

जुलाई
July
2023

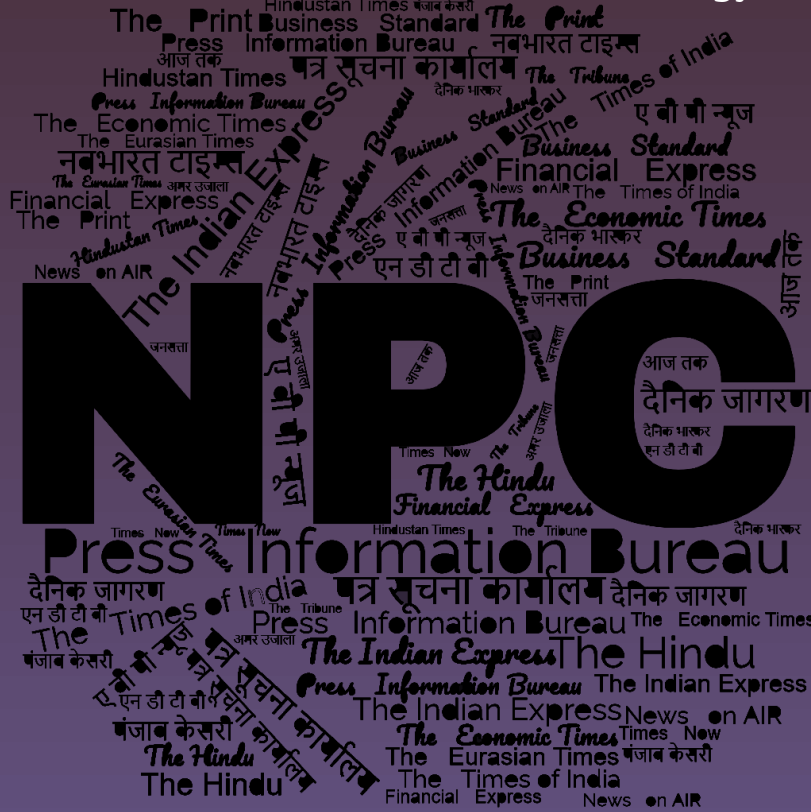
खंड/Vol. : 48 अंक/Issue : 140

26/07/2023

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



रक्षा विज्ञान पुस्तकालय

Defence Science Library

रक्षा वैज्ञानिक सूचना एवं प्रलेखन केंद्र

Defence Scientific Information & Documentation Centre

मेटकॉफ हाउस, दिल्ली - 110 054

Metcalf House, Delhi - 110 054

CONTENTS

S. No.	TITLE	Page No.
Defence News		1-14
Defence Strategic: National/International		1-14
1.	Indian Navy to Test its First Indigenously-Developed Unmanned Surface Vessel	<i>Financial Express</i> 1
2.	Pixxel Wins Defence Ministry Grant to Build Sats for IAF	<i>The Times of India</i> 1
3.	Contract for Three More Scorpene Submarines Likely by End-2024; First Delivery Expected by 2031	<i>The Hindu</i> 2
4.	LAC Tensions Eroded Trust Says Ajit Doval, as China Pushes for 'Concrete Policies' to Stabilise Ties	<i>The Print</i> 3
5.	NSA Doval's Message to China: Depoliticise UNSC Sanctions Committee	<i>The Economic Times</i> 4
6.	Never Trust your Enemy, be it Pak or China: Ex-Army Chief Gen Ved Malik's Message for Armed Forces	<i>The Economic Times</i> 5
7.	A Russian Fighter Jet Fired Flares at US Drone over Syria and Damaged it, Says US Military	<i>The Economic Times</i> 7
8.	Russian Defence Minister Sergey Shoigu Arrives in North Korea for Three-Day Visit	<i>The Economic Times</i> 8
9.	US to Send USD 400 Million in Additional Military Aid to Ukraine	<i>The Economic Times</i> 9
10.	North Korea Fires 2 Short-Range Ballistic Missiles after US Submarine Arrives in South Korea	<i>The Times of India</i> 10
11.	Joe Biden, Xi Want to See a 'Much Better Relationship', Says Former U.S. Ambassador	<i>The Hindu</i> 12
Science & Technology News		15-16
12.	Final Orbit-Raising Manoeuvre of Chandrayaan-3 Completed	<i>The Hindu</i> 15
13.	ISRO's Wind Profilers to Help Improve Weather Forecast	<i>The Times of India</i> 15

Tue, 25 Jul 2023

Indian Navy to Test its First Indigenously-Developed Unmanned Surface Vessel

The Indian Navy is set for the trials of its first indigenously-developed, ocean-going multirole unmanned surface vessel (USV) for surveillance and minesweeping.

The USV is designed and developed for maritime intelligence gathering, surveillance and reconnaissance. According to the reports, the boat would be 15 meters long and would have a maximum speed of more than 30 knots.

The project is managed by the Weapon and Electronic Systems Engineering Establishment (WESEE) and Bharat Electronic Ltd (BEL), along with Goa Shipyard Ltd (GSL).

According to the official, an indigenous Unmanned Surface Vessel will sail from Goa to Mumbai post-monsoon. Initially, it will test the basic parameters. It will function autonomously with a “static and dynamic” obstacle collision avoidance system.

Additionally, the Navy is also gearing up for testing three types of Software-Defined Radios (SDRs) – SDR NC, SDR-Tac (tactical) – and SDR-NG. These devices are designed and developed by the Weapons and Electronics Systems Engineering Establishment.

<https://www.financialexpress.com/business/defence-indian-navy-to-test-its-first-indigenously-developed-unmanned-surface-vessel-3186779/>

THE TIMES OF INDIA

Wed, 26 Jul 2023

Pixxel Wins Defence Ministry Grant to Build Sats for IAF

Bengaluru-based Space startup Pixxel on Tuesday said it has won a government grant to build multi-payload satellites for the IAF. The multi-crore rupees grant under the ministry of defence’s (MoD) Innovations for Defence Excellence (iDEX) will see Pixxel develop small satellites of up to 150kgs.

