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# THE TIMES OF INDIA

*Mon, 08 May 2023*

## **India, UK Joint Military Exercise 'Ajeya Warrior' Under way**

India and the United Kingdom's joint military exercise 'Ajeya Warrior' is being conducted at Salisbury Plains.

The bilateral exercise is being held at Salisbury Plains, United Kingdom till May 11, according to the statement released by Defence Ministry.

Ajeya Warrior is a biennial training event with the United Kingdom conducted alternatively in the United Kingdom and India, the last edition was held at Chaubatia, Uttarakhand in October 2021.

Soldiers of the 2 Royal Gorkha Rifles from the United Kingdom and Indian Army soldiers from the Bihar Regiment are participating in the exercise. The Indian Army contingent arrived at Brize Norton on April 26 in an Indian Air Force C-17 aircraft with indigenous weapons and equipment.

According to the Ministry of Defence, the aim of the exercise is to build positive military relations, imbibe each other's best practices and promote the ability to operate together while undertaking company-level sub-conventional operations in urban and semi-urban environments under UN mandate, in addition to developing inter-operability, bonhomie, camaraderie and friendship between the two armies, the statement read.

The scope of this exercise involves a Command Post Exercise (CPX) at the Battalion level and Company level Field Training Exercise (FTX). During the exercise, participants will engage in various missions testing their operational acumen in various simulated situations; showcasing and refining their tactical drills, and learning from each other's operational experience.

"Ajeya Warrior" is yet another significant milestone in defence cooperation between the Indian Army and British Army which will further foster the bilateral relations between the two countries, said the Defence Ministry statement.

The exercise is part of an initiative to develop interoperability and share expertise with friendly foreign nations.

Both nations' military forces take part in this combined military drill. It aims to provide pieces of training to the soldiers of both nations in counter-insurgency and counter-terrorism operations. It has proved to be an excellent strategy for strengthening the ties between them.

<https://timesofindia.indiatimes.com/india/india-uk-joint-military-exercise-ajeya-warrior-under-way/articleshow/100081057.cms>

## **IAF's First C295 Completes Maiden Flight in Spain, Induction Begins in Sept**

The Indian Air Force's first C295 medium transport aircraft has completed its maiden flight in Spain, ahead of its induction into the IAF later this year, European firm Airbus Defence and Space said in a statement on Monday.

"This first flight represents a significant accomplishment for the first Make in India aerospace programme. With the IAF set to become the largest operator of the C295 in the world, this programme exemplifies our commitment to improve the IAF's operational capabilities," said Jean-Brice Dumont, head of military air systems at Airbus Defence and Space in the statement.

The maiden flight took place at Seville on May 5 and lasted three hours. IAF crews are at Airbus's Seville facility for training, officials familiar with the matter said.

In September 2021, the defence ministry signed a ₹21,935-crore contract with Airbus Defence and Space for 56 C295 planes to give a push to the Atmanirbhar Bharat Abhiyan (self-reliant India campaign). Tata Advanced Systems Limited (TASL) and Airbus Defence and Space are jointly executing the programme.

As part of the contract, 16 C295 aircraft will be delivered by Airbus in flyaway condition from Spain, and the remaining 40 will be manufactured in India. The 16 flyaway aircraft are scheduled to be delivered between September 2023 and August 2025, while the first Made in India C295 will roll out of the new facility in September 2026 and the remaining 39 by August 2031.

The maiden flight is yet another milestone in the C295 programme, and the induction of these planes will significantly boost the capabilities of the IAF vis-a-vis the Avro-748 aircraft they are replacing, said Air Marshal Anil Chopra (ret'd), director general, Centre for Air Power Studies.

Prime Minister Narendra Modi on October 30, 2022, laid the foundation stone of a manufacturing facility being set up by the Tata-Airbus consortium at Vadodara in Gujarat for the C295 aircraft. The development was seen as significant since this is the first time that a military aircraft will be manufactured in India by a private consortium.

The C295 final assembly line being built in Gujarat is the first concrete, large-scale Make-in-India defence programme in the private sector that will unlock the industrial value chain of design, manufacturing, assembly, testing, delivery and maintenance of the complete lifecycle of the aircraft, the statement said.

