

अप्रैल
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2023

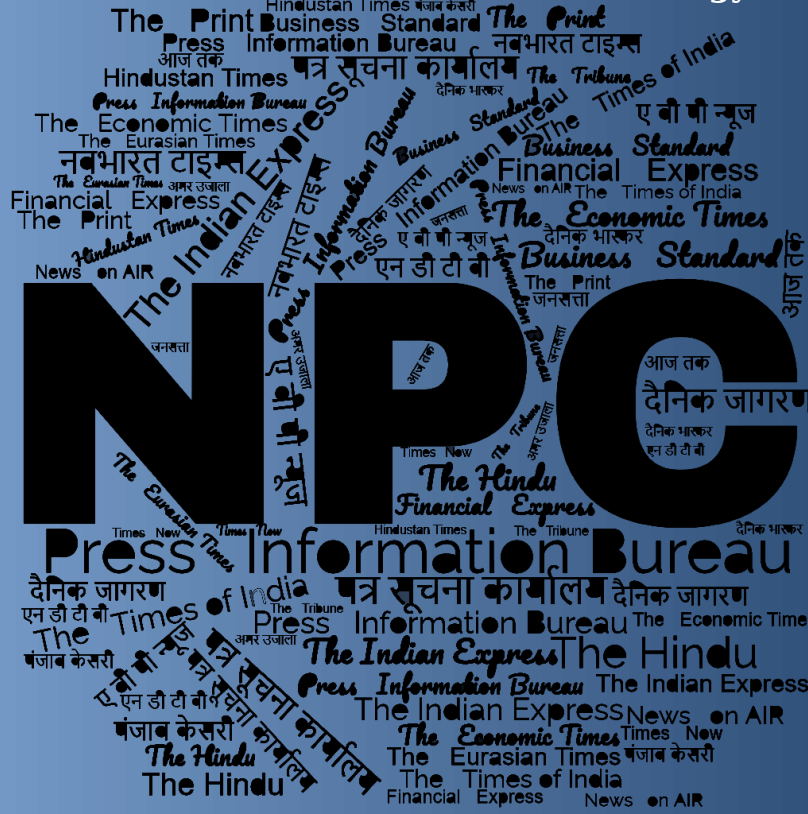
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समाचार पत्रों से चयित अंश Newspapers Clippings

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DRDO News

DRDO Technology News



Thu, 27 Apr 2023

Visakhapatnam: NCCM-2023 at NSTL from April 27

Naval Science and Technological Laboratory (NSTL) under the aegis of Condition Monitoring Society of India (CMSI) is organising a two-day National Conference on Condition Monitoring with a theme 'condition monitoring and Industry 4.0' at NSTL on April 27 and 28. The conference aims to highlight the impact of the latest industrial revolution on maintenance of assets. CMSI is a non-profit professional body of practicing engineers, scientists and personnel involved in the field of industrial maintenance. Established on August 25, 2003 at NSTL, a premiere DRDO laboratory in Visakhapatnam, the society has grown over the past two decades with Dr V Bhujanga Rao as its founder president. It has nearly 400 life members and 30 industries and organisations have become institutional members of CMSI so far.

Industry 4.0 has changed the way of both operations and maintenance. Cyber physical systems which are intelligently connected devices with autonomous control, monitoring and diagnostics have transformed both the outlook and outreach of various applications. Industrial internet of things, data analytics, augmented and virtual reality, cloud computing, AI&ML, digital twins, smart sensors, intelligent algorithms such as SVM are some of the tools which have effectively made predictive maintenance an integral part of Industry 4.0.

NSTL pioneered research in condition monitoring in the country for almost four decades now and with this rich experience, ensured that the Indian Navy adopted the technology in their warships. The national conference on condition monitoring will deliberate on implementation of Industry 4.0 concepts for the benefit of asset management. In order to cater to the needs of both military and civilian applications, the conference is being organised to bring researchers, Indian industries and academicians on to a common platform to establish eco-system in view of the ever increasing global demand and understand the intricacies related to the emerging methods. The seminar is organised in six technical sessions in which 30 technical papers will be presented. SV Kamat, Chairman, DRDO will be the chief guest; Er MZ Siddique, Director General (Naval Systems & Materials) will be distinguished guest and Rear Admiral Sanjay Sadhu, Admiral Superintendent, Naval Dockyard (V) will be the guest of honour for the inauguration of the national conference.

<https://www.thehansindia.com/news/cities/visakhapatnam/visakhapatnam-nccm-2023-at-nstl-from-april-27-794780>



Thu, 27 Apr 2023

Rajnath Singh to Chair SCO Defence Ministers' Meeting Tomorrow

Defence Minister Rajnath Singh will chair the Shanghai Cooperation Organisation (SCO) Defence Ministers Meeting on April 28 in New Delhi.

Defence Ministers of China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan will participate in the meeting. India has invited Belarus and Iran, currently observers in SCO, to participate in the SCO Defence Ministers' Meeting.

The Defence Minister of Pakistan would be participating virtually.

The ministers will discuss matters related to regional peace and security, counter-terrorism efforts within SCO and effective multilateralism.

