Once loaded with the medical staff and supplies, the aircraft took off again and arrived in Wuhan between 8:55 a.m. to 9:30 a.m. successively. It is the largest number of large transport aircraft dispatched by the PLA air force in non-combat military operations after its disaster relief efforts in the 2008 Wenchuan earthquake in Sichuan Province and the 2010 Yushu earthquake in Qinghai Province.

http://www.china.org.cn/china/2020-02/03/content_75667851.htm

Wuhan defies rising pressure

Global Times, February 3, 2020

Amid nationwide campaign in fighting the deadly virus, questions linger as to whether the Chinese government is capable of fighting the coronavirus battle, whether the shortage of medical supplies in Central China's Hubei Province - center of this battle - could be solved, does the country face significant inadequate medical services and how to support Wuhan residents who are mentally burned in such a huge crisis. As new coronavirus cases continued to surge on Sunday, for residents at the quarantined epicenter of the spreading contagion, the focuses are lack of medical supplies, flaws in local governance and fears of a worsening situation.

<http://www.globaltimes.cn/content/1178280.shtml>

China develops new gyroplane for border plateau operations

Liu Xuanzun

Global Times, February 3, 2020

The latest gyroplane commissioned by the People's Liberation Army (PLA) has increased plateau capabilities for a wider variety of missions and is expected to be deployed along China's southwestern border regions, experts said on Sunday. Commonly known as the Falcon, the new Lieying gyroplane is equipped with three seats instead of two and has a more powerful engine with 135 horsepower. The gyroplane also has a longer rotor blade that stretches 8.8 meters and redesigned fuel tank, according to Ordnance Industry Science Technology, a Xi'an-based periodical focused on the national defense industry, on Thursday.

Compared with the two-seat model, the three-seat issue has broader military applications as it can carry more personnel and weapons, transport wounded personnel, and conduct missions like two-person parachuting, the report said. Already proven in earlier tests, the latest model is also capable of operating in plateau areas with heavy loads. The three-seater can transport up to 630 kilograms and take off, fly, and land at an elevation of 4,200 meters, the magazine reported. The Falcon is adept at infiltrating hostile areas during stealth reconnaissance missions due to its agility, small size, and low noise output, the expert said.

<http://www.globaltimes.cn/content/1178281.shtml>

China's Long March-5B carrier rocket arrives at launch site

Xinhua, February 5, 2020

China's Long March-5B carrier rocket arrived at the launch site in southern China's Hainan Province Wednesday after a week of ocean and rail transport, according to the China Aerospace Science and Technology Corporation. The rocket will take part in a joint rehearsal with the prototype of the Chinese space station's core module at the Wenchang Space Launch Center. It is scheduled to make its maiden flight and launch the prototype of China's new manned spaceship in April.

The Long March-5B is a modified version of Long March-5 rocket and will be China's first 1.5-stage large carrier rocket, according to Wang Jue, chief commander of the Long March-5 rocket. The rocket is 53.7 meters long, with a diameter of five meters and a liftoff weight of 849 tonnes. It uses

pollution-free propellant including liquid oxygen, liquid hydrogen and kerosene. It has a carrying capacity of more than 22 tonnes in low-Earth orbit. It has the largest carrying capacity in low-Earth orbit among all Chinese rockets.

http://www.xinhuanet.com/english/2020-02/05/c_138758697.htm

PLA Air Force to perform in Singapore despite epidemic

Guo Yuandan and Liu Xuanzun

Global Times, February 6, 2020

An aerobatic team of the Chinese Air Force will perform at a Singaporean air-show as scheduled despite the coronavirus outbreak, while Singapore did not quarantine Chinese pilots who arrived in the country on Wednesday, a move shows its high level of trust in China's epidemic control measures. On the invitation of the Singaporean side, the Chinese Air Force's August 1st Air Demonstration Team will perform at the 2020 Singapore Airshow from February 11-16, as nine aircraft, including seven J-10 fighter jets that will be featured and more than 100 personnel, arrived in Singapore on Wednesday, according to statements released by the Chinese Air Force and the Defense Ministry. Despite the ongoing coronavirus epidemic, which has seen 99 countries and regions including Singapore taking immigration control measures, no change was seemingly made to the Chinese flight performance plan.

After the Chinese pilots arrived on Wednesday, they started training for the performances without being quarantined, a source told the Global Times, noting that this showed Singapore's high level of trust in China's epidemic control measures, which runs in contrast to some Western countries' moves. Air defense expert Fu Qianshao told the Global Times that the Chinese military has taken stringent protective measures, especially for pilots.

<https://www.globaltimes.cn/content/1178794.shtml>

Taiwan scrambles jets as mainland Chinese air force flies around island

South China Morning Post, February 9, 2020

Taiwan's air force scrambled on Sunday to intercept jets from mainland China that flew around the island. Beijing said the flight was a "necessary action" under "current security situation across the Taiwan Strait". Taipei's defence ministry described the People's Liberation Army's patrol as a threat to regional peace and stability. Beijing has been flying what it calls "island encirclement" drills on and off since 2016 when Taiwanese President Tsai Ing-wen first took office. Beijing maintains that the self-governed island, which broke away in 1949 after the civil war, remains part of China, and that Tsai, who was re-elected last month, wishes to push the island's formal independence. She says Taiwan is an independent country called the Republic of China, its official name.

Chinese military aircraft fly close to Taiwan, island's defence ministry says In a statement, the island's defence ministry said the mainland's J-11 fighters and H-6 bombers flew into the Bashi Channel to the south of Taiwan, then out into the Pacific before heading back to base via the Miyako

Strait, located between Japan's islands of Miyako and Okinawa, to the northeast of Taiwan. "During this period, the national military appropriately used air reconnaissance aircraft and air defence forces in accordance with combat readiness regulations," it said.

<https://www.scmp.com/news/china/politics/article/3049748/taiwan-scrambles-jets-mainland-chinese-air-force-flies-around>

US military build-up threatens global arms control: Chinese FM

Zhang Hui

Global Times, February 12, 2020

The Chinese foreign ministry said on Wednesday that the US' unilateralism and building up of military power using all its resources poses a great obstacle to the international arms control process, but is instead shifting the blame to China, following a US national security official's remarks claiming China does not intend to join arms control negotiations as it is modernizing its armed forces. Chinese Foreign Ministry spokesperson Geng Shuang said at Wednesday's media briefing that China has no intention of joining the so-called trilateral arms control negotiations with the US and Russia, and this position is clear and understood by Russia and the wider international community.

It is worth pointing out that the US, sitting on the largest arsenal of the most advanced nuclear weapons, should earnestly fulfill its special responsibility in nuclear disarmament, respond to Russia's call to extend the New SART (Strategic Arms Reduction Treaty), and further cut down its massive nuclear arsenal, Geng said. US National Security Adviser Robert O'Brien said on Tuesday to the Atlantic Council in Washington that the US withdrawal from the ineffective Intermediate-Range Nuclear Forces (INF) may bring Russia and even China to the negotiating table for serious discussions on nuclear arms reductions in the coming months, and he said it's not surprising that China does not intend to join arms control negotiations now, as the wealthy country is modernizing its armed forces.

<http://www.globaltimes.cn/content/1179312.shtml>

Chinese military never engages in cyber espionage: Defense Spokesperson

Li Jiayao China Mail, February 13, 2020

"The Chinese military has never engaged in any form of cyber theft. The US accusation is groundless and totally hegemonic," said Senior Colonel Wuqian, spokesperson for China's Ministry of National Defense, in a written statement. The US Department of Justice recently announced charges against four Chinese military members for hacking a US credit reporting agency in 2017. In response, Senior Colonel Wu Qian said on Feb. 13 that the US accusation is groundless, totally hegemonic and judicial bullying. China firmly opposes this and strongly condemns it. Wu Qian pointed out that China is a staunch defender of international cyber security. The Chinese government has always firmly opposed and cracked down on illegal cybercrimes in accordance with the law. The Chinese military has never engaged and participated in any form of cyber theft.

He said that it is an open secret with irrefutable proof that the US has long been violating international law and basic norms governing international relations by conducting large-scale, organized and indiscriminate cyber espionage, monitoring and surveillance activities against foreign governments, enterprises and individuals. From the case of WikiLeaks to Edward Snowden, the US still owes an explanation to the international community. On the issue of cyber security, the US has applied a naked double standard and acted in a hypocritical manner.

http://eng.chinamil.com.cn/view/2020-02/13/content_9741182.htm

Pakistan

Lt Gen (r) Kidwai warns India not to take Pakistan's nuclear capability as a 'bluff'

Hamza Azhar Salam & Murtaza Ali Shah

The News International, February 7, 2020

Pakistan Army's former officer, Lt Gen (r) Khalid Kidwai, on Friday warned India not to take Islamabad's "nuclear capability as a bluff" and said that the country reserved its right to exercise all options to protect territorial and ideological interests in case of a war-like situation. The remarks, made by the former director-general of the Strategic Plans Division, retired Lt Gen Khalid Kidwai, were made while he gave a keynote address at a workshop held by the International Institute of Strategic Studies (IISS) in London.

Titled "South Asian Strategic Stability: Deterrence, Nuclear Weapons and Arms Control," the workshop was attended by retired Lt Gen Amir Riaz, defence expert Hassan Askari, retired Brig Nadeem Ahmed Salik and former ambassador Ali Sarwar Naqvi, among others. The opening remarks of the workshop were available for public viewing but the remaining conference was held behind closed doors for a select group of people. The discussions held during the day-long conference on nuclear deterrence in South Asia remain off the record.

<https://www.thenews.com.pk/latest/610366-lt-gen-r-kidwai-warns-india-not-to-take-pakistans-nuclear-capability-as-a-bluff>

Don't take Pak nuclear capability as a bluff: Lt Gen Kidwai

Murtaza Ali Shah

The News International, February 8, 2020

Lieutenant General (R) Khalid Kidwai, who served as Director General Strategic Plan's Division, delivered a keynote opening address at a workshop held by the International Institute of Strategic Studies (IISS) and Centre for International Strategic Studies (CISS) here. Khalid Kidwai said: "Pakistan must shoulder the responsibility of maintaining the vital strategic balance in the conventional and nuclear equation with India as particular determinant of the state of strategic stability in South Asia."

He spoke in great depth about the strategic positions of both Pakistan and India in the event of further escalation between the two hostile neighbours. He added: “If Pakistan were to allow imbalances to be introduced in this strategic equation, South Asia would list more serious strategic instability. This, in turn, would lead to catastrophic consequences in view of India’s historically persistent and insatiable drive for regional domination, especially given India’s current irrational, unstable and belligerent internal and external policies.”

<https://www.thenews.com.pk/print/610472-don-t-take-pak-nuclear-capability-as-a-bluff-lt-gen-kidwai>

Pakistan touts its nuclear security measures

Aamir Latif

Aladulu Agency, February 10, 2020

Pakistan on Monday said it had shared information on its nuclear security through a booklet marking the occasion of the third International Conference on Nuclear Security (ICONS). The conference is being organized by the International Atomic Energy Agency (IAEA) in Vienna, Austria through Thursday. “The Ministry of Foreign Affairs has published a booklet on ‘Pakistan’s Nuclear Security Regime’,” said a ministry statement.

This step, the statement added, was part of Islamabad’s “practice to share information on the measures taken to further strengthen nuclear security and to demonstrate the high-level attention that nuclear security continues to receive in Pakistan.” Copies of the booklet – one of them made available to Anadolu Agency – are being distributed among the ICONS participants. Pakistan, the statement went on to say, has established a “comprehensive” and “effective” national nuclear security regime, one on par with international standards and guidelines. “The regime is based on an extensive legislative and regulatory framework governing the security of nuclear materials, radioactive substances, associated facilities and activities,” it said. “This is backed by strong institutions and organizations with the requisite authorities, resources and trained manpower for effective implementation.” “Our affiliated institutes at Centre of Excellence on nuclear security have transformed into an international hub for imparting training and sharing best practices in the area of nuclear security. Pakistan’s nuclear security arrangements have been recognized at the international level by several high-ranking officials and experts,” it explained.

<https://www.aa.com.tr/en/asia-pacific/pakistan-touts-its-nuclear-security-measures/1730058>

‘Pak nuclear safety regime as per world standards’

Mariana Baabar

The News International, February 11, 2020

“The regime is based on an extensive legislative and regulatory framework governing the security of nuclear materials, radioactive substances, associated facilities and activities,” said the Foreign Office on the occasion of third International Conference on Nuclear Security (ICONS) organized by the International Atomic Energy Agency (IAEA) in Vienna. The conference (Feb 10-14) will see the launch of a booklet on “Pakistan’s Nuclear Security Regime” by the Ministry of Foreign Affairs.

The booklet is the second version of “Pakistan’s Nuclear Security Regime”, which was first published in form of a brochure on the sidelines of the second International Conference on Nuclear Security organized by the IAEA in 2016. “This step is part of Pakistan’s practice to share information on the measures taken to further strengthen nuclear security and to demonstrate the high-level attention that nuclear security continues to receive in Pakistan,” adds the Foreign Office. “Our affiliated institutes at Centre of Excellence on nuclear security have transformed into an international hub for imparting training and sharing best practices in the area of nuclear security,” it asserted.

<https://www.thenews.com.pk/print/612276-pak-nuclear-safety-regime-as-per-world-standards>

‘Seek China’s help to counter India’s military modernisation’

The Express Tribune, February 14, 2020

Nearly a year after Pakistan and India squared off in an aerial duel that brought the nuclear-tipped but hostile neighbours to the brink of war, a former head of the country’s air force on Thursday proposed expanding strategic cooperation with the brotherly country China to counter India’s growing military modernization.

This was suggested by former chief of the air staff Air Chief Marshal (retired) Kaleem Saadat on Thursday while speaking at a seminar organised by the Strategic Vision Institute (SVI) on ‘India’s Military Modernisation and Counter-Force Temptations: Impact on Regional Security’. ACM Sadaat, who now heads the Centre for Aerospace and Security Studies (CASS), said it was important to make China commit strategically to Pakistan’s security alongside the China-Pakistan Economic Corridor (CPEC).

<https://tribune.com.pk/story/2156438/1-seek-chinas-help-counter-indias-military-modernisation/>

USA

U.S. pressure on Iran to continue despite lifting sanctions on China's COSCO unit, official says

Reuters, February 1, 2020

A decision by the United States to lift sanctions on one of two units of the Chinese tanker company COSCO was not a sign that the Trump administration was letting up on its “maximum pressure” against Iran, a senior U.S. official said on Saturday. The lifting of sanctions on Friday by the U.S. Treasury Department partially reversed its punishment on the company for transporting Iranian oil after China complained about the measure in trade talks with Washington.

The Treasury said it deleted COSCO Shipping Tanker (Dalian) Co from its sanctions list but continues to blacklist a second unit - COSCO Shipping Tanker (Dalian) Seaman & Ship Management Co Ltd. “This administrative de-listing should not be misinterpreted as a change in policy,” a senior administration official said, speaking on the condition of anonymity.

<https://www.reuters.com/article/us-iran-nuclear-usa-cosco/u-s-pressure-on-iran-to-continue-despite-lifting-sanctions-on-chinas-cosco-unit-official-says-idUSKBN1ZV3T6>

Nuclear part of US Northwest's optimal clean energy mix, study shows

World Nuclear News, February 4, 2020

The study by San Francisco-based consulting group Energy + Environmental Economics (E3) was commissioned by Energy Northwest as part of long-term effort to evaluate all carbon-free options that can maintain system reliability while ensuring residents of Washington state have enough power for future decades. Energy Northwest CEO Brad Sawatzke said the study had been motivated by the state's Clean Energy Transformation Act which aims for 100% clean electricity by 2045. "That's an ambitious and worthwhile goal, so we have to start planning today to ensure the people of Washington state have the right mix of energy sources tomorrow. And it's our job to make sure that mix is not only reliable, but affordable," he said.

Energy Northwest is a not-for-profit utility agency and operates one of the largest carbon-free energy portfolios in the region, including wind, hydroelectric, and solar power facilities, as well as Columbia Generating Station (CGS) which is itself Washington's third-largest provider of electricity. E3 calculated energy capacity needs in the region over the next several decades and analysed a suite of clean, reliable and affordable energy resources available to meet that demand. It found that achieving "even very deep electric emissions reductions in the region can be accomplished at manageable costs, provided firm capacity is available".

<https://world-nuclear-news.org/Articles/Study-finds-nuclear-to-be-part-of-optimal-clean-en>

Framatome wins TVA fleet contracts

World Nuclear News, February 4, 2020

The contract to provide Framatome's Atrium 11 fuel for the three boiling water reactors at Browns Ferry, with the first use planned for 2023, makes TVA the third US utility to switch to this fuel design, Framatome said. The fuel, which will be manufactured in Framatome's facility in Richland, Washington, allows operators to run their plants with more flexibility as demand fluctuates and other generation sources provide power to the electric grid, and also helps utilities to save money by using the uranium in nuclear fuel more efficiently, the company said. Work to upgrade fuel handling equipment at the Browns Ferry, Sequoyah and Watts Bar nuclear plants will include upgrading the refuel bridges at Browns Ferry, the manipulator cranes at both Sequoyah units and Watts Bar unit 1, and the fuel transfer systems at Watts Bar. Framatome previously upgraded the fuel transfer systems at Sequoyah. The company will also replace used fuel bridges at Sequoyah and Watts Bar.