“We have won a multi-crore grant for DefSpace challenge under iDEX Prime (Space), to manufacture miniaturised multi-payload satellites for IAF. Received as a part of the SPARK grants

by iDEX, this will equip Pixxel to develop satellites (of up to 150kg) for electro-optical, infrared, synthetic aperture radar and hyper spectral purposes,” the firm said in a statement.

The SPARK grants, offered to startups selected through MoD’s initiatives, are aimed at catalysing innovation enabling Indian entrepreneurs to deliver technologically advanced solutions as well as propel deep-tech innovations in India. Pixxel emerged as the winner of the grant from amongst a host of companies.

Awais Ahmed, CEO, Pixxel, said he was delighted to receive the grant and utilise the firm’s expertise of building microsatellites in-house to manufacture satellites externally for the first time. Vivek Virmani, planning officer, department of defence production under MoD and the COO of iDEX, pointing to the evolution of startups in the Indian space industry, said Pixxel was a testament to the progress of private entities in this sector in such a short time.

<https://timesofindia.indiatimes.com/city/bengaluru/pixxel-wins-defence-ministry-grant-to-build-sats-for-iaf/articleshow/102121268.cms>



Tue, 25 Jul 2023

Contract for Three More Scorpene Submarines Likely by End-2024; First Delivery Expected by 2031

The contract for three additional Scorpene-class diesel-electric submarines is expected to be concluded by end-2024 and first submarine delivered likely in 2031 as the procurement process is set to begin shortly following the Acceptance of Necessity (AoN) for the procurement from the Defence Acquisition Council (DAC) on July 13.

“The contract is expected to be concluded by end next year and delivery of the first submarine is expected by 2031. If a proven, functional Air Independent Propulsion (AIP) module is provided by the Defence Research and Development Organisation [DRDO] as per the construction schedule, it will be fitted on the submarines,” a defence official said.

Naval Group and the Mazagon Dock Limited (MDL), Mumbai signed a Memorandum of Understanding (MoU) for cooperation on three additional Scorpenes on July 6.

India had contracted six Scorpene-class submarines from Naval Group under a \$3.75 bn deal signed in October 2005 under which they were manufactured by the MDL under technology transfer. The first submarine in the series, INS Kalvari, was commissioned in December 2017, second submarine INS Khanderi in September 2019, third one INS Karanj in March 2021, fourth one INS Vela in November 2021 and the fifth one, INS Vagir, in January 2023. The 6th submarine, Vagsheer, is undergoing trial phases and is expected to be delivered to the Navy in early 2024.

As reported by The Hindu recently, Naval Group Chairman and Chief Executive Officer Pierre Éric Pommellet said the details of technical features and other parameters, including delivery lead time, would be complied with the MDL as per the requirements of the Indian Navy.

Higher indigenous content

A Defence Ministry statement said the three additional submarines would have higher indigenous content and would also come fitted with the DRDO-developed AIP system to enhance their endurance. Confirming this, Mr. Pommellet had said that the indigenous content would be higher as several efforts were in place in areas of DRDO AIP, combat system among others.

Separately, Naval Group is working with the DRDO to integrate the indigenous AIP module on the existing Scorpene submarines in service as they go for normal refit, beginning with INS Kalvari end-2024 or early-2025. Towards this, Naval Group is currently supporting the DRDO in qualifying indigenous supplier of liquid oxygen tank and preparation of the future stage of jumboisation which involves making the new hull, integrate the AIP safely, cut the submarine and join it with the new AIP section.

The Navy currently has 16 conventional submarines in service, which include seven Russian Kilo-class submarines, four German HDW submarines and five Scorpene-class submarines. This is set to deplete further in the next decade due to belated new inductions and in the interim four Kilo-class submarines and three German HDWs are being given life extension through the Medium Refit Life Certification (MRLC) process.

<https://www.thehindu.com/news/national/contract-for-three-more-scorpene-submarines-likely-by-end-2024-first-delivery-expected-by-2031/article67120461.ece>

ThePrint

Tue, 25 Jul 2023

LAC Tensions Eroded Trust Says Ajit Doval, as China Pushes for ‘Concrete Policies’ to Stabilise Ties

National Security Advisor Ajit Doval has made it clear to China that tensions along the Line of Actual Control (LAC) since 2020 had eroded strategic trust and the public and political basis of the relationship between two countries.

Wang Yi, member of the Communist Party of China’s (CPC) political bureau and director of the office of the CPC Central Committee’s Foreign Affairs Commission, who met Doval in Johannesburg Monday, called for what he termed as “concrete policies” to be implemented in the consensus in stabilising India-china ties.

He underlined that both sides should adhere to the strategic judgment made by two heads of State that “China and India pose no threat but offer development opportunities for each other”.

Wang was referring to the outcome of a meeting held between Prime Minister Narendra Modi and Chinese President Xi Jinping in India in 2019.

However, it in May 2020 Chinese troops violated the agreements at the LAC and transgressed into Indian territories which has led to tensions between both the countries since.

Doval who met with Wang on the sidelines of the BRICS NSA meet, emphasised the importance of continuing efforts to fully resolve the situation and restore peace and tranquillity in the border areas, so as to remove impediments to normalcy in bilateral relations.

The two sides agreed that the India-China bilateral relationship is significant not only for the two countries, but also for the region and world, a statement released by the Ministry of External Affairs said.

In its own statement, China sought to blame India for the ongoing border tensions, saying Wang encouraged “both countries” to enhance strategic mutual trust, focus on consensus and cooperation, and promote bilateral ties back to a healthy and stable development path as soon as possible.