Raksha Mantri will be holding bilateral meetings with the participating Defence ministers on April 27 and 28 where bilateral defence-related issues and other matters of mutual interest will be discussed. India has ancient civilisational, cultural and spiritual ties with the SCO member countries. India's membership of SCO in 2017, was, therefore, a reaffirmation of New Delhi's keenness to deepen these historic ties.

India considers SCO as an important regional group to promote multilateral, political, security, economic and people-to-people interactions in the region.

India continues to bring more ideas and initiatives to strengthen cooperation amongst SCO countries. Under its chairmanship, this year, India organised two defence-related activities to enhance interoperability amongst SCO member-states.

The first was a workshop on Humanitarian Assistance and Disaster Relief and the second was a seminar on SCO countries' defence think-tanks on the issue of Armed Forces contributing to Military Medicine, Healthcare and Pandemics.

India stands committed to taking forward the Agenda of SCO under its chairmanship.

<https://www.ndtv.com/india-news/rajnath-singh-to-chair-sco-defence-ministers-meeting-tomorrow-3983193>

Thu, 27 Apr 2023

Rajnath Singh Set for Bilateral Meet with China Defence Minister Today

Defence Minister Rajnath Singh is scheduled to hold a bilateral meeting with his Chinese counterpart, Li Shangfu, on Thursday, ahead of the Shanghai Cooperation Organisation (SCO) Defence Ministers' meeting the following day.

This will be Li's first visit to Delhi since the Galwan Valley clashes in 2020.

In the SCO Defence Ministers' meeting, the ministers will discuss matters concerning regional peace and security, counterterrorism efforts within the SCO, and effective multilateralism.

Resolution of issues along the Line of Actual Control might feature in the meeting between Singh and Li.

Last week, India and China held the 18th round of high-level military talks at the Chushul-Moldo meeting point in eastern Ladakh. The two sides discussed confidence-building measures and ways to avoid confrontation at the borders in the coming months.

Singh will also hold bilateral meetings with defence ministers of other participating countries on April 27 and 28, where bilateral defence related issues and other matters of mutual interest will be discussed.

The SCO member-countries are India, Russia, China, the Kyrgyz Republic, Kazakhstan, Tajikistan, Uzbekistan and Pakistan. Apart from the member-states, two observer countries — Belarus and Iran — will also participate in the SCO Defence Ministers' meeting this time.

In a statement on Wednesday, the Defence Ministry said Pakistan Defence Minister Khawaja Asif may not visit India and will attend it on a virtual mode.

With Russia's Defence Minister Sergei Shoigu attending the event, ongoing issues between India and Russia, such as the conflict hitting the scheduled supply of weapons and spares and India's pending payments to Russia, might be discussed during Singh's meeting with Shoigu. The Indian Express had earlier reported that New Delhi has not yet been able to clear Rouble payments against weapons delivered by Russia, and this had the possibility of affecting scheduled weapons deliveries from Russia.

Shoigu's visit comes amid a series of high-level engagements between India and Russia, such as the visit of Russia's Deputy Prime Minister Denis Manturov for the 24th India-Russia talks.

As per the Defence Ministry, the theme of India's chairmanship of the SCO in 2023 is 'SECURE-SCO'.

“India attaches special importance to SCO in promoting multilateral, political, security, economic and people-to-people interactions in the region,” the ministry had stated.

It had said that the ongoing engagement with the SCO has helped India promote its relations with countries in the region with which India has shared civilisational linkages, and is considered India’s extended neighbourhood.

“India’s membership of SCO in 2017 was a reaffirmation of New Delhi’s keenness to deepen these historic ties. India considers SCO as an important regional group to promote multilateral, political, security, economic and people-to-people interactions in the region,” the ministry stated.

<https://indianexpress.com/article/india/rajnath-set-for-bilateral-meet-with-china-defence-minister-8578048/>

THE TIMES OF INDIA

Thu, 27 Apr 2023

1st Woman Rafale Pilot in IAF Team for Multi-nation Drill being held in France

The first Indian woman fighter pilot to fly the new Rafale jets, Flight Lieutenant Shivangi Singh, is now soaring high in the skies over France as part of the IAF detachment taking part in the ongoing multi-nation Orion exercise there.

This is the first time that India has sent its Rafale fighters. In all, the IAF has sent four Rafale fighters, two C-17 Globemaster-III strategic airlifters, two IL-78 mid-air refuellers and 165 personnel, including 17 pilots, to take part in the Orion exercise.

Flight Lieutenant Shivangi Singh follows her senior Squadron Leader Avani Chaturvedi who became the first IAF woman pilot to fly a Sukhoi-30MKI fighter in an overseas exercise when she took part in the bilateral ‘Veer Guardian’ exercise with Japan at the Hyakuri airbase in January, as was reported by TOI earlier. The Orion exercise is one of the largest-ever wargames hosted by France, and also involves land and sea drills with thousands of Nato troops at a time when tensions continue to run high in Europe due to the ongoing Russia-Ukraine war.

There are now 17 women fighter pilots in the IAF. Squadron Leader Chaturvedi and her course-mate Bhawana Kanth now fly the Russian-origin Sukhois at the Jodhpur airbase.

Flight Lieutenant Shivangi Singh, in turn, is the first woman to fly the French-origin Rafale omni-role jets as part of the 17 ‘Golden Arrows’ Squadron in Ambala.