SGT, a joint venture between Framatome and AECOM, will replace four steam generators at Watts Bar unit 2. The 1165 MWe (net) pressurised water reactor entered commercial operation in 2016, following the resumption in 2007 of construction after a 22-year hiatus. TVA said in 2017 that replacement of Watts Bar 2's steam generators would allow the unit to operate more efficiently. At that time, it said it would replace all four of the unit's steam generators during a scheduled outage

between 2018 and 2024 and that steam generator replacement would occur during the following outage where an inspection indicates the tubes are becoming 15% clogged.

<https://world-nuclear-news.org/Articles/Framatome-wins-TVA-fleet-contracts>

US to start negotiating with Russia on nuclear arms control soon

Nicole Gaouette

CNN Politics, February 5, 2020

The Trump administration will soon start nuclear negotiations with Russia, US national security adviser Robert O'Brien said Wednesday, speaking exactly one year before the last remaining US nuclear arms pact with Moscow is set to expire. "We are going to confront the Russians where we need to, but at the same time I think we'll negotiate, we'll start negotiations soon on arms control, on the nuclear issue which is, you know, important to the safety of the world, not just the US and Russia," O'Brien said in a speech at the at the Meridian International Center in Washington to ambassadors from around the world.

O'Brien spoke as the US and Russia hit the one-year deadline to extend the New START Treaty, the last legally binding agreement limiting their nuclear arsenals -- the world's largest. For arms control experts who stress that nuclear diplomacy takes time, the delay in launching significant talks has raised concerns about the Trump administration's interest in remaining in the treaty or, more broadly, in adhering to the limits of arms control pacts at all.

<https://edition.cnn.com/2020/02/05/politics/us-russia-nuclear-arms-control/index.html>

US Adds 'Low Yield' Nuclear Weapon to Its Submarine Arsenal

Robert Burns

The Diplomat, February 5, 2020

The U.S. military has deployed a new addition to its nuclear arsenal — a long-range missile armed with a nuclear warhead of reduced destructive power. The so-called low-yield missile joins other, more powerful weapons aboard stealthy submarines prowling the oceans. The debut deployment aboard long-range submarines, known as boomers, is a landmark in U.S. nuclear weapons policy. It is the first major addition to the strategic nuclear arsenal in recent decades and is a departure from the Obama administration's policy of lessening dependence on nuclear weapons in pursuit of a nuclear-free world.

"This supplemental capability strengthens deterrence and provides the United States a prompt, more survivable low-yield strategic weapon," Rood said, adding that it supports the U.S. commitment to deter attacks against allies, and "demonstrates to potential adversaries that there is no advantage to limited nuclear employment because the United States can credibly and decisively respond to any threat scenario."

<https://thediplomat.com/2020/02/us-adds-low-yield-nuclear-weapon-to-its-submarine-arsenal/>

US cleanup mission set for big advances in 2020

World Nuclear News, February 5, 2020

As well as the start of construction of a new utility shaft at WIPP (which will provide added ventilation and allow greater flexibility for mining operations there), EM expects 2020 to bring the start of operations at major liquid waste facilities at its Savannah River and Idaho sites, as well as construction work at a plant to treat tank waste at the Hanford site, EM Senior Advisor Ike White said. The Hanford facility is expected to begin operations "within a few years", he said. Addressing the Energy Communities Alliance - identified by EM as a "key stakeholder audience" - on 31 January, White said 2020 would see a "leap forward" in the office's ability to tackle tank waste, the largest and one of its most challenging environmental risks.

"Collectively, [these capabilities] represent a fundamental shift for EM as we complete these long-running construction projects and focus on waste treatment operations," he said. "Not only will 2020 serve as a milestone year for EM and the department, but I believe it will start off a decade of significant progress across the programme," he added.

<https://world-nuclear-news.org/Articles/US-cleanup-mission-is-set-for-significant-advances>

Grossi sets out vision to 'recalibrate' the IAEA

World Nuclear News, February 6, 2020

Grossi spoke to the Carnegie Endowment for International Peace yesterday, at the end of his first official visit to the USA since becoming IAEA director general in early December. "Nuclear energy is growing everywhere - it's a reality", Grossi said, adding this could be considered to be a change of paradigm. Growth is happening both in established nuclear power countries such as China, India and Russia, and in newcomer countries such as Belarus, the United Arab Emirates and others. In addition, he said, many other countries are demonstrating an interest in including nuclear in their energy mix.

This growth - and with it, an increasing number of nuclear facilities and quantity of nuclear materials - underlines the need for strengthened international efforts on nuclear safety and security, he said.

Grossi also highlighted climate change, noting that his first trip as director general had been to the United Nations COP25 climate summit which was held in Madrid in December. Inclusion in the summit, he said, had been a "first" for the IAEA. "Nuclear must have a place at the table: it is illogical and ascientific to be worried about climate change [at the same time as] discarding a clean, low-carbon emitting energy [such as] nuclear," he said. "Let's discuss the facts and the science." Grossi is liaising with the UK to ensure that nuclear power is part of COP26 in Glasgow, Scotland in November.

<https://world-nuclear-news.org/Articles/DG-sets-out-vision-to-recalibrate-the-IAEA>

DOE invites feedback on advanced reactor programme

World Nuclear News, February 7, 2020

The US Department of Energy (DOE) on 5 February issued a Request for Information/Notice of Intent (RFI/NOI) to solicit applications for two advanced reactor demonstration awards. It said the issuance of the RFI/NOI was also to give interested parties an opportunity "to provide their insights on how the demonstration programme could be successfully executed". The Advanced Reactor Demonstration (ARD) Program was initiated last year to demonstrate multiple advanced reactor designs. In December, Congress authorised USD230 million in funding for the programme during fiscal year 2020, ending 30 September.

"DOE recognises that continued efforts will be necessary to assure US leadership in the research, design and development of advanced reactors, and to ensure the successful deployment of these reactors in the US and international marketplaces," DOE said. "However, the primary goal of the new ARD Program is on actual construction and operational readiness of the selected demonstrations." DOE said it has an "aggressive strategy to demonstrate two advanced reactor designs within five to seven years of award, and two to five smaller awards to address technical risks in other advanced designs." It added, "The RFI/NOI notifies interested parties of DOE's intended strategies to implement this programme, as well as solicits input regarding these strategies from interested parties, including advanced reactor developers."

<https://world-nuclear-news.org/Articles/DOE-calls-for-feedback-on-advanced-reactor-program>

Trump halts support for Yucca Mountain, Nevada nuclear waste dump

Timothy Gardner

Reuters, February 7, 2020

U.S. President Donald Trump on Thursday said he opposes the long-delayed Yucca Mountain nuclear waste repository in Nevada, reversing his policy on a project on which the United States has spent billions of dollars over decades but never opened. Republican Trump's past three budgets have called for the licensing process of Yucca to restart with \$116 million proposed last year in the 2020 budget, and \$120 million in each of the previous years.

On Thursday, however, Trump wrote on Twitter: "Nevada, I hear you on Yucca Mountain and my Administration will RESPECT you!" The administration is committed to exploring innovative approaches, he wrote, adding "I'm confident we can get it done." In addition, a senior administration official said, "The President's 2021 budget will not have funding for the licensing of Yucca Mountain in it." Yucca Mountain has been pending since Ronald Reagan was president and the government has spent money on initial construction and design, despite staunch opposition to the project from lawmakers in Nevada, who have said that the federal government has tried to pressure a sparsely-populated state.

<https://www.reuters.com/article/us-usa-trump-nuclearpower-yucca/trump-halts-support-for-yucca-mountain-nevada-nuclear-waste-dump-idUSKBN20101J>

Trump Budget Calls for New Nuclear Warheads and 2 Types of Missiles

David E. Sanger

The New York Times, February 10, 2020

The Trump administration has begun to put a price tag on its growing arms race with Russia and China, and the early numbers indicate that restoring nuclear weapons to a central role in American military strategy will cost tens of billions of dollars over the next decade.

In the 2021 budget released on Monday, the administration revealed for the first time that it intended to create a new submarine-launched nuclear warhead, named the W93. Its development is part of a proposed 19 percent increase this year, to \$19.8 billion, for the National Nuclear Security Administration, the Energy Department agency that maintains the nuclear stockpile and develops new nuclear warheads. More tellingly, that is a jump of more than 50 percent since 2017, President Trump's first year in office. There is \$15.5 billion scheduled for development and deployment of new space assets — part of the new Space Force created by Mr. Trump — that are central to detecting incoming launches and for the command and control of American offensive weapons.

<https://www.nytimes.com/2020/02/10/us/politics/trump-budget-nuclear-missiles.html>

Trump budget proposes \$150 million for creation of uranium reserve

Timothy Gardner

Reuters, February 11, 2020

President Donald Trump's 2021 budget proposed \$150 million for the creation of a U.S. uranium reserve as the administration seeks to help struggling producers of the fuel for nuclear power reactors. The money, if approved by Congress, would begin the process of purchasing uranium, Energy Secretary Dan Brouillette told reporters in a teleconference on the Energy Department's budget.

Brouillette also said the budget represents a push by Trump to challenge the global expansion of nuclear power development by Chinese and Russian companies. Trump "has decided that we're going to meet them anywhere that they go around the world, and this ... is the very first step that we will take to put the United States back into this competitive game," Brouillette said. U.S. uranium mining firms, as well as more than two dozen western state lawmakers, have argued that nuclear generators rely heavily on adversaries including Russia, China and Kazakhstan for uranium supply from their state-owned companies, which flood the market.

<https://www.reuters.com/article/us-usa-trump-budget-uranium/trump-budget-proposes-150-million-for-creation-of-uranium-reserve-idUSKBN2042JM>

Trump's Pentagon budget bolsters nuclear weapons, weapons research

Mike Stone

Reuters, February 11, 2020

U.S. President Donald Trump's \$740.5 billion defense budget request sent to Congress on Monday includes more money for nuclear weapons and a big boost to research and development spending to prepare for future warfare. The defense spending request contains the Pentagon's largest research and

development budget in 70 years, a senior defense official said, as the military aims to build next generation capabilities to counter the growing strength of China and Russia.

Within the Pentagon's competing priorities, the request for nuclear weapons modernization funds rose 18% compared to last year or \$29 billion extra dollars, a second senior defense official said. Fully modernizing the U.S. nuclear triad will cost more than a trillion dollars over 30 years, according here to the Congressional Budget Office. The funding will go to better nuclear command and control as well as delivery platforms like the Columbia Class nuclear submarine made by Huntington Ingalls Industries and General Dynamics and the certification to carry nuclear bombs aboard the stealthy F-35 jet fighter made by Lockheed Martin Co.

<https://www.reuters.com/article/us-usa-trump-budget-defense/trumps-pentagon-budget-bolsters-nuclear-weapons-weapons-research-idUSKBN20428D>

US budget request includes USD150 million for uranium reserve

World Nuclear News, February 11, 2020

The US Administration's 2021 budget request unveiled yesterday by President Donald Trump includes USD150 million to set up a uranium reserve to address challenges to the production of domestic uranium. This would ensure a backup supply of uranium in the event of a significant market disruption and support the operation of at least two US uranium mines, according to the Department of Energy (DOE). The uranium reserve funding is part of USD1.3 billion requested for the DOE's Office of Nuclear Energy, which also includes USD295 million for the Versatile Test Reactor (VTR) project. The DOE's total budget request is USD35.4 billion for the next fiscal year which begins on 1 October.

The new programme will help to "re-establish" the USA's nuclear fuel supply chain through the domestic production and conversion of uranium, the DOE said. The Office of Nuclear Energy would begin the procurement process for the reserve in fiscal 2021. According to the budget request, the USD150 million would remain available "until expended". "This action addresses immediate challenges to the production of domestic uranium and reflects the Administration's Nuclear Fuel Working Group (NFWG) priorities," the budget request notes. "The NFWG will continue to evaluate issues related to uranium supply chain and fuel supply."

<https://world-nuclear-news.org/Articles/US-budget-request-includes-USD150-million-for-uran>

BWXT to support HALEU research reactor fuel programme

World Nuclear News, February 12, 2020

The contract awarded to BWXT Nuclear Operations Group - a subsidiary of BWX Technologies (BWXT) - will fund engineering work for the decommissioning and refurbishment of parts of BWXT's facility in Lynchburg, Virginia, in preparation for U-Mo HALEU fabrication at the site. Assuming the receipt of further awards, fuel production could begin by 2024, BWXT said. BWXT has been working independently and together with NNSA since 2006 to develop U-Mo HALEU research reactor fuel that is designed to retain reactor performance whilst lowering the proliferation

risk associated with HEU. This work was done in support of NNSA's Office of Defense Nuclear Nonproliferation and its research reactor conversion programme, which encourages the conversion of domestic and international civilian research reactors and medical isotope production facilities to the use of non-weapons grade materials, the company said.

BWXT is the only North American supplier of fuel-bearing components for reactors at US national laboratories, colleges and universities. The integration of U-Mo HALEU fuel alloy processing at the same facility where these components are produced will have significant benefits for quality, cost and logistics, it said. The US Administration's fiscal 2021 budget request, unveiled on 10 February by President Donald Trump, includes USD2 billion for Office of Defense Nuclear Nonproliferation programmes, including the pursuit of opportunities to minimise and, where possible, eliminate weapons-usable nuclear material around the world.

<https://world-nuclear-news.org/Articles/BWXT-to-support-HALEU-research-reactor-fuel-progra>

Containment concreting milestone at Vogtle 3

World Nuclear News, February 12, 2020

Workers have completed the final concrete placement inside the containment vessel of unit 3 at the Vogtle nuclear power plant near Waynesboro, Georgia. Georgia Power said this allows for the installation of machinery that will be used to load fuel into the AP1000 reactor, which is scheduled to enter service in November 2021. A total of 8945 cubic metres - more than 22,000 tonnes - of concrete has been placed within unit 3's containment vessel since construction began. The vessel, more than 36 metres in diameter and over 65 metres high, is designed to confine and contain radiation in the event of an accident.

A second AP1000 is being built as unit 4 of the Vogtle plant. Georgia Power said the final concrete placement of the operating deck of unit 4 has now been completed "marking the last substantial concrete placement ahead of the containment vessel top lift in the coming months." The company noted that more than 520,000 cubic metres of concrete have been poured for the two units since the start of the project.

<https://world-nuclear-news.org/Articles/Containment-concreting-milestone-at-Vogtle-3>

Canada, USA complete used fuel return

World Nuclear News, February 13, 2020

The return of more than 200 kilograms of HEU from two Canadian research reactors at Chalk River Laboratories, Ontario, to the Savannah River Site in Aiken, South Carolina, was completed last year, AECL and NNSA said on 12 February at the International Atomic Energy Agency's International Conference on Nuclear Security (ICONS) which is taking place in Vienna. It is the largest removal of used fuel to the USA completed under the Nuclear Material Removal Program, which was set up in 1996 to repatriate US-origin used nuclear fuel and other weapons-grade nuclear material from civilian sites worldwide.

"Our collaboration on this project has demonstrated, once again, that when the United States and Canada work together, we can make the world a safer place," said Lisa Gordon Hagerty, DOE Under Secretary for Nuclear Security and NNSA Administrator, said. Alastair MacDonald, vice president for decommissioning and waste management at AECL, said the collaboration was a "great example" of the organisations working together to advance their non-proliferation objectives and global nuclear security. "By partnering with the NNSA, we are effectively addressing our liabilities while achieving our joint commitments to HEU repatriation," he said.

<https://world-nuclear-news.org/Articles/Canada,-USA-complete-used-fuel-return>

US uranium reserve proposal receives positive response

World Nuclear News, February 13, 2020

In the budget request, which was unveiled on 10 February, the US Department of Energy (DOE) said the reserve would be part of efforts to help "re-establish" the USA's nuclear fuel supply chain through the domestic production and conversion of uranium. According to DOE, it reflects the priorities of the Nuclear Fuel Working Group (NFWG) which was set up following a July 2019 presidential decision in response to a Section 232 Petition from two US uranium miners, Energy Fuels Inc and Ur-Energy. Energy Fuels is the owner of the White Mesa mill in Utah which is the only operating conventional uranium mill in the USA, as well as in-situ leach (ISL) projects at Nichols Ranch in Wyoming and Alta Mesa in Texas. "[W]e believe we are well-positioned to provide a significant portion of the uranium needed for the reserve ... and we are able to commence ramping up production immediately," Chalmers said.

Wayne Heili, managing director and CEO of Australia-based Peninsula Energy, said around 2 to 3 million pounds U3O8 (769-1154tU) of US-mined uranium, depending on price, would be required for the reserve's initial purchases. Peninsula, which owns the Lance uranium project in Wyoming, "stands ready to provide uranium to help meet the strategic needs of the United States", he said. Azarga Uranium Corp President and CEO Blake Steele said the annual USD150 million request to establish the strategic reserve would equate to USD1.5 billion between 2021 and 2030. The company is continuing to "de-risk" the advanced-stage Dewey Burdock ISL project in South Dakota, and "anticipates being well positioned to realise the benefits of the Administration's support of the United States nuclear industry", he said.