The statement also quote him as saying that China-India relations affect the world at large.

‘Willing to work with China to normalise ties’

China will never seek hegemony, and stands ready to work with developing countries, including India, to support multilateralism and the democratisation of international relations, and promote the more just and equitable development of international order, the statement by China said.

State-run Chinese news agency Xinhua meanwhile quoted Doval as saying that India and China share broad common interests.

It also quoted Doval as saying that India is willing to work with China, in the spirit of mutual understanding and mutual respect, to find a fundamental solution to the border issues and improve the bilateral relations in a timely manner, so as to make positive contributions to world peace and prosperity.

Sources in the Indian defence and security establishment also told ThePrint said that India is willing to work with China to bring back the ties to normalcy but the ball is in China’s court, since it is the aggressor and changed the status quo along the LAC.

Incidentally, External Affairs Minister S. Jaishankar had also met with Wang earlier this month.

While Jaishankar had tweeted about the meeting saying he had discussed the border issues, there was no statement from the MEA about it.

<https://theprint.in/defence/lac-tensions-eroded-trust-says-ajit-doval-as-china-pushes-for-concrete-policies-to-stabilise-ties/1684714/>

THE ECONOMIC TIMES

Tue, 25 Jul 2023

NSA Doval’s Message to China: Depoliticise UNSC Sanctions Committee

NSA participated in the 13th BRICS NSA meeting in Johannesburg on Tuesday and in message for China affirmed that that the “decision making of the UNSC sanctions committee is free from politicization and double standards”.

“Terrorism remains one of the key threats to the national peace and security. Terror organizations in the Af-Pak region continue to operate with impunity. He mentioned that listing terrorists and their proxies under the UN counter terrorism sanctions regime is an area on which BRICS can work together. It is important that the decision making of the UNSC sanctions committee is free from politicization and double standards,” Doval said.

It may be recalled that China has often blocked the efforts to list Pak-based terrorists by UNSC.

Doval mentioned that the meeting is being held at the time of great churn in international security environment. The global security situation is marked by uncertainty and rising tensions. The global economy is still covering from the after effects of the pandemic.

The global commons of cyber, maritime and space are contested. Non-traditional challenges of food, water, and energy security are witnessing stress. Inclusion of these topics by South Africa in the BRICS NSA’s Meeting reflects a clear understanding of the broader dimensions of security.

Regional mechanisms should be utilised to advance common goals and address emerging challenges. All efforts need to be made to ensure equitable and fair access to global commons in line with international laws, the NSA mentioned.

Water security is a major global issue and its prudent usage and conservation is a shared responsibility. Doval mentioned instances of weaponisation of water and mentioned the need for complete transparency and unhindered information sharing with respect to shared cross border water resources. The politicization of water needs to be countered.

The United Nations has declared 2023 as International Year of Millets. India has been at the forefront of supporting educational and behavioral approaches through initiatives like Lifestyle for Environment (LiFE). BRICS countries should set an example for the world by focusing on individual behaviour and make a shift to Lifestyle for Environment, the NSA said.

India is a major actor in the global food supply system and has assisted many countries during the pandemic. Along with supply of food there is a need to ensure unhindered availability of fertilisers. Today's fertiliser shortage could be tomorrow's food crisis.

Supply chain disruptions have had a disproportional effect on the food security of vulnerable populations. This needs to be urgently addressed which is a shared commitment and common responsibility, the NSA noted.

The Importance of research and development occupies primacy in the cyber domain to confront common threats and risks due to emerging technologies. Doval expressed satisfaction that the BRICS working group on ICTs has identified some cutting edge areas like AI, quantum computing, cloud security, Blockchain and Internet of Things as possible Research topics.

He mentioned that the opportunities presented by the digital age will also throw up challenges and the need to be united to fortify cyber defenses, foster international corporation and build a resilient national cyber infrastructure. Cyber attacks knows no borders. The linkage between cyber criminals and terrorists is an emerging concern.

Access to secure and affordable supply of critical materials for development of clean energy technologies is crucial.

During India's G20 Presidency, one of the priorities is to voice the concerns of developing countries. India is proposing to create a global biofuel alliance under G 20, the NSA said.

Doval recalled the Voice of the Global South summit hosted by India in which 125 countries participated and that this year the G20 agenda under India's Presidency will truly encompass the needs of the world, specially the Global South.

<https://economictimes.indiatimes.com/news/defence/nsa-dovals-message-to-china-depoliticise-unsanctions-committee/articleshow/102114994.cms>

THE ECONOMIC TIMES

Tue, 25 Jul 2023

Never Trust your Enemy, be it Pak or China: Ex-Army Chief Gen Ved Malik's Message for Armed Forces

"Be alert and never trust your enemy, be it Pakistan or China." This is former Army chief Gen Ved Prakash Malik's message for the armed forces standing guard at the icy heights here.

Gen Malik, who was the Army chief during the 1999 Kargil war, exuded confidence that if a war situation arises today, India is better prepared than it was during Kargil.

He said his biggest takeaway from the Kargil war is that the enemy cannot be trusted even if there is "political show" of friendship.

For Gen Malik, it was a case of once bitten twice shy, as he recalled the Lahore Declaration that was signed between India and Pakistan in February 1999 and ratified by the parliaments of both countries under which they had an added responsibility towards avoiding nuclear race, as well as both non-conventional and conventional conflicts.

"Never trust your enemy, even if there is a political show of friendship like signing of agreements. This happened before the Kargil war too, the two countries had just signed an agreement (Lahore Declaration) and we were taken by surprise," Gen Malik told PTI on the sidelines of a function here.

"Within a couple of months, they intruded our territory, not with Mujahideen or jihadis, but with Pakistan army," he added.

He said the "forces should remain alert -- be it China or Pakistan" and there is no room for complacency even if any country is showing or displaying "friendship politically".

