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- Chinese team sets new record of "Suvorov Attack" race at int'l army games
- China's H-6K bomber expected to be armed with hypersonic weapons
- Nuclear power efforts gather speed
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- China might escort ships in Gulf under U.S. proposal: envoy
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- China's fighter drones possible with AI use: experts
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- Wyoming approves first use of low pH ISL uranium production
- US Official: Nuclear Program Serves as 'Ultimate Insurance Policy'
- EIS process launched for US fast neutron reactor
- Missile-Killer, Sensor and Spy Plane: What Can't the F-35 Stealth Fighter Do?
- US regulator invites comment on Peach Bottom licence renewal]
- U.S.-based experts suspect Russia blast involved nuclear-powered missile
- U.S. adviser Bolton to urge tougher UK stance on Iran and China
- Energoatom tests Holtec used fuel casks at Rovno plant
- U.S. Officials Suspect New Nuclear Missile in Explosion That Killed 7 Russians
- North Korea's new weapons, and how they affect Trump's nuclear deal hopes, explain
- Replica simulators completed at Southern plants
- Future of last nuclear pact between Russia and U.S. uncertain: U.S. envoy
- US regulator approves latest Holtec transport cask

- Gibraltar decides to free seized Iranian tanker; U.S. seeks to hold it
- US blacklists Chinese nuclear company over theft of military tech
- US DOE orders exascale computer

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- France disagrees with U.S. sanctions on Iranian foreign minister
- At U.N., Britain, France, Germany urge North Korea to hold 'meaningful' talks with U.S
- UK, France and Germany condemn North Korea missile launches
- Poland says Russia responsible for nuclear treaty collapse
- Poland says Russia responsible for nuclear treaty collapse
- UK blames Russia for nuclear treaty collapse, says threatens European security
- Low river levels to affect French nuclear power generation from August 8: EDF
- TABLE-Swiss nuclear plant outages and restarts
- German designated to head Iran trade vehicle bows out at last minute
- After Trump rebuke, France says it speaks for itself on Iran
- UK reiterates support for nuclear deal
- Norway detects radioactive iodine by Russian border days after blast

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- Under One Roof: Russia's Integrated Strategy for Spent Fuel Management
- Putin to Trump: We'll develop new nuclear missiles if you do
- Missile-Killer, Sensor and Spy Plane: What Can't the F-35 Stealth Fighter Do?
- Russia Confirms Radioactive Materials Were Involved in Deadly Blast
- Russian Nuclear Agency Confirms Deaths During Engine Test
- Evidence Grows That Russia's Nuclear-Powered Doomsday Missile Was What Blew Up Last Week (Updated)
- Rosatom postpones fast reactor project, report says
- Failed Russian nuclear test: Is Vladimir Putin developing a weapon that could crack US defenses?
- Russia flies nuclear-capable bombers to region facing Alaska
- Norway detects radioactive iodine by Russian border days after blast
- Russian nuclear agency committed crime by holding test near city: ecologist
- WANO completes technical support mission at Leningrad II-2

West Asia

G. Iran

- US imposes sanctions on Iran's Foreign Minister Zarif
- Sanctioning Zarif is sanctioning diplomacy
- Cleric to U.S.: Go ahead with Zarif sanctions 'if that pleases you'
- China, EU agree to safeguard nuclear deal
- Iran's IRGC, Army denounce U.S. sanctions on Zarif
- Iran to further reduce commitments to nuclear deal: foreign minister
- Iran will take next step to scale back nuclear activities if obligations not met: Zarif
- Iran unveils three new precision-guided missiles
- War with Iran is the mother of all wars: Rohani

- Iran to unveil 'Bavar-373' air defense system on August 22
- Iran unveils new smart bombs
- Trump swats at Macron for Iran diplomacy
- UN says Iran's letter protesting sanctions on Zarif circulated to Security Council
- China, France to work on reducing tension on Iran nuclear issue
- Ambassador: U.S. sanctioning of 80 million Iranians equals 'economic terrorism'
- Iran unveils 'upgraded missile defense system' August 10, 2019
- Iran's enriched uranium stockpile hits 370 kg
- Europe must fulfil JCPOA commitments: MP
- Iran's deterrence power cannot be tested: Army air defense chief

H. Saudi Arabia

- Saudi Arabia, China have established 'comprehensive strategic partnership'

I. Egypt

- Egypt denies connection between nuclear explosion in Russia and Dabaa project
- EMA head: Egypt not at risk from Russia nuclear explosion
- Official source: Dabaa Nuclear Power Plant has the safest design of its kind in the world

East Asia

J. North Korea

- North Korea says it tested crucial new rocket launch system
- North Korea test-fired new rocket system under leader's supervision: state media
- North Korea took \$2 billion in cyberattacks to fund weapons program: U.N. report
- 'We will make them pay': North Korea launches missiles, condemns U.S.-South Korea drills
- North Korea on Friday fired unidentified short-range projectiles off its east coast, South Korea's military said, its third launch in a week.
- North Korea says U.S. is inciting military tension
- North Korea's Kim says missile launches are warning to U.S., South Korea over drill: KCNA
- North Korea fires missiles as US-South Korea drill begins
- Kim expresses 'great satisfaction' over N. Korea weapons tests

K. South Korea

- No discussions on US missile deployment in S. Korea: ministry
- S. Korea, US kick off combined military exercise despite NK warnings
- S. Korean, US defense chiefs vow to support diplomacy for NK denuclearization
- The S. Korea says NK apparently eyes nuclear talks with US after military drills end
- NK says US missile deployment will turn S. Korea into 'bullet-shield'

L. Japan

- Work begins to topple dangerous exhaust stack at Fukushima plant
- Moon calls for 'peace economy' with N. Korea, slams Japan
- Questions raised over future of nuclear power at Keidanren meet
- for 'peace economy' with N. Korea, slams Japan

- Japan's military buildup what for?
- Japan's military buildup what for?
- 'Atomic-bombed cross' returns to Nagasaki as a symbol of hope
- Nuke ban urged, as Nagasaki marks 74 years since bombing
- Work to remove fuel debris from No. 2 reactor may start in 2021
- 4 companies consider jointly operating nuclear power plants
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- South Korea urges dialogue with Japan in measured World War Two anniversary message
- 60% of spent nuclear fuel in Japan to be stored in metal casks in the future, research shows Japan offers U.S. its robotics tech for use in denuclearizing North Korea

M. Miscellaneous and World

- UN nuclear watchdog to appoint new head in October
- Bangladesh, Russia to ink nuclear fuel supply deal
- Fuel supply contract for Bangladeshi plant
- Massive Wildfire Cloud Sheds Light On Nuclear War's Impact
- IAEA Launches Revamped Nuclear Communicator's Toolbox
- Strengthening International Standards for Nuclear Safety: IAEA Safety Publications Restructured

N. Oped

India

- India's growing clamour is space and why the country needs a separate Space Force
- ISRO- History and journey that we all are proud of
- A history: India's star treks since independence

Pakistan

- Imran-Trump Summit: a win-win situation for Pakistan
- Launching into space
- Kashmir crisis: Will nuclear-armed Pakistan go to war with India again?
- India's nuclear posturing inclined towards Pakistan
- Pakistan's desperation over Kashmir is evident as it plays Afghanistan card, threatens nuclear war in South Asia

USA

- With a Democrat, a Cooler Head Would Prevail on Iran
- America Could Lose a Real War Against Russia
- The Danger of A Nuclear Catastrophe Is Greater Than During the Cold War
- The Return of Doomsday The New Nuclear Arms Race-and How Washington and Moscow Can Stop It
- The INF Treaty is done, but lessons for policy remain
- Are We Headed for Another Expensive Nuclear Arms Race? Could Be.
- It's time to pick the winners in nuclear energy
- Nuclear Power And The 2020 Presidential Candidates
- Without INF treaty, world becomes vulnerable

Russia

- Want Your Own Nuclear Arsenal? Russia Lost 2 Nuclear Weapons in the Ocean.
- In Hiroshima's shadow: Poll unveils Russians' nuke fears and grasp of first atomic bombing
- Is Russia Testing Nuclear Weapons Again?

- No, this Russian family is not looking at a nuclear explosion near their city, dear MSM viewers

North Korea

- Stocking up on missiles
- Who is to blame for military tension?
- Why Rocket Man is going ballistic with short-range missiles
- US-DPRK Negotiations: Time to Pivot to an Interim Agreement

South Korea

- GSOMIA decision: Moon Jae-in's nuclear option
- Moon's illusory 'peace economy' with North Korea

Japan

- How to deal with another nuclear crisis 74 years after Hiroshima
- Abe turning deaf ear to voices from Hiroshima and Nagasaki
- Japan must resist call to join U.S.-led coalition in Middle East

Taiwan

- The INF Treaty's demise is good news for Taiwan

O. Think Tanks

- Loss of "an Invaluable Brake on Nuclear War"
- Hiroshima, Nagasaki, and no first use
- UN chief: World to lose brake on nuclear war with treaty end
- Who will win 21st century?
- A nuclear world in disarray
- Why Rocket Man is going ballistic with short-range missiles
- As arms treaty fails, big powers risk new missile race
- Russia Showcases 'Kinzhal' Nuclear-Capable Air-Launched Ballistic Missile at Air Show
- Growing Populations: Time to Talk about Nuclear Power?

P. Interviews

- U.S. Quietly Waives Some Sanctions To Allow Key Part Of Iran Nuclear Deal To Continue
- Interview: EBRD nuclear safety director forms long-term view
- Chandrayaan 2: Godrej Aerospace plays a very important role in several ISRO missions, says top company official
- U.S. Experts Want Details On Blast At Russian Missile Test Site
- Mystery Surrounds Last Week's Nuclear Accident In Russia

Q. Original Documents

- Issuance of CBW Act-related Executive Order; Publication of CBW Act Directive and Frequently Asked Questions

A. India

Cabinet approves MoU between India and Tunisia on Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes

PIB Delhi, August 5, 2019

The Union Cabinet chaired by Prime Minister Narendra Modi has given ex post-facto approval to the Memorandum of Understanding (MoU) between India and Tunisia on Cooperation in the Exploration and Use of Outer space for Peaceful Purposes. The MoU was signed at Bengaluru, India on 11th June, 2019.

Impact:

- This Agreement shall enable the following cooperation in space science, technology and applications including areas, such as remote sensing of the earth; satellite communication and satellite-based navigation; Space science and planetary exploration. Use of spacecraft and space systems and ground system; and application of space technology.
- The Agreement would lead to setting up of a Joint Working Group, drawing members from Department of Space/ ISRO, India and the National Centre for Cartography and Remote Sensing, Tunisia which will further work out the plan of action including the time-frame and the means of implementing this MoU.

Background:

Tunisian Minister for Communication Technologies and Digital Economy, during his visit to India in July 2015 expressed interest to pursue space cooperation with India. Tunisia is in the process of evolving space programme and desired to learn from ISRO's experience for the same.

As a follow up, India and Tunisia have signed the MoU at Bengaluru, India.

<http://pib.gov.in/>

[PressReleaseDetail.aspx?PRID=1581386](http://pib.gov.in/PressReleaseDetail.aspx?PRID=1581386)

ISRO announces Vikram Sarabhai Journalism Award in Space Science, Technology and Research

PIB Delhi, August 7, 2019

As part of centenary year celebrations of Dr. Vikram Sarabhai, father of Indian space programme, ISRO institutes two categories of awards in journalism. ISRO has announced its "Vikram Sarabhai Journalism Award in Space Science, Technology and Research" to recognize and reward journalists who have actively contributed towards the field of space science, applications, and research. The nominations are open to all Indians who have a good experience in journalism. The articles published from 2019 to 2020 will be considered, says the Indian Space Research Organisation (ISRO).

There are two categories of awards, wherein the first category holds a cash price of Rs 5,00,000, a medal and citation and two journalists or freelancers of print media will be awarded. Nominated candidates will be judged on the basis of the articles or success stories published in Hindi, English, or Regional languages in popular Periodicals, Science magazines, or Journals in India during the year 2019 to 2020.

<http://pib.gov.in/>

[PressReleaseDetail.aspx?PRID=1581441](http://pib.gov.in/PressReleaseDetail.aspx?PRID=1581441)

2-day exhibition on DAE Technologies: Empowering India through Technology, inaugurated in New Delhi

PIB Delhi, August 11, 2019

The Department of Atomic Energy (DAE), Government of India, is organizing a two-day exhibition on DAE spin-off technologies for non-power applications at New Moti Bagh recreation club, New Delhi. The exhibition was inaugurated by the Secretary, Union Public Service Commission (UPSC) Shri Rakesh Gupta here today. The exhibition is open to public for two days (Aug 11-12, 2019).

The exhibition is covering technologies developed by the Bhabha Atomic Research Centre (BARC), Raja Ramanna Centre for Advance Technology, Indore and other Units of Department of Atomic Energy (DAE), which are useful for the common man in day-to-day life e.g. in the field of health, agriculture, water, food security and environment.

<http://pib.gov.in/PressReleseDetail.aspx?PRID=1581764>

Vikram lander will land on Moon as a tribute to Vikram Sarabhai from crores of Indians: PM Shri Narendra Modi

PIB Delhi, August 12, 2019

The centenary celebration of the birth anniversary of the founding father of ISRO - Dr. Vikram Sarabhai kicked off in Ahmedabad today in the presence of dignitaries from ISRO, Department of Space, Department of Atomic Energy and members of Sarabhai Family. Prime Minister of India Shri Narendra Modi addressed the gathering through a video message.

In his Video message, Shri Narendra Modi said that it will be a tribute to Dr. Sarabhai from crore of Indians in true sense when 'Vikram' lander will land on Moon. He also said that Vikram Sarabhai's ideology leads India to become a powerful country in the field of science and technology. Shri Modi said Dr. Homi Bhabha's demise had created a vacuum in the world of Indian science. At that time, Vikram Sarabhai gave a new dimension to science with his skills and leadership ability.

Describing Dr. Vikram Sarabhai as a dedicated soldier of Science, Shri Modi said that he encouraged science as well as India's culture and Sanskrit language. He always gave time for the students. Shri Modi said that Dr. Vikram Sarabhai has left a legacy for us and it is our responsibility to take this legacy to the people. He also encouraged school children to participate in the online space quiz launched by ISRO.

<http://pib.gov.in/PressReleseDetail.aspx?PRID=1581802>

Arms tangle

Sandeep Unnithan, India Today, August 2, 2019

As a missile system, the S-400 has no peers. It is the equivalent of a gigantic fly-swatter that can knock down anything in the air. Its manufacturers say the missile system can track 300 targets over 600 km away and use four different types of missiles to shoot down fighter jets, drones, cruise missiles and tactical ballistic missiles 400 km away (see graphic overleaf). It is Russia's trump card in the highly competitive arms business-NATO member Turkey has it and even US allies like Saudi Arabia and Qatar are looking to buy it. The S-400 is also today the crown jewel in a burgeoning India-Russia arms relationship. India signed a \$5.4 billion (Rs 40,000 crore) deal to buy five missile systems on October 5, 2018. Each system comprises eight launchers, 32 missiles, a command post and multiple tracking and fire control radars. The deal was signed in the teeth of stiff opposition from the US. Both countries set up a special banking mechanism to pay for it in euros rather than dollars to bypass US financial channels.

By the end of next year, India will get its first missile system, making us the third global customer after China and Turkey. All five systems will be delivered by April 2023. The US has raised a geopolitical storm over the sales. It has halted deliveries of its frontline F-35 fighter aircraft to Turkey and imposed sanctions on China for buying the missile. Washington has issued veiled warnings of "consequences" as it dangles a Damocles-like sword of Countering America's Adversaries Through Sanctions Act (CAATSA) over New Delhi. Russia has been under US sanctions since 2014 for its intervention in Ukraine, annexation of Crimea and alleged attempts to influence the 2016 US presidential elections.

<https://www.indiatoday.in/magazine/the-big-story/story/20190812-arms-tangle-1576007-2019-08-02>

Nuke plants' rescue jolts conservatives, environmentalists

New Delhi Times, August 2, 2019

A financial rescue for Ohio's nuclear plants and two coal-fired plants that will force the state's residents and businesses to fork over roughly \$1.5 billion is galvanizing environmentalists and some conservatives.

Advocacy groups and investors, incensed by what they call a bailout and how it will diminish the state's natural gas and green energy options, are looking at mounting a campaign to overturn it and targeting Republicans who backed it. Organizations representing the state's seniors and manufacturing plants are upset, too.

The upheaval comes as the Trump administration continues with its pledge to boost the nuclear and coal industries by easing regulations and guaranteeing loans for two new commercial reactors. But the fallout in Ohio shows how attempting to influence the market can be risky and alienate a wide swath of voters.

<https://www.newdelhitimes.com/nuke-plants-rescue-jolts-conservatives-environmentalists/>

Earth as viewed by Chandrayaan-2: Isro shares 1st pictures

India Today, August 4, 2019

Indian Space Research Organisation's (Isro) Chandrayaan-2 has sent first pictures of Earth as viewed in space.

In a series of tweets, Isro shared the Earth's pictures clicked by LI4 Camera of



Chandrayaan-2's Vikram lander on August 3, 2019.

"Earth as viewed by #Chandrayaan2 LI4 Camera on August 3, 2019 17:34 UT," Isro tweeted along with the pictures.

Earlier in July, Isro had said the Chandrayaan-2 spacecraft was in "good health" and moving in the "right direction".

<https://www.indiatoday.in/science/story/earth-chandrayaan-2-isro-shares-1st-pictures-1577036-2019-08-04>

Indian science has landmark moment at ITER, a global effort to create first-ever nuclear fusion device

Nandita Jayaraj, Firstpost, August 5, 2019

Chandrayaan 2 was not India's only big science and tech achievement this July. Just a day after the launch of the rocket, unbeknownst to most of us, was another momentous occasion. The stars of this lesser-hyped show were a group of Indian nuclear physicists and engineers stationed at Saint-Paul-lès-Durance, a town of about 1,000 inhabitants in the south of France.

This is the site of ITER, a 35-country-effort to build the world's first nuclear fusion device that, if all goes well, will be capable of producing electricity for our commercial purposes by 2045. Nine per cent of the \$25 billion worth project is being borne by India as an 'in kind' contribution and 23 July 2019 was a celebration of this contribution.

<https://www.firstpost.com/world/science-technology/after-chandrayaan-2-another-milestone-for-indian-science-with-iter-a-global-effort-to-create-first-ever-nuclear-fusion-device-7095161.html>

Chandrayaan 2: When will Lunar spacecraft reach Moon's orbit? ISRO reveals date

Financial Express, July 12, 2019

India's second moon mission 'Chandrayaan-2' is expected to reach the moon's orbit on August 20 and land on

the lunar surface on September 7, Indian Space Research Organisation (ISRO) Chairman Dr K Sivan said on Monday. The spacecraft is all set to leave the earth's orbit after two days, he told reporters here. Sivan was in the city to take part in the birth centenary celebrations of Dr Vikram Sarabhai, regarded as the father of India's space programme.

The 3,850-kg Chandrayaan-2, a three-module spacecraft comprising orbiter, lander and rover, which was launched on July 22, would make a landing on the moon on September 7, the ISRO chief said. "After launching Chandrayaan-2 on July 22, we did five maneuvers. The Chandrayaan-2 composite body is now revolving around the earth," he said. The next very important and crucial maneuver will happen on Wednesday morning.

<https://www.financialexpress.com/lifestyle/science/chandrayaan-2-when-will-lunar-spacecraft-reach-moons-orbit-isro-reveals-date/1673586/>

ISRO's new commercial arm gets first booking for launch

Johnson T A, The Indian Express, August 12, 2019

The US provider, Spaceflight, announced on August 8 that it has clinched a deal with NSIL for using the second developmental flight of the under-development SSLV rocket to launch a spacecraft for an "undisclosed US-based satellite constellation customer".

Newspace India Limited (NSIL), the newly created second commercial arm of the Indian Space Research Organisation, has bagged its first contract. A private US space services provider has booked ISRO's Small Satellite Launch Vehicle (SSLV), which is yet to be tested, for launching a spacecraft.

<https://indianexpress.com/article/technology/science/isros-new-commercial-arm-gets-first-booking-for-launch-5897122/>

ISRO's success is Vikram Sarabhai's lasting legacy

Financial Express, August 14, 2019

The 100th birth anniversary of Vikram A Sarabhai, the doyen of space research in

India, has just passed, and the lander in Chandrayaan-2, India's ambitious lunar mission that puts it in the elite club of space-exploring nations, has been named Vikram, an apt tribute. But, it is indeed Isro's success that is the most befitting tribute to the vision of the Cambridge-trained scientist who, at 28 years of age, laid the foundations of India's space programme way back in 1947, by persuading a handful of prominent business people to fund a research institution near his home. That is how the Physical Research Laboratory in Ahmedabad, the cradle of India's space research, was born. Sarabhai, a contemporary of Homi J Bhaba, the father of India's nuclear programme, and served as the chairman of the Atomic Energy Commission. Buoyed by the vision they shared on nation-building with Jawaharlal Nehru, Sarabhai and Bhaba put India on the path to developing the technological muscle it has today. Some of India's top institutions – the Indian Institute of Management, Ahmedabad, and the Space Application Centre (under the aegis of Isro), to name two – owe their existence to Sarabhai's vision and efforts.

<https://www.financialexpress.com/opinion/isros-success-is-vikram-sarabhais-lasting-legacy/1674946/>

B. China

New port will host sea-based space launches

Zhao Lei, China Daily, August 1, 2019

The State-owned space conglomerate China Aerospace Science and Technology Corp is working with the eastern coastal province of Shandong to start construction of a port for sea-based space launches before the end of this year. The Beijing-based space giant said on Tuesday that during a recent visit by Ling Wen, deputy governor of Shandong, to the company's headquarters, a strategic cooperation framework agreement was signed by the China Academy of Launch Vehicle Technology, city government of Yantai, and Shenzhen-headquartered China International Marine Containers Group to

jointly build an eastern coastal space port in Haiyang, a city administered by Yantai.

The move aims to support future sea-based launches and boost the development of space-related businesses in Shandong. The project will make use of Yantai's unique location, existing harbors and local space research and marine engineering facilities. Upon completion, the port will consist of support facilities for sea-based space missions and four research and production centers for carrier rockets, satellite equipment, sea-launch platforms as well as satellite data and applications.

<http://www.chinadaily.com.cn/a/201908/01/WS5d4238f8a310d830564021f8.html>

Shanghai kicks off military recruitment, targeting college graduates

Global Times, August 1, 2019

Conscription in the metropolis started on Thursday and will end on September 30. Chen Lixin, commander of the Shanghai Garrison Command and head of the conscription office of the Shanghai government, said that conscription in 2019 targets college students to ensure an increase of university students entering the military in terms of number and proportion, according to the report. Young male applicants with an education background above high school are qualified for the conscription.

<http://www.globaltimes.cn/content/1159987.shtml>

China builds more powerful 'eyes' to observe the sun

Liu Caiyu, Global Times, August 1, 2019

Chinese scientists are building new devices to watch the sun from North China, which will enhance China's capability of detecting and forecasting spatial disasters caused by solar variation. Researchers at the Ming'antu Observing Station based in the Inner Mongolia Autonomous Region are building three new devices to monitor the sun - a decameter wave radio heliograph, an

interplanetary scintillation telescope and an ultra-wideband solar radio dynamic spectrometer, the Xinhua News Agency reported on Wednesday. Tan said those devices, "like eyes to a human," will enhance China's ability to detect and warn of severe spatial weather variation such as a cosmic ray storm. The decameter wave radio heliograph would also fill in gaps on observation of a solar radio burst, according to Xinhua.

<http://www.globaltimes.cn/content/1160054.shtml>

Commander of PLA Garrison in HK says violence 'totally intolerant'

China Military Online, August 1, 2019

The commander of the Chinese People's Liberation Army (PLA) Garrison in the Hong Kong Special Administrative Region (HKSAR) on Wednesday strongly condemned the recent violent acts in Hong Kong and vowed to firmly safeguard national sovereignty. Chen Daoxiang made the remarks during a reception in Hong Kong to mark the 92nd anniversary of the founding of the PLA. He noted that a series of violent incidents have seriously undermined the overall prosperity and stability of the HKSAR, challenged the rule of law and social order in Hong Kong and threatened the safety of life and property of Hong Kong residents. These violent acts have touched the bottom line of the "one country, two systems" principle and are "totally intolerant," Chen said.

http://eng.chinamil.com.cn/view/2019-08/01/content_9576436.htm

7th Military World Games torch relay starts from Nanchang

China Military Online, August 1, 2019

A torch-lighting ceremony for the 7th Military World Games was held on Thursday in Nanchang in East China's Jiangxi province, cradle of the People's Liberation Army (PLA). August 1 also marks the 92nd anniversary of the founding of the PLA. Over 10,000

participants from more than 100 countries and regions are expected to compete in the event, which will be held in Wuhan, capital of central China's Hubei Province, between October 18 and 27. Held in China for the first time, the highest-standard multi-sport event for soldiers from across the globe, known as the "Olympics for the military personnel", is under the theme of "Military Glory, World Peace."

http://english.chinamil.com.cn/view/2019-08/01/content_9576432.htm

China's micro lunar orbiter crashes into Moon under control

Xinhua, August 2, 2019

China's micro lunar orbiter Longjiang-2 has crashed into the Moon under ground control after it completed its mission, according to the Lunar Exploration and Space Program Center of the China National Space Administration. The micro satellite crashed into a predetermined area on the far side of the Moon at 10:20 pm on July 31 (Beijing Time), the center said Friday. Weighing 47 kg, Longjiang-2 was sent into space on May 21, 2018, together with the Chang'e-4 lunar probe's relay satellite "Queqiao," and entered the lunar orbit four days later. It operated in orbit for 437 days, exceeding its one-year designed lifespan.

<http://www.chinadaily.com.cn/a/201908/02/WS5d43d539a310cf3e355638fe.html>

Russian deputy defense minister: China-Russian relations help safeguard international stability

China Military Online, August 2, 2019

On the evening of July 30, local time, the Chinese Embassy in the Russian Federation hosted a reception to celebrate the 92nd anniversary of the founding of the Chinese People's Liberation Army (PLA) which falls on Aug. 1st. Colonel General Alexander Fomin, Russian Deputy Minister of Defense, and other senior military officials, as well as representatives from Russian government, Parliament, Veteran Fighters' Committee.

In his speech, Col. Gen. Fomin stressed that relationship between China and Russia has risen to an unprecedented height, which would help ensure the stability of the international community. However, in current world, there is unfortunately a growing tension; the aggressive rhetoric and frequent provocation is especially rampant. Under such circumstance, the cooperation between China and Russia will make much greater contribution to the maintenance of world peace and regional stability.

http://english.chinamil.com.cn/view/2019-08/02/content_9577029.htm

China opposes U.S. withdrawal from INF Treaty

Xinhua, August 2, 2019

China deeply regrets and strongly opposes the United States' withdrawal from the Intermediate-Range Nuclear Forces (INF) Treaty, a foreign ministry spokesperson said on Friday. "Withdrawing from the INF is another negative move by the U.S., ignoring its own international commitment and resorting to unilateralism," spokesperson Hua Chunying said at a press briefing. Hua's remarks came after U.S. National Security Adviser John Bolton confirmed the United States would withdraw from the treaty on August 2.