<https://world-nuclear-news.org/Articles/Companies-react-to-US-uranium-reserve-proposal>

U.S. renews pressure on China to join nuclear talks

Steve Holland

Reuters, February 15, 2020

The United States on Friday renewed pressure on China to join nuclear arms control talks with Washington and Moscow, seeking to overcome Beijing's long-standing opposition to entering such a dialogue. "China has long said it will never enter into an arms race and does not seek numeric parity

with the U.S and Russia. Now is the time for China to put its money where its mouth is, and prove that it is a responsible international actor,” said a senior Trump administration official.

President Donald Trump has sought to entice China into joining the United States and Russia in talks on an arms control accord to replace the 2010 New START treaty between Washington and Moscow that expires next February. China has rejected Trump’s proposal, arguing that its smaller nuclear force is defensive and poses no threat. “Continued silence from China creates uncertainty about their intentions and only brings about the need for a renewed focus on deterrence and military readiness for the United States,” said one administration official.

<https://www.reuters.com/article/us-usa-trump-china/u-s-renews-pressure-on-china-to-join-nuclear-talks-idUSKBN2082LG>

Europe

EU foreign policy chief to visit Iran amid regional tensions

DW, February 2, 2020

Josep Borrell's first visit to Tehran comes as the nuclear deal is on life support. European signatories and Iran are still locked in negotiations over Iran's non-compliance with the deal's core elements. EU foreign policy chief Josep Borrell says the JCPOA is essential to preserving stability in the Middle East. The EU's new foreign affairs chief, Josep Borrell, will meet with Iranian leaders on Monday, as the EU seeks to salvage the tattered 2015 nuclear deal with Iran. The meeting comes amid a policy split between European signatories to the nuclear deal and the US. The US dropped out of the accord, officially called the Joint Comprehensive Plan of Action (JCPOA), and reimposed sanctions on Iran in August 2019.

Tehran has responded by rolling back its commitments to the deal's core elements, which include capping uranium enrichment. On January 6, Iran said that it would no longer adhere to its obligations under the deal and continue its nuclear program "without limitation." This prompted Britain, France and Germany to engage the deal's dispute resolution mechanism on January 14. If no solution is found, Iran could face the reimposition of UN sanctions. EU nuclear diplomacy, The EU serves as guarantor of the JCPOA, and Borrell has a formal role in the dispute resolution process.

<https://www.dw.com/en/eu-foreign-policy-chief-to-visit-iran-amid-regional-tensions/a-52231607>

Europe Extends Time Limit to Resolve Nuclear Deal Disputes with Iran

Asharq Al-Awsat, February 5, 2020

The European Union will extend indefinitely the time limit to resolve disputes in the Iran 2015 nuclear accord to avoid having to go to the UN Security Council or triggering new sanctions, the EU’s top diplomat has said. “We are in agreement not to go directly to a strict time limit which would oblige (us) to go to the Security Council,” the EU’s Josep Borrell told reporters during a visit to Tehran on Monday. In his remarks, broadcast on Tuesday, he said: “The willingness is not to start

a process that goes to the end of JCPOA, but to keep it alive,” referring to the Iran deal by its formal name, the Joint Comprehensive Plan of Action.

Iran’s state news agency IRNA said that Borrell is expected to head to Washington on Friday in his effort to keep the deal alive. Britain, France and Germany formally accused Iran on Jan. 14 of violating the terms of the 2015 arms control agreement aimed at curbing Tehran’s nuclear program. Violations could lead to the reimposing of UN sanctions lifted under the deal.

<https://aawsat.com/english/home/article/2116016/europe-extends-time-limit-resolve-nuclear-deal-disputes-iran>

France's Macron calls on Europe to push international nuclear arms control

DW, February 7, 2020

The French president has unveiled his nuclear doctrine as part of France's arms strategy after Brexit, calling for international disarmament efforts while reaffirming the strength that nuclear power affords France. In a much anticipated speech, French President Emmanuel Macron warned that countries within Europe "cannot remain spectators" in any new arms race. "Europeans must realize collectively that in the absence of a legal framework, they could rapidly face a new race for conventional weapons, even nuclear weapons, on their own soil," Macron said in his speech. He went on to call for a "strategic dialogue" with European partners regarding the role of France as a nuclear power. The speech comes as many long-standing global nuclear agreements are deteriorating: The US and Russia have both abandoned the Intermediate-Range Nuclear Forces Treaty and the US has suggested it may not extend an arms reduction treaty signed in 2010. With the UK's official departure from the EU, France is now the only nuclear power in the bloc. Macron said that Brexit "hasn't changed anything" in terms of cooperation between Paris and London.

Nuclear deterrence is a keystone of France's defense strategy. The speech on French nuclear deterrence before military officers is a tradition for every French president under the Fifth Republic. "France is convinced that long-term security in Europe is possible through a strong alliance with the United States," Macron said. "But our security is also achieved, inevitably, through a larger capacity for autonomous action in Europe." French nuclear capabilities "reinforce the security of Europe just by existing and, in that respect, have a dimension authentically European," the president said. At the same time, France has reduced its nuclear warhead arsenal to "under 300," he said, giving France "the legitimacy to demand concrete moves from other nuclear powers toward global disarmament that is gradual, credible and can be verified." Macron also reaffirmed the importance of France retaining sovereignty over its defense capabilities. A German politician had previously suggested that NATO or the EU should take control of France's nuclear deterrent.

<https://www.dw.com/en/frances-macron-calls-on-europe-to-push-international-nuclear-arms-control/a-52290792>

Macron seeks leading role in post-Brexit EU nuclear strategy

Thomas Adamson

Defence News, February 7, 2020

French President Emmanuel Macron on Friday advocated a more coordinated European Union defense strategy in which France, the bloc's only post-Brexit nuclear power, and its arsenal would hold a central role. Addressing military officers graduating in Paris, Macron set out his country's nuclear strategy in a bid to show leadership one week after nuclear-armed Britain officially exited the EU. The W76-2 has made its maiden voyage, the Pentagon said Tuesday. Macron highlighted how France sees its nuclear weapons as a deterrent against attacks from belligerent foes, though he conceded France's nuclear might is diminished after its military scaled down its arsenal to under 300 nuclear weapons.

<https://www.defensenews.com/smr/nuclear-arsenal/2020/02/07/macron-seeks-leading-role-in-post-brexit-eu-nuclear-strategy/>

Mideast peace plan, Iran top EU diplomat's agenda in US

DW, February 7, 2020

EU foreign policy chief Josep Borrell aimed to ease tension between the US and Iran and discuss a plan for peace in the Middle East while in Washington. He called the EU-US transatlantic bond vital for global stability. The European Union's foreign policy chief Josep Borrell met with US Secretary of State Mike Pompeo on Friday to discuss conflict resolution in the Middle-East, US-EU trade relations and ongoing tensions with Russia and Iran. After the meeting, Borrell said he and Pompeo discussed "everything," including support for a lasting ceasefire and return to political stability in Syria and Libya. The visit marked Borrell's first official visit to Washington since he assumed his position in December.

<https://www.dw.com/en/mideast-peace-plan-iran-top-eu-diplomats-agenda-in-us/a-52298128>

EU's only remaining nuclear power France demands centre stage in EU army

Romina Mcguinness

Express, February 11, 2020

Until recently, European security was reliant on its strong historic alliance with Washington, Mr Macron told the future elite of French armed forces at Paris' Ecole de Guerre. But he said it was vital Europe increased military spending and added: "Our security also depends, inevitably, on a greater capacity for autonomous action by Europeans. 'Europe is sleepwalking and must wake up,' Macron MEP warns. France on verge of crisis as Trump threatens to quadruple duty on wine. "The issue is not for Europeans to know whether they must defend themselves with or without Washington... Why are they not ready to make defence a budget priority and make the necessary sacrifices, even as the risks are growing?"

"Europeans must realise collectively that in the absence of a legal framework, they could rapidly face a new race for conventional weapons, even nuclear weapons, on their own soil." Mr Macron also positioned himself as the driving force for a united Europe, using France's military clout to stress his point. He said that European nations who wanted to do so, could be associated with French nuclear deterrence wargames.

<https://www.express.co.uk/news/world/1240813/EU-latest-nuclear-power-France-EU-army>

Europe Puts What Remains of the JCPOA in Limbo

Saheb Sadeghi

Foreign Policy, February 12, 2020

One sign came on Jan. 14, in the form of a joint statement from three European signatories to the JCPOA—France, Britain, and Germany. Together, they announced that they had formally activated the deal's dispute resolution mechanism, the process through which a complaint about a potential violation of the deal would be resolved. According to the text of the JCPOA, the dispute could end up at the U.N. Security Council, which could decide to place international sanctions back on Iran. The whole process takes about two months. During this two-month period, the dispute could resolve itself in a few different ways. Iran could decisively return to its commitments under the JCPOA or the three European countries could backtrack on taking the case to the U.N. Security Council.

At present, there is no indication that Iran or the European countries will back down. Iran has repeatedly stated that it will uphold its nuclear obligations only if it starts seeing the economic benefits the agreement promised. It has called on Europe for guarantees that the continent will continue buying Iranian oil and grant Tehran access to the revenues. On the one hand, Iran knows that Europe is unable to meet these demands because many large European firms, automakers, and big refineries that used to buy Iranian oil have extensive commercial and financial relations with the United States and do not want to put their commercial interests at risk under the U.S. sanctions. European governments have no way to force them to change their minds. On the other hand, the three European countries can point out in turn that the JCPOA is on the brink of collapse and that if they cannot convince Iran to reverse course, the Iranian nuclear case will inevitably return to the U.N. Security Council—where things are sure to get much worse for the country.

<https://foreignpolicy.com/2020/02/12/jcpoa-dispute-resolution-mechanism-europe-iran-deal/>

Iran seeks compromise from Europe on nuclear deal

DW, February 15, 2020

Iran would be willing to adhere to the terms of the 2015 nuclear deal if Europe is ready to compromise, Iran's foreign minister has said. The deal has been on life support since the US reimposed sanctions on Tehran. Iranian Foreign Minister Javad Zarif said there was room for maneuver in reimposing the 2015 agreement that kept Tehran from developing nuclear weapons. But he added it would only happen if Germany, France and the UK showed the same willingness to reinstate the deal's economic benefits for Iran. The landmark agreement has been on life support ever since US President Donald Trump withdrew from it in 2018 and reimposed economic sanctions on Tehran, leaving Germany, France and the UK struggling to breathe life into the ailing deal.

Iran has responded to the US canceling the agreement with a series of steps back from its own commitments under the deal, including by increasing uranium enrichment. However, Zarif offered the European trio, and the other members of the accord, China and Russia, an olive branch when he

spoke to reporters at the Munich Security Conference. "We have said that we are prepared to slow down or reverse these measures commensurate with what Europe does," he said at the annual meeting in Munich.

<https://www.dw.com/en/iran-seeks-compromise-from-europe-on-nuclear-deal/a-52385927>

Russia

Russia reaches milestone with Kursk II RPV

World Nuclear News, February 03, 2020

Kursk II will also be the first Russian nuclear power plant to have a digital automated system for managing costs and scheduling during the construction process. Construction timeframe, costs and operational costs are expected to show a "significant reduction" for the VVER-TOI in comparison to Generation III+ units such as Novovoronezh II units 1 and 2 and Leningrad II units 1 and 2, Rosatom says.

The total weight of the reactor vessel is about 160 tonnes and the welding process was completed within 12 days. Following heat treatment, the structure was inspected and specialists will now apply internal corrosion-resistant surfacing in the welded area. First concrete for Kursk II unit 1 was poured in April 2018, and that for unit 2 in April last year. The 1255 MWe VVER-TOI is a Generation III+ power unit was developed using technical results from the VVER-1200 project. The design offers improved safety measures, including an increased margin of safety from extreme impacts and ability to withstand earthquakes, and is equipped with modern control systems and diagnostics.

<https://world-nuclear-news.org/Articles/Russia-reaches-milestone-with-Kursk-II-RPV>

Russia eyes raising thousands of radioactive relics from watery Arctic graves

Charles Digges

Bellona, February 03, 2020

It should have been an easy job. Instead, towing a rust-bucket nuclear submarine known as the k-159 to scrapping ended in a headache Russia has yet to get over. The sailors had done it dozens of times. Throughout the late 1990s, the Russian Navy, assisted by international partners, had hauled scores of derelict nuclear submarines to successful dismantlement – marking a major step forward in making the world safe from the nuclear relics of the Cold War. But this time, something went terribly wrong. The sub itself was a perfect example of what Russia was trying to clean up. Launched in 1963, the K-159 had become hopelessly irradiated after a coolant leak in one of its reactors two years later. Over the next decade and a half, the navy tried to restore it to service without success, and in 1989 it was decommissioned altogether. From then on it sat neglected at the Gremikha base on the eastern edge of the polar Murmansk region, prey to rust, water, and the harsh Arctic elements – its two reactors still loaded with 800 kilograms of aging nuclear fuel.

<https://bellona.org/news/nuclear-issues/2020-02-russia-eyes-raising-thousands-of-radioactive-relics-from-arctic-nuclear-graves>

Only equal dialogue can mitigate nuclear conflict risks — Russian senate speaker

TASS News Agency, February 04, 2020

Only a fair, open and equal dialogue of nations can save the world from the threat of a nuclear conflict, Federation Council Speaker Valentina Matviyenko said on Tuesday. In a blog post, devoted to the 75th anniversary of the Yalta Conference, the speaker of the Russian parliament's upper chamber wrote that "75 years ago, even despite serious disagreements, leading global powers managed to forge agreements, permeated by the spirit of unity and common interests."

"Even in the era of rivalry between the two superpowers - ideological rivals - the system established by the victorious allied nations prevented the situation from reaching critical levels," she added. "This gains particular importance today, when a huge arsenal of nuclear weapons and delivery vehicles has been accumulated on the planet. Only an open, fair, equal dialogue, only the understanding that all existing problems and differences must be inevitably solved through political means, that peaceful agreements should be forged can save the world from the dangers of a conflict that would be devastating for the entire humanity," the speaker wrote.

<https://tass.com/politics/1116061>

Moscow concerned over low-yield nuclear warheads deployed on US submarines

TASS News Agency, February 05, 2020

Moscow is highly alarmed over the deployment of W76-2 new low-yield nuclear warheads on US submarines, Russian Deputy Foreign Minister Sergey Ryabkov said on Wednesday. "We are reacting to this with a serious concern not because we see a threat to the security of our country - this security is reliably ensured as a result of the efforts that were taken with regard to the armament and with regard to developing advanced weapon systems, but from the viewpoint of doctrines and concepts, which the Americans are using in the nuclear sphere. This is very alarming," the senior Russian diplomat said.

The deployment of low-yield charges on US strategic delivery vehicles suggests that "the pronouncements made by the American side in the declarative form about the possibility of deploying such means in a hypothetical conflict are already being embodied in the metal and items," Ryabkov said.

<https://tass.com/politics/1116921>

Russia's top brass uploads video of upgraded Tu-160M bomber's debut flight

TASS News Agency, February 06, 2020

Russia's Defense Ministry uploaded a video to its official YouTube channel showing the debut flight of the Tu-160M 'Igor Sikorsky' heavily upgraded strategic missile-carrying bomber. As the press office of the Tupolev Aircraft Company reported earlier, the flight took place at the aerodrome of the Kazan Aviation Factory (a branch of the company) on February 2 and lasted 34 minutes. During the test flight, the aircraft climbed to a maximum altitude of 1,500 meters.

The Tu-160M bomber that performed the debut flight has been made on the basis of the operational bomber Tu-160 'Igor Sikorsky' (side No 14, red color). The video uploaded by the Defense Ministry shows the remaining part of the name on the plane's fuselage. The aircraft-building industry explained for TASS that there were no plans to rename the plane after the upgrade.

<https://tass.com/defense/1117297>

Russia starts automated system hot tests on Leningrad II-2

World Nuclear News, February 06, 2020

The Russian state nuclear corporation will use the new automated system to monitor the condition of the equipment most important to safety, including the reactor, steam generators and main circulation pumps. "We are ready to provide testing of the unit under conditions close to operational," said Anatoly Chikov, deputy head of the thermal automation and measurement department at the plant, which is in western Russian.

Rosatom said its Generation 3+ VVER-1200 reactors are distinguished by the high degree of automation involved. They are "smarter", it said, with each unit containing about 10,000 sensors. During the hot tests, these sensors will provide operators with information on, for example, the temperature, pressure, level and flow rate of the coolant. The existing Leningrad plant site in Sosnovy Bor has four RBMK-1000 units, while Leningrad II will have four VVER-1200 units. Leningrad unit 1 was shut down for decommissioning on 21 December last year. Leningrad II unit 1 was connected to the grid on 9 March 2018, becoming the second VVER-1200 reactor to start up, following the launch in 2016 of Novovoronezh unit 6.

<https://world-nuclear-news.org/Articles/Russia-starts-automated-system-hot-tests-on-Lening>

Lavrov calls for extending New START

TASS News Agency, February 10, 2020

The Strategic Arms Reduction Treaty (New START) needs to remain "a safety net" for Moscow and Washington even if other countries join discussions on the matter, Russian Foreign Minister Sergey Lavrov said in an interview with Rossiyskaya Gazeta.