Singh, who hails from Varanasi, earlier flew MiG-21 Bisons before she converted to the 4.5-generation Rafales. After studying in the Banaras Hindu University, she was among the second batch of women fighter pilots who were commissioned in 2017.

<https://timesofindia.indiatimes.com/india/1st-woman-rafale-pilot-in-iaf-team-for-multi-nation-drill-being-held-in-france/articleshow/99800123.cms>

War, Payment Issues Impact Military Supplies to India from Russia & Ukraine. IAF Worst Hit

The Russia-Ukraine war has impacted military supplies to India from both countries, with the Indian Air Force (IAF) being the worst hit, ThePrint has learnt.

However, sources in the defence and security establishment said there has been no impact on the operational preparedness of the forces, and efforts are underway to reduce dependence on these two countries.

Such has been the impact of the war that the Russians have given it in writing that they won't be able to supply the remaining two regiments of the S-400 air defence systems to the IAF within the stipulated time.

Sources explained that the delay in supplies is due to a combination of the ongoing war, which has impacted their production capacity, and their need to focus internally rather than on exports, besides the payment roadblocks.

Incidentally, India and Russia are in an advanced stage of talks to start using the Russian financial messaging system — the Service Bureau of the Financial Messaging System of the Bank of Russia (SPFS).

As reported earlier, SPFS became a necessity as the US, along with the European Union, cut off seven Russian banks from SWIFT — the Belgium-based cross-border payment system operator — including the one that was being used for payments earlier by India.

Another key element that is being worked upon is an agreement on mutually recognising Indian RuPay cards and Unified Payments Interface (UPI) in Russia, and the Russian MIR cards and its Fast Payments System (FPS) in India.

Sources said that things will ease up once the new payment mode is finalised.

IAF worst hit

Sources admitted that the biggest impact of has been on the IAF, which depends on a lot of Russian and Ukrainian supplies for spare parts to keep its fleet — which includes frontline fighter aircraft such as the Su-30 MKI, besides certain missiles — flying.

They said that the impact would start showing a few months from now if the Russia-Ukraine war continues.

In its submission to the Parliamentary Standing Committee on Defence in March, the IAF had blamed the Russia-Ukraine war for its sharp decline in budgetary projection.

“...our projection last year was Rs 85,000 crore and we finally got an allocation of Rs 57,000 crore which we consumed. This year, the projection itself has been less because of this Russia-Ukraine war as some of our deliveries are not taking place. So, we have already been told that those deliveries will not take place,” the report by the Committee had noted.

It added a submission from an IAF officer that read: “As far as reduced projection is concerned, some part of it covers spares...but there is a major project...where the deliveries have been stopped because of the war going on...That is why the major part of projection has been reduced.”

Sources said this was the S-400 air defence system, but noted that the issue related more to Russian production capabilities than payments.

They added that while defence equipment has been hit, oil and other trade continues to take place for which payments are made.

Payments a challenge

Sources said a large number of payments are pending from the Indian side because of the series of sanctions against Russia.

As reported by ThePrint last year in August, while New Delhi and Moscow had worked out a simpler system for payments, secondary sanctions imposed on Russia have led to fresh challenges.

Sources said that payments nearing USD 2 billion are pending and Russia has refused to extend the credit for non-critical items.

“Both countries are in talks to find a payment system that can be used. The heavy trade imbalance between the two countries is also a roadblock to finding easy solutions,” a source explained.

However, sources maintained that the forces have not been hit operationally: “There is stuff in the stockpile which can cater to any immediate need. Also, efforts are on to source some of the spares from a third country and if need be, they will cannibalise from others.”

The Navy and Army have also been hit but the impact on them is lesser, it is learnt.

“The Russians are focussed on their own internal supplies while ensuring that their export commitments are also adhered to, at least the most needed ones to friendly countries,” a source said.

Explaining the other reasons for the halt in supplies, sources said Russia is trying to up its production capacity to cater to its own needs but availability of workers is a huge issue. Another issue is with transportation as shipping companies, fearing American sanctions, are wary of doing business with Russia.

Moreover, insurance for these Russian goods has increased several times, sources said.

<https://theprint.in/defence/war-payment-issues-impact-military-supplies-to-india-from-russia-ukraine-iaf-worst-hit/1540064/>

Thu, 27 Apr 2023

Coast Guards of India, South Korea Conclude Bilateral Talks

India and South Korea's coastal guard bilateral talks culminated with a sweet gesture where a token of friendship was offered to each other.

Taking to Twitter, the Indian Coast Guard said, "Indo-Korean bilateral talks culminated by signing Record of Discussions. As a special gesture & a token of friendship & solidarity, Commissioner General #KCG offered a lapel of Honorary Commandership (meant for high level #KCG officials) to #ADG Rakesh Pal #DGICG(Addl charge)."

The Indian Coast Guard team was headed by ADG Rakesh Pal, Officiating Director General, Indian Coast Guard, the Ministry of Defence said in the official press release. The delegation of the South Korean Coast Guard was led by Commissioner General KIM Jong Wook.

Earlier in March, the Korean Air Force interacted with the members of the Indian Air Force (IAF) contingent as the multilateral air exercise Desert Flag concluded on March 17, the official media coordination centre of IAF stated in a tweet.