The C295 was ordered as a replacement for the IAF's fleet of ageing Avro-748 planes that entered service in the early 1960s.

The Avro replacement project was in the works for more than a decade. The defence acquisition council, India's apex defence procurement body, gave its acceptance of necessity (AoN) in 2012 to replace the Avro planes with 56 new aircraft. Under India's defence procurement rules, AoN by the council is the first step towards buying military hardware.

The C295 can carry up to nine tonnes of payload or 71 personnel (or 45 paratroopers) and has a maximum speed of 480kmph. It can also operate from short or unprepared airstrips, has a rear ramp for paratrooping troops and cargo, and will strengthen the logistics capabilities of IAF.

Apart from the 56 planes already ordered, the C295 facility at Vadodara will be capable of meeting the additional requirements of the air force and catering to export orders. All 56 aircraft will be fitted with an indigenous electronic warfare suite developed by Bharat Electronics Ltd and Bharat Dynamics Limited. After the completion of the delivery of 56 aircraft to the IAF, Airbus Defence and Space will be allowed to sell the aircraft manufactured in India to civilian operators and export to countries cleared by New Delhi, officials said.

The project will provide a boost to India's aerospace ecosystem and generate thousands of jobs.

The Airbus-Tata consortium has identified more than 125 domestic micro, small and medium enterprise (MSME) suppliers spread across seven states. This will act as a catalyst for employment generation and is expected to generate 600 highly skilled jobs directly, over 3,000 indirect jobs and an additional 3,000 medium-skill employment opportunities.

Manufacturing of more than 13,400 parts, 4,600 sub-assemblies and all major component assemblies will be carried out in the country, while some equipment such as engines, landing gear and avionics will be provided by Airbus Defence and Space, and integrated into the aircraft by the consortium.

<https://www.hindustantimes.com/india-news/indian-air-force-s-first-c295-medium-transport-aircraft-completes-maiden-flight-in-spain-ahead-of-induction-101683537634586.html>

## THE ECONOMIC TIMES

*Mon, 08 May 2023*

### **Air Force Receives First Batch of Indigenous VTOL Loitering Munition**

The air force has received its first indigenously designed and developed loitering munitions. These are capable of operating from all kinds of terrain and high altitude areas and can take down targets at a range of over 50 km, without exposing any personnel to risk.

Developed by Tata Advanced Systems Limited (TASL), the autonomous system is designed for Vertical Take Off and Landing (VTOL) and has successfully demonstrated its capability to carry out precision strikes during trials and tests.

Named the ALS 50, the munition - also known as a suicide drone - has been developed by a team of young engineers at TASL and can be scaled up to increase firepower as well as targeting distance. The system has been operated in high altitude areas during trials in Ladakh last year and in hot conditions in Rajasthan as well.

The unique weapon can take off like a quadcopter and transition into fixed wing mode during flight for long distance travel. Capable of launching missions upto a distance of 50 km, the weapon enables real time targeting, either by the operator or autonomously.

It is controlled from a ground control station where the operator gets a real-time video of the theatre of operations and selects an attack option. The accuracy of the system has been tested to be less than 2 meters, adequate to carry out precise strikes. In case the mission has to be aborted, it can be easily recovered given its VTOL capability.

Future development can include integration of Artificial Intelligence and swarming capabilities, depending on requirements of the armed forces. The weapon is also likely to be a contender for export orders, given an increasing demand for such systems worldwide.

The VTOL capability gives the system the ability to operate in areas where limited space is available, like narrow valleys, fortified mountain positions, small jungle clearings and the decks of warships. These kinds of loitering munitions are required by the armed forces to accurately take down high value targets like command centres, missile launchers and enemy armour, without exposing any personnel to risk.

