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# समाचार पत्रों से चयित अंश Newspapers Clippings

डीआरडीओ समुदाय को डीआरडीओ प्रौद्योगिकियों, रक्षा प्रौद्योगिकियों, रक्षा नीतियों, अंतर्राष्ट्रीय संबंधों और विज्ञान एवं प्रौद्योगिकी की नूतन जानकारी से अवगत कराने हेतु दैनिक सेवा

A Daily service to keep DRDO Fraternity abreast with DRDO Technologies, Defence Technologies, Defence Policies, International Relations and Science & Technology



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**DRDO** News

# DRDO Technology News

# THE TIMES OF INDIA

Fri, 26 Apr 2024

### **DMSRDE's Bulletproof Jacket has Highest Protection Level**

The Defence Materials and Stores Research and Development Establishment at Kanpur has developed indigenous lightweight bulletproof jacket for protection against highest threat level 6 marked by the Bureau of Indian Standard.

"This is the first of its kind jacket in monolithic ceramic which can stop 7.62 x 54 mm R (7.62x54R) rifle cartridges used in sniper rifles, light machine guns and shotguns," informed deputy director DMSRDE Dr Gobardhan Lal. He added that the bulletproof jacket was recently tested successfully at Terminal Ballistics Research Laboratory (TBRL), Chandigarh as per BIS 17051-2018, the conditioning protocol testing of level 6. "This jacket is based on a new design approach, where novel material along with new processes have been used," he said, adding that the front Hard Armour Panel (HAP) of the jacket neutralises multiple hits (06 shots) of 7.62 x 54 R API (Sniper rounds) in both ICW (In-conjunction with) and Standalone design. "The ergonomically designed front HAP is made of monolithic ceramic plate with polymer backing, which enhances wearability and comfort during the operation," said Lal.

The areal density of ICW Hard Armour Panel and standalone HAP are less than 40 kg/m2 and 43 kg/m2, respectively. The panel defeats at least six rounds of level 6 bullets with intershot distance of less than 60mm.

Those involved in the development include Dr Mayank Dwivedi, director DMSRDE, Dr J N Srivastava, project director and other team members including Ajitendra Parihar and Arun Kumar.

https://timesofindia.indiatimes.com/city/kanpur/dmsrdes-bulletproof-jacket-has-highest-protectionlevel/articleshowprint/109606806.cms



Fri, 26 Apr 2024

### IAF's C-17 Aircraft Airdrops Indigenously Built Platform Successfully

New Delhi [India], April 26 (ANI): In a joint demonstration of seamless operational collaboration, a C-17 transport aircraft of the Indian Air Force airdropped an indigenously developed heavy platform that can carry a maximum load of over 22 tonnes. "Combat Capability Enhancement: Strategic Aerial Delivery of BMP from C-17. In a joint demonstration of seamless operational collaboration, a C-17 aircraft of IAF, in conjunction with the Indian Army and ADRDE, flawlessly

airdropped an Indian Army BMP rigged over an indigenised platform of ADRDE at a drop zone in the western sector," the IAF posted on X on Thursday.

"This remarkable feat demonstrated the operational prowess of IAF's air mobility fleet and proved the capability and reliability of domestically developed platforms," they added.

The Aerial Delivery Research and Development Establishment (ADRDE) is a premier defence research laboratory.

Earlier, in a major capability boost, Indian Air Force carried out a successful test firing of an airlaunched ballistic missile that can hit targets at over 250 Kms.

The missile was successfully test-fired by a Su-30 MKI fighter jet last week at a test range in the island's territory in the Andamans, senior sources in the national security establishment told ANI.