The IAF participated with five LCA Tejas and two C-17 Globemaster III aircraft, and the visitors were also given an overview of the supersonic combat aircraft, LCA Tejas.

"#DiplomatsInFlightSuits As #ExDesertFlag comes to a close, our partners from Korean Air Force interacted with the members of the #IAF contingent. The visitors were also given an overview of the LCA Tejas," the official Twitter handle of the media coordination centre of the Indian Air Force (IAF) tweeted. Notably, the Indian Air Force contingent comprising 110 Air Warriors arrived at Al Dhafra airbase of the United Arab Emirates (UAE) for participating in Exercise Desert Flag VIII, the Ministry of Defence said in the official release.

The air exercise took place from February 27 to March 17. It was the first occasion when the LCA Tejas shall participate in an international flying exercise outside India. Air Forces from UAE, France, Kuwait, Australia, the UK, Bahrain, Morocco, Spain, South Korea, and the USA participated in the Exercise Desert Flag.

<https://theprint.in/world/coast-guards-of-india-south-korea-conclude-bilateral-talks/1541080/>

THE ECONOMIC TIMES

Wed, 26 Apr 2023

MEA Jaishankar Slams Pak, Says Difficult to Engage with those Engaging in Cross-Border Terrorism

Ahead of Bilawal Bhutto Zardari's first visit to India since 2011, foreign minister S Jaishankar said that it is very difficult to engage with a neighbour that practises cross-border terrorism.

Pakistan's foreign minister Bhutto will visit India for the Shanghai Cooperation Organisation (SCO) meeting in Goa on May 5.

Along with Bhutto, India will host Russia's Sergey Lavrov and China's Qin Gang for the foreign ministers' meeting.

Pakistan Defence Minister Khawaja Asif is set to skip his India visit and attend the Shanghai Cooperation Organisation (SCO) Defence Ministers' meeting virtually.

Pakistan-based The Express Tribune reported citing sources that Asif will join the meeting via video link, despite India inviting the Pakistani defence minister as well as other SCO members for the meeting.

The Shanghai Cooperation Organisation (SCO) is a multinational group that was founded in 2001. Along with India, the SCO also has as members China, Kyrgyzstan, Pakistan, Russia, Tajikistan, and Uzbekistan. The SCO Defence Ministers Meeting will also include participation from two observer nations, Belarus and Iran, in addition to the member states.

Jaishankar's condemnation of Pakistan's use of cross-border terrorism, days after the attack on an army convoy in J&K that left five Indian soldiers dead, is being seen as an indication that a formal bilateral meeting with Bilawal on the margins of SCO is improbable.

"As far as this meeting is concerned, we are both members of the SCO and we typically attend its meetings. We are the Chair this year and so the meeting is happening in India," TOI quoted the minister as saying.

"But the bottomline on this issue is that it is for us very difficult to engage with a neighbour who practises cross-border terrorism against us. We have always said they have to deliver on their commitment not to encourage, sponsor or carry out cross-border terrorism. We continue to hope that one day we would reach that stage," He added. His remarks came in response to a query on Bilawal's visit in a joint press briefing with Panama foreign minister Janaina Tewaney Mencomo in Panama City.

India has been maintaining that it desires normal neighbourly relations with Pakistan while insisting that the onus is on Islamabad to create an environment free of terror and hostility for such an engagement.

Pakistan's foreign office announced on April 20 that Foreign Minister Bilawal would participate in the SCO meeting to be held in Goa on May 4-5.

"Our participation in the meeting reflects Pakistan's commitment to the SCO Charter and processes and the importance that Pakistan accords to the region in its foreign policy priorities," Foreign Office spokesperson Mumtaz Zahrah Baloch said at a weekly media briefing in Islamabad.

The SCO was founded at a summit in Shanghai in 2001 by the presidents of Russia, China, the Kyrgyz Republic, Kazakhstan, Tajikistan and Uzbekistan.

Over the years, it has emerged as one of the largest trans-regional international organisations. India and Pakistan became permanent members of the Beijing-based SCO in 2017.

Bilawal's visit would be the highest-level trip to India by any Pakistani leader in recent years.

The ties between India and Pakistan came under severe strain after India's warplanes pounded a Jaish-e-Mohammed terrorist training camp in Pakistan's Balakot in February 2019 in response to the Pulwama terror attack.

The relations further deteriorated after India announced the withdrawal of Jammu and Kashmir's special powers and the bifurcation of the erstwhile state into Union territories in August 2019.

<https://economictimes.indiatimes.com/news/india/mea-jaishankar-slams-paks-bhutto-says-difficult-to-engage-with-those-engaging-in-cross-border-terrorism/articleshow/99784768.cms>

THE ECONOMIC TIMES

Thu, 27 Apr 2023

PM Modi to Attend 2023 Quad Summit in Sydney on May 24

Sydney will host the 2023 Quad Leaders' Summit on May 24, which will see the leaders of India, Japan, Australia and the US discuss ways to promote stability in the Indo-Pacific region. It will also mark Prime Minister Narendra Modi's first visit to Australia after 2014.