"We believe that there is sense in extending New START, which will expire in a year. After February 5, 2020, the treaty will be no more if it is not extended," he pointed out. "Even if a multilateral process is launched, it will take a long time because talks on such a serious issue never conclude in a couple of months. This is why there is a need to ensure a safety net by extending New START so that

as far as the political standing of Russia and the US is concerned, no one can accuse us of destroying a legally binding strategic stability tool," Lavrov added.

<https://tass.com/politics/1118183>

Bellona's Russian nuclear project celebrates its 25th anniversary

Alexander Nikitin

Bellona, February 10, 2020

Bellona's nuclear project is a tale of how a Norwegian organization and the world community helped Russia dispose of Soviet radioactive waste. The Chernobyl disaster of 1986 was one of the reasons the Bellona Foundation came to be. In its homeland, the organization engaged in spectacular protests against Norwegian industries that were polluting the environment.

But they were also concerned about their proximity to the Soviet Union and its military activities, which threatened the entire region. Above all, the Norwegians were worried by nuclear testing on Novaya Zemlya and the presence of the Northern Nuclear Fleet. During the Cold War, Norway had no influence over the nuclear and radiation safety of the Arctic region. With the advent of Glasnost, Bellona was presented with the opportunity to spread information and take practical action. It was this that gave our comprehensive nuclear project a start.

<https://bellona.org/news/nuclear-issues/2020-02-bellonas-russian-nuclear-project-celebrates-its-25th-anniversary>

Russia ready to discuss its weapons with US in context of possible treaties — Lavrov

TASS News Agency, February 10, 2020

Moscow is ready to discuss its new weapons with Washington in context of new possible agreements and in consideration of all factors that influence the strategic stability, Russian Foreign Minister Sergey Lavrov told Rossiyskaya Gazeta.

"We have already mentioned that our military is ready to discuss some of these new weapons at least the Avangard [hypersonic missile system] and Sarmat [intercontinental ballistic missile] - in context of the [New START] Treaty," the minister said. "[Other new Russian weapons] do not fit under the Treaty's criteria, but we are ready to discuss other [weapons] too."

<https://tass.com/politics/1118219>

Shipbuilders to deliver advanced nuclear-powered sub to Russian Navy in 1.5 months

TASS News Agency, February 10, 2020

The Project 955A (Borei-A) lead nuclear-powered submarine Knyaz Vladimir will be delivered to the Russian Navy in about a month and a half, Head of Russia's United Shipbuilding Corporation Alexei Rakhmanov said on Monday. "All the finishing work has been done and the trials are over. I

believe that a month and a half are still needed," the chief executive said, replying to a question from TASS on the sidelines of a board session of the Union of Russian Machine-Builders about the timeframe of the sub's delivery to the Fleet.

The Knyaz Vladimir is the improved Project 955A strategic missile-carrying underwater cruiser, which represents the fourth generation of nuclear-powered subs built for the Russian Navy. It was floated out in November 2017. According to the data of Russia's Defense Ministry, the sub Knyaz Vladimir is less noisy and features improved maneuvering, depth and armament control systems. All Borei-class submarines can carry 16 Bulava ballistic missiles. They are also furnished with 533mm torpedo tubes. The shipbuilders earlier planned to deliver the nuclear-powered sub Knyaz Vladimir to the Russian Navy by the end of 2019.

<https://tass.com/defense/1118461>

Russia Could Build Nuclear Power Plant in Sri Lanka: Ambassador

Tasnim News, February 11, 2020

Since the Sri Lankan government favors pollution-free energy and aims at gradually replacing coal and oil with gas and alternative energy sources, the use of nuclear energy is possible only in a long-term perspective, while relevant effort is already made, the ambassador said.

"The NPP would be the final result of the intergovernmental cooperation on the peaceful atom. Considering the shown interest and Sri Lanka's progressive economic development, the energy consumption is increasing significantly. In this context, the idea to build an NPP may well be discussed and may be implemented in the long-term perspective," Materiy said. He recalled that Russia's nuclear corporation Rosatom and relevant Sri Lankan bodies held in 2017 their first consultations on the Russia-initiated intergovernmental agreement on cooperating on the peaceful use of the nuclear energy.

<https://www.tasnimnews.com/en/news/2020/02/11/2201164/russia-could-build-nuclear-power-plant-in-sri-lanka-ambassador>

Extending New START could help Russia, US ease bilateral tensions — ex-diplomats

TASS News Agency, February 11, 2020

Russia and the United States could ease the current tensions in bilateral relations by extending the New START treaty on nuclear arms, two former top diplomats from Russia and United States said in a joint article published by the New York Times on Monday. Former United States Secretary of State Madeleine Albright and former Russian Foreign Minister Igor Ivanov said "the relationship between Russia and the United States has been mired in crisis for much of the past decade."

"Communication once considered routine has been cut off, deepening mistrust and making it more difficult to reduce tensions and avoid miscalculation," the article reads. "The current state of affairs does not serve the strategic interests of either country, and it puts global security at risk because Russia and the United States are the only countries that possess enough nuclear weapons to destroy

each other - and all of humanity." According to the two former diplomats, restoring mutual confidence and putting United States-Russian relations on a safer track will require a long-term effort, but the two countries have a chance to head off even more instability by extending the 2010 New Strategic Arms Reduction Treaty, which expires on February 5, 2021.

<https://tass.com/world/1118591>

Russia seals Akkuyu reactor vessel

World Nuclear News, February 12, 2020

The 4800 MWe plant will comprise four VVER1200 reactors and is expected to meet about 10% of Turkey's electricity needs. The welding process took 10 days and involved continuous heating of the weld to a temperature of 150 to 300 degrees Celsius, the company said. The reactor vessel, which weighs 320 tonnes was then lifted by crane into a furnace, where the product will be heat treated for two days. A full range of tests, including the use of x-ray equipment, will be carried out. In parallel with the manufacture of the reactor vessel itself, the company's facility in Volgodonsk, Russia, is also manufacturing the reactor internals.

Turkey aims to bring unit 1 online in 2023, the centenary of its foundation as a republic, while Turkish regulator TAEK granted JSC Akkuyu Nuklear a construction licence for unit 2 in September last year. To date, the project has been fully funded by Atomenergomash's parent company, Russian state nuclear corporation Rosatom. It is the first project in the world implemented according to the Build-Own-Operate model.

<https://world-nuclear-news.org/Articles/Russia-seals-Akkuyu-reactor-vessel>

Protective shield installation gathers pace at Kursk II-1

World Nuclear News, February 13, 2020

The tier consists of 15 armoured parts that were assembled to form a circle with a diameter of 50.8 metres. Installation of the second tier will start in late May. Once completed in 2023, the shield will be 65.4 metres tall and 0.5-1.5 metres thick. Alexey Smirnov, director of Russian construction company Trest Rossem, said the VVER-TOI design enables a reduced schedule because it minimises high-altitude work at the construction site.

First concrete for Kursk II unit 1 was poured in April 2018, and that for unit 2 in April last year. The 1255 MWe VVER-TOI is a Generation III+ power unit was developed using technical results from the VVER-1200 project. The design offers improved safety measures, including an increased margin of safety from extreme impacts and ability to withstand earthquakes, and is equipped with modern control systems and diagnostics.

<https://world-nuclear-news.org/Articles/Protective-shield-installation-gathers-pace-at-Kur>

Threats and risks for humankind so high as never before in post-WWII period, warns Lavrov

TASS News Agency, February 15, 2020

Humankind currently faces the highest number of threats and risks since the end of the Second World War, Russian Foreign Minister Sergey Lavrov said in his address to the Munich Security Conference on Saturday.

"We lack that scale of unity today since the risks and threats for humankind are as high as they have never been before during the entire post-war period. Before our eyes the system of agreements in strategic stability and nonproliferation is being dismantled, the threshold for the nuclear weapons use is being lowered, regional crises are multiplying, and the norms of international law are being flouted. Among them are forceful interference in the affairs of sovereign states, illegal sanctions and touch protectionist measures that undermine world markets and the global trade system," Lavrov said. The minister pointed out that "the international relations are being barbarized worsening the very habitat of humans."

<https://tass.com/politics/1120533>

West Asia

Iran

Iran says to advance nuclear program with more determination

Tehran Times, February 2, 2020

The spokesman for the Atomic Energy Organization of Iran (AEOI) has said Iran will advance its nuclear program with more determination, describing as "worthless" and "ineffective" the recent U.S. sanctions on AEOI Chief Ali Akbar Salehi. "The Americans attempt to create a psychological atmosphere, but in reality, they will not achieve any success," Behrooz Kamalvandi said on Sunday, pointing to the recent sanctions which also target the AEOI itself. "The Americans do not have a correct understanding of the conditions and atmosphere of the Islamic Republic of Iran, and basically, they not only lack a correct understanding of Iran, but also lack a correct understanding of major international issues," Kamalvandi said.

He continued, "That's why they take measures in the political sphere that are strange and also ineffective." The AEOI spokesman further pointed to the sanctions against Salehi, saying since the AEOI chief does not have assets in the United States, the sanctions are futile in practice. He also said Iran's nuclear program will not be shaped according to other countries' measures and policies. "We will do whatever is in the country's interests."

<https://www.tehrantimes.com/news/444767/Iran-says-to-advance-nuclear-program-with-more-determination>

Top EU diplomat holds talks in Iran 'to de-escalate tensions'

Saudi Gazette, February 3, 2020

Top EU diplomat Josep Borrell on Monday held talks in the Iranian capital on a mission aimed at lowering tensions over its nuclear program. Borrell's trip, his first to Iran since taking office, follows a spike in tensions between arch foes Washington and Tehran following the Jan. 3 assassination in Baghdad of a top Iranian general in a US drone strike. The two-day visit opened with a meeting with Foreign Minister Mohammad Javad Zarif, ahead of talks with President Hassan Rohani and parliament Speaker Ali Larijani.

<http://saudigazette.com.sa/article/588179/World/Mena/Top-EU-diplomat-holds-talksin-Iran-to-de-escalate-tensions>

Iran's reasoning convinced E3 against activating trigger mechanism: spox

Tehran Times, February 3, 2020

Foreign Ministry Spokesman Abbas Mousavi said Mon. that the European signatories to the 2015 nuclear deal (JCPOA) intended to activate the trigger mechanism but have decided against it for now after hearing Iran's reasonings. In his weekly press conference on Monday, spokesman for the Iranian Foreign Ministry Abbas Mousavi said the newly-appointed EU foreign policy chief Josep Borrell, who has made his first visit to Iran, will meet and hold talks with Foreign Minister Zarif, President Rouhani and Parliament Speaker Larijani today on the Iran nuclear deal and a range of international issues.

Asked to comment about Borrell's visit taking place against the backdrop of Europe's move to trigger the JCPOA's 'dispute resolution mechanism,' Mousavi said "Europe has not activated the trigger mechanism yet. They wanted to, but didn't after they heard Iran's reasoning and arguments. Mr. Zarif wrote a 14-page letter to Mr. Borrell in which all of these reasons were explained." He stressed that Zarif's talks with Borrell will be "frank" and to the point. "The visit of the EU foreign policy chief is important, and we hope that they have listened to our reasons and will cooperate with us," he added. European members for some two months have been talking about the possibility of triggering the JCPOA's 'dispute resolution mechanism,' which is also known as the trigger mechanism, and whose activation can lead to the return of the UN sanctions on Iran.

<https://www.tehrantimes.com/news/444795/Iran-s-reasoning-convinced-E3-against-activating-trigger-mechanism>

Iran rocket launch fails to put satellite into orbit

Arab News, February 09, 2020

An Iranian rocket failed to put a satellite into orbit on Sunday, state television reported, the latest setback for a program the U.S. claims helps Tehran advance its ballistic missile program.

The launch happened at Imam Khomeini Spaceport in Iran's Semnan province, some 230 kilometers (145 miles) southeast of Iran's capital, Tehran. A Simorgh, or "Phoenix," rocket couldn't put the Zafar 1 communications satellite into orbit, however, due to a low speed, Iranian state TV reported.

The launch had been planned amid celebrations ahead of the February anniversary of Iran's 1979 Islamic Revolution. Iran routinely unveils technological achievements for its armed forces, its space program and its nuclear efforts during this time. Sunday's failure came after two failed launches of the Payam and Doosti satellites last year, as well as a launchpad rocket explosion in August. A separate fire at the Imam Khomeini Space Center in February 2019 also killed three researchers, authorities said at the time. The rocket explosion in August drew even the attention of U.S. President Donald Trump, who later tweeted what appeared to be a classified surveillance image of the launch failure. The three failures in a row raised suspicion of outside interference in Iran's program.

<https://www.arabnews.com/node/1625126/middle-east>

Iran unveils ballistic missile, 'new generation' engines

Saudi Gazette, February 9, 2020

Iran's Revolutionary Guards on Sunday unveiled a short-range ballistic missile that they said can be powered by a "new generation" of engines designed to put satellites into orbit. The Guards' Sepahnews website said the Raad-500 missile was equipped with new Zoheir engines made of composite materials lighter than on earlier steel models. It also unveiled Salman engines made of the same materials but with a "movable nozzle" for the delivery of satellites into space.

The Raad was "a new generation missile that has half the weight of a Fateh-110 missile but with 200 kilometers more range," it added. The Fateh-110 is a ballistic ground-to-ground missile first unveiled in 2002. Its latest generation has a range of 300 km (186 miles). Islamic Revolutionary Guard Corps commander Maj. Gen, Hossein Salami unveiled the missile and engines alongside IRGC aerospace chief Brig. Gen. Amirali Hajizadeh. "The complicated achievements on the bleeding edge of global technology that were unveiled today are our key to entering space," Salami said. Salami noted the movable nozzle on the new engine allowed "manoeuvrability beyond the atmosphere" and amounted to a "leap in modern missile technology".

The new technologies that made the missiles "cheaper, lighter, faster and more precise" could be applied to all of Iran's missile classes, he added. Tensions between Iran and its arch foe the United States have soared since May 2018 when US President Donald Trump withdrew from a nuclear deal that offered Tehran sanctions relief in return for curbs to prevent it acquiring nuclear weapons. Washington says it seeks to rein in Iran's ballistic missile program as well as its "destabilising behavior" in the region.

<http://saudigazette.com.sa/article/588590/World/Mena/Iran-unveils-ballistic-missile-new-generation-engines>

Iran's Salehi in Vienna to attend nuclear security conference

Tehran Times, February 10, 2020

Ali Akbar Salehi, the head of the Atomic Energy Organization of Iran (AEOI), left Tehran on Sunday for Vienna to partake in an International Conference on Nuclear Security (ICONS 2020). The

International Atomic Energy Agency (IAEA) is organizing the third International Conference on Nuclear Security: Sustaining and Strengthening Efforts (ICONS 2020), at its headquarters in Vienna from February 10 to 14. The ICONS meeting has been held every two years.

Salehi, heading a delegation, is scheduled to deliver a speech at the inaugural ceremony of the event. The conference will provide a forum for ministers, policymakers, senior officials and nuclear security experts to formulate and exchange views on experiences and achievements, current approaches, future directions and priorities for nuclear security.

<https://www.tehrantimes.com/news/445020/Iran-s-Salehi-in-Vienna-to-attend-nuclear-security-conference>

US accuses Iran of developing missiles through satellite bid, vows 'enormous pressure'

Arab News, February 11, 2020

The US accused Iran of developing missiles through satellite bid and vowed 'enormous pressure' on Tuesday. On Sunday, an Iranian "Phoenix" rocket launched from Khomeini Spaceport in the country's Semnan province failed to put the Zafar 1 communications satellite into orbit due to low speed.

In a State Department statement, US Secretary of State Mike Pompeo said: "The Iranian regime uses satellite launches to develop its ballistic missile capabilities, the technologies used to launch satellites into orbit are virtually identical and interchangeable with those used in longer range systems, including intercontinental ballistic missiles. "Each launch, whether failed or not, further allows Iran to gain experience using such technologies that could benefit its missile programs under the guise of a peaceful space program.

<https://www.arabnews.com/node/1626281/middle-east>

Iran's nuclear chief: U.S. JCPOA move undermining diplomacy

Tehran Times, February 11, 2020

The head of the Atomic Energy Organization of Iran (AEOI) said on Monday that the unilateral pullout of the U.S. from the 2015 nuclear deal, officially known as the Joint Comprehensive Plan of Action (JCPOA), has dealt a blow to the agreement which proved the toughest international issues could be tackled diplomatically.

"It was a dominant belief that the JCPOA could set a model in this regard But, unfortunately, this euphoria didn't last long. With the embedded irrationality in the U.S. administration's mindset, such optimism is fading away so quickly," Ali Akbar Salehi told the "International Conference on Nuclear Security" in Vienna, Austria, Press TV reported. Salehi urged the European Union, as a main stakeholder of the deal, to play its role in keeping the JCPOA alive by living up to its commitments without paying heed to the Trump administration's "unjust pressures." "Unfortunately, the U.S. administration has not yet come to its senses in recognizing the reality on grounds and keeps on

inflicting harm on our people as well as the people of the entire region while creating and supporting terrorist groups such as ISIS (Daesh)," Salehi added.

