

# Nuclear, Missile & Space Digest

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## A. India

### Atomic Energy Gorakhpur Atomic Power Plant *PIB Delhi, January 02, 2019*

Presently excavation is in progress in Gorakhpur Haryana Anu Vidyut Pariyojana (GHAVP) Units -1&2 (2X700 MW) at an advanced stage. Orders have been placed for long delivery equipment like End shields and Steam Generators. The Main Plant Civil Work and several other packages are at various stages of tendering. Land acquisition has been completed at the Gorakhpur site in Haryana. The first phase of the project comprising of two units GHAVP-1&2 (2X700 MW) is expected to be completed in 2025.

The expenditure incurred on the project till November 2018 was <sup>1</sup> 1484 crore. The approved completion cost of the project is <sup>1</sup> 20594 crore. The project is expected to generate employment (direct and indirect) for about 2000 persons on becoming operational. In addition, large employment potential is generated with the contractors/vendors and from business opportunities that emerge consequent to the increase in economic activity at the site. During construction, large numbers of contractor manpower are employed (following a bell curve with about 8000 persons at the peak).

Nuclear Power Corporation of India Limited (NPCIL), a Public Sector Undertaking under Department of Atomic Energy (DAE), pursues welfare activities under Corporate Social Responsibility (CSR) in and around its nuclear power plants in four major areas of education including skill development; health and sanitation; infrastructure development and environmental sustainability in accordance with the provisions of the Companies Act, 2013. Under the CSR programmes at GHAVP, some of the key initiatives taken up are, support to the meritorious students by way of award of scholarship, pedagogical aids, construction of inter-connecting roads, construction of toilets in schools and public places, including some Panchayats and mid-day meal shelters in the schools. Special efforts were also made, based on the need identified by the locals, for construction of

cow-sheds and renovation of Gaushalas. One of the important programmes was providing assistive devices to the differently abled persons in the area. More welfare works including augmentation of construction of toilet blocks in schools, providing of equipment for gymnasium in Gorakhpur State Stadium, construction of drinking water tanks, etc. are identified as an ongoing exercise under CSR at Gorakhpur.

[http://pib.nic.in/  
PressReleaseDetail.aspx?PRID=1558158](http://pib.nic.in/PressReleaseDetail.aspx?PRID=1558158)

### Review of Jaitapur Nuclear Power Plant *PIB Delhi, January 02, 2019*

During the recent visit of French Foreign Minister to India, both the Governments noted that satisfactory progress had been made in pursuance of the Industrial Way Forward Agreement in 2018 between Nuclear Power Corporation of India Limited (NPCIL) and Electricite de France (EDF) and adopted the Status of Progress for implementation of Industrial Way Forward Agreement.

This information was provided by the Union Minister of State (Independent Charge) Development of North-Eastern Region (DoNER), MoS PMO, Personnel, Public Grievances & Pensions, Atomic Energy and Space, Dr Jitendra Singh in written reply to a question in Lok Sabha today.

[http://pib.nic.in/  
PressReleaseDetail.aspx?PRID=1558157](http://pib.nic.in/PressReleaseDetail.aspx?PRID=1558157)

### Artificial Intelligence, *PIB Delhi, January 02, 2019*

Ministry of Defence has initiated the process of preparing Indian defence forces for use of Artificial Intelligence. To study the whole gamut of issues on the implications of Artificial Intelligence (AI) on National security and defence needs, a multi-stakeholder Task Force on Strategic Implementation of Artificial Intelligence for National Security and Defence represented by members from the Government, Defence Services, Academia,

Industry Professionals, Defence Research and Development Organization (DRDO), Defence Public Sector Undertakings (DPSUs), National Cyber Security Coordinator (NCSC), Indian Space Research Organization (ISRO), Bhabha Atomic Research Centre (BARC) and Start-ups was constituted in February, 2018.

Task Force has studied research and innovation in Artificial Intelligence (AI) and outlined its adoption in defence sector including future roadmap on how to integrate and embed AI strategy with core defence strategy.

In addition the Defence Public Sector Undertakings and Ordnance Factories have been assigned a roadmap for developing AI enabled products. There is no specific fund allocation on yearly basis. However, funds are allocated for various projects on case to case basis. Some of the projects are as under: A project has been sanctioned to Centre for Artificial Intelligence (AI) and Robotics (CAIR), a DRDO based laboratory, and to develop AI based solutions for signal intelligence to enhance intelligence collation and analysis capabilities to the armed forces. The total cost of the project is Rs.73.9 crore.

A project named, Energy Harvesting Based Infrared Sensor Network for Automated Human Intrusion Detection (EYESIRa), which is partially based on the principles of IoT, has been sanctioned for Rs.1.8 crore. Artificial Intelligence (AI) based tools would aid the defence forces constructively in areas such as decision support, sensor data analysis, predictive maintenance, situational awareness, accurate data extraction, security etc. These tools will assist defence personnel in better operations, maintenance and logistics support. This information was given by Raksha Rajya Mantri Dr. Subhash Bhamre in a written reply to Shri PR. Senthil Nathan and others in Lok Sabha today.

<http://pib.nic.in/PressReleaseDetail.aspx?PRID=1558146>

### **Defence Procurement from Private Sector** *PIB Delhi, January 02, 2019*

Capital procurement of defence equipment from domestic and foreign vendors is

undertaken as per the extant Defence Procurement Procedure (DPP). During current financial year 2018-19 (upto October, 2018), out of 22 contracts signed with Indian vendors, 8 contracts have been signed with Indian private vendors for procurement of defence equipment. Government is pursuing initiatives to achieve higher levels of indigenization and self-reliance in the defence sector by harnessing the capabilities of the public and private sector industries in the country.

These measures include according priority and preference to procurement from Indian vendors and liberalization of the licensing regime. Defence Procurement Procedure (DPP) accords the highest priority to Buy Indian (Indigenously Designed, Developed and Manufactured) (IDDM). The 'Make' procedure has been simplified with provisions for earmarking projects not exceeding development cost of Rs.10 crores (government funded) and Rs.3 crores (Industry funded) for micro, small and medium enterprises (MSMEs); and with provisions for involving private industry as production agencies and technology transfer partners. Government has also promulgated the policy on Strategic Partnership in the Defence Sector to encourage broader participation of the private sector in manufacture of major defence platforms and equipment.

<http://pib.nic.in/PressReleaseDetail.aspx?PRID=1558139>

### **SU-30 MK JET** *PIB Delhi, January 02, 2019*

Russian SU-30 and indigenously manufactured SU-30MKI are not the same, hence, one to one comparison of cost may not be appropriate. The higher cost of indigenously manufactured SU-30MKI is due to following factors:- Additional modifications are incorporated in the indigenous Su-30MKI to enhance the operational capability and to suit Indian Air Force (IAF) requirements.

Being a Transfer of Technology (ToT) programme, cost is involved towards payment of license fee to Russian side.

Owing to the low volume of production of Indian SU-30 MKI as compared to Russian SU-30, economies of scale come into play.

Import of raw materials and proprietary components from Russia involves dependency on Russian Original Equipment Manufacturers (OEMs) for the offered kit costs, which are not proportionate with the kit contents.

However, indigenous manufacturing has created advanced skill sets in the country, a step towards self-reliance and will result in lower Life Cycle Cost and reduced dependency on OEM on repair & maintenance and faster turn-around time and quick support to IAF bases. Since the facilities are indigenously established, future production supplies is likely to be cheaper if new order for bulk production is placed on HAL.

The Contract for upgradation of 61 Jaguar Display, Attack, Range and Inertial Navigation-I (DARIN-I) aircraft to DARIN-III standard was signed with HAL in December 2009. Contractual timelines for Initial Operational Clearance (IOC) and Final Operational Clearance (FOC) were December 2012 & June 2013 respectively. Contractual timelines for delivery of all the Series Upgrade aircraft was December 2017. IOC has been obtained in February 2017. FOC has not yet been achieved. The delay in the project is due to following reasons:-

Introduction of certain new requirements projected by IAF which required additional software design, implementation and flight trials efforts.

Delay in supply of certain Buyers Furnished Equipment by IAF.

Up gradation of certain equipment like Smart Multi- Function Display sought by IAF.

The development of Mission Computer was taken up by HAL through its Joint Venture Company, HAL Edgewood Technologies Limited (HETL). After some initial delay, the development of Mission Computer has now been completed.

Regarding Smart Multi-Function Display (SMFD), as per the revised requirement of IAF, a suitable alternative has been identified by HAL. This SMFD has also attained certification.

The progress of Jaguar DARIN-III upgrade programme is regularly reviewed by Ministry of Defence through meetings with HAL & IAF.

This information was given by Raksha Rajya Mantri Dr. Subhash Bhamre in a written reply to Shri Hariom Singh Rathore in Lok Sabha today.

<http://pib.nic.in/PressReleaseDetail.aspx?PRID=1558153>

### **INDO-France Pact for Sustainable Development** *PIB Delhi, January 03, 2019*

During the recent visit of French Foreign Minister to India, both the Governments noted that satisfactory progress had been made in pursuance of the Industrial Way Forward Agreement in 2018 between Nuclear Power Corporation of India Limited (NPCIL) and Electricite de France (EDF) and adopted the Status of Progress for implementation of Industrial Way Forward Agreement.

<http://pib.nic.in/PressReleaseDetail.aspx?PRID=1558479>

### **Commissioning of Nuclear Power Plants** *PIB Delhi, January 03, 2019*

During the period 2014-15 to 2015-16, two nuclear power plants Kudankulam Units 1&2 (2 X 1000 MW) were commissioned and commenced commercial operation.

There are presently no proposals for accord of administrative approval & financial sanction of nuclear power projects pending with the Government.

This information was provided by the Union Minister of State (Independent Charge) Development of North-Eastern Region (DoNER), MoS PMO, Personnel, Public Grievances & Pensions, Atomic

Energy and Space, Dr Jitendra Singh in written reply to a question in Rajya Sabha today.

<http://pib.nic.in/PressReleaseDetail.aspx?PRID=1558483>

### Proposals for New Atomic Power Plants PIB Delhi, January 03, 2019

At present, there are nine (9) nuclear power reactors at various stages of construction, targeted for completion by 2024-25. In addition, twelve (12) more nuclear power reactors have been accorded administrative approval and financial sanction by the Government in June 2017. Thus, twenty one (21) nuclear power reactors, with an installed capacity of 15700 MW are under implementation, envisaged for progressive completion by the year 2031. The details are as follows:

#### i. Nuclear Power Reactors under Construction:

| State      | Location             | Project         | Capacity (MW) | Sanctioned Cost (Rs crore) |
|------------|----------------------|-----------------|---------------|----------------------------|
| Gujarat    | Kakrapar             | KAPP 3&4        | 2 x 700       | 11459*                     |
| Rajasthan  | Rawatbhata           | RAPP 7&8        | 2 X 700       | 12320                      |
| Tamil Nadu | Kudankulam Kalpakkam | KKNPP 3&4 PFBR& | 2 X 1000 500& | 39849 5677                 |
| Haryana    | Gorakhpur            | GHAVP 1&2\$     | 2 x 700       | 20594                      |

(\* Under Revision, (&) Project being implemented by BHAVINI, (\$) Excavation commenced

#### ii. Nuclear Power Reactors accorded administrative approval and financial sanction:

| State          | Location      | Project           | Capacity (MW) | Sanctioned Cost (Rs crore) |
|----------------|---------------|-------------------|---------------|----------------------------|
| Haryana        | Gorakhpur     | GHAVP 3&4         | 2 x 700       | 105000                     |
| Rajasthan      | Mahi-Banswara | Mahi Banswara 1&2 | 2 X 700       |                            |
|                |               | Mahi Banswara 3&4 | 2 X 700       |                            |
| Karnataka      | Kaiga         | Kaiga 5&6         | 2 X 700       |                            |
| Madhya Pradesh | Chutka        | Chutka 1&2        | 2 X 700       |                            |
| Tamil Nadu     | Kudankulam    | KKNPP 5&6         | 2 X 1000      | 49621                      |

In addition, five sites, as given below, have been accorded 'in principle' approval by the Government for setting up more reactors in future.

#### Nominal Capacity

Discussions on finalization of project proposals in respect of setting up large size Light Water Reactors in collaboration with

| State          | Site                | Capacity(MW) | In Cooperation with      |
|----------------|---------------------|--------------|--------------------------|
| Maharashtra    | Jaitapur            | 6 X 1650     | France                   |
| Andhra Pradesh | Kovvada             | 6 X 1208     | United States of America |
| Gujarat        | Chhaya Mithi Viridi | 6 X 1000*    |                          |
| West Bengal    | Haripur             | 6 X 1000*    | Russian Federation       |
| Madhya Pradesh | Bhimpur             | 4 X 700      | Indigenous PHWR          |

France at Jaitapur site in Maharashtra and USA at Kovvada site in Andhra Pradesh are underway. The cost of reactors to be set up at these sites will emerge on conclusion of the techno-commercial discussions and formulation of their project proposals. These reactors will be launched after the accord of administrative approval and financial sanction by the Government. At the other 'In-Principle' approved sites, the pre-project activities are at various stages.

Bharatiya Nabhikiya Vidyut Nigam Limited (BHAVINI), a PSU under Department of Atomic Energy, is currently constructing a 500 MWe Prototype Fast Breeder Reactor at Kalpakkam, Tamil Nadu. Further, it is proposed to construct a series of twin reactors as given below.

Cost estimation will be prepared on completion of the detailed engineering of the project.

| Proposed Fast Breeder Reactor | Capacity in MWe | Start of construction | Commercial operation | Location of plant |
|-------------------------------|-----------------|-----------------------|----------------------|-------------------|
| FBR-1                         | 600             | 2021                  | 2029                 | Kalpakkam,        |
| FBR-2                         | 600             | 2021                  | 2031                 | Tamil Nadu        |
| FBR-3                         | 600             | 2025                  | 2033                 | Site yet to       |
| FBR-4                         | 600             | 2025                  | 2035                 | be selected       |

The Government has taken several measures to enable setting up of nuclear power reactors in the country. These include:

- (i) Resolution of issues related to Civil Liability for Nuclear Damage (CLND) Act & Creation of Indian Nuclear Insurance Pool (INIP).
- (ii) Amendment of the Atomic Energy Act-1962 (as amended from time to time) to enable Joint Ventures of Public Sector Companies to set up nuclear power projects in the country.
- (iii) Enabling agreements with the foreign countries for nuclear power cooperation including supply of fuel.
- (iv) Identification and addressing of the issues in implementation of the projects through Pro-Active Governance And Timely Implementation "PRAGATI" platform.

The existing units are operating at their rated capacity. The unit size of indigenous Pressurised Heavy Water Reactors (PHWRs) has already been increased from 220 MW to 540 MW and then to 700 MW, which are now under construction. In addition, Light Water Reactors of 1000 MW have also been introduced with foreign cooperation.

<http://pib.nic.in/PressReleseDetail.aspx?PRID=1558481>

### India to bring 21 more reactors online by 2031 *World Nuclear News, January 4, 2019*

India currently expects to bring 21 new nuclear power reactors with a combined generating capacity of 15,700 MWe into operation by 2031, the country's minister of state for the Department of Atomic Energy and the Prime Minister's Office told

parliament yesterday.

In a written answer to a question in the Rajya Sabha, Jitendra Singh said: "At present, there are nine nuclear power reactors at various stages of construction." These include two units in each of the states of Gujarat, Rajasthan and Haryana, plus three in Tamil Nadu. All these units are scheduled to be completed by 2024-2025, Singh was cited as saying by The Times of India.

<http://world-nuclear-news.org/Articles/India-to-bring-21-more-reactors-online-by-2031>

### Experts: Nuclear power production in country just 3%, *Deepkamal Kaur, The Tribune, January 6, 2019*

With 22 nuclear power plants already running across the country and producing nearly 6,780 MW power, officials of Nuclear Power Corporation India Limited (NPCIL) believe that the country is way behind its target to have 16 per cent power production from nuclear energy. The outreach team of the NPCIL at the expo organised by the Indian Science Congress at Lovely Professional University maintained that the overall nuclear power production in the country was only 3 per cent as of now.

Asked if Punjab could have it, they said, "Though there are various aspects like availability of a perennial river around for cooling the systems, seismic zone factor and other things which need to be looked into, but by and large there should not be a problem. If Haryana can have it in Gorakhpur, Uttar Pradesh has it at Narora and there are two each in Gujarat, MP, Maharashtra and Tamil Nadu then why not Punjab? It all depends on the will of the state government."

Amit Kumar of the Indira Gandhi Centre for Atomic Research, Kalpakkam, tried to dispel fears around the use of nuclear power, "We have a robust regulatory mechanism. There is no health hazard

even if we are exposed to 1 sievert of radiation. The Department of Atomic Energy has set a limit of 0.5 sievert. I have been myself working in the test reactor for nine hours a day for the past 10 years and have so far being exposed only to 10 milli-sievert radiation. So, it is completely a non-issue."

<https://www.tribuneindia.com/news/punjab/experts-nuclear-power-production-in-country-just-3/709651.html>

### **The Defence India Startup Challenge** *PIB Delhi, January 07, 2019*

Applications from over 500 competitors have been received and the evaluation of the applications is in process. The broad criteria for screening / selection from amongst competitors would be as follows: Potential for proposed prototype to meet existing Indian defence needs;

Potential to deploy an existing technology or patent to meet existing Indian defence needs;

An additional but optional parameter would be whether the proposed prototype/product/ technology has the ability to reach alternative civilian markets also.

<http://pib.nic.in/PressReleaseDetail.aspx?PRID=1558891>

### **Funds for Technological Modernisation of Armed Forces** *PIB Delhi, January 07, 2019*

Government is taking measures for modernization of the Armed Forces, through procurement of new equipment and upgrading of existing equipment so as to ensure that the Armed Forces are equipped to meet the entire spectrum of security challenges. The modernization projects are progressed as per the approved Capital Acquisition Plans and in terms of the extant Defence Procurement Procedure (DPP).

Capital procurement of defence equipment is undertaken from various domestic as well as foreign vendors, based on threat perception, operational challenges and technological changes and to keep the Armed Forces in a state of readiness.

During the last three years and in the current year, 188 contracts have been signed for capital procurement / upgradation of defence equipment for Armed Forces such as Missiles, Aircraft, Artillery guns, Radars, Rockets, Helicopters, Weapons, Simulators, Ballistic Helmets, Bullet Proof Jackets and Electronic Fuzes and Ammunition.

<http://pib.nic.in/PressReleaseDetail.aspx?PRID=1558893>

### **India to receive S-400 missiles in due time, national security will be enhanced, says Russia** *Indian Express, January 9, 2019*

Russia on Wednesday said there will be no delays in the delivery of the S-400 air defence systems to India and a payment mechanism for the deal is being worked out. Russian Deputy Foreign Minister Sergei Ryabkov said the missile systems will significantly enhance India's air defence capability.

Last week, the government informed Lok Sabha that it will start receiving the missile systems from Russia from October next year and the deliveries will be completed by April 2023. India inked an agreement with Russia in October last year to procure a batch of the missile systems at a cost of Rs 40,000 crore. India went ahead to seal the deal notwithstanding the US' warnings against it.

<https://indianexpress.com/article/india/india-to-receive-s-400-in-due-time-national-security-will-be-enhanced-says-russia/>

### **GSAT-9 diplomacy: The glue that is binding India's ties with its neighbours** *Subhomoy Bhattacharjee Business Standard, January 10, 2019*

Before January ends, Bhutan will get a ground station to communicate with the GSAT-9 satellite sent to space by India back in May 2017. Soon Nepal and Maldives will be assisted by Isro with similar facilities.

They will join Sri Lanka and Bangladesh, which have independent capacities to set

up ground stations to track the so-called Saarc satellite that can provide all sorts of services to them, ranging from banking to agriculture and education. The satellite was up in the skies one and a half years before the neighbours got their ring of stations on the ground.

[https://www.business-standard.com/article/economy-policy/gsat-9-diplomacy-the-glue-that-is-binding-india-s-ties-with-its-neighbours-119010800375\\_1.html](https://www.business-standard.com/article/economy-policy/gsat-9-diplomacy-the-glue-that-is-binding-india-s-ties-with-its-neighbours-119010800375_1.html)

### **Iran says moving forward with partners like India, Russia** *Financial Express January 10, 2019*

Iran is working with its traditional partners like India, Russia and China on moving forward after the US pullout of the nuclear deal despite assurances from European nations that they will work out a solution on the issue, Iranian Foreign Minister Javad Zarif said Wednesday.

The Iranian foreign minister, while speaking at a Facebook live interaction with the Observer Research Foundation on the sidelines of the Raisina Dialogue, said: "Unfortunately the West is showing that it is not a very reliable partner. The US first did not implement the deal in good faith and then decided abruptly to withdraw from the deal."

The nuclear deal was negotiated and agreed to by Iran and the P5+1 (the US, UK, France, China, Russia, and Germany), granting Iran sanctions relief and returning frozen assets in exchange for restrictions on its nuclear programme and international inspections. In May last year, Trump had announced that the US had withdrawn from what he described as "the horrible, one-sided" Iran nuclear deal.

"Europe claims that it considers the deal of security significance, but it is not willing to make necessary investments believing that gains can be made without much sacrifice," he said. In his address at the Raisina dialogue, Zarif said the emerging global order now is "post western".

"That is not derogatory to the West but

rather a statement of simple reality. The west as a geographic or political construct no longer possess monopoly over all consequential global development," Zarif said. "The practical implication is that we cannot expect the West to provide us of all the remedies, nor can we blame it for all our maladies. Our region is seen as the locus of many global problems particularly extremism and terrorism, — be it West Asia, Central Asia or South Asia," he said.

"We can start with a regional dialogue forum, particularly in the Persian gulf region which has been the scene of so many wars in the last decade. We need a strong region than the dominance of strongmen," he said.

<https://www.financialexpress.com/india-news/iran-says-moving-forward-with-partners-like-india-russia/1439013/>

### **India, Russia discuss common approach to Iranian nuclear issue** *Dipanjay Roy Chaudhury The Economic Times, January 10, 2019*

India and Russia reiterated common approaches to current global and regional problems, including the implementation of the JCPOA to resolve the situation around the Iranian nuclear programme. This was the theme when Deputy Minister of Foreign Affairs of Russia Serge Ryabkov and Foreign Secretary V K Gokhale here on Wednesday.

"During the meeting, the unprecedented nature of the Russian-Indian Special and Privileged Strategic Partnership was noted, and a high assessment was given to the positive dynamics of bilateral relations in various fields," according to a statement from the Russian government. The two sides discussed in detail the OPCW, other issues of the current global issues in the field of arms control and non-proliferation of WMD.

<https://economictimes.indiatimes.com/news/defence/india-russia-discuss-common-approach-to-iranian-nuclear-issue/articleshow/67477120.cms>

## Army Tech Seminar (ARTECH 2019)

*PIB Delhi, January 11, 2019*

In its quest for modernization through optimum use of emerging technologies, Indian Army organised the Army Technology Seminar-2019 (ARTECH 2019) on the theme “Disruptive Impact of Emerging Technologies on Land Warfare” at Manekshaw Centre, Delhi Cantt on 11 Jan 2019. The seminar was aimed to bring together stakeholders in the military, academia and industry to provide perspective on the available and emerging technologies which could have an impact on warfighting. The event was attended by Dr Subhash Bhamre, Raksha Rajya Mantri, Gen Bipin Rawat, Chief of the Army Staff, Shri Ajay Kumar, Secretary Department of Defence Production and other dignitaries from Ministry of Defence, army, academia and civil defence industry.

In his keynote address, the Chief of the Army Staff said that technological disruptions are rapidly changing the character of warfighting and future conflicts will be fought across domains wherein networks and integration would be the key to generate military power. An exhibition showcasing military innovations developed by field Army, DRDO, Academia and industry was also organised during the seminar.

<http://pib.nic.in/PressReleseDetail.aspx?PRID=1559658>

## India to Hold Disarmament, International Security Training for Foreign Diplomats, *The Wire*,

*January 13, 2019*

India will be organising the first-ever intensive programme in disarmament and international security issues for foreign diplomats over the next three weeks – starting Monday, January 14.

The external affairs ministry’s foreign service institute will be hosting 27 young diplomats – all below the age of 35 – for the programme. The first edition of the annual event will be inaugurated by the United

Nations under-secretary-general and high representative for disarmament affairs Izumi Nakamitsu and foreign secretary Vijay Keshav Gokhale.

According to officials, the Indian programme is the first such offering on disarmament by a member country after the UN Programme of Fellowships on Disarmament, which began over 40 years ago. “This is a demonstration of India’s commitment to nuclear issues and disarmament,” a senior MEA official said.

India considered 65 member states of Geneva based-Conference on Disarmament as the catchment area for participants in the new fellowship programme. Based on geographical representation, 30 countries were finally selected and asked to nominate their diplomats. A key criterion was that they should have prior background in disarmament issues. Countries that have sent participants to India for the three-week programme include Vietnam, China, Bangladesh, Sri Lanka, Myanmar, Mongolia, Egypt and Ethiopia.