The missile tested by the Indian Air Force in the Andaman and Nicobar Islands is the Israeli-origin Crystal Maze 2 air-launched ballistic missile which is also known as ROCKS.

https://www.aninews.in/news/national/general-news/iafs-c-17-aircraft-airdrops-indigenously-builtplatform-successfully20240426061107/

# THE MORE HINDU

Thu, 25 Apr 2024

# NSTL to Celebrate National Technology Day with Events for Students, Including Open House and Model Competition in Visakhapatnam

Naval Science and Technological Laboratory (NSTL), a naval research laboratory of DRDO in Visakhapatnam, will celebrate National Technology Day on May 10.

As part of celebrations, NSTL is organising a series of events for the students of degree and polytechnic Colleges, and Class XI & XII students, according to a release here on Wednesday.

One of them is Open House, an exhibition and display of NSTL products on May 9 and 10. Secondly, multimedia presentation of NSTL technologies on the same days. Thirdly, competition on models and exhibits.

Educational institutions are requested to depute students to participate in the events on the theme of "From Schools to Start-up: Igniting Young Minds to Innovate".

They need to send a list of participants authorised by the respective heads of institutions on email ntdc.nstl.drdo@gmail.com before April 30.

Participants will be permitted to witness display of exhibits of weapons and systems being developed by NSTL-DRDO for Indian Navy.

https://www.thehindu.com/news/cities/Visakhapatnam/nstl-to-celebrate-national-technology-daywith-events-for-students-including-open-house-and-model-competition-in-visakhapatnam/ article68100870.ece

# **Defence News**

# Defence Strategic: National/International



Thu, 25 Apr 2024

### NSA Doval in Russia: Security Cooperation in Focus

In the aftermath of a recent terrorist attack in Moscow, National Security Advisor Ajit Doval embarked on a crucial mission to Russia. He is there to participate in the XII International Meeting of High-Ranking Officials Responsible for Security Matters, convened in the historic city of St. Petersburg. Joined by representatives from 106 nations, including his Russian counterpart Nikolay Patrushev, the event served as a pivotal platform for strategic dialogue and collaboration on global security challenges.

Amidst the diplomatic proceedings, Doval seized the opportunity for a bilateral discussion with Secretary Patrushev, delving into the progress and intricacies of bilateral cooperation while addressing pressing issues of shared concern.

Concurrently, Russian President Vladimir Putin underscored the gravity of the contemporary threat landscape in his keynote address, labelling international terrorism as a paramount menace of the 21st century. Stressing the evolving tactics of terrorist entities as increasingly perilous and ruthless, Putin cited a recent attack on Moscow's Crocus concert hall as a stark illustration of the stakes involved.

In the wake of the tragic incident, Putin vowed resolute action against the perpetrators and their accomplices, asserting Russia's unwavering commitment to justice and security. Notably, he pointed to alleged connections between foreign security forces and terrorist activities, implicating external actors in attempts to destabilize sovereign nations. Furthermore, the Russian president advocated for enhanced cooperation in the domain of information security, advocating for a comprehensive framework of global legal principles to govern states' conduct in the digital domain.

Amidst calls for collective vigilance and preparedness, President Putin urged participants to engage in substantive discussions at both regional and international levels, fostering a united front against contemporary challenges. As the deliberations unfolded, it became increasingly apparent that concerted action and cooperation are imperative in confronting the multifaceted threats posed by terrorism in the modern era.

While addressing the meeting, Doval laid emphasis on information and cyber security.

In his intervention at the plenary session on Ensuring Information Security in the Polycentric World, NSA Ajit Doval underscored India's policy to use digital technology for inclusive economic development and calls for international cooperation for an open, stable, secure, reliable and inclusive framework for ensuring information security.

#### Roadmap for such cooperation should include-

All stakeholders from Governments to Private Sector, Academia, Technical Communities and Civil Society;

Regular institutional dialogues to help develop common understanding on critical issues;

Capacity building of like-minded nations through training, education, awareness programs and development of security standards for emerging technologies; and

Creation of Mechanisms for cooperation at domestic and international levels.