<https://www.tehrantimes.com/news/445049/Iran-s-nuclear-chief-U-S-JCPOA-move-undermining-diplomacy>

If redesign of Arak reactor delayed Iran will return to previous one: Salehi

Tehran Times, February 12, 2020

The head of Iran's Atomic Energy Organization, Ali Akbar Salehi, said on Monday that if China does not help Iran with redesigning its Arak nuclear reactor, Tehran will restore the previous one. "If the project, due to U.S. disruption and the Europe's shortcoming, is not implemented (by the Chinese contractor) Iran may inevitably return to the previous design of Arak's Khondab heavy water project," Salehi said in a meeting with his Chinese counterpart in Vienna. Salehi was in Vienna to attend an international nuclear security conference. They further exchanged views over mutual cooperation, especially over renovation and redesigning of the Khondab reactor.

Salehi added that other signatories to the Joint Comprehensive Plan of Action (JCPOA) should assist more seriously to implement the mentioned project to counter the U.S. unilateralism. According to the 2015 nuclear deal, known as the JCPOA, Iran is entitled to "redesign and rebuild a modernized heavy water research reactor in Arak, based on an agreed conceptual design, using fuel enriched up to 3.67 %, in a form of an international partnership which will certify the final design."

<https://www.tehrantimes.com/news/445064/If-redesign-of-Arak-reactor-delayed-Iran-will-return-to-previous>

Iran will never decide under pressure: Salehi

Tehran Times, February 12, 2020

The head of Iran's Atomic Energy Organization (IAEO), Ali Akbar Salehi, said on Tuesday that his country believes in logic and negotiations but will never make any decision under pressure. Salehi made the remarks in a meeting with Rafael Mariano Grossi, director general of the International Atomic Energy Organization (IAEA) in Vienna. Salehi was in Vienna to attend an international nuclear security conference. Salehi, a nuclear physicist, further said that the IAEA's decisions should not be politically-tainted. Also on Monday Salehi said if China did not help Iran to redesign its Arak nuclear reactor, Tehran would restore the previous one. "If the project, due to U.S. disruption and Europe's shortcoming, is not implemented (by the Chinese contractor) Iran may inevitably return to the previous design of Arak's Khondab heavy water project," Salehi said in a meeting with his Chinese counterpart in Vienna.

They further exchanged views over mutual cooperation, especially over renovating and redesigning the Khondab reactor. Salehi added that other signatories to the Joint Comprehensive Plan of Action (JCPOA) should assist more seriously to implement the mentioned project to counter the U.S. unilateralism. According to the 2015 nuclear deal, known as the JCPOA, Iran is entitled to "redesign

and rebuild a modernized heavy water research reactor in Arak, based on an agreed conceptual design, using fuel enriched up to 3.67 %, in a form of an international partnership which will certify the final design.”

<https://www.tehrantimes.com/news/445092/Iran-will-never-decide-under-pressure-Salehi>

Iran’s satellite carriers have no military aspect: defense minister

Tehran Times, February 12, 2020

Defense Minister Amir Hatami said on Wednesday that Iran’s satellite carriers have nothing to do with the country’s military activities. “The satellite carriers have nothing to do with the subject of missiles, and constitute a completely non-defensive and non-military issue,” Press TV quoted Hatami as saying after a cabinet meeting.

The defense minister said a satellite might be used for defense-related purposes, but the carriers are totally non-defensive in nature. On Sunday, the Iranian Space Agency launched a communications satellite called Zafar 1 (Victory 1) atop a Simorgh rocket from Imam Khomeini Space Center in northern Iran. However, Zafar 1 didn’t make it all the way to orbit. The defense minister said like any other country that has launched satellites, the Iranian nation has a right to benefit from the technology, noting that Iran would, therefore, strongly pursue its relevant plans in this regard. The Iranian defense minister was openly reacting to claims made by France and the U.S. about Iran’s space program following the Sunday launch.

<https://www.tehrantimes.com/news/445095/Iran-s-satellite-carriers-have-no-military-aspect-defense-minister>

Zafar Satellite or producing nuclear intercontinental ballistic missiles?

Tehran Times, February 14, 2020

Satellite launch vehicles (SLV) are being politically interpreted by Western countries because of their technical similarities to intercontinental ballistic missiles (ICBM). That is to say, despite the absence of any legal restrictions on testing and launching satellites, there has always been a political interpretation by Western states about Iran’s satellite launches. A recent example of this issue was the stance of the U.S. and Western countries, especially France. In an interventionist move, France even called on Iran not to launch Zafar satellite. For the West and Israel, testing satellite launch vehicles means-testing long-range missiles, which they consider as a security threat.

It should be noted that carrier rockets (three-stage rocket) are similar to intercontinental ballistic missiles. In the first stage, a rocket separates from the main rocket, in the second stage the other rocket separates and in the third stage it places the satellite into orbit, just like a missile capable of delivering a nuclear warhead. The only difference is that a missile capable of delivering a nuclear warhead then enters the Earth’s atmosphere and launches a nuclear bomb. That is, a nuclear warhead must go out of the Earth’s atmosphere and return to it safely. Technically, producing intercontinental ballistic missiles capable of delivering nuclear warheads is more difficult than producing rocket

launchers. Although Iran has announced that its space program is for scientific and research purposes, the Western countries interpret the Iranian satellite program politically. They claim that Iran is trying to simulate intercontinental ballistic missiles by satellite launches and learn about the technology related to satellite launch vehicles.

<https://www.tehrantimes.com/news/445105/Zafar-Satellite-or-producing-nuclear-intercontinental-ballistic>

Zarif says Iran's nuclear decisions are reversible if Europe takes 'meaningful' steps

Tehran Times, February 15, 2020

Foreign Minister Mohammad Javad Zarif said on Friday that Iran's decisions to reduce nuclear commitments are reversible if Europe takes "meaningful" steps in preserving the 2015 nuclear deal, officially known as the JCPOA. Tehran's moves to ramp-up its nuclear program in the past few months are reversible provided that "Europe takes steps that are meaningful," Zarif told reporters on the sidelines of the Munich Security Conference, according to AP.

AP also reported that Zarif was expected to meet on the sidelines of the conference with German Foreign Minister Heiko Maas to talk about ongoing European efforts to preserve the nuclear deal with Iran. The U.S. has been pressuring other members of the deal to pull out as well, but Maas told the forum that Germany rejected the U.S. tactic of "maximum pressure" on Iran. "We are sticking firmly to our course in the Middle East, and that is de-escalation instead of maximum pressure," he said. EU foreign policy chief Josep Borrell has said that Europe must ensure Iran's benefits from the nuclear deal if it wants the deal to survive. "If we want the Iran nuclear deal to survive, we need to ensure that Iran benefits if it returns to full compliance," he wrote in an article in the Project Syndicate published on February 8.

<https://www.tehrantimes.com/news/445170/Zarif-says-Iran-s-nuclear-decisions-are-reversible-if-Europe>

Turkey

1st reactor vessel welding for Akkuyu NPP completed

Daily Sabah, February 13, 2020

Final welding of the reactor pressure vessel for the first unit at Turkey's Akkuyu Nuclear Power Plant (NPP) has been completed, the reactor's manufacturer Atomenergomash announced Wednesday. Atomenergomash, the Volgogradsk branch of AEM-technology, which operates alongside Russian State Atomic Energy Corporation Rosatom's machine-building division of Atomenergomash, completed a key manufacturing stage in Turkey's first nuclear plant's equipment with the closure welding of the reactor pressure vessel, according to the statement.

Specialists carried out the welding, over a 10-day period, using heat ranging from 150 to 300 degrees celsius to connect the upper and lower semi-vessels, the company confirmed. "Following the welding operations, the reactor pressure vessel, weighing 320 tons was placed in a furnace using a crane, where the product will be heat treated for two days. Then, specialists will conduct a full range of control operations of the weld, including a radiographic test," the statement read.

<https://www.dailysabah.com/energy/2020/02/13/1st-reactor-vessel-welding-for-akkuyu-npp-completed>

UAE

How UAE's Barakah nuclear energy plant promises a sustainable future

Khaleej Times, February 1, 2020

Making UAE the first Arab country to deliver safe, clean and peaceful nuclear energy, Barakah is the first major national achievement this year for the country. Nawah Energy Company, the subsidiary of the Emirates Nuclear Energy Corporation, ENEC, responsible for the operation and maintenance of nuclear energy plants in the UAE, has confirmed that the World Association of Nuclear Operators, WANO, has cleared Unit 1 of Barakah as ready for start-up. After it's fully operational, the Barakah Nuclear Energy Plant's four Units will prevent the release of 21 million tons of harmful carbon emissions every year, equivalent to removing 3.2 million cars from the country's roads on an annual basis. Located in the Al Dhafra region of Abu Dhabi Emirate, approximately 53km west-southwest of the city of Ruwais, the plant's four APR-1400 design nuclear reactors will also supply up to 25 percent of the UAE's electricity needs in compliance with the highest standards of safety, security and operational performance.

The journey started in April 2008 with the issue of the Policy of the UAE on the Evaluation and Potential Development of Peaceful Nuclear Energy. The policy focuses on six key principles, which include the UAE's commitment to complete operational transparency, pursuing the highest standards of non-proliferation and adhering to the highest standards of safety and security. It also includes working directly with the International Atomic Energy Agency, IAEA, and conforming to its standards when evaluating and establishing a peaceful nuclear energy programme, developing any peaceful domestic nuclear energy capability in partnership with the governments and firms of responsible nations, as well with the assistance of appropriate expert organisations, and lastly approaching any peaceful domestic nuclear energy programme in a manner that best ensures long-term sustainability. The UAE programme has since been successfully developed in line with all of these principles, and continues to uphold these going forward.

<https://www.khaleejtimes.com/business/energy/how-uaes-barakah-nuclear-energy-plant-promises-a-sustainable-future>

Israel

Nuclear Tension: Israel vs. Iran

Gonzalo Collado De Giovannini

United World, February 10, 2020

Israel began the development of nuclear weapons at the end of the 50's with French support. This became known thanks to an American U-2 spy plane that confirmed the presence of a nuclear station in the Dimona region, which made Israel the sixth country possessing nuclear weapons.

Before the discovery, Israel was asked to allow the IAEA to inspect the facilities, which it refused, saying it would only agree if the inspection was carried out by its ally, the US. The American investigators only inspected part of the facility, but nonetheless decided it was a waste of time and agreed to abandon the inspections. When the NPT was put into effect, Israel refused to sign, making it one of the 4 countries with nuclear weapons that does not abide by the important international agreement. Israeli access to nuclear development and the cooperation it received from Anglo-Americans and French constitutes a violation of the NPT.

<https://uwidata.com/7725-nuclear-tension-israel-vs-iran/>

East Asia

Japan

U.N. Secretary-General Guterres to attend Aug. 6 Hiroshima event

Naoko Handa

The Asahi Shimbun, February 6, 2020

United Nations Secretary-General Antonio Guterres plans to attend the Peace Memorial Ceremony in Hiroshima on Aug. 6, marking the 75th anniversary of the atomic bombing of the city. Guterres made the announcement at a news conference in U.N. headquarters in New York on Feb. 4. He will be the first incumbent U.N. secretary-general in a decade to attend the Hiroshima event. The last was Ban Ki-moon, who attended in 2010.

“Nuclear disarmament remains one of our key priorities,” Guterres said. The secretary-general added that attending the ceremony “demonstrates not only my solidarity with Hiroshima, but my strong commitment to nuclear disarmament and nonproliferation.” Hiroshima Mayor Kazumi Matsui on Feb. 5 told the media that he welcomed the attendance of Guterres at the annual ceremony. “I'm so glad to hear that,” Matsui said. “I hope he will send a message that pushes world leaders to move forward toward creating a world without nuclear weapons.”

<http://www.asahi.com/ajw/articles/13105618>

North Korea

North Korea's Kim offers condolences to China's Xi about virus outbreak: KCNA

Reuters, February 1, 2020

North Korean leader Kim Jong Un sent a letter to Chinese President Xi Jinping offering condolences about the coronavirus outbreak in China, North Korean state news agency KCNA reported on Saturday. Kim “expressed the conviction that the party, government and people of China would surely emerge victorious in the campaign to combat the disease” under Xi’s guidance, KCNA said. China is the closest ally that isolated North Korea has. The country has canceled most flights to China, imposed mandatory quarantine on all arrivals from China, and heavily restricted border crossings following the outbreak.

<https://www.reuters.com/article/us-china-health-northkorea/north-koreas-kim-offers-condolences-to-chinas-xi-about-virus-outbreak-kcna-idUSKBN1ZV3LL>

Burdened by sanctions, North Korea sees coronavirus threaten economic lifelines

Josh Smith

Reuters, February 3, 2020

North Korea’s already tenuous economic lifelines to the outside world are now nearly severed as it seals its borders with China and Russia to prevent the spread of the new coronavirus. Already one of the most closed-off countries in the world, North Korea has stopped airline flights and train service with its neighbors, established weeks-long mandatory quarantines for recently arrived foreigners, suspended international tourism, and imposed a near-complete lockdown on cross-border travel.

The shutdowns could hurt leader Kim Jong Un’s efforts to make good on his promise to jumpstart North Korea’s economy. Those efforts have been undermined by a lack of progress in denuclearization talks with the United States, which has led the way in imposing international sanctions on North Korea. “They’re keeping the cargo out and they’re keeping the Chinese out; nobody can go in or out,” said one source with firsthand knowledge of the situation at the China-North Korea border. Kang Mi-jin, a North Korean defector in Seoul who reports for the Daily NK website, also confirmed that the border appears to have been almost entirely shut down since at least Jan. 30.

<https://www.reuters.com/article/us-china-health-northkorea/burdened-by-sanctions-north-korea-sees-coronavirus-threaten-economic-lifelines-idUSKBN1ZY0HB>

Rash moves only make things worse

Pyongyang Times, February 6, 2020

The south Korean defence minister recently told the visiting US secretary of war and chief of the Pacific command that, for denuclearization and lasting peace on the Korean peninsula, it is needed to

maintain steel-strong combined defence posture based on south Korea-US alliance. Such remarks are an extension of the south Korean military's provocative moves which started from New Year's Day. On Jan 1, the military chief issued an order for the entire army to maintain the combined defence posture steel-strong through combined drills and rehearsals. Meanwhile, the chairman of the joint chiefs of staff clamoured for "resolute and unhesitating response in case of the enemy's provocation" as he looked round the front lines.

Warships and fighters of the 1st fleet of the south Korean navy conducted a maritime manoeuvre as they fired shells in the East Sea of Korea, and many military drills were staged incessantly in the sky, on the land and in the sea such as the winter combat preparations drill, maritime manoeuvres and lookout flight drills. The south Korean military set the zone for testing interceptor missiles in the East Sea and set out a military buildup plan including the possession of precision guided weapons, development of new fighters and missiles and introduction of Global Hawk super-high altitude unmanned reconnaissance planes and F-35A stealth fighters. The reckless conducts of the warmongers are only increasing the danger of war on the peninsula.

<http://www.pyongyangtimes.com.kp/?bbs=33062>

Trump to nominate envoy for North Korea to United Nations job

Reuters, February 12, 2020

U.S. President Donald Trump plans to nominate the State Department's deputy special representative for North Korea to a post at the United Nations, the White House said on Tuesday. Alex Wong has been nominated to be the alternate U.S. representative for special political affairs at the world body with the rank of ambassador, a White House statement said. The move follows a report suggesting that Trump, who held a series of unprecedented but largely fruitless summits with North Korea leader Kim Jong Un aimed at persuading Kim to give up his nuclear weapons, could be losing interest in the efforts.

CNN on Monday quoted two sources familiar with the matter as saying that Trump, frustrated at the lack of progress, had told top foreign policy advisers he does not want another summit with Kim before the U.S. presidential election in November. Talks between the two sides have stalled since last year over an inability to reconcile North Korea's demands for relief from punishing sanctions and other concessions and U.S. demands for North Korea to denuclearize.

<https://www.reuters.com/article/us-northkorea-usa-wong/trump-to-nominate-envoy-for-north-korea-to-united-nations-job-idUSKBN20605E>

U.S. ready to allow North Korea sanctions exemption to combat coronavirus

David Brunnstrom, Josh Smith

Reuters, February 13, 2020

The United States is "deeply concerned" about the possible impact of a coronavirus outbreak in North Korea and is prepared to facilitate efforts by U.S. and international organizations contain the

spread of the virus there, the State Department said on Thursday. “We strongly support and encourage the work of U.S. and international aid and health organizations to counter and contain the spread of coronavirus in the DPRK,” spokeswoman Morgan Ortagus said after the Red Cross called for an urgent exemption to sanctions on Pyongyang to help prevent a coronavirus outbreak.

“The United States is ready and prepared to expeditiously facilitate the approval of assistance from these organizations,” Ortagus added in a statement. The International Federation of Red Cross and Red Crescent Societies said earlier that a sanctions exemption allowing for a bank transfer to the IFRC country office in North Korea was “essential as a life-saving intervention.” It said there was an urgent need for personal protective gear and testing kits to prepare for a possible outbreak in North Korea, which borders China where the virus was first identified.