"We urge the U.S. to show restraint and not to take actions undermining other countries' security interests but to fulfill its responsibility as a major power and safeguard global and regional peace and security with the international community," Hua said. She also called on the international community to be aware of the severe consequences of the United States' withdrawal from the treaty and prevent the U.S. from shaking off its special and primary responsibility in nuclear disarmament.

http://www.xinhuanet.com/english/2019-08/02/c_138279313.htm

China rebukes accusation of militarizing South China Sea

Xinhua, August 2, 2019

China rejected to be labeled as militarizing the South China Sea, Chinese State Councilor and Foreign Minister Wang Yi said here on Friday. Wang made the remarks in response to accusations from a certain non-regional power regarding the South China Sea issue during the ASEAN (the Association of Southeast Asian Nations) foreign ministers' meeting and other related meetings. Wang said, with the joint efforts of China and ASEAN countries, the situation of the South China Sea has generally maintained stable and has been improving.

China, a safeguarding power of regional peace, pursues a national defense policy that is defensive in nature, Wang said, noting that it is a legitimate right for a sovereign state by international law to deploy defensive facilities on its territory. The non-regional great power criticizes China for "militarization" in the South China Sea, but it is the same country that boasts hundreds of military bases across the world and deploys hundreds of thousands of troops outside its own territory, Wang said. "How a country that muscles militarization all around the world has the legitimacy and rights to blame other countries for militarization? China would by no chance buy the label," Wang said.

http://www.xinhuanet.com/english/2019-08/02/c_138279431.htm

China deeply regrets and strongly opposes U.S. withdrawal from nuclear Treaty

Xinhua, August 2, 2019

"Withdrawing from the INF is another negative move by the U.S., ignoring its own international commitment and resorting to unilateralism," foreign ministry spokesperson Hua Chunying said at a press briefing. China deeply regrets and strongly opposes the United States' withdrawal from the Intermediate-Range Nuclear Forces (INF) Treaty, a foreign ministry spokesperson said on Friday. "Withdrawing

from the INF is another negative move by the U.S., ignoring its own international commitment and resorting to unilateralism," spokesperson Hua Chunying said at a press briefing. Hua's remarks came after U.S. National Security Adviser John Bolton confirmed the United States would withdraw from the treaty on August 2.

http://www.xinhuanet.com/english/2019-08/02/c_138279396.htm

China urges Western nations not to intervene in Hong Kong affairs

Xinhua, August 2, 2019

Hua Chunying made the remarks when commenting on reports that U.S. President Donald Trump had described what was happening in Hong Kong as "riots for a long period of time" that China will have to deal with itself. said President Trump is right in at least two sentences. "First, what is happening in Hong Kong is a kind of disturbance and riot. Second, Hong Kong is a part of China," Hua told a press briefing. "Hong Kong affairs are purely China's internal affairs. The Chinese government will never allow any outside forces to intervene in Hong Kong affairs, still less allow any attempt of outside forces to disrupt Hong Kong." "China strongly urges the United States and some other Western countries to abide by international law and the basic norms of international relations, honor their commitment not to interfere in Hong Kong affairs, and stop supporting violent activities and interfering in Hong Kong affairs in any form," she added.

http://www.xinhuanet.com/english/2019-08/02/c_138279430.htm

China destabilizing Indo-Pacific: U.S. Defense Secretary

Idrees Ali, Colin Packham, Reuters, August 4, 2019

China is destabilizing the Indo-Pacific, U.S. Defense Secretary Mark Esper said on Sunday, charging Beijing with predatory economics, intellectual property theft and

“weaponizing the global commons”. The comments by Esper on his first overseas trip as U.S. defense secretary threaten to inflame already heightened tensions between Washington and Beijing as they wage an escalating trade war. China’s increasing assertiveness, especially in the energy-rich South China Sea, has raised concerns within the region and the United States is challenging Chinese maritime hegemony and seeking stronger ties with nations pushing back against Beijing.

<https://www.reuters.com/article/us-australia-usa-china/china-destabilizing-indo-pacific-u-s-defense-secretary-idUSKCN1UU045>

Chinese light tank to get added protection

Liu Xuanzun, Global Times, August 4, 2019

China’s made-for-export light tank, VT5, is expected to be outfitted with an active protection system, state broadcaster reported, which will enable the thin-armored tank to significantly expand its defense capability. An active protection system could detect incoming hostile projectiles before firing interception rockets to detonate them before they hit the tank, China Central Television (CCTV) reported on Saturday. China announced the development of such a system in 2017, the report said.

“Compared to a heavy main battle tank, a light tank like the VT5 carries lighter armor, meaning weaker passive protection. Using an active protection system would be a great choice,” a military expert who requested anonymity told the Global Times on Sunday. This system is small and light, CCTV said, making it viable on a light tank. The active protection system is advanced technology that most tanks in the world are still not equipped with due to high costs, the expert said. The tank is also equipped with a sensor system that sends a warning when the tank is aimed by a laser beam, which can notify the operators to take evasive maneuvers like releasing smoke, CCTV reported.

<http://www.globaltimes.cn/content/1160253.shtml>

China’s envoy has doubts about joining U.S. and Russia in a nuclear deal

China Military Online, August 5, 2019

China’s new ambassador to the United Nations, Zhang Jun, said China regrets that the United States is withdrawing from the landmark 1987 nuclear missile pact with Russia and expressed doubt about joining the U.S. and Russia in a nuclear deal. “We made China’s position clear on many occasions on whether we will participate in similar negotiations. Right now, we do not see any conditions or basis for China to join the negotiations between the U.S. and Russia. Russia also made public statements on this. It totally understands China’s position on the so-called China-U.S.-Russia trilateral disarmament negotiation,” said China’s Foreign Ministry spokesperson Geng Shuang in July.

http://eng.chinamil.com.cn/view/2019-08/05/content_9579083.htm

China calls US officials’ remarks in Australia ‘unwarranted attacks’

Global Times, August 5, 2019

US officials’ recent remarks in Australia are unwarranted attacks and slandering against China, which exposed the lingering hegemonic mentality of certain forces in the US, the Chinese Embassy in Australia said. “Their intention is doomed to fail,” reads a statement the embassy released on its website on Sunday. US Defense Secretary Mark Esper and Secretary of State Mike Pompeo met their Australian counterparts in Sydney on Sunday at an annual security forum, Reuters reported.

During the meeting, Esper accused China of “destabilizing the Indo-Pacific region with predatory economics, intellectual property theft” and “weaponizing the global commons,” according to the report. In response, the Chinese Embassy said that the situation in the South China Sea remains generally stable, and it is the forces from outside of the region like the

US that are stirring up troubles and sowing discord with ill intentions.

<http://www.globaltimes.cn/content/1160385.shtml>

Chinese team sets new record of "Suvorov Attack" race at int'l army games

Xinhua, August 5, 2019

A Chinese team refreshed the record for the "Suvorov Attack" infantry combat vehicle competition Sunday at the International Army Games 2019 in Korla, northwest China's Xinjiang Uygur Autonomous Region. The Chinese crew finished a series of missions in 16 minutes and 12.95 seconds, including quick shot and obstacle crossing, outpacing eight other crews from China, Iran and Zimbabwe in the first group match.

http://www.xinhuanet.com/english/2019-08/05/c_138283442.htm

China's H-6K bomber expected to be armed with hypersonic weapons

Liu Xuanzun, Global Times, August 6, 2019

The main mission objective of China's H-6K bomber is to strike key strategic points deep within enemy territories, the state broadcaster revealed, leading experts to predict that the warplane could eventually be armed with hypersonic weapons that can destroy hostile military hubs 3,000 kilometers away within minutes. Together with J-20 stealth fighters, H-6Ks could devastate the enemy's fighting capability even before a war gets fully underway, analysts said. "In a war, our main objective is to launch attacks on an enemy's deep and vital positions, paralyzing their facilities. This is what we especially excel at," said H-6K pilot Li Ping, China Central Television (CCTV) reported on Tuesday.

<http://www.globaltimes.cn/content/1160495.shtml>

Nuclear power efforts gather speed

Liu Zhihua, China Daily, August 6, 2019

Third-generation technologies set to keep industry on even keel in nation, say experts

China's growing clean power demand has boosted the rapid development of nuclear power in the country, making it among the few in the world to have independently developed third-generation nuclear power technology, with a complete industry chain, industry experts said. The first two reactor units using China's homegrown third-generation nuclear reactor technology Hualong One, or the No 5 and 6 reactors in Fuqing Nuclear Power Plant in Fuzhou, Fujian province, are expected to avoid time overruns, creating a record in the construction of the first reactor in a nuclear power project.

<http://www.chinadaily.com.cn/a/201908/06/WS5d48c09ca310cf3e3556408e.html>

China to counter U.S. deployment of intermediate-range missiles in Asia

China Military Online, August 6, 2019

China will take countermeasures if the U.S. deploys intermediate-range missiles in Asia, said Fu Cong, director general of the Department of Arms Control at the Chinese Foreign Ministry, at a press conference on Tuesday. U.S. Defense Secretary Mark Esper said on Saturday in Australia that he was in favor of placing ground-launched, intermediate-range missiles in Asia relatively soon, possibly within months.

"All of China's land-based short- and intermediate-range missiles are deployed within our territory, which testifies to the defensive nature of our defense policy," China's new ambassador to the United Nations, Zhang Jun, said earlier on Saturday that China regrets that the United States is withdrawing from the landmark 1987 nuclear missile pact with Russia and expressed doubt about joining the U.S. and Russia in a nuclear deal. "The United States is saying China should be a party in this disarmament agreement, but I think everybody knows that China is not at the same level with the United States and the Russian Federation," he said.

http://english.chinamil.com.cn/view/2019-08/06/content_9581118.htm

China might escort ships in Gulf under U.S. proposal: envoy

Alexander Cornwell, Reuters, August 6, 2019

China might escort Chinese commercial vessels in Gulf waters under a U.S. proposal for a maritime coalition to secure oil shipping lanes following attacks on tankers, its envoy to the United Arab Emirates said on Tuesday. "If there happens to be a very unsafe situation we will consider having our navy escort our commercial vessels," Ambassador Ni Jian told Reuters in Abu Dhabi. "We are studying the U.S. proposal on Gulf escort arrangements," China's embassy later said in a text message. Washington is lobbying other nations to join a maritime security coalition at a time of heightened tensions with Iran, which the United States has blamed for explosive blasts on tankers near the Strait of Hormuz, a charge Tehran denies.

<https://www.reuters.com/article/us-mideast-iran-tanker-china/china-might-escort-ships-in-gulf-under-u-s-proposal-envoy-idUSKCN1UW1DR>

China vows to counter US deployment of midrange arms in Asia

Christopher Bodeen, Taiwan News, August 6, 2019

China said Tuesday that it "will not stand idly by" and will take countermeasures if the U.S. deploys intermediate-range missiles in the Asia-Pacific region, which Washington has said it plans to do within months. The statement from the director of the foreign ministry's Arms Control Department, Fu Cong, follows the U.S.'s withdrawal last week from the Intermediate-Range Nuclear Forces Treaty, a move Fu said would have a "direct negative impact on the global strategic stability" as well as security in Europe and the Asia-Pacific region. Fu said China was particularly concerned about announced plans to develop and test a land-based intermediate-range missile in the Asia-Pacific "sooner rather than later," in the words of one U.S. official.

"China will not stand idly by and be forced to take countermeasures should the U.S. deploy intermediate-range ground-based

missiles this part of the world," Fu told reporters at a specially called briefing. He also advised other nations, particularly South Korea, Japan and Australia, to "exercise prudence" and not allow the U.S. to deploy such weapons on their territory, saying that would "not serve the national security interests of these countries." U.S. Defense Secretary Mark Esper said in Asia over the weekend that he wanted to deploy midrange conventional missiles in the Asia-Pacific within months.

<https://www.taiwannews.com.tw/en/news/3759935>

Lunar rover sleeps after record travel

Zhao Lei, China Daily, August 9, 2019

China's Yutu 2 lunar rover has entered its eighth period of dormancy on the moon's far side and is in good condition after traveling 271 meters, according to China National Space Administration. In a statement sent to China Daily on Thursday, the administration said the rover, China's second movable robot on the moon after Yutu, was switched to dormant mode at around 5:50 pm on Wednesday after receiving signals from ground control. Yutu 2 is part of the Chang'e 4 robotic probe.

Before its dormancy, the machine had traveled 271 meters on the lunar surface, more than double the distance covered by Yutu, which reached the moon in December 2013 and worked there until July 2016. The administration said that on the lunar day that just ended, Yutu 2 and Chang'e 4's lander, which has also entered a dormancy period, obtained a great deal of scientific data.

<http://www.chinadaily.com.cn/a/201908/09/WS5d4cca07a310cf3e35564bc9.html>

AI powers the way for improved lives

Xing Yi, China Daily, August 9, 2019

Wang Chaofeng lost both hands and forearms in an accident more than 25 years ago when he was fixing a high-voltage

wires while serving in the People's Liberation Army Air Force in Jinan, Shandong province. "In the past two decades, I have gradually accepted the reality and learned to live with it," said Wang, 48. "But I still long to use my hands to do things, just like other people." He tried artificial limbs, but said they could only perform a simple pincer-like movement. "I looked up some electronically controlled prostheses, but they were all too expensive," he said.

But things changed for Wang last year, when OYMotion Technologies, a Chinese startup, contacted him to take part in testing the company's prototype of a myoelectric artificial arm, an externally powered device controlled by electric signals generated by the user's muscles. With two sensors embedded in his upper arms along with battery-powered mechanical hands, Wang can control the prosthesis to perform more than a dozen different grips.

<http://www.chinadaily.com.cn/a/201908/09/WS5d4cc8fba310cf3e35564bbe.html>

Two Tu-95 bombers conduct flights over Bering Sea

Global Times, August 9, 2019

Two Russian Tu-95MS strategic bombers carried out 10-hour flights with the company of U.S. aircraft over the Bering Sea as part of the Ocean Shield-2019 naval exercises, the Russian Defense Ministry said Thursday. "Two Tu-95MS missile-carrying strategic bombers of the Russian Aerospace Forces performed flights over the neutral waters of the Bering Sea in the framework of the Ocean Shield-2019 operational exercise. The flight lasted for more than 10 hours," the ministry said in a statement.

It added that the aircraft were escorted by F-22 and F-18 fighter jets of the U.S. Air Force at certain stages of the flights. Aircraft of long-range aviation regularly conducted flights over international waters in the Arctic region, the Atlantic Ocean, the Black Sea and the Pacific Ocean in strict compliance with the international rules for the use of airspace, without violating other countries' borders, the ministry said.

<http://www.globaltimes.cn/content/1160851.shtml>

Canada may have assisted China's bio-warfare program with transfer of lethal viruses

Duncan DeAeth, Taiwan News, August 9, 2019

A startling report from Canada on Thursday (Aug. 8) reveals that Canadian health officials approved the transfer of dangerous virus samples to China in March of 2019, which could potentially be used to advance a dangerous bio-warfare program in the secretive communist state. Officials from Canada's National Microbiology Laboratory (NML) have defended the transfer of Henipavirus and Ebola samples as part of an international public health research campaign. However, experts in the field are raising alarm about the transfer, which is now reportedly at the center of a government investigation by the Royal Canadian Mounted Police (RCMP).

A senior scientist working with the Ebola samples at the Winnipeg-based NML, Xiangguo Qiu, was abruptly removed from her position in mid-July. Her firing was made official after the scientist, her husband Keding Cheng, and an unknown number of Chinese students were removed from the laboratory for an unspecified "policy breach" on July 5.

<https://www.taiwannews.com.tw/en/news/3761093>

China, France pledge to enhance cooperation in easing tensions on Iran nuclear issue

Xinhua, August 9, 2019

China is willing to work with France to prevent further escalation of tensions on the Iran nuclear issue, Chinese State Councilor and Foreign Minister Wang Yi said on Friday in a phone conversation with Emmanuel Bonne, diplomatic counselor to French President Emmanuel Macron. During the phone talks, Wang expressed China's support for the mediation efforts France has made to resolve the stalemate on the Iran nuclear issue, saying that China has also made huge

efforts in saving the Iran nuclear deal, officially known as the Joint Comprehensive Plan of Action (JCPOA). Adhering to the deal means safeguarding multilateralism, safeguarding fairness and justice, and safeguarding regional security and stability, said Wang.

http://www.xinhuanet.com/english/2019-08/09/c_138296977.htm

China and Tajikistan kicks off joint counter-terrorism exercise

Lu Peng and Wu Shike, China Military Online, August 12, 2019

The opening ceremony of the “Cooperation-2019” China-Tajikistan joint counter-terrorism exercise was held at the Jilondi training range in Gorno-Badakhshan, Tajikistan, on August 7. It is learnt that the joint counter-terrorism exercise will last till the 16th. About 1,200 troops from both sides joined the exercise, including approximately 580 troops from various units and services of the Chinese PLA Western Theater Command.

http://english.chinamil.com.cn/view/2019-08/12/content_9587478.htm

Reusable rocket completes third test

Li Danqing, China Daily, August 12, 2019

A RLV-T5 rocket blasts off in a base in Northwest China’s Qinghai province on Aug 10, 2019.

LinkSpace Aerospace Technology, a private space industry startup in Shenzhen, Guangdong province, completed its third test of a reusable rocket on Saturday morning. It flew as high as 300.2 meters before returning to the launchpad on its own after 50 seconds.

http://www.chinadaily.com.cn/a/201908/12/WS5d511226a310cf3e355653ec_2.html

China’s second aircraft carrier can carry 50% more fighter jets than its first

China Military Online, August 13, 2019

China’s second aircraft carrier can carry at least 36 domestically developed J-15 fighter

jets, some 50 percent more than the country’s first, state broadcaster reported on Tuesday. China’s first aircraft carrier, the Liaoning, can carry 24 J-15 fighter jets, China Central Television (CCTV) reported, noting the new ship’s increased number of fighter jets will add to its already considerable capability.

http://eng.chinamil.com.cn/view/2019-08/13/content_9588884.htm

Second aircraft carrier can carry 36 J-15 fighters

Liu Xuanzun, Global Times, August 13, 2019

China’s second aircraft carrier can carry at least 36 domestically developed J-15 fighter jets, some 50 percent more than the country’s first, China’s state broadcaster reported on Tuesday. China’s first aircraft carrier the Liaoning can carry 24 J-15 fighter jets, China Central Television (CCTV) reported, noting the new ship’s increased number of jets will add to its capability. Although the second carrier known as the Type 001A is similar to the Liaoning, it has an optimized flight deck, reduced weapon areas and a smaller superstructure with added deck areas, Li Jie, a Beijing naval expert, told the Global Times on Tuesday. Li noted that it also has an enlarged hangar, but reduced space for missile storage compared to the Liaoning.

<http://www.globaltimes.cn/content/1161288.shtml>

Satellite photos appear to show Chinese APCs near Hong Kong

AP News, August 14, 2019

Satellite photos show what appear to be armored personnel carriers and other vehicles belonging to the China’s paramilitary People’s Armed Police parked in a sports complex in the city of Shenzhen, in what some have interpreted as a threat from Beijing to use increased force against pro-democracy protesters across the border in Hong Kong. The pictures collected on Monday by Maxar’s WorldView show 500 or more vehicles sitting on and around the soccer stadium

at the Shenzhen Bay Sports Center just across the harbor from Asian financial hub that has been rocked by more than two months of near-daily street demonstrations.

Chinese state media have said only that the exercises had been planned before hand and were not directly related to the unrest in Hong Kong, although they came shortly after the central government in Beijing said the protests were beginning to show the "sprouts of terrorism."

<https://www.apnews.com/3fe7654b146b4f85b8f34f8f68881133>

China no longer world's factory

Taipei Times, August 15, 2019

Two decades ago, Taiwanese industry began its decline as a result of China's opening its doors to the world. With its low labor, land and raw material costs, China turned itself into the world's factory.

This led to the hollowing out of Taiwanese industry as an increasing number of companies relocated to China. The common language and culture facilitated the process.

This made it more difficult for companies remaining in Taiwan to maintain their competitive edge; the nation bled jobs; and its economic reliance on a hostile country was exacerbated.

However, the economic tide is turning once again. Alongside its economic development and changes internationally, China has become a less attractive location for companies seeking to enhance their competitiveness by reducing costs. Chinese firms seeking to avoid rising labor and land costs have also begun to relocate overseas.

<http://www.taipetimes.com/News/editorials/archives/2019/08/15/2003720496>

Nuclear firms slapped with US restrictions

Liu Zhihua, China Daily, August 16, 2019

Move not expected to hinder China's drive to become high-tech energy powerhouse. The United States addition of four Chinese

nuclear power enterprises to its Entity List, restricting them from receiving US exports, will not affect China's ongoing transformation into a high-tech nuclear energy powerhouse, industry experts said. The US Department of Commerce's Bureau of Industry and Security added China General Nuclear Power Group and its subsidiaries China General Nuclear Power Co, China Nuclear Power Technology Research Institute Co and Suzhou Nuclear Power Research Institute Co to its Entity List on Wednesday. Companies on the list have to obtain a special license from the US government for US materials and technology exports. In practice, such approval is rarely granted.

Chinese companies previously added to the list include high-tech giant Huawei Technologies Co and five other tech firms in the fields of chips and supercomputing. Experts said the new US move is just part of its concerted efforts to hinder China's fast-growing nuclear industry, but such attempts will be in vain. "The restriction on CGN is another attempt to curb China's development, similar to that against Huawei," said Hu Chi, a researcher at the State-Owned Assets Supervision and Administration Commission. "However, China has homegrown nuclear power technologies and is able to design and manufacture most of the components and devices domestically, while among the few imported items, very few are from the US." China could always turn to other countries for similar imports or invest more in domestic research and development to avoid US imports, although existing nuclear power projects that use US technologies are likely to be affected, he said.

CGN, one of China's largest nuclear energy companies, said the US move will have "basically manageable influence" on the company's development. In October, the US government announced a new policy framework for civil nuclear cooperation with China which imposes significant restrictions on US exports of commercial nuclear technology, equipment and material to China. In 2016, the US Department of Justice accused

CGN of leading a conspiracy to steal US energy sector secrets. A senior nuclear energy expert at Shanghai Jiao Tong University, who asked to remain anonymous, said the restriction may have some influence on CGN's Hualong One project at the Bradwell nuclear power station in the United Kingdom, but it generally will have little impact on the company and China's nuclear power industry. "China has achieved a high level of domestic design and manufacturing capability across the nuclear power industrial chain. Although it still imports some design software and components from US, the three Chinese nuclear giants have all been ramping up efforts in related fields to reduce reliance on imports," he said.

While the US tries to curtail China's nuclear power sector, many other countries are more than happy to conduct commerce with China due to China's enormous investment in the sector and its huge market, he added. However, the expert was worried about the affect on academic communication between Chinese and US scholars as such exchanges are not immune from the US attitude on China's nuclear power sector. Lin Boqiang, dean of Xiamen University's China Institute for Studies in Energy Policy, said the US restriction damages normal trade relations that are fully based on market competition and supply and demand, and therefore the restriction harms everyone.

<http://www.chinadaily.com.cn/a/201908/16/WS5d55e849a310cf3e35566085.html>

Science and technology help nation achieve goals

Wang Xiaoyu, China Daily, August 16, 2019

China is on track to achieve its goal of boosting the contribution of scientific and technological progress in agriculture to more than 60 percent by the end of next year. Last year, innovations in the sector, including improved crop strains and more effective, environmentally friendly farming practices, accounted for 58.3 percent of total growth, up more than 10 percent from 2005 and nearly 5 percent higher than seven years ago, according to the Ministry of Agriculture and Rural Affairs.

Du Zhixiong, a researcher at the Rural Development Institute at the Chinese Academy of Social Sciences, said China's agricultural sector was plagued by inefficient production practices for many years, while annual output was highly susceptible to changes in climate. For example, from 1959 to 1961 large parts of the country experienced a severe drought. In 1961, the arid conditions reduced the total crop yield by 61 million metric tons, a 30 percent fall from 1958. Since the early 1980s, the central leadership has attached great significance to agricultural innovation. In 2015, investment in scientific and technological research reached 55 billion yuan (\$7.8 billion at today's rates), compared with 720 million yuan in 1978, Du said.

According to the ministry, more than 96 percent of fields dedicated to the cultivation of major crops, including rice, corn and wheat, are sown with high-yield, resilient species. A number of crop-breeding platforms that employ scientifically proven approaches—such as the use of "dwarf-sterile" wheat, the "super rice" system and hybrid corn breeding—have been established to fast-track improvements in edible crops and ensure the food supply is reliable and safe in the long term.

The wide application of modern farming techniques has also helped farmers to raise yields and reduce damage to the environment. At present, environmentally friendly methods are used to prevent and control pests on 56.7 million hectares under cultivation, accounting for 15 percent of the total area affected by such pests. Meanwhile, smarter use of pesticides in demonstration areas has reduced the use of chemicals by 20 to 30 percent, the ministry said. The use of fertilizers has been further contained as a result of a nationwide campaign launched in 2005. It aims to tailor the use of synthesized fertilizers to suit local soil conditions and improve awareness of the scientific management of fertilizers among farmers.

To date, the program has been used on 123 million hectares of land. In 2017, about 58

million tons of fertilizer were sprayed on farmland, a decline of nearly 1.25 million tons from the previous year. The application of fertilizer on land used for the cultivation of rice, wheat and corn has also been more productive, with the utilization rate—the amount of nutrients crops can absorb—rising from 35.2 percent in 2015 to 37.8 percent in 2017. As China continues to strengthen its ability to secure the food supply under all natural conditions, crop losses due to natural disasters have remained at 5.7 percent every year in the past decade, having fallen by a total of 3.6 percentage points from 1999 to 2008.

<http://www.chinadaily.com.cn/a/201908/16/WS5d5603f9a310cf3e3556613a.html>

Washington blacklists Chinese nuclear firms for ‘helping military acquire US technology’

South China Morning Post, August 15, 2019

The US added four Chinese nuclear entities to a trade blacklist, accusing them of helping to acquire advanced American technology for military use in China. China General Nuclear Power Group and its subsidiaries China General Nuclear Power Corporation (CGNPC), China Nuclear Power Technology Research Institute and Suzhou Nuclear Power Research Institute were added to the so-called Entity List, according to a Federal Register notice published on Wednesday.

The move follows a crackdown on US exports of civilian nuclear components and materials in recent years. In 2016 the Department of Justice accused China General Nuclear Power, the country’s largest nuclear group, of a plot dating back to the 1990s to steal US technology.

The Pentagon has also warned about China’s plans to introduce floating nuclear power plants on disputed islands and reefs in the South China Sea.