"Ceasefire or no ceasefire, I have seen ceasefire broken so many times. So, it does not matter, we have to remain alert on the LAC or the LoC," Gen Malik added.

He said the Kargil war is proof that the Indian Army has the capability and capacity to chase the enemy out even if they were caught by surprise.

"If a war situation arises today, we are ready to fight, we are far more equipped and better prepared. The human resources are as good today as they were 24 years back but the capabilities today have improved a lot compared.

"The armed forces have transformed. We have better equipment, better surveillance, we are prepared to face the challenge," Gen Malik said.

He recalled the situation during 1999 Kargil war with Pakistan and said the challenges were not limited to terrain and weather but on the equipment part too. "However, today we are much better off," he said.

"During Kargil it was different, initially we suffered a lot of casualties because, more because we did not have adequate information and once we got to know more details, we were able to push the Pakistani regular army disguised as raiders from the heights of Kargil.

"...Tololing battle was the first turning point, that was when I got reassured that we will be able to sail through".

The Tololing peak was captured by the 2nd Rajputana Rifles of the Army in June. This was a crucial victory as the peak overlooked the Srinagar-Leh Highway, the main road through which supplies and reinforcement was sent to Kargil and Leh.

Gen Malik was here at Lochamen view point in Drass at an event where war heroes and families of fallen soldiers remembered the brave souls.

Malik's words were echoed by many Kargil war veterans who said while the ceasefire was a good thing to happen, it is Pakistan's habit to violate it.

"Ceasefire depends on both the sides as to how long they will hold it. But, Pakistan has always betrayed... Indian Army is capable. Now, there is Pakistan on the LoC and China on the LAC, but India is ready to deal with both," said Brigadier (Retd) Khushal Thakur, who was commanding officer of 18 Grenadiers and had led numerous operations with his battalion including the victory on Tiger Hill.

Honorary Captain of the Ladakh Scouts, Cheering Stopdan, who also took part in the war, said there should not be any negligence on India's part due to the ceasefire.

"When it snows in the winter, the army comes down. The enemy sees that and goes up. It should not happen. We should not lose what we captured in the war. That is very important," he said.

Brigadier (ret'd) O P Yadav, who was a Colonel during the war, said India is now in a far better and dominating position than Pakistan. "Things have improved because the entire Division has come, they are very well and there on ground. The surveillance capabilities have increased, the communication facilities have increased, fire power has increased."

The Kargil War saw soldiers of Indian Armed Forces fight in the most challenging terrain under harsh weather conditions leading to the defeat of the enemy in Drass, Kargil and Batalik sectors.

On the occasion of the 24th anniversary of the Kargil Vijay Diwas, a briefing was conducted on Tuesday at Lamochen (Drass).

The event commenced with an audio visual narration of the battles which showcased the Kargil War as it unfolded. The vivid narrations, in the backdrop of the very mountains where the fierce battles were fought, recreated scenes of each battle and the venue reverberated with tales of bravery and sacrifice of our soldiers.

The narrations of battle followed by reminiscences of actions by the war heroes themselves, brought to life the bravery, indomitable spirit and everlasting zeal of our braves.

The event was graced by the presence of the War Heroes and Veer Naris, Veer Matas and relatives of the gallant soldiers who laid down their lives during the war.

<https://economictimes.indiatimes.com/news/defence/never-trust-your-enemy-be-it-pak-or-china-ex-army-chief-gen-ved-maliks-message-for-armed-forces/articleshow/102107996.cms>

THE ECONOMIC TIMES

Tue, 25 Jul 2023

A Russian Fighter Jet Fired Flares at US Drone over Syria and Damaged it, Says US Military

A Russian fighter jet flew within a few metres of a US drone over Syria and fired flares at it, striking the American aircraft and damaging it, the US military said Tuesday. A senior Air Force commander said the move on Sunday was an attempt by the Russians to knock the MQ-9 Reaper drone out of the sky and came just a week after a Russian fighter jet flew dangerously close to a US surveillance aircraft carrying a crew in the region, jeopardising the lives of the four American crew members.

"One of the Russian flares struck the US MQ-9, severely damaging its propeller," Lt Gen Alex Grynkeiwich, the head of US Air Forces Central, said in a statement describing the latest close call. "We call upon the Russian forces in Syria to put an immediate end to this reckless, unprovoked, and unprofessional behaviour."

Grynkeiwich said one of the crew members operating the drone remotely kept it in the air and flew it back to its home base. The Sunday incident is the latest in a series of encounters between Russian fighter jets and US aircraft flying over Syria. In all but the one instance a week ago, the US aircraft were MQ-9 drones without crew members.

On that Sunday, however, the Russian Su-35 jet flew close to a US MC-12 surveillance aircraft with a crew, forcing it to go through the turbulent wake.

US officials at the time called it a significant escalation in the ongoing string of encounters between US and Russian aircraft that could have resulted in an accident or loss of life. They said the Russian move hampered the crew members' ability to safely operate their plane.

In recent weeks, US officials said, Russian fighter jets have repeatedly harassed US MQ-9 drones, which are conducting anti-Islamic State group missions, largely in western Syria.

On multiple occasions in the past three weeks, the officials said, Russian fighter jets flew dangerously close to the US Reapers, setting off flares and forcing the drones to take evasive maneuvers.

US and Russian military officers communicate frequently over a deconfliction phone line during the encounters, protesting the other side's actions.

There are about 900 US forces in Syria, and others move in and out to conduct missions targeting Islamic State group militants.

<https://economictimes.indiatimes.com/news/defence/a-russian-fighter-jet-fired-flares-at-us-drone-over-syria-and-damaged-it-says-us-military/articleshow/102113497.cms>

THE ECONOMIC TIMES

Wed, 26 Jul 2023

Russian Defence Minister Sergey Shoigu Arrives in North Korea for Three-Day Visit

Russian Defence Minister Sergey Shoigu arrived in North Korea on Tuesday, TASS News Agency reported citing Moscow's defence ministry.