This will be the third in-person Quad Leaders' Summit and the first time Australia will be hosting the meeting. The announcement was made by Australian Prime Minister Anthony Albanese on Wednesday. The first two Quad meetings were held in the US and Japan.

Ahead of the Australia trip, Modi will be in Japan on May 20-21 as an invitee for the G-7 Summit in Hiroshima. After Japan, he will travel to Papua New Guinea for the Forum for India-Pacific Islands Cooperation summit (India Pacific summit) on May 22 to give momentum to India's Indo-Pacific agenda. The forum brings together 14 Pacific Islands—Cook Islands, Fiji, Kiribati, Marshall Islands, Micronesia, Nauru, Niue, Samoa, Solomon Islands, Palau, Papua New Guinea, Tonga, Tuvalu and Vanuatu—with India at the head of state/ government level.

During his trips to Japan and Australia Modi is also expected to hold bilateral meets with the leaders of USA-Japan-Australia-France & other leaders who are members of G-7 & Quad.

Ahead of Modi's trip and the Quad Summit, Chief of Naval Staff Admiral R Hari Kumar will inaugurate the maiden ASEAN-India Maritime Exercise during his visit to Singapore next week. India will become the fourth ASEAN dialogue partner, after China, US and Russia, to hold this ASEAN+1 maritime exercise. ASEAN India Maritime Exercise is slated for May 2-8.

“The Quad is a diplomatic partnership of four countries committed to promoting stability, resilience and prosperity in the Indo-Pacific,” according to a statement issued by the Australian government. “Australia, India, Japan and the United States share a vision for a region that is governed by accepted rules and norms, where we all can cooperate, trade and thrive.”

Together, Quad partners are taking practical action to address shared regional challenges, including improving regional health security, advancing critical and emerging technologies,

strengthening connectivity, enhancing clean energy innovation and boosting supply chain resilience, the statement said.

In Sydney, the Quad leaders will discuss how the group can work alongside partners and regional groupings, mainly ASEAN and the Pacific Islands Forum, to strengthen cooperation and shape the region.

On Wednesday, Albanese said, “Quad partners are deeply invested in the success of the Indo-Pacific. Leveraging our collective strengths helps Australia advance its interests and more effectively respond to the region’s needs. We are always better off when we act together with our close friends and partners.”

He said, “The Quad is committed to supporting an open, stable and prosperous Indo-Pacific that is respectful of sovereignty and ensures security and growth for all. I look forward to discussing with Quad Leaders how we – alongside important regional institutions, such as ASEAN, the Pacific Islands Forum, the Indian Ocean Rim Association and our regional partners – can shape the Indo-Pacific region we all want to live in.”

<https://economictimes.indiatimes.com/news/politics-and-nation/pm-modi-to-attend-2023-quad-summit-in-sydney-on-may-24/articleshow/99795875.cms>

THE ECONOMIC TIMES

Wed, 26 Apr 2023

Pakistan Remains China's Priority in its Neighbourhood Diplomacy, Top Chinese General Tells Pakistan Army Chief General Asim Munir

China always puts Pakistan as a priority in its neighbourhood diplomacy, a top Chinese General told Pakistan Army chief General Asim Munir, assuring him that their all-weather friendship will continue notwithstanding the perilous economic and political crisis faced by Islamabad and Beijing's increasing concern over the security of its personnel working there. General Zhang Youxia, vice chairman of China's Central Military Commission (CMC) - the high command of the Chinese military headed by President Xi Jinping - held talks with Gen Munir here on Wednesday and discussed matters of mutual security interests and military cooperation. Gen Munir is on a four-day visit to China.

Gen Zhang said that China and Pakistan are all-weather strategic cooperative partners and iron-clad friends, China military online, the official media of the Chinese defence ministry, reported.

The long-lasting mutual trust and friendship between the two countries, as solid as rocks, are important factors for regional and even world peace, stability and prosperity, Gen Zhang said.

He stressed that no matter how the international situation changes, China always puts Pakistan as a priority in its neighbourhood diplomacy and firmly supports Pakistan in safeguarding its sovereignty, territorial integrity, development interests and national dignity, the report said.

The Chinese military is willing to work with the Pakistani military to further deepen and expand practical cooperation, continuously push the mil-to-mil relationship to a higher level, and jointly safeguard the common interests of the two countries, as well as the regional peace and stability, General Zhang added.

He said China is willing to build a closer China-Pakistan community with a shared future in the new era, a reference to the period headed by President Xi since he came to power in 2012.

Gen Munir, on his maiden visit to China amid the serious economic and political crisis back home, discussed the "regional security situation" with his PLA counterpart General Li Qiaoming.

"Matters of mutual security interests and military cooperation were discussed. Both military commanders reiterated the need for maintaining peace and stability in the region and enhancing military-to-military cooperation," said a press release issued by the Pakistan Army's media wing - the Inter-Services Public Relations - in Islamabad.

Gen Munir will hold further meetings with military leaders in China to enhance the long-standing relations between the two militaries, the release said.

Significantly, Gen Munir's visit comes ahead of Chinese Defence Minister Li Shangfu's two-day visit to India starting Thursday to take part in the SCO Defence Ministers meeting during which he is widely expected to hold talks with his Indian counterpart Rajnath Singh on the festering military standoff at Eastern Ladakh.