He stated that India shall continue cooperation for countering misuse of information and communication technologies by terrorists and criminals, as also for countering terror funding. In that context, the UN Convention on cybercrime will be an important initiative at the international level.

#### Meeting with Myanmar NSA

On the sidelines of the XII International Meeting of High-Ranking Officials Responsible for Security Matters in St Petersburg, he had a bilateral meeting with his Myanmar counterpart Admiral Moe Aung and talked about the current situation in Myanmar and India-funded infrastructure projects in Myanmar. They also discussed recent developments along the India-Myanmar border, including issues related to security, refugees, development projects, etc.

#### **Meeting of BRICS NSAs**

Later, NSA Doval spoke at the BRICS NSAs meeting hosted by the Secretary of the Russian Federation's Security Council and called for closer cooperation in the fight against terrorism and concrete actions to prevent trans-border planning, funding and execution of terrorist acts.

https://www.financialexpress.com/business/defence-nsa-doval-in-russia-security-cooperation-infocus-3468139/

# THE TIMES OF INDIA

Fri, 26 Apr 2024

## IAF's UAV Crashes in Jaisalmer District after Suspected Technical Glitch

An IAF's reconnaissance UAV, out on a routine training sortie, crashed into a field in Khuhdi in Rajasthan's Jaisalmer on Thursday morning. No loss of life or property was reported, IAF said.

The Israeli-origin Heron remotely piloted aircraft took off from Vayu Sainik Airport and crashed 30km away in the Bhojonio ki Dhani area, turning itself into flames. Villagers and polling parties doused the fire.

IAF ordered a court of inquiry into the crash, but added a technical fault was the likely reason.

"A remotely piloted aircraft of the IAF met with an accident near Jaisalmer today during a routine training sortie. A Court of Inquiry has been constituted to find out the cause of the accident," the IAF said in an official statement. The crash may have been triggered by a technical fault.

On March 12, a Tejas fighter plane crashed into Meghwal hostel in Jaisalmer's Laxmichand Sawal Colony. But there was no casualty. The pilot ejected safely.

https://timesofindia.indiatimes.com/city/jaipur/iafs-uav-crashesin-jaisalmer-distafter-suspectedtechnical-glitch/articleshow/109605469.cms



Thu, 25 Apr 2024

# 'Defence Cooperation should not Harm any Third Party': China on India's BrahMos Delivery to Philippines

China's military on Thursday reacted guardedly to the delivery of BrahMos supersonic cruise missiles by India to the Philippines, saying that security cooperation between the two countries should not harm the interest of any third party and harm regional stability.

India delivered the first batch of the BrahMos missiles over two years after it signed a USD 375 million deal with the Philippines to supply the weapon systems. "China always believes that defence and security cooperation between countries should not harm the interest of any third party and should not harm regional peace and stability," Chinese Defence Ministry spokesman Sr. Co. Wu Qian told a media briefing here when asked for his comment on the delivery of BrahMos missiles by India to the Philippines.

At the same time, Wu sharply criticised the US for deploying medium-range ballistic missiles in the Philippines this month amid the escalation of hostilities between China and the Philippines over their South China Sea dispute. The deployment of the MRC missile system, also known as the Typhon system, to the Indo-Pacific theatre comes amid a series of US-Philippine military exercises, including the largest-ever edition of the annual bilateral Balikatan drills beginning early this week, CNN reported.

The 1,600-km mid-range capability missiles which were deployed in northern Luzon of the Philippines could reach China's coast. "China firmly opposes the US deployment of medium-range ballistic missiles in the Asia-Pacific. Our position is clear and consistent. The US' move severely threatens the security of regional countries and undermines regional peace and stability," Wu said. "We hope the relevant country could refrain from opening the door to the devil, which will only end up hurting everyone including itself," he said.