Minister Shoigu with his Russian military delegation is on a three-day visit to North Korea.

"The Russian delegation was ushered in with an official welcoming ceremony at the Sunan international airport (Pyongyang)," it said. "The Russian defence minister was welcomed by North Korean Defense Minister Kang Sun-nam."

The Russian delegation will take part in festivities dedicated to the 70th anniversary of the end of the Korean War.

"This visit will help strengthen Russian-North Korean ties and will be a milestone in the development of cooperation between the two countries," the ministry added.

Earlier, North Korean state media, the Korean Central News Agency (KCNA), reported that the minister will pay a congratulatory visit to the Democratic People's Republic of Korea on the occasion of the 70th anniversary of the Korean people's victory.

Chinese Communist Party official Li Hongzhong, who is part of the party's central policymaking committee and holds a leadership position in the top body of its rubber-stamp Parliament, will also lead a delegation to Pyongyang this week, according to KCNA.

Both Russia and China are Pyongyang's longtime allies. Back in 1950, China helped North Korea by sending a quarter million troops into the Korean Peninsula. More than 180,000 Chinese troops

died in the Korean War, or what Beijing calls the War to Resist US Aggression and Aid Korea, as per CNN.

The Soviet Union also supported North Korea during the war and over the decades Moscow has been a staunch ally for North Korea, especially as the two share a joint animosity towards the West.

The China and Russian delegations' visit came at the time amid simmering tensions between North Korea and South Korea and its US ally.

US and South Korea have condemned Pyongyang's missile test several times, and on several occasions, Washington and Seoul have deployed military assets like nuclear-capable submarines and bombers.

The tensions increased as last week US soldier Pvt Travis King illegally entered the North Korea after crossing its border with the South Korea, where he was assigned to US Forces Korea and had been on the Joint Security Area (JSA) tour as a civilian.

King was facing disciplinary action and was meant to go back to the US. He is believed to be the first US soldier to cross into North Korea since 1982.

On July 17, the United Nations Command (UNC) deputy commander, Gen Andrew Harrison, said a "conversation has commenced" with North Korea over King. But Pyongyang does not seem to be responding to Washington directly, reported CNN.

<https://economictimes.indiatimes.com/news/defence/russian-defence-minister-sergey-shoigu-arrives-in-north-korea-for-three-day-visit/articleshow/102120356.cms>

THE ECONOMIC TIMES

Wed, 26 Jul 2023

US to Send USD 400 Million in Additional Military Aid to Ukraine

The United States is sending USD 400 million in additional military aid to Ukraine, including a variety of munitions for advanced air defence systems, artillery rounds and armoured vehicles, the State Department announced Tuesday (local time).

In a statement, Antony Blinken, Secretary of State said, "Pursuant to a delegation of authority from President Biden, I am authorizing our 43rd drawdown for Ukraine. This assistance package includes air defence munitions, artillery rounds, armoured vehicles, and anti-armor capabilities, as well as other equipment essential to strengthening Ukraine's brave forces on the battlefield, helping them retake Ukraine's sovereign territory, and defend their fellow citizens."

"This package contains critical military assistance totalling USD 400 million worth of arms and equipment from Department of Defense stocks," he added.

He also stated that following the withdrawal from the Black Sea Grain Initiative, Russia continues to attack Ukrainian ports and grain infrastructure - including in Odessa.

Blinken further added that Russia could have ended this war at any time by "withdrawing its forces from Ukraine" and stopping its brutal attacks against Ukraine's cities and people. Until it does, the United States and our allies and partners will stand united with Ukraine, for as long as it takes," he added.

Earlier in June, the US Department of Defence announced an additional security assistance package, valued at up to USD 500 million, for Ukraine to meet its "critical security and defence needs."

The security package includes crucial capabilities to aid Ukraine's counteroffensive operations in its ongoing conflict with Russia and to strengthen its air defences.

"Today, the Department of Defence (DoD) announced additional security assistance to meet Ukraine's critical security and defence needs," the US Department of Defence said in an official release.

"This authorization is the Biden Administration's forty-first drawdown of equipment from DoD inventories for Ukraine since August 2021. This package, valued at up to \$500 million, includes key capabilities to support Ukraine's counter-offensive operations, strengthen its air defences to help Ukraine protect its people, as well as additional armoured vehicles, anti-armour systems, critical munitions, and other equipment to help Ukraine push back on Russia's war of aggression," the release said.

Since the Russian invasion of Ukraine, the US has condemned all acts by Moscow and has shown firm support to Ukraine, and its people.

<https://economictimes.indiatimes.com/news/defence/us-to-send-usd-400-million-in-additional-military-aid-to-ukraine/articleshow/102120508.cms>

THE TIMES OF INDIA

Tue, 25 Jul 2023

North Korea Fires 2 Short-Range Ballistic Missiles after US Submarine Arrives in South Korea

North Korea fired two short-range ballistic missiles into its eastern sea, South Korea's military said on Tuesday, adding to a recent streak in weapons testing that is apparently in protest of the US sending major naval assets to South Korea in a show of force. In its third round of launches since last week, North Korea fired the missiles just before midnight from an area near its capital, Pyongyang, South Korea's Joint Chiefs of Staff said. It said both missiles travelled around 400 kilometers (248 miles) before landing in waters off the Korean Peninsula's eastern coast.

Its statement called North Korea's missile launches a "grave provocation" that threatens regional peace and stability.

The launches came hours after South Korea's navy said a nuclear-propelled US submarine - the USS Annapolis - arrived at a port on Jeju Island. That underscored the allies' efforts to boost the visibility of US strategic assets in the region to intimidate the North.