<https://economictimes.indiatimes.com/news/defence/air-force-receives-first-batch-of-indigenous-vtol-loitering-munition/articleshow/100057844.cms?from=mdr>

# THE ECONOMIC TIMES

*Mon, 08 May 2023*

## **IAF Working on Phasing out Remaining Three Squadrons of MiG-21 Jets**

The crash of a MiG-21 jet in Rajasthan's Hanumangarh on Monday has once again put the spotlight on the Indian Air Force's aging fleet of Soviet-origin aircraft which have been involved in around 400 accidents since their first induction in the early 1960s. Three people were killed after the MiG-21 fighter aircraft crashed into a house in Hanumangarh in Rajasthan shortly after it took off for a routine training sortie from the Air Force Station at Suratgarh.

The MiG-21s used to be the mainstay of the IAF for a long period of time. After its induction in the early 1960s, the Indian Air Force procured over 870 MiG-21 fighters to boost its overall combat prowess.

However, the aircraft has a very poor safety record. According to official data, the MiG-21s were involved in 400 crashes in the last six decades.

At present, the IAF has three MiG-21 squadrons with a total of around 50 aircraft, according to officials. The IAF last year finalised a timeline of three years to phase out the remaining Mig-21 fighter squadrons.

The IAF also plans to start the phasing out of the three squadrons of Mig-29 fighter jets in the next five years, they said.

The plan to phase out the Soviet-origin aircraft fleet is part of the IAF's modernisation drive.

"The MiG-21 phase-out plan is on track," said a military official. The official said the phase-out plan is not linked to the recent accidents involving the platforms.

As part of the IAF's modernisation plan, the defence ministry in February 2021, sealed a Rs 48,000 crore deal with the Hindustan Aeronautics Limited (HAL) for the procurement of 83 Tejas jets.

The IAF has already procured 36 Rafale jets to enhance its combat capabilities.

The IAF is also in the process of acquiring 114 Medium Role Fighter Aircraft (MRFA).

In March last year, Minister of State for Defence Ajay Bhat said in Rajya Sabha that 42 defence personnel were killed in accidents involving aircraft and helicopters of the three services in the last five years.

The total number of air accidents in the last five years was 45 out of which 29 involved IAF's platforms, according to official data.



Two pilots of the IAF were killed in July last year when their twin-seater Mig-21 trainer aircraft crashed during a training sortie near Barmer in Rajasthan.

An ALH Dhruv crashed on Thursday following a "hard landing" in Kishtwar in Jammu and Kashmir.

In a rare accident in January, a Russian-designed Sukhoi-30MKI jet and a French Mirage-2000 had a mid-air collision.

In October last year, a weapon system integrated version of an Advanced Light Helicopter (ALH) of the Indian Army crashed near Tuting in Arunachal Pradesh.

Another ALH-WSI had crashed into the massive Ranjit Sagar reservoir near Pathankot on August 3, 2021 in which two Army pilots were killed.

Between March 2017 to December 2021, 31 people lost their lives in accidents involving 15 military helicopters that included four ALH, four Cheetah, two ALH (WSI), three Mi-17V5, an Mi-17 and a Chetak, according to official details.

In December 2021, Gen Bipin Rawat, India's first Chief of Defence Staff, his wife Madhulika and 11 other armed forces personnel died when an Mi-17VH helicopter crashed near Coonoor in Tamil Nadu.

<https://economictimes.indiatimes.com/news/defence/iaf-working-on-phasing-out-remaining-three-squadrons-of-mig-21-jets/articleshow/100078558.cms>



*Tue, 09 May 2023*

## **Stone Laid for First-of-its-kind Cyber Operations Centre in Chandigarh**

Union Defence Minister Rajnath Singh on Monday laid the foundation stone of India's first Centre for Cyber Operations & Security at Sector 17 in Chandigarh, which will come up at a cost of Rs 88 crore.

The minister, while laying the foundation stone on Monday, lauded the initiative of Chandigarh Police for conceptualising and raising a demand with the Union Home ministry for setting up of this one-of-its-kind centre in the UT in 2022. As per details, the centre is being constructed under the Cyber Crime Prevention against Women & Children scheme.

Chandigarh administrator, Banwarilal Purohit, DGP (UT) Praveer Ranjan, MP Kirron Kher, Adviser Dharam Pal, among other officers, were present at the occasion.