<https://www.reuters.com/article/us-china-health-northkorea/u-s-ready-to-allow-north-korea-sanctions-exemption-to-combat-coronavirus-idUSKBN2070B4>

Former chief of staff Kelly rejects Trump North Korea approach as futile: report

Reuters, February 14, 2020

President Donald Trump’s former chief of staff John Kelly has dismissed the U.S. president’s unprecedented engagement with North Korean leader Kim Jong Un as futile, saying he had never believed North Korea would give up its nuclear weapons and Pyongyang had played the United States to its benefit. Kelly, a former Marine Corps general who fell out with Trump and left the White House in December 2018, laid out his misgivings about the president’s policy approaches at Drew University in New Jersey on Wednesday night, the Atlantic magazine said in a report on its website.

“He will never give his nuclear weapons up,” the Atlantic quoted Kelly as saying of Kim, who Trump met three times between mid-2018 and June 2019 in fruitless attempts to persuade him otherwise. “Again, President Trump tried - that’s one way to put it. But it didn’t work,” Kelly said. “I’m an optimist most of the time, but I’m also a realist, and I never did think Kim would do anything other than play us for a while, and he did that fairly effectively.” Kelly’s remarks were similar to those of John Bolton, who Trump fired as his national security adviser last September, calling him a “disaster” on North Korea policy.

<https://www.reuters.com/article/us-northkorea-usa-kelly/former-chief-of-staff-kelly-rejects-trump-north-korea-approach-as-futile-report-idUSKBN2072L5>

South Korea

U.S. military in South Korea imposes quarantine for troops returning from China

Josh Smith

Reuters, February 2, 2020

The U.S. military command in South Korea said it has instituted a 14-day self quarantine effective Sunday for any troops who recently traveled to China, adding that an outbreak in that country of a new coronavirus could harm military readiness. United States Forces Korea (USFK) said it knew of no troops who had been in the hardest hit provinces of China, where thousands of people have been infected, and that its quarantine measures were a precaution.

“USFK continues to stress the overall risk to USFK personnel remains low, but that the quarantine measures implemented are out of an abundance of caution to mitigate risk to the USFK population,” the command said in a statement.

<https://www.reuters.com/article/us-china-health-southkorea-military/u-s-military-in-south-korea-imposes-quarantine-for-troops-returning-from-china-idUSKBN1ZW05E>

'Security-sovereignty-development' nexus in denuclearization

JeongWon Bourdais Park and Dahoon Chung

Korea Times, February 6, 2020

After the end of the Cold War, an alternative international system emerged easing the rigid ideological confrontation. In the process, the former Soviet bloc independent states had a double burden of reconstruction and adapting to the abruptly reorganized international order. Among those, there were countries which "accidentally" became nuclear states. In particular, Ukraine, Kazakhstan and Belarus were naturally at the crossroads — to retain their nuclear status or renounce it.

Kazakhstan, which is the focus of this article, effectively utilized the country's decision of nuclear renunciation to successfully shift its image to a peace-loving stable country, and gain security and economic sovereignty of its rich natural resources. The purpose of this piece is to share insights into the relatively under-researched case, for the current stalemate that stakeholders are facing in dealing with North Korea. Inasmuch as similarities exist, differences can be informative.

http://www.koreatimes.co.kr/www/opinion/2020/02/137_282925.html

Misc/World

Russia ready to share its experience in nuclear energy sector with Indonesia – Lavrov

TASS News Agency, February 03, 2020

Russia and Indonesia have a serious potential for the development of cooperation in high-technology sectors and Moscow is ready to share its experience in the nuclear energy sector with Indonesia, Russian Foreign Minister Sergey Lavrov said in an interview with Indonesia's Kompas newspaper on the 70th anniversary on diplomatic relations between the two countries. The interview was posted on the Russian foreign ministry's website on Sunday.

"We have brilliant possibilities for the expansion of cooperation in high-technology sectors, including aircraft-building, information and communications technologies. We have serious potential in the area of mutual supplies of agricultural produce. We are ready to share our experience in the nuclear energy sector with the Indonesian friends," Lavrov said.

<https://tass.com/politics/1115515>

Brazil, USA promote cooperation in nuclear energy

World Nuclear News, February 04, 2020

Brazil and the USA have signed agreements on extending the operation and generating capacity of Angra unit 1 and on cooperation in new nuclear technologies. The agreements, between Westinghouse and Eletronuclear, and between the US Nuclear Energy Institute (NEI) and the Brazilian Association for the Development of Nuclear Activities (Abdan), were signed yesterday at the Brazil-US Energy Forum in Rio de Janeiro in the presence of Brazilian Energy Minister Bento Albuquerque and US Energy Secretary Dan Brouillette. The USA is holding a trade mission to Brazil, and plans one to India this month, and to Poland and the Czech Republic in March. "I think the commitment of Brazil [to fight climate change] has been demonstrated by these conversations around nuclear energy," Brouillette told reporters on 2 February, according to the New York Times.

Westinghouse and Eletronuclear will work on meeting the requirements of Brazil's nuclear regulator CNEN for approval to extend the operating licence of the 35-year-old Westinghouse-designed Angra unit by 20 years to 60 years. Brouillette said their letter of intent was "the first step" in a process that would "deepen the relationship" between the companies. Eletronuclear President Leonam dos Santos Guimarães said the Angra 1 extension project was essential for the company's future: "We hope that this cooperation programme will be the first in a series of successful initiatives," he said.

<https://world-nuclear-news.org/Articles/Brazil,-USA-promote-cooperation-in-nuclear-energy>

Tomorrow's nuclear reactors: small but beautiful

Jonathan Tennenbaum

Asia Times, February 06, 2020

Pebble-bed high-temperature reactors get their name from the fact that the nuclear fuel is packed in tennis-ball sized spheres ("pebbles"), rather than in the conventional fuel rods. Each fuel ball consists of thousands of tiny fuel particles, each encapsulated in multiple layers of temperature-resistant ceramic material, embedded in a sphere of graphite. Encapsulating the fuel in these ceramic "coated particles" prevents radioactive fission products from escaping even up to very high temperatures. This contributes greatly to the safety of the system. Combined with the other passive safety features, it rules out a large-scale release of radioactive material in all accident scenarios.

A second big advantage for safety is a very large negative temperature coefficient, meaning that the efficiency of the chain reaction drops off rapidly as the temperature increases. The result is that the fission reactions come to a halt, by physics alone, when the temperature in the reactor exceeds a certain level. This was impressively demonstrated by experiments with the experimental AVR reactor in Jülich, Germany, and later in the Chinese test reactor HTR-10 in China. The control rods were

withdrawn and active cooling systems turned off. Nothing happened. The temperature rose to a pre-designed maximum level, the fuel balls remained intact and there was no significant release of radioactivity.

<https://asiatimes.com/2020/02/tomorrows-nuclear-reactors-small-but-beautiful/>

Countries with most nuclear warheads: US is not No 1; with 135 weapons India at 7th spot

Money Control, February 08, 2020

The world's nuclear-armed countries possess a combined total of nearly 14,000 nuclear warheads with more than 90 percent belonging only to Russia and the United States. Here's a list of all nine countries with nuclear weapons starting with the country that has the least amount of nuclear warheads.

<https://www.moneycontrol.com/news/world/countries-with-most-nuclear-warheads-us-is-not-no-1-with-135-weapons-india-at-7th-spot-4916511.html>

US, Ukraine to conduct Open Skies observation flight over Russia

TASS News Agency, February 10, 2020

A joint US-Ukrainian mission will conduct an Open Skies observation mission over Russia on February 10-14, Russia's Krasnaya Zvezda (or Red Star) newspaper reported on Monday, citing Chief of the National Nuclear Risk Reduction Center Sergei Ryzhkov. "On February 10-14, a joint US-Ukrainian mission will conduct an observation flight over Russia in accordance with the Treaty on Open Skies, using an Antonov An-30 survey aircraft," the newspaper quoted Ryzhkov as saying. According to the paper, Russian experts will be present on board the survey plane to make sure that the mission's members adhere to the agreed parameters of the flight and use the equipment provided for in the treaty.

The Treaty on Open Skies was signed in Helsinki on March 24, 1992, by the member-states of the Organization for Security and Cooperation in Europe, and went into force on January 1, 2002. The accord includes 34 countries, among them, most NATO members, Russia, Belarus, Ukraine, Georgia, Bosnia and Herzegovina, Sweden and Finland. Russia ratified the Treaty on May 26, 2001. The purpose of the deal is to help build confidence between countries through the improvement of mechanisms to control military activities and compliance with arms control agreements.

<https://tass.com/defense/1118203>

Uzbekistan updates IAEA on progress as nuclear 'newcomer'

World Nuclear News, February 10, 2020

A crucial aspect of developing nuclear infrastructure is the study of, and cooperation with, countries with both developed and developing nuclear capabilities, Alisher Sultanov, Uzbekistan's energy minister, said today. Speaking at the third International Conference on Nuclear Security - Sustaining

and Strengthening Efforts, hosted by the International Atomic Energy Agency (IAEA) at its headquarters in Vienna, Sultanov said Uzbekistan is in talks on cooperation with regulators in Belarus, Finland, the UAE, the USA, and other countries. This cooperation, he said, builds on Uzbekistan's ongoing dialogue with regulators in Russia. The Central Asian country became a member of the IAEA as long ago as 1994, has 50 years of experience in nuclear research and is one of the world's biggest producers of uranium. Despite its existing expertise in nuclear energy, Uzbekistan depends almost entirely on fossil fuels. About 86% of its electricity comes from burning gas, coal and oil, while the remainder comes from hydropower. It now has plans to build its first nuclear power plant, to help it keep pace with rising electricity demand and to cut its CO2 emissions.

Uzbekistan is also implementing international legal instruments in the field of nuclear safety, Sultanov said, and envisages the country's near-term accession to the following conventions: Convention on Nuclear Safety; Vienna Convention on Civil Liability for Nuclear Damage; Convention on Early Warning of a Nuclear Accident; and Convention on Assistance in the Case of a Nuclear Accident or Radiation Emergency. "Uzbekistan is very busy developing its nuclear and regulatory infrastructure and we are proud to stand shoulder-to-shoulder with the IAEA both now and in the future, to ensure the safe development of our nuclear capabilities and the peaceful use of atomic energy worldwide," Sultanov said, according to a statement issued by his ministry.

<https://world-nuclear-news.org/Articles/Uzbekistan-updates-IAEA-on-progress-as-nuclear-new>

Op-Ed

India

Here Are Five Deadly Weapons India Would Use Against Pakistan In a War

Kyle Mizokami

National Interest Blog, February 3, 2020

Recently India alleged a series of ceasefire violations—in the form of automatic weapons fire—by Pakistan on the border between the two countries. According to India, it was the sixth attack in just five days. Such events are a reminder that tension remains high on the Indian subcontinent.

The nuclear arsenals of both sides—and the red lines that would trigger their use—have made conventional war much more risky to conduct. The 1999 Kargil War is considered the closest the world has come to a nuclear war since the Cuban Missile Crisis. If India were to use its superiority in ground forces to seize a sizable amount of Pakistani territory, Pakistan could respond with nuclear weapons.

It's distinctly possible that any future war between India and Pakistan would involve limited action on the ground and full-scale fighting at sea and in the air. India has the upper hand in both, particularly at sea where it would have the ability to blockade Pakistani ports. Pakistan imports 83% of its gasoline consumption, and without sizable reserves the economy would feel the effects of war very quickly. An economic victory, not a purely military one might be the best way to decisively end a war without the use of nuclear weapons.

<https://nationalinterest.org/blog/buzz/here-are-five-deadly-weapons-india-would-use-against-pakistan-war-120046>

India's Hypersonic Missile Could Start A Nuclear War

Michael Peck

National Interest Blog, February 14, 2020

India's test of a hypersonic missile signifies more than the advance of Indian weapons technology. It also is one step closer to triggering a nuclear war with Pakistan. Ironically, the first launch of the Hypersonic Technology Demonstrator Vehicle, or HSTDV, was a failure. The HSTDV, which is shaped almost like a sailing ship, is supposed to be a testbed for developing future hypersonic weapons such as cruise missiles. It is launched atop an Agni 1, an Indian ballistic missile. "The vehicle was test launched using the Agni 1 missile platform that was to take it up to a predetermined altitude where scramjet technology—the ability to fly at speeds in excess of Mach 6 while using atmospheric oxygen as oxidizer—had to be validated with separation of the platform and a short flight at high altitude," according to India's Economic Times. India's test of a hypersonic missile signifies more than the advance of Indian weapons technology. It also is one step closer to triggering a nuclear war with Pakistan.

Ironically, the first launch of the Hypersonic Technology Demonstrator Vehicle, or HSTDV, was a failure. The HSTDV, which is shaped almost like a sailing ship, is supposed to be a testbed for developing future hypersonic weapons such as cruise missiles. It is launched atop an Agni 1, an Indian ballistic missile. "The vehicle was test launched using the Agni 1 missile platform that was to take it up to a predetermined altitude where scramjet technology—the ability to fly at speeds in excess of Mach 6 while using atmospheric oxygen as oxidizer—had to be validated with separation of the platform and a short flight at high altitude," according to India's Economic Times.

<https://nationalinterest.org/blog/buzz/indias-hypersonic-missile-could-start-nuclear-war-123806>

China

China won't join trilateral arms talks with US and Russia

China Daily, February 13, 2020

The Chinese Foreign Ministry reiterated on Wednesday that China has no intention of joining the so-called trilateral arms control negotiations with the US and Russia, and that this position is clear and understood by Russia and the wider international community. "It is worth pointing out that the US, sitting on the largest arsenal of the most advanced nuclear weapons, should earnestly fulfill its special responsibility in nuclear disarmament, respond to Russia's call to extend the New START, and further cut down its massive nuclear arsenal, thus creating conditions for other nuclear weapon states to join multilateral nuclear disarmament negotiations," said spokesperson Geng Shuang.

China is committed to preserving world peace, security and stability and upholding international arms control and non-proliferation regimes, a position well known by the international community, said Geng. China stands ready to work with all parties to strengthen communication and coordination within such frameworks as the conference on disarmament and the mechanism of five nuclear-weapon states; discuss a wide range of issues concerning global strategic stability; and earnestly safeguard multilateralism and multilateral disarmament mechanisms, he stressed. China will also uphold the international order based on international law, defend the authority and efficacy of existing arms control and non-proliferation legal system, and make contributions to international peace and security, Geng said.

<https://global.chinadaily.com.cn/a/202002/13/WS5e44adffa310128217277397.html>

Chinese reactor design clears hurdle

Bo Leung

China Daily, February 14, 2020

Britain's Office for Nuclear Regulation has completed the third stage of its assessment of the first Chinese-designed nuclear reactor technology to seek such approval. The regulator will now move on to the fourth and final stage of its Generic Design Assessment, or GDA, of the UK HPR1000 design. It is hoped that the design will be used in future on a United Kingdom power plant that will be jointly built by China General Nuclear Power Group, which is also known as CGN, and French energy giant EDF. The Office for Nuclear Regulation says it increased its regulatory scrutiny and undertook a more detailed assessment of the design for Step 3, during which it focused on the safety and security methods and approaches used by General Nuclear System Limited, the joint venture of CGN and EDF. The UK HPR1000 technology, if approved, is likely to be used on a project in Bradwell, in the southern England county of Essex.

Ana Gomez-Cobo, the Office for Nuclear Regulation's head of UK HPR1000 regulation, said: "During Step 3 of GDA we have undertaken assessment work across 19 technical disciplines and covered topics of a cross-cutting nature. Our assessment to date has not identified any fundamental safety or security shortfalls that would prevent us issuing a Design Acceptance Confirmation for the UK HPR1000 design." However, the regulator pointed to a number of areas for which further substantiation is needed from General Nuclear System Limited and "these have been captured as regulatory observations".

<https://www.chinadaily.com.cn/a/202002/14/WS5e466723a310128217277a92.html>

Pakistan

Toying with nuclear stability

Samson Simon Sharaf

The Nation, February 15, 2020

“We beheld in the sky what appeared to us to be a mass of scarlet cloud resembling the fierce flames of a blazing fire. From that mass many blazing missiles flashed, and tremendous roars, like the noise of a thousand drums beaten at once. And from it fell many weapons winged with gold and thousands of thunderbolts, with loud explosions, and many hundreds of fiery wheel.” Challenges to Nuclear Deterrence in South Asia are far more real and imminent than the theoretical Cold War. There is no standoff, no early warning, no détente and plenty of Vedic Ritualism. The hostilities are real, eyeball to eyeball and along a live line of control. Religious nationalism provides cause for toying with nuclear weapons as a claim to ‘Paradise Lost’.

Indian military and nuclear strategy perceive a two front war much like Erich Friedrich Wilhelm Ludendorff executed in Germany or Israel in 1973 against Egypt and Syria. In essence, Ludendorff’s concept of a ‘total war of annihilation’ impacted Nazi military thinking hence the wars against Poland, neutral Belgium, Russia and the Allies. This streak is also visible in the Israeli mind-set of expansionism. To understand, compare the boundaries of Israel after the resettlement and what they are today. India is not far behind. Compare the boundaries of India in August 1947 to what they are today. Complicating still, Saffron Wave is a reincarnation of Nazi Germany and nukes a tool for greatness.