Last week, the USS Kentucky became the first US nuclear-armed submarine to come to South Korea since the 1980s. North Korea reacted to its arrival by test-firing ballistic and cruise missiles last week in apparent demonstrations that it could make nuclear strikes on South Korea and deployed US naval vessels.

Also on Monday, the American-led UN Command said it has started "a conversation" with North Korea about a US soldier who ran into the North last week across one of the world's most heavily fortified borders.

Andrew Harrison, a British lieutenant general who is deputy commander at the UN Command, which oversees implementation of the 1953 armistice that ended fighting in the Korean War, declined to comment about the state of the inquiry to North Korea or say what the command knows about Pvt. Travis King's condition.

"I am in life an optimist, and I remain optimistic," Harrison said during a news conference in Seoul.

In Washington, State Department spokesman Matthew Miller said North Korea had only "acknowledged" receiving the UN message last week and had not provided any information or commented further since then.

"There have been no new contacts since last week," Miller said, adding that North Korea also had not responded to messages sent by US civilian or military officials.

North Korea has remained publicly silent about King, who crossed the border during a tour of Panmunjom while he was supposed to be heading to Fort Bliss, Texas, following his release from prison in South Korea on an assault conviction.

The US still has not been able to ascertain King's condition, a senior administration official said Monday in Washington. Asked if US officials had a better understanding of whether King intended to defect, the official said they still had "no indication about what was going on in his mind that day." The official was not authorized to comment publicly and spoke on the condition of anonymity.

Analysts say North Korea may wait weeks or even months to provide meaningful information about King to maximize leverage and add urgency to US efforts to secure his release. Some say North Korea may try to wrest concessions from Washington, such as tying his release to the United States cutting back its military activities with South Korea.

King's crossing came at a time of high tensions in the Korean Peninsula, where the pace of both North Korea's weapons demonstrations and the United States' combined military exercises have intensified in a tit-for-tat cycle.

In between the ballistic and cruise missile launches last week, North Korea's defence minister also issued a veiled threat, saying the Kentucky's docking in South Korea could be grounds for the North to use a nuclear weapon against it. North Korea has used similar rhetoric before, but the statement underscored how strained relations are now.

The United States and South Korea have expanded their combined military exercises and increased regional deployments of US aircraft and ships, including bombers, aircraft carriers and submarines to counter the nuclear threats posed by North Korea, which has test-fired around 100 missiles since the start of 2022.

The Annapolis, whose main mission is destroying enemy ships and submarines, is powered by a nuclear reactor but is armed with conventional weapons. The sub mainly docked at Jeju to load supplies, but Jang Do Young, a spokesperson for South Korea's navy, said the US and South Korean militaries were discussing whether to arrange training involving the vessel.

The Koreans are still technically at war since a peace treaty was never signed.

Their armistice becomes 70 years old Thursday, an anniversary South Korea will mark with solemn ceremonies honouring the dead that will involve invited foreign war veterans.

North Korea, which celebrates the date as victory day for the "great Fatherland Liberation War," plans huge festivities that will likely include a military parade in the capital, Pyongyang, where leader Kim Jong Un may showcase his nuclear-capable missiles designed to target regional rivals and the United States.

North Korea's state-run Korean Central News Agency said Monday that a Chinese delegation led by Li Hongzhong, vice chairman of the standing committee of the country's National People's Congress, would attend the celebrations.

Visits by foreign guests to North Korea have been extremely rare since the start of the pandemic, which prompted the North to seal its borders to protect its poor healthcare system. North Korea since last year has been gradually reopening trade with China in an apparent effort to salvage a crippled economy damaged further by the pandemic-related border controls.

<https://timesofindia.indiatimes.com/world/rest-of-world/north-korea-fires-2-short-range-ballistic-missiles-after-us-submarine-arrives-in-south-korea/articleshow/102097099.cms>



Wed, 26 Jul 2023

Joe Biden, Xi Want to See a ‘Much Better Relationship’, Says Former U.S. Ambassador

The U.S. and China are working to stabilise their relationship but face challenges from persisting mistrust to the Taiwan issue. Max Baucus, former U.S. Ambassador to China, says in an interview that both sides should consider making unilateral actions to build confidence rather than be tied down by reciprocity. Washington, he suggests, should, as a start, repeal sanctions on the Chinese Defence Minister, which has emerged as a stumbling block in restarting military dialogues. On Taiwan, he says both sides should work to maintain the status quo. While the U.S. is building closer security ties with allies as well as partners such as India to counter China, the key challenge in the region, he says, lies on the trade and commercial front. Excerpts from an interview.

Where are U.S.-China relations heading at the moment? We are clearly seeing stepped up engagement by both sides. Are you optimistic after Secretary of State Antony Blinken’s visit last month to Beijing?

After Bali [when Presidents Biden and Xi met in November 2022], things went south. A lot of people were telling the administration, ‘hey, this isn’t working too well’, and there were also people probably telling the Chinese leadership that this isn’t working too well.

I do think both President Biden and President Xi want to get a much better relationship because they both know that’s important for their country’s future, in terms of economics, science, global health. So that’s why they orchestrated that meeting. I also think this [engagement] is to pave the way for President Xi to go to APEC [in San Fransisco in November] and to visit in a way that he feels good to be in the United States, and maybe meet with President Biden.

But at the end of the day, it’s deeds, not words. That’s most important. I would say constantly when I was serving in Beijing: ‘Tell us what’s your aspiration? Do you want to be the hegemon? I don’t care what you say, but are you going to show that you don’t want to be the real hegemon?’ They would listen, but I never got a response. But that’s fine. You just keep making the point. When I was serving over there, I developed what I call my ‘three Ps’. With China, you have to be patient, positive, persistent. Stick with the message. And, after a while, things start to fall into place.