The Central government had subsequently released Rs 22 crore to the UT administration for the construction of centre in Sector 17. The amount has been transferred to the Defence Research and Development Organization (DRDO), which will start construction work in the project shortly.

"The Centre for Cyber Operations & Security will be a state-of-the-art facility, the first-of-its-kind in India. This centre will enable the police forces of Chandigarh and those of neighbouring states in solving complex cyber crime cases and strengthening the cyber security setup. The DRDO is expected to complete work in 8 months," said Superintendent of Police (cyber), Ketan Bansal.

<https://indianexpress.com/article/cities/chandigarh/stone-laid-for-first-of-its-kind-cyber-operations-centre-in-chandigarh-8599088/>

## **Defence Secretary Giridhar Aramane Meets New US Ambassador to India Ahead of his Visit to Washington**

Before defence secretary Giridhar Aramane's visit to Washington D.C. next month, he met the new U.S. ambassador to India, Eric Garcetti, today. Defence secretary Aramane's visit on June 17 is seen as an important one as Prime Minister Narendra Modi is likely to be in Washington D.C. just a few days later for a bilateral with the American President, Joe Biden.

Today's South Block meeting, sources said, was a courtesy call, but it was clear that Ambassador Garcetti is very excited about growing Indo-US ties. Even before the visit to Washington DC next month, President Biden and Prime Minister Modi will be meeting in Japan during the G-7 discussions and then, in Australia during the Quad summit though it is not clear if there will be bilaterals. The meeting this afternoon-- a U.S. military official had accompanied the ambassador-- lasted 40 minutes.

Aramane's visit, just before the PM's, is being seen as an indication of closer cooperation in the defence sector. Already, the USA and India have close ties in defence and that includes technological and intelligence cooperation. India is very serious about Make in India and also, Make for the World. So, there is likely to be an invitation to US defence firms to set up manufacturing facilities in India. Whether the PM will be meeting with top defence manufacturers in Washington DC is not known.

During his visit, Aramane will hold meetings with one of the US undersecretaries of defence as well as other officials. India and the USA are also exercising together. Malabar, between the two navies and also, the Japanese and Australians, is the big one, but two exercises between Indian and US army contingents have also happened in India last year.. Also, Cope India, the Indo-US air force exercise was held in Kalaikunda, West Bengal, last month.

<https://www.timesnownews.com/india/defence-secretary-giridhar-aramane-meets-new-us-ambassador-to-india-ahead-of-his-visit-to-washington-article-100079337>

## **THE TIMES OF INDIA**

### **China Attempts to Snoop on Asean-India Naval Drill in South China Sea**

Chinese vessels and aircraft tried to snoop on the first-ever Asean-India naval exercise, which ended in the South China Sea on Monday, but the drills went ahead as planned since they did not come close to the exercising warships. Several Chinese maritime "militia" vessels were spotted in the region while warships of India, the Philippines, Indonesia, Singapore, Malaysia, Thailand, Brunei and Vietnam were conducting the "sea phase" of the inaugural Asean-India Maritime Exercises (AIME) on May 7-8.

China has been acting aggressively in the contentious South China Sea, where it is locked in territorial disputes with its neighbours. During the AIME, the Chinese vessels followed by a research vessel approached the exercise area in the exclusive economic zone of Vietnam but did not



hinder the drills. “The Chinese vessels did not come anywhere close to impacting the AIME drills or manoeuvres. There was no close proximity to raise any alarm. A careful watch was, however, kept on the Chinese vessels,” an Indian defence establishment source said.

Earlier, Indian guided-missile destroyer INS Delhi and multi-purpose stealth frigate INS Satpura had taken part in the 'harbour phase' of the exercise at the Changi naval base of Singapore.

With an eye firmly on China, India has been steadily cranking up defence ties with Asean countries through combat exercises, exchanges, training programmes to operate fighters and submarines, and now increasingly weapon supplies.

India, for instance, is supplying three batteries of the shore-based anti-ship systems of the BrahMos supersonic cruise missiles, which fly almost three times the speed of sound at Mach 2.8 with a strike range of 290-km, to the Philippines under the \$375 million contract inked in January last year. The first such BrahMos export order is expected to pave the way for such deals with other Asean countries like Indonesia and Vietnam, as reported by TOI earlier.