<https://nation.com.pk/15-Feb-2020/toying-with-nuclear-stability>

USA

How Donald Trump Can Stop a Nuclear Arms Race

Matthew Reisener

National Interest Blog, February 03, 2020

On February 5, 2021, the New Strategic Arms Reduction Treaty (New START) is set to expire a decade after taking effect. New START is a nuclear arms reduction agreement signed by the United States and Russia, the latter of which is eager to see the treaty extended by another five years. Russian President Vladimir Putin proclaimed in December that his country was, “ready to extend the New START treaty immediately, before the year’s end and without any preconditions.”

Russia’s desire to continue with New START has been met with non-committal responses by the United States. Former Under Secretary for Arms Control and International Security Andrea Thompson stated that it was, “too soon to tell,” whether renewing the agreement was in America’s interest, while subsequent administration officials have expressed only a vague desire to, “think more broadly,” than the treaty. Vladimir Yermakov, director of Russia’s Department for Non-Proliferation and Arms Control at the Foreign Ministry, has reported, “hearing more and more often US officials express their doubts about the need to extend the START Treaty,” while Russian defense minister Sergey Lavrov stated that, “Washington is evading any serious discussion, making public discouraging signals regarding the future of this treaty.”

<https://nationalinterest.org/blog/buzz/how-donald-trump-can-stop-nuclear-arms-race-119756>

Donald Trump Is About to Make One Big Giant 'Nuclear' Mistake

David Axe

National Interest Blog, February 06, 2020

U.S. President Donald Trump has one year to sign an extension of the New Strategic Arms Reduction Treaty. “No matter your political orientation, treaty extension is a no-brainer,” wrote Matt Korda and Hans Kristensen, analysts with the Federation of American Scientists.

New START is the last major arms-control accord limiting the size and power and the U.S. and Russian nuclear arsenals. The 2010 treaty restricts both the United States and Russia to 1,550 deployed strategic nuclear warheads on a maximum of 700 deployed intercontinental ballistic missiles and strategic bombers.

<https://nationalinterest.org/blog/buzz/donald-trump-about-make-one-big-giant-nuclear-mistake-121151>

A Plea to Save the Last Nuclear Arms Treaty

Madeleine Albright and Igor Ivanov

The New York Times, February 10, 2020

The relationship between Russia and the United States has been mired in crisis for much of the past decade. Communication once considered routine has been cut off, deepening mistrust and making it more difficult to reduce tensions and avoid miscalculation. The current state of affairs does not serve the strategic interests of either country, and it puts global security at risk because Russia and the United States are the only countries that possess enough nuclear weapons to destroy each other — and all of humanity. Rebuilding mutual confidence and putting United States-Russian relations on a safer track will be a challenging long-term endeavor, given the political climates in Washington and Moscow. But the two countries have a chance to head off even more instability by extending the 2010 New Strategic Arms Reduction Treaty, which expires in one year, on Feb. 5. While 12 months may seem like a lot of time, in diplomatic terms and in the present environment, the clock is ticking fast.

The United States and Russia can avoid a senseless and dangerous return to nuclear brinksmanship if they act soon. There is no reason to wait, and extending the treaty, known as New START, is the place to begin. With the unfortunate dissolution of the Intermediate-Range Nuclear Forces Treaty last year, New START is the only agreement still in place that limits the size of American and Russian nuclear forces. It also provides vital verification and transparency measures, including on-site inspections, that have helped foster strategic stability. The treaty allows for a five-year extension if the leaders of both countries agree. President Vladimir Putin and President Trump should seize this opportunity.

<https://www.nytimes.com/2020/02/10/opinion/albright-ivanov-nuclear-treaty.html>

Here's what happens in a nuclear apocalypse

Walt Bonner

New York Post, February 12, 2020

Since the creation of the atom bomb, the threat of nuclear war has loomed. Endless films and books have dealt with the nuclear apocalypse and its aftermath, but what would a nuclear apocalypse really look like? Rutgers University Professor Alan Robock spoke with Fox News about the Armageddon and his team's new study regarding a nuclear war's effects on ocean life.

<https://nypost.com/2020/02/12/heres-what-happens-in-a-nuclear-apocalypse/>

Europe

European insights into new nuclear

Nuclear Engineering International, February 11, 2020

Achieving new nuclear construction is one of the 'great challenges' in solving climate change, and requires new financial frameworks, Romyana Vakarelska reports. "Achieving New Nuclear Construction" IS one of the "great challenges" in combating climate change, according to Daniela Lulache, head of policy at the Nuclear Energy Agency. She was speaking at New Nuclear: a Response to Electrical Changes, organised by French non-governmental organisation Entretiens Europeens. Lulache said, "nuclear has been declining lately, at least in the advanced economies. We need to ensure the success of new [nuclear] technologies, generation four and SMRs."

A new financing framework for nuclear, potentially including SMRs, is needed to enable the construction of a series of new units globally, as "without nuclear power, carbon dioxide emissions from power generation would have been 50% higher over the last 50 years," NEA said. One example of slow completion of a new nuclear power plant is the 3.2GW Hinkley Point C project (HPC) in Western England, where cost overruns occurred due to slower than expected technology adaptation. The UK currently plans to replace its existing nuclear capacity with new-build and developing a new regulated asset base (RAB) funding model.

<https://www.neimagazine.com/features/featureeuropean-insights-into-new-nuclear-7767836/>

France's Nuclear Weapons Have Kept It A Military Powerhouse In Europe

Kyle Mizokami

National Interest, February 12, 2020

The resurgence of Russian military power—and the will to use it—will likely keep Paris a nuclear power for the foreseeable future. France was the fourth country to join the so-called "Nuclear Club," and at the height of the Cold War maintained its own nuclear triad of land-based missiles, nuclear-armed bombers and ballistic missile submarines. Today, France's sea-based nuclear deterrent is the home of most of its nuclear arsenal, with four nuclear-powered ballistic missile submarines, of French design and construction, providing constant assurance against surprise nuclear attack.

France began working on its own naval nuclear propulsion program in 1955, under what was known as Project Coelacanth. The first effort to build a nuclear-powered submarine, Q.244, was to be the first of five nuclear ballistic missile submarines. The effort to develop Q.244 was a failure, due to the inability of nuclear engineers to sufficiently miniaturize the reactor, and the submarine was cancelled in 1959. A subsequent project to develop a land-based reactor, PAT 1, was a success and led to development of Q.252, which became the submarine Le Redoutable. At the same time, France's defense industry was working diligently to produce a submarine-launched ballistic missile. The result was the M1 MSBS, or Mer-Sol Balistique Stratégique (Sea-Ground Strategic Ballistic Missile). The M1 was a two stage rocket with a 500 kiloton warhead and a range of 1,553 miles. This was sufficient range for a French ballistic missile submarine in the Bay of Biscay to strike Moscow.

<https://nationalinterest.org/blog/buzz/frances-nuclear-weapons-have-kept-it-military-powerhouse-europe-122881>

Algeria: 60 years on, French nuclear tests leave bitter fallout

DW, February, 13, 2020

Decades after the first French nuclear test in Algeria, thousands of victims are still waiting for compensation from the government. Why is France dragging its feet over the issue? Officials watching a French nuclear test in the Algerian desert. Jean-Claude Hervieux still remembers joining a crowd of soldiers and high-level officials in Algeria's Sahara desert to witness one of France's first nuclear tests. Things didn't go exactly as planned.

Instead of being contained underground, radioactive dust and rock escaped into the atmosphere. Everyone ran, including two French ministers. At military barracks, the group showered and had their radiation levels checked as a crude means of decontamination. "You don't see nude ministers very often," Hervieux chuckled. But as France marks the 60th anniversary of its first nuclear test — near Algeria's border with Mauritania, on February 13, 1960 — there is not much to laugh about. Critics have long claimed more than three decades of nuclear testing may have left many victims, first in Algeria and later in French Polynesia, where the bulk of testing took place.

<https://www.dw.com/en/algeria-60-years-on-french-nuclear-tests-leave-bitter-fallout/a-52354351>

Russia

Step to nuclear doomsday: US puts low-yield nukes on submarines to counter made-up Russian 'strategy'

Scott Ritter

Russian Times, February 05, 2020

The US has deployed “low-yield” nuclear missiles on submarines, saying it’s to discourage nuclear conflict with Russia. The move is based on a “Russian strategy” made up in Washington and will only bring mass annihilation closer.

In a statement released earlier this week, US Under Secretary of Defense for Policy John Rood announced that “the US Navy has fielded the W76-2 low-yield submarine launched ballistic missile (SLBM) warhead.” This new operational capability, Rood declared, “demonstrates to potential adversaries that there is no advantage to limited nuclear employment because the United States can credibly and decisively respond to any threat scenario.”

The threat underpinning justification for this new US nuclear deterrent had its roots in testimony delivered to the House Armed Services Committee in June 2015 by US Deputy Secretary of Defense Robert Work, who declared that “Russian military doctrine includes what some have called an ‘escalate to deescalate strategy’ – a strategy that purportedly seeks to deescalate a conventional conflict through coercive threats, including limited nuclear use.”

<https://www.rt.com/op-ed/480160-low-yield-nuclear-submarine/>

Trouble: Russia Is Helping China Build Its First Nuclear-Powered Aircraft Carrier

Robert Farley

National Interest Blog, February 11, 2020

Both China and Russia are eager to match the United States' nuclear powered fleet. It appears that China is relying on Russian know-how and experience to develop the reactor for its first nuclear aircraft carrier. As the South China Morning Post reports, China appears to be studying the nuclear reactors on Russia's largest icebreakers, an approach that the Soviet Union also took when it planned to build nuclear carriers in the 1980s. Specifically, Russia has invited China to bid on the construction of a new class of nuclear icebreaker, necessarily requiring the development of surface-ship based reactors. This approach stands in contrast to how the United States and France developed nuclear reactors for their largest carriers, but probably represents the best choice for China at this point.

The Soviet experience was somewhat different. While the Soviets enjoyed considerable success in developing nuclear reactors for submarines, they approached the question of surface warships much more carefully. The first nuclear powered Soviet ship was the icebreaker Lenin, commissioned in 1959 with three OK-150 reactors (90 MW each). Between 1975 and 1990, the Soviets would commission nine more nuclear icebreakers of the Arktika and Taymyr classes, generally displacing between 20,000 and 25,000 tons and carrying two OK-900 reactors, capable of 150 MW.

<https://nationalinterest.org/blog/buzz/trouble-russia-helping-china-build-its-first-nuclear-powered-aircraft-carrier-122271>

Russia's Tsar Bomba Nuke Is So Destructive That It Was Only Tested Once

Paul Richard Huard

National Interest Blog, February 11, 2020

The bomb also had a parachute to slow its drop, giving both planes time to fly about 30 miles from ground zero before the nuke detonated. Maj. Andrei Durnovtsev, a Soviet air force pilot and commander of a Tu-95 Bear bomber, holds a dubious honor in the history of the Cold War.

Durnovtsev flew the aircraft that dropped the most powerful nuclear bomb ever. It had an explosive force of 50 megatons, or more than 3,000 times more powerful than the Hiroshima weapon. Over the years, historians identified many names for the test bomb. Andrei Sakharov, one of the physicists who helped design it, simply called it “the Big Bomb.” Soviet Premier Nikita Khrushchev called it “Kuzka’s mother,” a reference to an old Russian saying that means you are about to teach someone a harsh, unforgettable lesson.

<https://nationalinterest.org/blog/buzz/russias-tsar-bomba-nuke-so-destructive-it-was-only-tested-once-122131>

Arctic Aggression: Russia Is Better Prepared for a North Pole Conflict Than America Is

Robert Farley

National Interest Blog, February 12, 2020

As the Earth warms, new trade routes and valuable resources are being revealed in the Arctic. The problem is that Moscow is building up its forces in the area quicker than Washington or its allies. Over the past decade, nations bordering on the Arctic have found themselves with a big new security problem. The melting of the arctic ice has opened up shipping lanes and opportunities for the exploitation for undersea resources, but has also exposed vulnerabilities for countries that have long considered their northern frontier secure.

<https://nationalinterest.org/blog/buzz/arctic-aggression-russia-better-prepared-north-pole-conflict-america-122766>

West Asia

Iran

Scholar says nuclear activity back to pre-JCPOA level, predicts change in Majlis composition, slams ‘deal of century’

Tehran Times, February 14, 2020

Hojatoleslam Mohammed Nasir Saghaye-Biria is deputy chief for research at Imam Khomeini Education and Research Institute in Qom. The 61-year-old cleric was also the head of Psychology Department at the institute. He graduated with a BA from McGill University in Montreal and later in 2004 got his EdD (Doctor of Education) from the University of Houston. In an exclusive interview with Tehran Times, Biria talked about his background and perspectives. "Prior to McGill I studied in Hozeh (seminary) in Qom at the highest level of Hozeh under the instructions of Ayatollah Hossein Mazaheri who is now in Isfahan." "When I returned to Iran, I was a member of the Imam Khomeini Education and Research Institute and after few years I became head of the Psychology Department. Presently I am a deputy for research in the institute for some nine years."

He is one of the founding members of Front of Islamic Revolution Resistance (FIRR) (Jebhaye Paidari Enqelab-e Islami) and the secretary of the front in Qom province. Dr. Biria is a protégé of Mohammad Taqi Mesbah Yazdi and served as adviser to former President Mahmoud Ahmadinejad

on clerical and religious affairs for nearly five years in his first term and one year of the second term after which he resigned due to differences with Ahmadinejad's policies. For his time in Texas, Biria worked at the Islamic Education Center in Houston for a period of ten years, from 1995-2005. "I was the Imam of the community, a brilliant experience for me. However, post 9/11 many things changed because of the pressure of Islamophobia and harassment by American officials at the time."

<https://www.tehrantimes.com/news/445106/Scholar-says-nuclear-activity-back-to-pre-JCPOA-level-predicts>

Europe's dependence on U.S. impedes efforts to preserve nuclear deal: expert

Tehran Times, February 15, 2020

Nozar Shafiei, an expert on international affairs, has said that Europe's dependence on the United States impedes efforts to support and preserve the 2015 nuclear deal, officially known as the JCPOA. "Europe's structural dependence on the United States in various areas, especially in spheres of security and economy, impedes efforts of Borrell [EU foreign policy chief Josep Borrell] in supporting and preserving the JCPOA," he told ISNA in an interview published on Friday. It is obvious that Europe is not capable of countering the U.S. sanctions, he noted. EU foreign policy chief Josep Borrell has said that Europe must ensure Iran's benefits from the nuclear deal if it wants the deal to survive. "If we want the Iran nuclear deal to survive, we need to ensure that Iran benefits if it returns to full compliance," he wrote in an article in the Project Syndicate published on February 8. Borrell was notified in January by Paris, London and Berlin that they had triggered the dispute mechanism.

He has said that the EU will extend indefinitely the time limit to resolve disputes in the nuclear deal to avoid having to go to the UN Security Council or triggering new sanctions. "There is agreement that more time is needed due to the complexity of the issues involved. The timeline is therefore extended," Borrell said in a statement on January 24. In the meeting with Borrell in Tehran on Feb. 3, President Rouhani criticized the EU for failing to honor its commitments after the U.S. quit the deal and reinstated sanctions on Iran. However, Rouhani said, "The Islamic Republic of Iran is still ready to cooperate with the European Union for resolving issues, and at any time that the other side (EU) fully observes its commitments Iran will also return to its commitments."

<https://www.tehrantimes.com/news/445136/Europe-s-dependence-on-U-S-impedes-efforts-to-preserve-nuclear>

Israel

Everything You Ever Wanted to Know About Israel's Nuclear Weapons

Daniel R. DePetris

National Interest Blog, February 02, 2020

Israel wants to be sure it is never able to be threatened or defeated. That is why it maintains a secret nuclear weapons program. The Iranian nuclear nonproliferation agreement has been the top foreign

policy issue throughout Washington for the past two months. Approving or disapproving the deal was the first order of business for the U.S. Congress until the very last day of congressional action under the Iran Nuclear Agreement Review Act (September 17). Hours of debate have been conducted on the floors of the House and Senate, both chambers have held roll call votes, and Senate Democrats bonded together to filibuster a motion of disapproval — a resolution that would have prevented President Obama from providing the Iranians sanctions relief.

The Obama administration's main selling point for the Joint Comprehensive Plan of Action is based on the theory that forcing Tehran to downgrade its nuclear program will make the threat of nuclear proliferation in the Middle East — the world's most frenetic and violent region even without nuclear weapons— far less urgent. Yet we should remember that there is in fact a state in the region that already possesses nuclear weapons. That state happens to be Washington's closest ally in the Middle East: Israel.

<https://nationalinterest.org/blog/buzz/everything-you-ever-wanted-know-about-israels-nuclear-weapons-118856>

A War In The Middle East Could Go Nuclear (And That Can Only Mean 1 Thing)

Robert Farley

National Interest Blog, February 15, 2020

Israel's nuclear arsenal is the worst-kept secret in international relations. Since the 1970s, Israel has maintained a nuclear deterrent in order to maintain a favorable balance of power with its neighbors. Apart from some worrying moments during the Yom Kippur War, the Israeli government has never seriously considered using those weapons.

