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Godrej Aerospace develops and delivers to DRDO the first batch of 1000 proportional solenoid valves a critical component for making covid-19 ventilators

Mumbai: Godrej & Boyce, the flagship company of the Godrej group, announced that one of its businesses, Godrej Aerospace, has made and delivered 1,000 Proportional Solenoid Valves, a critical component for making ventilators, for the Defense Research and Development Organization (DRDO).

The Proportional Solenoid Valve regulates the flow of oxygen based on the requirement of the patient in each breathing cycle, and is a critical component for the manufacture of ventilators and other medical devices.

Following the success of production of complex electro-magnetic valves for medical devices, Godrej Aerospace will now ramp up the manufacturing of different types of PSVs to meet current and future demand for critical medical and other equipment that are completely 'Made in India'. The business is drawing up plans for the international market as a new supply link in the global medical devices industry, as companies look to re-engineer supply chains in the aftermath of COVID-19.

As the COVID-19 pandemic increased demand for ventilators and other life-saving devices across the country, Godrej Aerospace undertook the challenge to produce the entire Proportional Solenoid Valve for the first time in India. Teams from DRDO, Aeronautical Development Agency (ADA) and Bharat Electronics (BEL) collaborated with engineers at Godrej Aerospace. The teams worked 24x7 and took just 10 days to start production under severe supply side and logistics constraints. This included setting up a test-rig for prototypes based on DRDO designs. This was done with due focus on strict sanitization, safety and social distancing protocols for Godrej Aerospace employees.

Accepting the handover of the 1000th Valve in a digital ceremony, the Chief Guest Dr. G Satheesh Reddy, Secretary, Department of Defence R&D, Government of India, Chairman, DRDO and Director General, Aeronautical Development Agency, said, "We're pleased to have partnered with Godrej Aerospace in the development and production of the first 1,000 ventilator valves in a very short time as these components are critical in saving lives in this tragic pandemic. Through the many decades of our association, Godrej has always been a reliable partner. We encourage them to further ramp up production to serve beyond just our nation in such times and will support them as needed. We'd like to congratulate the top management of Godrej, the production staff and shop floor workers and, the company's suppliers for going above and beyond, especially in such a difficult time."

Anil G Verma, Executive Director and President, Godrej & Boyce, said, "Making the nation self-reliant has been a part of the DNA of Godrej since 1897 when we began manufacturing locks

and soaps. The hard work and meticulous planning of our teams at Godrej Aerospace has paid off and despite the lockdown in Mumbai, we were able to deliver 1,000 of these critical valves in a short time-span. This success would not have been possible without constant guidance and encouragement from the DRDO, BEL, ADA teams as well as the collaboration of 22 supply chain partners who supported this important 'Made in India' initiative answering their call of duty."

Surendra M Vaidya, Executive Vice President and Business Head, Godrej Aerospace, added, "Our partnership with the DRDO in areas like defence, space missions and satellites spans over three decades. Based on DRDO design, the Proportional Solenoid Valves were developed and manufactured in 10 days. 1,000 valves have been shipped and we aim to further deliver 2,000 by the end of June. My heartfelt thanks to DRDO, ADA and BEL for their constant faith in us and India's self-reliance in manufacturing of such critical components."

Many senior DRDO scientists from Bengaluru and Delhi, senior executives of Godrej and their supply partners joined the virtual event and witnessed the handing over ceremony.

About Godrej & Boyce

Godrej & Boyce, a Godrej Group Company, operates across 14 diverse businesses. Founded in 1897, the company started with the manufacture of high-quality locks. It has since diversified into Consumer Goods, Office and Industrial Products & Services, Infrastructure & Real Estate. Headquartered in Mumbai, Godrej & Boyce is a market leader in Appliances, Furniture & Interiors, Security Solutions, Locking Solutions, Intralogistics, Aerospace, Nuclear Power, Renewable Energy Infrastructure, Defence, Tooling solutions for the Auto industry, Process Equipment, Power Infrastructure, Real Estate and Green Building Consulting. Godrej is one of India's most trusted brands serving over 1.15 billion consumers worldwide, every day.

<https://www.theweek.in/wire-updates/business/2020/06/25/pwr4-godrej-aerospace.html>

DRDO Technology News



Fri, 26 June 2020

DRDO developed QRSAM Missiles systems moved to Ladakh?

By Raunak Kunde

Indian Airforce (IAF) has moved some of the Air defense systems at the Ladakh region as part of its forward deployment to match aggressive deployment in the region by the Chinese Army and also due to unusual air patrol movements detected by the Chinese air force. Indian media reported that IAF has moved in QRSAM Air defense systems which wrongly was attributed to Air defense systems developed by State-owned DRDO.

Information provided to idrw.org is that IAF has moved 4-5 SPYDER-MR systems from its Western Borders to Ladakh region and it was not DRDO developed QRSAM Air defense system. Many Indian defense observers mistakenly said that DRDO developed the QRSAM Air defense system which is yet to begin its User trials with the Indian Army was the one which was moved to the Ladakh region by Army.



QRSAM Air defense system has completed its Developmental trials by DRDO but waits for user trials to be carried out by Army and not many Mobile Truck-mounted Air defense systems have been manufactured to be rushed to the border. IAF has 18 SPYDER-MR systems that have been moved from some sectors in the western region and are made of Python-5 and Derby in surface to air missiles (SAMs) configuration.

Army already has Mobile Truck-mounted Akash Air defense systems also in the region.

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<https://idrw.org/drdo-developed-qrsam-missiles-systems-moved-to-ladakh/#more-229819>

OBN

For the Community, By the Community

Thu, 25 June 2020

China may do biological attack intelligence agencies alert – China can attack biological attack, intelligence agencies wary

By Abigale Lormen

- *There is not any noise, the position of corona virus is already suspected*
- *Officials of DRDO's Gwalior Laboratory mentioned, Army has adequate sources*

China could also be present process a organic assault in diplomacy and technique after daring within the Galvan valley. According to intelligence businesses, beneath worldwide stress, he can do it straight by way of different anti-India international locations and even by way of terrorists. China's position within the Corona virus is already beneath query.

No vaccine has but been developed amid all of the claims. However, accountable officers of DRDO's Gwalior-based laboratory (DRDE), which conduct analysis on chemical and organic hazards, say that the military has adequate sources to take care of organic assaults as properly.

India is at present disturbed by the position of neighboring international locations. China is dazed by diplomatic and navy sieges. Pakistan can also be firing on the border. Nepal's angle can also be not good. A senior navy official mentioned that China might act like a organic assault in violation of worldwide guidelines.

Recently, the military killed a drone carrying weapons for terrorists. Biological assault can also be attainable by way of drones. In such an assault there is no such thing as a noise, the assault can also be detected after a while and the harm is extra.

A senior official of DRDE, based mostly in Gwalior, says the military is able to take care of such threats. Different laboratories of DRDO have designed particular gear reminiscent of nuclear chemical organic warfare fits, particular masks and so on. Which troopers are utilizing. Special coaching can also be given to them sometimes.

During the assault, it's first found which kind of micro organism has attacked. After this, the emphasis is on neutralizing it. It is then decontaminated. Special chemical agent screens have been developed by DRDO for this course of. Special groups like NSG, SPG are utilizing them properly.

Civilians are additionally hunted together with troopers

Dr. Amit Mohan Varshney, Assistant Professor within the Department of Community Medicine at Maharani Laxmibai Medical College, says that the chance of organic warfare or organic terrorism has elevated. Such an assault straight goals to trigger nice hurt to the military. Biological assault most destroys the respiratory equipment of troopers.

The employees of logistic personnel when they're contaminated, and the following return from the outskirts, additionally hurt the cantonment and the contacting civilian inhabitants. According to Dr. Varshney, for organic assault, micro organism and viruses are at present divided into three classes.

Category A accommodates anthrax, Clostridium botulinum, small pox, whereas class B accommodates brucellosis, clastridium perforation, Chlamydia bibrio cholerae with recurrent illness, and genetically engineered NIFA and HANTA viruses in class C.

Biological Weapons are additionally made from some radioactive supplies. There is a larger risk of manufacturing organic weapons than small pox. It is over in India. Presently docs should not very conscious of this.

<https://ourbitcoinnews.com/china-may-do-biological-attack-intelligence-agencies-alert-china-can-attack-biological-attack-intelligence-agencies-wary/>

अमर उजाला

Fri, 26 June 2020

विश्व विटलिगो दिवस: सूरज की किरणों के साथ विषनाग औषधि से सफेद दाग को रोकने में मिली कामयाबी

सार

- डीआरडीओ का अध्ययन, अब दे रहा देश के लाखों पीड़ितों को राहत
- ल्यूकोस्किन दवा के अब तक डेढ़ लाख से ज्यादा मरीज पंजीकृत
- 70 से 75 फीसदी मरीजों को अब तक सफेद दाग से दे चुका है आजादी

विस्तार

नई दिल्ली: सूरज की किरणों के साथ दुर्लभ औषधि विषनाग के जरिए सफेद दाग (ल्यूकोडर्मा) को रोकने में बड़ी कामयाबी मिली है। रक्षा अनुसंधान विकास संस्थान (डीआरडीओ) के वैज्ञानिकों ने विषनाग सहित अन्य जड़ी बूटियों के मिश्रण से ल्यूकोस्किन दवा को तैयार किया था जिसके अब सफल परिणाम सामने आ चुके हैं।

अब तक देश के करीब डेढ़ लाख मरीज पंजीकृत हो चुके हैं जिनमें 75 फीसदी तक स्वस्थ हो चुके हैं। इसमें विषनाग के अलावा कौंच, बाकुची, मंडूकपर्णी, एलोवेरा, तुलसी इत्यादि जड़ी बूटियां भी मिलकर सफेद दाग को रोकती हैं। विषनाग औषधि सूरज की किरणों की मदद से सफेद दाग को बढ़ने से रोकने में प्रभावी है साथ ही इसे पूरी तरह से खत्म भी कर रही है।



हर वर्ष 25 जून को मनाए जाने वाले विश्व विटलिगो दिवस पर भारतीय वैज्ञानिकों की इस सफलता के बारे में एमिल फॉर्मास्युटिकल के कार्यकारी निदेशक संचित शर्मा ने बताया कि विषनाग काफी दुर्लभ बूटी है। पहाड़ी इलाकों में करीब 5 से सात हजार फुट की ऊंचाई पर यह मिलती है।

इससे तैयार ल्यूकोस्किन को लगाने के बाद सुबह और शाम 10-10 मिनट सूरज की किरणों में बैठने की सलाह दी जाती है, क्योंकि सुबह की धूप से त्वचा को नुकसान भी कम होता है। साथ ही विटामिन भी शरीर को मिलते हैं। उन्होंने बताया कि अब तक डेढ़ लाख मरीज पंजीकृत हो चुके हैं जिनमें से 70 से 75 फीसदी तक मरीजों में इसके सफल परिणाम मिले हैं।

वहीं रक्षा संस्थान जैव-ऊर्जा अनुसंधान संस्थान (डीआईबीईआर) के वैज्ञानिक डॉ. हेमंत कुमार पांडेय ने बताया कि अंतरराष्ट्रीय स्तर पर ल्यूकोस्किन की काफी सराहना हो चुकी है। काफी मरीजों को इससे फायदा हो रहा है। इसे लेकर और भी अध्ययन चल रहे हैं।

उन्होंने बताया कि देश में 4 से 5 फीसदी लोगों में सफेद दाग की परेशानी देखने को मिलती है। जबकि विश्व स्तर पर यह आंकड़ा करीब 1 से दो फीसदी है। चूंकि सफेद दाग को लेकर देश में सामाजिक भ्रांतियां और मानसिक वेदना भी बहुत हैं। इसका इस्तेमाल आसान बनाने के लिए पीने और लगाने (ओरल व क्रीम) दो स्वरूप दिए हैं। उन्होंने बताया कि इसकी ओरल (पीने की खुराक) का असर इम्युनिटी (रोग प्रतिरोधक क्षमता) को बढ़ाने में भी मिला है। बुखार, सर्दी, फ्लू इत्यादि के लक्षण मरीजों में नहीं मिले हैं।

<https://www.amarujala.com/delhi-ncr/world-vitiligo-day-2020-with-help-of-sun-rays-and-vishnaag-herb-leucoderma-can-be-cured-says-drdo-study>

Defence News

Defence Strategic: National/International

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Fri, 26 June 2020

Indian Army Chief visits troops near troubled China border

General M.M. Naravane traveled to the Ladakh region, where 20 Indian soldiers were killed in a recent skirmish

By Ashok Sharma and Aijaz Hussain

India's army Chief visited the border with China in the Himalayan region to review his troops' preparedness after hand-to-hand combat between Indian and Chinese soldiers left 20 Indians dead earlier this month, the army said Thursday.