<https://timesofindia.indiatimes.com/india/china-attempts-to-snoop-on-asean-india-naval-drill-in-south-china-sea/articleshow/100083108.cms>



*Tue, 09 May 2023*

## **Indian Army's 'Jet Pack Suits' could Debut in Kashmir; Can also be Used to Defend 'Key Points' near China, Pakistan**

*By Ritu Sharma*

The Indian Army is turning its soldier into 'Iron Man' to bolster its surveillance capabilities on the border with China and Pakistan and use it in terror-infested Jammu and Kashmir. It may soon have soldiers in jet pack suits in semi-urban and urban warfare scenarios.

Jet pack suits propel the wearer in the air through engines running on gas or liquid fuel. According to the January 2023 tender floated by the Indian Army, the jet pack should be able to carry a person weighing at least 80 kilograms. It should be able to fly at a speed of at least 50 kilometers per hour for at least eight minutes.

Recently the Army Airborne Training School (AATS) in Agra got a demonstration from a British company, 'Gravity Industries,' owned by ex-marine and innovator Richard Browning. Browning demonstrated the technology, flying it over water bodies, roads, and fields in Agra.

Talking about the employability of these suits, an Indian Army officer posted in Kashmir told the EurAsian Times: “These jet pack suits are coming as an aerial surveillance platform. Its effectiveness will vary from place to place. For instance, it will be less effective in terrain with thick vegetation. Also, the wind factor has to be catered for in higher reaches of mountains.” He asked not to be named as he is not authorized to speak to the media.

By the conversation with the Indian Army official, it appeared that the jet pack suit could soon debut in Jammu and Kashmir. The Indian Army's requirements for the purchase mention the suitability of the equipment for desert, marine, and mountain warfare. Another officer pointed out jetpacking wouldn't just be about propelling through the air. The soldier can be equipped with other technologies like infrared goggles to scan thick vegetation to identify enemy combatants.

The military strategists are also looking at jetpacking as another significant disruptor in the tactical battle space, akin to the drone technology on the battlefield. The technology can be used as a force multiplier to counter terrorists in urban and semi-urban settings.

Gravity Industries developed the military version jet suit. It was the first manufacturer of the jet suit that demonstrated its military use during a NATO mountain warfare rescue exercise held in Slovenia in December 2021.

The need for this innovative technology comes in the backdrop of the Indian Army being involved in skirmishes with the People's Liberation Army along the Line of Actual Control between India and China. With tension between the two countries rising, the jet pack would act as a force multiplier for soldiers at high altitudes.

According to the company, the jet suit is powered by five gas turbine engines that generate more than 1,000 horsepower and produce 144 kilograms of thrust, allowing vertical lift of up to 12,000 feet.

It runs on jet fuel, diesel, or kerosene. The technology started for search and rescue and medical rescue operations. But the military is imagining possible scenarios of their employment in specialized military operations.

A marine commando (MARCOS) of the Indian Navy, while talking about the potential employability of these jet pack suits, said: "The jet pack has a niche capability. It is a mode of insertion... one can go against an unarmed enemy or lightly armed location. One can quickly gain vantage points for reconnaissance, intelligence gathering, or placing a sniper." Also, he points out that the jet pack can be used for quick exfiltration. He, too, is not authorized to speak to the media and hence not named.

The UK's Royal Navy and the US Marine Corps already use these jet pack suits in various limited roles.

The marine commando also emphasized that the Indian forces are known to deploy their weapons innovatively to get the full value for their money. He cited the example of the eight OSA class missile boats India procured from Russia before the 1971 India-Pakistan war. Each of these 70-ton boats carried four deadly missiles.

They had a top speed of 40 knots but limited endurance. Russia used them for coastal surveillance. The Indian Naval warships towed these boats outside Karachi, where they sank Pakistani ships and set the Karachi harbor ablaze. Thereafter, they made a quick dash out of the range of the incoming Pakistani fighter jets.