The BrahMos missiles along with launchers were delivered by India to the Philippines by a transport aircraft of the Indian Air Force on April 19. Under the January 2022 deal, India will supply three batteries of the missiles, their launchers and related equipment. It was the first export of the BrahMos missile by India. India has been looking at further expanding defence ties with the Philippines against the backdrop of growing global concerns over China's increasing military assertiveness in the South China Sea. China claims most of the South China Sea. The Philippines, Vietnam, Malaysia, Brunei and Taiwan have counterclaims.

The Indian and US missile deliveries arrived in the Philippines as Manila was locked in a bitter naval standoff with the Chinese navy in the South China Sea. The Philippines, backed by the US trying to assert its claims over the South China Sea based on the 2016 ruling by a tribunal of the UN Convention of Law of Seas, (UNCLOS) endorsing its rights. China which boycotted the tribunal however rejected the tribunal findings.

https://www.news18.com/world/defence-cooperation-should-not-harm-any-third-party-china-onindias-brahmos-delivery-to-philippines-8866451.html



Thu, 25 Apr 2024

## Russia, US Clash at UN over Nuclear Weapons in Space

Russia on Wednesday vetoed a U.S.-drafted United Nations Security Council resolution that called on countries to prevent an arms race in outer space, a move that prompted the United States to question if Moscow was hiding something.

The vote came after Washington accused Moscow of developing a anti-satellite nuclear weapon to put in space, an allegation that Russia has denied. Russian President Vladimir Putin has said that Moscow was against putting nuclear weapons in space.

"Today's veto begs the question: Why? Why if you are following the rules would you not support a resolution that reaffirms them? What could you possibly be hiding?" U.S. Ambassador to the U.N. Linda Thomas-Greenfield told the council after the vote. "It's baffling and it's a shame."

Russia's U.N. Ambassador Vassily Nebenzia accused Washington of trying to tarnish Moscow and said Russia would shortly begin negotiations with council members on its own draft resolution aimed at keeping space peaceful.

"We want a ban on the placement of weapons of any kind in outer space, not just (weapons of mass destruction). But you don't want that ... Let me ask you that very same question: Why?" Nebenzia asked Thomas-Greenfield in the council.

The draft resolution was put to a vote by the U.S. and Japan after nearly six weeks of negotiations. It received 13 votes in favor, while China abstained and Russia cast a veto.

The U.N. text would have affirmed an obligation to comply with the Outer Space Treaty and called on states "to contribute actively to the objective of the peaceful use of outer space and of the prevention of an arms race in outer space."

The 1967 Outer Space Treaty bars signatories – including Russia and the United States – from placing "in orbit around the Earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction.

#### TALKS

Before the council voted on the U.S. draft text, Russia and China had proposed it be amended to include a call on all states "to prevent for all time the placement of weapons in outer space and the threat or use of force in outer space, from space against Earth and from Earth against objects in outer space."

The council voted on the proposed amendment, but it failed to pass. It received seven votes in favor, seven against and one abstention.

U.S. intelligence officials, according to three people familiar with their findings, believe the Russian capability to be a space-based nuclear bomb whose electromagnetic radiation if detonated would disable vast networks of satellites.

White House National Security Council spokesman John Kirby has said Russia has not yet deployed such a weapon.

Governments have increasingly viewed satellites in Earth's orbit as crucial assets that enable an array of military capabilities on Earth, with space-based communications and satellite-connected drones in the war in Ukraine serving as recent examples of space's outsized role in modern warfare.

Russia invaded neighboring Ukraine in February 2022.

Russian Deputy Foreign Minister Sergey Ryabkov said earlier this month that Moscow and Washington were in contact over the non-deployment of nuclear weapons in space, the TASS news agency quoted him as saying.

"We are in contact in that they rejected further discussions of the topic," said a senior U.S. administration official, speaking on condition of anonymity. "I don't know if he's referencing something else, but that has been the level of contact that we've had on this topic."

https://www.reuters.com/science/russia-blocks-us-move-un-nuclear-weapons-space-2024-04-24/

# The Indian EXPRESS

Thu, 25 Apr 2024

### China and Bangladesh Armies to Hold First Military Exercises Next Month: PLA

The Chinese army will hold its first military exercises with its Bangladesh counterpart next month, it was announced here on Thursday, as the PLA steadily enhanced its ties with India's neighbour by supplying a host of military equipment in recent years.