“We have organised different workshops on various aspects of export control and nuclear issues like 1540 and chemical weapons convention. But this is the first time that India is organising an umbrella programme which encompasses all related issues,” the official said.

It was pointed out that India’s offer to train officials in nuclear disarmament and international security was in line with the UN secretary-general’s disarmament agenda released in 2018. One of the key aspects was investing in disarmament education, interpreted as one of the contributors for attaining Sustainable Development Goal 4, which calls for “promotion of a culture of peace and non-violence”.

<https://www.thewire.in/diplomacy/india-to-hold-disarmament-international-security-training-for-foreign-diplomats>

## B. China

### Foreign Ministry Spokesperson Lu Kang's Regular Press Conference

*Ministry of Foreign Affairs of the People's Republic of China, January 02, 2019*

**Q: In his New Year address, DPRK leader Kim Jong-un expressed his willingness to meet anytime with President Trump and reiterated his commitment to realizing denuclearization of the Peninsula. Kim Jong-un also sent a personal New Year letter to ROK President Moon Jae-in, saying that he would actively seek opportunities to visit the ROK. There are also reports that Kim Jong-un also sent Trump a letter about DPRK-US dialogues. What is China's comment on this?**

A: I have noticed relevant reports. Over the past year, the situation on the Korean Peninsula has undergone important and positive changes. The Peninsula issue has returned to the track of dialogues and negotiations, and inter-Korean relations have achieved comprehensive improvement and development. The Chinese side fully acknowledges the important measures taken by the DPRK towards the realization of the denuclearization of the Peninsula, supports the DPRK in holding onto its denuclearization stance and peaceful dialogues, supports the DPRK-US and DPRK-ROK efforts in sustaining their sound interactive momentum by demonstrating more goodwill to each other, consolidating mutual trust and continuously improving relations so as to promote the denuclearization of the Peninsula and the political settlement of the Peninsula issue.

As President Xi Jinping pointed out on December 29 in his phone call with US President Trump at the latter's request, China encourages and supports the DPRK and the US in having more dialogues for positive outcomes. We hope that the DPRK and the US could respect and accommodate each other's legitimate concerns and make positive progress in promoting the denuclearization of the Korean Peninsula and the building of a peace mechanism on the Korean Peninsula in the new year. China

will continue to play a part in this regard.

[https://www.fmprc.gov.cn/mfa\\_eng/xwfw\\_665399/s2510\\_665401/2511\\_665403/t1626635.shtml](https://www.fmprc.gov.cn/mfa_eng/xwfw_665399/s2510_665401/2511_665403/t1626635.shtml)

### Foreign Ministry Spokesperson Lu Kang's Regular Press Conference

*Ministry of Foreign Affairs of the People's Republic of China, January 03, 2019*

**Q: US President Trump said that he has received the letter from DPRK's Supreme Leader Kim Jong-un and he might meet with Kim Jong-un again. What is your comment?**

A: We believe that President Trump's statement is positive news. China always believes that as key parties to the Korean Peninsula issue, more positive interactions and productive dialogues between the US and the DPRK, will contribute to the settlement of the Korean Peninsula nuclear issue as well as peace and stability of the Korean Peninsula.

Just like President Xi Jinping pointed out in his phone call with US President Trump on December 29 at the latter's initiation, China always encourages and supports the DPRK and the US in continuing with their dialogues and striving for positive outcomes. We are glad to see positive progress.

[https://www.fmprc.gov.cn/mfa\\_eng/xwfw\\_665399/s2510\\_665401/2511\\_665403/t1626865.shtml](https://www.fmprc.gov.cn/mfa_eng/xwfw_665399/s2510_665401/2511_665403/t1626865.shtml)

### China showcases own version of 'Mother of All Bombs' Liu Xuanzun, *Global Times, January 3, 2019*

China's arms industry giant NORINCO for the first time showcased a new type of massive aerial bomb, which it dubbed the Chinese version of the "Mother of All Bombs" due to its huge destruction potential that is claimed to be only second to nuclear weapons. The bomb was airdropped by an H-6K bomber and caused a gigantic explosion, a promotional video China North Industries Group Corporation Limited (NORINCO) released on its website in December shows.

This is the first time the new bomb's destructive powers have been shown in public, the Xinhua News Agency reported on Wednesday on its mobile application. Calling the several-ton-weapon a Chinese version of the "Mother of All Bombs," the report said that it is China's most powerful non-nuclear bomb, and that the H-6K bomber could only carry one at a time due to its size.

Judging from the video and the size of the H-6K's bomb bay, this bomb is approximately five to six meters long, Wei Dongxu, a Beijing-based military analyst, told the Global Times on Thursday. "The massive blast can easily and completely wipe out fortified ground targets such as reinforced buildings, bastions and defense shelters," Wei said. It can also be used to clear a landing zone for troops on helicopters to rappel down, in case the area is covered by obstacles such as forests, Wei noted.

The weapon will also spread fear among enemies if a weapon of this caliber is deployed, military observers noted. The US wields a similar weapon, the Massive Ordnance Air Blast (MOAB,) which was first to be dubbed the "Mother of All Bombs" because of its acronym and power. A MOAB was dropped on an Islamic State cave complex in Afghanistan in 2017, the New York Times reported. The bombing was very successful, but no casualty totals were given.

Wei said that the Chinese bomb is smaller and lighter than the US one, enabling it to be deployed on the H-6K bomber. The US bomb is so large that it has to be carried by a larger transport aircraft rather than a bomber, Wei said, noting that a bomber can fly faster and is better at targeting than a transport aircraft, and the Chinese bomb's designer must have had this in mind when it produced the bomb to fit the H-6K. To match the US weapon, Russia developed the "Father of All Bombs" which is both bigger and thermobaric, meaning it uses gas to create a huge fireball rather than a shockwave, Wired reported.

Some military observers speculated that the Chinese bomb is also thermobaric. However,

a NORINCO representative told the Global Times that the bomb shown in the video is not a thermobaric weapon, but did not provide additional details.

<http://www.globaltimes.cn/content/1134436.shtml>

### **Foreign Ministry Spokesperson Lu Kang's Regular Press Conference**

*Ministry of Foreign Affairs of the People's Republic of China, January 04, 2019*

**Q: Firstly, US Secretary of State Mike Pompeo said in a statement that Iran's plan to launch three rocket satellites represents another violation of Resolution 2231 of the UN Security Council. What is your comment on this issue?**

A: China always maintains that Resolution 2231 of the UN Security Council shall be accurately interpreted and effectively and comprehensively implemented to safeguard the international nuclear non-proliferation regime and peace and stability in the Middle East. Under the current circumstance, we hope that relevant parties could bear in mind the larger and long-term picture, and on the basis of preserving and implementing the JCPOA, seek to resolve other related issues through dialogue and consultation.

[https://www.fmprc.gov.cn/mfa\\_eng/xwfw\\_665399/s2510\\_665401/2511\\_665403/t1627127.shtml](https://www.fmprc.gov.cn/mfa_eng/xwfw_665399/s2510_665401/2511_665403/t1627127.shtml)

### **Zero sum harder than win-win approach** *Global Times, January 07, 2019*

The China-US vice-ministerial-level trade talks started in Beijing on Monday as the two sides recently signaled their wish to end the bitter trade war. The talks' possible progress will be in line with the pressing needs of the bilateral relationship and international politics. On the same day, Western media outlets reported that a US guided-missile destroyer sailed within 12 nautical miles of China's Xisha Islands in the South China Sea. It is hard to determine

if the US is trying to use this provocation as a bargaining chip to gain a diplomatic advantage in trade talks. If that is the case, the US' strong willingness to reach an agreement is abundantly clear. The trade war involves the great interests of both countries, which can hardly be affected by a US warship touring in Chinese waters. The fundamental reason for the extensive and bitter trade war lies in China's rise, which has shaken the US-led global power structure. Stirring up all kinds of uneasiness and impulsiveness, the trade war has resulted in a rather negative tendency for China-US relations, bringing more uncertainties and anxiety.

No matter how hard, the only choice for both countries is to explore peaceful coexistence while avoiding mutual strategic exhaustion. A win-win result for China and the US seems to deviate from the orthodoxy of games between major powers, but the zero-sum game is even tougher to play. Will the US lose the game? The US is still the world's greatest power with unapproachable scientific and military strengths. Its huge global alliance system is also nearly impossible for China to catch up on. China cannot overthrow the US simply with strength. Will China lose? China has the world's most complete industrial system and potential far greater than that of the US to be a mega market. China is also a nuclear power. China's periphery is gradually being stabilized. Beijing has developed more stable and sophisticated measures to handle relations with its neighboring countries. It will be increasingly difficult for the US to find any Asian country that would stand by Washington to fight against Beijing. Playing the game alone means more risk for the US.

China has been keeping a low profile facing China-US disputes, but it shouldn't be taken for granted that Beijing is incapable of counterstriking fiercely. It is an unprecedented challenge and test to develop future ties between the two countries. All humanity's past experience of relations between great powers are outdated and limited. Beijing and Washington have to explore a new path. The process will be very sensitive. It may even run into short-term

and regional excitement. However, both sides do not want to strategically collide with each other, so they must know when to stop before going too far.

<http://www.globaltimes.cn/content/1134923.shtml>

### **Foreign Ministry Spokesperson Lu Kang's Regular Press Conference**

*Ministry of Foreign Affairs of the People's Republic of China, January 08, 2019*

**Q: Does DPRK Supreme Leader Kim Jong Un's visit to China have anything to do with the future US-DPRK leadings' meeting? Besides Beijing, will he visit other places?**

A: The Spokesperson for the International Department of the Central Committee of the CPC has released relevant information this morning on the visit of Chairman Kim Jong Un. Chairman Kim Jong Un is visiting China at the invitation of General Secretary of the Central Committee of the CPC and President Xi Jinping. China and the DPRK are close neighbors. It is an important part of our fine tradition to maintain high-level exchanges. As for the arrangements of Chairman Kim Jong Un's visit, we will release relevant information in due course.

You asked whether his visit has anything to do with the second meeting between the DPRK and US leaders. China's position on the Korean Peninsula issue, including on contacts between the DPRK and the US, is known to all sides. China maintains that it is very useful for the DPRK and the US as key parties to the Korean Peninsula nuclear issue to maintain contacts. China supports the two sides in continuing with their dialogues and striving for positive outcomes.

**Q: This is Chairman Kim Jong Un's first diplomatic activity of this year. Some believe that China may be factored in as a new variable in the Korean Peninsula situation for the rest of this year. What is your comment?**

A: What do you mean by saying that "China may be factored in as a new

variable"? Which media were you quoting from?

**Journalist clarifies: Some US and ROK media commented that at present, the DPRK-US dialogue is the principal axis of the Korean Peninsula situation, but the addition of China as a new variable may affect future negotiations between the DPRK and the US. What is your comment?**

A: I haven't seen these comment as you just cited. Judging from the statements made by the ROK and the US side, they all have a positive attitude towards Chairman Kim Jong Un's current visit. You said that China will be a "variable" to the Korean Peninsula issue. I wonder if that translation is accurate or not.

It is only fair to say that China has been an important force in promoting the political settlement of the Korean Peninsula nuclear issue and peace and stability on the Peninsula. We once held the Six-Party Talks, a process initiated by China to advance the settlement of the Korean Peninsula nuclear issue. This process remains to be one that has seen the most positive outcomes ever achieved. Going forward, China will continue to work with all relevant parties to jointly move forward this process. If China must be described as a factor in this whole process, then China is and will always be a positive factor.

[https://www.fmprc.gov.cn/mfa\\_eng/xwfw\\_665399/s2510\\_665401/2511\\_665403/t1627900.shtml](https://www.fmprc.gov.cn/mfa_eng/xwfw_665399/s2510_665401/2511_665403/t1627900.shtml)

### **China's ship-killer missiles mobilized to Northwest China plateau**

*Liu Xuanzun, Global Times, January 09, 2019*

China's far-reaching, anti-ship ballistic missile the DF-26 has been mobilized to Northwest China's plateau and desert areas, reported China's national broadcaster on Tuesday after a US warship trespassed into China's territorial waters off the Xisha Islands in the South China Sea on Monday. The DF-26 is China's new generation of intermediate-range ballistic missile capable

of targeting medium and large ships at sea. It can carry both conventional and nuclear warheads.

The DF-26 is attached to a brigade under the People's Liberation Army (PLA) Rocket Force that operates in Northwest China's plateau and desert areas, China Central Television (CCTV) reported. The report said the missiles are now capable of mobile operations across the country. It was unclear from the CCTV report when the missiles were mobilized.

This is also the first time the missile has made a close-up public appearance since it came into service with the PLA, [cctv.com](http://cctv.com) reported. The timing of the report sparked discussions among Chinese military observers online, as it came after the *USS McCambell*, a US guided missile destroyer, trespassed into China's territorial waters off the Xisha Islands on Monday without permission from the Chinese government. China dispatched aircraft and warships to warn the US vessel and has lodged a solemn representation with the US, Foreign Ministry Spokesperson Lu Kang said at a daily briefing on Monday.

The report is a good reminder that China is capable of safeguarding its territory, the anonymous expert said. "Even when launched from deeper inland areas of China, the DF-26 has a range far-reaching enough to cover the South China Sea." It can hit targets 4,500 kilometers away, [china.com](http://china.com) reported, making it capable of striking targets including US naval bases in Guam in the western Pacific.

<http://www.globaltimes.cn/content/1135138.shtml>

### **Nuclear power plant in eastern China starts operation**

*Global Times, January 10, 2019*

The first phase of a nuclear power plant in eastern China's Shandong Province has started full commercial operation and is expected to help improve local energy mix and environment. The No. 2 reactor unit

of the Haiyang Nuclear Station in the city of Haiyang finished seven days of continuous operation at 4:30 p.m. Wednesday, marking the start of commercial operation, the Shandong Nuclear Power Co., Ltd. announced Thursday.

With this new addition, there are a total of 46 nuclear reactor units in operation in the Chinese mainland, with a total installed power generating capacity of 45 GW. The Haiyang Nuclear Station, with a total investment of 80 billion yuan (11.7 billion US dollars), is designed to have six reactor units. Its first stage includes two AP1000 reactor units with the power capacity of 1.25 GW each, with the NO. 1 unit being put into commercial operation in late October last year.

The first phase can generate 20 billion kWh of electricity a year, meeting the electricity demand of one-third of the households in Shandong, a populous Chinese province, according to the Shandong Nuclear Power Co., Ltd. Another two reactor units in the second phase are subject to approval by the **National** Development and Reform Commission, the country's top planning agency.

<http://www.globaltimes.cn/content/1135295.shtml>

### **China's fourth Westinghouse-designed nuclear reactor begins operations** *Reuters, January 11, 2019*

SHANGHAI, Jan 11 (Reuters) - China's fourth Westinghouse-designed AP1000 reactor went into full operation after a trial run this week, the operator said, marking the completion of the first phase of the project after years of delays. China signed a deal with the U.S. firm in 2007 to build four reactors, hoping to create a platform for Beijing's ambitious nuclear power expansion plans, but the roll-out of the unproven "third-generation" technology has been beset by safety concerns and design problems.

The second unit of the Haiyang nuclear power project on the eastern coast of China's Shandong province is now ready to go into full commercial operation after 168 hours

of full-load operations, China's State Power Investment Corp said in statement. China put the world's first AP1000 into operation at Sanmen in Zhejiang province last September, four years later than originally scheduled. Two more went into operation at Sanmen and Haiyang later in the year.

<https://uk.reuters.com/article/china-nuclearpower/chinas-fourth-westinghouse-designed-nuclear-reactor-begins-operations-idUKL3N1ZB1AF>

### **Foreign Ministry Spokesperson Lu Kang's Regular Press Conference**

*Ministry of Foreign Affairs of the People's Republic of China, January 11, 2019*

**Q: At yesterday's New Year press conference, ROK President Moon Jae-in talked about the situation on the Korean Peninsula, ROK-DPRK relations, DPRK-US dialogues and the denuclearization, saying that China has been playing an important and positive role on the Korean Peninsula issue. What is your comment?**

A: We have noted the relevant remarks by President Moon Jae-in. China speaks highly of the positive efforts made by the ROK to move forward the denuclearization of the Korean Peninsula and the political settlement process of the Peninsula issue and promote the reconciliation and cooperation with the DPRK.

Since last year, thanks to the concerted efforts of all relevant parties including China and the ROK, the situation on the Peninsula has witnessed important positive changes. In the new year, we hope that all relevant parties can maintain the momentum for dialogue and continuously promote the denuclearization of the Peninsula and the political settlement process of the Peninsula issue. China always supports the DPRK and the ROK in seeking reconciliation and cooperation and improving their relations. We will also support the DPRK and the US in meeting each other half-way and addressing each other's concerns through dialogue and

consultation. China will continue to play its part in this regard.

[https://www.fmprc.gov.cn/mfa\\_eng/xwfw\\_665399/s2510\\_665401/2511\\_665403/t1628941.shtml](https://www.fmprc.gov.cn/mfa_eng/xwfw_665399/s2510_665401/2511_665403/t1628941.shtml)

### **Next-generation nuclear reactor ready for commercial run in China ahead of Europe** *Global Times,*

*January 13, 2019*

It was in late 2011 when a crucial decision needed to be made by Deng Zhengping, assistant general manager at the Taishan Nuclear Power Plant and his colleagues - shall they make Taishan the world's first EPR project to be completed? EPR, or European Pressurized Reactor, is a third-generation nuclear power solution supplied by the French giant Framatome. The "double-wall" containments designed for Taishan EPR units can protect the reactors from accidents such as earthquakes and even a direct hit from a plane.

Construction of EPR projects in Finland's Olkiluoto Unit 3 and France's Flamanville Unit 3 began in 2005 and 2007, respectively, four and two years earlier than at Taishan. But Deng saw his chance to catch up and even surpass his European counterparts. They made the decision in the second half of 2012 and gained positive feedback from other major companies involved in the project, especially Framatome, the designer of EPR.

New chapters have since been written by Taishan Unit 1. The dome roof was lowered into place. Cold and hot functional tests were completed, linked to the grid and finally passed a 168-hour demonstration run in mid-December 2018, fully ready to be put into commercial use. Taishan Nuclear Power Plant is built and run by TNPJVC, a joint venture founded by China General Nuclear Power Corporation (CGN), Electricite de France (EDF) and Yudean Group.

The Taishan Nuclear Power Plant is located in Chixi town in the city of Taishan in South China's Guangdong Province. Rice planting was once the pillar industry there. Two huge

gray color domes are the new landmarks. With an unprecedented capacity of 1,750 megawatts each, unit 1 and unit 2 of Taishan are the largest and most powerful nuclear reactors in the world. In 2011, Taishan progress caught up with Olkiluoto-3 and Flamanville-3. In addition, Liu found that his partners from EDF and Framatome were expecting more advice from him than before. He was as nervous as he was excited. "It was our turn to carve out the way for them. Our European counterparts had shared their knowledge with us generously, and we would offer a helping hand to them as much as we could."

<http://www.globaltimes.cn/content/1135546.shtml>

### **US should go back to the moon, but not because the Chinese have** *Faye Flam Korea Herald,*

*January 13, 2019*

To claim we've already been to the moon is like spending a day each in Iowa, Arizona, Rhode Island and maybe Western Pennsylvania and saying you've already been to Earth. There's a lot more to see on the moon - including the whole far side, the half that's perpetually turned away from us. That's one reason for the excitement behind the Chinese-led mission Chang'e-4, which landed in this unexplored region recently.

Images from lunar orbit show the geology there is strikingly different from the sites where Apollo astronauts explored. The craft landed in a vast depression called the South Pole-Aitken basin, which takes up a quarter of the lunar surface and appears to have formed early in the history of our solar system, said planetary geologist Seth Jacobson of Northwestern University. The rocks there could hold clues to how our own planet formed. The prevailing theory about the moon's origin is a dramatic one: Soon after a proto-Earth came together, it collided with another planet the size of Mars, coalescing into a bigger planet and the moon. Jacobson said the lander is in an area where rocks from beneath the moon's crust may have been brought to

the surface by ancient impacts. Both NASA and the China National Space Administration have proposed missions to go back to this area and collect samples.

The US is still the unquestioned leader in space exploration – the Chinese landing came just two days after an American probe's spectacular flyby of an icy body 6.6 billion kilometers away, called Ultima Thule, which qualifies as the most distant object ever reached by spacecraft. The experts I spoke to were keen to send astronauts back to the moon, though preferably not as part of an unfriendly international competition. Planetary scientist Clive Neal of Notre Dame said that space races aren't sustainable in the long term. The Apollo missions were world-changing but ended after just a few years. Now, informed by history, he said, we could go about a more collaborative program that would get astronauts to the moon.

While sending people to the moon might seem like a modest goal compared to a trip to Mars, learning to live on the moon would help scientists learn how to keep humans alive and healthy on longer journeys. There are known deposits of water ice on the moon, said Neal, and depending on its purity, these might supply a moon base with water or be separated into hydrogen and oxygen and used to fuel a Mars mission.

But after the war, common enemies no longer sustained the alliance, and in the 1950s, during the Communist scare, Tsien was interrogated, put under house arrest for five years and then deported. Upon release, he headed the Chinese nuclear weapons program, putting it on the fast track to nuclear weapons and long-range missiles. Could sending the Chinese spacecraft to the Von Karman crater be an intentional gesture of reconciliation and hope for further cooperation? Perhaps it's just a coincidence, but one that can serve as a reminder of the collaboration that gave birth to space travel in the first place.

[http://www.koreaherald.com/view.php?ud=20190113000002&ACE\\_SEARCH=1](http://www.koreaherald.com/view.php?ud=20190113000002&ACE_SEARCH=1)

## Turkey sends 32 students to Russia, China for nuclear energy trainings

*Hurriyet Daily, January 14, 2019*

The Turkish Energy and Natural Resources Ministry is sending 32 students to Russia and China in a bid to provide human resources for planned nuclear power plants in Turkey.

Twenty-five of the students will study at the St. Petersburg Polytechnic University to be employed at the Akkuyu Nuclear Power Plant after completing internship schemes, the ministry said in a statement on Jan. 14.

They will also attend trainings at Russia's state-run nuclear energy institution Rosatom within the scope of a protocol signed between the bodies of the two countries. Turkish students are advised to apply via the website [akkuyu.com](http://akkuyu.com) in order to enter the written and oral exams to attend the nuclear energy training programs in Russia.

Seven other students will be sent to China's Tsinghua University to study energy engineering and management. Engineering graduates are required to send their resumes and academic records to the ministry until Jan. 16. The number of students sent by Turkey overseas to get nuclear energy trainings since 2011 has reached 244. Some 35 of them started working at the Akkuyu Nuclear Power Plant construction site in 2018. At least 147 other university graduates also were selected for post-graduate studies overseas, the ministry said.

<http://www.hurriyetdailynews.com/turkey-sends-32-students-to-russia-china-for-nuclear-energy-trainings-140486>

## Poland is getting closer to US, but should China be worried?

*Li Ruohan and Shan Jie, Global Times, January 15, 2019*

China is the second-largest source of imports for Poland, according to China's Ministry of Commerce website.

China's space lab Tiangong-2, launched in 2016, carries a gamma ray polarization detector jointly developed by scientists from China, Switzerland and Poland. In September 2018, TCL, a Chinese electronics giant and also the world's third-largest manufacturer of television, opened a R&D center in Poland. The bilateral cooperation in business, trade and agriculture has been booming, said Liu, and the two markets need each other and see a huge potential for exchanges. The tendency is unlikely to be stopped by political reasons, he said.

<http://www.globaltimes.cn/content/1135861.shtml>

### Foreign Ministry Spokesperson Hua Chunying's Regular Press

**Conference** *Ministry of Foreign Affairs of the People's Republic of China, January 17, 2019*

**Q: Yesterday, a senior US administration official said that the US will continue to rely on its nuclear deterrence capabilities to deter potential nuclear attacks from Russia and China because Russia and China have nuclear arsenals of certain scale. I wonder if you have any comments on this?**

A: We keep hearing these news recently. On the one hand, the US has been demanding others to cut down on weapons. On the other hand, the US has been strengthening its arsenal of massive destructive power. This actually also reflects the double standards of the US side. We hope that the US, as a military superpower and one of the five permanent members of the UN Security Council, could work with other permanent members of the Security Council and make positive contributions to world peace and stability.

[https://www.fmprc.gov.cn/mfa\\_eng/xwfw\\_665399/s2510\\_665401/2511\\_665403/t1630327.shtml](https://www.fmprc.gov.cn/mfa_eng/xwfw_665399/s2510_665401/2511_665403/t1630327.shtml)

### C. Pakistan

#### Army inducts indigenously developed A-100 rocket to its arsenal *Dawn, January 04, 2019*

The military on Friday announced that it has inducted an indigenously developed A-100 rocket as part of its Multiple Launch Rocket System of the artillery corps.

"With a range of over 100 kilometres, the rocket is a highly effective and potent interdiction that can effectively disrupt [the] enemy's mobilisation and assembly," read a statement issued by the Inter-Services Public Relations (ISPR). According to the ISPR, a ceremony was held to mark the induction with Army Chief General Qamar Javed Bajwa as the chief guest.