Pakistan's Defence Minister Khawaja Asif too was expected to take part in the eight-member SCO grouping consisting of China, India, Kazakhstan, Kyrgyzstan, Russia, Pakistan, Tajikistan and Uzbekistan.

Gen Li's visit to India is taking place after the 18th round of top Indian, and Chinese commanders-level talks on April 23. The Chinese Defence Ministry spoke positively about the meeting, saying that both sides have agreed to "speed up" the settlement of "relevant issues".

For his part, Gen Munir told Gen Zhang that the friendship between Pakistan and China is higher than mountains, deeper than oceans, and sweeter than honey.

No matter how the international and regional situation changes, Pakistan will firmly support China's core interests concerning Hong Kong, Taiwan, Xinjiang and the South China Sea, he was quoted as saying in the report.

Gen Munir said that the Pakistani side is willing to further strengthen strategic communication, practical exchanges and counter-terrorism cooperation with the Chinese military, jointly enhance the abilities to respond to various security challenges, and contribute to international and regional peace and stability.

Platitudes apart, Gen Munir's visit is also taking place amid murmurs of China's growing concerns over Pakistan's never-ending economic crisis often putting pressure on Beijing to bail

out Islamabad from bankruptcy by providing US dollar loans to help it to maintain foreign exchange reserves.

Also, Pakistan is in the throes of a political crisis with an increasing confrontation between the government headed by Prime Minister Shehbaz Sharif and cricketer-turned-politician Imran Khan.

Equally, Beijing has been openly expressing its concerns over the recurring attacks by the militant groups on hundreds of Chinese personnel working on various projects under the USD 60 Billion China-Pakistan Economic Corridor (CPEC) despite the repeated assurances by the Pakistan Army about their safety.

The latest case of concern for Beijing was the detention of a Chinese supervisor working at the Dasu Hydropower project who was booked on blasphemy charges. On April 17 he was sent to prison on a 14-day judicial remand by an Abbottabad anti-terrorism court.

According to Pakistan's law, the blasphemy charges range from fines to the death penalty.

<https://economictimes.indiatimes.com/news/defence/pakistan-remains-chinas-priority-in-its-neighbourhood-diplomacy-top-chinese-general-tells-pakistan-army-chief/articleshow/99792613.cms>



Wed, 26 Apr 2023

China Opposes Taiwan-U.S. Defence and Military Exchanges

China warned against continued U.S.-Taiwan cooperation Wednesday, responding to reports that the U.S. military was sending officers to help train Taiwan's counterparts and that a delegation of defence contractors would be visiting the self-ruled island next week.

“We resolutely oppose the U.S. having any form of official or military contact with China's Taiwan region,” Zhu Fenglian, spokeswoman for China's Taiwan Affairs Office, said at a weekly press briefing in Beijing.

Taiwan and China split in 1949 after a civil war. Taiwan never has been part of the People's Republic of China, but the Communist Party says it is obliged to unite with the mainland, by force if necessary.

President Xi Jinping's government has flown fighter jets and bombers near Taiwan in increasing numbers and fired missiles into the sea in an attempt to intimidate the island.

Taiwanese media reported this month that the U.S. had sent 200 military personnel, mostly Marines, to help train Taiwan troops. Taiwan's Defence Ministry has neither denied nor confirmed the report.

Meanwhile, a delegation of around 25 defence contractors is visiting the island next week, hosted by the U.S.-Taiwan Business Council. Nikkei Asia reported that the weapons manufacturers will discuss joint production of drones and ammunition in Taiwan.

“U.S. defence contractors intentionally provoke confrontation between the two sides, taking the opportunity to make a profit,” Ms. Zhu said. She accused the ruling Democratic Progressive Party, which has been in power for six years, of colluding with the U.S. to press for the island's formal independence.

The U.S. doesn't formally recognise the Taiwan government but is Taipei's most vital provider of weapons and other security assistance as well as political support. China has turned up the heat by sending fighter jets and navy vessels near the island on a near daily basis, especially in response to political meetings between the U.S. and Taiwan.

Earlier this month, China held large-scale military exercises simulating a strike on key targets in Taiwan in response to Taiwan President Tsai Ing-wen meeting with U.S. House Speaker Kevin McCarthy.

<https://www.thehindu.com/news/international/china-opposes-taiwan-us-defence-and-military-exchanges/article66780613.ece>



Wed, 26 Apr 2023

South Korea to Develop ‘Compass Call’-Type EW Aircraft

South Korea has launched a project to develop a new electronic warfare (EW) aircraft using a business jet as the baseline platform.

The project was revealed by South Korea's Defense Acquisition Program Administration (DAPA) on 13 April. According to DAPA, the project was discussed during the 152nd Defense Project Promotion Committee meeting held that day.

DAPA told Janes that the new aircraft would serve as a “stand-off jammer aircraft”, similar to the US Air Force's (USAF's) ‘Compass Call’ aircraft. The agency said that the aircraft will be developed from 2024 to 2032 at a cost of KRW1.5 trillion (USD1.12 billion). Janes has learnt that four aircraft will be developed and acquired.