<https://www.scmp.com/news/china/diplomacy/article/3022975/washington-blacklists-chinese-nuclear-firms-helping-military>

China urges Japan to honor its commitment, take actions to win Asian neighbors’ trust

Xinhua, August 15, 2019

China on Thursday urged Japan to earnestly honor the statement and commitment it has made so far, after Japanese Prime Minister Shinzo Abe sent a ritual offering to the war-linked Yasukuni Shrine in Tokyo. “China has taken note of the negative move relating to Yasukuni Shrine from the Japanese side,” said Foreign Ministry spokesperson Hua Chunying, adding that this has once again reflected some Japanese politicians’ erroneous attitude toward history. She said Japan needs to take practical actions to win the trust of its Asian neighbors and the international community. The offering by the Japanese prime minister came as Japan observed the 74th anniversary of its surrender in World War II. According to reports, some Japanese cabinet members and lawmakers also paid tribute to the controversial shrine.

http://www.xinhuanet.com/english/2019-08/15/c_138312003.htm

China’s fighter drones possible with AI use: experts

Liu Xuanzun, Global Times, August 14, 2019

China’s plan to integrate artificial intelligence (AI) for drones would make fighter drones possible, allowing them to fly on their own, identify targets and make decisions to enhance their combat capability, Chinese military experts said on Wednesday. Speaking on the future of China’s military drones on a China Central Television (CCTV) program aired on Monday, Li Yidong, chief designer of China’s Wing Loong series drones, said, “AI is a huge field with many basic technologies, which are developing. We are doing all sorts of work to apply these technologies on drones, and also piloted aircraft.” “We want [drones] to fly intelligently, have smart situational awareness, capable of identifying targets and automatically make some decisions,” Li said.

Drones today are operated manually and remotely from ground stations, but the signals could be jammed in electric warfare and the aircraft could lose their combat capability, Wei Dongxu, a Beijing-based military analyst, told the *Global Times* on Wednesday, noting that AI installed on drones would solve this problem. "AI is also a fundamental requirement for the development of fighter drones," Wei said. Since lag time occurs in remote control over long distances, drones now have difficulty fighting air-to-air combat in which battle situations change very fast. But with AI, the drones can fight using their own judgment and without lag caused by data transmission, according to Wei.

AI developers must also consider the safety issue, as AI drones must still strictly follow human commands and not take unwished actions, analysts said. Technological issues also need to be sorted out, like the development of the hardware and if the size of it can be fitted onto a drone, Wei said. Li said that he is also developing drones that can fit into a whole combat system, exponentially boosting the system's combat capability. Li did not give any detail on this aspect. The Wing Loong series of drones are domestically developed by the state-owned Aviation Industry Corporation of China. As of December 2018, 100 Wing Loong drones have been delivered for export, the Xinhua News Agency reported. They have fired more than 3,000 rounds of live munitions on battlefields with an overall accuracy higher than 90 percent, according to a separate CCTV report in March.

<http://www.globaltimes.cn/content/1161430.shtml>

C. Pakistan

Trump pins hope on Pakistan for help in Afghanistan

Gulf News Asia, August 3, 2019

US President Donald Trump on Friday hoped that Pakistan will help the US in Afghanistan as peace talks with the Taliban has apparently entered its last phase.

Trump said he had developed a "good chemistry" with the Pakistan Prime Minister Imran Khan, whom he met at his Oval Office

last week. "We're doing very well, as you know, with Pakistan. I met a gentleman who I liked a lot — as you know — last week, from Pakistan. I have a lot of respect for him. We have a good friendship — a good feeling, good chemistry. I think Pakistan will help us, and I think others will get involved," Trump told reporters at the White House.

<https://gulfnews.com/world/asia/pakistan/trump-pins-hope-on-pakistan-for-help-in-afghanistan-1.65609478>

Experts see space for ample growth in Pakistan's civil nuclear energy sector

The News International, August 6, 2019

Addressing a one-day seminar on the peaceful use of nuclear energy at Karachi University on Monday, Director General Arms and Controls and Disarmament Brigadier Zahir ul Haider Kazmi said that Karachi was the first city in Pakistan that benefited from nuclear energy after the 100-megawatt Karachi Nuclear Power Project (KANUPP) was transmitted to the grid on October 4, 1972, while KANUPP 2 and 3 would be linked to it by 2020 and 2021 and would bring more energy to the metropolis.

The Rabita Forum International in collaboration with the University of Karachi had organised the seminar. The keynote speakers included Brigadier Kazmi, Quaid-e-Azam University's Politics and International Relations Department Director Professor Dr Zafar Nawaz Jaspal, Karachi University Vice Chancellor Professor Dr Khalid Mahmood Iraqi, and KU's Department of International Relations Chairman Professor Dr Naeem Ahmed.

<https://www.thenews.com.pk/print/508871-experts-see-space-for-ample-growth-in-pakistan-s-civil-nuclear-energy-sector>

Pakistan confronts with racist ideology of Modi Govt: PM Imran Khan

The News International, August 6, 2019

Prime Minister Imran Khan on Tuesday

said that Pakistan was confronted with the racist ideology of Modi government, which had been following the RSS (Rashtriya Swayamsevak Sangh) ideology and was bent upon ethnic cleansing in secular India.

“Whatever they did in the Occupied Kashmir to change its Special Constitutional Status was according to their [BJP] ideology as they wanted to change demography of the Occupied Kashmir,” the Prime Minister said in a policy statement at Joint Session of the Parliament.

The special Joint Session of the Parliament was convened to discuss Modi government’s decision to revoke special constitutional status for the occupied Kashmir.

<https://www.thenews.com.pk/latest/509292-pakistan-confronts-with-racist-ideology-of-modi-govt-pm-imran-khan>

UN chief warns against rising tensions between nuclear-armed states

Dawn, August 7, 2019

UN Secretary General António Guterres warned on Tuesday the world against rising tensions between nuclear-armed states, as a powerful American newspaper pointed out that tensions in Kashmir were more menacing now than ever before as both India and Pakistan possessed weapons of mass destruction.

Also, an international advocacy group – Human Rights Watch – noted that basic freedoms were at risk in the occupied Kashmir where Indian authorities had arrested political leaders and severed communication lines.

As the news of India revoking Kashmir’s special status sank-in, Kashmiris from both sides of the Line of Control gathered at a restaurant near Washington on Monday night to exchange notes on how to contact their relatives trapped in the valley.

<https://www.dawn.com/news/1498527/un-chief-warns-against-rising-tensions-between-nuclear-armed-states>

D. USA

Mars 2020 rover gets radioisotope fuel

World Nuclear News, August 1, 2019

“The decision to begin fuelling the MMRTG is another important milestone in keeping to our timetable for a July 2020 launch,” NASA Associate Administrator for the Science Mission Directorate Thomas Zurbuchen said.

The California Institute of Technology’s Jet Propulsion Laboratory (JPL), which is building and will manage operations of the Mars 2020 Rover for the NASA Science Mission Directorate, describes an MMRTG as a “nuclear battery” which can provide about 110 watts of electrical power to a spacecraft and its science instruments at the beginning of a mission. The excess heat from the generator can help to keep the system warm enough to function in the cold conditions of space and the Martian surface.

<https://www.world-nuclear-news.org/Articles/Mars-2020-rover-gets-radioisotope-fuel>

US pulls out of nuclear arms control pact with Russia

Demetri Sevastopulo and Michael Peel, Financial Times, August 2, 2019

The US has withdrawn from a critical 1987 nuclear arms control treaty with Russia after Moscow refused to destroy a new intermediate-range missile that Washington and its Nato allies said violated the cold war-era pact.

US president Donald Trump withdrew from the Intermediate-Range Nuclear Forces Treaty on Friday, six months after the US told Russia that failing to destroy its SSC-8 cruise missile would spark the collapse of the treaty.

Mike Pompeo, US secretary of state, said Russia was “solely responsible” for the demise of the pact, which was signed by then US president Ronald Reagan and his Russian counterpart Mikhail Gorbachev at the White House more than three

decades ago. The INF was a landmark treaty that paved the way for a number of arms control pacts between the US and the then Soviet Union.

<https://www.ft.com/content/3417b426-b4f8-11e9-bec9-fdcb53d6959>

U.S. Defense Secretary says he favors placing missiles in Asia

Idrees Ali, Reuters, August 3, 2019

U.S. Defense Secretary Mark Esper said on Saturday that he was in favor of placing ground-launched, intermediate-range missiles in Asia relatively soon, a day after the United States withdrew from a landmark arms control treaty.

Esper's comments are likely to raise concern about an arms race and could add to an already tense relationship with China.

"Yeah, I would like to," Esper said, when asked whether he was considering placing such missiles in Asia.

"I would prefer months ... but these things tend to take longer than you expect," he told reporters traveling with him to Sydney when asked about a timeline for when the missiles could be deployed.

<https://www.reuters.com/article/us-usa-asia-inf/us-defense-secretary-says-he-favors-placing-missiles-in-asia-idUSKCN1UT098>

Could America Stop a North Korean Nuclear Weapon Headed for the Homeland?

Ryan Pickrell, National Interest Blog, August 4, 2019

For years, the world had heard warnings, but most doubted the day would ever come. Most fall before allied defenses, but one missile finds its mark — it's the one that matters most. In a flash, hundreds of thousands, if not millions of people perish.

Would North Korea fire off a nuclear weapon? No one knows for certain, but what we do know is that the above scenario is exactly what an aggressive and increasingly powerful North Korea has been

threatening for decades. While the reclusive regime may have previously lacked the necessary weaponry, the North now has the kind of capabilities to turn at least some of its threats into promises.

<https://nationalinterest.org/blog/buzz/could-america-stop-north-korean-nuclear-weapon-headed-homeland-71096>

Wyoming approves first use of low pH ISL uranium production

World Nuclear News, August 5, 2019

The Wyoming Department of Environmental Quality (WDEQ) formally approved an amendment to the Lance source materials licence on 31 July, notifying Peninsula Energy Ltd subsidiary Strata Energy Inc the following day. The authorisation confirms that low pH in-situ leach (ISL) methodology complies with the regulatory standards and requirements under the state regulator's purview.

Peninsula CEO Wayne Heli described low pH recovery - widely used elsewhere in the world - as a "proven and effective" method. The company began the process to amend Lance's licences in 2017, after tests showed that using an acidic rather than alkaline mining solution could potentially transform the project's operating performance and costs. "The final implementation of this initiative is anticipated to bring significant benefit for our shareholders," Heli said.

<http://world-nuclear-news.org/Articles/Wyoming-approves-first-use-of-low-pH-ISL-uranium-p>

US Official: Nuclear Program Serves as 'Ultimate Insurance Policy'

VOA News, August 6, 2019

The head of the U.S. agency that maintains the nation's nuclear weapons arsenal said Tuesday the country is facing the most complex and demanding global security environment since the Cold War.

National Nuclear Security Administration chief Lisa Gordon-Hagerty outlined the

challenges while speaking to hundreds of people gathered for a small business expo in New Mexico.

“Amidst this increasing international turmoil, the effectiveness and credibility of our nuclear deterrent reassures our friends and our allies and serves as the ultimate insurance policy against a nuclear attack, deterring those who would wish to harm us,” she said.

<https://www.voanews.com/usa/us-official-nuclear-program-serves-ultimate-insurance-policy>

EIS process launched for US fast neutron reactor

World Nuclear News, August 6, 2019

A Notice of Intent was published yesterday in the US Federal Register, in which the DOE invites public comment on what should be included in the scope of the EIS in accordance with the National Environmental Policy Act (NEPA) and its implementing regulations. The EIS will evaluate alternatives for a versatile reactor-based fast-neutron source facility and associated facilities for the preparation, irradiation and post-irradiation examination of fuels and materials.

US Energy Secretary Rick Perry said the testing capability offered by the VTR would be “essential” for the USA to modernise its nuclear energy infrastructure and for developing “transformational nuclear energy technologies” to reduce waste generation and enhance nuclear security. “Lack of a domestic reactor with versatile fast-neutron-spectrum testing capability is a significant national strategic risk affecting the ability of DOE to fulfil its mission to advance the energy, environmental, and nuclear security of the United States and promote scientific and technological innovation,” he said.

<http://world-nuclear-news.org/Articles/EIS-process-launched-for-US-fast-neutron-reactor>

Missile-Killer, Sensor and Spy Plane: What Can't the F-35 Stealth Fighter Do?

David Axe, National Interest Blog, August 7, 2019

An F-35 stealth fighter indirectly transmitted data to U.S. Army missile-defense systems during a June 2019 war game in Texas and California.

It was the latest test to underscore the radar-evading F-35's ability to gather targeting information for other forces. The stealth fighter with its sophisticated radar and other sensors increasingly functions as a forward node in widespread military data networks. The F-35 demonstrated its data-transmission capability to send data during the Orange Flag Evaluation 19-2 at Palmdale, California, and Fort Bliss, Texas.

<https://nationalinterest.org/blog/buzz/missile-killer-sensor-and-spy-plane-what-cant-f-35-stealth-fighter-do-72066>

US regulator invites comment on Peach Bottom licence renewal

World Nuclear News, August 9, 2019

The US Nuclear Regulatory Commission (NRC) has issued for public comment the draft supplemental environmental impact statement (EIS) on Exelon Generation Company's application for an additional 20 years of operation for Peach Bottom units 2 and 3. This would be a second licence renewal for the Pennsylvania plant and, if granted, would enable it to operate for 80 years.

The regulator said it is interested in the public's views on its draft conclusion that environmental impacts “are not great enough to prevent the agency from considering issuance of the renewed licences”. The NRC will accept comments at a public meeting to be held in Delta, Pennsylvania on 12 September, at which it will also present an overview of the draft plant-specific supplement to its generic environmental impact statement for plant licence renewal. It will consider written

comments on the draft EIS until 23 September.

<https://www.world-nuclear-news.org/Articles/US-regulator-calls-for-public-comment-on-Peach-Bot>

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Peach Bottom is co-owned by Exelon Generation and Public Service and Gas of New Jersey, and operated by Exelon. The two boiling water reactors began commercial operation in 1974 and were initially licensed to operate for 40 years. The original licences were renewed in 2003 and the units are currently licensed to operate until 2033 for unit 2 and 2034 for unit 3.

<http://www.world-nuclear-news.org/Articles/US-regulator-calls-for-public-comment-on-Peach-Bot>

U.S.-based experts suspect Russia blast involved nuclear-powered missile

Jonathan Landay, Reuters, August 10, 2019

U.S.-based nuclear experts said on Friday they suspected an accidental blast and radiation release in northern Russia this week occurred during the testing of a nuclear-powered cruise missile vaunted by President Vladimir Putin last year.

The Russian Ministry of Defense, quoted by state-run news outlets, said that two people died and six were injured on Thursday in an explosion of what it called a liquid propellant rocket engine. No dangerous

substances were released, it said. Russia's state nuclear agency Rosatom said early on Saturday that five of its staff members died.

A spokeswoman for Severodvinsk, a city of 185,000 near the test site in the Arkhangelsk region, was quoted in a statement on the municipal website as saying that a "short-term" spike in background radiation was recorded at noon Thursday. The statement was not on the site on Friday.

<https://www.reuters.com/article/us-russia-blast-usa/u-s-based-experts-suspect-russia-blast-involved-nuclear-powered-missile-idUSKCN1UZ2H5>

U.S. adviser Bolton to urge tougher UK stance on Iran and China

Steve Holland, Reuters, August 11, 2019

John Bolton, U.S. President Donald Trump's national security adviser, arrived in London on Sunday for talks at which he is expected to urge Britain to toughen its stance on Iran and Chinese telecommunications firm Huawei.

As the United Kingdom prepares to leave the European Union on Oct. 31, its biggest geopolitical shift since World War Two, many diplomats expect London to become increasingly reliant on the United States.

<https://www.reuters.com/article/us-usa-britain/u-s-adviser-bolton-to-urge-tougher-uk-stance-on-iran-and-china-idUSKCN1V10HU>

Energoatom tests Holtec used fuel casks at Rovno plant

World Nuclear News, August 12, 2019

The CSFSF will be a dry storage facility in which the used fuel will be stored in double-walled stainless steel canisters. The facility will mean Ukraine will no longer have to spend USD200 million each year on its arrangement with Russia to transport and reprocess used nuclear fuel.

The technology produced by the USA's Holtec, which will be tested at unit 4 in October and at units 1 and 2 in November,

will be used to transport used nuclear fuel to the Central Spent Fuel Storage Facility (CSFSF) under construction at the site of the Chernobyl nuclear power plant.

Energoatom said on 8 August that the tests at unit 3, between 28 June and 5 August, demonstrated that the equipment met the requirements of the CSFSF systems and project criteria in terms of quality and safety assurance. Pavel Pavlyshyn, director general of the Rovno plant, said the functional tests had been carried out after work to reconstruct the transport corridors of the reactor units.

<https://www.world-nuclear-news.org/Articles/Energoatom-tests-Holtec-used-fuel-casks-at-Rovno-p>

U.S. Officials Suspect New Nuclear Missile in Explosion That Killed 7 Russians

Missile Defence Advocacy Alliance, August 12, 2019

American intelligence officials are racing to understand a mysterious explosion that released radiation off the coast of northern Russia last week, apparently during the test of a new type of nuclear-propelled cruise missile hailed by President Vladimir V. Putin as the centerpiece of Moscow's arms race with the United States.

American officials have said nothing publicly about the blast on Thursday, possibly one of the worst nuclear accidents in the region since Chernobyl, although apparently on a far smaller scale, with at least seven people, including scientists, confirmed dead. But the Russian government's slow and secretive response has set off anxiety in nearby cities and towns — and attracted the attention of analysts in Washington and Europe who believe the explosion may offer a glimpse of technological weaknesses in Russia's new arms program.

<https://missiledefenseadvocacy.org/threat-news/us-officials-suspect-new-nuclear-missile-in-explosion-that-killed-7-russians/>

Replica simulators completed at Southern plants

World Nuclear News, August 13, 2019

Southern Nuclear decided to install second simulators, with new training buildings, at its three nuclear power plants. This was to improve the quality of life for workers through less shift work; to avoid maintenance related scheduling issues; and to have all three plant sites on a common technology platform. In addition, the simulators would have more modern equipment and prepare for future training needs, such as severe accident training.

After receiving proposals for the new simulators from four North American vendors in August 2015, Baltimore, Maryland-based GSE Systems was selected in October of that year with a contract awarded the following March. Three separate purchase orders were issued with a three month delay between the start of each simulator.

<https://www.world-nuclear-news.org/Articles/Replica-simulators-completed-at-Southern-plants>

Future of last nuclear pact between Russia and U.S. uncertain: U.S. envoy

Andrew Osborn, Reuters, August 14, 2019

The last major nuclear arms control treaty between Russia and the United States is outdated and flawed, the U.S. ambassador to Moscow said on Wednesday, saying it could be scrapped altogether when it expires in 2021 and replaced with something else.

The New START treaty limits the number of strategic nuclear warheads the world's two biggest nuclear powers can deploy to no more than 1,550, the lowest level in decades. It also curbs the number of nuclear launchers and deployed land- and submarine-based missiles and nuclear-capable bombers they can have.

<https://www.reuters.com/article/us-usa-russia-arms/future-of-last-nuclear-pact-between-russia-and-u-s-uncertain-u-s-envoy-idUSKCN1V41R0>

US regulator approves latest Holtec transport cask

World Nuclear News, August 14, 2019

The HI-STAR 100MB is an enhanced version of the HI-STAR 100 package - which was initially licensed in 1998 - to transport high burn-up fuel in either a multipurpose canister (MPC) or in a basket. It is based on the HI-STAR 190 cask designed for retrieval of large-diameter canisters from US nuclear power plants with on-site storage facilities. The HI-STAR 100MB is the counterpart that will retrieve medium-sized canisters containing fuel with high burn-ups and shorter cooling times than allowed by the HI-STAR 100.

“Among the technology differentiators of the HI-STAR 100MB are its ability to ship contents packaged in an MPC or in a ‘bare basket’, to transport both moderate burn-up and high burn-up fuel in the various sizes employed in light water reactors, and to transport fuel with as little as 3.5 years of decay after discharge from the reactor,” the company notes.

Holtec submitted its application for the HI-STAR 100MB to the NRC in February 2018. At that time, the company said that as the cask and fuel package designs were directly based on current designs approved by the NRC, it expected an “efficient review process”.

<http://world-nuclear-news.org/Articles/US-regulator-approves-latest-Holtec-transport-cask>

Gibraltar decides to free seized Iranian tanker; U.S. seeks to hold it

Guy Faulconbridge, Marco Trujillo, Reuters, August 15, 2019

Britain’s Mediterranean territory Gibraltar decided on Thursday to free a seized Iranian oil tanker, but did not immediately indicate when or if the ship would set sail after the United States launched a new, last-minute legal bid to hold it.

The Grace 1 was seized by British Royal Marine commandos in darkness off the coast of the territory at the western mouth of the Mediterranean on July 4 on suspicion of

violating European Union sanctions by taking oil to Syria, a close ally of Iran.

<https://uk.reuters.com/article/uk-mideast-iran-tanker-gibraltar-usa/gibraltar-decides-to-free-seized-iranian-tanker-u-s-opens-new-case-to-hold-it-idUKKCN1V50SV>

US blacklists Chinese nuclear company over theft of military tech

Christian Shepherd, Financial Times, August 15, 2019

The US has put a major state-owned Chinese nuclear power company, a partner for the UK’s power generation programme, on its export blacklist, over accusations of stealing US technology for military use.

China General Nuclear Power Group, or CGN, and three of its subsidiaries were placed on the commerce department’s “entity list”, according to an announcement on the US Federal Register. The placement effectively bans US companies from supplying the Chinese group without obtaining licences, which are rarely granted.

<https://www.ft.com/content/9601ebda-bf24-11e9-b350-db00d509634e>

US DOE orders exascale computer

World Nuclear News, August 15, 2019

Exascale supercomputers are capable of executing a quintillion (10^{18}) calculations each second. This is much faster than the fastest supercomputers in the world today which solve problems at the petascale, or a quadrillion (10^{15}) calculations per second. According to the Exascale Computing Project - a collaborative effort of the DOE’s Office of Science and the NNSA - exascale computers represent the next milestone in computing achievement. Their ability to simulate more realistically the processes involved in a range of areas including precision medicine, climate modelling, materials science and nuclear physics will have profound impacts on everyday life, it says.

"The Department of Energy is the world leader in supercomputing and El Capitan is a critical addition to our next generation systems," US Energy Secretary Rick Perry said. "El Capitan's advanced capabilities for modelling, simulation, and Artificial Intelligence will help push America's competitive edge in energy and national security, allow us to ask tougher questions, solve greater challenges, and develop better solutions for generations to come."

<https://www.world-nuclear-news.org/Articles/US-DOE-orders-next-exascale-computer>

E. Europe

Germany: Russia and U.S. must uphold remaining arms treaties as INF accord ends

Tassilo Hummel, Reuters, August 1, 2019

Germany urged the United States and Russia on Thursday to preserve what is left of the international arms control framework, a day before the Intermediate-range Nuclear Forces Treaty (INF) is set to run out.

In a statement, Foreign Minister Heiko Maas suggested Moscow was to blame for the expiration of the INF treaty, a landmark agreement of Cold War-era arms control signed by Soviet leader Mikhail Gorbachev and U.S. President Ronald Reagan in 1987.

"...We regret that Russia failed to do what was necessary to save the INF treaty," Maas said in the statement.

By banning medium-range land-based missiles, which are capable of reaching Russia from Western Europe and vice versa, the treaty aimed to avert an arms race on the continent. The United States announced last year it was withdrawing from the pact, accusing Russia of failing to comply with it. Moscow denies it has violated the treaty and says Washington is withdrawing because it wants to pursue a new arms race.

"With the end of the INF treaty, Europe is losing part of its security," Maas said. "I am convinced that today we must again succeed in agreeing rules on disarmament and arms control in order to prevent a new nuclear arms race."

He urged Moscow and Washington to do more to preserve the 2010 New START treaty, which limits strategic nuclear missiles.

<https://www.reuters.com/article/us-russia-usa-missiles-germany/germany-russia-and-u-s-must-uphold-remaining-arms-treaties-as-inf-accord-ends-idUSKCN1UR5AC>

France disagrees with U.S. sanctions on Iranian foreign minister

Sarah White; Alison Williams, Reuters, August 1, 2019

France said on Thursday voiced concern over a U.S. move to impose sanctions on Iran's foreign minister and said that along with Britain and Germany it disagreed with the decision, the French Foreign Ministry said.

"We consider that all diplomatic channels should stay open, particularly in a context of high tensions," the ministry said.

The United States, at loggerheads with Iran over Gulf shipping and Iran's nuclear program, on Wednesday slapped sanctions on Iranian Foreign Minister Mohammad Javad Zarif, a pivotal player in the nuclear deal.

<https://www.reuters.com/article/us-mideast-iran-france/france-disagrees-with-u-s-sanctions-on-iranian-foreign-minister-idUSKCN1UR5EP>

At U.N., Britain, France, Germany urge North Korea to hold 'meaningful' talks with U.S

Michelle Nichols, Reuters, August 1, 2019

Britain, France and Germany called on North Korea to engage in "meaningful" talks with the United States and said international sanctions need to be fully enforced until Pyongyang has dismantled its nuclear and ballistic missile programs.

The statement came after a closed-door U.N. Security Council meeting on Thursday on North Korea's latest missile launches. "International sanctions need to remain in place and be fully enforced until

North Korea's nuclear and ballistic missile programs are dismantled," British U.N. Ambassador Karen Pierce said, with her French and German counterparts beside her. "It is vital that the Security Council shows unity in upholding its resolutions," she told reporters.

Trump then met North Korean leader Kim Jong Un - their third meeting since June last year - and agreed to revive stalled denuclearization talks.

"We urge North Korea to take concrete steps towards its complete, verifiable and irreversible denuclearization and to engage in meaningful negotiations with the U.S. as agreed between President Trump and Kim Jong Un on 30 June," Pierce said.

North Korea fired two short-range ballistic missiles on Wednesday, the South Korean military said, days after Pyongyang launched two similar missiles intended to pressure South Korea and the United States to scrap upcoming military drills. The U.N. Security Council has banned North Korea's use of ballistic missiles.

<https://www.reuters.com/article/us-northkorea-missiles-un/at-u-n-britain-france-germany-urge-north-korea-to-hold-meaningful-talks-with-u-s-idUSKCN1UR5B8>

UK, France and Germany condemn North Korea missile launches

Edith M. Lederer, AP News, August 2, 2019

The United Kingdom, France and Germany on Thursday condemned North Korea's latest ballistic missile launches as violations of U.N. sanctions and urged Pyongyang to engage in "meaningful negotiations" with the United States on eliminating its nuclear weapons.

The three countries also urged North Korea "to take concrete steps toward its complete, verifiable and irreversible denuclearization" and said international sanctions should remain in place and be fully enforced until its nuclear and ballistic missile programs are dismantled.

<https://www.apnews.com/ab9f54bffec944f69af1ecc600b46c3d>

Poland says Russia responsible for nuclear treaty collapse

Alicja Ptak, Reuters, August 2, 2019

Poland's foreign ministry said on Friday that Russia bears full responsibility for the collapse of the Intermediate-range Nuclear Forces Treaty (INF), after the United States formally withdrew from the landmark 1987 pact.

"Russia's lack of readiness to return to compliance with the INF did not leave the United States any choice," the foreign ministry said on Twitter.