The most obvious scenario for Israel to use nuclear weapons would be in response to a foreign nuclear attack. Israel's missile defenses, air defenses, and delivery systems are far too sophisticated to imagine a scenario in which any country other than one of the major nuclear powers could manage a disarming first strike. Consequently, any attacker is certain to endure massive retaliation, in short order. Israel's goals would be to destroy the military capacity of the enemy (let's say Iran, for sake of discussion) and also send a message that any nuclear attack against Israel would be met with catastrophic, unimaginable retaliation.

<https://nationalinterest.org/blog/buzz/war-middle-east-could-go-nuclear-and-can-only-mean-1-thing-123056>

East Asia

Japan

Final disposal of Fukushima nuke water should reflect local input

The Asahi Shimbun, February 3, 2020

The ministry of trade and industry's expert panel has made its recommendations on how to tackle the formidable challenge of disposing of radiation-contaminated water being generated by the crippled Fukushima No. 1 nuclear power plant. After three years of debate on options, the subcommittee on Jan. 31 effectively endorsed the best approach diluting the water to safe levels and releasing it into the ocean. The water will still contain tritium, a radioactive form of hydrogen, even after being treated with a filtering system. Final decisions on the method and time frame for disposal of the polluted water will be left to the government. Releasing the water into the environment could deal an additional blow to the reputation of the local fishing and other industries, which have already been badly damaged by rumors and other effects.

The government should not make a rash decision on this delicate matter. Since 2016, the expert panel has been examining five options presented by the ministry's working group, not just delving into technical issues but also assessing possible social effects of each option including reputational damage from harmful rumors.

<http://www.asahi.com/ajw/articles/13096244>

Deployment of 'usable nuclear weapons' could spark arms race

The Asahi Shimbun, February 12, 2020

The world's superpowers are trying to make the use of nuclear weapons easier, a grave folly that will increase the risk of an accidental nuclear war and endanger the entire world. The United States has deployed a missile equipped with a newly developed small nuclear warhead aboard a submarine. It explained that the deployment is designed to deter Russia and other nations from using their small nuclear weapons. U.S. defense experts have long pointed out the difficulty of using conventional nuclear weapons because of their excessive destructive power. They have argued in favor of smaller weapons to ensure successful retaliation against limited nuclear strikes that could occur in regional conflicts.

However, the very idea of "usable nuclear weapons" is nothing but a delusion. Such weapons will not only fail to bring strategic stability but could escalate the nuclear arms race. In the first place, no nuclear attack should ever be condoned, irrespective of scale.

<http://www.asahi.com/ajw/articles/13120915>

North Korea

North Korea enhanced nuclear, missile programs in 2019 in breach of sanctions - U.N. report

Michelle Nichols

Reuters, February 11, 2020

North Korea continued to enhance its nuclear and ballistic missile programs last year in breach of United Nations sanctions, according to a confidential U.N. report seen by Reuters on Monday. The

country also illicitly imported refined petroleum and exported some \$370 million worth of coal with the help of Chinese barges, the report added.

The 67-page report to the U.N. Security Council North Korea sanctions committee, which is due to be made public next month, comes as the United States tries to revive stalled denuclearization talks with North Korea. “In 2019, the Democratic People’s Republic of Korea (DPRK) did not halt its illicit nuclear and ballistic missile programs, which it continued to enhance, in violation of Security Council resolutions,” the independent U.N. sanctions monitors wrote. “Despite its extensive indigenous capability it uses illicit external procurement for some components and technology.”

<https://www.reuters.com/article/us-northkorea-sanctions-un-exclusive/exclusive-north-korea-enhanced-nuclear-missile-programs-in-2019-in-breach-of-sanctions-u-n-report-idUSKBN20426J>

Dimming prospects of talks

Korea Times, February 13, 2020

The denuclearization dialogue between Pyongyang and Washington is expected to remain deadlocked until the November U.S. presidential election. The long-term hiatus in nuclear disarmament negotiations between the two countries will be inevitable as President Donald Trump has put top priority on his re-election.

It is understandable that Trump can now ill afford to spend much time and energy on the nuclear issue due to his strenuous efforts to extend his term for another four years. He has shifted his focus to domestic issues to boost his re-election bid, especially after he was acquitted of impeachment charges Feb. 5. Unfortunately, the nuclear talks have now been put on the backburner. Trump has oftentimes boasted about Pyongyang's moratorium on nuclear and ICBM tests as a major foreign policy achievement after he held the historic summit with North Korean leader Kim Jong-un in Singapore in June 2018. But the negotiations hit a snag following the Hanoi summit in February 2019 due to differences over the scope of denuclearization and reciprocal sanctions relief.

https://www.koreatimes.co.kr/www/opinion/2020/03/202_283427.html

South Korea

Trump and N. Korea

Korea Times, February 7, 2020

While many of the headlines after U.S. President Donald Trump's State of the Union address, Tuesday, were about his war of nerves with House Speaker Nancy Pelosi, highlighted by her ripping up a copy of the text of the speech, what was also intriguing to us was that he made no mention of North Korea. Given that he dealt with North Korea as one of his foreign policy priorities in his two previous State of the Union speeches, this was exceptional. But it had not been entirely unexpected as the nuclear disarmament talks with Pyongyang have remained in the doldrums since the failure of the

last negotiations in Sweden in October. In a way, Trump's silence on North Korea could be a hopeful sign considering that he didn't go so far as to vilify it as he did in his first State of the Union speech in 2018. At the time, he called North Korea a "depraved" and "brutal dictatorship," vowing to break from the mistakes of past administrations. Among those invited to the speech were a North Korean defector on crutches, Ji Seong-ho, who highlighted the North's brutal treatment of its own people, and the parents of Otto Warmbier, an American college student who died in 2017 after being detained in North Korea for more than a year.

Then there was the historic first summit between Trump and Kim in June 2018, and the U.S. president used the State of the Union address in 2019 to announce his second summit with Kim, saying he maintains a "good" relationship with the North Korean leader and that the U.S. would have been at war with the North if he hadn't been elected.

http://www.koreatimes.co.kr/www/opinion/2020/02/137_283007.html

Interviews

Interview: Trump's nuclear insecurities and other secrets from the author of "The Bomb"

Dawn Stover

Bulletin of Atomic Scientists, February 4, 2020

In this interview, Bulletin contributing editor Dawn Stover speaks with Fred Kaplan about his just-published book, *The Bomb: Presidents, Generals, and the Secret History of Nuclear War* (Simon & Schuster). Kaplan is a national-security columnist for Slate and the author of five other books, including *The Wizards of Armageddon*, a 1983 book on the origins of American nuclear strategy. He has a PhD in political science from MIT.

The Bomb offers an entertaining, detailed, behind-the-scenes look at how presidents, from Truman to Trump, and their advisers have grappled with nuclear weapons. In the end, many of them have been flummoxed by how to avoid using nuclear weapons for anything other than deterrence while simultaneously developing the nuclear warfighting plans that give deterrence its teeth. This "rabbit hole," as Kaplan calls it, has been difficult for presidents to scramble out of.

<https://thebulletin.org/2020/02/interview-trumps-nuclear-insecurities-and-other-secrets-from-the-author-of-the-bomb/>

Think Tanks

Russia killed arms control. Why does it want to keep New START?

Kristin Ven Bruusgaard

Bulletin of Atomic Scientists, February 05, 2020

Russia is a key protagonist in the tale of the demise of the Cold War arms control architecture. After all, it's Russia that bears most of the responsibility for the recent collapse of the Intermediate-Range

Nuclear Forces (INF) Treaty. It seems a little strange, then, that Moscow now seems so keen to salvage New START, the final remaining bilateral arms control treaty between the world's two nuclear superpowers. The Russian position seems even more paradoxical because there is mounting evidence that Russia no longer values arms control as a means for producing security. One need look no further than the rapid modernization of the Russian nuclear arsenal, or the introduction of a range of new and unprecedented strategic and sub-strategic systems, including a nuclear-powered cruise missile, a nuclear-armed torpedo, and a nuclear-capable hypersonic missile system. Its blatant and sustained disregard for other treaties and obligations, such as the Helsinki document, the Budapest memorandum, and the Conventional Forces in Europe Treaty, reinforces the impression that Russia has abandoned arms control as a foreign policy tool.

Even Russia's interest in New START was not always unqualified. As recently as December 2018, Russian willingness to prolong the treaty was conditional on the United States fulfilling certain obligations. After the death of the INF Treaty, though, Russia has been singing a different tune, with both President Vladimir Putin and Foreign Minister Sergei Lavrov repeatedly reiterating that Russia is ready to extend the treaty without preconditions. All of this has led some to wonder whether Russia's newfound desire to extend New START is feigned. It is not, and there are at least three reasons why Moscow genuinely wants to keep the treaty in place.

<https://thebulletin.org/2020/02/russia-killed-arms-control-why-does-it-want-to-keep-new-start/>

The Last Remaining Nuclear Arms Control Treaty Between the U.S. and Russia Could Expire in One Year, Here's Why That's Dangerous

Eryn Macdonald

Union of Concerned Scientists, February 05, 2020

One year from today, on February 5, 2021, the New Strategic Arms Reduction Treaty (New START) is scheduled to expire, leaving the United States and Russia without a single bilateral nuclear arms control agreement for the first time in nearly 50 years. This would mean the end of constraints on either country's nuclear arsenal which, especially when combined with worsening relations between the two, could be a recipe for a new nuclear arms race. It will also end the intrusive verification measures that have provided both countries with substantial confidence in their assessments of each other's arsenals over the past several decades.

The United States and Russia can agree to extend the treaty for another five years; it would only take an exchange of memos between their presidents. This would give the countries time to talk about a follow-on treaty that could include further reductions or cover a broader range of weapon types. But this does not seem likely to happen. While Russian President Vladimir Putin has said he is open to extending the treaty with no preconditions, President Trump has other ideas. He does not want to extend the treaty as-is but has said he wants a "better" deal, one that would include China as well.

<https://allthingsnuclear.org/emaacdonald/the-last-remaining-nuclear-arms-control-treaty-between-the-u-s-and-russia-could-expire-in-one-year-heres-why-thats-dangerous>

Don't let New START die

Steven Pifer

Brookings, February 06, 2020

The 2010 New Strategic Arms Reduction Treaty (New START) expires in one year. Unfortunately, President Trump's attitude seems to reflect disinterest, if not antipathy. Last April he asked for a proposal to involve Russia and China and cover all nuclear arms, but it has yet to emerge. Neither Moscow nor Beijing has shown any real interest in the concept.

Little suggests grounds for optimism about nuclear arms control as long as Mr. Trump remains president. Change will require that the Democratic candidate win in November. His or her administration would then have to move immediately to extend New START before exploring additional measures that could usefully regulate an ever more complex arms competition with Russia and others.

<https://www.brookings.edu/blog/order-from-chaos/2020/02/06/dont-let-new-start-die/>

Toward Accountable Nuclear Deterrents: How Much is Too Much?

George Perkovich

Carnegie Endowment for International Peace, February 11, 2020

For decades, policy debates in nuclear-armed states and alliances have centered on the question, "How much is enough?" What size and type of arsenal, and what doctrine, are enough to credibly deter given adversaries? This paper argues that the more urgent question today is, "How much is too much?" What size and type of arsenal, and what doctrine, are too likely to produce humanitarian and environmental catastrophe that would be strategically and legally indefensible?

These purposes may be too modest for states and activists that prefer the immediate prohibition and abolition of nuclear weapons. Conversely, advocates of escalation dominance in the United States and Russia—and perhaps in Pakistan and India—will find the force reductions and doctrinal changes implied by them too demanding. Yet, the positions of both of these polarized groups are unrealistic and/or unacceptable to a plurality of attentive states and experts. To blunt efforts to stifle further analysis and debate of these issues, the appendix of this paper heuristically rebuts leading arguments against accountable deterrents.

<https://carnegieendowment.org/2020/02/11/toward-accountable-nuclear-deterrents-how-much-is-too-much-pub-80987>

Trump's New Nuclear Budget Is Bad News for Russia

Eli Lake

Bloomberg, February 11, 2020

Since Donald Trump began his presidency, Democrats have painted him as an appeaser and possibly a pawn of Russia's President Vladimir Putin. At least in his rhetoric, from his supine flattery of Putin

in Helsinki to his public rants about NATO allies, Trump has given them some fodder. Nonetheless, the Trump administration has also pursued a foreign policy that has been hostile to Putin's interests. From his decisions in 2017 and 2018 to bomb Russia's client in Syria, to the State Department campaign to get allies to recognize Juan Guaido as the interim president of Venezuela, many of Trump's policies have opposed Russian objectives, not aided them.

Trump's defense budget for 2021 bolsters such hawkish policies toward Russia. The new budget requests \$28.9 billion for the Pentagon to modernize nuclear delivery systems and \$19.8 billion for the National Nuclear Security Administration to modernize the nation's nuclear stockpile. Russia also loses because of the potential cost of an arms race. Despite America's debt and budget restraints, the U.S. remains a much larger economy than Russia, which is a declining power. As the Reagan administration proved with the larger Soviet Union, Washington has the ability to outspend Moscow when it comes to strategic weapons.

<https://www.bloomberg.com/opinion/articles/2020-02-11/trump-s-new-nuclear-budget-is-bad-news-for-russia>

Trump's 2021 budget: More nuclear spending, less of almost everything else

Lawrence J. Korb

Bulletin of Atomic Scientists, February 12, 2020

The Trump administration's budget request for 2021 has its priorities backward. Rather than expand the nuclear weapons budget at the expense of everything else, the United States could meet its goals with a much leaner nuclear force, leaving more money for the programs that will actually make the country safer. Given that the US defense secretary has been arguing for the Pentagon to focus more resources on challenges from strategic competitors such as China and Russia, one would have expected that ships and combat aircraft programs would have received increased funding in the Trump administration's latest request. But, in that request, not only did these programs not grow, they were actually cut back both from their projected increases and below fiscal 2020 levels.

But what did grow in real terms was funding for nuclear weapons programs. In fiscal 2020, the Defense Department will spend about \$25 billion on modernizing the weapons in its nuclear arsenal. For 2021, it seeks to grow that account by \$4 billion, to a total of about \$29 billion, a 16 percent increase. The National Nuclear Security Administration (NNSA), the part of the Energy Department that develops nuclear technology, wants to spend another \$20 billion, a \$3 billion (or 19 percent) increase over 2020. Together this means that the Trump administration proposes to spend about \$50 billion on its nuclear weapon programs. If one adds what it will spend on cleaning up nuclear sites and on missile defense, that number climbs to about \$75 billion.

<https://thebulletin.org/2020/02/trumps-2021-budget-more-nuclear-spendingless-of-almost-everything-else/>

Pakistan Streamlines its National Nuclear Power Programme with IAEA Support

Omar Yusuf

International Atomic Energy Agency, February 13, 2020

As Pakistan seeks to significantly scale-up nuclear power to meet the rising energy demands of a growing population, the South Asian country has turned to the IAEA for support in strengthening its nuclear power programme. Regulators, operators and representatives of organizations involved in Pakistan's nuclear power programme gathered at the IAEA's headquarters in Vienna last month to discuss the Agency's streamlined support for the country, which is aiming to expand its nuclear power generating capacity more than six-fold over the next decade, from 1430 MW to 8800 MW.

To facilitate this rapid expansion of nuclear power, the IAEA has amalgamated four of its pre-existing national technical cooperation projects—which supported the regulators, operators, waste managers and non-destructive testers involved Pakistan's NPP programme —into a single project. In doing so, the Agency is bringing together all the relevant stakeholders of the Pakistani nuclear power programme to streamline their workflows, reduce delays and costs, enhance cooperation and harmonize their safety and waste management approaches.

<https://www.iaea.org/newscenter/news/pakistan-streamlines-its-national-nuclear-power-programme-with-iaea-support>

Contribute Articles

Indian Pugwash Society welcomes research articles from students, researchers and faculties on Space, Missile, nuclear technology, WMD proliferation, arms control, disarmament, export controls and other related issues. Articles should be crisply written and should address contemporary debates in the policy arena. Manuscripts submitted for the consideration of the Indian Pugwash Society should be original contributions and should not have been submitted for consideration anywhere else. For further assistance, please contact us at: indianpugwashsociety@gmail.com

The Indian Pugwash Society aims to promote the study, discussion, and knowledge of and to stimulate general interest in, and to diffuse knowledge in regards to problems relating on WMD proliferation, arms control, disarmament, space security, export controls, nuclear technology and other related issues. This newsletter is part of the project "Emerging Nuclear Order in Asia: Implications for India" sanctioned to us by Department of Atomic Energy-Board of Research in Nuclear Sciences (DAE-BRNS).

Disclaimer:

Data included in this newsletter is only for educational purpose and wider dissemination. All liabilities and rights belong to respective writers & authors.

Indian Pugwash Society
No.1, Development Enclave,
Rao Tula Ram Marg, Near USI, Delhi-110010
Tel. No (91-11) 2671-7983
Fax No. (91-11)2615-4192
Email: indianpugwashsociety@gmail.com