Speaking on the occasion, the army chief paid "rich tributes to scientists and engineers for indigenously developing [the] A-100 Rocket which shall augment the existing conventional firepower capabilities of Pakistan Army".

Gen Bajwa emphasised the army's resolve to strengthen its conventional capabilities so "the challenge of a full spectrum threat can be met successfully". The army chief lauded the role of the defence industry which has "maintained steady progress in the recent times and has contributed to the defence of Pakistan", the ISPR said.

<https://www.dawn.com/news/1455467>

#### Pak-China ties not to be affected by negative reports *The News International, January 04, 2018*

Officials from Pakistan and China have categorically stated that the misleading media's reports about the debt could never affect the two countries' growing socio-economic partnership under the economic corridor project.

Hoping that the media will show positivity and due care in their reporting, the officials from both sides in their separate statements issued in Islamabad and Beijing reiterated that the CPEC is meant to ensure

better future of their people. It could never be a burden on their economy, as was being portrayed by some media's circles. Chinese newspaper, the Global Times quoting the officials said Pakistan, China relations will never be affected by an imaginary debt trap. It was reported by a section of the press that Pakistan owes \$40 billion to China to repay debt and dividends on the latter's investments made under the CPEC, raising concerns about a "debt trap," whereas the actual figure is only \$6.017 billion. The Chinese Embassy in Islamabad stated last week that China provided concessional loans of \$5.874 billion for major Pakistani transportation projects. The Pakistani government will repay only \$6.017 billion, including interest, to China. This was also confirmed by the Pakistan's Ministry of Finance and the Ministry of Planning and Development. The officials, while clarifying the facts noted recent media reports questioning the viability of CPEC, claiming that it would create an unbearable debt burden for Pakistan. Such media reports are often one-sided, distort facts, and are based on irresponsible statements by individuals who either have no understanding of CPEC or are driven by ulterior motives. China stepped forward to support Pakistan's development at a time when foreign investment had dried up, and economic activity was being crippled by energy shortages and infrastructure gaps. According to the officials, the CPEC has provided enormous opportunities for Pakistan to grow economically.

<https://www.thenews.com.pk/print/414536-pak-china-ties-not-to-be-affected-by-negative-reports>

### **"Nuclear-Armed Nations At War Is Like Suicide": Imran Khan On India Ties** *NDTV, January 08, 2019*

Pakistan Prime Minister Imran Khan has accused India of not responding to his peace overtures and said that any war between two nuclear-armed nations would be "suicidal" for both nations. In an interview with Turkish news agency TRT World, according to his Pakistan Tehreek-i-Insaf (PTI) party, Mr Khan again expressed his desire for talks with India.

"Two nuclear armed countries should not even think of a war; not even a Cold War because it could worsen any time. The only way is bilateral talks. Two nuclear armed countries at war is like a suicide," the party quoted him as saying. He said India did not respond to his peace overtures. India has been maintaining that terror and talks cannot go together. "India was offered to take one step towards and we shall take two. But India rejected Pakistan's offer for talks several times," Mr Khan said.

Imran Khan also said that India would never be able to suppress the rights of the Kashmiri people. The Indo-Pak ties strained after the terror attacks by Pakistan-based terrorists in 2016 and India's surgical strikes inside Pakistan-occupied Kashmir. The ties further nose-dived in 2017 with no bilateral talks taking place between them.

<https://www.ndtv.com/india-news/nuclear-armed-nations-at-war-is-like-suicide-pakistans-imran-khan-on-ties-with-india-1974432>

### **Army test-fires latest air defence system** *The Express Tribune, January 10, 2019*

Pakistan Army Air Defence displayed the newest induction to its air defence systems at firing ranges near Karachi. Firing by all air defence weapon systems was the culminating event of the two-week long Al Bayza-2019 exercise.

Chief of Army Staff (COAS) General Qamar Javed Bajwa and Chief of Air Staff (CAS) Air Chief Marshal Mujahid Anwar Khan witnessed the firepower display. The hallmark of the event was the first-ever fire by the recently-inducted LY-80 Long Range Air Defence Weapon System. Induction of LY-80 has realised the concept of a comprehensive, layered and integrated air defence capability with enhanced lethality.

While interacting with officers and troops, the COAS congratulated Army Air Defence for the successful display of the military's firepower capability. Gen Qamar said that LY-80 has greatly enhanced the

air defence capability of Army Air Defence while also strengthening it at national level along with PAF, the overall custodian of the defence of Pakistan air space. ACM Mujahid also congratulated Pakistan Army for induction of the LY-80, saying that it has reinforced Pakistan's overall air defence capability. At the induction ceremony, the COAS had said that LY-80 LOMADS increases our response capability to current and emerging air defence threats.

It consists of a command vehicle, firing vehicles, an electronic and support vehicle, missile transport vehicle, and a power supply vehicle. One LY-80 battery can provide defence cover to as much as 8,000 square km.

<https://tribune.com.pk/story/1885482/1-army-air-chiefs-witness-fire-capability-long-range-weapon-system/>

### **Game-changing Chinese missile to Pakistan a 'deterrent'** *Yeni Safak,*

*January 12, 2019*

A new generation anti-ship Chinese missile, which Pakistan Navy is going to induct in 2021, will serve as a "deterrent" but simultaneously aggravate an already escalating arms race between the nuclear-armed neighbors, Pakistan and India, analysts said. The CM-302 – capable of flying at three times the speed of sound – is supposed to be a primary weapon onboard the four new generation Type 054 frigates – which Beijing is building for Pakistan Navy.

Type-054 A is an extremely potent and state of the art warship equipped with latest weapons, including long-range missiles and hi-tech sensors, capable to undertake operations in all domains of naval warfare. In December 2018, the steel cutting ceremony of first warship of Type 054 was held at Hudong Zhonghua (HZ) Shipyard China.

"This is true that the CM-302 missile will negate the advantage the Indian Navy has been enjoying over Pakistan Navy. But it will act as a deterrent," Ikram Sehgal, a Karachi-based defense analyst, told Anadolu Agency. "In fact, it will be good for peace

because it will maintain the equilibrium between the two navies in terms of weaponry," opined Sehgal, who is also editor of Defense Journal of Pakistan a reputable defense magazine. "A sizeable imbalance in terms of conventional warfare might lead to nuclear threshold. Therefore, such developments, which actually balance the difference in conventional warfare, in which Pakistan certainly has a disadvantage, will serve as a deterrent," he maintained.

### **China - Pakistan defense ties**

Lt. Gen. (retired) Talat Masood, an Islamabad-based defense analyst, sees the development as "significant", terming it another reflection of growing ties between Islamabad and Beijing. "This is one of the current missiles, which are compatible to the Indian missiles. It will certainly boost the operational capabilities of Pakistan Navy, though it will take some time," Masood, who served as a three-star general in Pakistan army from 1950 to 1990, told Anadolu Agency.

#### **- Arms Race**

The development, according to analysts, will further exacerbate the ongoing arms race between the two arch-rivals locked in a string of sea and land disputes and have fought three wars and a three week long skirmish since 1947. "Certainly, it will add up to the ongoing arms race because now New Delhi will look for an alternative to maintain its advantage over Pakistan," Sehgal said, adding: "New Delhi's possible endeavor to keep its advantage intact will undoubtedly propel Pakistan to go for further procurements."

#### **- Nuclear powers**

Pakistan and India are among a small handful countries with nuclear arsenals. India joined the nuclear club long before Pakistan, in 1974, prompting Islamabad to follow suit. Pakistan silently developed its own nuclear capability in the 1980s, when it was an ally of the U.S. in the first Afghan war against the crumbling Soviet Union.

<https://www.yenisafak.com/en/world/game-changing-chinese-missile-to-pakistan-a-deterrent-3471525>

### **Hybrid warfare and Pakistan** *Farman Kakar The News on Sunday, January 13, 2019*

Hybrid warfare is a blend of conventional, unconventional and irregular warfare. It also incorporates terrorist acts, indiscriminate violence, criminal disorder and cyber warfare, which is an “attempt to damage another nation’s computers or information networks through, for example, computer viruses or denial-of-service attacks,” as defined by RAND Corporation. The understanding is that the country is facing three types of threat, first is the conventional threat. India, the arch rival, falls in this category. Second threat stems from terrorists, Taliban and others of their ilk. Third type of threat is the hybrid warfare. The understanding goes that because Pakistan is a nuclear power, India would not make any mistake of attacking the former. Similarly, irregular warfare, launched by the non-state actors, has been neutralised. The understanding is that the threat of hybrid war is active.

Pakistan, at times, remains vulnerable on religious, sectarian, ethno nationalistic and political fronts. The understanding in the upper echelons of power seems to be that Pakistan’s regional adversaries are the architects of whatsoever untoward happens on these fronts. Attack on Chinese consulate in Karachi last November, the assassination of Ali Raza Abidi in December and armed opposition to the execution of CPEC in parts of Balochistan and terrorist attack on FC training centre Loralai in January 2019 are all presented as manifestations of hybrid warfare inside the country.

One strongly held belief by a coterie of people in Pakistan is that the ‘fifth generation warfare’ targets human mind. Fake news is fed into minds of people in order to incite them against their own country, the argument runs. The problem with this understanding is that it is nearly impossible to distinguish between what is a genuine critique in a democracy and what falls within the ambit of sowing hatred and spewing venom against the state. What is more problematic is how one defines the state. Is criticism against institutions with

political roles equivalent to criticism against the state?

Is hybrid war real or is it merely a bogey to distract attention from genuine causes and discredit them by branding them as voices of the enemy? Either way, we need an inside out approach to deal with our multiple challenges. A typical security state approach has failed us miserably!

<http://tns.thenews.com.pk/hybrid-warfare-pakistan/#.XD1ZllUzbIU>

### **D. The US & Europe**

#### **Strategic Command apologizes for tweet about dropping bomb** *Taiwan News, January 01, 2019*

The U.S. Strategic Command, which oversees America’s nuclear and missile arsenal, boasted in a New Year’s Eve tweet that it’s ready if ever needed “to drop something much, much bigger” than the Times Square ball.

The tweet was accompanied by video of B-2 bombers dropping two 30,000-pound conventional weapons at a test range, according to CNN, which aired the video. The tweet on Strategic Command’s Twitter account was replaced with an apology: “Our previous NYE tweet was in poor taste & does not reflect our values. We apologize. We are dedicated to the security of America & allies.” The first tweet read in part: “#TimesSquare tradition rings in the #NewYear by dropping the big ball...if ever needed, we are #ready to drop something much, much bigger.”

<https://www.taiwannews.com.tw/en/news/3608170>

#### **Harold Brown, U.S. defense chief who built, then strove to contain nuclear weapons, dies at 91** *Will Dunham REUTERS, JANUARY 6, 2019*

Harold Brown, an advocate of nuclear arms control who as President Jimmy Carter’s defense secretary tried but failed to win U.S. Senate approval of a key treaty

with the Soviet Union, has died at age 91, the think tank where he worked said. Brown, a native New Yorker, was the first scientist to take the helm of the large and complex U.S. military establishment. He was a physicist who received his bachelor's degree at age 18 and his doctorate at 22. Brown spent his professional life initially developing nuclear weapons and then later striving to control them.

Brown became Pentagon chief in 1977 and left in 1981, deeply disappointed that was unable to convince the Senate to back the nuclear arms limitation treaty reached with the Soviet Union in 1979 dubbed SALT II. As defense secretary, he also was involved in planning the botched U.S. military mission to rescue American hostages held in Iran that ended with the deaths of eight U.S. service members in April 1980 and the diminishment of U.S. prestige.

<https://www.reuters.com/article/us-people-harold-brown/harold-brown-u-s-defense-chief-who-built-then-strove-to-contain-nuclear-weapons-dies-at-91-idUSKCN1OZ0NX>

**The US is Losing the AI, Blockchain & FINTECH Arms Race (But IS Crypto-Friendly)** *Steve Andriole, Forbes, January 08, 2018*

Late last year I described how the US was losing the technology arms race, particularly as it applies to artificial intelligence (AI) and China. The US is competing in the FINTECH arms race and is struggling here as well.

#### AI & FINTECH

Cryptocurrency, blockchain, insurtech, smart contracts, Regtech, robo-advisors, cybersecurity, open banking and underbanked services all require digital intelligence to operate. Some – like smart contracts, robo-advisors, Regtech and insurtech – require massive amounts of digital intelligence, while some others require a little less, though in time all of the FINTECH technologies and applications will rely heavily upon AI.

While there are other FINTECH drivers, AI powers, amplifies and therefore supersedes

them all. AI is foundational to FINTECH. AI is foundational because it's more than one technology. In fact, it's a family of technologies that includes machine learning, deep learning, image recognition, robotic process automation, natural language processing, text mining, vision systems, speech systems, neural networks and pattern recognition, among other methods, tools and techniques that enable and amplify FINTECH technologies and applications. All of the major technology companies are heavily invested in the technology, but the most important investment portfolios belong to countries which have declared AI as a strategic national objective. China, for example, defines AI as one of its core industries.

<https://www.forbes.com/sites/steveandriole/2019/01/08/the-us-is-losing-the-ai-blockchain-fintech-arms-race-but-is-crypto-friendly/#34e79a794aa9>

**EDF French nuclear power output rose 3.7 pct in 2018** *Reuters, JANUARY 10, 2019*

PARIS, Jan 10 (Reuters)-Nuclear electricity generation by French utility EDF rose 3.7 percent on a year-on-year basis in 2018 to reach 393.2 terawatt hours (TWh), in line with the company's target of between 393 - 396 TWh, according to data from EDF.

EDF's nuclear power generation increased by 4 percent in December to 38.9 TWh due to lower reactor outages compared with the previous year, EDF said.

Electricity production at EDF's nuclear reactors in Britain fell 7.5 percent on a year-on-year basis to 59.1 TWh, it added. Output at its reactors in Britain slipped 2 percent in December to 4.8 TWh.

<https://www.reuters.com/article/france-nuclearpower-edf/edf-french-nuclear-power-output-rose-37-pct-in-2018-idUSL8N1ZA1PL>

**Wylfa: Theresa May 'focusing on Brexit not nuclear plant'** *BBC News, January 12, 2019*

The prime minister has been accused of focusing on Brexit rather than fighting to

ensure a new nuclear power station planned for Anglesey goes ahead. Reports emerged on Friday that Hitachi's board would be likely to decide to suspend all work on its Wylfa Newydd plant next week.

Unions and politicians criticised Theresa May for not discussing the issue with her Japanese counterpart. The UK government said negotiations with Hitachi were ongoing. Speculation has been mounting that the Japanese company will scrap the £20bn Horizon nuclear power plant project due to potential increases in construction costs. Anglesey MP Albert Owen said he wanted to know from ministers "what is going wrong here and why these questions and fears are being heard as regards the future of the site?"

He added: "The government has been concentrating too much on Brexit." Unite the union said it was "astonished" that the situation was not discussed by Theresa May and Japan's Shinzo Abe when they met on Thursday. "This was an abdication of responsibility by Theresa May," said the union's national officer for energy, Peter McIntosh. "The project appears to be teetering on the brink which would be a really big setback for the UK's future energy policy." He added that the UK government needed to take action to ensure the Wylfa project moves forward, adding that if the plant was not built it would "have a devastating impact on the Welsh economy and on the UK's ability to meet its climate change obligations".

Justin Bowden, national secretary of the GMB union, said: "Government must act and step in now, picking up the reins and taking whatever funding stake is necessary, to ensure Wylfa goes ahead on time. The Welsh Government has described the report in the Nikkei Asian Review about the Wylfa plant being scrapped as "worrying". The new nuclear plant would aim to have a generating capacity of 2900 MW by the mid 2020s and have a 60-year operational life. On Friday, the firm said suspension of the project remained an option.

But it said the latest news report in Japan were not "based on Hitachi's decision or

disclosed information". "No formal decision has been made in this regard currently, while Hitachi has been assessing the Horizon project including its potential suspension and related financial impacts in terms of economic rationality as a private company," it said in a statement.

A spokesman for UK government's Department for Business, Energy and Industrial Strategy, said: "Negotiations with Hitachi on agreeing a deal that provides value for money for consumers and taxpayers on the Wylfa project are ongoing. "They are commercially sensitive and we do not comment on speculation."

<https://www.bbc.com/news/uk-wales-46841067>

### **U.S. not looking to grant further Iran oil sales waivers: U.S. official**

*Reuters, January 13, 2019*

The United States is not looking to grant more waivers for Iranian oil imports after the reimposition of U.S. sanctions, the U.S. special representative for Iran said on Saturday, underlining Washington's push to choke off Tehran's income.

"We are not looking to grant any waivers or exemptions to the import of Iranian crude," Brian Hook told a industry conference in the United Arab Emirates capital Abu Dhabi. Washington granted waivers to eight major buyers of Iranian oil - including China, India, Japan and South Korea - after restoring energy sanctions in November. Hook declined to say what the administration in Washington would do when those waivers end in May. "Iran is now increasingly feeling the economic isolation that our sanctions are imposing ... We do want to deny the regime revenues," Hook said. "Eighty percent of Iran's revenues come from oil exports and this is (the) number one state sponsor of terrorism ... We want to deny this regime the money it needs," he added.

Tensions between Iran and the United States have increased since May, when U.S. President Donald Trump abandoned a 2015 nuclear deal between Tehran and

major powers, saying the accord was flawed in Tehran's favor, and reintroduced sanctions on Iran that had been lifted under the pact. "We want a new and better deal (with Iran) but in that process we are denying the Iranian regime billions and billions of dollars and they are facing a liquidity crisis," Hook said. The Islamic Republic, he added, would not return to the negotiating table without pressure.

Tehran has refused to renegotiate its nuclear accord and says its ballistic missile program - another source of concern for Washington and its regional allies such as Israel and Saudi Arabia - is solely defensive and untouchable. Separately, Omani Oil Minister Mohammed bin Hamad al-Rumhi told the conference that Washington had not asked the Gulf Arab state to stop a gas pipeline project with Iran and that talks were continuing. He said some partners for the project had pulled out because of the risk of punishment by Washington for dealing with Iran but that some other Asian firms were willing to take part.

<https://www.reuters.com/article/us-iran-usa-sanctions-hook/u-s-official-says-not-to-grant-more-waivers-on-iran-oil-sanctions-idUSKCN1P606D>

### **National Security Council asked for military options to strike Iran, report says** *William Cummings, USA*

*Today, January 13, 2019*

President Donald Trump's National Security Council asked for military options on striking Iran in response to that country's support of insurgents in Iraq, The Wall Street Journal reported Sunday. The council, under national security adviser John Bolton, made the request after militants aligned with Iran fired three mortar rounds into the diplomatic section of Baghdad, which includes the U.S. Embassy, according to the report. The mortars landed in a vacant lot, and no one was injured.

The Journal reported that the Pentagon developed plans for a strike on Iran in response to the National Security Council request, but it is unclear whether those plans

were shared with the White House or Trump. Unnamed sources told the Journal that the request raised alarm within the Defense and State Departments. "It definitely rattled people," a former senior administration official told the newspaper. "People were shocked. It was mind-boggling how cavalier they were about hitting Iran." A current senior administration official disputed that characterization, telling USA TODAY that the Pentagon and State Department were not "caught off guard." NSC spokesman Garrett Marquis said in a statement that the council "provides the president with options to anticipate and respond to a variety of threats."

"We continue to review the status of our personnel following attempted attacks on our embassy in Baghdad and our Basra consulate, and we will consider a full range of options to preserve their safety and our interests," Marquis said. Secretary of State Mike Pompeo declined to comment on the report when asked about it during a news conference in Qatar. Former U.S. officials told the Journal "it was unnerving that the National Security Council asked for far-reaching military options to strike Iran in response to attacks that caused little damage and no injuries."

Not long after the mortar attack that riled the National Security Council, Bolton warned the Iranians that "if you cross us, our allies or our partners; if you harm our citizens; if you continue to lie, cheat and deceive, yes, there will indeed be hell to pay." Before joining the administration, Bolton was a strong advocate of a U.S. attack on Iran. In a New York Times op-ed in 2015 titled "To Stop Iran's Bomb, Bomb Iran," Bolton argued the "inconvenient truth is that only military action" could stop the nuclear program and called for "vigorous American support for Iran's opposition, aimed at regime change in Tehran."

<https://www.usatoday.com/story/news/politics/2019/01/13/john-bolton-iran-strike-plans/2563890002/>

## Iran satellite launch fails after U.S. warning

*Reuters, January 15, 2018*

Iran's bid to launch a satellite has failed, Telecoms Minister Mohammad Javad Azari-Jahromi said on Tuesday, after it ignored U.S. warnings to avoid such activity. Washington warned Tehran this month against undertaking three planned rocket launches that it said would violate a U.N. Security Council resolution because they use ballistic missile technology. The United States is concerned that the long-range ballistic technology used to put satellites into orbit can also be used to launch warheads.

In a tweet on Tuesday, U.S. Secretary of State Mike Pompeo said Iran had carried out the launch "in defiance of the international community" and added: "The launch yet again shows that Iran is pursuing enhanced missile capabilities that threaten Europe and the Middle East." In a subsequent statement, Pompeo said the launch furthered Iran's ability to eventually build an intercontinental ballistic missile.

"We have been clear that we will not stand for Iran's flagrant disregard for international norms," he said. "The United States is working with our allies and partners to counter the entire range of the Islamic Republic's threats." Iran, which considers its space program a matter of national pride, has said its space vehicle launches and missile tests were not violations and would continue.

<https://www.reuters.com/article/us-usa-iran-satellite/iran-satellite-launch-fails-after-u-s-warning-idUSKCN1P90IJ>

## Trump repeatedly mulled leaving NATO military alliance, report claims

*Kim Hjelmggaard, USA Today, January 15, 2019*

President Donald Trump repeatedly expressed to senior White House aides his desire to withdraw from the North Atlantic Treaty Organization, according to a report. The military alliance created in the aftermath of World War II by the United States, Canada and some European nations has been viewed as a critical bedrock against

Soviet and Russian aggression for decades. But Trump has long balked at the U.S.'s NATO allies for not spending more on defense and meeting funding commitments.

The revelation that the president did not see the point of the alliance and discussed withdrawing from it last year, reported in the New York Times on Monday evening, comes amid allegations that Trump deliberately concealed details of his meetings with Russian President Vladimir Putin, even from his own aides. It also comes amid a separate Times report that the FBI launched an investigation into Trump's administration over whether he was secretly working on behalf of the Russians.

<https://www.usatoday.com/story/news/world/2019/01/15/trump-repeatedly-mulled-leaving-nato-military-alliance-report/2578184002/>

## Russia Warns U.S. Moves

**Threaten 2011 Nuclear Pact** *Michael R. Gordon Wall Street Journal, January 15, 2019*

Russia has stepped up criticism of U.S. efforts to implement a major strategic arms treaty with an unusual message to lawmakers accusing Washington of undermining the agreement. The dispute centers on the procedures the U.S. has devised to shrink its long-range nuclear forces under the New Start treaty, an accord that has regulated the arms race with Moscow since 2011, as the two sides approach a decision on whether to extend the pact.

Lawmakers on the Senate Foreign Relations Committee an 11-page paper that exposes confidential diplomatic discussions between the U.S. and Russian officials over how to reduce the nuclear arms covered by the accord. The document includes a subtle but unmistakable warning: that the failure to resolve the dispute could damage the prospects for renewing the New Start treaty when it expires in two years. "In the worst case scenario these problems might potentially disrupt prospects for its

extension after 2021,” says the Russian paper, which is dated December and was reviewed by The Wall Street Journal. In February 2018, the two sides declared that they had met the treaty’s requirement that each side reduce its deployed force to 1,550 warheads and 700 long-range missiles and bombers. Unlike with the INF treaty, the State Department has certified that Russian government is adhering to New Start. But New Start has its critics, including national security adviser John Bolton and President Trump, who called it a “one-sided deal” in 2017. The White House is in the early stages of considering whether to keep the accord, which can be extended for up to five years by mutual consent after it expires in February 2021.

The technical issues at the center of the debate have a long history. When Obama administration officials were negotiating the New Start treaty, they sought a way to reduce the number of nuclear warheads without destroying the costly bombers and submarines that carry them. The result was a provision that allows the U.S. develop ways to convert dozens of its B-52H bombers to a nonnuclear role by making changes to the aircraft so they can’t fire nuclear-armed cruise missiles. The U.S. has also reduced the number of launch tubes on its Trident II submarines from 24 to 20. In an effort to assuage Moscow’s concerns, the Russian paper reveals, the Trump administration offered in December 2017 to provide a written commitment by a cabinet-level official that it wouldn’t reverse the changes during the duration of the treaty. It also offered to let the Russians take a closer look at the white steel cover used to seal the submarine launch tubes.

Mr. Ryabkov’s statement that the U.S. has violated the accord raised the stakes. The day after his comments, the State Department called in a Russian Embassy official to clarify if the deputy foreign minister was speaking for himself or his government. So far, Russia hasn’t responded, U.S. officials said. “Russian concerns about U.S. conversion of nuclear systems to nonnuclear functions are well-known and can and should be resolved in a

professional manner and without delay,” said Daryl Kimball, the executive director of the Arms Control Association, a nonpartisan organization that supports arms control. Sergey Koshelev, the deputy chief of mission at the Russian Embassy, declined to respond to specific questions. He said New Start issues should be resolved “in a mutually acceptable way.”