<https://www.reuters.com/article/us-usa-russia-poland/poland-says-russia-responsible-for-nuclear-treaty-collapse-idUSKCN1US1AQ>

UK blames Russia for nuclear treaty collapse, says threatens European security

Michael Holden, Reuters, August 2, 2019

British Foreign Secretary Dominic Raab said Russia was to blame after the United States withdrew from the landmark nuclear missile pact (INF) between the two countries, saying the United Kingdom fully supported NATO's response.

"Russia has caused the INF Treaty to collapse by secretly developing and deploying a treaty-violating missile system which can target Europe's capitals," Raab said on Twitter.

"Their contempt for the rules-based international system threatens European security."

<https://www.reuters.com/article/us-usa-russia-arms-britain/uk-blames-russia-for-nuclear-treaty-collapse-says-threatens-european-security-idUSKCN1US19U>

Low river levels to affect French nuclear power generation from August 8: EDF

Bate Felix, Reuters, August 3, 2019

French utility EDF may curb power generation at its 3,000 megawatt Chooz nuclear reactor in the north of France due

to the low flow rate of the Meuse river which it uses to cool the two reactors at the plant.

“Due to flow forecasts of Meuse river, production restrictions are likely to affect EDF’s nuclear generating fleet on Chooz production units starting Thursday August 8,” the company said.

EDF’s use of water from rivers as coolant is regulated by law to protect plant and animal life. It is obliged to reduce output during hot weather when water temperatures rise, or when river levels are low.

The utility has been forced to cut output and halt production at several reactors this summer due to two spells of heatwave and prolonged dry weather that has reduced river levels.

<https://www.reuters.com/article/us-france-electricity/low-river-levels-to-affect-french-nuclear-power-generation-from-august-8-edf-idUSKCN1UT06M>

TABLE-Swiss nuclear plant outages and restarts

Vera Eckert, Reuters, August 6, 2019

The following table lists maintenance outages and unscheduled stoppages at Swiss nuclear power plants. Maintenance usually takes place in the spring and summer. Ownership of the plants is detailed under (1,2,3...)

<https://www.reuters.com/article/switzerland-nuclear-outages/table-swiss-nuclear-plant-outages-and-restarts-idUSL8N24V602>

German designated to head Iran trade vehicle bows out at last minute

Michael Nienaber, Reuters, August 9, 2019

European efforts to launch a barter-based trade conduit with Iran that would help offset the effects of U.S. sanctions on Tehran suffered a setback when its designated head bowed out at the last minute.

The 2015 deal, under which many international sanctions against Iran were relaxed in exchange for Tehran curbing its

nuclear program, has teetered on the brink of collapse since President Donald Trump pulled the United States out of it last year.

Germany is expected to liaise with its European partners in the coming days about who could take Erbel’s place as the new Instex head.

The three EU countries, also known as E3, are trying to set up Instex as a barter-based trade conduit with Iran, but an Iranian mirror mechanism has yet to be established.

If the mechanism goes ahead, it would initially deal only in products such as pharmaceuticals and foods, which are not subject to U.S. sanctions. Iranian officials have repeatedly said Instex must include oil sales or provide substantial credit facilities for it to be beneficial.

<https://www.reuters.com/article/us-mideast-iran-germany-instex/german-designated-to-head-iran-trade-vehicle-bows-out-at-last-minute-idUSKCN1UZ1EU>

After Trump rebuke, France says it speaks for itself on Iran

Richard Lough, Reuters, August 9, 2019

France does not need the permission of other states to try to defuse tensions with Iran, its foreign minister said on Friday after U.S. President Donald Trump accused President Emmanuel Macron of sending “mixed signals” to Tehran.

“France speaks for itself on Iran as a sovereign power,” Foreign Minister Jean-Yves Le Drian said in a written statement. “France is deeply committed to peace and security in the region, is committed to de-escalating tensions and does not need any authorization to do so.” Trump on Thursday had said no one was permitted to speak to Iran on behalf of the United States, after a report this week said Macron had invited Iran’s President Hassan Rouhani to this month’s G7 summit to meet the U.S. president. A French diplomat denied the invitation had been made. Washington’s major European allies Britain, France and Germany have

been at odds with the Trump administration over Iran since last year, when Trump pulled the United States out of an international deal to give Iran access to world trade in return for curbs to its nuclear program. While the Europeans say they share U.S. concerns about Iran's regional behavior and missile program, they believe pulling out of the nuclear agreement was a mistake.

Iran will be a hot-button topic at the G7 summit in Biarritz. The European countries still hope to salvage the nuclear deal, although Iran has begun to scale down its cooperation with it in response to U.S. sanctions. Britain was drawn deeper into the confrontation last month when it seized an Iranian tanker accused of violating sanctions on Syria. Iran responded by seizing a British tanker. London has since said it will join a U.S.-led mission to boost security in the Gulf; France and Germany have so far held back.

<https://www.reuters.com/article/us-iran-nuclear-france-usa/after-trump-rebuke-france-says-it-speaks-for-itself-on-iran-idUSKCN1UZ1XZ>

UK reiterates support for nuclear deal

Tehran Times, August 13, 2019

British Prime Minister Boris Johnson's spokesman said on Monday that the United Kingdom's position on the 2015 nuclear deal, known as the JCPOA, has not changed,

His comments came as U.S. National Security Advisor John Bolton visited London on Sunday to urge Britain to toughen its stance on Iran.

In an interview with Reuters in July, Johnson expressed support for the JCPOA.

Caroline Hurndall, the head of the British Foreign Office's department for Iran and Iraq, tweeted in July after a meeting of JCPOA Joint Commission, "The UK remains committed to the deal."

Under the nuclear deal, Iran agreed to put limits on its nuclear activities in exchange

for termination of economic and financial sanctions.

However, Donald Trump withdrew the U.S. from the UN-endorsed JCPOA in May 2018 and imposed the toughest ever sanctions against Iran in line with his administration's "maximum pressure" policy against Tehran.

<https://www.tehrantimes.com/news/439219/UK-reiterates-support-for-nuclear-deal>

Norway detects radioactive iodine by Russian border days after blast

Lefteris Karagiannopoulos, Reuters, August 15, 2019

Norway's nuclear safety authority is analyzing tiny amounts of radioactive iodine detected in the air in northern Norway in the days after a deadly explosion during a rocket engine test over the border in Russia. Russia's state nuclear agency, Rosatom, said on Saturday that five people killed in the blast were its staff members, and the accident involved "isotope power sources", giving no further details.

"At present it is not possible to determine if the last iodine detection is linked to the accident in Arkhangelsk last week. DSA continues more frequent sampling and analysis," DSA said.

Such radiation measurements are not unusual in Norway, as its monitoring stations detect radioactive iodine about six to eight times a year and the source is usually unknown.

Russia's state weather service said on Tuesday that radiation levels in the city of Severodvinsk had spiked by up to 16 times last Thursday, while medics who treated victims of the accident have been sent to Moscow for a medical examination, the TASS news agency reported.

<https://www.reuters.com/article/us-russia-blast-norway/norway-detects-radioactive-iodine-by-russian-border-days-after-blast-idUSKCN1V510N>

F. Russia

Partnerships key to nuclear growth, says GE Steam Power CEO

World Nuclear News, August 1, 2019

GE Steam Power is a unit of GE Power, the US energy technology company that is owned by General Electric. It sells equipment to conventional islands for nuclear plants.

In 2007, General Electric and Atomenergomash (AEM) - Rosatom's mechanical engineering division - established a joint venture company, AAEM Turbine Technology, to supply equipment for the conventional islands of VVER nuclear power plants. In June this year, they announced the start of manufacturing work in Belfort, in north-eastern France, of the Arabelle steam turbine for Turkey's first nuclear power plant. GE Steam Power is supplying the four nuclear turbine generator sets for the Akkuyu plant under a contract awarded to AAEM. These include the Arabelle half-speed steam turbine, Gigatop 4-poles generator and condenser vacuum pumps.

Keroullé, who became head of GE Steam Power on 1 July, has described the 12-year history of AAEM as "visionary, especially while the nuclear industry went through the toughest moments after 2013".

"Now the total capacity of the units built in the framework of joint projects exceeds 13 gigawatts," he said. "We're talking about new units being built in Finland, Turkey, Hungary and Egypt. Given the large amount of work, as well as the presence of cultural and legislative peculiarities in each of the countries where we cooperate, it's obvious that successful implementation of such large-scale and diverse projects is not an easy task. In these circumstances, the word 'partner' becomes particularly important."

<https://www.world-nuclear-news.org/Articles/Partnerships-key-to-nuclear-growth-says-GE-Steam>

Under One Roof: Russia's Integrated Strategy for Spent Fuel Management

Nicole Jawerth, International Atomic Energy Agency, August 2, 2019

A one-stop-shop for spent fuel management is one way to describe Russia's Mining and Chemical Complex (MCC) near Krasnoyarsk, Siberia. The complex is designed to handle spent fuel at its different stages, all at one site. In many countries, these activities – involving fuel that is no longer useful but still very radioactive – are performed at separate facilities that are, in some cases, up to hundreds of kilometers apart. By taking an integrated approach, Russia's national strategy for spent fuel management aims to improve efficiency, cut costs and optimize safety and security.

"Russia's nuclear power industry is continuing to develop and increase its contribution to the country's overall energy mix. So, we need to make sure that the management of spent nuclear fuel is reliable, sustainable, safe and secure," said Anzhelika Khaperskaya, a senior manager in the Spent Nuclear Fuel Management Project Office of Russia's State Atomic Energy Corporation (Rosatom), and one of the designers of the integrated approach. "The integrated complex will help us cut down on the need to transport nuclear materials or waste and allow us to focus safety and security measures in one place, which is also better from an economic point of view."

<https://www.iaea.org/newscenter/news/under-one-roof-russias-integrated-strategy-for-spent-fuel-management>

Putin to Trump: We'll develop new nuclear missiles if you do

Andrew Osborn, Polina Devitt, Reuters, August 5, 2019

Russian President Vladimir Putin warned on Monday that Moscow would start developing short and intermediate-range land-based nuclear missiles if the United

States started doing the same after the demise of a landmark arms control treaty.

The U.S. formally left the Intermediate Nuclear Forces (INF) treaty with Russia on Friday after determining that Moscow was violating the treaty and had already deployed one banned type of missile, an accusation the Kremlin denies.

<https://www.reuters.com/article/us-usa-russia-arms-putin/putin-to-trump-well-develop-new-nuclear-missiles-if-you-do-idUSKCN1UV1GV>

Missile-Killer, Sensor and Spy Plane: What Can't the F-35 Stealth Fighter Do?

David Axe, The National Interest, August 7, 2019

An F-35 stealth fighter indirectly transmitted data to U.S. Army missile-defense systems during a June 2019 war game in Texas and California.

It was the latest test to underscore the radar-evading F-35's ability to gather targeting information for other forces. The stealth fighter with its sophisticated radar and other sensors increasingly functions as a forward node in widespread military data networks. The F-35 demonstrated its data-transmission capability to send data during the Orange Flag Evaluation 19-2 at Palmdale, California, and Fort Bliss, Texas.

<https://nationalinterest.org/blog/buzz/missile-killer-sensor-and-spy-plane-what-cant-f-35-stealth-fighter-do-72066>

Russia Confirms Radioactive Materials Were Involved in Deadly Blast

Andrew E. Kramer, The New York Times, August 10, 2019

A mystery explosion at a Russian weapons testing range involved radioactive materials, the authorities admitted on Saturday, as the blast's admitted death toll rose and signs of a creeping radiation emergency, or at the least fear of one, grew harder to mask.

In a statement released at 1 a.m. Saturday, Russia's nuclear energy company, Rosatom,

said five employees had died, in addition to the two military personnel previously confirmed dead, as a result of a test on Thursday morning involving "isotopic sources of fuel on a liquid propulsion unit."

<https://www.nytimes.com/2019/08/10/world/europe/russia-explosion-radiation.html>

Russian Nuclear Agency Confirms Deaths During Engine Test

Thomas Grove, The Wall Street Journal, August 11, 2019

Russia's nuclear energy authority said Saturday that five of its employees were killed in an accident during a test of a nuclear-powered engine, raising questions over the severity of the blast that saw radiation levels briefly spike in the northwestern Arkhangelsk region. The announcement by Rosatom is the first indication of nuclear elements involved in the blast on Thursday and brings the number of deaths to seven.

<https://www.wsj.com/articles/russian-nuclear-agency-confirms-deaths-during-missile-test-11565446468>

Evidence Grows That Russia's Nuclear-Powered Domsday Missile Was What Blew Up Last Week (Updated)

Joseph Trevithick, The Drive, August 12, 2019

Rumors and speculation continue to swirl around a radiological accident last week at a missile test site in northwestern Russia even as officials held a memorial service today for those who died in the incident. The Kremlin has now acknowledged that the incident killed at least seven scientists and other personnel from a major state nuclear research laboratory, who were working on a system that included a small nuclear reactor at the time. This same lab is linked to the development of a nuclear-powered cruise missile called Burevestnik and U.S. intelligence officials are reportedly increasingly of the view that one of these weapons, or a test article related to it, exploded in this mishap.

Late on Aug. 11, 2019, Valentin Kostiukov, the director of the Russian Federal Nuclear Center-All-Russian Scientific Research Institute of Experimental Physics, also known by the acronym RFNC-VNIIEF, along with the institute's scientific director Vyacheslav Solovyev and deputy scientific director Aleksandr Chernyshev, held a televised press briefing regarding the accident. RFNC-VNIIEF falls under Russia's top nuclear Corporation, Rosatom, which first admitted its involvement in the incident at the Nyonoksa missile test site in the country's Arkhangelsk region and that the explosion had occurred during work on a system that included a nuclear "isotope power source," on Aug. 9, 2019.

<https://www.thedrive.com/the-war-zone/29380/evidence-grows-that-russians-nuclear-powered-doomsday-missile-was-what-blew-up-last-week>

Rosatom postpones fast reactor project, report says

World Nuclear News, August 13, 2019

Rosenergoatom is expected to receive about RUB280 billion (USD4 billion) less in state funding for the construction of new nuclear reactors in Russia owing to the postponement of its fast neutron reactor programme, Russian newspaper Kommersant reported last week, citing anonymous sources. Rosenergoatom is the nuclear power plant operator subsidiary of Russian state nuclear corporation Rosatom.

Rosatom's investment plan received preliminary approval during a meeting in the Russian Energy Ministry on 2 August, according to the article, with funding out to 2035 to total RUB880 billion and not the RUB1.16 trillion Rosatom had allocated for the two new VVER-1200 units under construction for the Kursk II project, units 3 and 4 for the Leningrad II project and a BN-1200 fast reactor at Beloyarsk. Commissioning of the BN-1200 has been postponed to 2036, the article said, from the previous target of 2027.

<http://www.world-nuclear-news.org/Articles/Rosatom-postpones-fast-reactor-project-report-say>

Russia Wants Four Submarines Armed with Nuclear Warhead Drones That Can Cause Tsunamis

National Interest Blog, August 14, 2019

By now, two submarines appear to have been built specifically to launch the Poseidon, starting with the Sarov, an experimental diesel-electric submarine with a small nuclear-reactor dedicated to charging its batteries.

For decades, submarine nuclear deterrence has been uniquely provided by the nuclear-powered ballistic missile submarine (SSBN), designed to loft missiles from beneath the waves into space before releasing multiple nuclear warheads that rain hellfire on cities and military bases below. SSBNs can remain submerged basically indefinitely thanks to their nuclear reactors, and are thus unlikely to be all hunted down prior to launch orders being issued.

<https://nationalinterest.org/blog/buzz/russia-wants-four-submarines-armed-nuclear-warhead-drones-can-cause-tsunamis-73606>

Failed Russian nuclear test: Is Vladimir Putin developing a weapon that could crack US defenses?

Matthew Rozsa, Salon, August 14, 2019

A recent explosion likely related to an unsuccessful nuclear test suggests that Russian President Vladimir Putin is exploring ways to bypass American missile defense systems.

Five scientists were accidentally killed during military tests in northern Russia, according to Reuters. The incident that led to their deaths involved engineering and technical support of isotope power sources on a liquid propulsion system. Although Russian authorities did not provide further details, experts believe the accident was likely connected to a Russian nuclear-powered missile test.

<https://www.salon.com/2019/08/14/failed-russian-nuclear-test-is-vladimir-putin-developing-a-weapon-that-could-crack-us-defenses/>

Russia Touts Arctic Floating Nuclear Plant's Safety Despite 'Chernobyl on Ice' Concerns

Moscow Times, August 15, 2019

Russia is preparing to send its first floating nuclear plant on a 5,000-kilometer journey to provide electricity to a remote resource-rich region, drawing comparisons to past nuclear disasters and concerns over plans to sell the technology to other countries.

As a changing climate accelerates Arctic ice melt, Russia has worked to capitalize on newly opened trade routes and establish a strong military presence in the region, expanding its range of nuclear icebreakers, submarines and other technologies. Greenpeace has called the Rosatom state nuclear company's floating plant, the Akademik Lomonosov, the "nuclear Titanic" and the "floating Chernobyl."

<https://www.themoscowtimes.com/2019/08/05/russia-touts-arctic-floating-nuclear-plants-safety-despite-chernobyl-on-ice-concerns-a66703>

Russia flies nuclear-capable bombers to region facing Alaska

Andrew Osborn, Reuters, August 15, 2019

Russia said on Wednesday it had flown two nuclear-capable TU-160 bombers to a far eastern Russian region opposite Alaska as part of a training exercise that state media said showed Moscow's ability to park nuclear arms on the United States' doorstep.

The Tupolev TU-160 strategic bomber, nicknamed the White Swan in Russia, is a supersonic Soviet-era aircraft capable of carrying up to 12 short-range nuclear missiles and of flying 12,000 km (7,500 miles) non-stop without re-fuelling.

Russia's Ministry of Defence said in a statement that the planes had covered a distance of more than 6,000 km (3,728 miles) in over eight hours from their home base in western Russia to deploy in Anadyr in the Chukotka region, which faces Alaska.

<https://www.reuters.com/article/us-usa-russia-bombers/russia-flies-nuclear-capable-bombers-to-region-facing-alaska-idUSKCN1V420D>

Norway detects radioactive iodine by Russian border days after blast

Reuters, August 15, 2019

Norway's nuclear safety authority is analyzing tiny amounts of radioactive iodine detected in the air in northern Norway in the days after a deadly explosion during a rocket engine test over the border in Russia.

Russia's state nuclear agency, Rosatom, said on Saturday that five people killed in the blast were its staff members, and the accident involved "isotope power sources", giving no further details.

<https://www.reuters.com/article/us-russia-blast-norway/norway-detects-radioactive-iodine-by-russian-border-days-after-blast-idUSKCN1V510N>

Russian nuclear agency committed crime by holding test near city: ecologist

Tom Balmforth, Reuters, August 15, 2019

An ecologist in northern Russia said on Thursday the state nuclear agency Rosatom had committed a crime by carrying out a mysterious test last week close to inhabited areas, which caused a spike in radiation in his native city.

Rosatom has said that the Aug. 8 accident occurred during a rocket test involving "isotope power sources" that was carried out on a sea platform in the White Sea. At least five people were killed in the accident.

The defense ministry initially said radiation levels had remained normal, but officials in the northern city of Severodvinsk recorded a brief spike. Days later, the state weather agency said radiation had risen by up to 16 times.

<https://www.reuters.com/article/us-russia-blast-crime/russian-nuclear-agency-committed-crime-by-holding-test-near-city-ecologist-idUSKCN1V5202>

WANO completes technical support mission at Leningrad II-2

World Nuclear News, August 15, 2019

Russian state nuclear corporation Rosatom said yesterday that WANO had monitored the various modes of operation of the VVER-1200 unit on a full-scale simulator, analysed the design and technological documentation, and conducted interviews with operator personnel.

Alexey Tararin, deputy chief engineer at Leningrad II, said: "Each new unit must pass several inspections, the results of which assess the level of its readiness for commissioning. The final pre-launch peer check takes place on the eve of the physical start-up of the unit.

"In order to evaluate the readiness of our power unit for this event, we invited international and Russian experts. They will give us their recommendations on administration, operation, fire safety, staff training and the use of operating experience based on world practice. For us, this is a very important and responsible work that will allow us to carry out serious preparations for a key event - the physical launch of the power unit."

<http://www.world-nuclear-news.org/Articles/WANO-completes-technical-support-mission-at-Lening?feed=feed>

West Asia

G. Iran

US imposes sanctions on Iran's Foreign Minister Zarif

Tehran Times, August 1, 2019

In separate statements on Wednesday, the US departments of State and Treasury announced the imposition of sanctions against Zarif because he "acted or purported to act for or on behalf of, directly or indirectly, the Supreme Leader of the Islamic Republic of Iran".

Back on June 24, US President Donald Trump announced new sanctions against Iran targeting Leader of the Islamic Revolution Ayatollah Seyyed Ali Khamenei

and top commanders of the Islamic Revolution Guards Corps (IRGC).

In his statement on blacklisting Zarif, US Secretary of State Mike Pompeo claimed that the top Iranian diplomat is a "key enabler" of Iran's policies throughout the region and the world.

The US Treasury Department also said in its statement that Zarif is Iran's "primary spokesperson around the world," and that the ban "is sending a clear message that Iran's "recent behavior is completely unacceptable."

"The US' reason for designating me is that I am Iran's 'primary spokesperson around the world'. Is the truth really that painful?" Zarif said in a tweet shortly after the designation, mocking the terms used by the US administration to describe his activities.

He also reiterated that the move by the US administration "has no effect" on him or his family, as they "have no property or interests outside of Iran."

<https://www.tehrantimes.com/news/438817/US-imposes-sanctions-on-Iran-s-Foreign-Minister-Zarif>

Sanctioning Zarif is sanctioning diplomacy

Tehran Times, August 2, 2019

In separate statements on Wednesday, the U.S. Treasury and State Department announced imposition of sanctions against Iranian Foreign Minister Mohammad Javad Zarif, a move which was interpreted as a total rejection of diplomacy repeatedly claimed by the Trump administration.

At home there was a huge torrent of support for Foreign Minister Zarif who is liked by the people and even his moderate opponents. They all consider him a highly qualified diplomat and treasure him for his rationality.

Vice President Es'haq Jahangiri lauded Zarif's diplomatic capability, saying, "Even wise enemies are aware of his intellect,

skill, his rare competence in negotiations, creating opportunities, and avoiding conflict and war."

"Sanctioning Zarif is another reason for (U.S.) hypocrisy and lying in calling for negotiations," Jahangiri wrote on his Twitter account.

<https://www.tehrantimes.com/news/438845/Sanctioning-Zarif-is-sanctioning-diplomacy>

Cleric to U.S.: Go ahead with Zarif sanctions 'if that pleases you'

Tehran Times, August 2, 2019

Mohammad Javad Haj Ali Akbari, an interim Friday prayer leader in Tehran, has censured the U.S. sanctions on Foreign Minister Mohammad Javad Zarif, telling the White House to go right ahead with the sanctions "if that makes you happy."

"The U.S. diplomacy of begging reached nowhere, therefore they sanctioned our foreign minister," Haj Ali Akbari told worshippers on Friday. "It seems that this makes them happy. Then go ahead if that makes you happy."

The cleric further said the U.S. sanctions are a "source of pride" for the chief Iranian diplomat, and demonstrate "the fall of ethics and politics in America."

The administration of U.S. President Donald Trump imposed sanctions on Zarif on Wednesday because he "acted or purported to act for or on behalf of, directly or indirectly, the Supreme Leader of the Islamic Republic of Iran."

The U.S. Treasury Department also said in its statement that Zarif is Iran's "primary spokesperson around the world," and that the ban "is sending a clear message that Iran's "recent behavior is completely unacceptable."

<https://www.tehrantimes.com/news/438837/Cleric-to-U-S-Go-ahead-with-Zarif-sanctions-if-that-pleases>

China, EU agree to safeguard nuclear deal

Tehran Times, August 2, 2019

Both sides also agreed to safeguard the United Nations-centered multilateralism and oppose the campaign of "maximum pressure," while calling on relevant parties to maintain restraint and prevent the escalation of the situation, Xinhua reported.

Britain, France, Germany, Russia, China, and Iran have been trying to salvage the pact since the U.S. withdrew from it in May 2018 and returned sanctions.

The European Union announced on June 28 that its special purpose vehicle for trade with Iran, known as INSTEX, has gone into effect.

Tehran says the mechanism is far short of Iran's expectation. Iran has been insisting that the mechanism should include Iran's oil purchases.

The remaining JCPOA parties held an emergency meeting in Vienna on Sunday to discuss Iran's moves in reducing its nuclear commitments and explore ways to save the nuclear deal.

Abbas Araghchi, the deputy foreign minister and a top nuclear negotiator who represented Iran in the meeting, called the talks "constructive". However, he warned Iran would continue to reduce its nuclear commitments if Europeans failed to salvage the pact.

"The atmosphere was constructive. Discussions were good. I cannot say that we resolved everything, I can say there are lots of commitments," the senior nuclear negotiator told Reuters.

<https://www.tehrantimes.com/news/438841/China-EU-agree-to-safeguard-nuclear-deal>

Iran's IRGC, Army denounce U.S. sanctions on Zarif

Tehran Times, August 3, 2019

On Wednesday, the U.S. departments of state and treasury announced the imposition of sanctions against Zarif because he “acted or purported to act for or on behalf of, directly or indirectly, the Supreme Leader of the Islamic Republic of Iran”.

On Thursday, the IRGC announced its condemnation of the “illegal” measure, saying the move was in line with the United States’ policy of mounting maximum pressure on the Islamic Republic, Mehr reported.

It said the U.S. move was ineffective and foreseeable, and demonstrated the American rulers’ anger at the Islamic Revolution’s inspiring and anti-hegemonic message for the world.

The statement said the U.S. was furious with the way the top Iranian diplomat exposed their “wicked nature”.

Back in April, the IRGC itself was blacklisted by the U.S. as a “foreign terrorist organization”. In retaliation, the Iranian Supreme National Security Council named the United States Central Command (CENTCOM) a terrorist organization.

Also on June 24, U.S. President Donald Trump announced new sanctions against Iran, targeting office of Leader of the Islamic Revolution Ayatollah Ali Khamenei and top commanders of the IRGC.

<https://www.tehrantimes.com/news/438835/Iran-s-IRGC-Army-denounce-U-S-sanctions-on-Zarif>

Iran to further reduce commitments to nuclear deal: foreign minister

Reuters, August 3, 2019

Iran will take another step to reduce its compliance with a landmark 2015 nuclear deal, Iranian Foreign Minister Mohammad Javad Zarif said on Saturday without elaborating, according to parliamentary news agency ICANA. Iran has repeatedly said it will reduce its commitment to the

nuclear accord in stages and may even withdrew from the pact altogether unless the remaining signatories find ways to shield its economy from U.S. sanctions. Washington pulled out of the deal last year.