The trip by General M.M. Naravane to the Ladakh region on Wednesday and Thursday came as two Indian security officials reported that Chinese soldiers have entered Indian-controlled territory in another strategically important area despite ongoing talks between military commanders and diplomats to ease tensions.

Both officials spoke on condition of anonymity because of the sensitive nature of the information and in keeping with government policies. The Indian army has not commented on the reported incursion.

The officials said Chinese troops had advanced in the Depsang Plains, also in Ladakh, in violation of border management and jointly agreed patrolling protocols between the two countries.

Depsang is a strategically important area close to Daulat Beg Oldie, where India in recent years made an airstrip close to China operational.

The Indian officials said a similar Chinese entry in the area took place in 2013, but the two sides resolved it through diplomatic channels.

An army tweet said Naravane visited “forward areas in eastern Ladakh and reviewed operation situation on the ground.”

The Indian officials said the current standoff began in early May when large contingents of Chinese soldiers entered deep inside Indian-controlled territory at three places in Ladakh, erecting tents.

They said the soldiers ignored repeated verbal warnings, triggering a yelling match, stone-throwing, and even fistfights in at least one place along Pangong Lake, the site of several such confrontations in the past.

The Galwan Valley, where the clash occurred, falls within a remote stretch of the 3,380-kilometer (2,100-mile) Line of Actual Control — the border established following a war between India and China in 1962 that resulted in an uneasy truce.

On Thursday, Indian External Affairs Ministry spokesman Anug Srivastava accused Chinese forces of acting in disregard of agreements between the two countries. He said China’s deployment of a large number of troops and “unjustified and untenable claims” on the Galwan Valley were examples of the changed behavior.

“At the heart of the matter is that since early May the Chinese side has been amassing a large contingent of troops and armaments along the Line of Actual Control,” he said in a statement.

“Obviously, the Indian side had to undertake counter-deployments and resulting tension thereafter expressed itself,” he said.

Rahul Bedi, a defense analyst, said that despite claims of mutual disengagement, tensions between Indian and Chinese forces are still high.

“India is trying to match China’s military assets in the region. The Chinese have ingressed disputed areas where both sides are trying to maneuver the situation to their advantage,” Bedi said, adding that he didn’t see a quick end to the crisis.

China on Wednesday again accused India of provoking the border clash, but urged New Delhi to “meet China halfway” in restoring peace and stability along their disputed frontier.

Indian and Chinese military commanders agreed on Monday to disengage their forces in their first meeting since the confrontation.

The clash was the deadliest between the two countries in 45 years. India said 20 of its soldiers died. China has not released any information on casualties on its side.

Soldiers brawled with clubs, rocks, and their fists at 4,270 meters (14,000 feet) above sea level, but no shots were fired, Indian officials have said. The soldiers carry firearms but are not allowed to use them under a previous agreement in the border dispute.

Indian security officials said the fatalities were caused by severe injuries and exposure to subfreezing temperatures.

<https://thediplomat.com/2020/06/indian-army-chief-visits-troops-near-troubled-china-border/>

Back from Leh, Army Chief to brief govt on LAC situation

In the course of his two day visit to Ladakh, Army chief General MM Naravane was briefed on the army's preparations and ability to respond to threatening actions by the Chinese People's Liberation Army (PLA)

By Rahul Singh

New Delhi: In the course of his two day visit to Ladakh, Army chief General MM Naravane — who returned to Delhi on Thursday — was briefed on the army's preparations and ability to respond to threatening actions by the Chinese People's Liberation Army (PLA), and the latest developments along the contested border, said three officers who spoke on the condition of anonymity. The army chief will now brief the top political leadership.

The security review of the Ladakh sector, where tensions rose sharply after 20 Indian soldiers were killed in a clash in the Galwan Valley on June 15, saw the chief tour forward army bases at Durbuk and Chushul, interact with commanders on the ground and undertake aerial surveys of the army's deployments in some sensitive sectors, said one of the officers cited above.

The sectors where Indian soldiers hold forward positions along the Line of Actual Control (LAC) include Depsang, Gogra Post-Hot Springs, Pangong Tso, Galwan Valley, Demchok and Chumar, and military negotiations for disengagement in some of these areas are in progress.

Naravane is expected to brief the political leadership on the military's assessment of the volatile situation along the LAC and steps being taken to ease tensions that could threaten stability in the backdrop of both armies significantly stepping up their military presence, said the second officer cited above.

The situation on the ground is tricky, said the third officer cited above. "There's mutual consensus on disengagement but continuing Chinese military buildup calls into question the PLA's intent to restore status quo ante in strategic areas," he said, adding that Naravane's visit served as a morale booster for forward deployed soldiers.

"The army chief's visit is significant in the wake of recent events that have caused considerable turbulence on the LAC. Also, there has been no concrete commitment by the PLA to stabilise the situation," said former army vice chief Lieutenant General AS Lamba (retd).

Naravane, on Wednesday, awarded commendation cards to three soldiers who were part of the outnumbered Indian squad that bravely fought off Chinese soldiers in Galwan Valley. Among other troops who were awarded commendation cards by Naravane were two soldiers who displayed courage and resolve during a violent face-off with Chinese troops near Pangong Tso on May 5-6.

Both face-offs saw Chinese soldiers gather in large numbers and attack Indian troops with stones, iron rods and nail-studded clubs.

Last week, Air Chief Marshal RKS Bhaduria made a low-key visit to Ladakh to review the Indian Air Force (IAF)'s preparedness in the sector, where the IAF has also raised its guard to deal with any military provocations by the Chinese forces.

<https://www.hindustantimes.com/india-news/back-from-leh-army-chief-to-brief-govt-on-lac-situation/story-TsHH2VyANW5u4LyPqbM4WL.html>

Army alert to PLA build-up in hotspot Depsang

By Rajat Pandit

New Delhi: India is keeping a close watch on China's military mobilisation in the Depsang Plains region, a major hotspot after Pangong Tso, Galwan Valley and Hot Springs areas, which can conceivably threaten a vast swathe of Indian territory in north-eastern Ladakh.

Army Chief General M M Naravane, during his trip to forward areas of eastern Ladakh over the last couple of days, directed further strengthening of patrolling to the 65 points on the Line of Actual Control to plug all gaps, while reviewing the operational situation in all sectors from Daulat Beg Oldie-Depsang in the north to Demchok-Chumar in the south.

The Indian Army has also counter-deployed an adequate number of acclimatised troops and heavy weaponry in order to prevent any further Chinese ingress.

'IAF conducting regular air patrols over Ladakh'

India has also counter-deployed an adequate number of acclimatised troops and heavy weaponry to prevent any further ingress after a sizeable number of Chinese troops intruded deep into Indian territory in the strategically important Depsang Bulge area located at an altitude of over 16,000 feet.

In a show of strength, the People's Liberation Army (PLA) has also deployed over 10,000 troops, with tanks and artillery guns, from its 4th Motorised Infantry Division and 6th Mechanised Infantry Division within its territory near the Line of Actual Control (LAC), sources said.

The Army has already inducted three additional divisions (each has 10-12,000 soldiers) into Ladakh, along with more tanks and artillery guns, while others are being kept on standby. "Additional battalions of Ladakh Scouts and IBTP have also been deployed in eastern Ladakh. Enhanced preparations are in place for any eventuality, with our troops trained and geared for mountain warfare. Indian Air Force (IAF) fighters are also conducting regular combat air patrols over Ladakh to send a signal," a source said.

But the new front opened by the PLA in Depsang Plains, after Pangong Tso, Galwan and Hot Springs, is considered critical because it obstructs the two available routes through the tabletop plateau to the logistical hub and airstrip at DBO and the critical Karakoram Pass in the north. PLA troops, now camping near the 'Bottleneck' area in Depsang, have effectively been blocking Indian patrols to the LAC in the region, sources said.

China has never been happy about Indian reactivating the DBO airstrip, which overlooks the Karakoram Pass and is just about 7km from the Line of Actual Control and the China-occupied Aksai Chin region beyond.

The IAF has been regularly conducting flights of AN-32 and C-130J 'Super Hercules' aircraft to the DBO advance landing ground, which is the world's highest such airstrip at an altitude of 16,614 feet. It was also the DBO sector and nearby areas that bore the brunt of the Chinese attack in the western sector during the 1962 conflict.

The last major troop face-off in Depsang took place in April-May 2013 after PLA troops intruded 19 km across the LAC. Though it was resolved after 21 days through hectic diplomatic negotiations, China has always coveted the Depsang area, just about 35 km south of the Karakoram Pass, which in turn is at the tri-junction of the China-Pakistan-India border.

Indian troops deployed on the Siachen Glacier-Saltoro Ridge region, in fact, prevent Pakistan from the west and China from the east joining forces through the Karakoram Pass to threaten Ladakh. China is also fast expanding its footprint in Pakistan-occupied Kashmir and Gilgit-Baltistan under the China-Pakistan Economic Corridor project.

<https://timesofindia.indiatimes.com/india/army-alert-to-pla-build-up-in-hotspot-depsang/articleshow/76633977.cms>

India Army deploys 3 divisions in Ladakh, bolsters its position on LAC in Aksai Chin

As China is increasing its deployment on the Line of Actual Control (LAC), India has also increased its strength by deploying the Army's three divisions in Ladakh. Indian Army has already deployed its most powerful T-90 Bhishma Tank in East Ladakh
By Krishna Mohan Mishra

New Delhi: After giving a befitting reply to Chinese troops in the Galwan Valley in Eastern Ladakh on June 15 night, the Indian Army is now all set to take back Aksai Chin from China's occupation. About 38,000 square km of territory in Aksai Chin is currently under China's control after border clashes between the two Asian nations in 1962.

As China is increasing its deployment on the Line of Actual Control (LAC), India has also increased its strength by deploying the Army's three divisions in Ladakh. Indian Army has already deployed its most powerful T-90 Bhishma Tank in East Ladakh.



During the 1962 Sino-India war, there was merely one brigade, comprising 2000 jawans, on the Ladakh border. Now, there are three divisions, 45,000 soldiers, to protect the place. In hilly areas, the ratio is 1:12, that is, China will need a strength of 5 lakh soldiers to face the Indian Army's 45,000 soldiers.

On August 5, 2019, China had raised its objection when Ladakh was given a Union Territory (UT) status. The cause of concern for China is that Aksai Chin provides a smooth passage from Tibet to Xinjiang province. If this route is blocked, China will have the option to go through the Karakoram range.

If India makes a forward movement towards Aksai Chin, China will probably also lose its grip over Xinjiang province where Uighur Muslims are constantly harassed by the Chinese regime.

India's Aksai Chin area covers 37,244 km. The area is so large that many states are smaller than this. This area is about ten times larger than Goa; 5 times more than Sikkim; and about one and a half times bigger than Manipur. Aksai Chin is also bigger than many countries. It has more area than Taiwan. Belgium is too small in comparison to Aksai Chin, which is slightly smaller than Bhutan.