According to the consensus reached between the two militaries, the People's Liberation Army (PLA) will send a team to Bangladesh in the first half of next month to hold joint military exercises, Chinese Defence Ministry spokesman, Sr Col Wu Qian announced at a media briefing here.

Code named 'China-Bangladesh Golden Friendship 2024', the joint exercise takes the UN peacekeeping force counter-terrorism operations as the scenario, he said, adding, that the two militaries will conduct joint training in mixed groups on subjects, including bus anti-hijacking, terrorist camp elimination etc.

"It is the first time the Chinese and Bangladesh militaries will conduct joint training which will enhance mutual understanding and friendship and deepen practical exchanges and cooperation," Wu said.

China, which has invested over USD 25 billion in various projects in Bangladesh, next highest after Pakistan in the South Asian region, has also steadily enhanced defence ties with Dhaka supplying a host of military equipment including battle tanks, naval frigates, missile boats besides fighter jets, much to the chagrin of India.

China has also previously provided two submarines to the Bangladesh navy.

Last year Bangladesh Prime Minister Sheikh Hasina opened a USD 1.21 billion submarine base built by China at Cox's Bazar, which will provide safe jetty facilities to submarines and warships, according to a report carried by the Dhaka Tribune.

The base can accommodate six submarines and eight warships at a time. It will allow for safe and swift movement of the submarines in case of emergency, as the base is located off the Bay of Bengal coast, the report said.

https://indianexpress.com/article/world/china-bangladesh-army-first-military-exercises-pla-9290652/

# The Tribune

Fri, 26 Apr 2024

# US, Allies to Hold Ukraine Defence Group Meet, a Day after Whopping \$60 Billion Military Aid Okayed by US Congress

The Russia-Ukraine conflict is headed into a fresh round of hostilities.

The US and it's European allies will, on Friday, conduct, a meeting of the Ukraine Defense Contact Group (UDCG) discussing timelines to rapidly push military aid, equipment and weapons to Ukraine.

The meeting--the 21st of its type -- will be hosted virtually by US Secretary of Defense Lloyd Austin and it comes amid the backdrop of a whopping \$60 billion military aid okayed by the US Congress on Tuesday and signed into a law by US President Joe Biden on Wednesday.

President Joe Biden, in his remarks at the White House ahead of the signing, underscored the imperative to back Ukraine's defenders, who, he said, continued to defy Russia since the country launched its full-scale 'invasion' in February 2022. Within hours of Biden having okayed the aid, the first batch of weapons and equipment was despatched from the US to the war-torn country, on Thursday.

The US Department of Defense (DoD) announced on Thursday morning that the first assistance package under the new funding was on its way.

"The package, is valued at up to \$1 billion, includes key capabilities to include air defense interceptors, artillery rounds, armoured vehicles and antitank weapons," a statement said.

Equipment being sent to Ukraine, include, among other items, missiles for air defence; stinger anti-aircraft missiles; small arms to counter UAV's; Artillery Rocket Systems; high explosive ammunitions; infantry fighting vehicles; mine resistant vehicles; anti-weapons; precision ammunition; night vision devices; and spare parts, field equipment, training munitions, maintenance, and other ancillary equipment.

"This package will surge munitions, weapons, and equipment forward to support Ukraine's ability to defend its frontlines, protect its cities, and counter Russia's continued attacks", the DoD said.

Beyond providing Ukraine with direct military assistance, the UDCG has undertaken initiatives aimed at bolstering Ukraine's long-term defense through the formation of targeted capability coalitions.