<https://www.wsj.com/articles/russia-challenges-u-s-compliance-with-nuclear-treaty-11547548200>

### **Russia in ‘material breach’ of key nuclear treaty US** *The Week*, January 15, 2019

Geneva, Jan 15 (AFP) Russia remains “in material breach” of Intermediate-Range Nuclear Forces Treaty, the US said Tuesday, raising the prospects that Washington will follow through on threats to ditch the agreement over alleged violations by Moscow.

US Under Secretary for Arms Control and International Security, Andrea Thompson, said that a meeting in Geneva aimed at resolving the dispute over the pact “was disappointing as it is clear Russia continues to be in material breach of the Treaty.” AFP

<https://www.theweek.in/wire-updates/business/2019/01/15/fgn24-us-russia-nuclear.html>

### **US and China join forces to keep nuclear material from Nigeria out of the hands of terrorists** *Zhenhua Lu South China Morning Post*, January 15, 2019

The United States and China reportedly collaborated to remove nuclear material from Nigeria last year even at a time of growing military rivalry between the two countries – to minimise the risk of having the material fall into the hands of terrorists. Nuclear experts from the US, China, Britain and Norway, as well as Czech and Russian contractors, worked together to remove highly enriched uranium from a research reactor in Kaduna region of Nigeria that was

increasingly believed to be vulnerable to a terrorist attack, the US-based Defence News website reported this month. China played a crucial role by transporting and storing the uranium.

The operation took place in October, just hours after US President Donald Trump made an explicit threat to China about expanding the US nuclear arsenal. Regardless of those tensions, Elsa Kania, an adjunct fellow specialising in US-China relations and Chinese military modernisation at the Centre for a New American Society, said, "the two countries clearly have deep understanding and alignment in pursuing mutual interest in nuclear safety". Removing nuclear material from Nigeria has been an increasingly important goal for the United States and non-proliferation advocates in recent years.

According to Defence News, China had provided technical support and backing in the development of the Nigerian Research Reactor 1 in Kaduna, which opened in 2004. The reactor is a miniature neutron source reactor (MNSR), designed for scientific research and training, among other activities - powering experiments, not the local electrical grid. The reactor, though, used highly enriched uranium, or HEU - that is, weapons-grade uranium used in nuclear warheads.

But a global programme overseen by the International Atomic Energy Agency has been replacing HEU with lightly enriched uranium (LEU), which is unusable for weapons. The operation in Kaduna had the approval and support of the Nigerian government. The removal of the HEU was completed in one day, but it took six weeks before all logistics and security clearances were obtained to fly the material out to China.

In a statement released by the International Atomic Energy Agency, Shen Lixin, deputy director general of the department of business development and international cooperation at the China National Nuclear Corporation, said the HEU removal project "manifests the determination and joint effort of several governments and organisations in

preventing nuclear proliferation". "This is also a demonstration of the China National Nuclear Corporation (CNNC) meeting its social responsibilities and the commitment to peaceful uses of nuclear energy," Shen said. "The CNNC is more than willing to work together and cooperate wholeheartedly with relevant parties to facilitate other MNSR conversion projects." The US State Department and the National Nuclear Security Administration did not immediately respond to requests seeking comment.

<https://www.scmp.com/news/world/united-states-canada/article/2182064/us-and-china-collaborated-move-nuclear-material>

### **E. Russia**

**Russia's Rosatom holds talks on floating NPP worldwide** *Valery Sharifulin*  
*TASS News Agency, January 13, 2019*

Russia's state nuclear company Rosatom is in talks on a floating nuclear power plant project with states of Southeast Asia, the Persian Gulf and of Latin America, Rosatom CEO Alexei Likhachev said in a televised interview with Rossiya'24 news channel on Saturday.

"We are holding intensive negotiations [on the project of a floating NPP] with different countries," he said. "Our partners from Southeast Asia show a vivid interest in the project along with the Persian Gulf and Latin American nations." Likhachev added that many states show interest in the floating nuclear power plant, but the sides have not sealed any contracts yet.

According to Rosatom head, "an idea is being discussed to set up some venture in Latin America on the basis of cooperation with Argentine enterprises." "We are ready for this. We do not twiddle our thumbs. We are moving on to optimize the floating unit," he added. Russia's state nuclear corporation Rosatom is a leader on the global nuclear market. The corporation operates nuclear energy, and is engaged in designing and constructing NPPs and in manufacturing nuclear equipment.

<http://tass.com/economy/1039627>

**Russian nuclear firm wins contracts to clean up Fukushima** *Russian Times, January 14, 2019*

Russian state nuclear corporation Rosatom will help Japan in handling the crippled Fukushima nuclear power plant (NPP) and will be engaged in the nuclear control plan, according to the company's CEO Aleksey Likhachev.

"We have been engaged by Japan to implement the nuclear accident management plan at the Fukushima NPP. We have won two tenders and are going ahead," Likhachev told Russia-24 news channel.

In September 2017, Rosatom's First Deputy CEO Kirill Komarov said that Rosatom offered their Japanese counterparts assistance in cleaning up at the Fukushima NPP and in decommissioning other unsafe nuclear power plants. That followed Russian President Vladimir Putin's announcement that Russia and Japan will start joint efforts to clean up after the accident.

The decommissioning of the wrecked Fukushima reactors could take several decades and cost \$200 billion. Japan plans to restart 16 out of the 45 Fukushima-type reactors, while the others will be mothballed. The country intends to reduce the share of nuclear energy from 29 percent in 2011 to 21-22 percent by 2030.

The accident at the Fukushima nuclear power plant occurred in March 2011 when a massive tsunami triggered by a 9.0-magnitude earthquake overwhelmed the reactor cooling systems at the Fukushima Daiichi plant in northeastern Japan. It caused reactor meltdowns, releasing radiation in the most dangerous nuclear accident since Chernobyl in 1986.

<https://www.rt.com/business/448765-rosatom-bids-fukushima-npp/>

**Russia, US to hold consultations on INF Treaty in Geneva on January 15 – Russian diplomat** *TASS News Agency, January 15, 2019*

Russia and the United States will hold consultations on the Intermediate-Range

Nuclear Forces Treaty (INF Treaty) in Geneva on January 15, Russian Deputy Foreign Minister Sergey Ryabkov said on Monday.

"Inter-departmental consultations on the problems of the INF Treaty will be held in Geneva on January 15. It will be the only issue on the agenda," he said. "We are pleased to note that the US side has finally agreed to hold these consultations following our numerous invitations." He said that the US delegation will be led by Under Secretary for Arms Control and International Security Andrea L. Thompson. "It will be our first personal meeting," Ryabkov noted.

He also said that issues of the New START (Strategic Arms Reduction) Treaty will not be raised at Tuesday's consultations with the United States in Geneva as the meeting will focus solely on the future of the INF Treaty. "The only issue to be discussed will be the INF Treaty," he said. "As a matter of fact, we have enough material for the whole day."

"I want to emphasize that we are interested in those contacts as much as the US. In the conditions when we are presented with different ultimatums, preconditions, demands, we demonstrate considerable good will," Ryabkov said. "That's because it is not the right genre, style, approach, to look for resolution of a complicated problem. We have enough good will, we are ready for serious work, and we will see what happens tomorrow," he added. "The US has even made their stance on the INF Treaty tougher. We see it as a not very favorable signal," he noted.

<http://tass.com/world/1039919>

**Russia is set to deploy more than 30 underwater nuclear drones that could obliterate US coastal targets in an attack** *Sara Malm Dailymail, January 15, 2019*

Moscow is set to deploy more than 30 underwater drones capable of carrying a two megaton nuclear warhead, which

could obliterate Western ports, according to Russian state media. Four submarines fitted with the torpedo drones, named Poseidon, will join the Northern and Pacific Russian fleets, state news agency Tass reports. Each submarine can fit eight Poseidons, designed specifically to destroy 'enemy navy bases' and able to travel at up to 70 knots.

'Two Poseidon-carrying submarines are expected to enter service with the Northern Fleet and the other two will join the Pacific Fleet,' a defence industry source told Tass this week. 'Each of the submarines will carry a maximum of eight drones and, therefore, the total number of Poseidons on combat duty may reach 32 vehicles.' A 'special-purpose nuclear-powered submarine' currently under construction at the Sevmash Shipyard in Severodvinsk, a port city on Russia's White Sea, will be one of the Poseidon carriers, Tass said.

<https://www.dailymail.co.uk/news/article-6593147/Russia-deploy-32-underwater-nuclear-drones-obliterate-ports.html>

### **Poseidon robotic underwater vehicle** *Live Journal: Military Russia, January 16, 2019*

- Many people ask me about our new "our everything" - about the robotic underwater vehicle "Poseidon" aka "Status-6" aka "Skif" aka KANYON aka ... For now, we don't say them secret indexes. So, what do I think about it like about weapon system? Of course, if you are interested in what I think about something))).
- First, yes, with the creation of a small-sized nuclear energy devices (say thanks to Hero of Russia Sergey Kiriyenko - head of Rosatom) and at the modern level of control systems it is certainly technically possible to create what we are told about - a robotic unmanned underwater vehicle with a long, apparently, practically unlimited range. I don't understand why such vehicles with unlimited range must to have submarine-carriers. They brought the vehicle to the pier by rail, lowered it into the water with a crane, activated it, it
- itself was positioned, established connect with the operator and went to perform the task. Everything is simple and without complications. May be carriers are military cunning and the budget-forming interests of the military-industrial complex?
- The second is a damaging effect. Here is the most popular variant - from first to be broadcast on NTV - a high-power thermonuclear warhead ensuring the defeat of the territory to unsuitable for industrial activity. The dimensions of the device which are already roughly known the placement of such a charge is certainly admitted. In fact, all this is a modern implementation of the "Sakharov torpedo". And we can think that about using of such weapons systems were worked out in the depths of the Ministry of Defense and the results were so impressive that by the end of the 1980s this project received the green light.
- Third. Yes, in the late 1980s! If we see in the history than we see that in time for 1990-1992 refers to the start of work on the project.
- Fourth, operators. Yes, I think that the vehicle will not be completely autonomous and like aviation drones will be controlled remotely. Here I see two points: first, how will the vehicle be controlled? What kind of communication line will be connected with it by a sub-carrier or another control point and at what distance such control will be possible? By the way, maybe that's can be main reason of subs-carriers - because you need to manage it somehow? And the second sub-question - will there be a completely autonomous mode? I think that it will be in future but now it's not realized.
- The fifth. One radio asked me here to comment on the use of "Poseidons" as a tectonic weapon ... Well, I don't seem to believe in miracles. Especially it is impossible even to calculate approximately. I think that this is still

fantasy and a major defeat - see point 2.

- The sixth. With or without subs-carriers the new “arrows of Poseidon” will need to achieve their aims - points near the coast of the alleged enemy - major industrial centers, megalopolises, etc. Those. New York, London, Hawaii, San Francisco and other “los angeleses”. And it is unlikely that the alleged enemy will sit and wait for the end of civilization. I think that they shall update or create new hydrophone networks for blocking both the appearance of our vehicles in the North Atlantic and at the Pacific Ocean. And I think that this will be a comprehensive solution (well, it would be foolish to solve the problem otherwise): space and aerial reconnaissance of all potential base points for subs-carriers, tracking the probable movements of the disturbed aquatic environment, setting up timelines for hydroacoustic buoys, expansion stationary systems. Given the current level of development of computer systems taking into account completely different data processing capabilities than 30-40 years ago and solving global antisubmarine defense system will probably and extremely complicate much troubles for sub-carriers and for UUV. Drones, of course, can go to a sufficiently large depth and thereby disguise themselves, but is there enough autonomous reserve to reach the lines of attack? Of course, now we can only guess. But I suppose that overcoming Farero-Iceland and Kuril frontier anti-submarines line will be the No. 1 task for the new nuclear forces of the Russian Navy.
- Seventh, it is clear that such a weapon system is needed only for the last war and as a system of nuclear deterrence. To solve some other problems, its use is unlikely. But there is a seditious thought - in this quality this system is not obligatory for real existence - it is enough just to provide some probability of its existence. Is not it?
- Eighth, can be SSN of project 09851

Khabarovsk a prototype of the future series of the SSN of project 09853 - the project index of which slipped in the part of annual reports? I think that it is possible, given the fact that we have been promised a whole series of subs-carriers “Poseidon” and the index of the new project was held in the sources in the plural.

- The ninth question is whether it will be possible to pull at the same time several such impressive defense programs and what will we all eat here in this situation? Joke but...

<https://militaryrussia.livejournal.com/436045.html>

### *F. Central Asia*

#### **Rosatom official outlines Uzbek project schedule** *World Nuclear News, January 08, 2019*

In an interview last month with news agency Kun.uz, Alexander Lokshin, Rosatom’s first deputy director general for operational management, also said construction of the plant itself was expected to start at the end of 2021. The Russian state nuclear corporation published a transcript of the interview on its website. Uzbekistan’s ambition to include nuclear power in its energy mix was unveiled last October by Uzbek and Russian presidents, Shavkat Mirziyoyev and Vladimir Putin.

“Active work is under way in Uzbekistan to find a site for the country’s first nuclear power plant, and measures have been launched to prepare the legislative framework necessary for the construction of the station and cooperation between Uzbekistan and Russia in the field of nuclear energy,” Lokshin said. “We expect that by the end of March a decision on the choice of the site will be made. By the time that detailed surveys for the project have been completed, which according to the plan should happen by the end of 2019, a contract for the construction work will be signed,” he added.

The construction period is scheduled for 2022-2028.

“We are building a lot [of plants] around the world and by the time we reach the construction stage of the Uzbek nuclear power plant, we will have even more experience. But the duration of the preliminary period in each country is unique. We often say that the construction of the first nuclear power plant in a country is the creation of a new industry itself. Much of the success and timing of this process depends on the level of intercountry cooperation [and] we rate the level of cooperation between our [two] countries very highly.”

“Our Uzbek colleagues will study the document in detail with the assistance of consultants and several thematic working groups will be created. Our goal is to make sure that after signing the contract, neither of the parties feels that its interests have not been fully taken into account. This is very important even with the best of relationships,” Lokshin said. The “optimal ratio” of types of generation depends on the specific conditions in each country, he said.

<http://www.world-nuclear-news.org/Articles/Rosatom-official-outlines-Uzbek-project-schedule?feed=feed>

### **Uzbekistan turns to nuclear energy to power economy** *Nastassia*

*Astrasheuskaya, Financial Times, January 14, 2019*

When you run a large landlocked central Asian state rich in uranium and with big economic ambitions, what do you do? You build a nuclear power plant. That has been the thinking in Uzbekistan, central Asia’s most populous country with about 33m people, and with the population and energy demand both forecast to grow. “We will be joining the club of countries with peaceful use of nuclear energy. That is an elite club. “This is a positive achievement and big success of Shavkat Mirziyoyev. It would make Uzbekistan the first country in the region using a nuclear power plant and will make it a leading producer of electricity.

“It adds to Uzbekistan’s prestige but certainly follows a rational approach. Uzbekistan needs electricity. It often experiences gas shortages, and the nuclear power station project solves this issue. To be a regional power and to attract investors, Uzbekistan needs stable electricity supply.” Some 30 countries operated nuclear power plants as of the end of 2017; 20 had past or planned nuclear projects, according to the International Atomic Energy Agency. Uzbekistan’s current reliance on coal, gas, oil and hydropower will not be enough to meet growing demand, even with plans to double hydropower capacity by 2030. Nuclear energy is expected to account for 15 per cent of the country’s power balance and ensure stable energy supply with expectations of power demand doubling by 2030, according to Uzatom.

Moreover, China had been expanding its influence in the region: “There is a level of competition between Russia and China, and it is very important for Russia to continue to demonstrate that it is the primary regional power for central Asia. “In part, it is an element of a wider ambition to be a great power. If you are not important in your local neighbourhood, then that undermines in essence that you’re a global power,” she added.

<https://www.ft.com/content/a99c1b58-0466-11e9-99df-6183d3002ee1>

### **G. Iran**

### **Iran’s anti-terror measures praiseworthy: Foreign Ministry spokesman** *Tehran Times, January 01, 2019*

Qassemi made the remark in an end-of-the-year interview with Mehr news agency published on Tuesday. He also said that countries in the Middle East region could not solve their problems without Iran’s help. “Iran has had a successful performance in fighting terrorism, stabilizing the region and preventing intensification of hostilities, but other countries cannot or do not want to announce their position in this respect because of their policies,” he stated.

"However," Qassemi added, "they know that the region could not overcome problems without Iran's help." He described Iran as forerunner in establishing peace and stability in the region. Iran rushed to the help of Iraq and Syria in the fight against Daesh (ISIL) which had occupied large swathes of territories in the two neighboring countries. Qassemi said Iran played an "advisory" role against terrorists in Syria and Iraq and this was made upon a request by the Baghdad and Damascus governments.

"Iran's advisory presence will be continued as long as terrorism exists and the other governments asks us [for help]. Iran will stand beside them [the regional countries] until the terrorists are annihilated and the people live in peace. So, Iran's presence depends on their request," he stated. He added that security in Iran is linked with security in other countries in the region. Elsewhere, Qassemi said Iran's principled policy is non-interference in other countries' affairs and not allowing any country to interfere in its internal affairs.

### **'U.S. psychological warfare is doomed to failure'**

Qassemi also said that the U.S. psychological warfare against Iran is doomed to failure. The U.S. seeks to make Iran surrender through telling lies and exerting pressure on Tehran, the Foreign Ministry official remarked

<https://www.tehrantimes.com/news/431392/Iran-s-anti-terror-measures-praiseworthy-Foreign-Ministry-spokesman>

### **'New chapter in Iran-China ties to flourish more rapidly'** *Tehran Times, January 02, 2019*

"In addition to economic ties, the Tehran-Beijing cooperation in other areas is also expanding rapidly," Mohammad Keshavarz-Zadeh said on Wednesday, speaking with IRNA. Describing China as a big and strong country which has great potential in different fields, he said Iran must avail itself of such capacities in order to develop quickly. "The authorities of the Islamic Republic of Iran unanimously believe

that we can have extensive relations with China in the current circumstances and one of my duties is to take their views into consideration in order to make use of China's potentialities," the envoy remarked.

Keshavarz-Zadeh, who was named Iran's ambassador to Beijing last month, also praised China for supporting the 2015 nuclear agreement, saying the Chinese played an important role in clinching the international agreement. "China has always supported BARJAM (the Persian name for the nuclear deal) and it seems that such trend will continue... We hope we can reap the benefits of BARJAM with China's support," he stated.

<https://www.tehrantimes.com/news/431428/New-chapter-in-Iran-China-ties-to-flourish-more-rapidly>

### **Iran to send naval fleet to the Atlantic** *Tehran Times, January 04, 2019*

"Since the Atlantic Ocean is very far, it is likely that the Iranian naval fleet's mission would take up to five months to complete," Rear Admiral Hassani-Moqadam said in an interview with IRNA. He said Sahand destroyer would be one of the naval fleet's warships. Sahand, a newly-built destroyer, has a flight deck for helicopters, torpedo launchers, anti-aircraft and anti-ship guns, surface-to-surface and surface-to-air missiles, and electronic warfare capabilities.

Hassani-Moqadam emphasized that the presence of Iran's navy in international waters aims to implement the orders of Commander-in-Chief of Iranian Armed Forces Ayatollah Ali Khamenei, protect the interests of the Islamic Republic in the free waters and counter anti-Iran propaganda. Conveying the message of peace and friendship is among the goals of the fleet, he added. It comes several weeks after the Pentagon sent an aircraft carrier strike group to the Persian Gulf.

Tehran has said the presence of the U.S. carrier group was "insignificant" and vowed to prevent the U.S. warships from entering Iranian territorial waters in the

Persian Gulf. Deputy army chief for coordination affairs, Habibollah Sayyari, said in December that the U.S. navy was allowed to sail in international waters near the Islamic Republic – just as the Iranian navy could sail in the Atlantic Ocean near the U.S.

“They do not have the courage or ability to take any measures against us. We have enough capabilities to stand against their actions and we have fully rehearsed for that,” Sayyari stressed. A U.S.-Iranian war of words has escalated since U.S. President Donald Trump took the United States out of the 2015 nuclear deal with Iran in May, and reimposed sanctions on its banking and energy sectors.

<https://www.tehrantimes.com/news/431471/Iran-to-send-naval-fleet-to-the-Atlantic>

### **Salehi says Iran should pay the cost to protect its independence** *Tehran*

*Times, January 04, 2019*

“Based on our country’s constitution, we are duty bound to stand against oppressor and defend the oppressed and this is valuable in essence,” he said in opening ceremony of knowledge-based corporations’ exhibition. However, he said that Iran should pay the cost to protect its independence and freedom.

“If we have faced impediments on the path of the country’s growth and progress, it is because of limitations which have been created due to the Islamic Republic’s political and international approach,” the vice president remarked. He added, “Despite the limitations that have been imposed on us, we have worked well.” Salehi, a nuclear physicist, noted that human and financial capital and management are essential to progress.

“We have good human and financial capital...We should be thankful for the current situation in the country,” noted Salehi who has acted as Iran’s ambassador to the United Nations’ International Atomic Energy Agency (IAEA), foreign minister, and representatives to the Jeddah-based Islamic Cooperation Organization (OIC).

Salehi praised support by governmental institutions for knowledge-based corporations. He also urged the knowledge-based corporations to make more efforts in improving marketing.

<https://www.tehrantimes.com/news/431464/Salehi-says-Iran-should-pay-the-cost-to-protect-its-independence>

### **For Iran as with Syria, a critical mass of unified and determined citizens will defeat aggressors**

*Martin Love Tehran Times, January 05, 2019*

It’s delightful to watch this happen, but one could be tempted to get too giddy with anticipations of real change when it’s possible Trump, as some are claiming, may literally be losing his mind under the pressures inherent in his job and those foisted on him from those who despise him, or he’s just being especially impulsive and his big mouth has gotten far too loose.

The big-ticket item of controversy currently seems to be Trump’s decision to pull U.S. troops out of Syria. He seems to be pushing the honest recognition (finally) that the semi proxy war on Syria and the legitimate and even popular Assad government, despite all the destruction and carnage worse than anything the Mongols (non-Muslim “barbarians” at the time) meted out to the Muslim heartlands in 1258, has been an utter failure.

Here’s the thing: Syria and Syrians managed to survive years of attack by Western powers and some Arabs, including hordes of Arab and even some European terrorists paid and equipped mostly by the U.S. and the British and Saudis. It seems almost a miracle that the Assad government exists, so how is this possible? Ibn Khaldun’s Arabic concept of “assabiyya” seems the reason, or the solidarity and unity of enough Syrians ready to STAY unified to ward off their enemies. Syria, by the way, is a multi-religious and multi ethnic country. Iran is by the terms of the 1979 revolution “Islamic” but many Iranian citizens are of other faiths, too.

Iran can defeat whomever it wants, just like Syria has, with the same kind of determination and unity. Questions about more social liberalization in Iran and more democracy, while important, can wait until after Iran has been liberated from the burdens imposed on it by the U.S., Zionists and Saudis.

<https://www.tehrantimes.com/news/431487/For-Iran-as-with-Syria-a-critical-mass-of-unified-and-determined>

**'More potential buyers for Iran's oil despite U.S. sanctions'** *Tehran Times, January 05, 2019*

"Despite U.S. pressures on Iranian oil market, the number of potential buyers of Iranian oil has significantly increased due to a competitive market, greed and pursuit of more profit." Zamaninia said. The official noted that all countries that were granted waivers from the United States to continue buying a certain amount of Iranian oil imports are complying with the waivers' ceiling. "China, India, Japan, South Korea and other countries that were granted waivers from America to import Iranian oil are not willing to buy even one barrel more than what is allowed by the U.S.," he said.

The United States withdrew from a nuclear deal with Iran last year and snapped sanctions in place to choke Iran's oil and banking industries, while temporarily allowing eight customers to keep buying crude from the Islamic Republic.

Iran has urged European countries, which are still committed to the nuclear deal, to oppose the sanctions by creating a financial mechanism that facilitates payments of Iranian oil sales.

Zamaninia said the mechanism, known as SPV (Special Purpose Vehicle for trade), would be helpful but could not resolve the problems since U.S. influence will affect any European action.

<https://www.tehrantimes.com/news/431527/More-potential-buyers-for-Iran-s-oil-despite-U-S-sanctions>

**Iranian space satellites pass pre-launch tests** *Tehran Times, January 06, 2019*

Dousti satellite is ready for launch and Payam satellite passed technical testing on Friday, the deputy director of space technology at the Iranian Space Agency (ISA) announced, Fars reported on Saturday. Mojtaba Soradeqi said that they are imagery satellites with a resolution of less than 50 meters. "By manufacturing satellites we prove our ability in technical achievements in infrastructure systems," he explained.