Key details of Aksai Chin

- Aksai Chin is part of Ladakh
- It covers an area of 37,244 km
- China started infiltration in Aksai Chin after 1947
- China constructed road in 1957
- 1958: China showed Aksai Chin in its map
- 1962: China occupied it after the war
- 1963: Pakistan handed over Aksai Chin to China
- Aksai Chin is situated in Karakoram mountain range
- Situated 17,000 feet above the sea level
- Covers about 20% of the total area of Kashmir
- Part of the princely state of Kashmir before 1947
- 1947: Raja Hari Singh signed the merger agreement

- 1947: Aksai Chin became part of India legally
- China started infiltration after 1947
- India has asked China to vacate the possession

Aksai Chin's strategic importance

- Important to monitor China
- Connects China with Xinjiang and Tibet
- The highest place in Central Asia
- Strategically significant because of its elevation
- Chinese military can keep an eye on India

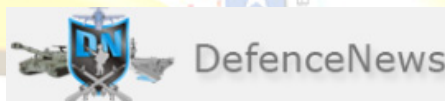
It is believed that Aksai Chin would not have been in the possession of China if the Nehruvian government had remained vigilant against China's designs in the 1950s and had prevented the latter's incursion in time.

The Nehru government failed to check China's move to construct roads. It also failed to understand the importance of military power, otherwise the Indian Army would have been better equipped than China in 1962.

Meanwhile, the central government has decided to focus on improving the infrastructure in the border areas of Ladakh. The construction of as many as 54 mobile towers has started in Ladakh, besides building a mobile tower in Demchok near the LAC.

According to sources, the Nubra region will get 7 mobile towers, Leh will get 17 mobile towers, Zaskar will get 11 mobile towers while Kargil will have as many as 19 mobile towers.

<https://zeenews.india.com/india/india-army-deploys-3-divisions-in-ladakh-bolsters-its-position-on-lac-in-aksai-chin-2291984.html>



Fri, 26 June 2020

Jamnagar air base to get new radar centre

To shore up defences along the China-Pakistan border, the Gujarat government took a major decision on Wednesday. It decided to allot 1400 sq m land for a new radar system at Jamnagar Air Force Station.

The Gujarat government took the decision after discussing border security in the Cabinet meeting held on Wednesday evening.

Jamnagar is home to several refineries and industries. It has the world's largest oil refining and petrochemicals complex and also the second largest private refinery in India.

A modern radar system will not only improve the country and state's defences, but will also be helpful in protecting these important installations.

Jamnagar has base stations of all three wings of Defence: the Indian Air Force, Indian Army, and Indian Navy. Geographically Jamnagar supports all branches of defence, as it has access to the sea for the Indian Navy and a large air base due to the city's strategic location close to Pakistan. The Jamnagar air base is reportedly the largest base of the South Western Air Command.

<https://www.defencenews.in/article/Jamnagar-air-base-to-get-new-radar-centre-861255>



गलवान में ड्रैगन की दगाबाजी: भारत ने तुरंत छोड़े थे सैनिक, लेकिन चीन ने तीन दिन तक दिखाए नखरे

पूर्वी लद्दाख में भारत और चीन की सेनाओं के बीच लंबे समय से तनातनी चल रही है। 15 जून की रात यह तनातनी गलवान घाटी में चरम पर पहुंच गई और इसने हिंसक झड़प का रूप ले लिया। झड़प के बाद दोनों तरफ के सैनिक अपने घायल साथियों को ले जाने के लिए एक दूसरे के इलाके में घुस गए थे।

Edited By Dil Prakash

हाइलाइट्स

- 15 जून की रात गलवान घाटी में दोनों सेनाओं के बीच हुई थी हिंसक झड़प
- घायल साथियों को लाने के लिए एक दूसरे के इलाके में घुस गए थे दोनों तरफ के सैनिक
- अगले दिन भारतीय सेना ने करीब एक दर्जन चीनी सिपाहियों को चीन के हवाले किया
- लेकिन चीनी सेना किसी न किसी बहाने लटकाए रखी भारतीय सैनिकों की रिहाई

नई दिल्ली : पूर्वी लद्दाख में भारत और चीन की सेनाओं के बीच लंबे समय से तनातनी चल रही है। 15 जून की रात यह तनातनी गलवान घाटी में चरम पर पहुंच गई और इसने हिंसक झड़प का रूप ले लिया। इनमें 20 भारतीय सैनिक वीरगति को प्राप्त हो गए थे। इसमें चीन के भी 40 से अधिक सैनिक हताहत हुए लेकिन चीन ने इसे आधिकारिक तौर पर स्वीकार नहीं किया। सूत्रों के मुताबिक इस झड़प के बाद दोनों तरफ के सैनिक अपने घायल साथियों को लाने के लिए एक दूसरे के इलाके में घुस गए। वहां घुप्प अंधेरा होने के कारण दोनों पक्षों के अपने सैनिक पहचानने में दिक्कत हुई। अगले दिन भारतीय सेना ने करीब एक दर्जन चीनी सिपाहियों को चीन के हवाले किया।

कुछ का कहना है कि इनमें चीनी सेना का कर्नल भी शामिल था जो इस झड़प में घायल हो गया था। भारत के बिना देर किए चीन के सैनिकों को लौटा दिया। लेकिन चीन ने यहां भी दगाबाजी की। उसने भारतीय सैनिकों को लौटाने में देर की। गलवान घाटी में हुई हिंसक झड़प में घायल करीब 50 भारतीय सैनिक एलएसी के उस पार रह गए थे। चीन ने इस सैनिकों को लौटाने में 24 घंटे लगा दिए।

बहाने बनाता रहा चीन

सेना के एक सूत्र ने इंडिया टुडे से कहा, 'कुछ सैनिकों को मामूली चोट आई थी तो कुछ गंभीर रूप से घायल थे। लेकिन चीन ने भारत के सभी सैनिकों को नहीं लौटाया।' सूत्रों के मुताबिक चीन ने दस सैनिक भारत को नहीं लौटाए जिनमें चार अधिकारी भी शामिल थे। अगले तीन दिन तक दोनों पक्षों के बीच गहन वार्ता हुई जिसके बाद इस सैनिकों की सुरक्षित वापसी संभव हो पाई।

एक सूत्र ने कहा कि चीन की सेना ने कभी भी इस बात से इनकार नहीं किया कि भारतीय सैनिक उसके कब्जे में नहीं हैं। उसने स्वीकार किया कि भारतीय सैनिक उसके कब्जे में सुरक्षित हैं लेकिन वह उन्हें वापस करने में देर करता रहा। सूत्रों के मुताबिक चीन ने कभी भी 10 भारतीय सैनिकों को छोड़ने का विरोध नहीं किया लेकिन किसी न किसी बहाने भारत का इंतजार लंबा कर दिया।

चीन खेल रहा था माइंड गेम

एक सूत्र ने कहा, 'चीनी सेना ने प्रोसीजर का हवाला दिया और किसी न किसी बहाने मामले को लटकाए रखा।' कुछ जानकारों को कहना है कि चीन भारत के साथ माइंड गेम खेल रहा था। दोनों सेनाओं के बीच

16, 17 और 18 जून को मेजर जनरल स्तर की वार्ता हुई जिसमें भारतीय सैनिकों को सुरक्षित रिहाई पर जोर था। आखिरकार चीन ने 18 जून को 10 भारतीय सैनिकों को भारतीय सेना के हवाले कर दिया। हालांकि दोनों देशों ने आधिकारिक रूप से इस बारे में कुछ नहीं कहा। इसके बाद एक बार फिर दोनों सेनाओं के बीच पूर्वी लद्दाख में तनाव कम करने पर बात शुरू हुई। 22 जून को कोर कमांडर की बैठक में इस बारे में चर्चा हुई।

पॉइंट-14 पर फिर चीन ने खड़ा किया ढांचा

दोनों सेनाओं के बीच पेट्रोल पॉइंट-14 पर हिंसक झड़प हुई थी। समाचार एजेंसी पीटीआई के मुताबिक पेंगोंग त्सो, गलवान वैली और पूर्वी लद्दाख के टकराव वाले इलाकों में चीन ने अपने सैनिकों की तादाद बढ़ा ली है। भारत के कड़े विरोध के बावजूद पॉइंट-14 के इलाके में चीन ने फिर ढांचा खड़ा किया है। रिपोर्ट में सबसे चिंता की बात यह है कि अरुणाचल प्रदेश, उत्तराखंड और सिक्किम में एलएसी पर पीएलए ने अपने जवानों के अलावा गोला-बारूद और हथियार में इजाफा किया है।

पूर्वी लद्दाख में बढ़ रहा चीनी बेड़ा

पेंगोंग त्सो झील और गलवान वैली के साथ ही पूर्वी लद्दाख के कुछ इलाकों में चीनी सेना के जवान बढ़ते जा रहे हैं। पेंगोंग त्सो और गलवान के अलावा डेमचोक और दौलत बेग ओल्डी में भी भारत-चीन के जवान आमने-सामने हैं। भारत ने भी इन इलाकों में अपने सैनिकों की संख्या बढ़ाई है। इन सबके बीच भारतीय वायु सेना हाई अलर्ट पर है। सीमा के पास फ्रंटलाइन सुखोई एमकेआई 30 फाइटर जेट, मिराज-2000, जगुआर फाइटर एयरक्राफ्ट, अपाचे हेलिकॉप्टर और सीएच-47 चिनूक हेलिकॉप्टर तैनात हैं और बीच-बीच में उड़ान भर रहे हैं। खासकर लेह इलाके में आईएफ के लड़ाकू विमान नियमित रूप से उड़ान भर रहे हैं।

<https://navbharattimes.indiatimes.com/india/how-chinese-kept-10-indian-army-men-for-3-days/articleshow/76628147.cms>

अमर उजाला

Fri, 26 June 2020

चीन-नेपाल सीमा पर 24 घंटे डॉग स्क्वायड के

साथ गश्त कर रहे भारतीय जवान, पुलिस भी सतर्क

डीडीहाट (पिथौरागढ़): तीन हफ्ते पहले चीनी सुरक्षा बलों के द्वारा लिपुलेख से भारतीय सीमा पर बने टिन शेड को हटाने के लिए विवादित बैनर लहराने के बाद से नाभीढंग से लिपुलेख तक भारतीय सुरक्षा बल कड़ी चौकसी बरत रहे हैं। भारतीय सुरक्षा एजेंसियों की सतर्कता के बाद से चीनी सुरक्षा बलों की कोई गतिविधि सीमा पर नजर नहीं आ रही है। नेपाल बॉर्डर पर भी एसएसबी की कड़ी चौकसी के बाद सीमा पर शांति है।

एसएसबी और पुलिस ने संयुक्त रूप से दोनों सीमा से सटे क्षेत्रों में बृहस्पतिवार को डॉग स्क्वायड के साथ कांबिंग की। गलवां में चीनी सैनिकों की हरकत के बाद केंद्र सरकार ने आईटीबीपी और भारतीय सेना को नाभीढाग से लिपुलेख तक चौबीस घंटे कड़ी सुरक्षा के साथ गश्त करने के निर्देश जारी किए हैं।

इसके बाद सीमा पर लगातार सुरक्षा बलों की तादाद में इजाफा किया जा रहा है ताकि चीन की किसी भी नापाक हरकत का मुंहतोड़ जवाब दिया जा सके। वहीं नेपाल की सीमा पर भी धारचूला से कालापानी तक एसएसबी ने कड़ी निगरानी के लिए चप्पे-चप्पे पर जवान तैनात किए हुए हैं।

एसएसबी की ओर से पूरी नेपाल सीमा को हाईअलर्ट पर रखा गया है। इस कारण नेपाल की खुली सीमा को भी एक तरीके से सील कर दिया है। भारतीय सुरक्षा बलों की चौकसी व कड़ी गश्त के बाद से भारत के चीन व नेपाल बॉर्डर में शांति बनी हुई है।

इधर, बृहस्पतिवार को एसएसबी की डॉग स्क्वाड और पुलिस टीम ने तवाघाट से गर्बाधार तक संयुक्त रूप से कांबिंग की। नदी के रास्ते कोई भी राष्ट्रविरोधी गतिविधि न हो इसलिए सीमा पर जवान सातों दिन और चौबीसों घंटे अलर्ट हैं। बता दें कि हाल ही में सेना के शीर्ष अधिकारियों ने हवाई सर्वे भी किया था।

<https://www.amarujala.com/photo-gallery/dehradun/india-china-dispute-indian-army-soldiers-doing-patrolling-with-dog-squad-on-china-and-nepal-border>



Fri, 26 June 2020

Know the Indian Army, Regiment of Artillery: The decisive combat army which turns tide of war by unleashing lethal firepower

Artillery is often termed as the game changing arm in the battlefield as the lethal firepower of the booming field guns and howitzers shelling can inflict catastrophic devastation to the enemy and break the backbone of their defences

The Regiment of Artillery is one among the three major Combat Arms of the Indian Army along with the Infantry, Mechanised Infantry and the Armoured Corps. Artillery which is the second biggest arm, next to the infantry and has proved its decisive role in helping the nation win many battles post independence besides playing a crucial role in Counter Insurgency operations in Jammu and Kashmir as also in the North East.