An industry source told Janes that the EW equipment will be developed by South Korea's Agency for Defense Development (ADD) and LIG Nex1. LIG Nex1 has developed an EW suite for the KAI KF-21 for the aircraft's “self-defence”, which it calls the ALQ-200. The new project will be a more comprehensive system for offensive jamming at long ranges. LIG Nex1 had not responded to Janes request for information about the new system at the time of publication. DAPA said that information on the capabilities being planned for the new aircraft are “restricted”.

However, DAPA said that the new aircraft are intended to improve the survivability of the Republic of Korea Air Force's (RoKAF's) combat air assets in the event of a future conflict. The project will also create a foundation for future EW response systems, DAPA added.

<https://www.janes.com/defence-news/defence/latest/south-korea-to-develop-compass-call-type-ew-aircraft>



Thu, 27 Apr 2023

US Pledges to Share Nuclear Planning Insights with South Korea to Deter North Korean Threat

The United States on Wednesday pledged to give South Korea more insight into its nuclear planning over any conflict with North Korea amid anxiety over Pyongyang's growing arsenal of missiles and bombs.

The announcement, which included a renewed pledge by Seoul not to pursue a nuclear bomb of its own, emerged from White House talks between U.S. President Joe Biden and South Korean leader Yoon Suk Yeol that covered issues including North Korea, semiconductor chips and trade, and the Ukraine war.

At a joint news conference, Yoon said he and Biden had agreed on steps to strengthen South Korea's defenses in response to the threat posed by North Korea.

"Our two countries have agreed to immediate bilateral presidential consultations in the event of North Korea's nuclear attack and promised to respond swiftly, overwhelmingly and decisively using the full force of the alliance, including the United States' nuclear weapons," Yoon said.

Biden reiterated the U.S. offer to North Korea to hold talks over its nuclear and missile programs, which has been ignored by North Korean leader Kim Jong Un.

North Korea's mission to the United Nations did not respond to a request for comment.

DETECTING NORTH KOREA

North Korea's rapidly advancing weapons programs - including ballistic missiles that can reach U.S. cities - have raised questions about whether Washington would really use its nuclear weapons to defend South Korea under what it calls "extended deterrence."

Opinion polls in South Korea show a majority want Seoul to acquire its own nuclear bombs, a step Washington opposes.

Under a new "Washington Declaration," the U.S. will give Seoul detailed insights into, and a voice in, U.S. contingency planning to deter and respond to any nuclear incident in the region through a U.S.-ROK Nuclear Consultative Group, U.S. officials said.

Washington will also deploy a ballistic-missile submarine to South Korea in a show of force, the first such submarine visit since the 1980s, U.S. officials said.

But Biden made clear that no U.S. nuclear weapons would be stationed on South Korean territory.

"I have absolute authority as commander in chief and the sole authority to use a nuclear weapon, but what the declaration means is that we're going to make every effort to consult with our allies when it's appropriate, if any action is so called for," he said.

A "WIN" FOR SOUTH KOREA?

The agreed steps fall short of what some in South Korea have called for and are "unlikely to either persuade North Korea off its current course of WMD development and testing or to quiet the debate inside South Korea about its own nuclear future," said Jenny Town of the Washington-based North Korea monitoring group 38 North.

Sue Mi Terry of the Wilson Center think tank saw the move as largely rhetorical and "a fig leaf" to dissuade South Korea from going nuclear.

"That's what this is about," she said. "But it remains to be seen if Korean public opinion will be satisfied."

Terry said any resumption of nuclear bomb testing by North Korea for the first time since 2017 would increase alarm in South Korea and calls for its own nuclear arsenal - or for redeployment of U.S. tactical nuclear weapons in the country.

Even so, increasing Seoul's involvement in nuclear deliberations should allow Yoon to argue to his domestic audience that Washington is taking Seoul's concerns seriously.

Duyeon Kim, an analyst with the Center for a New American Security, called the Washington Declaration "a big win for the alliance and especially for South Korea."

She said one of the most notable developments was that the two sides were gaming out scenarios including a U.S. nuclear response, whereas in the past this had been considered too classified to share.

U.S. officials stressed that no U.S. nuclear weapons would be returned to the peninsula, and South Korea would continue not to have control over the U.S. nuclear arsenal.

Yoon's is only the second state visit Biden has hosted since taking office two years ago - the first such guest was France's president.

On Wednesday evening the leaders attended a glittering dinner catered by a chef whose mother emigrated from Korea.

Guests sat at tables with boughs of cherry blossoms and feasted on crab cakes and braised beef short ribs. Hollywood star Angelina Jolie attended.

The summit also produced agreements on cyber security, electric vehicles and batteries, quantum technology, foreign assistance and economic investment.

Biden and Yoon also discussed tensions between China and Taiwan and Chinese military activities in the South China Sea. In a joint statement, the two presidents stressed the importance of preserving stability in the Taiwan Strait.

They also strongly opposed "any unilateral attempts to change the status quo in the Indo-Pacific, including through unlawful maritime claims, the militarization of reclaimed features, and coercive activities," it said.

The U.S. planned to brief China on the steps with Seoul, U.S. officials said, signaling a desire to ease tense relations.