In a tweet on Saturday, Information and Communication Technology (ICT) Minister Mohammad Javad Azari Jahromi said: "Last night, Iranian satellites passed tests successfully." On Thursday, U.S. Secretary of State Mike Pompeo said Iran's plans for sending satellites into orbit demonstrate the country's defiance of a UN Security Council resolution that calls on Iran to undertake no activity related to ballistic missiles capable of delivering nuclear weapons. Iran says the launches do not violate the resolution.

<https://www.tehrantimes.com/news/431548/Iranian-space-satellites-pass-pre-launch-tests>

**South Africa backs JCPOA: ambassador** *Tehran Times, January 06, 2019*

"We are aware of Iran's commitment to the JCPOA and we support the continuation of the deal," he said in a meeting with lawmaker Heshmatollah Falahatpisheh, IRNA reported. "Since the revolutions of the two countries, South Africa have had friendly relations with Iran and we will never forget the support of the Islamic Republic of Iran for our people's fight for freedom," he added.

<https://www.tehrantimes.com/news/431573/South-Africa-backs-JCPOA-ambassador>

**Australian ambassador meets Hormozgan governor** *Tehran Times, January 6, 2019*

During the meeting, Biggs underlined the need to tap existing capacities to expand cooperation between Tehran and Canberra. "Hormozgan province enjoys many capacities for mutual cooperation between Iran and Australia and it can play an effective role in facilitating the trade relations between the two countries," Biggs said, according to the Fars news agency.

The ambassador said fish breeding is one of the strong points of Hormozgan province which could serve as a good ground for mutual cooperation given Australia's capabilities in the field. Biggs also said that nearly 100,000 Iranian nationals live in Australia and 3,000 Iranian students are admitted by his country's universities annually, adding that the capacity should be used to further broaden ties.

Australian officials have reiterated that they would keep on interacting with Iran despite the re-imposition of sanctions against Tehran by the United States. "The current conditions surrounding the JCPOA have created problems for multilateral exchanges, but the Australian government will keep up its interaction with Iran," Director General of Australian Foreign Ministry's Multilateral Policies Justin Lee said in a meeting with chair of Iran-Australia parliamentary friendship group Mahmoud Sadeqi in Tehran in August 2018.

The Australian official criticized the U.S. for withdrawing from the nuclear agreement with Tehran. Then, Sadeqi underlined the importance of broadening long-standing and growing ties between the two countries, saying, "We have always had permanent political, economic and cultural relations." The Iranian lawmaker appreciated Canberra's alignment with the European states and not joining the U.S. to pressure Iran with sanctions.

<https://www.tehrantimes.com/news/431556/Australian-ambassador-meets-Hormozgan-governor>

**Iran's defense power belongs to all Muslims: Hatami** *Tehran Times, January 07, 2019*

"The Islamic Iran's defense power belongs to all Muslim brothers and friendly countries," he said in his speech at a conference on defense and security in West Asia held at Supreme National Defense University. The minister added Iran "believes that the intervening powers and certain puppet regimes of the U.S. will not be safe from consequences of spreading insecurity in the region." The defense chief reiterated Tehran's long-held position that the regional countries are able to restore security and stability to West Asia through cooperation and coordination. The minister added, "Iran's military strategy is deterrence and we do not seek arms race with other countries. We propose cooperation among the regional countries based on the Islamic principles."

Elsewhere in his remarks, Hatami said, "Reactionary countries cannot provide security for themselves through spreading division and causing chaos." Referring to the planned U.S. withdrawal from Syria, he said the pullout shows end of the West's hegemonic system. He noted that the West is no longer a cornerstone in creating security in the region and the U.S. forces' withdrawal from the region shows Washington's strategic defeat. President Donald Trump announced on December 19 that the U.S. troops had defeated the Daesh terrorists in Syria and he sought to pull some 2,000 U.S. troops out of Syria. Hatami also pointed to the U.S. act in quitting the 2015 nuclear deal, saying the move has revealed the true face of the U.S. "The U.S. withdrawal from the JCPOA [the Joint Comprehensive Plan of Action] has revealed the true face of the U.S. more than ever and showed that the U.S. uses any tool to harm independence of the countries," he said.

Speaking on the sidelines of the security conference in West Asia, Hatami said Iran's talks with Taliban are aimed at restoring peace and stability to Afghanistan. The Foreign Ministry

announced that Iranian diplomats held a meeting with a Taliban delegation in Tehran on December 30. Abbas Araqchi, the deputy foreign minister for political affairs, headed the Iranian negotiating team.

<https://www.tehrantimes.com/news/431610/Iran-defense-power-belongs-to-all-Muslims-Hatami>

### **Unity essential to overcome sanctions: Jahangiri** *Tehran Times, January 08, 2019*

“The U.S. seeks to make living hard for the people and lead Iran towards economic and internal collapse. However, we can make this period [of difficult economic time] short through management based on certain conditions. The first condition is that the country’s political officials accept that they should protect the internal unity and integrity and not give in to hardliners,” he said during a ceremony.

U.S. Secretary of State Mike Pompeo announced in May that the U.S. will apply economic and military pressure against Iran and will impose “the strongest sanctions in history” on the Islamic Republic. In an interview with BBC Persian in November Pompeo, Pompeo also said Iranian officials must listen to Washington “if they want their people to eat”. Also in November 2018, a week after a tough new round of sanctions against Iran came into force, Trump’s National Security Adviser John Bolton vowed to “squeeze” Iran “until the pips squeak”. ‘Iran facing a demon like U.S.’ Jahangiri also criticized a number of Iranian officials who try to eliminate their rivals while the people are under economic pressure.

“We should help the people. The people face a demon like the U.S. which has put the country’s businessmen under pressure,” the vice president remarked. Elsewhere, he attached great importance to entrepreneurs’ role in solving the economic problems. Jahangiri promised that he will support entrepreneurs.

<https://www.tehrantimes.com/news/431644/Unity-essential-to-overcome-sanctions-Jahangiri>

### **We extend ‘hand of friendship’ to Persian Gulf neighbors, Iran’s FM says** *Tehran Times, January 09, 2019*

Zarif also said, “We need a strong region rather than the dominance of strongmen in the region.”

We can start with a “Regional Dialogue Forum”, particularly in the Persian Gulf region which has been the scene of so many wars in the last 4 decades; from Saddam Hussein’s aggression against Iran and later against Kuwait, to US operations and finally to the humanitarian nightmare in Yemen.

Admission to such a forum should be based on accepting generally recognized principles and shared objectives, notably, respect for sovereignty, territorial integrity and the political independence of all states. A forum such as this could help promote understanding and interaction at the levels of government, the private sector and civil society, and lead to agreement on a broad spectrum of issues, including confidence-building measures? combating terrorism, extremism and sectarianism? ensuring freedom of navigation and the free flow of oil and other resources? and the protection of the environment, which is an imminent existential challenge, particularly for our neighbors in the southern Persian Gulf region. We need a strong region rather than the dominance of strongmen in the region. From our perspective a strong region is characterized by the following attributes:

- 1- Homegrown political and territorial stability;
- 2- Reliance on the populace as the source of legitimacy, security and prosperity;
- 3- Harmonization of national identities and regional citizenship;
- 4- Participation of all relevant regional countries in ensuring peace in the region through regional institutions, organizations or ad hoc arrangements;
- 5- More confidence, more trade and more

interaction between and among the countries in the region, than with external powers;

6- Economic relations and people-centered interactions, making any resort to war costly and untenable;

7- A regional culture that will place national security on a par with regional security; and,

8- A sustainable regional environment.

<https://www.tehrantimes.com/news/431701/We-extend-hand-of-friendship-to-Persian-Gulf-neighbors-Iran-s>

### **Iran says will not halt aerospace programme despite U.S. warning**

*Reuters, January 09, 2019*

Iran will continue with its aerospace programme despite U.S. warnings, Foreign Minister Mohammad Javad Zarif said on Wednesday, adding there was no international law prohibiting such a programme.

Zarif, who is in New Delhi on a bilateral visit, also told Reuters that leaving a 2015 nuclear deal agreed with world powers is an option available with Tehran but is not the only option on the table.

The United States earlier this month issued a pre-emptive warning to Iran against pursuing three planned space rocket launches that it said would violate a U.N. Security Council resolution because they use ballistic missile technology.

Under the U.N. Security Council Resolution 2231, which enshrined the nuclear deal in 2015, Iran is "called upon" to refrain from work on ballistic missiles designed to deliver nuclear weapons for up to eight years.

<https://uk.reuters.com/article/uk-iran-nuclear/iran-says-will-not-halt-aerospace-programme-despite-u-s-warning-idUKKCN1P311Y>

### **War on Hezbollah is near** *Mohammed Al-Saeed Saudi Gazette, January 10, 2019*

The digging operation is carried out only by Hezbollah's elite troops, who the leaders can

trust to keep the secret. The Israelis were prepared and they have delayed the announcement of the precious discovery so that the Israeli government can reap internal and international rewards. Israelis work according to their own timescale, not on the timescale of Tehran or South Beirut. Hassan Nasrallah's cool reaction will not prevent the expected strike, which is now being prepared by pulling out American forces from Syria and bringing Damascus back to the Arab fold, away from the clutches of the Iranians. The expected war will be directed at weapons factories and rocket storages first. It will then target the command center, which was bolstered by Barack Obama indirectly with hundreds of millions of dollars after the nuclear deal with Tehran.

That is why we say to Iran, "Beware of the war that is coming your way."

<http://saudigazette.com.sa/article/552017/Opinion/Local-Viewpoint/War-on-Hezbollah-is-near>

### **Austrian president: It's important to keep nuclear deal alive** *Tehran Times, January 10, 2019*

*Times, January 10, 2019*

The Der Standard reported on Wednesday that Van der Bellen said that it is very important to keep the JCPOA alive, IRNA reported. U.S. President Donald Trump withdrew Washington unilaterally from the nuclear deal in May and ordered sanctions against Iran. The first round of sanctions went into force on August 6 and the second round, which targets Iran's oil exports and banks, were snapped back on November 4.

Following the U.S. withdrawal, the European Union promised to set up an alternative payment mechanism for Iran to continue business with the Islamic Republic in exchange for the country to remain in the nuclear agreement. However, Iran has been critical of the EU's delay in establishing the special purpose vehicle (SPV), citing the bloc's fear of the U.S. punitive measures against any country that decides to host the mechanism. The European Union's spokesperson said Monday that the bloc

is still working on setting up a payment mechanism to facilitate trade with Iran and bypass U.S. sanctions.

“Actually, this is the work that is carried out by the (EU) member states. And according to the information that we have, the work is continuing and advancing well,” Maja Kocijancic, spokesperson for EU High Representative Federica Mogherini told a news conference in Brussels on Monday, the Kuwait News Agency reported. She said the SPV will be established “soon”. “We believe that it will be established in the coming weeks to promote legitimate business with Iran.”

<https://www.tehrantimes.com/news/431675/Austrian-president-It-s-important-to-keep-nuclear-deal-alive>

### **France tells Iran to stop ballistic missile work designed for nuclear weapons** *Reuters, January 11, 2019*

France on Friday called on Iran to immediately stop all activities linked to ballistic missiles that could carry nuclear weapons after Tehran said it could put two satellites into orbit in the coming weeks. “France recalls that the Iranian missile program (does) not conform with U.N. Security Council Resolution 2231,” Foreign ministry spokeswoman Agnes von der Muhll told reporters in a daily briefing.

“It calls on Iran to immediately cease all ballistic missile-related activities designed to carry nuclear weapons, including tests using ballistic missile technology.” Von der Muhll was responding to comments by President Hassan Rouhani on Thursday, who said two satellites would be sent into space using Iran-made missiles.

<https://www.reuters.com/article/us-iran-nuclear-france/france-tells-iran-to-stop-ballistic-missile-work-designed-for-nuclear-weapons-idUSKCN1P51DZ>

### **Iran tops local share of nano-articles list in 2018** *Tehran Times, January 13, 2019*

Based on a report Nanotechnology Publications report released in January 2018,

Iran, Saudi Arabia, China, and India, took the top 4 places on the list compiled using this indicator, the StatNano website announced. According to the report, Iran’s local share of nano-article is 22.03 percent.

In 2018, around 9.7% of the total scientific publications were related to nanotechnology, which has been the highest since 2014. Given the subject matter of the nano-articles published in 2018, the greatest number of the articles were run in the fields of chemistry, materials science, physics, and engineering science, respectively.

The four journals of ACS Applied Materials & Interfaces, Applied Surface Science, RCS Advances, and Nanoscale had the largest shares in the publication of nano-articles in this year. The Chinese Academy of Sciences, Islamic Azad University from Iran, the Russian Academy of Sciences, and Tsinghua University from China carried the largest number of nano-articles last year.

With 9,662 articles and 5.81 percent of its share, Iran ranks 4th amongst top 20 countries based on the share of nano-articles carried in 2018. Approximately 166,000 nano-articles were indexed in the Web of Science (WoS) in 2018, comprising around 10% of the total. Among the different branches of science, chemistry, materials, and physics had respectively the largest shares of the indexed nano-articles. China, the United States, and India were the three leading countries in the publication of nano-articles the same as last year.

<https://www.tehrantimes.com/news/431805/Iran-tops-local-share-of-nano-articles-list-in-2018>

### **Iran has taken preliminary steps for production of modern nuclear fuel with 20 percent purity: Salehi** *Tehran Times, January 13, 2019*

“Tehran’s nuclear reactor has been working with old fuel so far, but the modern fuel will improve efficiency of the

reactor," Mehr news agency quoted Salehi as saying on Sunday.

<https://www.tehrantimes.com/news/431811/Iran-has-taken-preliminary-steps-for-production-of-modern-nuclear>

### **EU credibility at serious stake** *Tehran Times, January 13, 2019*

These words of assurance to protect the JCPOA without the United States have been frequently uttered by the EU, especially by its chief diplomat Federica Mogherini. In her latest remarks posted on the European Council on Foreign Relations website, Mogherini said, "We Europeans cannot accept that a foreign power – even our closest friend and ally – makes decisions over our legitimate trade with another country."

Europeans were promising to present their own mechanism, the so-called special purpose vehicle (SPV) by the start of 2019 to circumvent the Trump administration's sanctions against Iran. As a journalist I don't know what Europeans, especially the E3 – Germany, France, and Britain which are signatory the JCPOA – are still doing, but one thing is clear: the Iranian people are losing their confidence of Europe and think that Europe either has no power or will to withstand the U.S. illegal demands to do business with Iran. Some argue that protests in France, a weakened Angela Merkel's government in Germany, problems surrounding the Theresa May government over Brexit coupled with Washington's pressure and differences between the EU members over how to deal with Trump's White House in regard to the JCPOA have caused delays in presenting the SPV.

<https://www.tehrantimes.com/news/431813/EU-credibility-at-serious-stake>

### **'EU Iran sanctions over assassination plot claims to harm Europe'** *Tehran Times, January 13, 2019*

In an interview with Mehr news agency published on Sunday, he described the EU's decision as wrong. He noted that the EU's action is contrary to its goodwill if it seeks to cooperate with Iran. Danish intelligence

chief Finn Borch Andersen claimed in October that an Iranian intelligence service had tried to carry out a plot to assassinate an Iranian Arab opposition figure on Denmark's soil. Iranian Foreign Ministry spokesman Bahram Qassemi dismissed the claim as a plot by enemies to affect Tehran's growing relations with European countries.

Anders Samuelsen, the Danish foreign minister, tweeted on Tuesday that the European Union agreed to enact sanctions against an Iranian Intelligence Service over claims of assassination plot. Iranian Foreign Minister Mohammad Javad Zarif has told Europeans that making accusations against Iran won't absolve them of the responsibility for harboring the terrorist Mujahedin Khalq Organization (MKO) – also called Mujahideen-e Khalq (MEK) – who has murdered tens of thousands of Iranians.

"Europeans, incl Denmark, Holland & France, harbor MEK – who killed 12000 Iranians & abetted Saddam's crimes against Iraqi Kurds – as well as other terrorists staging murder of innocent Iranians from Europe. Accusing Iran won't absolve Europe of responsibility for harboring terrorists," Zarif tweeted Tuesday. The MKO did numerous terrorist acts in Iran, especially in the early years of the 1979 Islamic Revolution. It also sided with Saddam Hussein's army in the war against Iran in the 1980s.

<https://www.tehrantimes.com/news/431822/EU-Iran-sanctions-over-assassination-plot-claims-to-harm-Europe>

### **Iran says still honoring nuclear deal** *Tehran Times, January 14, 2019*

"We have been committed to BARJAM so far and we have shown to the world that we are fulfilling our obligations under the deal," Foreign Ministry spokesman Bahram Qassemi said on Monday at his bi-weekly press conference. He was commenting on remarks by Ali Akbar Salehi, the director of the Atomic Energy Organization of Iran (AEOI), who announced on Sunday that Iran has begun

preliminary activities for designing modern nuclear fuel with purity of 20 percent."However, how we will decide in the future depends on the role and performance of the other parties to BARJAM," Qassemi remarked.

On the prospects of the special purpose vehicle (SPV), a mechanism aimed at facilitating trade with Iran in the face of U.S. sanctions, Qassemi said the European Union (EU) lacks the structures needed to establish the mechanism. He said although the EU is willing to finalize the SPV, there has been too much delay and the EU is under considerable pressure from the United States.

"The U.S. is trying to prevent this type of cooperation from being materialized through any means," he remarked. Under Trump, the U.S. has been pursuing the strategy of applying maximum pressure on Iran. The latest example of such pressure was seen on Friday, when U.S. Secretary of State Mike Pompeo announced that Poland and the United States are jointly organizing the global conference in Warsaw on February 13-14, with the aim of curbing Iran's influence in the region.

"We will not let others move in the direction of destroying Iran's image on false pretexts," he said. The Foreign Ministry has taken and will take appropriate measures in the face of "wrong", "improper" and maybe "hostile" actions of any country within the framework of maintaining the status of the Iranian people, the spokesman added.

<https://www.tehrantimes.com/news/431858/Iran-says-still-honoring-nuclear-deal>

**Iran can resume 20% enrichment in 4 days: Salehi** *Tehran Times, January 15, 2019*

"Currently, we do not need 20 percent enrichment, because we have enough stockpile for some years."Salehi noted that Iran has continued uranium enrichment with limitations under its obligations under the 2015 nuclear deal which have had no effect on the country's nuclear technology.

Based on the nuclear agreement, Iran agreed to put limits on its nuclear program in exchange for the lifting of economic and financial sanctions. The deal was signed between Iran, the European Union, Germany and the five permanent members of the UN Security Council including the United States. It went into effect in January 16, 2016.

However, President Donald Trump withdrew the U.S. unilaterally from the nuclear deal in May and ordered sanctions against Iran. The first round of sanctions went into force on August 6 and the second round, which targets Iran's oil exports and banks, were imposed on November 4. Trump took the move while the International Atomic Energy Agency had reported 13 times that Tehran had been committed to the deal, which is officially known as the Joint Comprehensive Plan of Action.

In an interview with the European Council on Foreign Relations published on Friday, European Union foreign policy chief Federica Mogherini said that the EU is working with the rest of the international community to keep alive the JCPOA

<https://www.tehrantimes.com/news/431903/Iran-can-resume-20-enrichment-in-4-days-Salehi>

**Pompeo's anti-Iran tour doomed to failure: Rouhani** *Tehran Times, January 15, 2019*

Speaking at a meeting of the administrative council of Golestan Province, Rouhani said while the country is not experiencing normal conditions, "we do not fear sanctions, we do not retreat and abandon our goals."

U.S. President Donald Trump is seeking to drive a wedge between the Iranian people and the government "so that we abandon our independence and be isolated, but he didn't succeed and will not be successful in the future," he said. What the U.S. is seeking by bringing up negotiations is to force Iran to abandon its

nuclear technology, the President stated, adding that Iran is still making progress in the nuclear field despite the sanctions.

Warning that the U.S. is seeking to build a wall around Iran, Rouhani said, "It is not possible for the U.S. to do this and Iran will never be isolated." There are only a few countries across the globe that are supporting Washington's move with regard to the 2015 nuclear agreement and sanctions against Iran, he added. Elsewhere in his remarks, Rouhani pointed out that Washington aims to decrease the role of Iran in the region "so that we cannot be among the leading and influential countries in this region."

"The U.S. wants Iran to leave the scene so it can take charge of everything. This is not achievable," he asserted. He pointed to Yemen, Syria and Iraq as countries in which the United States failed to achieve its goals. "What happened in these countries was completely different from what they thought." The Americans have spent money and used advanced military equipment to achieve their objectives in Yemen, but today they admit to their defeat and acknowledge that this conflict has no military solution, Rouhani remarked. "The Americans should be held accountable for the disasters they have caused in Afghanistan, Pakistan, Yemen, Syria and elsewhere," he added.

<https://www.tehrantimes.com/news/431895/Pompeo-s-anti-Iran-tour-doomed-to-failure-Rouhani>

### **'Poland's hosting anti-Iran conference an insult to Europe'**

*Tehran Times, January 15, 2019*

"The U.S. is taking Poland's national interests hostage by holding this political show and this action of Poland is an insult to the European identity and European nations," he said during a meeting with a Norwegian academic delegation. U.S. Secretary of State Mike Pompeo told Fox News in an interview aired on Friday that Washington will jointly host a global summit focused on Iran and the Middle East next month in Poland.

The gathering will take place in Warsaw from February 13 to 14, the U.S. State Department said in a statement. Pompeo said the meeting would "focus on Middle East stability and peace, freedom and security here in this region, and that includes an important element of making sure that Iran is not a destabilizing influence". The Iranian Foreign Ministry on Sunday summoned Polish charge d'affaires to Tehran to protest Poland's bid to co-host an anti-Iran conference in Warsaw.

<https://www.tehrantimes.com/news/431904/Poland-s-hosting-anti-Iran-conference-an-insult-to-Europe>

### **MP: 'We must not go easy on Poland'** *Tehran Times, January 15, 2019*

"The Islamic Republic must take an assertive stance against these insults and audacity, and must not go easy on them," Mehr on Tuesday quoted Zonnour as saying.

The lawmaker also said European countries are as unreliable as the United States, adding, "For now, the Islamic Republic believes in talks with Europeans so that maybe something, say the SPV, occurs, but it doesn't mean we rely on them."

<https://www.tehrantimes.com/news/431896/MP-We-must-not-go-easy-on-Poland>

## **H. Israel**

### **Israel inflating Iran's presence in Syria to cover its own failures, Tehran says** *The Times of Israel, January 14, 2019*

*January 14, 2019*

Israel has falsely inflated Iran's presence in Syria to cover for its own failures in the region, a spokesman for the Iranian foreign ministry said on Monday. Spokesman Bahram Qasemi said Iran did not have any military bases or military presence in Syria, and was only in the country "at the request of the Syrian government for advisory mission and fighting the terrorists," according to a

report by Iran's official news agency, IRNA. "The Zionist War Ministry's comments are baseless, false, misleading, and is an attempt to justify the failures of the regime in the region," Qasemi said.

Qasemi also blamed regional instability on the US. "What is certain is that we are witnessing the incapacity and vertigo of the United States. They have come to Syria incorrectly and in a wrong way, and they have to go or others make them go," Qasemi said, according to IRNA. The comments came a day after a rare acknowledgement of Israeli involvement in Syria from Prime Minister Benjamin Netanyahu, who on Sunday confirmed that Israel conducted an airstrike against Iranian targets in Syria over the weekend. The strike destroyed a number of weapons caches in the Damascus airport, Netanyahu said.

<https://www.timesofisrael.com/israel-inflating-irans-presence-in-syria-to-cover-its-own-failures-tehran-says/>

### **Israel Okays Signing Deals With Companies Working In Iran, Gov't Reveals** *Yaakov Katz Jerusalem Post,*

*January 15, 2019*

Prime Minister Benjamin Netanyahu is often perceived as the primary statesman leading the battle against Iran and its pursuit of nuclear weapons. Over the years, Netanyahu's efforts have included pushing Western countries to impose tough economic sanctions on Iran and to cut business ties with Iranian companies.

Apparently, though, this does not apply to doing business in Israel. According to a letter written by a high-level government official in the Finance Ministry and obtained by The Jerusalem Post, foreign companies that do business in Iran are not prevented from competing for major infrastructure projects in the State of Israel. The letter was sent in recent days from the office of the accountant-general at the Finance Ministry and the chairman of the government's Tender Committee to construction companies – Israeli and foreign – that are competing in a tender to construct a new light rail line in Jerusalem.

The letter was written in response to questions from some of the foreign companies competing in the tender, asking whether their involvement in projects in Iran would disqualify them from competing for the Jerusalem light rail contract. The companies are bidding for a deal to construct the Green Line for Jerusalem's light rail as well as the extension of the existing Red Line. The deals are estimated to reach approximately \$3.5 billion.

In the letter, the accountant-general's office refers bidders to previous documents which state the following: "In light of questions that have arisen in this regard, it is clarified that the current structures of the bidders themselves... do not give rise to any legal issues under the laws specified below." It goes on to list the Trading with the Enemy Act and the Law on the Struggle against Iran's Nuclear Program. The government's answer has direct impact on CRRC, a state-owned Chinese corporation that is competing for the contract to supply the locomotives for the Jerusalem light rail. Last May, for example, CRRC signed a massive multi-billion dollar contract to construct 450 subway wagons for Iran.