<https://eurasianimes.com/indian-armys-jet-pack-suits-could-debut-in-kashmir-can/>



*Mon, 08 May 2023*

## **Doval in Saudi to Discuss US Rail Link Plan for West Asia**

National Security Advisor Ajit Doval Sunday met his counterparts from the US, Saudi Arabia and the United Arab Emirates to discuss an ambitious proposal being pushed by the White House to link West Asian countries through rail — using Indian expertise — and connect the region to South Asia via sea lanes.

Sources in New Delhi said Doval has travelled to Saudi Arabia for Sunday's meeting. The participants are expected to discuss the broad contours of the massive joint project to build railway, maritime and road connectivity in the larger region, linking the Indian subcontinent in South Asia with West Asia — which the US calls the Middle East.

The development was first reported by US news website Axios. It said this is among the key initiatives the White House wants to push in the Middle East as China's influence in the region grows. The Middle East is a key part of China's Belt and Road vision.

Axios reported: "The US, Saudi, Emirati and Indian national security advisers are expected on Sunday to discuss a possible major joint infrastructure project to connect Gulf and Arab countries via a network of railways that would also be connected to India via shipping lanes from ports in the region."

Sources in Delhi explained that the Indian side is keen to participate in the project as it fulfils three strategic objectives.

First, Beijing has expanded its sphere of political influence in the West Asian region through what Delhi views as "mission creep" — the breakthrough in ties between Saudi Arabia and Iran had caught India unawares. This has potential implications for India's interests in West Asia, which provides energy security. Such connectivity will allow for faster movement of the crude and minimise India's costs in the long term. The connectivity boost will also help India's eight million citizens who live and work in the Gulf region.

Second, the project will help India build a brand as an infrastructure builder in the railways sector. Boasting a strong rail network at home and buoyed by the success of creating such infrastructure in Sri Lanka, India has the confidence to do it overseas. It wants private companies as well as public sector enterprises to explore the potential economic and infrastructure opportunities in the region. This will also have the effect of countering the Chinese Belt and Road project, which has burdened many countries in the region with infrastructure that has limited utility. The US, which had proposed the Blue Dot network, is one of the elements in the creation of the connectivity project that will be financially sustainable and viable.

Third, the government feels that India's connectivity to its western neighbours has been limited for long by Pakistan's blocking of overland transit routes. So, Delhi wants to use shipping routes to reach West Asian ports. These include Chabahar and Bandar-e-Abbas (Iran), Duqm (Oman), Dubai (UAE), Jeddah (Saudi Arabia) and Kuwait City. Connectivity projects crisscrossing the Gulf and Arab countries, with Indian stakes, open up trading opportunities.

According to the Axios report, the idea for the new initiative came up during talks held over the last 18 months in a forum called I2U2, which includes the US, Israel, the UAE and India. The forum was established in late 2021 to discuss strategic infrastructure projects in West Asia.

With China in mind, Israel raised the idea of connecting the region through railways during the I2U2 meetings over the last year. Part of the idea was to use India's expertise on such big infrastructure projects, a former Israeli official was quoted as saying by Axios.

The Biden administration in recent months expanded on the idea to include Saudi Arabia's participation. The initiative would include connecting Arab countries in the Levant and the Gulf via a network of railways that will also connect to India through seaports in the Gulf, sources told the US news outlet.

NSA Jake Sullivan hinted at this initiative during his speech Thursday at the Washington Institute for Near East Policy. "If you remember nothing else from my speech, remember I2U2, because you will be hearing more about it as we go forward," he said.

Sullivan said the basic plan is to connect South Asia, the Middle East and the US “in ways that advance our economic technology and diplomacy”.

He said a number of projects are already underway, along with “some new exciting steps that we are looking forward to undertaking in the months ahead”.

The US NSA said in his speech that one of the pillars of the Biden administration’s strategy in the Middle East is regional integration.

“A more integrated, interconnected Middle East empowers our allies and partners, advances regional peace and prosperity, and reduces the resource demands on the US in this region over the long term without sacrificing our fundamental interests or our involvement in the region,” he said.

According to the Axios report, Israel is not part of this initiative at the moment, but could be added to it in the future if efforts to normalise relations in the region make progress.