<https://www.indiatoday.in/world/story/united-states-pledges-to-share-nuclear-planning-insights-with-south-korea-to-deter-north-korean-threat-2365150-2023-04-27>

Science & Technology News



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AI Helps Improve Predictability of Indian Summer Monsoons

A newly devised algorithm powered by Artificial Intelligence can help increase the predictability of the Indian Summer Monsoons (ISMR) 18 months ahead of the season. The algorithm called predictor discovery algorithm (PDA) made using a single ocean-related variable could facilitate skillful forecast of the ISMR in time for making effective agricultural and other economic plans for the country.

While researchers have well established the scientific basis for ISMR predictability and made significant advances over the past century in understanding the variability and predictability of ISMR, the skillful prediction of ISMR even one month in advance has remained a major challenge. Neither the potential (theoretically possible) skill (correlation between the predicted and observed ISMR) and the actual skill of ISMR forecast are available at longer lead times--6, 12, 18, 24- months ahead of the season.

Traditionally, researchers select a predictor of ISMR based on the maximum correlation of an atmospheric or oceanic variable with ISMR over a region of the globe. Such technique restricts in the realization of the true potential predictability of ISMR as it accounts for one predictor over a particular region at a time. Scientists at the Institute of Advanced Study in Science and Technology (IASST), Guwahati, an autonomous institute of DST along with their collaborators

have found that the widely used sea surface temperature (SST) is inadequate for calculation of long-lead prediction of ISMR. This, they found was because the potential skill of ISMR estimated by the predictor discovery algorithm (PDA) using SST-based predictors was low at all the lead months. The team consisting of IASST Indian Institute of Tropical Meteorology (IITM), Pune, and Cotton University, Guwahati, devised a predictor discovery algorithm (PDA) that generates predictor at any lead month by projecting the ocean thermocline depth (D20) over the entire tropical belt between 1871 and 2010 onto the correlation map between ISMR and D20 over the same period.

This encapsulated all the potential drivers over the entire tropical region in order to realize the true potential skill of ISMR prediction at any lead month. This is because this one predictor embedded the simultaneous contribution of all the potential drivers over the entire tropical belt at any lead month identified by the correlation map. Besides, the oceanic thermocline depth (D20) is least influenced by the stochastic atmospheric noise.

The new algorithm indicates that the potential skill of ISMR is maximum (0.87, highest being 1.0) 18-months before the ISMR season. At any lead month, the predictability of the annual variability of ISMR depends on the degree of regularities in the annual variability of its drivers.

With the newly discovered basis of long-lead ISMR predictability in place, Devabrat Sharma (IASST), Dr. Santu Das (IASST), Dr. Subodh K. Saha (IITM), and Prof. B. N. Goswami (Cotton University) were able to make 18-months lead forecast of ISMR between 1980 to 2011 with an actual skill of 0.65 using a machine learning based ISMR prediction model. The success of the model was based on the ability of artificial intelligence (AI) to learn the relationship between ISMR and tropical thermocline patterns from 150 years of simulations by 45 physical climate models and transferring that learning to actual observations between 1871 and 1974. As the potential skill of ISMR at 18-months lead is 0.87, there is still considerable scope in improving the model.

The findings published in Quarterly Journal of the Royal Meteorological Society paves way for long-lead skilful prediction of ISMR in coming years with accelerating improvement of coupled climate models together with the advent of nonlinear machine learning tools. Skillful long-lead forecasts of ISMR like one year ahead of the season will be highly beneficial to the policymakers and farmers in planning and making the country's food production resilient to increasing vagaries of ISMR with global warming.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=1919993>



Thu, 27 Apr 2023

NASA Successfully Demonstrates Extraction of Oxygen from Simulated Moon Soil

As part of the ambitious Artemis programme, NASA plans to establish a sustained human presence on the Moon, serving as the first planetary outpost for humanity, for what NASA refers

to as the Artemis basecamp. For an extended human presence on the lunar surface, it is necessary to use the resources available locally, which is an approach known as in-situ resource utilisation or ISRU. NASA engineers have demonstrated the extraction of oxygen from simulated Moon soil, or the lunar regolith. This is the fine, coarse material covering the surface of the Moon. The demonstration was the first time that the oxygen extraction was conducted in a vacuum environment.

The oxygen can be used for the life support systems for the astronauts, but tons more will be needed to make accelerants for rockets. The test was conducted within a simulated lunar environment in a chamber measuring five metres in diameter, known as the Dirty Thermal Vacuum Chamber.

A high-power laser was used to simulate a solar energy concentrator, which melted the simulated lunar regolith within a specially designed carbothermal reactor, which have been used for decades on Earth in the manufacturing of solar panels and steel. The carbothermal reactor is a fully functional prototype, that is ready to be tested in a space environment.

NASA senior engineer Aaron Paz says, “This technology has the potential to produce several times its own weight in oxygen per year on the lunar surface, which will enable a sustained human presence and lunar economy.” It costs upwards of a million US dollars to send a single kilogram of equipment or resources to the Moon, and it has to fit within the limited volume available on spacecraft. The ability to extract and utilise local resources on the Moon is crucial for a long-term presence on the lunar surface. Previously, NASA engineers have demonstrated the use of bricks made from lunar regolith for construction purposes at the Artemis basecamp.

<https://www.news9live.com/science/nasa-successfully-demonstrates-extraction-of-oxygen-from-simulated-moon-soil-au941-2119080>