Allowing CRRC to compete in the tender though could contravene the Law on the Struggle against Iran's Nuclear Program, which was passed in 2012 with the objective of imposing sanctions on individuals and corporations that assist Iran in promoting its nuclear program. The law declares an additional objective that looks to impose restrictions "on corporations that maintain business relations with Iran, for Iran's benefit or in its territory, as part of the international struggle against Iran's nuclear program." The government's answer clears the way for companies like CRRC to continue doing business in Iran while at the same time competing for massive infrastructure tenders in Israel.

<https://www.jpost.com/Israel-News/Govt-document-Israel-okay-doing-business-with-companies-working-in-Iran-577389>

## **Netanyahu said to have asked Trump for support ahead of Mossad operation in Iran** *The Times of Israel,*

*January 15, 2019*

Prime Minister Benjamin Netanyahu spoke with US President Donald Trump before a major Israeli intelligence operation in Iran, in order to secure American support if the mission were to go awry, Israeli television reported Tuesday.

In April, Netanyahu revealed a trove of documents he said proved that Iran had lied about its nuclear program. He said that the Mossad intelligence agency had spirited the documents out of a warehouse in the Iranian capital, Tehran, and called the haul was one of the "greatest achievements" of Israeli intelligence. Netanyahu discussed the mission with Trump when the two met in Davos last January, according to Hadashot TV news, with the prime minister seeking US assistance in case the Israeli operatives had to be rescued during the mission. It was not clear from the report how Trump responded to the request or whether it was the first time he heard about the operation. The New York Times previously reported that Trump was informed of the operation by Mossad chief Yossi Cohen during a visit to Washington in January.

The report did not say how Trump responded to the request.

The network also reported that the extraction of the Mossad agents was far more complicated than previously reported, but did not provide any details. Though Netanyahu gave few details of the operation during his April speech, a senior Israeli official told The New York Times that the Mossad had discovered the warehouse in February 2016, and had the building under surveillance since then. The operatives broke into the building one night last January, removed the original documents and smuggled them back to Israel the same night, the official said, according to the paper.

The official said the delay in making the material public was due to the time it took to analyze the documents, the vast majority

of which were in Persian. Netanyahu described the archive as looking like a "dilapidated warehouse" in the Shorabad District in southern Tehran. "This is where they kept the atomic archives. Right here. Few Iranians knew where it was, very few, and also a few Israelis," Netanyahu said. "Now, from the outside, this was an innocent looking compound. It looks like a dilapidated warehouse. But from the inside, it contained Iran's secret atomic archives locked in massive files," he said. Netanyahu showed a picture of long rows of safes and said that the agents managed to bring back "half a ton of the material" consisting of 55,000 pages and another 55,000 files on 183 CDs. The cache, he said, contained "incriminating documents, incriminating charts, incriminating presentations, incriminating blueprints, incriminating photos, incriminating videos and more. "We've shared this material with the United States, and the United States can vouch for its authenticity," he said of the information.

<https://www.timesofisrael.com/netanyahu-said-to-have-asked-trump-for-support-ahead-of-mossad-operation-in-iran/>

### **I. West Asia**

## **Nuclear, gas, renewables, petrochemicals: Turkish energy sector enjoys a prolific year of projects** *Daily Sabah, January 01, 2019*

As much as the action in the international energy markets, 2018 has witnessed major developments in the Turkish energy industry. The initiation of drilling operations in the Mediterranean with Turkey's first drillship Fatih, the beginning of the construction of the country's first nuclear power plant, the launch of the Trans-Anatolian Natural Gas Pipeline (TANAP), the inauguration of a new petrochemical facility in the western Turkish province of İzmir, and the operation of the second liquefied natural gas (LNG) floating storage and regasification unit (FSRU) in the Mediterranean, have been the most significant events transforming the Turkish energy sector.

TANAP, with around \$8 billion of investment, will deliver 6 billion cubic meters (bcm) from the giant Shah Deniz II field in Azerbaijan to Turkey and 10 billion to Europe per year. The European part of the project is expected to become operational in 2020, upon the completion of the Trans Adriatic Pipeline (TAP), which will connect with TANAP at the Turkish-Greek border.

On Friday, Oct. 19, Turkey's biggest oil refinery, STAR, officially opened in the western coastal province of İzmir with the attendance of President Erdoğan and his Azerbaijani counterpart, as well as other top officials from both countries. The refinery, which has a crude oil processing capacity of 10 million tons, started its operations back on Aug. 3 with the arrival of the refinery's first crude oil cargo ship Absheron, loaded with 80,000 tons of feedstock.

In 2018, refining of around 2 million tons of crude oil was expected at the refinery, which will increase to 10 million tons at full capacity. According to the official website of Turkey's leading petrochemical company, PETKIM, the STAR Refinery will meet more than 25 percent of Turkey's processed oil products needs upon start-up. TurkStream offshore section completed The facility at full capacity will have 60 caverns by 2023. The launch of the second phase of the project will open an additional 48 caverns. Floating liquefied natural gas unit

<https://www.dailysabah.com/energy/2019/01/01/nuclear-gas-renewables-petrochemicals-turkish-energy-sector-enjoys-a-prolific-year-of-projects>

### **UAE energy minister says nuclear power project slightly delayed**

*Reuters, January 9, 2019*

United Arab Emirates Energy Minister Suhail al-Mazrouei said on Wednesday that the country's nuclear power plant project was slightly delayed. "Nuclear is coming (but) there will be a bit of a delay," he said at an event in Abu Dhabi. He did not provide a timeline.

The country's nuclear regulator said last July the start-up of a reactor at the nuclear power plant, which was set to open in 2017, would

depend on the outcome of further reviews of the project.

<https://www.reuters.com/article/emirates-energy-nuclearpower/uae-energy-minister-says-nuclear-power-project-slightly-delayed-idUSB2N1YE024>

### **US Secretary of State Mike Pompeo takes anti-Iran message to Gulf Arab states during tour of West Asia** *Firstpost, January 11, 2019*

US Secretary of State Mike Pompeo brought the Trump administration's anti-Iran message to Gulf Arab states on Friday, arriving in Bahrain to continue a nine-nation tour of West Asia aimed at reassuring America's partners that withdrawing troops from Syria does not mean Washington is abandoning the region. Pompeo was traveling to Bahrain and the United Arab Emirates where he will call for increasing pressure on Iran and push for unity among Gulf neighbours still embroiled in a festering dispute with Qatar. He'll also be promoting a US-backed initiative to form what some have termed an "Arab NATO" that would bring the region together in a military alliance to counter threats from Iran.

In Bahrain, the UAE and later Qatar, Saudi Arabia, Oman and Kuwait, Pompeo will also be making the case as he did on previous stops in Jordan, Iraq and Egypt that President Donald Trump's decision to pull US troops from Syria is not a sign Washington is retreating from the fight against the Islamic State group. The trip came as a US military official announced on Friday that the withdrawal had begun, though he declined to comment on specific timetables or movements.

US partnerships with the members of the Gulf Cooperation Council "are critical to achieving shared regional objectives: defeating ISIS, countering radical Islamic terrorism, protecting global energy supplies, and rolling back Iranian aggression," the State Department said in a statement released as Pompeo departed Egypt for Bahrain, which is home to the US Navy's 5th Fleet. "A united GCC is the

backbone for regional peace, prosperity, security, and stability, and is essential to countering the single greatest threat to regional stability: the Iranian regime," the State Department said.

<https://www.firstpost.com/world/us-secretary-of-state-mike-pompeo-takes-anti-iran-message-to-gulf-arab-states-during-tour-of-west-asia-5880811.html>

### **Iran says US hit by 'hysteria' since dropping nuclear deal** *The Times of Israel, January 11, 2019*

Iran on Friday said the United States is suffering from "hysteria" over its inability to find alternatives to the landmark nuclear deal it walked away from last year. Washington "pulled out of a comprehensive and legitimate agreement achieved through negotiation, and is now afflicted with chronic hysteria as it can't find an alternative to it," foreign ministry spokesman Bahram Ghasemi said on his Telegram channel.

The US pulled out of the 2015 nuclear accord in May last year and reimposed punishing economic sanctions on the country. The charge was Tehran's first reaction to anti-Iran remarks made Thursday by US Secretary of State Mike Pompeo in Cairo while on a whistle-stop tour of the region.

Ghasemi called Pompeo's proposed plan "a path with no benefit for America" and said that it proves the current US administration is the enemy of Iran and its people. Pompeo's tour is aimed at reassuring US allies after President Donald Trump's shock decision to withdraw all 2,000 American troops from Syria. On Friday, Pompeo announced the US is organizing an international summit in Poland next month, focusing on Iran's Middle Eastern influence. "We'll bring together dozens of countries from all around the world," Pompeo told Fox News. They will "focus on Middle East stability and peace and freedom and security here in this region, and that includes an important element of making sure that Iran is not a destabilizing influence," the top US diplomat said.

The event will take place on February 13 and 14.

Pompeo brought the Trump administration's anti-Iran message to Gulf Arab states on Friday as he continued his nine-nation tour of the Middle East. He was traveling to Bahrain and the United Arab Emirates, where he will call for increasing pressure on Iran and push for unity among Gulf neighbors still embroiled in a festering dispute with Qatar. He'll also be promoting a US-backed initiative to form what some have termed an "Arab NATO" that would bring the region together in a military alliance to counter threats from Iran.

<https://www.timesofisrael.com/iran-says-us-hit-by-hysteria-since-dropping-nuclear-deal/>

### **J. Japan**

### **Resona bans lending to those developing, making or possessing nuclear weapons** *The Mainichi, January 07, 2019*

TOKYO — Resona Holdings Inc., a major financial group in Japan, has announced a policy of not extending loans to borrowers that are involved in the development, production or possession of nuclear weapons. The statement, the first of its kind by a major Japanese banking institution, came amid similar moves by an increasing number of European banks and institutional investors following the adoption at the United Nations of the Treaty on the Prohibition of Nuclear Weapons in 2017.

Whether other Japanese corporations will follow Resona's action is a focus of attention for the future. There were other lenders banning loans for the production of nuclear weapons, but the Resona policy prohibits any loans to such companies even when such transactions are for non-nuclear related purposes. The new posture was incorporated in a document titled "Efforts toward socially responsible investment and loans," which was announced in November last year.

According to the paper, Resona refuses to lend to those that are associated with the development, production or possession of weapons of mass destruction, such as nuclear, chemical and biological weapons, or inhuman weaponry including antipersonnel mines and cluster munitions. Entities that can be subject to relevant restrictions or sanctions, or even those with the potential to be hit with such punitive measures, will be rejected as borrowers, the document says.

<https://mainichi.jp/english/articles/20190107/p2a/00m/0bu/024000c>

### **Stop war of nerves** *Korea Herald,* *January 07, 2019*

Conflicts between South Korea and Japan are growing. Their cooperation is required to resolve the problem of North Korea's nuclear weapons, among others, and prosper together economically, but they are going separate ways. Disputes are escalating over whether a South Korean destroyer locked its fire control radar on a Japanese patrol aircraft on Dec. 20.

Japanese Prime Minister Shinzo Abe vowed Sunday to take strong countermeasures in response to Koreans' legal action against a Japanese company, seeking compensation for their forced labor at the company during World War II. Tokyo claims that a South Korean naval vessel directed its targeting radar on a Japanese patrol plane. Japan's Ministry of Defense asserted the radar lock-on was an extremely dangerous act that could cause an unexpected military clash, and disclosed video footage to support its assertions. The South Korean Ministry of National Defense flatly denies Japan's allegations, saying the destroyer used an optical camera but did not direct its radar at the plane. It released related videos Friday to disprove Japan's assertions, demanding Tokyo stop distorting the truth and apologize for the threatening low-altitude flight of the plane.

In view of their seemingly unbending positions, it is unlikely for either government to admit to the facts readily if they are ascertained. This issue cannot be resolved

this way. Bones of contention must be settled through unbiased joint investigations without emotional tit-for-tat exchanges.

[http://www.koreaherald.com/view.php?ud=20190107000673&ACE\\_SEARCH=1](http://www.koreaherald.com/view.php?ud=20190107000673&ACE_SEARCH=1)

### **Niigata gov't to handle radioactive mud stored since Fukushima crisis**

*The Mainichi, January 08, 2019*

NIIGATA, Japan (Kyodo) – The Niigata prefectural government said Tuesday it will dispose of radioactive mud that has been stored since the 2011 Fukushima nuclear disaster and ask the operator of the crisis-hit plant to shoulder the costs. The prefecture in central Japan, located about 200 kilometers from the Fukushima Daiichi power plant, has stored around 60,000 tons of mud containing radioactive cesium and requested Tokyo Electric Power Company Holdings Inc. since 2012 to dispose of it.

But the operator has refused, saying it is not able to handle industrial waste. The disposal costs are estimated at 3 billion yen (\$27.5 million) and TEPCO formally expressed its readiness to pay in December. The level of radioactive cesium in the mud is below 8,000 becquerels per kilogram, which could be disposed of by regular landfill operations, and most of it is below 100 becquerels per kg, according to the prefecture. The local government has stored the mud instead of disposing of it, arguing that TEPCO should take responsibility for the damage caused by fuel meltdowns at the plant triggered by the massive earthquake and tsunami on March 11, 2011.

<https://mainichi.jp/english/articles/20190108/p2g/00m/0dm/079000c>

### **JAPC denies granting local prior consent for reactor restart** *YOSUKE*

*HIRUMA, The Asahi Shimbun,*  
*January 08, 2019,*

Although telling six municipalities they have the right to prior consent before restarting the Tokai No. 2 nuclear power

plant, operator Japan Atomic Power Co. (JAPC) is apparently renegeing on that promise. JAPC reached a draft agreement with the local governments to obtain their consent before restarting the Tokai No. 2 plant reactor in Ibaraki Prefecture, according to documents from Naka in the prefecture. The documents, obtained by The Asahi Shimbun through an information disclosure request, detail the six years of negotiations between JAPC and the six local governments and a new safety agreement reached in March 2018. The six are Tokai village, which hosts the plant, and the five surrounding cities of Hitachi, Hitachinaka, Naka, Hitachiota and Mito.

However, when asked by The Asahi Shimbun if the agreement contained a clause that JAPC would obtain prior consent from the six municipal governments on the restart, the company replied "No." The six municipalities said the right to prior consent had been agreed upon. JAPC has apparently changed its stance. The new safety agreement, concluded on March 29, 2018, stipulates that when JAPC seeks to restart the Tokai No. 2 nuclear plant or extend its operation, it will effectively obtain prior approval from Tokai village and five surrounding municipalities.

<http://www.asahi.com/ajw/articles/AJ201901080045.html>

### **Radiation doses underestimated in study of city in Fukushima** *The Asahi Shimbun, January 09, 2019*

A nuclear physicist who has drawn attention for tweeting about fallout from the Fukushima nuclear disaster has admitted that he and a colleague underestimated radiation doses in an article for an international scientific journal. Ryugo Hayano, professor emeritus at the University of Tokyo, said the error, which he recognized on Jan. 8, was "unintentional." The article, carried in the Journal of Radiological Protection's online edition in July 2017, listed average radiation doses that were one-third of the actual levels for people in Date, a city around 60 kilometers northwest of the crippled Fukushima No. 1

nuclear plant, he said. Hayano's admission came after an atomic nucleus expert submitted a letter to the editor of the journal last year to point out unnatural data carried in the report. The radiation doses in the article were based on dosimeters worn by Date residents after the nuclear accident unfolded in March 2011. "Even if residents lived in the most contaminated area of Date for 70 years, the median of the doses would not exceed 18 millisieverts," the article concluded.

<http://www.asahi.com/ajw/articles/AJ201901090057.html>

### **Japan's defense chief to hold talks with US counterpart next week** *The Mainichi, January 11, 2019*

TOKYO (Kyodo) — Japan's Defense Minister Takeshi Iwaya will visit the United States next week to discuss with his counterpart, Acting Defense Secretary Patrick Shanahan, the two countries' alliance and Japan's new national defense guidelines, the Defense Ministry said Friday. The meeting comes as Japan is beefing up its defense capability, including in new domains of warfare such as cyber and outer space as well as a plan to pursue the deployment of aircraft carriers, with an eye toward China's rising military capabilities and North Korea's nuclear threat.

Iwaya is also expected to discuss Japan's Midterm Defense Program, which specifies a five-year defense spending and procurement plan from fiscal 2019. After visiting Washington, the Japanese defense chief will travel to the U.S. Indo-Pacific Command Headquarters and a test complex for the land-based Aegis Ashore missile system in Hawaii. Japan plans to install two such missile systems. A meeting between Iwaya and U.S. national security adviser John Bolton is also being coordinated, sources close to the matter said.

<https://mainichi.jp/english/articles/20190111/p2g/00m/0fp/081000c>

## Hitachi jitters place UK nuclear at crossroads *Reuters, JANUARY 11, 2019*

Japanese cold feet are about to land Britain's energy policy in hot water. Hitachi could next week halt its involvement in the Wylfa nuclear power project in Wales, Nikkei reported on Jan. 11. For a UK government that wants reactors to increase their share of domestic power generation from around a quarter to a third by 2035, that's a sizeable headache.

Viewed from a Japanese perspective, Hitachi's jitters are rational. Nuclear provides only 4 percent of the company's revenue, but the projects have big capital costs that consume a lot of free cash flow. Since domestic peer Toshiba announced it was quitting its British nuclear operations in November, equity investors in Tokyo have asked why Hitachi isn't following suit by shelving its commitment to finance a third of the 6 billion pound equity component of the 16 billion pound Units 1 and 2 of Wylfa. Hitachi shares jumped 8.6 percent following the Nikkei report on Friday.

<https://www.reuters.com/article/us-hitachi-nuclear-breakingviews/breakingviews-hitachi-jitters-place-uk-nuclear-at-crossroads-idUSKCN1P51FC>

## Hitachi, UK say no decision taken on British nuclear project *Susanna Twidale, Makiko Yamazaki Reuters, JANUARY 11, 2019*

Japan's Hitachi has yet to decide whether to proceed with its trillion yen (£7.2 billion) nuclear project in Britain and talks with the government are continuing, the company and government said.

Hitachi's Horizon Nuclear Power unit has struggled to find investors for its plans to build a plant in Anglesey, Wales, which could provide about 6 percent of Britain's electricity.

Japan's Nikkei business daily reported that Hitachi had decided to freeze the project, although it also reported that the board had yet to vote to make it a formal decision. A spokeswoman for British Prime Minister

Theresa May said talks with Hitachi were continuing. "The negotiations on that are ongoing and those are obviously commercially sensitive so I can't comment," she told reporters.

<https://uk.reuters.com/article/uk-hitachi-nuclear/hitachi-uk-say-no-decision-taken-on-british-nuclear-project-idUKKCN1P505Y>

## Hitachi mulls 300 bil. yen loss on halt in UK nuclear project *The Mainichi, January 12, 2019*

TOKYO (Kyodo) — Hitachi Ltd. is considering booking a special loss of up to 300 billion yen (\$2.8 billion) in the year ending in March, as it plans to suspend a nuclear project in Britain due to swelling costs, sources close to the matter said Friday. The freezing of the Japanese conglomerate's 3 trillion yen plan to build two reactors on the Isle of Anglesey in Wales would mean that all of the overseas nuclear projects promoted by the Japanese government as part of the country's growth strategy have suffered setbacks. Its British unit Horizon Nuclear Power Ltd. has yet to halt its preparations for starting construction and Hitachi could make a final decision on the matter at a board meeting to be held as early as Thursday, the sources said. The initial plan was to have the British government and financial institutions finance 2 trillion yen, and then have the government and each of the British and Japanese private sectors invest 300 billion yen.

But Hitachi has faced difficulties finding investors to finance the construction as its cost has ballooned to 3 trillion yen from the initially estimated 2 trillion yen. Japanese firms including Tokyo Electric Power Company Holdings Inc. and Chubu Electric Power Co. have showed reluctance in investing in the project. The company, which is expecting to post a group net profit of 400 billion yen in the current fiscal year through March, estimated in July that the loss of withdrawing from the nuclear project would total 270 billion yen. In December, Hitachi Chairman Hiroaki Nakanishi said the company has told the British

government it “can’t go any further” with the current construction plan as it does not make economic sense. Hitachi and the British government aimed to start the reactors’ operation by 2025.

<https://mainichi.jp/english/articles/20190111/p2g/00m/0fp/081000c>

**Hitachi getting cold feet on Wylfa power project will place UK nuclear at crossroads** *Global Times, January 14, 2019*

Japanese cold feet are about to land Britain’s energy policy in hot water. Hitachi could next week halt its involvement in the Wylfa nuclear power project in Wales, Nikkei reported on January 11. UK government wants nuclear reactors to increase their share of domestic power generation from around a quarter to a third by 2035, that’s a sizeable headache.

Viewed from a Japanese perspective, Hitachi’s jitters are rational. Nuclear provides only 4 percent of the company’s revenue, but the projects have big capital costs that consume a lot of free cash flow. Since domestic peer Toshiba announced it was quitting its British nuclear operations in November, equity investors in Tokyo have asked why Hitachi isn’t following suit by shelving its commitment to finance a third of the 6 billion pound (\$7.71 billion) equity component of the 16 billion pound Units 1 and 2 of Wylfa. Hitachi shares jumped 8.6 percent following the Nikkei report on Friday.

Nuclear’s warm glow has dimmed in the United Kingdom since the government in 2016 agreed to pay 92.5 pounds per megawatt hour to Electricite de France and its Chinese partner to build the Hinkley Point C project. Solar power is now feasible without state subsidies and the cost of offshore wind contracts has dropped to 57.5 pounds per megawatt hour. This makes renewable energy an ostensibly more attractive source of zero-carbon power than expensive and complex nuclear projects.

Still, if Hitachi pulls out, it’s unclear who will step in. British plans to inject 2 billion

pounds of public money into Wylfa’s equity had already raised eyebrows. Asking taxpayers to take over Hitachi’s share and another 2 billion pounds from the Japanese government would be highly controversial. The alternative, however, is to put the whole project on hold - and risk doing the same to UK nuclear power.

<http://www.globaltimes.cn/content/1135663.shtml>

**K. North Korea**

**S. Korean lawmaker: Spy agency says N. Korean diplomat in hiding**

*The Asahi Shimbun, January 03, 2019*

SEOUL – North Korea’s acting ambassador to Italy, Jo Song Gil, went into hiding with his wife in November, South Korea’s spy agency told lawmakers in Seoul on Thursday. A high-profile defection by one of North Korea’s elite would be a huge embarrassment for leader Kim Jong Un as he pursues diplomacy with Seoul and Washington and seeks to portray himself as a player in international geopolitics. South Korean lawmaker Kim Min-ki said an official from Seoul’s National Intelligence Service shared the information during a closed-door briefing. Kim did not say whether the spy agency revealed any information about Jo’s current whereabouts or whether the diplomat had plans to defect to South Korea. Kim said the NIS said it has not been contacted by Jo.

The NIS earlier said it couldn’t confirm a South Korean media report that Jo was under the protection of the Italian government as he seeks asylum in a Western nation. Kim said the NIS official said Jo and his wife left the official residence in early November, weeks before his term was to end in late November. Jo had been North Korea’s acting ambassador to Rome after Italy expelled then-Ambassador Mun Jong Nam in September 2017 to protest a North Korean nuclear test.

<http://www.asahi.com/ajw/articles/AJ201901030031.html>

## **N.Korean leader's comment on nuclear weapons draws mixed responses**

*Park Han-na China Post, January 04, 2019*

SEOUL (The Korea Herald/ANN) – “We declared at home and abroad that we would neither make and test nuclear weapons any longer nor use and proliferate them, and we have taken various practical measures,” Kim Jong-un said in a televised address, to experts’ mixed reaction. North Korean leader Kim Jong-un’s comment about nuclear weapons in his New Year’s speech has evoked mixed responses from experts here.

“We declared at home and abroad that we would neither make and test nuclear weapons any longer nor use and proliferate them, and we have taken various practical measures,” Kim said in a televised address on Tuesday. Thae Yong-ho, a former North Korean diplomat, said Kim’s speech shows there is no change in Kim’s stance on clinging to nuclear weapons.

“His 2019 policies toward the U.S. and South Korea are likely aiming for a stronger strategic position as a nuclear state and seeking the lifting of sanctions by narrowing down the nuclear talks with the U.S. to nuclear arms reduction,” Thae said. He warned that South Korea and the U.S. will not be able to make significant progress in building their relationships with North Korea this year if Washington pursues North Korea’s dismantling of its nuclear weapons program. Two other phrases from the address that caught experts’ attention were “build a lasting and durable peace regime” and “advance toward complete denuclearization,” both of which Kim expressed his willingness to do.

The North’s key purpose for the speech is to secure a favorable deal at the meeting with Trump as it did from the first summit in Singapore in June, when Pyongyang gained significant benefits, such as the suspension of US-South Korea joint military exercises, he said. Having agreed to work toward the complete denuclearization of the Korean Peninsula, the North has not conducted any

missile tests since Kim and Trump’s meeting. Yet a moratorium on nuclear tests and long-range missile launches was not part of the summit agreement. “Kim’s pledge that the nation will not make nuclear weapons is a message for the U.S., giving the U.S. a small gift by adding ‘the making’ part on what Trump wanted – no nuclear and missile tests,” said Shin Bum-cheol, a senior fellow at the Seoul-based Asan Institute for Policy Studies.