“The third step in reducing commitments to (the nuclear deal) will be implemented in the current situation,” he said. “We have said that if (the deal) is not completely implemented by others then we will also implement it in the same incomplete manner. And of course all of our actions have been within the framework of (the deal).” Last month, Iran threatened to restart deactivated centrifuges and ramp up enrichment of uranium to 20% purity in a move away from the nuclear deal.

<https://www.reuters.com/article/us-mideast-iran-zarif/iran-will-take-third-step-to-reduce-commitments-to-nuclear-deal-iran-foreign-minister-idUSKCN1UT04F>

Iran will take next step to scale back nuclear activities if obligations not met: Zarif

Tehran Times, August 3, 2019

“It is the Islamic Republic of Iran who should take decision in this respect. This step will be taken in continuation of previous actions if other sides do not fulfil their obligations,” he told ICANA in an interview published on Saturday.

He noted that Iran’s actions are within the framework of the JCPOA, the official name for the nuclear agreement.

Paragraph 36 of the JCPOA has provided a mechanism to resolve disputes and allows one side, under certain circumstances, to stop complying with the deal if the other side is out of compliance.

Under the nuclear deal, Iran agreed to put limits on its nuclear activities in exchange for the termination of economic and financial sanctions.

However, Donald Trump withdrew the U.S. from the UN-endorsed JCPOA in May 2018 and imposed the toughest ever

sanctions against Iran in line with his administration's "maximum pressure" policy against Tehran.

<https://www.tehrantimes.com/news/438882/Iran-will-take-next-step-to-scale-back-nuclear-activities-if>

Iran unveils three new precision-guided missiles

August 6, 2019

Iran unveiled three precision-guided missiles on Tuesday, with the defense minister saying they show the country is ready to defend itself in the face of US "viciousness and conspiracies".

The new line-up of air-to-air missiles dubbed the "Yasin", "Balaban" and a new series of the "Ghaem" were developed jointly by the ministry and Sa Iran, also known as Iran Electronics Industries.

Defense Minister Brigadier-General Amir Hatami hailed their launch as "another significant achievement of power and dignity for the Islamic Republic of Iran".

"It shows that despite the viciousness and conspiracies of the Great Satan America and its mercenaries, the defense ministry will not hesitate for a moment to defend the Islamic republic and to expand security," he said, quoted by Fars news agency.

The Yasin was a smart, guided missile with folding wings that can be fired from a range of 50 km of its target from manned or unmanned aircraft, Fars reported.

The Balaban was guided by GPS and sensors, equipped with folding wings and could be mounted under aircraft, while the Ghaem was a heat-seeking missile that could hit within 50 centimeters of a target.

<http://saudigazette.com.sa/article/574086/World/Mena/Iran-unveils-three-new-precision-guided-missiles>

War with Iran is the mother of all wars: Rohani

Reuters, August 6, 2019

War with Iran is the mother of all wars, Iranian President Hassan Rouhani said on

Tuesday in a speech broadcast live on state TV, warning once again that shipping might not be safe in the Strait of Hormuz oil waterway. Tensions have risen between Iran and the West since last year when the United States pulled out of an international agreement which curbed the Islamic Republic's nuclear program in return for an easing of economic sanctions on Iran. "Peace with Iran is the mother of all peace, war with Iran is the mother of all wars," Rouhani said at the Foreign Ministry in a speech which also praised Foreign Minister Mohammad Javad Zarif after the United States imposed sanctions on him on July 31.

If the United States wants to have negotiations with Iran then it must lift all sanctions, Rouhani said, noting that Iran must be allowed to export oil. Fuelling fears of a Middle East war with global repercussions, the Guards seized British tanker Stena Impero near the Strait of Hormuz in July for alleged marine violations, two weeks after British forces captured an Iranian oil tanker near Gibraltar accused of violating sanctions on Syria. "A strait for a strait. It can't be that the Strait of Hormuz is free for you and the Strait of Gibraltar is not free for us," Rouhani said.

<https://www.reuters.com/article/us-mideast-iran-rouhani/war-with-iran-is-the-mother-of-all-wars-iran-president-idUSKCN1UW0I9>

Iran to unveil 'Bavar-373' air defense system on August 22

Tehran Times, August 7, 2019

The advanced air defense system will be unveiled on the National Day of the Defense Industry, which falls on August 22 this year, Tasnim quoted Hatami as saying.

Speaking to reporters on the sidelines of a cabinet session, Hatami announced that the Defense Ministry will put on display some of Iran's latest air defense achievements on August 22, and promised to announce good news on the occasion.

Bavar-373 is a domestically built long-range mobile air defense system which

was developed after the UN Security Council passed a resolution banning the sale of advanced weapons to the Islamic Republic, which in turn suspended Iran's purchase of the Russian S-300.

However, the restriction was lifted after Iran and six world powers signed a nuclear deal in 2015 that restricted some aspects of Tehran's nuclear program in exchange for sanctions relief.

A distinguishing feature of Bavar-373 is its vertical launching system with square launchers, mostly used for air defense on warships.

The missile system uses a long-range, phased array fire-control radar, dubbed Me'raj-4.

It employs three different types of missiles to hit targets at various altitudes.

Iranian military technicians have in recent years made great headways in manufacturing a broad range of equipment, making the armed forces self-sufficient in the arms sphere.

Tehran has always assured other nations that its military might poses no threat to regional countries, saying that the Islamic Republic's defense doctrine is entirely based on deterrence.

<https://www.tehrantimes.com/news/439055/Iran-to-unveil-Bavar-373-air-defense-system-on-August-22>

Iran unveils new smart bombs

Tehran Times, August 6, 2019

Iran on Tuesday unveiled three new precision-guided smart bombs, in a ceremony with Defense Minister Brigadier-General Amir Hatami, according to the Islamic Republic of Iran Broadcasting Website.

The unveilings come amid tensions between Iran and the United States along with Britain in the Persian Gulf.

The new air-to-air missiles revealed by Tehran are called the "Yasin" and the "Balaban" as well as a new series of the "Qaem" missile and were developed jointly

by the ministry and Sa Iran (Iran Electronics Industries).

According to the Mehr news agency, the Yasin is a smart missile with folding wings that can be fired from a range of 50 kilometers (30 miles) of its target from manned or unmanned aircraft.

The Balaban smart bomb is guided by hybrid inertial navigation system (INS)/ Global Positioning System (GPS) guidance and sensors to boost its precision capabilities and is equipped with folding wings and can be mounted under an aircraft.

The Qaem optic smart bomb meanwhile is a heat-seeking missile equipped with heat and cylinder seekers that allow the bomb to hit within 50 centimeters of a target. Similar to the Balaban, it can be installed on various kinds of unmanned aerial vehicles such as fighter jets and helicopters.

<https://www.tehrantimes.com/news/439025/Iran-unveils-new-smart-bombs>

Trump swats at Macron for Iran diplomacy

Tehran Times, August 9, 2019

"Iran is in serious financial trouble. They want desperately to talk to the U.S., but are given mixed signals from all of those purporting to represent us, including President Macron of France," Trump wrote on Twitter.

"I know Emmanuel means well, as do all others, but nobody speaks for the United States but the United States itself," Trump continued. "No one is authorized in any way, shape, or form, to represent us!"

The president's posts follow reports that Iranian President Hassan Rouhani has shared several phone conversations with Macron in recent weeks seeking to tamp down tensions surrounding the 2015 nuclear deal and the rising tension in the Persian Gulf.

A French diplomat on Wednesday denied a report that Rouhani had declined a

proposal from Macron to meet Trump at the G-7 summit in France later this month, emphasizing that Rouhani had not been invited to the forum of world leaders.

<https://www.tehrantimes.com/news/439104/Trump-swats-at-Macron-for-Iran-diplomacy>

UN says Iran's letter protesting sanctions on Zarif circulated to Security Council

Tehran Times, August 9, 2019

He added the UN chief calls on all parties to avoid any actions that would escalate an already very tense situation, according to Xinhua.

In separate statements on July 31, the U.S. Treasury and State Department announced imposition of sanctions against Zarif, a move which was interpreted as a total rejection of diplomacy repeatedly claimed by the Trump administration.

President Hassan Rouhani said on Tuesday that the Iranian foreign minister is more "popular" and "powerful" than ever.

"You have been mistaken if you sanctioned our foreign minister to cause division (among Iranians)," he said.

Foreign minister is the "representative of the entire Iranian nation and not a group or faction," the president remarked.

<https://www.tehrantimes.com/news/439099/UN-says-Iran-s-letter-protesting-sanctions-on-Zarif-circulated>

China, France to work on reducing tension on Iran nuclear issue

Tehran Times, August 10, 2019

In a phone conversation on Friday with Emmanuel Bonne, diplomatic counselor to French President Emmanuel Macron, Chinese State Councilor and Foreign Minister Wang Yi said Beijing is willing to work with France to prevent further escalation of tensions on the Iran nuclear deal.

According to Xinhua, during the phone talks, Wang expressed China's support for

the mediation efforts France has made to resolve the stalemate on the Iran nuclear agreement, saying that China has also made huge efforts in saving the Iran nuclear deal, officially known as the Joint Comprehensive Plan of Action (JCPOA).

Adhering to the deal means safeguarding multilateralism, safeguarding fairness and justice, and safeguarding regional security and stability, said Wang.

As a permanent member of the United Nations Security Council, China is willing to join hands with France to safeguard the authority and validity of the international agreement, encourage all parties to show flexibility, and, in particular, prevent further escalation of the tensions, said Wang.

<https://www.tehrantimes.com/news/439141/China-France-to-work-on-reducing-tension-on-Iran-nuclear-issue>

Ambassador: U.S. sanctioning of 80 million Iranians equals 'economic terrorism'

Tehran Times, August 10, 2019

Iran's ambassador to Iraq, Iraj Masjedi, said on Saturday that the U.S. unilateral sanctions imposed on 80 million Iranians amounts to "economic terrorism".

Masjedi said the United States' hegemonic government has violated all the legal norms and the international humanitarian law by imposing arbitrary sanctions on Iran and initiating a full-scale economic war against the Iranian people, IRNA reported.

This economic war has been rightly described as economic terrorism, the ambassador said.

With the grace of God, the criminal acts of the U.S. and its allies will fail once again, he predicted.

U.S. President Donald Trump has imposed several rounds of sanctions on Iran after he withdrew the U.S. from the multinational nuclear deal last year.

Trump has even introduced full ban on Iran's oil export, a move which has been described as an economic war against Tehran.

<https://www.tehrantimes.com/news/439136/Ambassador-U-S-sanctioning-of-80-million-Iranians-equals-economic>

Iran unveils 'upgraded missile defense system' August 10, 2019

Reuters, August 10, 2019

Iran unveiled on Saturday what authorities said was a locally upgraded radar system with a range of 400 km that could help defend against cruise and ballistic missiles and drones. The announcement comes at a time of rising tension between Iran and United States. Iran shot down a US military surveillance drone in the Gulf with a surface-to-air missile in June. Tehran says the drone was over its territory, but Washington says it was in international airspace. State television showed the Falaq, a mobile radar and a vehicle housing a control room, which it said was an improved version of the Gamma, a system that military experts said was of Russian origin.

Western military analysts say Iran often exaggerates its weapons capabilities, though concerns about its long-range ballistic missile program contributed to Washington last year exiting the pact that Iran sealed with world powers in 2015 to rein in its nuclear ambitions in exchange for an easing of economic sanctions. "This system has high capabilities and can detect all types of cruise and ballistic missiles and drones," Brigadier General Alireza Sabahifard, commander of the regular army's air defenses, was quoted as saying by semi-official news agency Mehr.

<https://uk.reuters.com/article/mideast-iran-missiles/iran-unveils-upgraded-missile-defence-system-idUKL8N256046>

Iran's enriched uranium stockpile hits 370 kg

Tehran Times, August 13, 2019

Iran's enriched uranium stockpile has increased to reach 370 kilograms, according

to the country's Atomic Energy Organization spokesman.

Speaking on Tuesday, Behrooz Kamalvandi said, "We are currently working at a good capacity. Our stockpile stands at least 60 to 70 kilograms above 300 kilogram, and it is growing fast too," IRNA reported.

<https://www.tehrantimes.com/news/439197/Iran-s-enriched-uranium-stockpile-hits-370-kg>

Europe must fulfil JCPOA commitments: MP

Tehran Times, August 14, 2019

In an interview with the Tasnim news agency published on Wednesday, he said that Iran's talks with the European countries should be on the nuclear deal and not any other issue.

According to the nuclear deal, Iran agreed to put limits on its nuclear activities in exchange for termination of economic and financial sanctions.

However, Donald Trump withdrew the U.S. from the UN-endorsed JCPOA in May 2018 and imposed the toughest ever sanctions against Iran in line with his administration's "maximum pressure" policy against Tehran.

The remaining parties, particularly the European sides, have failed to honor their commitments since the U.S. reimposed the sanctions.

On May 8, exactly one year after the U.S. abandoned the multi-nation nuclear agreement and reimposed sanctions on Iran, Tehran said its "strategic patience" is over and announced a partial withdrawal from some aspects of the pact, saying that the country would no longer adhere to some of the limits on its nuclear activities. It also threatened to step up uranium enrichment if an agreement is not made within 60 days to protect it from the sanctions' effects.

<https://www.tehrantimes.com/news/439248/Europe-must-fulfil-JCPOA-commitments-MP>

Iran's deterrence power cannot be tested: Army air defense chief

Tehran Times, August 15, 2019

A top military commander said on Wednesday that Iran's defense capability cannot be tested, saying if the enemies don't dare to approach the Strait of Hormuz and are withdrawing their warships from the Persian Gulf it is because of Iran's deterrence power.

"If the enemy is stopped at 200 miles from the Strait of Hormuz and withdrawing its warships from the Persian Gulf it is because of the deterrence power of the armed forces," Alireza Sabhi-Fard, commander of the army's air defense unit, told the students of the military academy.

The brigadier general added the Iranian army, by upgrading its deterrence power, has made the enemies to never think of violating "our country's territorial integrity".

H. Saudi Arabia

Saudi Arabia, China have established 'comprehensive strategic partnership'

Lojien Ben Gassem, Arab News, August 3, 2019

Zhu Xinglong, counselor at the Chinese Embassy in Riyadh, said Saudi Arabia and China have established a comprehensive strategic partnership. Discussing Chinese-Saudi bilateral relations during an interview, he said: "The two countries have set up the China-Saudi Arabia high-level joint committee." "The two sides have also enhanced political trust and maintained good momentum in pragmatic cooperation in the fields of economy, trade, energy, science, technology, education and culture, and have achieved fruitful results.

The complementarity between the Belt and Road Initiative and the Saudi 2030 Vision has great potential," he said. Incorporating the Chinese language into the education curriculum in Saudi schools would have a profound influence on China-Saudi

relations, he said. "Next year we will celebrate the 30th anniversary of the establishment of diplomatic relations between China and Saudi Arabia. Thanks to 30 years of joint effort, the more mature, stable and profound China-Saudi relations will further serve the common interests of the two countries."

<http://www.arabnews.com/node/1534636/saudi-arabia>

I. Egypt

Egypt denies connection between nuclear explosion in Russia and Dabaa project

Egypt Independent August 14, 2019

Egypt's government has denied any connection between an explosion in Russia suspected to be a nuclear missile test, and the Dabaa nuclear power plant in Egypt being constructed by the Russian company Rosatom. "The Nuclear Power Plants Authority (NPPA) said there is absolutely no connection between the test on a nuclear fuel missile and nuclear power plants in general," the government said in a Facebook statement. This came after thousands of comments from Egyptians across social media expressed fear and criticism over Russia's ability to implement the Dabaa project safely. The statement stressed that "The nuclear power plant in Dabaa is of the third developed generation and has a double containment building that can withstand the collision of a plane weighing 400 tons loaded with fuel and fly at a speed of 150 meters per second."

<https://egyptindependent.com/egypt-says-no-connection-between-nuclear-explosion-in-russia-and-dabaa-project/>

EMA head: Egypt not at risk from Russia nuclear explosion

Al-Masry Al-Youm, August 14, 2019

The Chairman of the Egyptian Meteorological Authority (EMA) Ahmed Abdel Aal said that Egypt is far from the path of radioactive dust caused by a

nuclear explosion in the Russian city of Severodvinsk. In a statement on Wednesday, Abdel Aal added that Egypt during the summer is not exposed to any air masses coming from Russia, unlike winter which sees Egypt sometimes affected by the extension of the Siberian high. Currently, Egypt is affected by India's seasonal low lag which brings in an air mass coming from southern Europe, accompanied by northwestern winds turning to southwestern that raises temperatures to peak on Cairo for Thursday. Temperatures will return to normal from Friday. Meteorologists predict hot weather for the western and eastern coasts on Thursday and very hot weather for the country's remaining parts during daylight. Temperatures will grow colder by night throughout the country.

<https://egyptindependent.com/ema-head-egypt-not-at-risk-from-russia-nuclear-explosion/>

Official source: Dabaa Nuclear Power Plant has the safest design of its kind in the world

Al-Masry Al-Youm, Egypt Independent, August 15, 2019

The International Atomic Energy Agency (IAEA) has reviewed the Dabaa project's safety measures in Egypt, said an official source with the Nuclear Power Plants Authority, adding that Dabaa has the safest design of its kind in the world. The source added that Egypt is particularly keen to secure safety measures for the plant, and that's why it selected the third generation developed reactors, the latest in the world. Egypt and Russia are cooperating with the IAEA, which monitors nuclear projects and ensures their compliance with international standards, the source said. According to the source, IAEA experts visited Egypt last January upon the invitation of the Egyptian Nuclear and Radiological Regulatory Authority and provided support in reviewing the Dabaa project documents, especially with regard to the site assessment and the project's radiological impact on the environment.

Karim al-Adham, Professor at the Egyptian Nuclear and Radiation Control Authority, said that there is no legitimate fear of a nuclear explosion similar to that which occurred recently due to missile tests in the Russian city of Severodvinsk, pointing out that the technology used at Dabaa is the safest of its kind in the world.

<https://egyptindependent.com/official-source-dabaa-nuclear-power-plant-has-the-safest-design-of-its-kind-in-the-world/>

J. East Asia

North Korea says it tested crucial new rocket launch system

KIM TONG-HYUNG, AP News, August 1, 2019

North Korea said Thursday leader Kim Jong Un supervised the first test firing of a new multiple rocket launcher system that could potentially enhance its ability to strike targets in South Korea and U.S. military bases there.

The report by North Korea's official Korean Central News Agency differed from the assessment by South Korea's military, which had concluded Wednesday's launches were of two short-range ballistic missiles.

The launches from the eastern coastal town of Wonsan were North Korea's second weapons test in less than a week and were seen as a move to keep up pressure on Washington and Seoul amid a stalemate in nuclear negotiations. Pyongyang has also expressed anger over planned U.S.-South Korea military drills.

KCNA said Kim expressed satisfaction over the test firing and said the newly developed rocket system would soon serve a "main role" in his military's land combat operations and create an "inescapable distress to the forces becoming a fat target of the weapon."

<https://www.apnews.com/09c7059291d846a091e139183fe7c4b7>

North Korea test-fired new rocket system under leader's supervision: state media

The Korean Times, August 1, 2019

North Korea said Thursday it tested a new rocket system in launches conducted the previous day, raising questions about South Korea's assessment that the communist nation is believed to have fired short-range ballistic missiles.

Leader Kim Jong-un "guided a test-fire of a newly developed large-caliber multiple launch guided rocket system on July 31," the Korean Central News Agency said.

"The test-fire scientifically confirmed that the tactical data and technical characteristics of the new-type large-caliber guided ordnance rocket reached the numerical values of its design, and verified the combat effectiveness of the overall system," the KCNA said.

"After learning about the result of the test-fire, (Kim Jong-un) said that it is very great and it would be an inescapable distress to the forces becoming a fat target of the weapon," it added.

The KCNA did not mention any country as its potential target, but the report appears to be referring to Seoul, which is apparently within the range of the weapon.

http://www.koreatimes.co.kr/www/nation/2019/08/103_273209.html

North Korea took \$2 billion in cyberattacks to fund weapons program: U.N. report

Michelle Nichols, Reuters, August 5, 2019

North Korea has generated an estimated \$2 billion for its weapons of mass destruction programs using "widespread and increasingly sophisticated" cyberattacks to steal from banks and cryptocurrency exchanges, according to a confidential U.N. report seen by Reuters on Monday.

Pyongyang also "continued to enhance its nuclear and missile programmes although it did not conduct a nuclear test or ICBM

(Intercontinental Ballistic Missile) launch," said the report to the U.N. Security Council North Korea sanctions committee by independent experts monitoring compliance over the past six months.

The North Korean mission to the United Nations did not respond to a request for comment on the report, which was submitted to the Security Council committee last week.

The experts said North Korea "used cyberspace to launch increasingly sophisticated attacks to steal funds from financial institutions and cryptocurrency exchanges to generate income." They also used cyberspace to launder the stolen money, the report said.

<https://www.reuters.com/article/us-northkorea-cyber-un/north-korea-took-2-billion-in-cyber-attacks-to-fund-weapons-program-u-n-report-idUSKCN1UV1ZX>

'We will make them pay': North Korea launches missiles, condemns U.S.-South Korea drills

Josh Smith, Joyce Lee, Reuters, August 5, 2019

North Korea fired missiles into the sea off its east coast for the fourth time in less than two weeks, South Korea said on Tuesday, as Pyongyang warned that hostile moves against it "have reached the danger line."

The North, criticizing the U.S.-South Korean drills and their use of high-tech weapons, has fired a series of missiles and rockets since its leader Kim Jong Un and U.S. President Donald Trump agreed at a June 30 meeting to revive stalled denuclearization talks.

North Korea has said it is committed to diplomacy and it will wait until the end of the year for the United States to soften its policy of sanctions and political pressure over Pyongyang's nuclear weapons and ballistic missile programs.

<https://www.reuters.com/article/us-northkorea-missiles/we-will-make-them-pay-north-korea-launches-missiles-condemns-u-s-south-korea-drills-idUSKCN1UV29Q>

North Korea fires unidentified short-range projectiles: JCS

North Korea on Friday fired unidentified short-range projectiles off its east coast, South Korea's military said, its third launch in a week.

Korean Times, August 6, 2019

The Joint Chiefs of Staff said the projectiles were fired at 2:59 a.m. and 3:23 a.m. from Yonghung, South Hamgyong Province, into the East Sea.

"We are monitoring the situation in case of additional launches and maintaining a readiness posture," the JCS said.

Last week, North Korea test-fired two short-range ballistic missiles off its east coast, saying it sent a "solemn" warning to South Korea over its planned military exercises with the United States this month.

On Wednesday, North Korea fired two more such missiles, according to the JCS. North Korea disputed the assessment, saying it had tested a new rocket launch system.

http://www.koreatimes.co.kr/www/nation/2019/08/103_273275.html

North Korea says U.S. is inciting military tension

Reuters, August 6, 2019

North Korea accused the United States on Tuesday of "inciting military tension" by holding joint exercises with South Korea and said Pyongyang would take measures to defend itself.

Ju Yong Chol, a North Korean diplomat in Geneva, told the U.N.-sponsored Conference on Disarmament that Pyongyang would have to "reconsider the major steps we have taken so far".

He did not mention North Korea's latest firing of missiles into the sea off its east coast for the fourth time in less than two weeks on Tuesday.

"Although U.S. and South Korean authorities are playing every trick to justify this military exercise, they can neither

conceal nor whitewash its aggressive nature in any manner," Ju told the forum.

"What is more serious is that the United States is inciting military tension hostile to the DPRK by deploying a large amount of latest offensive military hardware in South Korea in disregard of its commitment to suspend joint military exercises made at summit level."

This compelled North Korea to "develop, test and deploy the powerful physical means essential for our national defense", Ju said.

U.S. disarmament ambassador Robert Wood took the floor to reject the allegation: "Let me just make very clear, the United States is not inciting military pressure.

<https://www.reuters.com/article/us-northkorea-missiles-un/north-korea-says-u-s-is-inciting-military-tension-idUSKCN1UW0XG>

AUGUST 7, 2019 / 2:52 AM / 19 DAYS AGO

North Korea's Kim says missile launches are warning to U.S., South Korea over drill: KCNA

Joyce Lee, Hyonhee Shin, Reuters, August 6, 2019

North Korean leader Kim Jong Un said his country's latest launch of tactical guided missiles was a warning to the United States and South Korea over their joint military drills that began this week, state media KCNA reported on Wednesday.

Tuesday's missile launch, the North's fourth in less than two weeks, came amid stalled denuclearization talks with Washington and U.S.-South Korea military exercises, although Washington and Seoul played down the tests.

Kim said the latest missile test was "an occasion to send an adequate warning to the joint military drill now underway by the U.S. and South Korean authorities", according to KCNA.

The "new-type tactical guided missiles", launched from the western area of North Korea, flew across the peninsula over the capital and the central inland region to

“precisely hit the targeted islet” in the sea off the North’s east coast, KCNA said. Its report confirmed the South Korean military’s analysis of their trajectories on Tuesday.

The launches “clearly verified the reliability, security and actual war capacity” of the weapon, KCNA said, echoing analysts who said the launches showed North Korea’s confidence in its missile technology.

<https://www.reuters.com/article/us-northkorea-missiles/north-koreas-kim-says-missile-launches-are-warning-to-u-s-south-korea-over-drill-kcna-idUSKCN1UW2CR>

North Korea fires missiles as US-South Korea drill begins

Kim Yoo-chul, The Korean Times, August 6, 2019

North Korea fired two “short-range ballistic missiles” into the sea from North Hwanghae Province early Tuesday morning, South Korea’s Joint Chiefs of Staff (JCS) said, Tuesday.

The launches came a day after President Moon Jae-in issued a rather “nationalistic request” for closer economic cooperation with the North as his apparent leverage against Japan. Also, this year’s joint military drill between the United States and South Korea had de facto begun, Monday, to verify the South Korean military’s basic combat readiness for the transfer of wartime operational control.

“The South Korean military detected two projectiles 5:24 a.m. and 5:36 a.m., respectively, which were fired into the sea from North Hwanghae Province. They are believed to be short-range ballistic missiles,” the JCS said. The missiles flew some 450 kilometers east across the Korean Peninsula before splashing down into the East Sea, reaching an altitude of 37 kilometers and a maximum speed of Mach 6.9.

Tuesday morning’s actions mark the fourth set of missile launches by North Korea in just 13 days. Pyongyang had earlier fired missiles on July 25, 31 and Aug. 2, according to the JCS.

http://www.koreatimes.co.kr/www/nation/2019/08/113_273510.html

K. South Korea

No discussions on US missile deployment in S. Korea: ministry

Yonhap, The Korean Herald, August 5, 2019

South Korea has had no discussions with the United States on the possible deployment of US intermediate-range missiles on its soil, nor does it plan to do so, the defense ministry said Monday.

Some media outlets have speculated that South Korea could be one of candidate sites for US missiles, after Washington pledged to deploy them in Asia and elsewhere to maintain deterrence after withdrawing from an anti-missile treaty with Russia.