Artillery is often termed as the game changing arm in the battlefield as the lethal firepower of the booming field guns and howitzers shelling can inflict catastrophic devastation to the enemy and break the backbone of their defences.

The most emphatic role of the Artillery as a combat arm came during the 1999 Kargil War when the highly famed Bofors (Howitzers) went all guns booming to bombard the enemy features on the high ridge lines of Kargil and Dras sector and helped the gallant infantry troops make those valiant charges traversing gradients and slopes to capture enemy positions high up in the mountains.



130 mm Howitzer (Image AFP)

Artillery Shapes The Battle And Often Changes The Course Of A War

With its genesis from the cannons and canisters used as munitions by armies in the medieval times, the modern day Artillery comprises of field guns, mortars, howitzers, rockets, missiles, radar systems and even Unarmed Aerial Vehicles (UAVs) which are tactically deployed at strategic locations in the rear to provide surveillance and target acquisition of key enemy locations and then destroy the targets with highly calibrated long range fire.

While the infantry and the armour charge forward to assault and capture enemy positions during combat, the field artillery provides cover fire to the infantry /Armoured Corps in aiding their swift movement / mobilization through heavy shelling on key enemy features.

While the Infantry is hailed as the 'Queen As Battle', The Armour /Cavalry As 'King Of Battle', the Artillery has been rightly labeled as the '*God Of War*' due to the tectonic impact it has in altering the course of a war with the lethality and tenacity of its lethal firepower.

Some Famous Quotes on Artillery By World Renowned Military Commanders

"Artillery Is The God of War" – Stalin

"God Fights On The Side With The Best Artillery" – Napoleon

"I Do Not Have To Tell You Who Won The war. You know, The Artillery Did" - General George S. Patton

So here are some interesting facts about the Regiment of Artillery

History and Origin

The present day Regiment of Artillery in the Indian Army was formerly part of Royal Indian Artillery (RIA) of British Indian Army which itself traces its origins to the Bombay Artillery raised on Sept 28, 1827. This very day is celebrated by the Regiment of Artillery as the "***Gunners Day***".

Raising Of Artillery Regiments

The Regiment of Artillery was raised on 15 January 1935, when the first three Indian Field Regiments, originally numbered A, B, and C were authorized. Originally called the 'Indian Regiment of Artillery', which later became 'The Regiment of Indian Artillery' on 1 November 1940.

Types Of Arty Regiments

The Indian Army Artillery regiments are of different types or classified into various units depending on the weaponry (caliber of guns) at their disposal and the role they play during combat

The Arty regiments are divided into Light Regiments, Field Regiments, Medium Regiments, Rocket Regiments, Missiles Regiments, SATA Regiment and Batteries

Rank and File

An Artillery Regiment is commanded by an officer of the rank of a Colonel. The three batteries (a section of guns) forming part of the regiment are commanded by officers of the rank of Major or Captain. They are called Battery Commanders

Arty School and Centre

The School of Artillery is located at Devlali near Nashik City in Maharashtra. The Artillery Regimental Centre is located in Hyderabad.

Regimental Insignia

The insignia of the Regiment of Artillery is a gun with a star of India placed above it.

Regimental Motto

The regimental motto is *Sarvatra Izzat-o-Iqbal* (Everywhere with Honour and Glory), the Hindustani equivalent of the Royal Artillery motto *Ubique Quo Fas Et Gloria Ducunt* (Everywhere That Right And Glory Lead)

Regimental Colours

The regimental colours of the Regiment of Artillery are Red and Blue. Red and blue represent the flash and the smoke of the gun according to gunners' folklore.

Standard Arty Weaponry of Indian Army

Light - 120mm Mortar

Field - 105mm Field Gun

Medium -155mm M-777 Howitzers, 155m Dhanush, 130 mm M46

Rocket Launchers - BM-21 and Pinaka Multi-Barrel Rocket Launcher

Missiles - Prithvi, Agni, Bramhos

Surveillance & Target Acquisition: UAV Drones (Heron) System

Regiment of Artillery Bifurcated Into Arty, Army Air Defence And Army Aviation Corps

The Regiment of Artillery was divided in the mid-1990s between the Field Artillery (Regiment of Artillery), the Corps of Air Defence Artillery (now Army Air Defence) raised in January 1994, and the Army Aviation Corps formed in November 1993

The Regiment of Artillery has produced five Chiefs of the Indian Army

Army Chiefs Belonging To Regiment Of Arty - General Paramasiva Prabhakar Kumaramangalam, General Om Prakash Malhotra, General SF Rodrigues, General Sundararajan Padmanabhan and General Deepak Kapoor.

<https://news.abplive.com/news/india/know-the-indian-army-regiment-of-artillery-some-interesting-facts-about-lethal-combat-arm-1270011>

hindustantimes

Fri, 26 June 2020

‘Domestic defence-manufacturing to help nation safeguard its prosperity’: MoS Defence

Naik emphasised on the huge opportunity the defence sector presents for the micro, small and medium enterprises (MSMEs)

New Delhi: Strong indigenous defence-manufacturing capabilities would help India safeguard its prosperity generated over the last couple of decades, Minister of State for Defence Shripad Naik said on Thursday.

The minister inaugurated the two-day “Defence Conclave 2020” in Gujarat via video-conferencing on Thursday, a press release issued by the Defence Ministry said. According to the release, in his speech, Naik said, “Strong defence capabilities would help the nation in safeguarding the prosperity generated over the last couple of decades and also protect key economic interests like trade routes and safety going forward.”



Minister of State for Defence Shripad Naik attends two-day “Defence Conclave 2020” in Gujarat via video-conferencing. (Twitter)

“Focus on developing a strong domestic capability in defence would be a great economic growth impetus and also help in skilled job creation in manufacturing, a key need and priority for the nation,” he added.

Naik emphasised on the huge opportunity the defence sector presents for the micro, small and medium enterprises (MSMEs).

“The slowing down or saturation of markets in other sectors has also been responsible for directing their (MSMEs) interest towards the unexplored defence sector, which promises sustained business opportunities,” he said.

<https://www.hindustantimes.com/business-news/domestic-defence-manufacturing-to-help-nation-safeguard-its-prosperity-mos-defence/story-wD1v7M4vKABtWEHIHLYyTK.html>

‘India requests quick delivery of missiles, ammo from Russia; Amethi factory to launch before summit

It is learnt that India has requested in particular for Igla S anti air missiles, assault rifles and ammunition for various Russian origin systems – things that would be needed if the border conflict with China is extended over the coming weeks

By Manu Pubby

New Delhi: India has requested a quick delivery of missiles, ammunition and assault rifles from Russia under the emergency purchase route during a visit by a top delegation to Moscow led by Defence Minister Rajnath Singh.

The requests – which include spares for the army –are believed to have been looked at positively by Russia, with an assurance that quick deliveries would be made, considering the tense situation on the border with China.

Sources said that the two sides also discussed the project to manufacture Kalashnikov rifles at a factory in Amethi under a joint venture approach with OFB and it has been agreed that the facility would be launched by the time Prime Minister Narendra Modi and President Vladimir Putin meet for a summit tentatively planned for October this year.

It is learnt that India has requested in particular for Igla S anti air missiles, assault rifles and ammunition for various Russian origin systems – things that would be needed if the border conflict with China is extended over the coming weeks.

Earlier this month, the government had given emergency procurement powers to the three armed forces, in which orders worth Rs 500 crore could be undertaken at the earliest to meet urgent requirements.

As reported, after his meeting with the Russian Deputy Prime Minister Yury Borisov, Indian Defence Minister Rajnath Singh had said that an assurance has been given that weapon systems requested by India would be delivered at the earliest. “All our proposals have received positive response from the Russian side. I am fully satisfied with my discussions,” the minister had said, without getting into details.

Besides the emergency purchases, the Amethi Rifle factory is a priority area for both sides and has already been delayed by almost a year due to differences on the pricing mechanism. As first reported by ET, a costing committee has now been set up by the defence ministry to take the project ahead. The point of contention has been the Ordnance Factory Board (OFB) that has fixed an unusually high cost for technology transfer and manufacturing.

<https://economictimes.indiatimes.com/news/defence/india-requests-quick-delivery-of-missiles-ammo-from-russia-amethi-factory-to-launch-before-summit/articleshow/76620736.cms>



Defence Minister Rajnath Singh in Moscow



Fri, 26 June 2020

Russia starts deliveries of upgraded Air-to-Air missile to India

Modi government in its efforts to increase stockpiles of Air-to-Air missiles of Indian Air Force (IAF) had placed orders under emergency purchase deals last year and according to information provided to idrw.org, Russia has started shipment of the latest and upgraded inventory of three different types of Air-to-Air missiles to India to be equipped on Russian developed Sukhoi-30MKI and Mig-29UPG fleet, which make up 50% of the IAF's fighter jet fleet.

IAF has decided to go with two different Beyond visual range Missiles (BVRAAM) from Russia after Pakistani Air Force F-16s fired AIM-120C5 AMRAAM missile to target unsuccessfully Indian Su-30 MKIs on 27 February, a day after the IAF strikes on Balakot. idrw.org has been informed that the missiles purchased were upgraded ones from the current stocks and now come with additional capabilities and longer range than current inventory.

Two BVRAAMs procured from Russia are upgraded RVV-AE/R-77 called RVV-SD which as per information of Rosoboronexport has a range of up to 110 km. Older RVV-AE stock with IAF had a range of 80km. The Second BVRAAM procured by IAF is R-27ET1 and R-27ER1 which have a range of 80 km and 100 km. both variant have different configuration of seekers to make them more deadly even though considered as an older Generation Air-to-Air missile it is still valued as more reliable by IAF.

Third AAM is Within visual Range Air-to-Air missile (WVRAAM) ordered by India is RVV-MD which has a range of 40 km which is 10km more than the previous R77E which was used by Wing Commander Abhinandan Varthaman to shoot down PAF's F-16 over Pakistan Occupied Kashmir (POK) on 27 February.

idrw.org was told that 300 RVV-MD, 400 RVV-SD, and 300 mix of R-27ET1 and R-27ER1 had been ordered and some of the consignment has started arriving from Russia in special aircraft after India requested early deliveries. India is also looking to arm locally developed Astra Mk1 BVRAAM and Israeli Derby-ER BVRAAMs on its Sukhoi-30MKI fleet and LCA-Tejas MK1A fleet next.

(Note: Article cannot be reproduced without written permission of idrw.org in any form even for YouTube Videos to avoid Copyright strikes)

<https://idrw.org/russia-starts-deliveries-of-upgraded-air-to-air-missile-to-india/#more-229816>



How to play against China: India will need to bring order and alacrity to crisis management

At the strategic level, the government must moot a sustained process of engagement with China at the highest politico-diplomatic echelons. The negotiations should seek multi-dimensional Sino-Indian modus-vivendi; encompassing the full gamut of bilateral issues like trade, territorial disputes, border-management and security

By Arun Prakash

The sudden and tragic loss of 20 Indian army personnel in a treacherous ambush by the People's Liberation Army (PLA) in Ladakh's Galwan Valley has caused deep public anguish and anger, mollified, only partially, by the swift retribution visited on the assailants by our gallant jawans. Equally exasperating for the public has been the cavalier inconsistency of statements emanating from government sources in New Delhi on a matter of grave national importance; especially, since the contradictions have given comfort to the adversary and caused confusion at home.