<https://indianexpress.com/article/india/doval-in-saudi-to-discuss-us-rail-link-plan-for-west-asia-8596962/>

## THE ECONOMIC TIMES

*Mon, 08 May 2023*

### **Chinese Defence Minister Moots New Areas of Military Co-op in Talks with Pakistan's Navy Chief**

China's Defence Minister Gen. Li Shangfu told Pakistan's naval chief Amjad Khan Niazi on Monday that the two all-weather friends should seek new areas of military cooperation and jointly safeguard their security interests and region. Li said the relations between the militaries of the two countries are an important part of China-Pakistan relations, and cooperation between the two sides in various fields, including the two navies, has achieved good results.

Li said the militaries of the two countries should expand exchanges in new areas, create new cooperation highlights, and work together to safeguard the security interests of both countries and the region, a defence ministry statement here said.

Observers say Sino-Pakistan military cooperation in recent years focussed more on the navy as China gradually stepped up its naval presence in India's backyard, the Indian Ocean and the Arabian Sea where it is developing Pakistan's Gwadar port.

Besides acquiring four modern naval frigates from China, Pakistan will also be getting eight Chinese submarines as part of the efforts to modernisation, Admiral Niazi told the Chinese media during his visit earlier.

Indian Navy Chief Admiral Kumar said last month that Pakistan Navy is modernising itself at a good pace and seeks to become a 50-platform force in 10-15 years, and they are adding new corvettes and frigates to their fleet.

Niazi's visit is part of a flurry of high-level visits between the two countries this month amid Pakistan's deepening economic and political crisis and reports of leaked documents highlighting deliberations in the Pakistan establishment on whether to move closer to the US to balance ties with China. Early this month, Pakistan's Army chief Gen Asim Munir made his maiden visit to Beijing during which he met senior Chinese Generals and top diplomat Wang Yi who is the Director of the Office of the Foreign Affairs Commission of the CPC Central Committee. During Gen. Munir's visit, China's new Premier Li Qiang also held his first phone call with Prime Minister Shehbaz Sharif and promised continued financial help for Pakistan which is facing a serious

political and economic crisis. It was followed by Chinese Foreign Minister Qin Gang's visit to Islamabad on May 5-6 during which he also met Army chief Gen. Munir.

The visits followed reports in the US and Pakistan media quoting two Pakistani memos pointing to a deliberation in the country's political and military establishment to open up relations with the US to balance ties with China.

In one of the memos, Minister of State for Foreign Affairs Hina Rabbani Khar warned that Pakistan can "no longer try to maintain a middle ground between China and the United States."

<https://economictimes.indiatimes.com/news/defence/chinese-defence-minister-moots-new-areas-of-military-co-op-in-talks-with-pakistans-navy-chief/articleshow/100079513.cms>



*Mon, 08 May 2023*

## **Taiwan in Talks for \$500 Million Weapons Package from US: Defence Minister**

Taiwan is expecting a fast-tracked \$500 million weapons package from Washington this year to make up for delays in arms procurements, the island's defence minister said on Monday.

The self-ruled, democratic island lives under constant threat of an invasion by China, which claims Taiwan as part of its territory to be seized one day — by force if necessary.

With Beijing increasing its sabre-rattling towards the island, Taiwan's key ally the United States in September approved the Taiwan Policy Act — which would see new legislation provide billions in military aid to Taipei.

But there have been reported delays in delivering weapons, and Taiwan's Defence Minister Chiu Kuo-cheng on Monday confirmed that Washington has been discussing a separate — and fast-tracked — weapons package with Taipei.

"The use of the \$500 million package is aimed at prioritising supplying us with spot goods (available for immediate delivery) over any delay or late delivery in our arms procurement," Chiu told lawmakers when questioned in parliament about the "military aid" package.

"It should be implemented this year," he said, adding that the \$500 million package "is not counted into (previous) arms sales" and that Taiwan would be asking first for its "priorities".