Thirteen members of the contact group are leading eight separate capability coalitions designed to drive Ukraine's long-term force development. Those coalitions focus on critical capabilities ranging from air defense to artillery.

Several allies have also signed long-term bilateral security agreements with Ukraine, indicating the coalition's commitment to Ukraine's success well into the future.

Meanwhile in Europe, the National Armaments Directors from UDCG member nations, met in Brussels and underscored the 'urgent situation' in Ukraine.

It cited the NATO-Ukraine Council that asked for the need to push for immediate, concerted action on Ukraine's priority requirements.

https://www.tribuneindia.com/news/world/us-allies-to-hold-ukraine-defence-group-meet-a-dayafter-whopping-60-billion-military-aid-okayed-by-us-congress-614829

# Science & Technology News



**Ministry of Science & Technology** 

Thu, 25 Apr 2024

# Council of Scienific & Industrial Research (CSIR)- National Institute of Science Communication and Policy Research (NIScPR) Organizes a National Workshop to Celebrate World Intellectual Property Day

The Council of Scientific & Industrial Research - National Institute of Science Communication and Policy Research (CSIR-NIScPR) organized a national workshop and celebrated World Intellectual Property Day. The theme of the workshop was "IP and SDGs: Innovating for a Shared Future." The event, held at the seminar hall of CSIR-NIScPR S.V. Marg campus, New Delhi, was attended by over 250 school students and featured presentations from five outstanding innovators who were also felicitated for their contributions to technology and entrepreneurship.

Coordinator of the workshop Dr. Kanika Malik (Senior Principal Scientist at CSIR-NISCPR), provided an insightful introduction to Intellectual Property Rights, emphasizing the importance of protecting innovations for national development. She explained how school students can venture into this field and take it as a career option.

In her address, Ranjana Aggarwal, Director, CSIR-NIScPR said, "Historically, India was often referred to as the "Golden Bird," a testament to its advanced state and significant global economic contribution, which once stood at 30%. As we mark 75 years of independence, our GDP contribution has adjusted to 9%. Looking ahead to 2047, our ambition is to elevate this figure to 20%. This goal underscores the importance of fostering domestic technological innovation and nurturing indigenous knowledge systems.

The Council of Scientific & Industrial Research (CSIR) has been instrumental in safeguarding our nation's intellectual heritage, exemplified by its successful challenge against the patenting of turmeric and basmati rice in the United States. This victory reclaimed crucial patents for India. It is imperative that we continue to protect our intellectual property vigorously. The Journal of Intellectual Property Rights, published by CSIR's National Institute of Science Communication and Policy Research (NIScPR), is a significant step in this direction, serving as a beacon for intellectual property awareness and education."

The workshop was graced by the presence of Prof. Unnat Pandit, Controller general of Patents Designs and Trademark (CGPDTM), as the Chief Guest. His keynote address highlighted the critical role of intellectual property in achieving the Sustainable Development Goals (SDGs) and fostering a culture of innovation. Prof. Pandit said, "Over the past decade, India has made remarkable strides in scientific achievements, a testament to the innate innovative spirit and research acumen of our nation's thinkers, who are adept at addressing grassroots challenges.

He further added, "Since the National IP Awareness Mission has been initiated to foster awareness. In just one year, we have received 90,300 patents."

The highlight of the workshop was the inspiring stories shared by young innovators and entrepreneurs. These visionary individuals have not only made significant strides in their respective fields but have also demonstrated how creativity and innovation can lead to a sustainable future.

The participation of school students was particularly noteworthy, as they engaged with the innovators, learning about the real-world applications of intellectual property and its significance in driving progress.

The CSIR-National Institute of Science Communication and Policy Research (NIScPR) is a constituent laboratory under the Council of Scientific & Industrial Research, Ministry of Science and Technology, Government of India. It is dedicated to science communication, policy research, and the promotion of scientific awareness among the public.

https://pib.gov.in/PressReleasePage.aspx?PRID=2018893

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