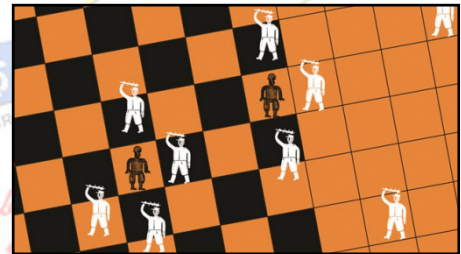
Given that the Sino-Indian territorial dispute has been festering since the late 1950s, it is difficult to avoid the conclusion that the current lack of clarity amongst our decision-makers is rooted in incomprehension of the long-term strategic aims and objectives that underpin China's belligerent conduct. This is hardly a surprise, considering that we have failed to devote adequate intellectual capital, intelligence resources and political attention to acquisition of a clear insight into China and its motivations. Even when intelligence is available, analysis and dissemination have fallen short.

Consequently, it would seem that from Jawaharlal Nehru's naïve hopes, encapsulated in the "Hindi-Chini bhai-bhai" mantra, to Prime Minister Narendra Modi's prolonged courtship of Xi Jinping, India has been groping in the dark, while grossly misreading China's real intent. As we watch Beijing's sinister border strategy unfold, the absence of a matching counter on India's part becomes painfully obvious.

Indians, as devotees of chess or "shatranj", have been thinking in terms of striking blows, fighting pitched battles and finally, checkmating the opponent. A similar Chinese board game, "wei qui", is described, thus, by Henry Kissinger: "If chess is about decisive battle, wei qui is about a protracted campaign and 'strategic encirclement' where opponents seek to occupy empty spaces and then surround and capture opposing pieces. While chess encourages single-mindedness, wei-qui generates guile and strategic flexibility."

Since 1995, China has been issuing a defence white paper (DWP) every two years or so. These thematic public documents articulate China's national security aims, objectives and vital interests and also address the "ends-ways-means" issues related to its armed forces. The 11 DWPs issued so far are a model of clarity and vision, and provide many clues to current developments. It is a measure of our complacency and indifference towards national security that no Indian government since Independence has deemed it necessary to issue a defence white paper, order a defence review or publish a national security strategy. Had we done so, it may have prepared us for the unexpected and brought order and alacrity to our crisis-response.

Historically, China is heir to an ancient system, based not on sovereign equality of states, but on the divine and boundless reach and authority of the Chinese Emperor. Even in the current discourse there are enough pointers to show that an ascendant China sees itself on track to realising its "strong nation dream", of becoming the world's No 1 power by surpassing and then replacing the



At the ground-level, we need to visibly reinforce our positions, and move forward to the LAC all along, enhancing the operational-tempo of the three services as a measure of deterrence. (Illustration by C R Sasikumar)

US. A part of the “China dream” is the establishment of a “unified global system”, or empire, termed tianxia (“all under heaven” in Mandarin). Translating its enormous economic gains into coercive military power, China expects neighbouring nations to submit to its hegemony.

In order to show India its place, China had administered it a “lesson” in 1962, and may, perhaps, be contemplating another one in 2020, with the objective of preventing the rise of a peer competitor. For China, the line of actual control or LAC, representing an unsettled border, provides strategic leverage to keep India on tenterhooks about its next move while repeatedly exposing the latter’s vulnerabilities.

There is probably no other instance world-wide where two antagonistic neighbours have left such a long border, undetermined, unmarked and unresolved for so long. Our diplomats derive considerable satisfaction from the 1993 Border Peace & Tranquility Agreement, which, according to former foreign secretary, Shivshankar Menon, “...effectively delinked settlement of the boundary from the rest of the relationship”. But to a layman, it appears that by failing to use available leverage for 27 years, and not insisting on bilateral exchange of LAC maps, we have created a ticking time-bomb, with the trigger in China’s hands. While “disengagement” may soon take place between troops in contact, it is most unlikely that the PLA will pull back or vacate any occupied position in Ladakh or elsewhere; in which case, India needs to consider a three-pronged strategy.

At the ground-level, we need to visibly reinforce our positions, and move forward to the LAC all along, enhancing the operational-tempo of the three services as a measure of deterrence. Indian warships should show heightened presence at the Indian Ocean choke-points. Cyber emergency response teams country-wide should remain on high alert. While building-up stocks of weapons, ammunition and spares, the Ministry of Defence should seize this opportunity to urgently launch some long-term “atma-nirbharta” schemes in defence-production.

At the strategic level, the government must moot a sustained process of engagement with China at the highest politico-diplomatic echelons. The negotiations should seek multi-dimensional Sino-Indian modus-vivendi; encompassing the full gamut of bilateral issues like trade, territorial disputes, border-management and security. Simultaneously, at the grand-strategic level, India should initiate a dialogue for the formation of an “Indo-Pacific Concord for Peace and Tranquility”, inviting four members of the Quad as well as Vietnam, Indonesia, Philippines and Malaysia.

Finally, in 1962, India’s Parliament had expressed, “the firm resolve of the Indian people to drive out the aggressor from the sacred soil of India”, a resolution interpreted as a pledge for the restoration of Aksai Chin. As a nation, we need to be pragmatic enough to realise that neither conquest nor re-conquest of territory is possible in the 21st century. Parliament should, now, resolve to ask the government, “to establish with utmost urgency, stable, viable and peaceful national boundaries, all around, so that India can proceed, unhindered, with the vital tasks of nation-building and socio-economic development”.

<https://indianexpress.com/article/opinion/columns/india-china-border-stand-off-line-of-actual-control-galwan-valley-6474725/>

US shifting military to face Chinese threat to India and Southeast Asia: Mike Pompeo

India-China border stand-off: Mike Pompeo said US had reduced troops based in Germany to face threats in other places

New Delhi: The Chinese threat to India and Southeast Asia is one of the reasons the United States is reducing its troop presence in Europe, US Secretary of State Mike Pompeo said on Thursday in response to a question at the Brussels Forum virtual conference.

Pompeo was asked why the US had reduced the number of troops it has based in Germany. The US Secretary of State said that if US troops were no longer there, it was because they were being moved to face other places. The actions of the Chinese Communist Party meant there were “threats to India” and countries such as Vietnam, Indonesia, Malaysia, Philippines and the South China Sea. The US military is “postured appropriately” to meet these “challenges of our time”, he said.



US Secretary of State Mike Pompeo attributed movement of troops out of Germany to threats being faced from the Chinese in other places such as India and Southeast Asia(AFP)

Pompeo noted that the Trump administration had carried out a long overdue strategic posture review of the US military two years ago. The US had carried out a fundamental relook at the threats it faced and how it should allocate its resources, including intelligence and military and cyber.

As part of this exercise, Pompeo said it was felt that the capacity to deter Russia or other adversaries wasn't determined any longer “by having a bunch of folks garrisoned some place”.

“We are going to make sure we are postured appropriately to counter the PLA (People's Liberation Army). We think that is the challenge of our time and we are going to make sure we have resources in place to do that”: Mike Pompeo

“So we really went back to fundamentally relook at what is the nature of the conflict, what is the nature of the threat and how should we allocate our resources. Whether that is our resources in the intelligence community, our resources in the air force, the marines, our broad set of allocations of the security apparatus,” he said.

“The decision that the President made with respect to Germany is an outcome of a collective set of decisions about how we are going to posture our resources around the world,” he said, pointing that this would imply that there would be fewer American resources in some places.

“There will be other places - I just talked about the threat from the Chinese Communist Party - ... threats to India, threats to Vietnam, threats to Malaysia, Indonesia, South China Sea challenges, the Philippines. We are going to make sure we are postured appropriately to counter the PLA (People's Liberation Army). We think that is the challenge of our time and we are going to make sure we have resources in place to do that,” he said.

Earlier, he announced the formation of a US-European dialogue on China so that the Atlantic alliance could have a “common understanding of the threat posed by China”. Pompeo said the two sides needed “a collective data set” on China's action so the two could take action together.

Speaking about the Chinese threat, he cited the “bloody border confrontation with India,” Beijing's South China Sea activity and its predatory economic policies as evidence.

Asked whether Huawei was part of the Chinese “surveillance state,” Pompeo said Chinese security force personnel worked on the top floor of the company headquarters and Chinese law required Huawei to pass any data, including personal data, to the Chinese Communist Party whenever the latter asked. He said there was more evidence that he could not state in public.

The day before the US foreign minister had tweeted: “The tide is turning toward trusted 5G vendors and away from Huawei. The world’s leading telecom companies-Telefonica, Orange, Jio, Telstra, and many more-are becoming ‘Clean Telcos.’ They are rejecting doing business with tools of the CCP surveillance state, like Huawei.”

<https://www.hindustantimes.com/india-news/1-terrorist-killed-in-jammu-and-kashmir-s-tral-in-an-ongoing-encounter-police/story-JTHaBhiREESfCW3AT5u0dL.html>

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Fri, 26 June 2020

The Sino-Indian clash: Russia in the middle

The Sino-Indian clash puts Russia in an awkward position

By Rajeswari Pillai Rajagopalan

In the midst of a border crisis with China, Indian Defense Minister Rajnath Singh is away in Moscow. At the same time, India’s foreign minister joined his Russian and Chinese counterparts online for an Russia-India-China (RIC) meeting. The Sino-Indian crisis potentially puts Russia in a difficult position, having to choose between its traditional partners in India, which also represents a lucrative arms market, and its new but much more powerful friend in the east, China.

The ostensible reason for Singh’s visit to Russia was to attend the rescheduled Victory Day Parade. The annual parade commemorating the end of World War II was supposed to be held on May 9, but was postponed due to the pandemic. A 75-member tri-service Indian military contingent participated in the parade.

The Chinese defense minister was also in Moscow to attend the same parade. However, the Indian side made it clear that there would be no meeting between the two ministers. All negotiations between India and China on the border crisis are taking place bilaterally either through diplomatic channels or through local military commanders. The fact that the RIC meeting was an online affair also helps to ensure that Russia is not forced to mediate between the two sides.

Indian anger at China is palpable. In fact, Indian Foreign Minister Dr. S. Jaishankar in his speech at the RIC pointedly stated that “the challenge today is not just one of concepts and norms, but equally of their practice. The leading voices of the world must be exemplars in every way.”

India’s interests in Russia are obvious. A significant part of Indian military equipment comes from Russia. In the midst of the crisis with China, the Indian Air Force has asked for 33 new fighter aircraft including 21 MiG-29s and 12 Su-30 MKIs from Russia. This is an old acquisition plan, but it has been pushed for accelerated delivery. The deal is worth over 60 billion Indian rupees (\$793 million) and is expected to be approved by the Ministry of Defense in the coming days. In addition, India had already ordered 272 Su-30 MKIs spread over a 10 to 15-year time frame.

Meanwhile, India has also asked Russia for the expedited delivery of the S-400 anti-missile system. The two sides signed a contract for the S-400s in 2019. The original delivery was scheduled for 2021. There were reports that because of COVID-19, the delivery would be delayed. Singh was expected to seek an expedited delivery of the system.

Singh was also seeking assurances that the spare parts supply for Russian equipment that India already has in its arsenal will not be delayed during any crisis with China. Specifically, he was referring to the issue of spare parts for Russian-origin fighter aircraft (including the Su-30MKIs and MiG-29s of the Air Force and the MiG29Ks of the Indian Navy), the T-90 battle tanks for the Army, and the Navy’s *Kilo*-class submarines.

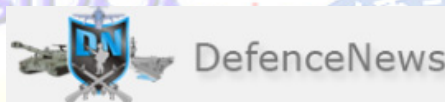
The Sino-Indian clash puts Russia in an awkward position as a recent analysis in *The Wall Street Journal* by Yaroslav Trofimov and Thomas Grove pointed out. There is growing recognition in Moscow about pressure from Beijing. But as the report pointed out, Russia is also stuck with

China because of pressure from the West. Russia's difficulties in improving relations with Europe have left Moscow with few options.

In the current crisis, Russia appears to have little interest in mediating between China and India. As Konstantin Kosachev, a senior lawmaker and chairman of the Foreign Affairs Committee of the Russian Federation Council, told the Indian media that Russia should not interfere in the India-China dispute and that these should be dealt with through bilateral channels.