<https://www.news18.com/world/taiwan-in-talks-for-500-million-weapons-package-from-us-defence-minister-7754347.html>

# ThePrint

*Tue, 09 May 2023*

## **Ukraine's Air Defence Systems Repelling Attacks on Kyiv, Officials Say**

Ukraine's air defence systems were repelling Russian attacks on the country's capital, Kyiv's military administration said early on Tuesday, after air raid alerts were issued across the country.

“Air defence systems are working on the outskirts of Kyiv,” the administration said on its Telegram messaging app.

Tuesday’s attacks came a day after Russia launched its biggest drone swarm yet in a renewed air campaign unleashed 10 days ago after a lull since early March.

<https://theprint.in/world/ukraines-air-defence-systems-repelling-attacks-on-kyiv-officials-say/1562900/>

## Science & Technology News



*Mon, 08 May 2023*

### **Novel Technique for Rapid Detection of Neurodegenerative Diseases like Parkinson's and Chronic Wasting Disease**

University of Minnesota Twin Cities researchers have developed a new diagnostic technique that will allow for faster and more accurate detection of neurodegenerative diseases. The method will likely open a door for earlier treatment and mitigation of various diseases that affect humans, such as Alzheimer's and Parkinson's, and similar diseases that affect animals, such as chronic wasting disease (CWD).

Their new study is published in Nano Letters.

"This paper mainly focuses on chronic wasting disease in deer, but ultimately our goal is to expand the technology for a broad spectrum of neurodegenerative diseases, Alzheimer's and Parkinson's being the two main targets," said Sang-Hyun Oh, senior co-author of the paper and a Distinguished McKnight University Professor in the University of Minnesota Department of Electrical and Computer Engineering.

"Our vision is to develop ultra-sensitive, powerful diagnostic techniques for a variety of neurodegenerative diseases so that we can detect biomarkers early on, perhaps allowing more time for the deployment of therapeutic agents that can slow down the disease progression. We want to help improve the lives of millions of people affected by neurodegenerative diseases."

Neurodegenerative diseases such as Alzheimer's, Parkinson's, mad cow disease and CWD (widely found in deer) share a common feature—the buildup of misfolded proteins in the central nervous system. Detecting these misfolded proteins is crucial for understanding and diagnosing these devastating disorders. However, existing diagnostic methods, like enzyme-linked immunosorbent assay and immunohistochemistry, can be expensive, time-consuming, and limiting in terms of antibody specificity.

The University of Minnesota researchers' method, dubbed Nano-QuIC (Nanoparticle-enhanced Quaking-Induced Conversion), significantly improves the performance of advanced protein-misfolding detection methods, such as the NIH Rocky Mountain Laboratories' Real-Time Quaking-Induced Conversion (RT-QuIC) assay.

The RT-QuIC method involves shaking a mixture of normal proteins with a small amount of misfolded protein, triggering a chain reaction that causes the proteins to multiply and allowing for



the detection of these irregular proteins. Using tissue samples from deer, the University of Minnesota team demonstrated that adding 50-nanometer silica nanoparticles to RT-QuIC experiments dramatically reduces detection times from about 14 hours to only four hours and increases the sensitivity by a factor of 10.

A typical 14-hour detection cycle means that a lab technician can run only one test per normal working day. However, with a detection time of less than four hours, researchers can now run three or even four tests per day.

Having a quicker and highly accurate detection method is particularly important for understanding and controlling transmission of CWD, a disease that is spreading in deer across North America, Scandinavia, and South Korea. The researchers believe that Nano-QuIC could eventually prove useful for detecting protein-misfolding diseases in humans, specifically Parkinson's, Creutzfeldt-Jakob Disease, Alzheimer's, and ALS.

"Testing for these neurodegenerative diseases in both animals and humans has been a major challenge to our society," said Peter Larsen, senior co-author of the paper and an assistant professor in the University of Minnesota Department of Veterinary and Biomedical Sciences.

"What we're seeing now is this really exciting time when new, next generation diagnostic tests are emerging for these diseases. The impact that our research has is that it's greatly improving upon those next generation tests, it's making them more sensitive, and it's making them more accessible."

<https://phys.org/news/2023-05-technique-rapid-neurodegenerative-diseases-parkinson.html>