There appeared to be a meeting of minds between Presidents Biden and Xi in Bali. Things then went downhill. What went wrong?

When I was in the Senate, I would often go home to my state of Montana. I would say, when I get back to Washington, I’m going to do A, B, C, all these great things. But when I come back, thud,

it's the bureaucracy of Washington. It's very, very hard to break through. It's just hard to get stuff done. So what I think happened is President Biden and President Xi went home. The follow up takes extreme discipline. But things fell apart, with the incident with the balloon, whatever it was.

How did the 'spy balloon' row end up having such a huge impact, including cancelling Secretary Blinken's planned trip which, of course, later went ahead?

It was very unfortunate. It was visual – a physical object – and not a concept, it's not sanctions or the entities list. It was a balloon, and it was from China. It was so unfortunate that a small development like that below things so much out of proportion.

President Biden often mentions the need for "guardrails" in the U.S.-China relationship. What are your thoughts on what those guardrails should be?

We talk about 'a small yard and high fence'. The trouble is, it is getting to be a pretty big yard and a high fence. I think the idea of guardrails is a little negative. I'd rather just find areas where we really work together in basic cooperation, and just do that. And then the guardrails will take care of themselves. I think that too often with the U.S. and China, reciprocity can get in the way. Sometimes you cannot wait and you have got to take the first step, if the U.S. or China were to take some unilateral actions to show good faith, not expecting reciprocity.

For instance, you have the Chinese Defence Minister who is sanctioned. I can understand why the Defence Minister did not want to meet with Secretary [of Defence] Austin. To me, it's a no-brainer to repeal that sanction. But even that is going to be extremely hard because of the politics. A couple of months ago, I was talking to former [Chinese] Ambassador Cui Tiankai and said, why can't China take some unilateral action that showed good faith? He said it is too hard. The same is true with the U.S. But once it happens, it is going to have a positive effect.

Beijing also seems to have a fundamental issue with the Biden administration's emphasis on competition, that competition is going to be an essential part of the relationship. How do both sides get around this apparently fundamental difference?

When Secretary Blinken gave his first big policy speech, I recall there were three points: building the U.S. strong, for instance with infrastructure, the CHIPS Act and so on; working with our allies, which I understand; and third, it was about competing. There wasn't a fourth on cooperation. I think the real question to ask is, what does compete mean? Does it mean we are going to win? This is because the more that compete means winning, the more it's going to upset the other side, as they are going to want to win. And then we're in the soup. The effect here is much less cooperation.

Competing sounds good on the surface, but too few people ask the next question, what does that really mean? It should be asked frequently. I've asked that question frequently, and I haven't gotten an answer. I think it is one of the key questions, and exposes a kind of undisciplined thinking.

The other big issue is Taiwan. Secretary Blinken in Beijing reaffirmed the 'one China policy', but China has recently accused the U.S. of 'hollowing' it out, especially after Nancy Pelosi's visit.

don't think the U.S. understands that Taiwan is an existential and non-negotiable issue for China. I think too few journalists know very much about the one China policy and its evolution. It's easy for members of Congress, for [Nancy] Pelosi, to go over [the August 2022 visit strained relations]. She should not have. It's such a freebie for them to say because they are not the executive branch, they can. I think the better approach to Taiwan – Deng Xiaoping had it right – was to put the issue on the shelf. What U.S. and China should do is to maintain the status quo. The Taiwanese don't want war, they say, 'we like our country, don't make things difficult.' I think what happened with Senator Kevin McCarthy [who hosted President Tsai in California instead of travelling to Taiwan as he had initially planned] was orchestrated. The Pelosi visit didn't go too well, and both sides

said, well, let's find a nuance and have McCarthy meet Tsai Ing Wen in California, not have a joint session [of congress for Tsai in Washington] and so on. It could have been much, much worse.

What is your impression of the Biden administration's outreach to allies and partners such as India, as part of its broader China policy?

The Biden administration is happy to see strong alliances. When I was in Beijing, the most important geopolitical matter across my desk was the Trans Pacific Partnership. Ambassadors from Southeast Asian countries would say you have got to pass that, because if you're here, then we could more easily push back against China. If you are not here, it's harder for us to push back. This leads to a deeper point which is critical. And that is that the U.S. should push more to enhance commercial ties with countries, trade, investment, and so forth. Too much is wrapped up in political headlines, and often that is only background.

Finally, you have been championing closer people-to-people ties with China even while political ties are strained. How have the political problems affected what you are doing?

When I was in college, I had attended overseas campuses in France. At the end of six months, I realised that I hadn't learned anything. I decided not to come home, but to stay in Europe. So I got myself a knapsack, and I hitchhiked around the world for one full year, Europe, Africa and Asia. We were getting off a boat in then Bombay. This was 1963. I went to Delhi, where I stayed at the YMCA and somebody told me that the Prime Minister sees Americans on Thursdays. I ride over to the Prime Minister's residence. They put me in a room and five minutes later, in walked Prime Minister Nehru out of the blue and he spent 25, 30 minutes talking to me. It was during the Chinese border crisis and you could tell it was weighing on him. He was very friendly. That trip I took opened my eyes. It was an epiphany. That trip encouraged me to get into public service.

When I returned to the United States from Beijing, I wanted to encourage more students to travel and therefore I set up a public policy institute in Montana to get the kids involved, travel. So that's why we are here [in June, the institute brought the first group of American students to China after the pandemic, at the invitation of the China-United States Exchange Foundation (CUSEF)].

I feel very lucky to have had two of the best jobs in the world. One, representing my home state of Montana in the U.S. Senate. Second, representing the United States in Beijing. Before I went over, I read Henry Kissinger's book on China, which was kind of my Bible on how to approach the relationship. People asked me, did you like your job in China? I loved it for two reasons. One, the people, industrious, hard-working, getting things done, the energy. Second, because of the reward of working on the US China relationship. It's so important. Many people have spoken of the importance of US China relationship for the well being of our kids and our grandkids. It's true. The better the U.S. and China get along, more likely that our kids and grandkids will have a better future. So I've dedicated myself to all of this.