At the recent RIC meeting, Russian Foreign Minister Sergei Lavrov also maintained that India and China do not need any help in resolving their bilateral issues. Although Russia might want to keep its head down in the current crisis, Russian reactions are also being closely watched by the Indian public. Russia has a reservoir of support in India because of its traditional support, including during the 1971 India-Pakistan War. This support glosses over the fact that Russia was neutral during the 1962 Sino-Indian War because it occurred simultaneously with the Cuban missile crisis. Russia's relations with China had become increasingly rocky – in fact, closer Soviet relations with India were one factor in the Sino-Soviet rift – but the need for Beijing's support during the Cuban missile crisis forced Moscow to be neutral. That removed an important leg of India's diplomatic strategy at the time. Almost 60 years later, New Delhi is probably worried that history will repeat and Russia might lean toward China simply by staying neutral.

<https://thediplomat.com/2020/06/the-sino-indian-clash-russia-in-the-middle/>



Fri, 26 June 2020

India throws cat among US & UK hawks by joining military parade with Chinese soldiers in Moscow's Red Square

India's military and government have thrown a gauntlet down to the United States in parading soldiers on Red Square yesterday, being the delayed Victory Parade concerning the defeat of Nazi Germany and the end of WWII in 1945. This year is the 75th anniversary of that occasion. At the time, India was under British colonial rule. About 87,000 Indian soldiers are estimated to have died during the conflict.

The British Government apparently declined to send any high-ranking officials to this year's event despite the fact that the Soviet Union and United Kingdom were allies at the time and Indian soldiers were largely under British command. The US sent its Ambassador.

Images of Indian soldiers parading in Red Square yesterday can be seen here.



The parade also included troops from Pakistan and China, who have shared recent border conflicts with India. Despite their recent differences, all three countries are members of the Shanghai Cooperation Organisation (SCO). A map of the increasing influence of the SCO as a political body can be viewed below.

The marching of Indian military in the form of the Tri-Services Guard of Honour on Red Square just after five other national divisions following the Chinese military can be seen as warning to the UK and UK over the potential for future alliances should both countries continue their strategic differences of opinion with China and Russia, including the ongoing rows concerning sanctions and threats of trade wars. Those include countries that India and China have important strategic

geographical and trade relations with, including Russia itself as well as countries important to China and India, such as Turkey, Iran and Myanmar.

The Tri-Services Guard of Honour is made up of men or women drawn from three services of the Indian military: the Indian Army, Indian Air Force, and Indian Navy. It is based at New Delhi and is of company size – typically consisting of 80-150 soldiers and usually commanded by a Major. However, on this occasion, India also sent its highest ranking military official, the Defense Minister Rajnath Singh to the event, who took the salute.

India views China and Russia as longer-term strategic partners. Interference with that can now be seen to have geopolitical consequences. India's Defense Minister was also scheduled to have discussions with his Pakistani and Chinese counterparts in meetings brokered by Moscow during the celebrations.

In terms of intent, the inherent message from Delhi as concerns a pivot away from the US and Europe cannot have been made in greater clarity. India's geopolitical alliances are changing.

<https://www.defencenews.in/article/India-Throws-Cat-Among-US-and-UK-Hawks-by-Joining-Military-Parade-with-Chinese-Soldiers-in-Moscow%e2%80%99s-Red-Square-861259>

The Indian EXPRESS

Fri, 26 June 2020

70 years of Korean War: India's lesser-known role in halting it

India played a unique role throughout the Korean War, having no specific geo-political interests in the Korean Peninsula and maintaining a neutral position before and during the war years, yet believing in the reunification of the peninsula

By Neha Banka

By the time Lieutenant General Mathew Thomas, 92, was first deployed to Korea on a peacekeeping mission under the United Nations Command, the Korean War had been halted following the signing of an armistice agreement in July 1953. He was a part of the Custodian Forces of India that had been dispatched to the Korean Peninsula for the protection and repatriation of prisoners of war.

“It was an uneven war,” says Thomas, speaking from his Pune home. The armistice was only the beginning of a complex set of issues that had needed to be resolved in the Korean Peninsula. The war had resulted in large numbers of prisoners of war on either side who needed to be returned to their country of origin. In a final operation called ‘Operation Big Switch’, that occurred between August and September 1953, North Korean, Chinese and UN Command prisoners of war were returned.



This exchange was hardly straightforward. “There were a large number of prisoners who didn't want to go back to their countries,” recalls Thomas. This unexpected development came as a surprise for North Korea, China and the UN Command and the matter had to be taken up at the United Nations.

India played a unique role throughout the Korean War, having no specific geo-political interests in the Korean Peninsula and maintaining a neutral position before and during the war years, yet believing in the reunification of the peninsula. At the United Nations, India's Permanent Representative to the UN and a member of the UN's Special Political Committee, V K Krishna Menon took on the responsibility of finding a solution to the pressing issue of the future of the prisoners of war.

When months of deliberations failed, in November 1952, at the UN General Assembly, India proposed the creation of a Neutral Nations Repatriation Commission to facilitate the repatriation of prisoners. India's stance was clear: under the provisions of the Geneva Prisoners of War Convention, force could not be used against prisoners of war to prevent or impact their return to their homelands. Under the proposal, the status of the prisoners who had not been repatriated following the expiry of 90 days after the armistice, would be determined by a post-war political conference. Despite initially facing resistance from China and Russia, India's resolution was accepted in December 1952 at the UN General Assembly.

Hence, the Neutral Nations Repatriation Committee (NNRC) was set up, with India at the helm. Prisoners of the Korean War who refused to return to their countries would be placed under the protection of the NNRC. The four other members of this committee were Switzerland and Sweden to represent the Western Bloc, with Poland and Czechoslovakia to represent the Communist Bloc.

India was tasked with sending a Custodian Force comprising military and civilian personnel who would ensure the welfare of all prisoners of war who did not wish to be repatriated. At the helm of the entire operation were India's Lieutenant General K. S. Thimayya, DSO, chairing the NNRC, and Major General S. P. P. Thorat, DSO, commanding the CFI. India invested much into the endeavour, sending a team of diplomats and Major General Thorat to Korea to assess the situation prior to dispatching the Custodian Forces.

'For the honour of India'

The Government of India deputed the 190 Infantry Brigade in July 1953, under Brigadier Rajinder Singh Paintal, to create the central forces within the CFI.

By August 1953, 60 Para Field Ambulance, that had already been present in Korea under the UN Command, was merged into the CFI. According to records of India's Ministry of Defence, the motto of the CFI for this mission was 'For the Honour of India'.

The instructions to the Custodian Forces of India were clear: under no circumstances were troops to assume political affiliations and were reminded to ensure neutrality during their mission. They were also not permitted to engage in force, coercion, the threat of force or violence against prisoners. Allowances were only made for minimum use of force but only for self defence. Under the CFI, along with the 190 Infantry Brigade and the 60 Parachute Field Ambulance, also deputed were the 5th Battalion, the Rajputana Rifles, the 3rd Battalion, the Dogra Regiment, the 6th Battalion of the Jat Regiment the 3rd Battalion of the Garhwal Rifles, the 2nd Battalion of the Parachute Regiment (Maratha) (2 Para), one company of the 3rd Battalion of the Mahar Machine Gun Regiment, one platoon of the 74 Field Company Engineers (Independent), the 26 General Hospital, the 7 Field Hygiene Section, and lastly, the Indian Red Cross Unit, along with a few other support units. Civilian members included personnel from India's Ministries of Defence and External Affairs, many of whom were given language training in Korean and Russian prior to their departure.

India's then Prime Minister Nehru addressed the five CFI contingents before their departure to Korea, reminding them of their motto and of India having assumed responsibilities of such great magnitude. Four of the CFI contingents were dispatched by ship from Madras and one by airlift that comprised 2 Para and a company (two machine-gun platoons) of the 3 Mahar. Thomas, who was with the 2nd Battalion of the Parachute Regiment (Maratha), remembers his journey to Korea: "We were airlifted from Calcutta to Japan and then helicoptered to the DMZ." The troops were on their way to Incheon, Korea on board the United States Air Force C-124 Globemaster in September 1953, when they were denied permission for landing. "You see, South Korean president Syngman Rhee had refused us permission because Nehru had said that India was a neutral nation during the Korean War." The Americans simply sidestepped Rhee, using a helicopter to transport this contingent directly to the DMZ where Rhee had no control.

"The Indian troops who travelled on the aircraft didn't move an inch for the six to eight hours of the journey. We stopped for a bathroom break and lined up in an orderly way. The US troops were amazed at the discipline because they had just spilled out everywhere." Although some seven

decades have passed since, there are some incidents vivid in Thomas's memory. "The US troops had lunch ready for us and we asked what was available. A commander told us they had beef. But when we said we couldn't eat it, in 30 minutes they changed the entire menu. That was the extent of their resources."

A 'Hind Nagar' between the Koreas

The DMZ is a strip of land along the 38th Parallel, approximately four kilometers in width, that divides the Korean Peninsula into two. Following the armistice, in this area where armed forces were not permitted, the southern half of the DMZ fell under the UN Command, while the northern half was controlled by North Korean and Chinese forces. The Custodian Forces of India set up three camps around the southern half with prisoners of war under the UN Command housed in nearby camps.

"We had named the area 'Hind Nagar' because Indian troops were staying there," recalls Rt. Coln. Angad Singh, 87, who was a part of the CFI and now lives in Chandigarh. "Chandigarh's winters are nothing. It was freezing cold in Korea. The water used to be frozen in the morning and had to be heated to use for the toilet. By the time we had finished inside, the hot water had again frozen," laughs Singh.

Within weeks of their arrival at the DMZ, the CFI assigned duties to contingents, with the 60 Para Field Ambulance continuing their medical duties. "It was the first time in history that prisoners of war did not want to go back to their countries," says Singh. He visited South Korea after his retirement from the Indian Army and met with people from the war years who were alive. "The locals still remembered (Indian soldiers). We had treated injured civilians as well. The US Army would refuse medical treatment to many civilians because they wanted to keep supplies for themselves and their allies," he says. "But our duty was not related to fighting. It was humanitarian."

India during the war

A little more than a year after India attained independence, the UN officially recognised the Republic of Korea in December 1948. India's representative to the UN, K.P.S Menon, although against the division of Korea, found himself in favour of US draft resolutions for general elections in South Korea, in the interest of India's wider diplomatic relations.

In 1950, following North Korea's invasion of South Korea, the UN Security Council passed the Resolution 82 (1950) in June that year and called on member countries for assistance. It was the start of the Korean War. 22 countries stepped in to contribute to the UN Command under US forces, including India. Prime Minister Jawarhlal Nehru however, wasn't enthusiastic about plunging headlong into the war, explains Skand Tayal, who served as India's Ambassador to South Korea between 2008-2011, and authored 'India and the Republic of Korea: Engaged Democracies'. It had been only three years since India had become independent. "Nehru believed that Asia should decide its own fate. Syngman Rhee and Nehru detested each other and Rhee thought that Nehru was a closet communist. Rhee's ideologies had been shaped by his time in the US."

Nehru's decision was also influenced by V.K.K Menon who believed in non-alignment in foreign policy. Therefore, instead of armed battalions, India offered its assistance by sending a medical ambulance unit as part of the UN Command during the war. Despite the presence of troops from countries around the world, the UN Command was very much under US control, helmed by General Douglas McArthur, says Tayal.

In July 1952, India sent the 60 Para Field Ambulance, a field ambulance with an attached surgical unit under Lieutenant Colonel A.G. Rangaraj, which was attached to the 27th Brigade in Korea. One part of this field ambulance also operated in South Korean field hospitals in Taegu, with this part of the unit under Major N.B. Banerjea.

Dr. Captain Balraj Sur was a surgeon dentist in the 60 Para Field Ambulance and passed away in 2015. His son Dr. Akshay Sur remembers a story his father once told him about the war. "They went up and down the peninsula three times because the line of control was very fluid." Once

under pressure from surging Communist forces near Pyongyang, the 60 Para Field Ambulance was ordered to destroy all medical equipment and retreat to Seoul.