“Our government did not have any official discussions with the US on the possible introduction of intermediate missiles (on South Korean soil). We have not internally reviewed the issue and have no plan to do so,” defense ministry spokesperson Choi Hyun-soo told a regular briefing.

http://www.koreaherald.com/view.php?ud=20190805000602&ACE_SEARCH=1

S. Korea, US kick off combined military exercise despite NK warnings

Korean Herald, August 5, 2019

South Korea and the United States began a joint military exercise as scheduled Monday, sources said, even though North Korea has strongly complained against the maneuvers and rattled its sabers with a series of missile launches.

The “crisis management staff training” kicked off earlier in the day as a preliminary session in the runup to the command post exercise (CPX) aimed at strengthening the allies’ combined posture and capabilities to cope with contingencies on the Korean Peninsula, according to the sources.

The staff training is expected to last until around Thursday, and the main part of

the exercise is set to run from Sunday for about two weeks, they added

How many service personnel were involved from both sides and the exact duration, as well as the official name of the exercise, were not available, as neither Seoul nor Washington officially disclosed details in an apparent effort not to provoke Pyongyang.

“Preparations are underway for a combined exercise this year to verify our basic operational capabilities for the transfer of wartime operational control (OPCON) (from Washington),” defense ministry spokesperson Choi Hyun-soo told a regular briefing, without further elaborating.

http://www.koreaherald.com/view.php?ud=20190805000701&ACE_SEARCH=1

S. Korean, US defense chiefs vow to support diplomacy for NK denuclearization

The Korean Times, August 9, 2019

South Korean Defense Minister Jeong Kyeong-doo and US Defense Secretary Mark Esper agreed Friday to work together to support diplomatic efforts to denuclearize North Korea despite Pyongyang’s saber-rattling amid stalled nuclear talks.

During the defense talks held in Seoul, Esper also asked for South Korea to play a role in the US-led coalition to safeguard the Strait of Hormuz, according to officials. The two defense chiefs “reaffirmed their commitments to supporting their diplomatic efforts for the complete denuclearization of the Korean Peninsula and the establishment of a lasting peace,” according to their joint press release.

Stressing the importance of continued and close coordination for such efforts, the two sides agreed to maintain communication as well as their steadfast alliance, which is crucial for the stabilization of the surrounding regions, the statement said.

The nuclear negotiations between Washington and Pyongyang have been stalled since the no-deal Hanoi summit

between US President Donald Trump and North Korean leader Kim Jong-un in February.

http://www.koreaherald.com/view.php?ud=20190809000589&ACE_SEARCH=1

S. Korea says NK apparently eyes nuclear talks with US after military drills end

The Korean Herald, Aug 12, 2019

North Korea appears to be seeking the resumption of working-level nuclear talks with the United States after ongoing joint military drills between Seoul and Washington end, South Korea’s presidential office said Monday.

A senior Cheong Wa Dae official was responding to a statement issued by a North Korean foreign ministry official Sunday that contains strong condemnation against South Korea and blasted Seoul for staging the allies’ military exercis

“(The North Korean statement) appears to demonstrate the country’s willingness to hold working-level talks (with the US over denuclearization) after the drills end,” the presidential official said, without commenting on Cheong Wa Dae’s stance over the message.

When asked by reporters whether Cheong Wa Dae felt uneasy about the North’s belligerent message, the official said, “Statements issued by North Korea use different languages, compared with ours.”

Meanwhile, the office of President Moon Jae-in dismissed a Japanese media report saying the US supported Tokyo’s claim that South Korean court rulings over Japan’s wartime forced labor violate the 1965 bilateral treaty that normalized the Seoul-Tokyo ties.

http://www.koreaherald.com/view.php?ud=20190812000591&ACE_SEARCH=1

NK says US missile deployment will turn S. Korea into 'bullet-shield'

The Korean Herald, Aug 14, 2019

North Korea's official news agency on Wednesday warned South Korea not to host US intermediate-range missiles on its soil, saying the deployment would be a "reckless act of escalating tension" in the region.

Earlier this month, the US formally pulled out of the Intermediate-Range Nuclear Forces treaty with Russia and vowed to begin testing new missiles and deploy them around the world.

Shortly after the withdrawal, US Secretary of Defense Mark Esper said Washington will consult with its allies to decide where to deploy intermediate-range missiles in Asia and elsewhere to maintain deterrence. Some media outlets have speculated that South Korea could be one of candidate sites.

Apparently referring to the media reports, the Korean Central News Agency said in a commentary that the deployment would be a "path to self destruction" that could turn South Korea into a "bullet-shield."

"It is a reckless act of escalating regional tension, an act that may spark off a new Cold War and arms race in the Far Eastern region to deploy a new offensive weapon in South Korea," the commentary said.

http://www.koreaherald.com/view.php?ud=20190814000702&ACE_SEARCH=1

L. Japan

Work begins to topple dangerous exhaust stack at Fukushima plant

The Asahi Shimbun, August 2, 2019

Delicate work got under way Aug. 1 at the crippled Fukushima No. 1 nuclear power plant to dismantle an unstable exhaust stack that is so highly contaminated by radiation the task must be done by remote control.

Initial plans had called for the work to start in March, but the project was delayed by a failure among other things to confirm design

plans that led operator Tokyo Electric Power Co. to deploy a crane that was not up to the task.

The exhaust stack, which is 120 meters tall and 3.2 meters in diameter, was used for the No. 1 and No. 2 reactors.

<http://www.asahi.com/ajw/articles/AJ201908020037.html>

Moon calls for 'peace economy' with N. Korea, slams Japan

Kim Tong-Hyung, AP News, August 5, 2019

South Korea's president on Monday described the country's escalating trade war with Japan as a wake-up call to revamp its economy and issued a nationalistic call for economic cooperation with North Korea, which he said would allow the Koreas to erase Japan's economic superiority in "one burst."

President Moon Jae-in made the comments in a meeting with senior aides to discuss Japan's imposition of trade curbs on South Korea. They came as a surprise since North Korea has raised tensions in recent weeks with tests of new short-range weapons that pose a threat to South Korea's security.

"The advantage Japan's economy has over us is the size of its (overall) economy and domestic market. If the South and North could create a peace economy through economic cooperation, we can catch up with Japan's superiority in one burst," Moon said in the meeting at Seoul's presidential Blue House.

<https://www.apnews.com/f09bce1130ec432fada58c58dc6e1f74>

Questions raised over future of nuclear power at Keidanren meet

The Asahi Shimbun, August 6, 2019

Business leaders questioned the future of the nuclear power industry at a meeting of Japan's largest business group, with some arguing that renewable energy solutions are more in line with global trends.

While Keidanren (Japan Business Federation) has consistently favored restarts of suspended reactors across the nation, arguments among members have also emerged over related issues such as the high associated costs of nuclear power generation.

The brainstorming session on energy issues, a major theme of the group's summer forum, was held July 19 at a hotel in Karuizawa, Nagano Prefecture.

While many of the 10 business leaders expressed positive opinions on "assisting with the resumption of operations of idle reactors," Fumiya Kokubu, chairman of major trading house Marubeni Corp., raised doubts, asking, "Is this really the best choice?"

<http://www.asahi.com/ajw/articles/AJ201908060003.html>

Japan's military buildup what for?

Song Jong Ho, Pyongyang Times, August, 2019

Japan's moves to build up military capability are giving rise to serious concern of neighbouring countries.

Recently, the Japanese defence ministry made public that it was going to organize a special space unit involving a hundred personnel under the Air Self-Defence Force. Despite the strong opposition of the locals, it is now trying to carry on the deployment of the ground-based missile defence system Aegis Ashore.

Aegis Ashore, which can mount SM-3 Block 2A new-type intercepting missiles, is known as a weapon system that can intercept ballistic missiles in outer space.

As this missile defence system includes a vertical launching system, it can easily turn into an offensive weapon if it is loaded with Tomahawk cruise missiles. Japan specified the possession of long-range cruise missiles that can attack the enemy in its defence programme which was instituted at the end of last year.

Given that the range of Tomahawk is 2 400 km, Northeast China and the southern Russian Far East come within its range, to say nothing of the Korean peninsula.

Aegis Ashore to be deployed in Japan, both in name and reality, targets not only the Korean peninsula but also China and Russia.

On December 19 last year, Japan's Asahi Shimbun said in an article entitled "The defence programme goes beyond the boundary line" that the main object of the defence programme is to cope with the threat of China which is pushing military upbuilding, adding the decision to deploy the missile defence system is aimed at coping with China's missiles.

<http://www.pyongyangtimes.com.kp/?bbs=30904>

Hiroshima urges Japan to ratify anti-nuke treaty at 74th ceremony

Sonoko Miyazaki, Asahi Shimbun, August 6, 2019

With Prime Minister Shinzo Abe looking on, Hiroshima Mayor Kazumi Matsui urged Japan to ratify an international treaty banning nuclear weapons at the peace ceremony on Aug. 6 marking the 74th anniversary of the atomic bombing.

"Firmly listen to the voices of survivors asking Japan to sign and ratify the Treaty on the Prohibition of Nuclear Weapons," Matsui said in his remarks, referring to the treaty approved July 7, 2017, at a U.N. conference.

However, Abe in his speech at the ceremony failed to touch on the treaty for the second consecutive year.

Amid heavy rain, an estimated 50,000 people, including ambassadors and other diplomats of 92 countries to Japan, atomic bomb survivors and bereaved families, were in attendance.

<http://www.asahi.com/ajw/articles/AJ201908060036.html>

'Atomic-bombed cross' returns to Nagasaki as a symbol of hope

The Asahi Shimbun, August 8, 2019

A Christian cross that survived the 1945 atomic bombing of Nagasaki and cemented an otherwise-unlikely friendship between a Japanese bishop and a U.S. Marine has returned home to Urakami Cathedral here after 74 years.

Clasping the gold-trimmed wooden artifact, Mitsuaki Takami, the 73-year-old archbishop of Nagasaki, said Aug. 7, "I am delighted the cross is alive."

"Atomic bomb victims will die, but the cross will remain as a living witness to what happened in Nagasaki," he added.

Over the years, the cross was kept by Walter Hooke, a U.S. Marine who was stationed in Nagasaki from October 1945 until February 1946.

<http://www.asahi.com/ajw/articles/AJ201908080033.html>

Nuke ban urged, as Nagasaki marks 74 years since bombing

Toko Tamaka, The Asahi Shimbun, August 9, 2019

The mayor of this city urged greater action from Japan and the nuclear powers, owing to concerns of the rising danger of a nuclear disaster, at a peace ceremony here on Aug. 9 marking the 74th anniversary of the atomic bombing.

During the Peace Declaration at the ceremony, Nagasaki Mayor Tomihisa Taue said, "The achievements of humankind and the results of our longstanding efforts to rid the world of nuclear weapons are collapsing one after another, and the danger of a nuclear calamity is mounting."

Prime Minister Shinzo Abe, Izumi Nakamitsu, the U.N. high representative for disarmament affairs, and ambassadors and diplomats of 66 nations to Japan, including six nuclear nations, were in attendance at the event in Nagasaki Peace Park.

<http://www.asahi.com/ajw/articles/AJ201908090047.html>

Work to remove fuel debris from No. 2 reactor may start in 2021

Naoya Kon, The Asahi Shimbun, August 9, 2019

Pebble-like nuclear fuel debris in the No. 2 reactor at the Fukushima No. 1 nuclear plant (Provided by International Research Institute of Nuclear Decommissioning)

Work to remove melted nuclear fuel debris from the No. 2 reactor at the crippled Fukushima No. 1 nuclear power plant is expected to start in 2021, it was announced Aug. 8.

The plan, announced by the Nuclear Damage Compensation and Decommissioning Facilitation Corp., is part of the decommissioning of the plant, which experienced meltdowns at three reactors triggered by the 2011 Great East Japan Earthquake and tsunami. The corporation decided to remove debris from the No. 2 reactor first because radiation exposure to workers would be lower than at the other reactors and a route to transport equipment to where the debris is located has mostly been confirmed.

<http://www.asahi.com/ajw/articles/AJ201908090055.html>

4 companies consider jointly operating nuclear power plants

The Asahi Shimbun, August 9, 2019

To deal with rapidly rising costs and other difficulties, four major companies are considering jointly constructing and operating nuclear power plants, sources said.

Tokyo Electric Power Co. Holdings Inc., Chubu Electric Power Co., Hitachi Ltd. and Toshiba Corp. are aiming to reach a basic agreement in late August toward the joint plan, according to the sources.

Since the accident at the Fukushima No. 1 nuclear power plant in 2011, nuclear power generation businesses have been struggling. Subsequently, the four firms are aiming to maintain their businesses by jointly tackling the costs, they said.

<http://www.asahi.com/ajw/articles/AJ201908090059.html>

Ballooning costs give lie to notion nuclear power is cheapest energy

The Asahi Shimbun, August 12, 2019

Soaring costs borne by operators of nuclear power plants to safeguard their facilities against natural disasters and terrorist attacks suggest the government is wrong in its longstanding contention that nuclear power is the nation's cheapest energy source.

A study by The Asahi Shimbun found that the overall estimate for the cost of safety measures by 11 operators stood at 5.074 trillion yen (\$48.32 billion) as of July. The operators include those whose nuclear facilities are still under construction.

The combined figure for the 11 companies represents an increase of about 660 billion yen from a year earlier.

<http://www.asahi.com/ajw/articles/AJ201908120062.html>

South Korea urges dialogue with Japan in measured World War Two anniversary message

Hyonhee Shin, Linda Sieg, Reuters, August 15, 2019

On the anniversary of Japan's World War Two surrender, South Korea's president on Thursday urged Japan to contemplate its wartime past and offered to engage in talks to repair strained ties, while Japan pledged to never repeat the horrors of war.

Relations between Japan and South Korea are arguably at their lowest ebb since they normalized ties in 1965, strained over the issue of South Korean forced labor during World War Two and a bitter trade row.

In a speech marking Korea's independence from Japanese rule, Moon dialed down his recent harsh rhetoric towards Japan.

<https://www.reuters.com/article/us-southkorea-japan-labourers-anniversar/south-korea-urges-dialogue-with-japan-in-measured-world-war-two-anniversary-message-idUSKCN1V506U>

60% of spent nuclear fuel in Japan to be stored in metal casks in the future, research shows

Japan Times, August 15, 2019

Over 60 percent of the some 15,200 tons of spent nuclear fuel in Japan could be stored in metal casks in the future, as the cooling pools that currently hold them are filling up, Kyodo News research showed Wednesday.

The survey of utility companies' plans revealed the potential volume at a time when each firm is looking at dry casks to boost storage capacity for the ever-increasing, highly radioactive byproduct of nuclear power generation.

They believe the leak-tight canisters will be safer than storing the spent fuel in pools. But keeping them in dry cask storage facilities, which do not need water or electricity to keep spent nuclear fuel cooled, will only be a temporary solution.

<https://www.japantimes.co.jp/news/2019/08/15/national/majority-spent-nuclear-fuel-japan-likely-stored-metal-casks-future-pools-fill/#.XWA0xGgvO7g>

M. Taiwan

AIT events mark month of focus on security links

Taipei Times, August 2, 2019

The American Institute in Taiwan (AIT) is hosting a series of events this month to mark Security Cooperation Month as part of a year-long celebration of the 40th anniversary of the US' Taiwan

Relations Act (TRA). AIT has assigned a theme to each month of this year to highlight aspects of

the bilateral partnership. "For decades, the United States and Taiwan have enjoyed a deep and

robust security cooperation relationship," AIT said in a statement yesterday.

The AIT@40 Security Cooperation Month is a “recognition of the multifaceted nature of the security cooperation activities that benefit both Taiwan and the United States,” it said. The first of this month’s events is to be the screening on Monday of *The Lost Black Cats*, a documentary about the Black Cat Squadron, formally known as the 35th Squadron of the Republic of China Air Force, which flew U-2 surveillance planes over China from 1961 to 1974 on intelligence-gathering missions. Over more than 200 missions, 12 of the planes were shot down and 10 pilots were killed. AIT Director Brent Christensen is to give a policy address on security cooperation at an exhibition to open in Taoyuan on Aug. 14 titled “Strong Foundation, Bright Future: AIT@40,

U.S.-Taiwan Relations Since 1979.” On Aug. 15, he is to speak at the opening ceremony of the Taipei Aerospace and Defense Technology Exhibition in Taipei. Security Cooperation Month comes after the US Department of State on July 8 announced a US\$2.22 billion arms package to Taiwan that includes 108 M1A2T Abrams tanks, 250 Stinger missiles and related equipment, via contractors Raytheon Missile Systems Co and General Dynamics Land Systems. The US government is still mulling Taiwan’s plan to buy 66 F-16V jets.

<http://www.taipeitimes.com/News/taiwan/archives/2019/08/02/2003719784>

N. Miscellaneous and World

UN nuclear watchdog to appoint new head in October

AP, August 1, 2019

The United Nations’ nuclear watchdog aims to name a new leader in October following the death last month of Yukiya Amano, its director general for the past decade. The International Atomic Energy Agency said as its board of governors met in Vienna Thursday that nominations for the job should be submitted by Sept. 5 and the new director general is expected to be appointed in October. The new leader should take office by Jan. 1. Cornel Feruta, a Romanian diplomat and the IAEA’s chief coordinator, is serving as the acting director general

pending the naming of a permanent successor to Amano.

<https://www.apnews.com/956311931bb6466b996a1f0c87b30ea2>

Bangladesh, Russia to ink nuclear fuel supply deal

Dhaka Tribune, August 5, 2019

Bangladesh is set to sign a nuclear fuel supply agreement with Russia on Tuesday for the Rooppur Nuclear Power Plant (RNPP) project.

As the implementing agency of the RNPP project, Bangladesh Atomic Energy Commission (BAEC) will ink the contract with the Russian state-owned nuclear fuel firm TVEL Joint Stock Company in this regard.

According to a proposal approved by the Cabinet Division’s Economic Affairs Committee, TVEL Joint Stock Company will supply fuel for the ‘entire lifetime’ of the 2,400 MW RNPP project.

<https://www.dhakatribune.com/bangladesh/government-affairs/2019/08/05/bangladesh-russia-to-ink-nuclear-fuel-supply-deal>

Fuel supply contract for Bangladeshi plant

World Nuclear News, August 6, 2019

A ceremony was held today to mark the exchange of documents between TVEL JSC - the nuclear fuel manufacturer of Russian state nuclear corporation Rosatom - and the Bangladesh Atomic Energy Commission (BAEC) finalising a contract signed in late 2018 for the supply of fuel for the Rooppur nuclear power plant under construction in Bangladesh.

Rosatom in February 2011 signed an agreement for two 1000 MWe-class reactors to be built at Rooppur for BAEC. According to that agreement, Bangladesh is required to procure nuclear fuel from TVEL for the entire operating life of the plant.

The 1200 MWe VVER-1200 reactor model was subsequently selected for Rooppur.

The initial contract for the project, worth USD12.65 billion, was signed in December 2015. Under that contract, Rosatom will maintain the plant for the first year of its commercial operation before handing over to the Bangladesh authorities, and will bear fuel costs for the first year of operation. According to a report in *Energy Bangla*, Bangladesh has already signed a deal with Russia to procure the required uranium for the first two years of operation of the Rooppur plant.

<http://world-nuclear-news.org/Articles/Fuel-supply-contract-signed-for-Bangladeshi-plant>

Massive Wildfire Cloud Sheds Light On Nuclear War's Impact

Todd Bates, Futurity, August 8, 2019

The new finding will help scientists model the climate impacts of nuclear war.

The pyrocumulonimbus (pyroCb) cloud – the largest of its kind ever observed – was quickly dubbed “the mother of all pyroCbs.” When the smoke reached the lower stratosphere, it was heated by sunlight and “self-lofted” from 7 to 14 miles up within two months.

The pivotal ingredient was black carbon (soot), which absorbed solar radiation, heating the air and fueling the smoke’s rapid rise. The smoke lasted more than eight months because the stratosphere has no rain to wash it out.

<https://www.futurity.org/wildfire-cloud-nuclear-war-climate-2128532-2/>

IAEA Launches Revamped Nuclear Communicator's Toolbox

Matt Fisher, International Atomic Energy Agency, August 13, 2019

The toolbox, an online resource designed for technical staff as well as communication professionals, provides information on core principles and methodological approaches for effectively engaging with relevant stakeholders on the use of nuclear technologies. It offers quick and easy access to reference information for crafting and implementing a communication plan,

including how to identify the concerns of a diverse group of stakeholders and deliver key messages to optimize engagement.

Initially released in 2007, the toolbox has been overhauled to include an enhanced, more user-friendly layout as well as significantly expanded content which reflects the evolving landscape of communication tools, particularly social media. The toolbox is now divided into four main sections: basics of communication; methods for establishing and operating an effective communication programme; tools for implementing a communication plan; and an InfoCentre with links to IAEA pages on related topics in nuclear science and technology.

<https://www.iaea.org/newscenter/news/iaea-launches-revamped-nuclear-communicators-toolbox>

Strengthening International Standards for Nuclear Safety: IAEA Safety Publications Restructured

Nathalie Mikhailova, International Atomic Energy Agency, August 15, 2019

Achieving high levels of safety in the many areas in which countries use nuclear technologies requires a robust and comprehensive international safety framework. The IAEA this year completed a structural revision that has further strengthened the IAEA safety standards, a series of publications which outline the international consensus recommendations for protecting people and the environment from the harmful effects of ionizing radiation.

The IAEA safety standards highlight how authorities and other stakeholders can ensure the safety of activities such as the operation of nuclear installations, transport and use of radioactive material, management of radioactive waste, as well as the application of radiation sources in medicine, industry, agriculture, education and research. Developed in close cooperation with governments and organizations, the contents of these publications are the result of knowledge

and experience gained from the use of nuclear technologies and from the application of the safety standards themselves.

<https://www.iaea.org/newscenter/news/strengthening-international-standards-for-nuclear-safety-iaea-safety-publications-restructured>

O. Op-Ed

India

India's growing clamour is space and why the country needs a separate Space Force

Ajay Lele, Financial Express, August 2, 2019

During July 25-26, 2019 India's newly established Defence Space Agency (DSA, April 2019) conducted a table-top first-ever space war exercise called 'IndSpaceEx'. As per the media reports along with the serving officers from Army, Air Force, and Navy, scientists from DRDO & Defence Space Research Agency (DSRO) and few other experts had participated in this exercise.

One of the main purpose of this exercise was to evolve strategies which could help to develop a doctrine for space warfare. The broad idea behind this brainstorming for two-days was to work towards preparing the country for future space wars. The far-reaching outcome of this exercise is that 'a specialist cadre needs to be formed to address issues concerning space warfare.' This exercise took place at the backdrop of India's ASAT test and the formation of DSA. Hence, these aspects become a start point for the development of any future space architecture. Naturally, it could be in order to debate the rationale for undertaking ASAT and formation of DSA before arguing for the necessity of evolution of new structure to address issues concerning space security.

<https://www.financialexpress.com/defence/indias-growing-clamour-is-space-and-why-the-country-needs-a-separate-space-force/1664082/>

ISRO- History and journey that we all are proud of

Kahekashan, The Hans India, August 15, 2019

Today is a proud day for our nation. As we all know Chandrayaan 2 is expected to reach the moon's orbit on August 20 and

will be landing on the lunar surface on September 7. Chandrayaan-2 is an Indian lunar mission, in which ISRO planned to go to the Moon's South Polar Region, where no other country has ever gone before. This achievement also adds another feather to the Indian Space Research Organisation's cap. Our country has also become the only nation to have prospered in the Mars mission in its very first attempt.

<https://thehansindia.com/technology/tech-news/isro-history-and-journey-that-we-all-are-proud-of-554938>

A history: India's star treks since independence

Deccan Herald, August 15, 2019

India reached a new benchmark this year with the launch of Chandrayaan 2, which has gained appreciation from space research organisations across the world.

The Indian Space Research Organisation (ISRO) currently holds the fifth rank in space technology. Here's a timeline of ISRO achievements since independence.

<https://www.deccanherald.com/national/a-history-indias-star-treks-since-independence-754348.html>

Pakistan

Imran-Trump Summit: a win-win situation for Pakistan

Ahmed Saeed, The Express Tribune, August 3, 2019

Prime Minister Imran Khan's summit meeting with US President Donald Trump last month resulted in unprecedented positives for Pakistan. The visit can be categorised as one of the most successful bilateral visits by a Pakistani head of state since President Ayub Khan's visit in 1961.

Very conveniently, the success of the visit can be attributed to the political and military leadership's sincerity of purpose that has brought them on the same page. Both want to contest Pakistan's case without asking for any economic aid.

Imran Khan's statement that "we do not

want aid but desire that the US must understand Pakistan's point of view on national, regional and global issues" was instrumental in raising Pakistan's national stature in the US.

<https://tribune.com.pk/story/2026801/6-imran-trump-summit-win-win-situation-pakistan/>

Launching into space

The Express Tribune, August 3, 2019

As the world celebrated the 50th anniversary of man stepping onto the moon, the Federal Science and Technology Minister, Fawad Chaudhry, announced that Islamabad too was planning to send the first Pakistani into space.

The news was widely welcomed as a coming-of-age of Pakistan's nascent space programme. He then recently sat down with *The Express Tribune* and offered much-needed clarity on proclamations of sending a Pakistani into the vast empty void of space in a mere three years.

The first bit of clarity was that the entire burden, whether monetary or technological, would not be borne by Pakistanis. Rather, it will be a Chinese mission which will essentially carry Pakistan along with it. The minister pointed out that the plan to send a Pakistani into space dated back to the early Musharraf era which had set the target of a space flight for 2015.

<https://tribune.com.pk/story/2026792/6-launching-into-space/>

Kashmir crisis: Will nuclear-armed Pakistan go to war with India again?

Ben Farmer, The Telegraph, August 8, 2019

Pakistan has downgraded diplomatic ties with India and suspended trade with its neighbour as the political row over the disputed territory of Kashmir escalates.

India's announcement that it will abolish self-rule for Kashmir has been denounced as illegal in Islamabad, with the country's military warning it will "go to any extent" to support Kashmiris.

<https://www.telegraph.co.uk/news/2019/08/08/kashmir-crisis-will-nuclear-armed-pakistan-go-war-india/>

India's nuclear posturing inclined towards Pakistan

Syeda Saiqa Bukhari, Daily Times, August 14, 2019

India and Pakistan share a long history of hostility, which has long cast a dark shadow on regional peace, security and economic cooperation. Both countries have fought three major wars and have been involved in a number of clashes with each other. In the recent crisis of February 2019, this historical animosity again prevailed when both countries came dangerously close to a full-fledged war.

During the crisis, Indian fighter aircrafts violated Pakistan's airspace; greatly intensifying tensions between the two nuclear-armed rivals. Pakistan responded rationally and purportedly shot down two Indian jets while capturing Indian Air Force Wing Commander Abhinandan. He was later released by Pakistan as a peace gesture. Through this, Pakistan conveyed to the international community that it has always remained in favour of peacefully settling its outstanding issues with India at the negotiating table instead of the battlefield.