As the world gets more complicated, with the rise of populism in many parts of the world, especially since there is now greater tension between U.S. and China, it's even more critical that we work harder. The real key is communication and travel, getting to know people in other countries. Americans don't understand Chinese. Americans haven't been to China. U.S. government officials don't know China very well, in my judgement, because they haven't spent much time in China. This may be trite but it's true. Especially now, because so many people are enamoured with social media. Going on the Internet and reading about a place is not the same by any stretch of the imagination. That makes people lazy. With communication and travel, there will be a better understanding of what can be done to find solutions, how we can compromise and understand the nuances and the shades of grey, rather than the black and white polarisation that otherwise occurs.

<https://www.thehindu.com/news/international/joe-biden-xi-want-to-see-a-much-better-relationship-says-former-us-ambassador/article67119705.ece>

Tue, 25 Jul 2023

Final Orbit-Raising Manoeuvre of Chandrayaan-3 Completed

The Indian Space Research Organisation (ISRO) on Tuesday (July 25) successfully completed the fifth and final orbit-raising manoeuvre (Earth-bound perigee firing) of the Chandrayaan-3 mission. It was performed successfully from ISRO Telemetry, Tracking and Command Network (ISTRAC) in Bengaluru.

The spacecraft is expected to attain an orbit of 1,27,609 km x 236 km. This means that Chandrayaan-3 is now in an orbit, which, when closest to Earth is at 236 km and when farthest is at 1,27,609 km. “The achieved orbit will be confirmed after the observations,” ISRO said after the successful orbit-raising manoeuvre.

The four earlier orbit raising manoeuvres were performed by ISTRAC between July 15 and July 20. Following the final orbit-raising manoeuvre, ISRO will perform the TransLunar Injection (TLI) on August 1 to slingshot Chandrayaan-3 towards the Moon.

“The next firing, the TransLunar Injection (TLI), is planned for August 1, 2023, between midnight and 1 a.m. IST,” ISRO said.

The Chandrayaan-3 consists of a lander module (LM), propulsion module (PM) and a rover which was launched by the LVM3-M4 on July 14. After the TLI takes place, the PM and the LM separation will happen on August 17. A series of deboost manoeuvres is also scheduled to take place before the power descent phase for the soft landing on the Moon. The lander is expected to touch down on the Moon surface on August 23 at 5.47 p.m.

The Indian Space Research Organisation (ISRO) successfully completed the fifth and final orbit-raising manoeuvre (Earth-bound perigee firing) of the Chandrayaan-3 mission. It was performed successfully from ISRO Telemetry, Tracking and Command Network (ISTRAC) in Bengaluru.

The spacecraft is expected to attain an orbit of 1,27,609 km x 236 km. This means that Chandrayaan-3 is now in an orbit, which, when closest to Earth is at 236 km and when farthest is at 1,27,609 km. The four earlier orbit raising manoeuvres were performed by ISTRAC between July 15 and July 20.

<https://www.thehindu.com/sci-tech/science/chandrayaan-3-mission-isro-successfully-performs-fifth-orbit-raising-manoevure/article67119210.ece>

THE TIMES OF INDIA

Wed, 26 Jul 2023

ISRO's Wind Profilers to Help Improve Weather Forecast

During the peak northeast monsoon season in November 2021, a massive 20cm rainfall over a weekend brought IMD under fire for failing to predict the downpour. Experts said the pandemic-

induced shortage of imported weather balloons with radiosonde instruments, which measure key atmospheric parameters, was a reason for the failure.

Soon, IMD will install wind profilers, which will eventually replace weather balloons, in nine locations including Chennai, Mumbai, Delhi and Kolkata. These profilers to be designed and developed by Isro will measure key atmospheric parameters such as wind speed and direction, temperature and humidity at various altitudes up to troposphere (17km) and help in increasing the forecast accuracy.

In a recent tweet on MoU signing between IMD and ISTRAC, Isro, the ministry of earth sciences said the data from the profilers will help in forecasting weather patterns and track the movement of storms.

“Wind profiler will give us the wind variability, temperature and humidity for every 100 metres up to the troposphere. If we have all three measurements every 10 minutes, we will be able to forecast better,” said M Ravichandran, secretary, ministry of earth sciences. “Over a period, we want to replace the weather balloons which are imported. The sensors are expensive too,” he added.

The wind profiler installed on the ground will send microwave radio signals, which can penetrate through dense clouds up to 17km to measure atmospheric parameters every 100m vertically and horizontally. The measurements are made from backscattering of the signals. The more the delay in the reflection of signals, the stronger the winds.

At present, weather balloons are flown in 69 weather stations in the country including Meenambakkam in Chennai twice a day. “A meteorologist will have to assume and use the same measurements taken in the morning throughout the day till the next weather balloon is flown in the night. We are not able to capture the proper diurnal cycle. We also used drones for taking measurements, but they have limitations. They can fly only up to a few kilometres. We need to have more data to improve the forecast. The wind profiler will help in that,” Ravichandran said.

The MoES official said Isro has a wind profiler installed at the National Atmospheric Research Laboratory near Tirupati, which the space agency uses to measure wind profiles before rocket launches. India also has a wind profiler given by Sweden installed in its second research station, Maitri, in Antarctica.

<https://timesofindia.indiatimes.com/city/chennai/isros-wind-profilers-to-help-improve-weather-forecast/articleshow/102121335.cms>

© The news items are selected by Defence Science Library, DESIDOC from Print Newspapers and Authentic Online News Resources (mainly on DRDO, Defence and S&T)