Lieutenant Colonel Rangaraj, unwilling to waste precious resources, ordered his men to load everything, including patients onto an abandoned train in a nearby station. Two members of this field ambulance with experience operating locomotives, drew the train outside the station to an undisclosed location, having evacuated without compromising on the much-needed medical equipment, explains Sur. "They had a hard time there. They were traumatised when they came back."

Managing 'Chicken Runs'

The Americans had labelled the camps for Prisoners of War 'Chicken Runs', in part because they resembled chicken coops, structured in a way that would enable patrol of the prisoners without coming into contact with them. Each of these enclosures were under the oversight and protection of an Indian commander.

Indian veterans of the Korean War say that the protection of prisoners of war was no easy task. Days were interspersed with incidents of unrest, disturbances and on occasion, violence, due to the tense circumstances, but the Custodian Forces of India were commended for their management. Thomas remembers an incident where Major HS Grewal was taken hostage by prisoners of war in September 1953. "Maj. Grewal was an interpreter working with the HQ CFI. There was a case of a prisoner of war having been murdered in a particular enclosure. He had been asked to investigate and accompanied the troops sent inside and was detained by the prisoners," says Thomas. To rescue Major Grewal, General Thorat, along with Sepoy Thakur Singh, ASC, Lieutenant Colonel Budhwar and a section of 6 Jat entered the compound. While Thomas says there were no casualties, the prisoners of war did attack the CFI personnel with sticks and stones who suffered minor injuries. Under the provisions of their deployment, the CFI were not permitted to retaliate and Gen. Thorat had to step in to diffuse the situation.

Research of military records from during the Korean War show that there were several incidents of violence and disagreement between the prisoners and the CFI that led to a breakdown in relations over the months, including attempts by prisoners to escape the camps. In November 1953, with relations at a particular low, CFI soldiers were again taken hostage, this time at the behest of some American prisoners of war. General Thimayya along with other NNRC representatives had to intervene for their release.

Processing repatriations

One of the responsibilities of the NNRC was to explain the process of repatriation for the prisoners. That the prisoners, including American citizens, did not wish to return home, was a point of consternation and embarrassment for those nations.

In December 1953, the UN Command made final attempts at convincing prisoners of war, a group that included at least 23 Americans and one British soldier, to return home. Not one agreed. Another month was allotted to deliberate on the future of the prisoners of war since the discussions had ended in a stalemate.

Lieutenant General K.S.Thimayya, chairman of the NNRC stated that the CFI could not continue to keep the prisoners in custody beyond the stipulated date. While the UN Command, helmed by the US, was willing to take back its men, it wasn't so in the case of North Korea and China. Approximately 22,000 prisoners were handed over their various representatives while a group of 88 prisoners who had not wanted to return home, were brought to India to further process their requests. This group included 12 Chinese, 74 North Korean and 2 South Korean nationals.

Returning home

South Korea's Syngman Rhee had still been smarting over India's choice to remain neutral during the Korean War and denied permission to CFI troops to transport prisoners to Incheon on a train for their onward journey to India. With the support of UN Command troops guarding this train, the CFI set sail for India, along with the prisoners on five ships to Madras.

The CFI's contributions did not go unnoticed by the UN or even at home in India. For his services following the Korean War, the Government of India awarded Lieutenant General Thimayya the Padma Bhushan. The 60 Para Field Ambulance was awarded two Maha Vir Chakras, one bar to Vir Chakra and six Vir Chakras. According to researchers and Indian veterans of the Korean War believe that Lt. Coln. Rangaraj refused to accept the Maha Vir Chakra because he believed that his men had not been equally recognised for their service.

Soon after the prisoners of war arrived in India, two Chinese nationals and four North Korean nationals wanted to return to their countries and India facilitated the process. The Indian government did not wish to indefinitely look after the remaining 82 prisoners of war in the country but did not receive financial assistance from the UN for related expenses. Post 1955, some prisoners of war who had continued living in India and had not relocated to other neutral countries or returned to their countries of origin, assimilated into Indian society but it was not immediately clear if they had acquired Indian citizenship over the years.

“It was very much a US-led war,” says Tayal. During the Korean War, India's Ambassador to China, K.M. Panikkar served as a mediator between Chinese Premier Zhou Enlai and the UN. Explaining Panniker's role, Tayal says, “many sane voices said that the UN forces were to be against war. The UN's role was not to reunify Korea, but to stop the war.” However, events unfolded in a way that the very opposite occurred.

“The people of Korea did not want the division. It was really a war between the Soviet Union, China and the US, because the Americans had the army, resources and the will to fight communism,” says Tayal. “It was a war between capitalism and communism.”

Close to the border between North Korea and South Korea at the Joint Security Area on the Demilitarized Zone (DMZ) is a small grey statue that features flags of 22 countries that participated in the Korean War under the UN Command, helmed by the United States. The North Korean border just steps away, makes this statue easy to miss if one isn't paying attention. Among the flags featured, one is that of India, the saffron colour having faded away due to years of exposure to the elements, but the navy blue Ashoka Chakra in the middle and the India green band below are still distinct.

“At 92, you analyse the war and you understand why the war happened,” says Thomas. “Circumstances are such that you decide someone else's fate.” Seven decades on, there is only a semblance of peace on the Korean Peninsula.

<https://indianexpress.com/article/research/70-years-of-korean-war-indias-lesser-known-role-in-halting-it-6476030/>

ज्ञान प्रसार एवम् विस्तार
के 50 वर्ष

Private players can build and launch space missions, says ISRO Chief

Earlier, the Union Cabinet had announced the setting up a new arm of the space organisation -- Indian National Space Promotion and Authorisation Centre (IN-SPACE) – that will independently evaluate and approve space-related activities in the country

By Anonna Dutt

New Delhi: The opening up of the space sector to private players would boost the country's industrial base and improve access to space-based services, said K Sivan, chairman, Indian Space Research Organisation (ISRO), in a video address on Thursday morning.

Earlier, the Union Cabinet had announced the setting up a new arm of the space organisation -- Indian National Space Promotion and Authorisation Centre (IN-SPACE) – that will independently evaluate and approve space-related activities in the country.

The chairman said IN-SPACE would be an independent body.

“The government has approved the establishment of an autonomous nodal agency IN-SPACE under the Department of Space (DoS) for taking independent decisions on permitting and regulating the activities of private companies in the space sector. The decision of IN-SPACE will be binding on all stakeholders, including ISRO,” said Sivan.

IN-SPACE may take up to six months to become operational and until then, private entities can apply through the Bengaluru-based DoS.

“We will process their requirements. Private companies have approached us for using ISRO facilities. We are processing their requests on a fast-track mode,” said Sivan.

IN-SPACE will have its own directorates for technical, legal, safety and security, and promotion.

The board of IN-SPACE will also have representations from the industry, academia, and the Central government.

ISRO will share the technical expertise and facilities for promoting the private sector in space.

Private companies via IN-SPACE would be allowed to build facilities within the DoS premises as per the need and feasibility, the chairman said.

India has one rocket launch centre at Satish Dhawan Space Centre in Sriharikota, Andhra Pradesh, which is also likely to be used by the private sector.

The private sector will be allowed to provide end-to-end space services, including building and launching of rockets and satellites, and providing these services commercially.

Now, all launch vehicles and satellites are designed by ISRO scientists and private players manufacture their components.

Last year, the government had set up an industry consortium to expedite the production of Polar Satellite Launch Vehicle (PSLV), an expendable medium-lift launch vehicle designed and operated by ISRO.



ISRO chief K Sivan said Indian National Space Promotion and Authorisation Centre (IN-SPACE) would be an independent body. (PTI file photo)

The ISRO chairman pointed out the need to introduce new policies and the revamp of outdated ones in a bid to make the system more efficient.

Sivan said that the role of the New Space India Limited – the commercial arm of ISRO that was set up last year – would be modified to acquire existing launch vehicles and satellite technologies and make them commercially viable through industry consortiums. It would also undertake the transfer of technology (ToT) activities, he added.

“ISRO will continue to carry out advanced research and development, interplanetary missions, human spaceflight and capacity-building activities,” the chairman said.

Experts have been demanding that the private sector be involved in the country’s routine space activities such as the launch of existing communication and earth observation satellites, which will free up resources for critical scientific explorations.

India’s scientific space endeavours have been gathering momentum such as another lander-rover mission to the moon, solar mission Aditya L1, human spaceflight programme, and a mission to Venus in the next few years.

ISRO has had only one mission in January this year, when communication satellite GSAT-30 was launched by the France-based commercial launcher Arianespace from Kourou, French Guiana, on January 17, and since March, the country, along with the rest of the world, is busy grappling with the coronavirus disease (Covid-19) outbreak.

<https://www.hindustantimes.com/india-news/private-players-can-build-and-launch-space-missions-says-isro-chief/story-YEWsemiGHR8uWtkAn9wnaI.html>



Fri, 26 June 2020

Quantum entanglement demonstrated aboard orbiting CubeSat

Advance poised to enable cost-effective space-based global quantum network for secure communications and more

Washington: In a critical step toward creating a global quantum communications network, researchers have generated and detected quantum entanglement onboard a CubeSat nanosatellite weighing less than 2.6 kilograms and orbiting the Earth.

"In the future, our system could be part of a global quantum network transmitting quantum signals to receivers on Earth or on other spacecraft," said lead author Aitor Villar from the Centre for Quantum Technologies at the National University of Singapore. "These signals could be used to implement any type of quantum communications application, from quantum key distribution for extremely secure data transmission to quantum teleportation, where information is transferred by replicating the state of a quantum system from a distance."

In *Optica*, The Optical Society's (OSA) journal for high impact research, Villar and an international group of researchers demonstrate that their miniaturized source of quantum entanglement can operate successfully in space aboard a low-resource, cost-effective CubeSat that is smaller than a shoebox. CubeSats are a standard type of nanosatellite made of multiples of 10 cm × 10 cm × 10 cm cubic units.

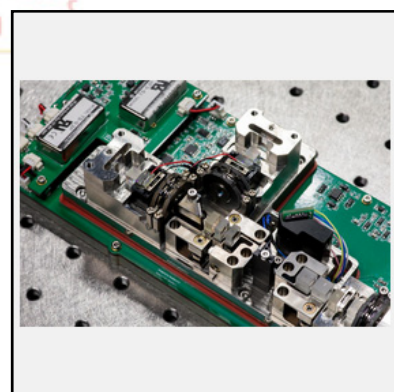


IMAGE: Researchers developed a miniaturized source of quantum entanglement that measures only 20 by 10 centimeters. [view more](#)

"Progress toward a space-based global quantum network is happening at a fast pace," said Villar. "We hope that our work inspires the next wave of space-based quantum technology missions and that new applications and technologies can benefit from our experimental findings."

Miniaturizing quantum entanglement

The quantum mechanical phenomenon known as entanglement is essential to many quantum communications applications. However, creating a global network for entanglement distribution isn't possible with optical fibers because of the optical losses that occur over long distances. Equipping small, standardized satellites in space with quantum instrumentation is one way to tackle this challenge in a cost-effective manner.

As a first step, the researchers needed to demonstrate that a miniaturized photon source for quantum entanglement could stay intact through the stresses of launch and operate successfully in the harsh environment of space within a satellite that can provide minimal energy. To accomplish this, they exhaustively examined every component of the photon-pair source used to generate quantum entanglement to see if it could be made smaller or more rugged.

"At each stage of development, we were actively conscious of the budgets for mass, size and power," said Villar. "By iterating the design through rapid prototyping and testing, we arrived at a robust, small-form factor package for all the off-shelf components needed for an entangled photon-pair source."

The new miniaturized photon-pair source consists of a blue laser diode that shines on nonlinear crystals to create pairs of photons. Achieving high-quality entanglement required a complete redesign of the mounts that align the nonlinear crystals with high precision and stability.

Launching into orbit

The researchers qualified their new instrument for space by testing its ability to withstand the vibration and thermal changes experienced during a rocket launch and in-space operation. The photon-pair source maintained very high-quality entanglement throughout the testing, and crystal alignment was preserved even after repeated temperature cycling from -10 °C to 40 °C.

The researchers incorporated their new instrument into SpooQy-1, a CubeSat that was deployed into orbit from the International Space Station on 17 June 2019. The instrument successfully generated entangled photon-pairs over temperatures from 16 °C to 21.5 °C.