<https://dailytimes.com.pk/446968/indias-nuclear-posturing-inclined-towards-pakistan/>

Pakistan's desperation over Kashmir is evident as it plays Afghanistan card, threatens nuclear war in South Asia

Sreemoy Talukdar, Firstpost, August 14, 2019

As diplomatic options become scarce, Pakistan is turning increasingly desperate on Kashmir and showing signs of falling back on the few leverages it has on this issue in an already constrained hand. Its moves to link Afghanistan conflict – where the US is frantically seeking an exit strategy – and naked fearmongering over 'nuclear war' in south Asia are aimed at blackmailing the Donald Trump administration and the United Nations into intervening into an issue that until recently was a bilateral dispute between

India and Pakistan but since 5 August has turned into India's "internal matter".

The blow has been stealthy, swift and lethal. According to analysts, a fuming Pakistan is also getting ready to simultaneously exercise its covert options that involve deploying jihadi assets to infiltrate into Jammu and Kashmir. However, none of the overt and covert options

<https://www.firstpost.com/india/pakistans-desperation-over-kashmir-is-evident-as-it-plays-afghanistan-card-threatens-nuclear-war-in-south-asia-7164171.html>

USA

With a Democrat, a Cooler Head Would Prevail on Iran

Carol Giacomo, The New York Times, August 2, 2019

While President Trump has escalated pressure on Iran, even coming close to launching a military strike, most Americans want the United States to reduce tensions and return to the 2015 nuclear agreement from which Mr. Trump withdrew, according to a new poll by the Center for American Progress.

The leading contenders for the Democratic presidential nomination are on that wavelength. Most would rejoin the deal provided that Iran resumed full compliance, although there were variances in how the candidates would go about it, according to questions I sent to the candidates who rated at least 2 percent in the RealClearPolitics polling average — former Vice President Joe Biden; Senators Cory Booker, Kamala Harris, Bernie Sanders and Elizabeth Warren; Mayor Pete Buttigieg of South Bend, Ind.; and the former House member Beto O'Rourke.

<https://www.nytimes.com/2019/08/02/opinion/editorials/democrats-iran-nuclear-deal.html>

America Could Lose a Real War Against Russia

Timothy A. Walton, The New York Times, August 5, 2019

After more than 30 years, the Intermediate Nuclear Forces (I.N.F.) Treaty ended last

week, with an American withdrawal on Friday and a Russian withdrawal on Saturday. Although the United States abided by the terms of the treaty, Russia violated it by fielding more than 100 banned intermediate-range missiles, and China, which was never bound by it, fielded thousands. The United States has none.

To fix this gap, it is time for the Department of Defense to develop and field conventionally armed, ground-launched, intermediate-range missiles. The I.N.F. was a good treaty that reduced tensions and contributed to the peaceful end of the Cold War. After signing it in 1987, the Soviet Union and the United States eliminated ground-launched missiles with ranges of approximately 310 to 3,417 miles. Those missiles were problematic because, if they were armed with nuclear warheads, they could, given their short flight time, be used for devastating surprise attacks against allies in Europe and against the Soviet Union. The elimination of those missiles provided a greater sense of stability between the Soviet Union and the United States and its allies.

<https://www.nytimes.com/2019/08/05/opinion/inf-treaty-putin-trump.html>

The Danger of A Nuclear Catastrophe Is Greater Than During the Cold War

Hunter DeRensis, National Interest Blog, August 7, 2019

"Why should the U.S. tie its own hands with that policy?" CNN correspondent Jake Tapper asked Sen. Elizabeth Warren (D-MA).

This leading question during last week's Democratic debate immediately opened up a longtime policy fissure over U.S. nuclear strategy. The policy in question is the venerable "no first use" pledge, in which the United States would forswear being the first nation to deploy nuclear weapons during a military conflict. Under the pledge the United States would still reserve the right to massive retaliation.

While President Barack Obama privately mulled over the pledge, he decided against officially endorsing it. The United States has always retained a “first use” option that preserves Washington’s ability to launch nuclear weapons at any time, even unprovoked.

<https://nationalinterest.org/feature/danger-nuclear-catastrophe-greater-during-cold-war-72061>

The Return of Doomsday The New Nuclear Arms Race – and How Washington and Moscow Can Stop It

Ernest J. Moniz And Sam Nunn, Foreign Affairs, September/October 2019

The year is 2020. The Russian military is conducting a large exercise in Kaliningrad, a Russian exclave on the Baltic Sea that borders the NATO member states Lithuania and Poland. An observer aircraft from the Western alliance accidentally crosses into Russian airspace and is shot down by a surface-to-air missile. NATO rushes air squadrons and combat vessels into the region. Both sides warn that they will consider using nuclear weapons if their vital interests are threatened. Already on edge after the invasion of Crimea, rising tensions in the Middle East, the collapse of arms control agreements, and the deployment of new nuclear weapons, NATO and Russia are suddenly gearing up for conflict. In Washington, with the presidential campaign well under way, candidates are competing to take the hardest line on Russia. In Moscow, having learned that anti-Americanism pays off, the Russian leadership is escalating its harsh rhetoric against Washington.

<https://www.foreignaffairs.com/articles/russian-federation/2019-08-06/return-do>

The INF Treaty is done, but lessons for policy remain

John Woodworth, Bulletin of the Atomic Scientists, August 2, 2019

The Intermediate-Range Nuclear Forces Treaty, or INF, ends on August 2, bringing to a close one of the most remarkable

chapters in arms control history. There is much about the INF story that bears recalling, as it provides lessons for the conduct of US diplomacy and policy making in the uncharted waters ahead. For decades, the combination of deterrence and arms control has shaped US policy. However, the strategic landscape and weapons technologies have changed dramatically since the INF negotiations in the 1980’s, in which I played a role as deputy negotiator. Under the Trump Administration, it increasingly appears that the policy balance is swinging to greater and perhaps sole reliance on deterrence. The administration has spoken about 21st-century arms control, but beyond involving China, it is unclear what this means. The US-Russian strategic dialogue that got underway in July is encouraging, but it remains to be seen whether new approaches to stemming the nuclear arms race, as well as rivalries in space and cyber warfare, will emerge.

<https://thebulletin.org/2019/08/the-inf-treaty-is-done-but-lessons-for-policy-remain/>

Are We Headed for Another Expensive Nuclear Arms Race? Could Be.

Steven Erlanger, The New York Times, August 8, 2019

After the recent death of the treaty covering intermediate-range missiles, a new arms race appears to be taking shape, drawing in more players, more money and more weapons at a time of increased global instability and anxiety about nuclear proliferation.

The arms control architecture of the Cold War, involving tens of thousands of nuclear weapons, was laboriously designed over years of hard-fought negotiations between two superpowers – the United States and the Soviet Union. The elaborate treaties helped keep the world from nuclear annihilation.

<https://www.nytimes.com/2019/08/08/world/europe/arms-race-russia-china.html>

It's time to pick the winners in nuclear energy

Zabrina Johal, The Hill, August 8, 2019

In May 1958, President Eisenhower inaugurated Shippingport Atomic Power Station, the world's first commercial nuclear power plant. It was a capstone to the process he began five years earlier with his "Atoms for Peace" initiative, but it launched something much larger. In just 30 years, nuclear would grow from providing 0 percent of U.S. electricity to over 20 percent.

That wasn't an accident. Eisenhower provided the inspiration, but the work of making it happen was the legacy of one man, Hyman Rickover, the legendary admiral often called "The Father of the Nuclear Navy."

<https://thehill.com/opinion/energy-environment/456569-its-time-to-pick-the-winners-in-nuclear-energy>

Nuclear Power and The 2020 Presidential Candidates

James Conca, Forbes, August 8, 2019

With very serious issues like gun control, Russian tampering, prison reform and health care, it's unlikely that a narrow issue like a candidate's stance on nuclear power will sway anyone about voting for them or not. Even if it is part of the more overall critical issue of energy and climate.

But it is good to know which candidates just accept fear-mongering over science or actually care to understand a scientific issue by talking to scientists in that field.

The Green New Deal has become a significant talking point in the 2020 Presidential election. Republican leadership and the President just mock it, but most Democrats, with several exceptions, support some form of it.

https://www.youtube.com/watch?v=uc6QxD2_yQw&t=4s

Without INF treaty, world becomes vulnerable

The New Delhi Times, August 12, 2019

The Intermediate-Range Nuclear Forces (INF) Treaty between the United States and the Soviet Union was signed in 1987 prohibiting both countries from having land-based missiles of 500-5,500 kilometres range. This was the first-ever pact signed between Washington and Moscow on nuclear disarmament and became a major step forward in restricting the arms race during the Cold War years. Other treaties, dialogue platforms and mechanisms on arms control for strategic balance followed later.

The US will return to INF only if it is renegotiated including China as a member. But China refuses to join stating its nuclear strategy is for self-defence; committed to no first use and non-participation in arms race; steady nuclear policy over decades; and modest nuclear arsenal compared to America and Russia.

<https://www.newdelhitimes.com/without-inf-treaty-world-becomes-vulnerable/>

Russia

Want Your Own Nuclear Arsenal? Russia Lost 2 Nuclear Weapons in the Ocean.

Robert Farley, The National Interest Blog, August 3, 2019

K-8, the third November boat, entered service in the Soviet Northern Fleet in late 1960. In one of her first cruises, she suffered a coolant incident that almost resulted in the loss of the ship; many of her crew members were exposed to high levels of radiation. Drastic action saved the boat, and she returned to port for repairs.

The Bay of Biscay is one of the world's great submarine graveyards. In late World War II, British and American aircraft sank nearly seventy German U-boats in the Bay, which joined a handful of Allied and German subs sunk in the region during World War I. On April 12, 1970, a Soviet

submarine found the same resting place. Unlike the others, however, K-8 was propelled by two nuclear reactors, and carried four torpedoes tipped by nuclear warheads.

<https://nationalinterest.org/blog/buzz/want-your-own-nuclear-arsenal-russia-lost-2-nuclear-weapons-ocean-71086>

In 1981, a British Submarine Crashed into a Nuclear Russian Sub

Sebastien Roblin, National Interest Blog, August 4, 2019

Immediately ordering the boat to periscope depth, the Delta III's sonar team detect propeller noise on a bearing 127 degrees. The contact was judged to be a submarine.

On May 23, 1981 the Soviet submarine K-211 Petropavlovsk cruised quietly at nine knots, one hundred and fifty feet below the surface of the Arctic Barents Sea. The huge 155-meter-long Delta III (or Kalmar)-class submarine was distinguished by the large boxy compartment on its spine which accommodated the towering launch tubes for sixteen R-29R ballistic missiles, each carrying three independent nuclear warheads.

<https://nationalinterest.org/blog/buzz/1981-british-submarine-crashed-nuclear-russian-sub-71026>

In Hiroshima's shadow: Poll unveils Russians' nuke fears and grasp of first atomic bombing

TASS News Agency, August 6, 2019

The Russian Public Opinion Research Center has revealed that the majority of Russians (72%) can recall that nuclear weapons were actually used in military conflicts, while one-fifth (21%) could not say when this took place, according to a poll that was published on the center's website on Tuesday.

The survey indicated that more than half of Russians (52%) are troubled by the prospects of nuclear war to a various extent. Thirty-three percent are slightly worried, while 14% are deeply anxious, and 5% said to be

in "constant fear" of such a turn of events. Women are more unquiet about the possibility of a nuclear war than men (68%), as well as seniors over 60 years of age (68%). At the same time, 46% of those polled, primarily men (64%), are not concerned about the use of nuclear weapons.

<https://tass.com/society/1072142>

Is Russia Testing Nuclear Weapons Again?

Mark B. Schneider, National Interest Blog, August 8, 2019

In May 2019, Lt. Gen. Robert P. Ashley, Jr., Director of the Defense Intelligence Agency, in an important speech at the Hudson Institute, stated:

Russia's development of new warhead designs and overall stockpile management efforts have been enhanced by its approach to nuclear testing. The United States believes that Russia probably is not adhering to its nuclear testing moratorium in a manner consistent with the "zero-yield" standard.

<https://nationalinterest.org/blog/buzz/russia-testing-nuclear-weapons-again-72101>

No, this Russian family is not looking at a nuclear explosion near their city, dear MSM viewers

Russian Times, August 13, 2019

An image of three people gazing at a powerful explosion mushrooming in the distance is too good not to be used in a story about a mysterious rocket engine failure that sparked speculation about a Russian doomsday weapon.

An explosion during a rocket engine test in Russia last week, which claimed five lives and apparently caused small radiation spikes detected in a nearby city, has sent the media rumor mill into overdrive. While Russian officials are reluctant to offer much detail about what was tested, except that some radioactive material was involved, speculation

suggests it was Russia's lauded nuclear-powered Burevestnik cruise missile, or Skyfall, as NATO chose to designate it.

<https://www.rt.com/news/466403-nuclear-explosion-russia-fake/>

East Asia

North Korea

Stocking up on missiles

Donald Kirk, The Korean Times, August 15, 2019

So much is said and written about North Korea's missile tests that it is possible to forget they are hardly the most dangerous threats posed by flying "projectiles."

That's not to minimize their importance, or to side with Donald Trump when he dismisses them as short-range, not in violation of anything, while praising Kim Jong-un for the love letter he got from him the same day Kim ordered another set of tests.

There are two points here. The first is, we have a lot more to fear from Russia's burgeoning missile ambitions, and China's too, than from North Korean missiles. Second, North Korea is basically throwing its direly needed resources away on nukes and missiles, whatever the range, when there's no way Kim is about to have them affixed with warheads and fired for real.

Saving that second point for later, the Russian danger has just increased with Trump's decision to jettison the INF treaty. Banning Russia and the U.S. from making land-based missiles with ranges from 500 to 5,500 kilometers, the Intermediate Nuclear Forces Treaty was reached by President Ronald Reagan and Soviet leader Mikhail Gorbachev 31 years ago. Trump's innermost advisers, notably John Bolton, convinced him the Russians had been violating the treaty all along, making new missiles while making a show of destroying old ones, while the Chinese, not bound by anything, were making many more of them.

http://www.koreatimes.co.kr/www/opinion/2019/08/137_273925.html

Who is to blame for military tension?

Pongyang Times, August 5.

Despite the warnings and objections at home and abroad, the south Korean authorities launched into joint military exercises with the US on August 5.

It is blatant neglect and open violation of the Panmunjom Declaration and the September Pyongyang Joint Declaration—agreements for establishing a lasting and durable peace regime on the Korean peninsula.

In the military agreement for implementing the Panmunjom Declaration, the north and south agreed to totally discontinue hostile acts of all kinds, the source of military tension and conflict, against each other in all spaces of the ground, sea and air.

The DPRK, in order to put an end to the history of confrontation with the fellow countrymen and open up a new era of peace and prosperity on the peninsula, has refrained from all military actions since early 2018 lest they should get on the nerves of the other party.

Though they had a handshake of "reconciliation and peace" on the negotiating table, the south Korean authorities have incessantly staged joint military exercises with outside forces targeting the fellow countrymen.

This year alone witnessed lots of their war games. South Korea staged a joint aerial rescue drill codenamed Pacific Thunder with the US in simulation of contingency on the Korean peninsula, a joint military rehearsal in March and a general flight drill for a fortnight from late April by bringing in the US and Australian air forces.

<http://www.pyongyangtimes.com.kp/?bbs=31059>

Why Rocket Man is going ballistic with short-range missiles

Duyeon Kim, Bulletin of the Atomic Scientists, August 8, 2019

North Korea is on an arms-testing binge.

It began to fire short-range ballistic missiles in May, flaunted what apparently is a ballistic missile-carrying submarine on July 23, fired two more rounds of what appeared to be similar short-range missiles on July 25, another two rounds on July 31, another two on August 2, and yet another two on August 5. Even though US President Donald Trump and North Korean leader Kim Jong Un agreed to hold them soon after their impromptu meeting at the inter-Korean border in late June, negotiations on North Korea's nuclear program have yet to convene.

It now seems that any working-level talks between Washington and Pyongyang on the North's nuclear program will be pushed back until some uncertain point after US-South Korean military drills end in a couple of weeks, marking mid-September as the earliest that bilateral negotiations could start, if conditions are right under Pyongyang's terms. But why is Pyongyang conducting such frequent fireworks now? North Korea typically has several objectives for every official action and statement on security matters, and so this is not a single-answer question. One reason for these launches: Trump has given Pyongyang a pass on short-range ballistic missile tests, most recently repeating his mantra of "I have no problem, we'll see what happens but short-range [missiles] are very standard." So the regime is freely testing them to strengthen its military capabilities, the main objective of the July 31 tests, based on the North's reporting of the tests through its Workers Party newspaper, the *Rodong Sinmun*, which is aimed at domestic audiences.

<https://thebulletin.org/2019/08/why-rocket-man-is-going-ballistic-with-short-range-missiles/>

US-DPRK Negotiations: Time to Pivot to an Interim Agreement

Robert Einhorn, 38 North, August 2, 2019

If and when US-DPRK working-level talks resume, as agreed by US President Donald Trump and Chairman Kim Jong Un at their brief June 30 meeting at the Demilitarized Zone, prospects for overcoming the current impasse will depend heavily on whether the

Trump administration is now prepared to recognize that the North is unwilling, at least at the present time, to give up its nuclear weapons—and whether, as a result, the administration is now prepared to consider an agreement that imposes significant constraints on DPRK capabilities but falls short of requiring complete denuclearization in an agreed time frame. To be sure, such an agreement is not the ideal outcome that the US government and all other interested governments would like to see. However, a less ambitious agreement should be compared not with the ideal but unattainable goal of complete, time-bound elimination but with its most likely alternative—a US strategy of pressure, containment and ultimately regime change.

<https://www.38north.org/reports/2019/08/reinhorn080219/>

South Korea

GSOMIA decision: Moon Jae-in's nuclear option

Oh Young-jin, The Korean Times, August 26, 2019 |

Not long after President Roh Moo-hyun took office in 2003, he gathered presidential aides and discussed how to lead and govern the nation.

There was near-consensus against Roh's visit to the United States, espoused by former activists among the Roh aides who saw the U.S. as a supporter of the previous dictatorships they fought against. They were the so-called "386 generation"—born in the 1960s, attending college in the 1980s and aged in their 30s. They belonged to the age when Korea was getting wealthy and starting to assert its national identity.

Their objection to Roh's U.S. visit was based on their wish to break the tradition of a newly elected president visiting Washington as his first overseas destination to gain America's recognition. But a few experienced hands who insisted on the importance of the ROK-U.S. alliance torpedoed their effort.

Ironically, those young cadres of Roh and the president himself were still cautious about going into the uncharted realm beyond the alliance's boundaries. In May, Roh made his first visit to the U.S. and met President George W. Bush. It set a pattern for Roh to protect the alliance by even alienating his support base in pushing for a free trade agreement with the U.S. and sending troops to the Middle East, as requested.

https://www.koreatimes.co.kr/www/opinion/2019/08/667_274432.html

Moon's illusory 'peace economy' with North Korea

Kim Myong-Sik, The Korean Herald, Aug 14, 2019

The physical world we live in is governed by constructive power and destructive power. Constructive power can be measured by the value of things that individuals or groups create over a period of time. They call it GDP on the national level. Destructive power is estimated by looking at the things that can be destroyed (annihilated) in a conflict; it represents security threats between adversaries.

North Korea is believed to have stored 20 to 30 nuclear bombs, each having the destructive energy of up to 250 kilotons of TNT. (The atomic bomb that fell on Hiroshima was equivalent to 16 kilotons.) It is quite an impressive destructive power the North has, although the international community has yet to recognize it as a nuclear power. On the constructive side, international researchers have arrived at widely differing but generally miserable figures for this enigmatic state.

The United Nations surprisingly ranked North Korea 198th among 211 countries and territories of the world in 2016, estimating its gross domestic product at \$16.8 billion (or \$654 per capita). On the UN chart for 2017, the North had risen to 115th place with \$17,364 million in GDP. The US CIA World Factbook 2014 gave a somewhat higher estimate of \$40 billion in GDP (\$1,800 per capita) based on purchasing power parity.

http://www.koreaherald.com/view.php?ud=20190813000808&ACE_SEARCH=1

Japan

How to deal with another nuclear crisis 74 years after Hiroshima

The Asahi Shimbun, August 7, 2019

A desolate landscape spreads out before the international community on the 74th anniversary of the atomic bombing of Hiroshima, which was Aug. 6.

Hopes for "a world free of nuclear weapons," which surged a few years ago, have fizzled out since, and the world's major nuclear nations are now poised to revert to arms expansion.

Some world leaders are even talking of making nuclear weapons "more usable," as if in deliberate denial of the inhumanity of the heat rays that scorched hibakusha 74 years ago and brought the uncontrollable "hellfire."

International public opinion deems unequivocally that every nuclear war, without exception, is an act of inhumane and lethal destruction that must never be condoned.

But the world is steadily deviating from this understanding and the basic principle of the Nuclear Weapon Ban Treaty.

<http://www.asahi.com/ajw/articles/AJ201908070025.html>

Abe turning deaf ear to voices from Hiroshima and Nagasaki

The Asahi Shimbun, August 10, 2019

Prime Minister Shinzo Abe seems to have callous disregard for the desperate calls coming from Hiroshima and Nagasaki for the elimination of nuclear weapons.

It is difficult to think otherwise, given Abe's remarks and the words of survivors of the 1945 atomic bombings of the two Japanese cities and local government leaders on this year's anniversaries of the nuclear devastation.

In an Aug. 9 ceremony at Nagasaki Peace Park to mark the 74th anniversary of the city's atomic bombing, Yoshiro Yamawaki,

85, speaking as the representative of hibakusha atomic bomb survivors, urged the government to “demonstrate a resolute commitment to pursue the goal of eliminating nuclear weapons while hibakusha are still alive.”

As he wanted to connect with a wider audience about his experiences in the atomic bombing of Nagasaki, Yamawaki had taught himself English and narrated his own hibakusha stories overseas as well.

<http://www.asahi.com/ajw/articles/AJ201908100021.html>

Japan must resist call to join U.S.-led coalition in Middle East

The Asahi Shimbun, August 14, 2019

Japan should never deviate from its intended role even at the urging of an ally.

During his first visit to Japan on Aug. 7, U.S. Defense Secretary Mark Esper met with Defense Minister Takeshi Iwaya and called on Japan to consider joining a “coalition of the willing” to protect shipping in and around the Strait of Hormuz in the Middle East.

Iwaya cited Japan’s need to secure a stable supply of crude oil, relations with the United States and friendly ties with Iran, and said the government will examine the matter from every aspect before making a comprehensive judgment.

Japan now has a Maritime Self-Defense Force destroyer and patrol aircraft deployed off Somalia as protection against piracy. To avoid provoking Iran, the government is said to be considering reassigning them to the Gulf of Oman outside the Persian Gulf, rather than dispatching a new fleet.

<http://www.asahi.com/ajw/articles/AJ201908140024.html>

Taiwan

The INF Treaty’s demise is good news for Taiwan

Richard D. Fisher, Jr., Taipei Times, August 12, 2019

While the 1987 Intermediate Nuclear Forces (INF) Treaty eliminated United States and

Soviet missiles with a range of 500 kilometers to 5,500km from Europe at the end of the Cold War, this Treaty’s demise on August 2, 2019 is good news for Taiwan on three levels.

First, the Treaty’s demise means that the United States is free to redress a destabilizing imbalance of power with China and North Korea. When President Donald Trump announced his decision to withdraw from the INF Treaty on February 1, 2019, the White House also explained that China had “more than 1,000 INF Treaty-range missiles.”

<http://www.taipeitimes.com/News/editorials/archives/2019/08/12/2003720324>

P. Think Tanks

Loss of “an Invaluable Brake on Nuclear War”

Missile Defence Advocacy Alliance, August 2, 2019

“All allies announced today that we agree with the U.S. decision to withdraw from the treaty because of the ongoing Russian violation of the treaty.” – NATO Secretary General Jens Stoltenberg on August 2, 2019.

We recognize the former trust between two super powers that gave critical stability and an era of peace between the United States and Russia that enabled great prosperity in Europe and North America for the past 31 years partly to the cornerstone of Intermediate-range Nuclear Forces (INF) Treaty. The INF was an arms control treaty between the United States and the Union of Soviet Socialist Republics (USSR) that eliminated all, nuclear and non-nuclear, land-based ballistic and cruise missiles in the ranges of 500 to 5,500 kilometers, but did not include air- or sea-launched missiles. This deep trust of a credible arms control agreement in the heights of the Cold War allowed the safe breakup of the Soviet Union in 1991 and the fall of the Berlin Wall. It is to be noted that China, at the time the treaty was signed in 1987, was not seen as a nuclear peer and competitor as they are today by

the United States and as such, was not pursued like other nuclear nations (United Kingdom, France, and India) were at that time to sign to this treaty.

<https://missiledefenseadvocacy.org/alert/loss-of-an-invaluable-brake-on-nuclear-war/>

Hiroshima, Nagasaki, and no first use

Elaine Scarry and Zia Mian, Bulletin of the Atomic Scientist, August 5, 2019

On August 6 and August 9, we again take time to contemplate the US atomic bombing of Hiroshima and Nagasaki in 1945. The arrangements that permitted a US president to drop an atomic bomb on tens of thousands of civilians continue to be in place today. The United States has a “presidential first use” policy which means that President Trump, acting alone, can issue the order for a nuclear strike, even if our own country is not under nuclear attack. This concern has been raised in the Democratic Party presidential primaries for the 2020 election, with some candidates arguing for a shift to a US policy of no first use of nuclear weapons. There is already legislation pending in Congress to this effect.

<https://thebulletin.org/2019/08/hiroshima-nagasaki-and-no-first-use/>

UN chief: World to lose brake on nuclear war with treaty end

AP News, August 2, 2019

U.N. Secretary-General Antonio Guterres says that “the world will lose an invaluable brake on nuclear war” when the 1987 Intermediate-Range Nuclear Forces treaty between Moscow and Washington expires Friday.

He told reporters Thursday that the INF treaty “is a landmark agreement that helped stabilize Europe and end the Cold War” and its end “will likely heighten, not reduce, the threat posed by ballistic missiles.”

In February, the U.S. began withdrawing from the treaty, accusing Russia of developing missiles that do not comply with the pact. Russia has until Friday to destroy

those missiles.

Guterres urged the two nations “to avoid destabilizing developments” and agree on a new arms control path. He said they should extend the New START treaty, the last major U.S.-Russia arms control pact, which expires in 2021.

<https://www.apnews.com/3a9f960ef1ab480488639471c933d6c1>

Who will win 21st century?

Joschka Fischer, The Korean Times, August 4, 2019

The first two decades of the 21st century are beginning to cast a long shadow over the Western world. We have come a long way since the turn of the century, when people everywhere, but particularly in Europe, indulgently embraced the “end of history.” According to that illusory notion, the West’s victory in the Cold War – the last of the three great wars of the 20th century – had given rise to a global order for which there could be no alternatives. Thenceforth, it was thought, world history would march steadily toward the universalization of Western-style democracy and the market economy. The new century would merely be a continuation of the previous one, with a triumphant West extending its dominion. The world is wiser now. The web of alliances and institutions that sustained the West’s dominance is proving to be a product of the 20th century, its future now in doubt.

http://www.koreatimes.co.kr/www/opinion/2019/08/137_273273.html

A nuclear world in disarray

Ramesh Thakur, Australian Strategic Policy Institute, August 7, 2019

We are in a uniquely dangerous period in the atomic age. Geopolitical tensions have spiked in Europe, in the Middle East, on the subcontinent and in East Asia. The nuclear arms control architecture is fraying and crumbling, but no negotiations are underway to reduce global nuclear stockpiles.