<https://chinapost.nownews.com/?s=nuclear>

## **Realistic plan needed in 2019 to denuclearize North Korea**

*The Asahi Shimbun, January 08, 2019*

The international community needs to work out a concrete action plan in 2019 to bring the situation in the Korean Peninsula beyond the current easing of tensions toward long-term peace and stability.

There can be no substantial progress unless a realistic road map is put in place to a solution to the problem of Pyongyang’s nuclear and missile arsenals. The key question for this year is whether countries concerned can enhance their cooperation to craft such a blueprint. Kim appears to be as eager as ever to put the nation’s dilapidated economy on a sharply upward trajectory. He is making desperate efforts to get the international sanctions against his country eased by using the regime’s nuclear program as the principal bargaining chip. The international community needs to make North Korea unmistakably understand that it will never see full-fledged reconstruction of its economy unless it completely abandons its nuclear weapons program.

The South Korean administration of President Moon Jae-in, who has been pursuing a reconciliatory policy toward Pyongyang, probably wants to respond to Kim’s call and bring these programs back on track. Moon has been trying to convince the countries concerned that it is necessary to provide an incentive for North Korea to remain committed to dialogue with the

international community. But Seoul should strictly restrain itself from making any rash move to ease international sanctions against North Korea. Given that the two business projects have been precious sources of foreign currency for the North, the decisions to restart them must not be made casually.

What must not be forgotten is the reality that Japan and South Korea have no choice but to work together in dealing with North Korea. Both governments should maintain the view that a solid framework for cooperation among Japan, the United States and South Korea is a linchpin of stability in Northeast Asia.

<http://www.asahi.com/ajw/articles/AJ201901080026.html>

### **NK leader visits industrial facilities in China** *Yonhap Korea Herald, January 09, 2019*

North Korean leader Kim Jong-un visited industrial facilities in Beijing on Wednesday, a day after he met with Chinese President Xi Jinping in a show of close ties ahead of a possible second summit with US President Donald Trump. Kim visited a pharmaceutical factory located in the economic-technological development zone in the Chinese capital.

Sources said that he spent around 20-30 minutes touring the plant operated by Tong Ren Tang, a drug-making conglomerate known for its long history of more than 300 years. After the tour, Kim returned to the state guest house. Kim left the guesthouse again around noon and arrived at the Beijing Hotel, where he is expected to have lunch together with Xi before heading back home later in the day. Kim embarked on a four-day trip to China on Monday afternoon.

Kim's trip to China, the fourth of its kind since taking office in late 2011, comes amid speculation that a second summit between the North's leader and US President Donald Trump is imminent. In his New Year's Day speech, Kim warned that he could go a new way if the United States clings to pressure

and sanctions on its regime. He still kept the door open for talks with the U.S., saying he is willing to meet Trump at any time. Last year, Kim traveled to China and met with Xi three times before and after he held his first-ever summit with Trump in Singapore in June. In the summit, Kim agreed to work toward the complete denuclearization of the Korean Peninsula in exchange for security guarantees.

Progress, however, has been slow for months as the North calls for sanctions relief, while Washington says such concessions will not be granted until the North completely gives up its nuclear weapons. Experts see Kim's trip to China might be intended to discuss strategies with its closest ally ahead of a possible summit with Trump. They added that it also appears aimed at strengthening the North's negotiating leverage by demonstrating its strong ties with Beijing.

[http://www.koreaherald.com/view.php?ud=20190109000543&ACE\\_SEARCH=1](http://www.koreaherald.com/view.php?ud=20190109000543&ACE_SEARCH=1)

### **Korean denuclearization requires 'corresponding measures': analysts**

*Lu Wena, Global Times, January 10, 2019*

The denuclearization of the Korean Peninsula should be in synchronization with a reduction in US military presence in South Korea, analysts said while calling for corresponding measures to facilitate the progress. North Korea has started dismantling its nuclear facilities since North Korean leader Kim Jong-un and US President Donald Trump penned an agreement on denuclearization in June last year.

The vaguely worded agreement has led to a stalemate in denuclearization talks lately, as the US insists that Pyongyang needs to do more before it eases sanctions. Kim urged that "joint military exercises with foreign forces, which constitute the source of aggravating the situation on the Korean Peninsula, should no longer be permitted," North Korean state-run news agency KCNA reported last week. He also said "the introduction of war equipment

including strategic assets from outside should completely be suspended.”

But South Korean President Moon Jae-in said in his New Year speech on Thursday that “denuclearization and the issue of ending the [1950-53 Korean] War has nothing to do with the status of US troops in South Korea.” The two Koreas remain technically at war despite the signing of 1953 Korean Armistice Agreement. “The next Kim-Trump summit should narrow down the stipulations over the ‘denuclearization,’” Li told the Global Times on Thursday, saying only synchronized actions will speed up progress on the denuclearization.

After the North Korean leader’s recent trip to Beijing this week, Moon said he believes a second Trump-Kim summit is “imminent,” adding that China’s role in coordinating the talks has helped the peace process. “China has continued to play a positive role in the process of inter-Korean dialogue, as well as US-North Korea talks,” he said. Moon also said Thursday that Seoul will resume its economic cooperation with Pyongyang soon as the international sanctions are removed.

Resuming two key economic projects between North and South Korea - the Kaesong Industrial Complex, where Southern companies used to employ North Korean workers, and Southern tourism to Mount Kumgang in the North - are the most recent achievable goals for the Koreas, Lü said. He added that the reconnection of the railway lines across the border, if it progresses as planned, will hugely stimulate economic growth on both sides.

<http://www.globaltimes.cn/content/1135373.shtml>

### **Supreme Leader Kim Jong Un Visits China** *Ministry of Foreign Affairs, Democratic People’s Republic of Korea, January 10, 2019*

Exchanging greetings with each other again in a comradely, sincere and friendly atmosphere, the top leaders of the two parties and two countries had an in-depth and candid exchange of views over the issue of further boosting the friendship and unity,

exchange and cooperation between the two parties and the two countries as required by the times and over the international and regional issues of mutual concern, particularly the issue of joint study and coordination of the management of the situation of the Korean peninsula and the denuclearization negotiations, and expressed mutual understanding, support and solidarity to the independent stands preserved by the parties and governments of the two countries in the external relations

They unanimously agreed on continuously preserving the stand for final and peaceful settlement of the nuclear issue on the Korean peninsula to meet the interests of the international community and all sides around the peninsula by properly managing the situation on the peninsula that has entered an important and vital time.

Kim Jong Un said that the DPRK remains unchanged in its main stand to keep the goal of the denuclearization of the Korean peninsula, sincerely implement the joint statement adopted at the Singapore DPRK-U.S. summit talks and seek negotiated peaceful solution, referring to the difficulties and concern arising in the course of the improvement of the DPRK-U.S. relations and the negotiations for the denuclearization and the prospects of resolving them.

<http://www.mfa.gov.kp/en/visits-china-2/>

### **US, NK engage in fine-tuning ahead of summit** *Park Han-na Korea Herald, January 14, 2019*

The US is fine-tuning the details of a second summit between US President Donald Trump and North Korean leader Kim Jong-un amid media reports naming Vietnam as a possible site for talks. Asked when the two leaders will hold their summit, US Secretary of State Mike Pompeo said on TV that the administration is “working out the details,” without further elaboration. His remark is being taken as a positive sign for an imminent summit, as Trump said

negotiations were underway on the location, and Kim said he would meet his US counterpart again “at any time,” earlier this month.

Vietnam, which has diplomatic relations with both Pyongyang and Washington, is reported to have emerged as a strong candidate for the venue of the Kim-Trump meeting. The Southeast Asian country’s relative proximity to North Korea and its symbolic significance as a communist country that has undergone economic reforms and social changes bolster its chances of hosting the meeting. Prior to the summit, senior North Korean official Kim Yong-chol is expected to meet with Pompeo for high-level talks as early as this week. Their meeting was initially planned for November last year, but was abruptly canceled at the request of North Korea.

A possible scenario Pyongyang could bring to the table is a nuclear freeze alongside demolition of a new nuclear complex and intercontinental ballistic missile, while the US could offer to open a liaison office and halt US-South Korean military drills as corresponding measures, he said. During their historic summit in Singapore in June, Kim and Trump called for the complete denuclearization of the Korean Peninsula, but provided neither a timeline nor details as to how North Korea would go about giving up its weapons.

The discussion between the two over the North’s nuclear arsenal has stalled since the Singapore summit, with the US insisting that sanctions should remain in place until it gives up its weapons and the North demanding the immediate lifting of sanctions. North Korea conducted a string of ballistic missile launches and a nuclear test in 2017, but 2018 saw no such activities.

[http://www.koreaherald.com/view.php?ud=20190114000683&ACE\\_SEARCH=1](http://www.koreaherald.com/view.php?ud=20190114000683&ACE_SEARCH=1)

**South Korea defense report doesn’t refer to North as enemy** *Taiwan News, January 15, 2019*

SEOUL, South Korea (AP) — South Korea has stopped calling North Korea an

“enemy” in its biennial defense document in an apparent effort to continue reconciliation with Pyongyang. The development comes as U.S. and North Korean leaders are looking to set up their second summit to defuse an international standoff over the North’s nuclear program.

South Korea’s defense white paper published Tuesday doesn’t include its typical term labelling North Korea its “enemy, “present enemy” or “main enemy.” The terminologies have been a source of animosity between the Koreas because the North called it a provocation that demonstrated how hostile the South was. South Korea first called North Korea a “main enemy” in its 1995 document, a year after North Korea threatened to turn Seoul into “sea of fire.”

<https://www.taiwannews.com.tw/en/news/3617386>

**Local experts doubt report on NK bolstering nuclear arsenal** *Park*

*Han-na Korea Herald, January 15, 2019*

North Korea cannot afford to be slapped with additional international sanctions over the development of nuclear weapons, experts here said Tuesday, following a media report that the country might have produced material for more atomic bombs in 2018. Citing satellite-imagery analysis and leaked US intelligence, Bloomberg on Monday reported that Pyongyang has been strengthening its nuclear arsenal by churning out rockets and warheads as well as adding several intercontinental ballistic missiles and pursuing nuclear proliferation in the year since North Korean leader Kim Jong-un halted weapons tests.

“Assertions that North Korea is bolstering its nuclear program, especially concerns that it will conduct another intercontinental ballistic missile test, are not taking into consideration the current economic situation of North Korea,” said Cheong Seong-chang, vice president of research planning at the Sejong Institute.

Kim’s promise indicates that North Korea will not make nuclear weapons “any

longer” if conditions are met in talks with the Trump administration and that the country will keep the arsenal it has developed so far, said Cheon Seoung-whun, a research fellow at the Asan Institute for Policy studies. “Many people believe that North Korea gave up on its nuclear program over economic development. But Pyongyang’s strategic line has been changed to the economy as it completes its nuclear weapon development,” Cheon said. Doubts remain over the North Korean leader’s commitment to dismantling the country’s missile program because of his 2017 remarks that the country was ready to begin mass production of a new medium-range ballistic missile capable of reaching Japan and major US military bases.

“North Korea wants to give the impression that it is capable of mass production. I don’t think it is in the stage of full-scale production. That would ruin negotiations. What the US gives North Korea will decide whether it will be mass production, a nuclear freeze or reduction,” Cha said.

[http://www.koreaherald.com/view.php?ud=20190115000602&ACE\\_SEARCH=1](http://www.koreaherald.com/view.php?ud=20190115000602&ACE_SEARCH=1)

### **North Korea’s Less-Known Military Threat: Biological Weapons** *Emily Baumgaertner and William J. Broad* *New York Times, January 15, 2019*

WASHINGTON — Pound for pound, the deadliest arms of all time are not nuclear but biological. A single gallon of anthrax, if suitably distributed, could end human life on Earth. Even so, the Trump administration has given scant attention to North Korea’s pursuit of living weapons — a threat that analysts describe as more immediate than its nuclear arms, which Pyongyang and Washington have been discussing for more than six months.

According to an analysis issued by the Middlebury Institute of International Studies at Monterey last month, North Korea is collaborating with foreign researchers to learn biotechnology skills and build machinery. As a result, the country’s capabilities are increasing rapidly.

“North Korea is far more likely to use biological weapons than nuclear ones,” said Andrew C. Weber, a Pentagon official in charge of nuclear, chemical and biological defense programs under President Obama. “The program is advanced, underestimated and highly lethal.”

<https://www.nytimes.com/2019/01/15/science/north-korea-biological-weapons.html?ref=collection%2Ftime%2FNorth%20Korea>

### **South Korea defense report doesn’t refer to North as enemy** *The Asahi Shimbun, January 15, 2019*

SEOUL — South Korea stopped calling North Korea an “enemy” in its biennial defense document published Tuesday, an apparent effort to continue reconciliation with Pyongyang. The development comes as U.S. and North Korean leaders are looking to set up their second summit to defuse an international standoff over the North’s nuclear program. South Korea’s defense ministry white paper published and posted on its website doesn’t include typical terms labeling North Korea its “enemy,” “present enemy” or “main enemy.”

The terminologies have been a long-running source of animosity between the Koreas because the North called it a provocation that demonstrated how hostile the South was. South Korea first called North Korea a “main enemy” in its 1995 document, a year after North Korea threatened to turn Seoul into “sea of fire.” During a previous era of detente in the 2000s South Korea had avoided using the reference, but it revived the “enemy” terminology in its defense document after attacks blamed on North Korea killed 50 South Koreans in 2010. In the latest defense document, South Korea’s military said it considers unspecified “forces which threaten (South Korea)’s sovereignty, territory, citizens and property our enemy.”

<http://www.asahi.com/ajw/articles/AJ201901150028.html>



Korean Peninsula, expressed support for the ROK government's efforts to that end.

[http://www.mofa.go.kr/eng/brd/m\\_5676/ãub?sq=2023&sdF=&psdilo=&psdVact=&psdiltf=&apnult\\_in\\_sq=0&apn\\_in\\_sq\\_1=0&apn\\_in\\_sq\\_2=0&company\\_at=&company\\_nm=&page=5&titleNm=Vice](http://www.mofa.go.kr/eng/brd/m_5676/ãub?sq=2023&sdF=&psdilo=&psdVact=&psdiltf=&apnult_in_sq=0&apn_in_sq_1=0&apn_in_sq_2=0&company_at=&company_nm=&page=5&titleNm=Vice)

### Trade minister to leave for UAE to support bids for Barakah plant *Shin*

*Ji-hye Korea Herald, January 09, 2019*

South Korean Trade Minister Sung Yun-mo is slated to leave for the United Arab Emirates on Saturday to discuss further partnerships with his counterparts in the energy sector as a follow-up to the summit in March of last year. The minister is also slated to express the government's strong willingness to support the maintenance of the Barakah nuclear power plant should a Korean bidder win, ministry officials said Wednesday. During his stay, the minister, accompanied by CEOs of the Korea Hydro & Nuclear Power and Kepco Plant Service & Engineering, plans to meet with the management of the state-owned Emirates Nuclear Energy Corporation, the owner of the Barakah nuclear power plant.

Although the government said, "It is impossible to unconditionally push (Korean bidders) to gain contracts for the maintenance," it is still critical for the government to export the nation's nuclear power technologies amid growing criticism from opponents of the government's anti-nuclear policies.

Korea aims to completely phase out the nation's nuclear power plants by 2082 as part of the nation's nuclear-free plan to raise the proportion of renewable energy and lower that of nuclear energy.

[http://www.koreaherald.com/view.php?ud=20190109000604&ACE\\_SEARCH=1](http://www.koreaherald.com/view.php?ud=20190109000604&ACE_SEARCH=1)

### Philippines: Radiation-Processed Seaweed Increases Typhoon Resistance of Rice *International Atomic Energy Agency, January 11, 2019*

Researchers in the Philippines have found that an extract of seaweed, when processed

with radiation, can make plants more resistant to typhoons and boost rice production by 20-30%. The extract, called carrageenan, comes from algae that is abundant in the sea. While carrageenan is already used widely as a gelling agent and thickener in the preparation of processed foods, this is the first time researchers – with the support of the IAEA – have applied it on a large scale as a plant growth promoter.

"It worked from the very first day I used it," said Isagani Concepción, a supervising engineer and part-time farmer at San Manuel in the central province of Tarlac. Concepción's four-hectare rice field was used for testing. After he applied the modified carrageenan, he noticed a 30% increase in production. "I used to get 291 cavans, now I get 378. Even spraying only a small dose is as effective as using organic fertilizer." One cavan is a sack of approximately 50 kg.

<https://www.iaea.org/newscenter/news/philippines-radiation-processed-seaweed-increases-typhoon-resistance-of-rice>

### Nuclear safety agency orders recall of radon-emitting mattress pads *Yonhap, Korea Herald, January 11, 2019*

South Korea's nuclear safety agency said Friday that it has ordered a local company to recall heated mattress pads that have been found to emit higher-than-permissible levels of the radioactive substance radon. The recall affects 38,000 heated mattress pads and 12,000 heated mattress pad covers manufactured by Daehyun Hitech Co., according to the Nuclear Safety and Security Commission.

The agency said the company has so far exchanged about 10,000 heated mattresses since October 2018.

Radon is a colorless and odorless gas that can be found in nature as an indirect decay product of uranium or thorium. Being exposed to radon for long periods of time can lead to lung cancer, according to the American Cancer Society. Last year, the

agency recalled mattresses produced by Daijin Bed Co. and daily necessities, such as pillows, from other manufacturers for emitting radon, sparking nationwide public safety concerns.

[http://www.koreaherald.com/view.php?ud=20190111000458&ACE\\_SEARCH=1](http://www.koreaherald.com/view.php?ud=20190111000458&ACE_SEARCH=1)

### **Taiwan and Northeast Asia representatives believe Trump's unpredictability their biggest hidden UN expert: N.Korea nuclear talks should include human rights**

*Taiwan News, January 11, 2019*

SEOUL, South Korea (AP) — A U.N. rights investigator says negotiations on North Korea's denuclearization must also include its abysmal human rights situation. Tomas Ojea Quintana told reporters in Seoul on Friday that he wants North Korea to accept his call for a dialogue on its human rights conditions. He says the human rights issue was sidelined in diplomatic efforts last year to strip North Korea of its nuclear weapons.

Quintana, the U.N. special rapporteur on the situation of human rights in North Korea, says he hopes 2019 will "usher in a new era for human rights" for the North Korean people. He says it's regrettable that North Korea has not allowed him to visit despite his requests over the past three years for cooperation.

<https://www.taiwannews.com.tw/en/news/3615132>

### **ROK and Japanese Top Negotiators on North Korean Nuclear Issue Hold Telephone Conversation**

*Ministry of Foreign Affairs, Republic of Korea, January 11, 2019*

Amb. Do-hoon LEE, Special Representative for Korean Peninsula Peace and Security Affairs, held a telephone conversation with Director-General of the Asian and Oceanian Affairs Bureau Kenji Kanasugi of the Japanese Ministry of Foreign Affairs on the afternoon of January 11.

In the telephone conversation, the two sides shared their assessments of the recent

developments surrounding the Korean Peninsula, and exchanged views on how the Republic of Korea and Japan can work together to completely denuclearize the Korean Peninsula and to establish a lasting peace regime on the Peninsula.

[http://www.mofa.go.kr/eng/brd/m\\_5676/cont.do?menuCd=1&prdtCd=1&prdtNm=1&prdtSeq=1&prdtSeq2=0&company\\_at=&company\\_nm=&page=4&titleNm=](http://www.mofa.go.kr/eng/brd/m_5676/cont.do?menuCd=1&prdtCd=1&prdtNm=1&prdtSeq=1&prdtSeq2=0&company_at=&company_nm=&page=4&titleNm=)

### **Outcome of Foreign Minister's Visit to Brunei**

*Ministry of Foreign Affairs, Republic of Korea, January 12, 2019*

The two Ministers discussed in depth the situation on the Korean Peninsula, agreeing to communicate and coordinate closely with each other toward a complete denuclearization and a lasting peace on the Korean Peninsula.

[http://www.mofa.go.kr/eng/brd/m\\_5676/cont.do?menuCd=1&prdtCd=1&prdtNm=1&prdtSeq=0&prdtSeq1=0&prdtSeq2=0&company\\_at=&company\\_nm=&page=4&titleNm=](http://www.mofa.go.kr/eng/brd/m_5676/cont.do?menuCd=1&prdtCd=1&prdtNm=1&prdtSeq=0&prdtSeq1=0&prdtSeq2=0&company_at=&company_nm=&page=4&titleNm=)

### **AI should be 'focal point' for Taiwan military to oppose China threat, says Defense Inst. Dir.**

*Duncan DeAeth Taiwan News, January 12, 2019*

TAIPEI (Taiwan News) — The acting Director of the Institute for National Defense and Security Research (INDSR), Yisuo Tzeng, recently published a paper promoting increased focus on AI applications by Taiwan's Ministry of National Defense (MND). Noting that Taiwan already has some advantages in the realm of smart technology development, Tzeng argues that given Taiwan's current situation, expanding the use of AI, particularly for the use of unmanned aerial vehicles (UAVs), should be a priority for Taiwan's military and burgeoning domestic defense industry.

"In the face of growing military threats from China, a nuclear-free Taiwan with a decreasing youth population has no options but to embrace asymmetric warfare." In the article, published by the Jewish Policy Center, Tzeng clarifies that what people currently

refer to as “artificial intelligence” is still a long way from genuinely “autonomous intelligence,” especially in defense industry applications.” *AI is not almighty, but rather assisted intelligence most of the time, with the rise of augmented intelligence as the upshot... AI application on autonomous weapons or unmanned vehicles turns out to be neither autonomous nor really unmanned.*”

Given the MND’s recognizable need to develop practical and durable defense solutions to asymmetrically confront China’s superior troop numbers and ballistic attack capabilities, UAVs and UGVs (unmanned ground vehicles) capable of some autonomous maneuvering, but ultimately directed by a human, could serve to even the odds. UAVs and UGVs and related defense systems “ought to be focal points for Taiwan’s asymmetric warfare-oriented weaponry procurement.” A few examples from Tzeng on how Taiwan might utilize AI-assisted systems developed for combat scenarios include the following.

“A data-linked UAV with an endurance of up to 20 hours of air patrol could lift much of the load for Taiwan’s airborne early warning aircraft fleet. The deployment of unmanned surface vehicles (USVs) and unmanned underwater vehicles (UUVs), for the purpose of harbor siege and sea mining. UAVs could be of use in reconnaissance and air-to-surface assaults. In addition, mini-UAVs could even initiate swarm attacks.”

<https://www.taiwannews.com.tw/en/news/3615744>

### *M. Global/Misc*

**National Strategies for Nuclear Safety Regulatory Competence Needed, Regulators Conclude at IAEA-Supported Meeting** *Laura Gil International Atomic Energy Agency, January 3, 2019*

Establishing a national strategy is a must to ensure a sustainable supply of competent, well-trained regulatory staff who can effectively oversee nuclear safety. That was one of the key conclusions of the IAEA-

supported Steering Committee on Regulatory Capacity Building and Knowledge Management, held 17-21 December 2018 in Vienna.

Regulators from 27 countries assessed the status of education and training for regulatory bodies, exchanged experiences and offered feedback during the meeting, which was the committee’s 10th since its establishment in 2009. A few countries have strategies and many others have begun working on them, but more work is needed, meeting participants noted. Without a strategy in place, there is a risk that regulatory bodies won’t find competent candidates to fill future needs. Meeting participants emphasized the need for regulators to support each other across borders, and encouraged the IAEA to continue offering general guidance and tailored assistance.

<https://www.iaea.org/newscenter/news/national-strategies-for-nuclear-safety-regulatory-competence-needed-regulators-conclude-at-iaea-supported-meeting>

### **Pilot Course Based on New Guidance Helps to Increase Security of Radioactive Material in Eastern Europe and Central Asia**

*Miklos Gaspar, International Atomic Energy Agency, January 04, 2019*

A new draft guidance document that aims to increase the security of radioactive material including, for the first time, specific provisions for the use and storage of radioactive waste and mobile sources formed the basis of a new training programme that debuted last month. Feedback and lessons from the pilot course will be used for the finalization of the standard training material based on IAEA Nuclear Security Series Implementing Guide No. 11, which advises national authorities on the security of radioactive material other than nuclear material such as uranium, plutonium and irradiated fuel. The content of the guide itself has been approved and is expected to be published in the first quarter of 2019.

Specific treatment of mobile sources in the guidance is a major step forward, said Marina Labyntseva, Deputy Director for International Affairs at Rosatom's Global Nuclear Safety and Security Institute, and one of the trainers at the course held from 17 to 21 December for regulatory professionals from seven countries in Eastern Europe and Central Asia. "Mobile sources such as industrial radiographers, used to check the integrity of oil pipes, are on the move all the time. This makes them an easier target for theft than stationary sources, such as those used in a radiotherapy machine," she said.