A hostile international security environment, the proliferation of nuclear weapons and the emergence of new space, cyber and AI technologies have increased the risk of accidental or deliberate use of nuclear weapons. The growing strategic risks and uncertainty in turn fuel the vicious cycle of renewed interest among US allies in a nuclear deterrent as a hedge against receding US primacy and reliability.

At the conclusion of a United Nations conference on 7 July 2017, 122 states parties of the Nuclear Nonproliferation Treaty adopted a new Treaty on the Prohibition of Nuclear Weapons. All nine countries that possess the bomb (China, France, India, Israel, North Korea, Pakistan, Russia, the UK and the US) boycotted the conference and rejected the treaty. They have done their very best since then to validate the concerns behind the drive to adopt it.

<https://www.aspistrategist.org.au/a-nuclear-world-in-disarray/>

Why Rocket Man is going ballistic with short-range missiles

Duyeon Kim, Bulletin of the Atomic Scientists, August 8, 2019

North Korea is on an arms-testing binge. It began to fire short-range ballistic missiles in May, flaunted what apparently is a ballistic missile-carrying submarine on July 23, fired two more rounds of what appeared to be similar short-range missiles on July 25, another two rounds on July 31, another two on August 2, and yet another two on August 5. Even though US President Donald Trump and North Korean leader Kim Jong Un agreed to hold them soon after their impromptu meeting at the inter-Korean border in late June, negotiations on North Korea's nuclear program have yet to convene. It now seems that any working-level talks between Washington and Pyongyang on the North's nuclear program will be pushed back until some uncertain point after US-South Korean military drills end in a couple of weeks, marking mid-September as the earliest that bilateral negotiations could start, if conditions are right under Pyongyang's terms.

<https://thebulletin.org/2019/08/why-rocket-man-is-going-ballistic-with-short-range-missiles/>

As arms treaty fails, big powers risk new missile race

Peter Apps, Reuters, August 9, 2019

For those who worried about the risk of the Cold War ending in catastrophe, the early- to mid-1980s were the most alarming period since the 1962 Cuban missile crisis.

Late U.S. President Ronald Reagan (R) and former Soviet leader Mikhail Gorbachev sign the Intermediate-Range Nuclear Forces (INF) treaty in the White House, December 8, 1987.

On both sides of the Iron Curtain, paranoia and alarm about the adversary's intentions was the order of the day. The United States and the Soviet Union were both deploying a new generation of medium-range nuclear rockets which experts worry could make it easier for a limited atomic war to escalate out of control.

The result, after almost a decade of diplomacy, was the 1987 Intermediate Range Nuclear Forces Treaty, which culled an entire generation of missiles with a range of 500-5,500 km (310-3,400 miles). It forced Moscow and Washington to rely on longer-range ballistic missiles and air-launched weaponry to maintain their nuclear "balance of terror", making it easier for each side to track each other's actions and get early warning of an attack.

This crucial confidence-building measure opened the door to further detente between the superpowers and ushered in three decades in which worries of global nuclear war all but vanished. But last week, the treaty finally collapsed completely amid wider international tensions, particularly between Washington, Moscow and Beijing.

<https://www.reuters.com/article/us-apps-arms-column/as-arms-treaty-fails-big-powers-risk-new-missile-race-idUSKCN1UZ11C>

Russia Showcases 'Kinzhal' Nuclear-Capable Air-Launched Ballistic Missile at Air Show

Missile Defence Advocacy Alliance, August 13, 2019

Two Russian MIG-31K interceptors, each carrying one Kh-47M2 Kinzhal ("Dagger") air-launched ballistic missile (ALBM), for the first time took part in an airshow at the Dubrovichi testing range in the Ryazan Region in central Russia, as part of this year's Aviadarts 2019 international competition on August 10, according to a Russian defense ministry statement.

The the Aviadats competition is part of the International Army Games, hosted by the Russian military, and involves the air forces of China, Belarus, Kazakhstan and Russia.

<https://missiledefenseadvocacy.org/threat-news/russia-showcases-kinzhal-nuclear-capable-air-launched-ballistic-missile-at-air-show/>

Growing Populations: Time to Talk about Nuclear Power?

International Atomic Energy Agency, August 14, 2019

The IAEA is organizing the 2019 International Conference on Climate Change and the Role of Nuclear Power in Vienna from 7 to 11 October 2019.

The conference will provide a platform to discuss objectively the scientific and technical aspects of the role of nuclear power in combating climate change.

Topics covered in the conference will include: challenges and opportunities for existing nuclear power plants with respect to their continuous contribution to the avoidance of greenhouse gas (GHG) emissions; factors necessary to support high rates of deployment, including for advanced nuclear power technologies, consistent with achieving the climate change goals, including those established in the Paris Agreement, and the Sustainable Development Goals (SDGs), namely Goal 7 (Ensure access to affordable, reliable, sustainable and modern energy for all) and

Goal 13 (Take urgent action to combat climate change and its impacts); and the prospects for synergies between nuclear power and other low carbon energy sources.

<https://www.iaea.org/newscenter/multimedia/videos/growing-populations-time-to-talk-about-nuclear-power>

P. Interviews

U.S. Quietly Waives Some Sanctions To Allow Key Part Of Iran Nuclear Deal To Continue

National Public Radio, August 1, 2019

AUDIE CORNISH, HOST: The Trump administration has been sending mixed signals on Iran this week. It imposed sanctions on Iran's foreign minister and is taking other steps to isolate the country. But the administration also quietly waived some sanctions to allow a key part of the Iran nuclear deal to continue. Joining us now to talk about why is NPR's Michele Kelemen. And Michele, I want to start with the sanctions that have been waived. What's the significance of this?

MICHELE KELEMEN, BYLINE: So the administration says that it's allowing some projects to continue. These are, you know, Russian, Chinese, European companies that are working on projects that are central to the nuclear deal. That's the deal the Trump administration left, which limits Iran's nuclear activity and ensures that it would take at least a year for Iran to produce enough material for a bomb. The State Department says that these are limited nonproliferation activities that do not help Iran; instead, they help restrict and constrain Iran's nuclear program. So it's things like redesigning a reactor and support for the Bushehr reactor so that Iran doesn't need to enrich uranium for that.

CORNISH: But the Trump administration withdrew the U.S. from this deal, which President Obama negotiated. So in some sense, is this administration acknowledging that it's keeping part of it alive?

KELEMEN: Well, as some critics have said, it's on life support. It may not be for long. Listen to how national security adviser John Bolton described this decision in an interview with the Fox Business Network.

<https://www.npr.org/2019/08/01/747368659/u-s-quietly-waves-some-sanctions-to-allow-key-part-of-iran-nuclear-deal-to-conti>

Interview: EBRD nuclear safety director forms long-term view

World Nuclear News, August 7, 2019

The European Bank for Reconstruction and Development may consider the commercial financing of nuclear safety and decommissioning projects as it looks beyond its traditional remit of legacy projects supported by donor funds, Balthasar Lindauer, director of the EBRD's Nuclear Safety Department, said in an interview with World Nuclear News at the bank's London headquarters on 22 July.

"Longer term I think we need to move away from dealing with legacies and work with countries interested in financing safety improvements and waste management projects," Lindauer said.

The department has provided commercial financing once so far - for safety upgrade work at Ukraine's nuclear power plants. More recently, it has started talks with the regulator in Turkey, which is developing a nuclear power programme.

"I think we're getting to the point where we need to find our position on this. It may well be that we as an organisation will have done our bit on nuclear safety, with the legacy issues, but I want to make sure this is a conscious decision on the basis of planning and not as an accident. We are currently still very busy with the funds that we have so there is no immediate need for decision making, but we do need to prepare for that question."

Funding

The EBRD is owned by 69 countries, as well as the European Union and the European Investment Bank. It manages seven donor

funds supporting nuclear safety and security in Eastern Europe: Nuclear Safety Account; Chernobyl Shelter; Bohunice, Ignalina and Kozloduy International Decommissioning Support Funds; Nuclear Window of the Northern Dimension Environmental Partnership Support (NDEP); and Environmental Remediation Account for Central Asia (ERA).

The EBRD has provided commercial financing - jointly with Euratom, providing EUR300 million each - for safety upgrade work at Ukraine's nuclear power plants, but this is currently the only loan the bank provides to the nuclear sector. Before that, modernisation work was completed at Khmelnytsky unit 2 and Rovno unit 4. This has been a "fairly controversial" project for some of the bank's shareholders, Lindauer said, but as it completes the legacy issues, the bank may look beyond donor funds to other financing models for its future activities in nuclear safety.

"That's fairly difficult of course. We would need to convince our banking colleagues and our shareholders and, last but not least, need to prove ourselves in the market," he said, stressing that any form of support the bank offers would need to be compatible with its mandate.

"Most of what we have done so far is very targeted at certain legacy issues, like Chernobyl in Ukraine, where you can say these countries historically did not have time to build up enough funds or the expertise to do these things, and we are ready to help because it is in the international interest to sort these issues out," he said. "Such cases may arise again, but they are limited. The business model is there if major donors want to tackle a complex programme. Totally hypothetically, what happens if North Korea changes its position and agrees to decommission its nuclear facilities. If they were to decide on decommissioning this would be something the international community might want to support and the bank, with its experience in implementing such programmes, could consider doing so if asked by its shareholders."

New build

The EBRD will not fund new nuclear build, but may offer its expertise and loans to nuclear newcomer countries that lack the organisational competence and infrastructure required for a nuclear power programme. Nor has the bank considered financing projects to build final repositories for radioactive waste, since it is the responsibility of each country to ensure funding is available for this, he said.

The bank's energy policy does not allow investment in nuclear new build and its board has not discussed the topic for a long time, he said, but the role of nuclear power in solving climate change is a "very interesting debate that has really gathered momentum in the last few years".

"Australia is starting to think whether it should review its policy [towards nuclear power] and this is the right place for that debate - in countries. We as an organisation are not in favour of or against nuclear energy; we simply operate within the mandate we are given. We don't have a nuclear energy department here at the bank, only a nuclear safety department," he said. Any change to its mandate, such as towards nuclear power, would require the "broad consensus" of the bank's shareholders, he said, but the fact remains they include countries that are phasing out nuclear power, such as Germany, or which "opted out of nuclear energy from the start", such as Austria and Denmark.

The EBRD's Sustainable Energy Initiative makes no reference to nuclear power, even though other international organisations, including the International Energy Agency and Intergovernmental Panel on Climate Change, have highlighted its important role as a low-carbon and sustainable source of energy. The bank is not financing coal power generation anymore and gas only as a 'transitional' fuel. Lindauer said: "Shareholders take decisions on the basis of policy documents and business cases prepared by management of the bank. There are trade-offs to be made and projects need to be bankable, but you don't need to be a prophet to see that the impact of climate

change is, and increasingly will be, a top priority."

Asked about the European Commission's work through the technical expert group on sustainable finance to determine whether an economic activity is environmentally sustainable, the so-called EU taxonomy, Lindauer said: "Whenever countries or organisations like the European Union decide that this is an important aspect for them, and they may on that basis review their policies on nuclear energy, we are certainly available to help with the safety, decommissioning and waste management aspects if it takes place in our countries of operation. But we will not be at the forefront of advocating nuclear energy as a solution to reduce carbon emissions, certainly not for the time being and it would entirely depend on a debate among our shareholders."

But the bank is willing to work with nuclear newcomer countries, such as for instance Turkey, within the framework of its existing mandate. "We cannot get involved in funding a new build, but we can certainly help with questions surrounding the infrastructure and organisation that is required to ensure high safety and security standards. I'm very keen to explore the possibilities," he said.

Asked if these talks were about a loan, he said, "What this would look like in concrete terms remains to be seen and in the end our loans need to be approved by our board. We have to make a business case for every loan that we provide." Asked whether the Nuclear Safety Department has to appeal to the bank's shareholders for funding, or can appeal directly to the bank's donor department, he said, "In this regard, we are very independent. There is certainly a need to coordinate the approach to donors so that we don't go to them two, three, four times and ask them different things. But our experience has shown that nuclear safety is dealt with by other departments in our donor governments than other development."

But the Nuclear Safety Department cannot decide unilaterally to work in a new region. "Our existing geography is defined by the shareholders and if they decide to expand, then obviously we take our nuclear safety expertise with us."

Preserving progress

The medium-term strategy is to ensure all that has been achieved with the bank's legacy projects is preserved, he said, highlighting work to decommission and dismantle an RBMK nuclear power plant - Ignalina in Lithuania. The bank has successfully managed this project for 15 years and is well-placed to offer other countries with RBMKs the required expertise and experience, thus helping them to manage the costs and timeframes involved, he said.

Another example, he said, is to ensure an "integrated strategy" at Chernobyl, where the bank and its partners have recently completed the project to build a New Safe Confinement over unit 4. The bank's programme also includes a liquid radioactive waste treatment facility and a used fuel storage facility.

Asked what the overarching organisation for an integrated approach at the Chernobyl site could be, he said: "I have offered EBRD's assistance in this process. Ukraine is just in the process of forming a new government and we are keen on speaking with the new authorities as soon as possible. The bank could add value to that because it's very easy to lose sight of the overall approach and there are risks from delaying certain decisions and the whole operation can become much more expensive than required. Longer term I think we need to move away from dealing with legacies and work with countries interested in financing safety improvements and waste management projects."

Political will

The EBRD is the only international financial institution engaged in nuclear safety and decommissioning programmes and, uniquely for a development bank, it has a political mandate in that it assists only those

countries 'committed to and applying the principles of multi-party democracy [and] pluralism'. A good example of this requirement is Central Asia.

The Environmental Remediation Account for Central Asia was set up in 2015 to rehabilitate high-priority sites in the Kyrgyz Republic, Tajikistan and Uzbekistan. Framework agreements have been signed with all three countries.

"It is an assessment for the bank to make whether we can operate in a given country or not according to our Article 1, which requires 'transition to market economy and democracy'. We have nuclear safety and decommissioning funds in eight countries currently and they are all countries of operation of the bank," Lindauer said.

Asked how the ERA had come about, he said: "We had set aside a small budget line almost 10 years ago to see if there were any other needs in nuclear decommissioning where we could use our expertise and help in solving them. We found that uranium mining remediation was one of the topics being discussed in various international fora. There was a UN resolution to help Central Asia with these issues back in 2013 and lots of organisations started doing something, mostly on a very low level and small scale, but there was no drive actually to implement remediation projects. We teamed up with the European Commission who understood that this [lack of progress] was somewhat unsatisfactory and we decided to set up a fund similar to the other ones we already operated, pool resources and coordinate with other organisations. We started engaging with the recipient countries."

The bank has made most progress with Kyrgyzstan, he said, which has shown it is "opening up as a democratic society - that government decisions are subject to parliamentary views, there are elections and a fairly open press".

"Kyrgyzstan is certainly one of those cases where we are very happy to support the country because we see that, though there

are difficulties of course, they are on a good track. We have not been able to operate in Uzbekistan for a long period of time due to fundamental differences with the previous regime, but they have started to open up and to develop in a way that makes it possible for us to engage again. The bank in general re-engaged in Uzbekistan since September 2016 and started fairly quickly setting up quite a number of projects. The signing of a framework agreement under which Uzbekistan could benefit from uranium mining remediation, in March 2017, was one of the first projects agreed during a visit [there] by EBRD President [Suma] Chakrabarti.

“We intend to work with Tajikistan, but it is more a complicated case. We have signed a framework agreement there too, but for more than three years now it has been under review for ratification in parliament.”

About EUR90 million is needed for the seven sites the bank has identified as priorities in these three countries.

“We have, together with the European Commission mainly, made an appeal to donors to provide additional funding and the response has been fairly good. We organised a pledging conference at the EBRD in November 2018 and now we have an overall amount of close to EUR35 million which allows us to start operations,” Lindauer said.

“EUR90 million is a tentative figure because we don’t yet have experience of implementing the actual projects. The estimate is for 10 years but, again, something we have learned is that once you are there you find out what is really required and programmes tend to be longer than we originally thought.”

The bank has held a tender for the project management units for Kyrgyzstan and Uzbekistan, and the former now has one in place, he said. “We are also currently discussing the first tender for our first remediation project in Kyrgyzstan. In Uzbekistan recently there was a total reorganisation of the administration and we were affected by that as we were assigned a new counterpart. We plan to go to Uzbekistan in October to restart our effort.”

The EBRD maintains cooperation with Russia in spite of changes to the political context five years ago, he said. The European Council in July 2014 decided to impose sanctions against Russia and the next day a majority of EBRD shareholders informed the bank’s management that, under current circumstances, they were not in a position to approve any new investment projects in the Russian Federation. The Nuclear Safety Department still manages its existing portfolio there, under the NDEP Nuclear Window donor fund.

“We have developed fairly good relations for the programme that we have in northwest Russia,” he said. “We have been dealing with [decommissioning] the Lepse ship for a very long time. It is now essentially complete but we are still funding the defueling operation for another year-and-a-half. And we have fairly good coordination in Central Asia, where Russia has its own programme for remediation of uranium mines. And I’m very happy that Russia made a significant contribution to the Chernobyl programme.”

<https://www.world-nuclear-news.org/Articles/Interview-EBRD-nuclear-safety-director-forms-long>

Chandrayaan 2: Godrej Aerospace plays a very important role in several ISRO missions, says top company official

Huma Siddiqui, Financial Express, August 8, 2019

ISRO’s Chandrayaan 2: Godrej Aerospace has built critical components for all the major missions including the recently launched Chandrayaan 2 by ISRO.

Chandrayaan 2: Godrej Aerospace has been committed to the cause of indigenous manufacturing for India’s Space programs for about three decades. The company has built critical components for all the major missions including the recently launched Chandrayaan-2 by the Indian Space Research Organisation (ISRO). SM Vaidya, Executive Vice President and Business Head, Godrej Aerospace, talks to Huma Siddiqui about its journey with ISRO. Following are excerpts.

How long has been your association with the Indian Space Research Organisation (ISRO)?

Godrej Aerospace's association with ISRO goes back a long way, beginning in 1985 with the supply of precision machined parts for various ISRO projects. Over the past three decades, we have been entrusted with increasing work from ISRO and this has resulted in increased participation, especially for complex equipment such as liquid propulsion engines for PSLV and GSLV rockets, thrusters for satellites and antenna systems.

Which are the programmes the company has worked with ISRO?

Godrej is involved in all the programs of ISRO since 1985 be its remote sensing, Tele education, Tele-medicine or interplanetary missions. Godrej has been associated with ISRO for various programmes such as PSLV, GSLV including GSLV Mk III – the heaviest satellite launched from India including Chandrayaan 1 (2008), Mangalyaan (2014) and Chandrayaan 2 in 2019.

The company Godrej & Boyce has been proudly committed to the cause of indigenous manufacturing for India's space programs which are a key to strengthen India's technological prowess.

Were you involved with Mars Programme and is the company going to be part of the planned Space Station by ISRO?

The successful insertion of the Mars orbiter spacecraft in the designated Mars orbit is indeed a very proud and historic moment for India. It was a proud moment for everyone at Godrej Aerospace to have been a part of this prestigious project. India is the first country to achieve this milestone at the very 1st attempt and at a fraction of the cost of an international launch.

The company built mission-critical items such as the liquid engine used in the Polar Satellite Launch Vehicle (PSLV), precision components for the Orbiter Thruster as well as the ground system antenna together with the onboard antenna.

Will Godrej Aerospace be involved in the Human mission?

Yes, under the guidance of ISRO, Godrej is currently developing a high thrust engine (semi cryo) for Human mission.

How do you compare yourself with other private sector companies which are interested in the Space sector?

Godrej has the advantage of working with ISRO over last three decades. We have passed through learning and absorption phase and are ready with exclusive manufacturing facilities, trained and qualified manpower and attested quality systems. This helps us to optimise and deliver as per schedule or take tasks on developing new systems.

<https://www.financialexpress.com/lifestyle/science/chandrayaan-2-godrej-aerospace-plays-a-very-important-role-in-several-isro-missions-says-top-company-official/1670418/>

U.S. Experts Want Details On Blast At Russian Missile Test Site

David Welna, National Public Radio, August 14, 2019

At least five Russians were killed last week in an explosion at a missile test site. It may have involved an experimental nuclear powered missile that Russian President Putin had boasted about.

RACHEL MARTIN, HOST:

American scientists and intelligence experts are trying to understand what happened in an explosion at a Russian missile test site last week. At least five Russians died in that blast. It's believed to have involved an experimental nuclear-powered missile that Russian President Vladimir Putin boasted about last year. NPR's David Welna reports.

DAVID WELNA, BYLINE: Russian officials have been vague about what caused a spike in background radiation in the area surrounding last Thursday's explosion.

ANKIT PANDA: What we do have is an acknowledgement by the Russians that there was radioactive dispersal.

WELNA: Ankit Panda is an adjunct senior fellow at the Federation of American Scientists.

PANDA: Official data released by the Russian government regarding the personnel that were tragically killed in this accident suggests that they were involved with a part of the Russian defense establishment that was known to have been working on this nuclear-powered cruise missile.

JEFFREY LEWIS: I think Russia was testing a nuclear-powered cruise missile, which is a crazy kind of doomsday weapon and one that seems to have gone rather badly.

WELNA: That's Jeffrey Lewis, a nuclear weapons expert at the Middlebury Institute for International Studies. He says all signs suggest this blast involved a new kind of missile.

LEWIS: That doesn't just have a nuclear warhead but in fact has a tiny nuclear reactor on board. That's a pretty finicky technology. The United States looked at doing that in the 1950s and '60s but gave up because it was a technical and ecological nightmare.

WELNA: President Trump weighed in earlier this week, tweeting that, quote, "the United States is learning much from the failed missile explosion in Russia." He also said the U.S. has, in his words, similar though more advanced technology. This my missile is better than your missile one-upmanship got started last year by Trump's Russian counterpart.

WELNA: In a televised address, Russian President Putin told his Federal Assembly that a new nuclear-powered, low-flying stealth missile with a nuclear warhead had been successfully tested.

WELNA: Putin claimed no present or future defense system could stop this missile that had virtually no limit on how far it could fly. Putin showed a video simulation of the missile heading toward what looked like the coast of Florida.

WELNA: No other country, he added, has developed anything like this.

PANDA: There is an element of deception in many activities that Russia does undertake around its weapons programs.

WELNA: Still, Ankit Panda things Russia really is trying to fly a missile with a nuclear reactor on board.

PANDA: This may have been something brought out of the archives. Somebody managed to convince the Russian leadership that this was a good idea, but it may not be going anywhere.

WELNA: The Russians, though, appear anything but deterred by this mishap, says Lewis.

LEWIS: The Russians were quite clear that they were going to press on. All of the Russian statements took a very cold tone of saying this is the kind of thing that happens when a country is developing new military technologies.

WELNA: Lewis notes that this follows the termination earlier this month of the long-standing intermediate range missile treaty between the U.S. and Russia.

LEWIS: What we have seen is a complete collapse of arms control efforts between the United States and Russia. And in its place is a kind of arms race. And this weapons system, crazy as it sounds, I think is part of that brewing arms race.

WELNA: One expert on Russia, the International Crisis Group's Olga Oliker, thinks Moscow might simply be trying to lure the U.S. back to the negotiating table.

OLGA OLIKER: You know, maybe not all of this stuff would need to be built. Maybe there's a negotiation to have here.

WELNA: But there are no signs Washington's moved any closer to the negotiating table, particularly after last week's blast. David Welna, NPR News, Washington.

<https://www.npr.org/2019/08/14/751027839/u-s-experts-want-details-on-blast-at-russian-missile-test-site>

Mystery Surrounds Last Week's Nuclear Accident In Russia

Lucian Kim, National Public Radio, August 15, 2019

A week after an explosion at a Russian missile test facility that killed at least five people, there's still confusion about what exactly blew up, and how much radiation might have been released.

DAVID GREENE, HOST:

Whatever happened in Russia last week is still largely a mystery. Some kind of nuclear accident took the lives of at least five people. It appears to have involved a top-secret super missile. The scope of radiation contamination seems to have been limited, but still so many questions here. NPR's Lucian Kim is in Moscow.

LUCIAN KIM, BYLINE: Information about the accident has been released in drips and drabs, and much of it is contradictory. Almost the only thing that can be said with certainty is that there was an explosion at an Arctic military testing site some 600 miles north of Moscow. What exactly blew up, how much radiation was released and what danger local residents were exposed to are all the subject of speculation. Even the casualty count is unclear, though Rosatom, Russia's nuclear corporation, has confirmed that five of its employees were killed and three hospitalized.

RASHID ALIMOV: The main danger is in this local region.

KIM: That's Rashid Alimov, a radiation specialist with Greenpeace Russia.

ALIMOV: The question is mostly about the safety measures for those people living there, and the question is about radioactive contamination of the water there as well. So all those questions need answers from the official authorities.

KIM: Official statements on the release of radiation vary wildly, with the Defense Ministry denying there was any, Rosatom acknowledging a brief twofold spike and Russia's weather service saying it could have been up to 16 times normal levels. On

Tuesday, there were reports the village closest to the test site was being evacuated which were then denied by local authorities. A regional news site is reporting doctors who treated victims of the accident have been sent to Moscow for medical examinations after signing non-disclosure agreements.

The Kremlin has hardly commented on the incident. President Vladimir Putin's spokesman has advised journalists to rely on information provided by government agencies and insists the health and safety of local residents have been fully insured. All the secrecy may have to do with the type of weapon that was being tested.

KIM: In a speech last year, Putin unveiled a new arsenal under development, including a nuclear-powered cruise missile nicknamed Skyfall. In a tweet Monday, President Trump advanced the theory Skyfall may have been involved in the accident. Moscow defense analyst Alexander Golts calls the project a new toy for Putin.

ALEXANDER GOLTS: (Speaking Russian).

KIM: Golts says, "Russia is essentially in an arms race with itself, developing weapons unnecessary to keep strategic parity with the U.S. and posing a danger to its own citizens." Lucian Kim, NPR News, Moscow.

<https://www.npr.org/2019/08/15/751365950/mystery-surrounds-last-weeks-nuclear-accident-in-russia>

Q. Original Documents

Issuance of CBW Act-related Executive Order; Publication of CBW Act Directive and Frequently Asked Questions

US Department of the Treasury, August 3, 2019-08-22

On August 1, 2019, the President issued a new Executive Order (E.O.) "Administration of Proliferation Sanctions and Amendment of Executive Order 12851", this E.O. is related to the Chemical

and Biological Weapons Control and Warfare Elimination Act of 1991, as amended (“CBW Act”). Pursuant to the CBW Act, the Department of the Treasury’s Office of Foreign Assets Control (OFAC) is issuing a Russia-related Directive (CBW Act Directive). The CBW Act Directive will have an effective date of August 26, 2019. OFAC is also publishing new FAQs relating to the CBW Act Directive.

<https://www.treasury.gov/resource-center/sanctions/OFAC-Enforcement/Pages/20190803.aspx>

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).

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