<https://www.iaea.org/newscenter/news/pilot-course-based-on-new-guidance-helps-to-increase-security-of-radioactive-material-in-eastern-europe-and-central-asia>

### **Nuclear Regulators Exchange Experiences on the Review of Safety Cases for Radioactive Waste**

**Disposal** *International Atomic Energy Agency, January 09, 2019*

Radioactive sources have many beneficial uses (e.g. in industry, agriculture and medicine), and they are widely used around the world. When such radioactive sources reach the end of their lifespans, however, and no longer emit sufficient radiation for their intended purposes, how should regulators consider proposals for their disposal? This question was the main focus of an IAEA meeting, hosted by the Greek Atomic Energy Commission, held in Athens, Greece from 16 to 19 October under the framework of an ongoing, interregional technical cooperation (TC) project.

The purpose of the meeting was to enhance participants' understanding of the safety case for radioactive waste disposal, focusing on disposal of disused sealed radioactive sources (DSRS), and to provide training on regulatory review of such safety cases. The event addressed concepts for DSRS disposal, post-closure safety assessment, the safety case for disposal facilities, the role of the regulatory body and post-closure safety assessments. The meeting also provided the opportunity to conduct practical training

exercises on regulatory review, using materials available from real examples of such safety cases and safety assessments.

<https://www.iaea.org/newscenter/news/nuclear-regulators-exchange-experiences-on-the-review-of-safety-cases-for-radioactive-waste-disposal>

### **N. Op-eds/Reports/Analyses**

#### **Japan tiptoeing to change pacifist Constitution** *Song Zhongping Global Times, January 07, 2019*

Peaceful development has been the key factor behind Japan's economic prosperity since World War II, but this momentum could be changing as the government of Prime Minister Shinzo Abe intends to strengthen the country's military power by amending its pacifist Constitution. The pacifist Constitution forbids Japan from possessing land, sea, and air forces as well as other war potential, and the military must only engage in "self defense". But now Japan, which inflicted misery on Asia-Pacific countries, now, under Abe's government, wants to be seen as "a country with normal status."

Meanwhile, Japan has highlighted the "China threat theory" to support the US military to counterbalance China's non-existent military expansion in the West Pacific. The New National Defense Program Guidelines have completely broken the promise of self-defense. They increase the defense budget by a big amount; and authorizes the Japan Self-Defense Force to safeguard Japan's interests both during peace and war. Japan has been developing its strength in the area of ballistic missile defense, which will be part of its offensive weaponry capability. The country is looking to strengthen its "anti-missile capability" as well.

The Japan Maritime Self-Defense Force (JMSDF) has to take the Chinese People's Liberation Army Navy seriously as the Liaoning and Shandong aircraft carrier fleet are rivals of the JMSDF and Beijing is ratcheting up construction of more aircraft carriers. Besides the Type 055 and 052D destroyers, China will acquire more

combat capability, which will hold the JMSDF in awe. Japan is a country that stubbornly refuses to admit its history, white-washes its wartime past without restraint and has a number of territorial disputes with neighboring countries. By disregarding the pacifist Constitution and striving to develop offensive military forces, Japan has made Asia-Pacific countries worry that the ghost of militarism still haunts. Even worse, the US, the so-called guardian of the pacifist Constitution, has begun to vacillate on the issue and even support Japan's dangerous actions just to make this old-time enemy its accessory. This will allow the US to realize its unilateral global governance strategy and promote its Indo-Pacific strategy, including containing its No.1 competitor, China.

<http://www.globaltimes.cn/content/1134832.shtml>

**What the United States can do to stabilize its nuclear relationship with China** *Tong Zhao, Taylor & Francis online, January 07, 2019*

Changes in US nuclear weapons policies introduced by the Trump administration have created new challenges for the US-China nuclear relationship. This is happening at the same time that the bilateral competition is turning increasingly serious and even hostile. As the most important external influencer of China's nuclear policy, the United States can take a number of steps to prevent this bilateral nuclear relationship from falling into a deeper, more negative cycle of action-and-reaction. Such an effort should include at least five elements: lead by doing (and demonstrate the right values); try to get a more accurate understanding of China; find a common framework for maintaining nuclear stability; start by reducing shared risks; and help China better understand US policy.

US Vice President Mike Pence's speech in early October of 2018 at the conservative Hudson Institute think tank was widely seen as signaling that the Trump Administration wanted to show that it was not afraid to embark upon a new Cold War with China. Laced with language that publications on the scene such as the *New York*

*Times* described as "stinging" and "stern," his speech lashed out against what Pence called "China's aggression." Some observers compared Pence's language to that of Winston Churchill's "Iron Curtain" speech at the beginning of the Cold War, giving the impression that the US-China relationship today is on the verge of turning into a hostile competition.

<https://www.tandfonline.com/doi/full/10.1080/00963402.2019.1555992>

**EDITORIAL: Realistic plan needed in 2019 to denuclearize North Korea** *The Asahi Shimbun, January 08, 2019*

The international community needs to work out a concrete action plan in 2019 to bring the situation in the Korean Peninsula beyond the current easing of tensions toward long-term peace and stability. Last year, the tense situation surrounding North Korea's arms programs changed dramatically due in large part to the historic summit between U.S. President Donald Trump and North Korean leader Kim Jong Un. But the developments that have occurred in the region are still mostly symbolic, signaling only the beginning of dialogue.

There can be no substantial progress unless a realistic road map is put in place to a solution to the problem of Pyongyang's nuclear and missile arsenals. The key question for this year is whether countries concerned can enhance their cooperation to craft such a blueprint. In his New Year's address to the nation, Kim stressed the importance of economic development. He pledged not to make, test, use or proliferate nuclear arms and expressed his strong desire to hold a second meeting with Trump. Kim appears to be as eager as ever to put the nation's dilapidated economy on a sharply upward trajectory. He is making desperate efforts to get the international sanctions against his country eased by using the regime's nuclear program as the principal bargaining chip.

<http://www.asahi.com/ajw/articles/AJ201901080026.html>

## Why is India's no first use policy under so much strain? *Kunal Singh*

*Hindustan Times, January 10, 2019*

In 2014, the election manifesto of the Bharatiya Janata Party (BJP) included a promise to “revise and update” India’s nuclear doctrine. It gave rise to speculations that the Narendra Modi government, upon being elected, would consider revoking India’s pledge of no first use (NFU) of nuclear weapons. In an interview to ANI, Modi quelled those speculations by asserting that NFU won’t be revoked. “No first use is a reflection of our cultural inheritance,” Modi added.

However, in recent times, we have seen a number of statements from sitting and retired senior members of the nuclear security establishment questioning the NFU policy. No less than the then defence minister, Manohar Parrikar, expressed doubts over the utility of NFU in November 2016. Most recently, Lt Gen (retd.), BS Nagal former commander-in-chief of the Strategic Forces Command, has called the NFU policy a “formula for disaster” and argued for dropping it forthwith.

How have structural factors diluted the NFU consensus? In three ways.

First, NFU policy suits a power which wants to deter just nuclear wars. In other words, if a nuclear weapons state is comfortably placed on a conventional (or, more broadly, non-nuclear) front with respect to its adversaries, it does not need to threaten first use of its nuclear bombs. India was, and continues to remain, a stronger conventional power compared to Pakistan. While China was conventionally stronger, India felt somewhat protected due to difficult terrain on the Himalayan border. Now, China’s impressive infrastructure and massive military modernisation have effectively eroded the Himalayan buffer. Now, the conventional disparity between India and China is not just huge but also more palpable. This is putting immense pressure on India’s NFU policy.

Second, India’s conventional advantage has been blunted by Pakistan through a clever

use of sub-conventional assets (read terrorists) and threat of using tactical nuclear weapons against any Indian conventional response to a 26/11 type of an attack. India’s nuclear doctrine, that professes massive retaliation even against use of midget nukes, does not help. Pre-emptive counterforce (CF) strikes, if they can be executed, seem to be a way out of this problem. Nagal has openly advocated this strategy and Shivshankar Menon, the former national security advisor, has indicated openness to the idea.

Third, India today has access to much better technology than it had in 2003 when it released its nuclear doctrine. In their forthcoming paper, “India’s Counterforce Temptations”, two US-based scholars, Christopher Clary and Vipin Narang, list out the technologies that enable a CF posture for India. New Delhi now has more missiles and more accurate ones. It has high quality surveillance platforms. It can access commercially available remote sensing technologies. It is developing MIRVs (multiple independently targetable re-entry vehicles) and investing in missile and air defence systems. While most of these developments may be relevant for China, they also make India more capable than ever before of executing CF strikes against Pakistan. However, it should be noted at this point that India is still a long way away from possessing the capability of executing successful CF strikes. And it may never reach there because Pakistan is rapidly increasing its arsenal size and improving the survivability of its nuclear weapons.

<https://www.hindustantimes.com/analysis/why-is-india-s-no-first-use-policy-under-so-much-strain/story-tbjRj1fXb9UzDZCbymu6l.html>

## Modern Deterrence and Societal Resilience *Toby Harris, The Royal*

*United Service Institute, January 10, 2019*

The US Department of Homeland Security defines security as ‘reducing the risk to critical infrastructure by physical means or cyber defense’ and resilience as being ‘the ability to prepare for and adapt to

changing conditions and withstand and recover rapidly from disruptions'. Thus, if we consider the recent chaos at Gatwick airport, better security would have meant more effective measures to counter drones and prevent them from closing the airport, and improved resilience would have been more effective mitigation of the consequences for passengers whose flights were disrupted.

Like many security measures, resilience is threat-agnostic. And in the Gatwick example the mitigation for those affected would have applied whether the cause was a drone attack, an Icelandic volcano or unexpected bad weather. Thus, resilience is about withstanding and recovering from a deliberate attack, an accident or a naturally occurring event.

This means that resilience is about designing systems so that they are more durable; and it is about having a continuity plan and a back-up system for when things go wrong. For an adversary, if your opponent is well-prepared and can recover easily from any attack you may unleash on it, that is as much a deterrent as a response capability. Why waste your resources attacking your opponent if that attack will have only the most limited impact? In these days of hybrid attacks, societal resilience may be the best defence, and thus a deterrent. That is why RUSI's new Modern Deterrence programme is not only welcome but desperately needed, and I am honoured to be involved with it.

<https://rusi.org/commentary/modern-deterrence-and-societal-resilience>

**Arms control: Out of vogue** Dr Zafar Nawaz Jaspal *Pakistan Observer*, January 10, 2019

The bipartisan nuclear arms control framework constituted during the Cold War is in the process of expiring. On 20 October 2018, President Donald Trump announced his intention to quit from the landmark 1987 Intermediate-range Nuclear Forces (INF) Treaty, citing a Russian violation and the need to counter Chinese missiles. The ending of the INF Treaty will restart the nuclear arms race in Europe and

simultaneously spreading globally. The demise of it also ends the chances of New Strategic Arms Reduction Treaty (START) extension in 2021. The Treaty lapse would, 'for the first time in 50 years, leave US and Russian nuclear arsenals unconstrained by any verifiable limits. The conclusion of bipartisan arms control entraps China and further deepens arms race between India and Pakistan.

The nuclear-armed states, the party to the Nuclear Non-Proliferation Treaty, are not prepared to erase their nuclear arsenals despite their pronounced disarmament obligations under Article VI of the Treaty. Though, the overwhelming majority endorsed the Treaty on the Prohibition of Nuclear Weapons (TPNW) to delegitimise nuclear weapons in July 2017.

The demise of the ABM Treaty encourages other nations including Indian to develop their missile shields. The Missile Shield certainly unleashes a devastating new round of an arms race between/among the strategic competitors. It is because the Missile Shield dents the credibility of the counter-strike capability of the deterring state. Therefore, for the sake of deterrence stability, the deterring states would contemplate about multiple striking options including attaching decoys technology with the ballistic missile, developing multiple independently targetable re-entry vehicles (MIRV) and advance cruise missiles to enhance credibility of counter-strike capability.

<https://pakobserver.net/arms-control-out-of-vogue/>

**INF treaty crisis is a global security problem, New Straits Time** Daryl G. Kimball, *New Straits Times*, January 13, 2019

It is very likely the Trump administration will take the next step towards fulfilling the president's threat to "terminate" one of the most far-reaching and most successful nuclear arms reduction agreements around next month: the 1987 Intermediate-Range Nuclear Forces (INF) Treaty, which led to the verifiable

elimination of 2,692 Soviet and US missiles based in Europe.

Non-compliance with the treaty is unacceptable and merits a strong response. But Trump's public declaration that he will terminate the treaty and pursue new US nuclear capabilities will not bring Russia back into compliance with the INF Treaty. Worst of all, blowing up the INF Treaty with no substitute plan in place could open the door to a dangerous new era of unconstrained military competition with Russia.

<https://www.nst.com.my/opinion/columnists/2019/01/449900/inf-treaty-crisis-global-security-problem>

### **Chinese Shipbuilding and Seapower: Full Steam Ahead, Destination Uncharted** *Andrew S. Erickson* *Centre for International Maritime Security, JANUARY 14, 2019*

In recent years, China has been building ships rapidly across the waterfront. Chinese sources liken this to "dumping dumplings into soup broth." Now, Beijing is really getting its ships together in both quantity and quality. The world's largest commercial shipbuilder, it also constructs increasingly sophisticated models of all types of naval ships and weapons systems. What made this possible, and what does it mean?

#### **History and Drivers**

China's shipbuilding industry enjoyed early and inherent advantages that its aircraft industry, for example, notably lacked. Unlike most other sectors, its infrastructure could not be physically relocated far inland as part of Mao's disastrously inefficient Third Front campaign. When Deng began reforms at the end of the 1970s, he prioritized shipbuilding to support the shipping industry, which helped carry foreign trade, underwriting several decades of rapid growth that has changed China, the United States, and the world significantly.

Ships are the physical embodiment of naval strategy—the most essential element through which a nation pursues its goals at

sea. China has parlayed the world's second-largest economy and second-largest defense budget into the world's largest ongoing comprehensive naval buildup, which has already yielded the world's largest navy by number of ships. It is making big waves, ever-farther from its shores.

With regard to aircraft carrier development, China has come a long way but has still has further to go. The appeal is clear: these apex predators of the sea are also the most modularized naval system, one of the few ships that are relatively easy to upgrade over a considerable lifespan. But given difficulties inherent in improving marine and aviation propulsion, power, and launch technologies, an evolutionary "crawl, walk, run" trajectory seems likely for China's aircraft carrier program.

<http://cimsec.org/chinese-shipbuilding-and-seapower-full-steam-ahead-destination-uncharted/39383>

### **Resistance grows to Moon's nuclear phase-out** *Kim Bo-gyung* *Korea Herald, January 15, 2019*

President Moon Jae-in's nuclear phaseout policy has resurfaced as a bone of contention, triggered by ruling Democratic Party Rep. Song Young-gil's remarks that the construction of Shin Hanwool 3 and 4 should be resumed. As the first ruling party politician to raise a dissenting voice against the administration's push for a nuclear phaseout, Song instantly drew criticism from a fellow party member. But two opposition parties praised Song's remarks and called them "brave."

Questions over whether South Korea is capable of producing sufficient renewable energy coupled with the fact that the likely candidates to head the state-run Korea Atomic Energy Research Institute favor the phaseout are widely expected to further exacerbate the political wrangling, with the main opposition parties stepping up pressure on the government to retain nuclear energy. "The collapse of the supply chain for nuclear reactor equipment is becoming a reality due to the

government's decision to stop construction of new nuclear power plants.

For the export and safe operations of nuclear reactors, equipment should be supplied consistently," Song said last Friday at an event hosted by the country's nuclear energy industry."Though old nuclear reactors and power generators should be suspended, the government needs to consider resuming the construction of Shin Hanwool 3 and 4," he said, though he also expressed agreement with Moon's general road map for phasing out nuclear power. Song also emphasized the economic value of nuclear reactor exports. An export of a reactor is worth about \$5 billion, equivalent to the export of 250,000 midsize cars or 5 million smartphones. On the campaign trail, Moon vowed to bring up renewable energy to 20 percent of total energy sources by 2030 from the current 7 percent. As part of the plan, the government in 2017 dropped plans to construct six nuclear reactors that the Trade Ministry had approved in February that year, including Shin Hanwool 3 and 4. The

Resembling Taiwan's phaseout road map, which that country abandoned in late 2017 due to a massive electricity shortage, the Moon government's plan calls for 10 of the current 23 nuclear reactors to be idled by 2029.

[http://www.koreaherald.com/view.php?ud=20190115000538&ACE\\_SEARCH=1](http://www.koreaherald.com/view.php?ud=20190115000538&ACE_SEARCH=1)

### **Israel's Nuclear Weapons: The Worst-Kept Military Secret on the Planet** *Robert Farley, The National Interest, January 15, 2019*

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

of discussion) and also send a message that any nuclear attack against Israel would be met with catastrophic, unimaginable retaliation.

If a hostile power (let's say Iran, for sake of discussion) appeared to be on the verge of mating nuclear devices with the systems needed to deliver them, Israel might well consider a preventive nuclear attack. In the case of Iran, we can imagine scenarios in which Israeli planners would no longer deem a conventional attack sufficiently lethal to destroy or delay the Iranian program. In such a scenario, and absent direct intervention from the United States, Israel might well decide to undertake a limited nuclear attack against Iranian facilities.

<https://nationalinterest.org/blog/buzz/israel%E2%80%99s-nuclear-weapons-worst-kept-military-secret-planet-41672>

### **The Growing Threat of Iranian Missiles** *The cipher brief, January 15, 2019*

In a series of recent briefings and statements, Trump administration officials have expressed growing alarm about Iran's missile program, which they characterize as the 'largest in the Middle East.' Iran's program poses a multi-tiered threat to U.S. interests and allies – its increasingly sophisticated medium-range ballistic program, exemplified by the Khorramshahr missile, places a growing proportion of Europe squarely within the Islamic Republic's crosshairs. Iran's supply of short-range ballistic missiles to Tehran's regional allies and proxies enables the mullahs to project power throughout the region. The net effect of Iran's missile strategy is significant in that Iran is increasingly able to retaliate against, and thus deter, U.S. partners in Europe that might consider joining any major U.S.-led military action against Iran.

Some bases used by U.S. forces in Europe are now within range, although the accuracy of Iran's missiles to destroy hardened targets remains in doubt.

Following a December 1 Khorramshahr test, Secretary of State Mike Pompeo convened a U.N. Security Council meeting that 'made clear that Iran's ballistic missile activity is out of control...' Moreover, on January 3, 2019, the Secretary warned Iran not to conduct any planned satellite launches because rockets used in such launches could be used to develop an Intercontinental Ballistic Missile (ICBM). The threat posed by Iran, including from its missile arsenal, was the focus of Pompeo's recent trip to the Gulf states, Egypt, Jordan, and Iraq that concluded on Monday.

[https://www.thecipherbrief.com/column\\_article/the-growing-threat-of-iranian-missiles?utm\\_source=Join+the+Community+Subscribers&utm\\_campaign=12a2f1260f-EMAIL\\_CAMPAIGN\\_2019\\_01\\_15\\_02\\_06&utm\\_medium=email&utm\\_term=0\\_02cbee778d-12a2f1260f-122482053&mc\\_cid=12a2f1260f&mc\\_eid=30e3cb58ed](https://www.thecipherbrief.com/column_article/the-growing-threat-of-iranian-missiles?utm_source=Join+the+Community+Subscribers&utm_campaign=12a2f1260f-EMAIL_CAMPAIGN_2019_01_15_02_06&utm_medium=email&utm_term=0_02cbee778d-12a2f1260f-122482053&mc_cid=12a2f1260f&mc_eid=30e3cb58ed)

### **Could Vietnam hold the secret to North Korea's future?** *Paul Millar* *Southeast Asia Globe, January 15, 2019*

With Vietnam rumoured to be the meeting place for the next Trump-Kim summit, figures on both sides of the bargaining table are touting Vietnam's much-vaunted Doi Moi reforms as a model for North Korea's own eventual economic liberalisation. But with a nuclear arsenal, a more prosperous neighbour to the south and decades of distance from the Cold War conditions that set the stage for Vietnam's rebirth, Kim Jong-un may choose to walk a very different path

Strangled by sanctions, bankrupted by military spending and almost entirely economically reliant on a Communist titan intent on pushing its own interests - almost 40 years ago, this was the plight of the reunified Socialist Republic of Vietnam, still struggling to rebuild its shattered economy from decades of war in the face of debilitating economic sanctions. Today, this is the plight of North Korea.

Rumours that the next summit between the Democratic People's Republic of Korea (DPRK) supreme leader Kim Jong-un and US President Donald Trump may be held in Vietnam have reignited speculation that the

North has its eyes firmly fixed on the economic reforms that transformed Vietnam from a pariah state to one of Southeast Asia's most rapidly growing economies -- and a nation that has struck a delicate balance between the wealth of neighbouring China and its former foe, the United States. Nor has the comparison escaped the notice of the leadership - both US Secretary of State Mike Pompeo and, apparently, Kim Jong-un himself have cited the socialist republic's Doi Moi - or renovation - reforms as an inspiration for North Korea's economic future. With a peace-hungry president leading the South and the North engaging in historic talks with the US president over the conditions of its re-entry into the international community, the idea of Doi Moi in the DPRK is a compelling one.

<https://sea-globe.com/could-vietnam-hold-the-secret-to-north-koreas-future/>

### **Age of geo-economics** *M. Ziauddin* *Pakistan Observer, January 15, 2019*

The globalization process has turned the world into an increasingly interdependent entity. No nation state or a country can now claim to be absolutely sovereign, in both socio-economic or/and military sense. As globalization is firstly an economic process, it is understandable that security has shifted from the military to the economics. In today's complex system of international trade, characterized by multi-national agreements, mutual interdependence and availability of natural resources etc., economic security today forms, arguably, as important a part of national security as military policy.

Globalization has produced a redefinition of economic security in light of the risks posed by cross-border networks of non-state actors and by the economic volatility of the new global environment. The relationship between economic globalization and undesirable economic and political outcomes must be specified precisely and assessed carefully, however.

A new index called Comprehensive National Power (CNP) has been developed

by China. It can be calculated numerically by combining various quantitative indices to create a single number held to measure the power of a nation-state. These indices take into account both military factors (known as hard power) and economic and cultural factors (known as soft power).

The index uses critical mass, economic capacity and military capacity. Due to its indicators, it is often repeatable and easy to define, making it comparable to the Human Development Index in understanding and reliability. Since Pakistan nurses a passionate desire to safeguard an irreducible minimum of its sovereignty in this interdependent and globalized world, one would have taken it as a given that by now our policy makers and geo-strategists would have developed our own CNP index at least on stand-alone basis without any reference to the indices of our close neighbors.

<https://pakobserver.net/age-of-geo-economics/>

### **The Role of Verification in the Intermediate-Range Nuclear Forces Treaty Dispute** *Darya Dolzikova The Royal United Service Institute, January 15, 2019*

At the signing of the Intermediate-Range Nuclear Forces (INF) Treaty on 8 December 1987, US President Ronald Reagan decided to give his Russian a try. 'Doveray no proveray', the president noted in his spoken remarks, translating the Russian proverb into English: 'trust but verify'. 'You repeat that at every meeting' pointed out his Soviet counterpart Mikhail Gorbachev. The friendly exchange elicited a round of laughter from the room.

President Reagan's remarks of 'trust but verify' highlighted both the significance of the treaty as an important diplomatic achievement, as well as the unprecedented level of verification that would be required for a treaty eliminating an entire class of weapons from the arsenals of the world's two nuclear superpowers. The INF outlines one of the most extensive verification regimes of any arms treaty to this day. Yet, 30 years later, the lighthearted exchange between the

two Cold War leaders seems more cautionary than endearing.

This significant commitment to verification makes the current situation all the more frustrating. Since 2014, the US has been accusing Russia of violating the terms of the INF, asserting that Moscow has developed and deployed a ground-launched missile whose range capability falls between 500km and 5,500km and is thus prohibited by the treaty. On 4 December 2018, US Secretary of State Mike Pompeo announced a 60-day ultimatum for Russia to come back into compliance with its obligations under the INF treaty before Washington would commence the formal process for withdrawing from the treaty. Russia has in turn denied all accusations of a treaty violation and has presented its own concern over US non-compliance.

This exercise in finger-pointing has highlighted the gaps in the INF's verification mechanisms - namely, the lack of any established process within the treaty for regular or challenge (carried out on short notice and in response to a particular concern) on-site inspections past the first 13 years of the treaty (the time limit on inspections established in Article XI of the treaty). The INF lays out in great length the necessary definitions, protocols and processes for extensive verification of the elimination of short- and intermediate-range ground-launched ballistic and cruise missiles. However, once these verification provisions expired in 2001, monitoring of treaty compliance defaulted to the use by treaty parties of national technical means of inspection - namely, satellite observation. And while the treaty also establishes a Special Verification Committee (SVC) to act as a forum for the parties to resolve compliance disagreements, the SVC does not conduct regular inspections, nor was it granted any clearly defined protocols for whether, when and how a challenge inspection could be called for and carried out.

<https://rusi.org/commentary/role-verification-intermediate-range-nuclear-forces-treaty-dispute>

### 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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