"This demonstration showed that miniaturized entanglement technology can work well while consuming little power," said Villar. "This is an important step toward a cost-effective approach to the deployment of satellite constellations that can serve global quantum networks." The project was funded by Singapore's National Research Foundation.

The researchers are now working with RALSpace in the UK to design and build a quantum nanosatellite similar to SpooQy-1 with the capabilities needed to beam entangled photons from space to a ground receiver. This is slated for demonstration aboard a 2022 mission. They are also collaborating with other teams to improve the ability of CubeSats to support quantum networks.

Paper:

A. Villar, A. Lohrmann, X. Bai, T. Vergoossen, R. Bedington, C. Perumangatt, H. Y. Lim, T. Islam, A. Reezwana, Z. Tang, R. Chandrasekara, S. Sachidananda, K. Durak, C. F. Wildfeuer, D. Griffin, D. K. L. Oi, A. Ling, "Entanglement demonstration on board a nano-satellite," *Optica*, 7, 7, 734-737 (2020).

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https://www.eurekalert.org/pub_releases/2020-06/tos-qed062220.php

Trapping the Sun: New thin-film technology uses sustainable components for solar panels

Scientists identify a novel method to create efficient alloy-based solar panels free of toxic metals

Commercialized thin-film solar panels on the market consist of rare-earth elements like indium and gallium, or highly toxic metals like cadmium. Both of these thin-film solar panel types have their own problems, such as high-cost and problems in use in living places.

A team of scientists from DGIST, led by Dr Jin-Kyu Kang and Dr Dae-Hwan Kim, has been experimenting with solar panels made from cheaper and more abundant elements. Now, they have published the findings of their latest study in *Advanced Energy Materials*. Dr Kang elaborates on the reasons based on which they chose their materials for the study: "Thin-film solar cells using bronze (Cu-Sn) and brass (Cu-Zn) as base materials are composed of non-toxic earth-abundant materials, and have been studied worldwide because of their low cost, high durability, and sustainability."

However, using these alloys in thin film technology has its own drawbacks. While the theoretical efficiency of these panels matches the efficiencies of top market products, in practice, they tend to underperform drastically. This is because of the formation of various defects in the materials, such as "point" defect, "surface" defect, and "volume" defect, during "annealing" (or the process of heating and cooling to make a CZTSSe film). These defects undermine the current flow, resulting in loss of electricity generated.

Therefore, the scientists wanted to find a way to synthesize the best quality CZTSSe (copper, zinc, tin, sulfur, and selenium) thin films. They played around with the annealing profile, which has a strong effect on the grain size of CZTSSe thin film: the longer the annealing time and higher annealing temperature, the larger the grains, and the lesser the electricity loss.

However, as the annealing temperature and time increase, there is a change in the properties of the CZTSSe thin film due to decomposition. To bypass this issue, the team used a special "liquid-assisted method," which allowed the grains of CZTSSe to grow at a faster rate. This meant that the grains could grow large even at low temperatures, preventing the change in the properties of the CZTSSe thin film.

With this new observation, a significant hurdle has been overcome in the search for low-cost environment-friendly solar energy. Dr Kim concludes, "Our technology has diverse applications, including in electronic devices, household goods, buildings, and vehicles. The best part is that CZTS solar cells are free of the current drawbacks of toxic and rare metals. We can install everywhere we want!"

Reference

Authors: Se-Yun Kim¹, Dae-Ho Son^{1,2}, Seung-Hyun Kim¹, Young-Ill Kim¹, Sammi Kim¹, Kwangseok Ahn¹, Kee-Jeong Yang^{1,2}, Jin-Kyu Kang^{1,2} and Dae-Hwan Kim^{1,2}

Title of original paper: Effect of Cu-Sn-Se Liquid Phase on Grain Growth and Efficiency of CZTSSe Solar Cells

Journal: *Advanced Energy Materials*

DOI: 10.1002/aenm.201903173

https://www.eurekaalert.org/pub_releases/2020-06/dgi-tts062520.php



IMAGE: In close proximity to our homes and lives, solar panels are the most efficient when they are inexpensive and non-toxic. The DGIST team prepared lab-scale CZTSSe solar cells, and one... view more

Scientists found out how nanoparticles kill cancer cells

In the authors' opinion, this research will help to treat oncology

Scientists from the Immanuel Kant Baltic Federal University (IKBFU) and National University of Science and Technology "MISiS" have studied how magnet nanoparticles affect cancer cells in the human liver. In the authors' opinion, this research will help to treat oncology. The research results were published in the "Nano Convergence" Scientific Journal.

Because of their unique properties, magnetic nanoparticles can be used for therapeutic diagnostics and personalized treatment of cancer diseases, as well as be an effective contrast agent for MRI examination and imaging of tumors.

It is known that human cancer cells can absorb magnetic nanoparticles. This property can be used in cancer therapy in at least three ways: local heating of a tumor when exposed to a variable magnetic field (magnetic hyperthermia), targeted drug delivery, or selective cytotoxic effects of nanoparticles on cancer cells.

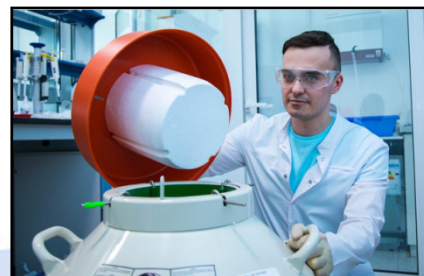


IMAGE: Dr. Stanislav Pshenichnikov [view more](#)

Scientists from the IKBFU Laboratory of Novel Magnet Materials studied the peculiarities of nanoparticles' influence on cell organelles and got acquainted with the peculiarities of intracellular processes in detail by using different lines of liver cancer cells. Small objects such as nanoparticles can be easily "eaten" by cells, but this does not always happen - in some cases, nanoparticles can damage the structure of a cell, penetrate it and kill it. By adding iron oxide nanoparticles of various shapes to the nutrient medium of cells, scientists were able to check the degree and nature of the changes in cell culture.

According to the authors of the study, the behavior of cancer cells depends on the concentration of nanoparticles in the solution and, most importantly, the type of cancer. The fact is that different cells respond differently to the same particles. This makes it possible to create an instrument based on nanoparticles, selectively suppressing cancer cells while keeping healthy cells intact.

Scientists have carried out experiments on how cancer cells in the human liver react to various types of magnet nanoparticles. They found that iron oxide nanocubes and nanoclusters are capable of activating certain genes that give a "self-destruct command" to liver cancer cells. This discovery sheds light on the mechanisms that regulate cell death caused by the cytotoxicity of nanoparticles.

Maxim Abakumov, co-author of the research, head of NUST "MISiS" Biomedical materials Laboratory said:

"The mechanism of toxic effect is associated with the progressive permeability of lysosomal membranes in hepatocytes, which provokes the processes of apoptosis and autophagy, basically, "cell death".

According to Valeria Rodionova, the Head of the IKBFU Novel Magnet Materials Laboratory, the results of the research may be used for cancer diagnosis and therapy.

Valeria Rodionova told to RIA Novosti:

"This interdisciplinary project brought together scientists from different fields: physics, chemists, and biologists. Our joint work allowed us not only to synthesize unique types of nanoparticles but also to analyze the mechanisms of specific cellular signaling pathways that they activate in the cell".

Cooperation in the scientific world often proves to be decisive in research. Thus, microscopic studies were carried out in the laboratory of biophysics, under the supervision of Dr. Oleg Lunov,

head of the laboratory (Institute of Physics of the Czech Academy of Sciences). Scientists of the Mendeleev Russian University of Chemistry and Technology also took part in the study.

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https://www.eurekalert.org/pub_releases/2020-06/ikbf-sfo062520.php

COVID-19 Research News

SMBSTORY

Fri, 26 June 2020

Pivot and Persist: This Mumbai company's AR and AI-powered smart glasses can scan 300 people at a time for COVID-19 symptoms

Founded in 2014, Ajna Lens develops smart glasses for defence and healthcare sectors.

It counts DRDO, the Indian Army, and the Indian Navy among its clients.

By Bhavya Kaushal

Mumbai: New-age technologies like augmented reality (AR) and virtual reality (VR) have changed our lives in the past decade.

Virtual reality — a computer-generated version of one's environment — is used in the healthcare, gaming, graphics, and architecture industry. It completely transforms an individual's environment by digitally powering it.



Abhijit Patil COO, Abhishek Tomar CEO and Pankaj Raut, CTO, Ajna Lens

On the other hand, augmented reality became the talk of the town, thanks to social media platform Snapchat and the PokemonGo game, which only enhances one's environment.

Both of these new-age technologies have proven to be revolutionary in the field of healthcare, especially in the areas of general diagnostics and medical training.

And, amidst the coronavirus pandemic, Ajna Lens — a Mumbai-based AR goggles manufacturing company — has created AjnaTX smart glasses that can scan up to 300 people

within three minutes, from three metres of distance, and identify people with COVID-19 symptoms in crowded places.

Revolutionising Indian Tech

Engineers Pankaj Raut, Abhijit Patil, and Abhishek Tomar met at the ‘Startup Weekend’ event conducted by Google in 2014. While Pankaj and Abhijit had worked in the field of AR and thermal scanning, Abhishek worked with Red Chillies Entertainment as a Lead Technical Director.

While computers play a vital role in impacting the world, the founders realised that it is restricted to the 2D domain only. They explored opportunities in the field of augmented reality, and decided to build Ajna Bolt — a military-grade AI-powered mixed reality glasses.

Abhishek Tomar, one of the co-founders, says when the company began its operations in 2014, at the time, these technologies were at a nascent stage in India, and manufacturing AR/VR products was an intense, laborious process.

The company collaborated with researchers from Japanese universities to work on its product –



Ajna Bolt. While it imported some of the product components from abroad, some were manufactured in-house at its Mumbai and Bengaluru facilities.

The company first tries to understand the environment by sensing the depth of the surroundings, and creates a real-time mesh out of it. It then amplifies any 3D digital hologram in real life.

“Working on this complex product was not easy. Working on the optics, the form factor, and the hardware was very challenging. Additionally, we wanted to develop a good-looking product that can be worn for hours with comfort and ease,” Pankaj Raut says.

While it took some time to build the product, however, the real challenge for the company came when the glasses underwent multiple trials with the DRDO and the army.

“These trials were exhausting, but they certainly helped us in polishing our product. Many times, the glasses broke because their usage was very rough. So, we had to ensure that the product was made with materials that can help it survive wear and tear,” Abhishek explains.

Since this product was built for the military, data security was another factor that played a big role while developing it.

The co-founder says, “We had to sync the glasses with all the military equipment and do the coding in a way that all the data that gets collected from the glasses is locked in the hardware of the military.”

It manufactured the first smart glasses Ajna Bolt for security and defence personnel, which helped the company get its first client in the Indian Army, followed by the Defence Research Development Organisation (DRDO), the Indian Navy, and the Ministry of Defence.

Apart from the military applications, these smart glasses are used in automobiles and manufacturing industries as well. Ajna Lens competes with the likes of Microsoft and Magic Leap globally, who have launched mixed reality smart glasses in the past, while in India, the company is one of its kind.

The company had been bootstrapped until it raised funding earlier this year from prominent people from the business ecosystem, such as Paytm Founder Vijay Shekhar Sharma, Maharashtra Defence and Aerospace Venture Fund (MDAVF), and HNI investors like Nailesh Khimji, Chirayu Khimji, Jay Jesrani, and the Mohsin Group.

<https://yourstory.com/smbstory/pivot-persist-mumbai-company-ar-ai-smart-glasses-ajna-lens>

LabCorp launches new neutralizing antibody test

By Chris Stewart

BURLINGTON: N.C.–(BUSINESS WIRE)—LabCorp (NYSE: LH), a leading global life sciences company that is deeply integrated in guiding patient care, today announced the launch of a new test that can be used to assess the capacity of antibodies in patient plasma to inhibit the SARS-CoV-2 virus. This information could be used in the development of COVID-19 vaccines and the screening of convalescent plasma for prophylactic and therapeutic use. This neutralizing antibody test will be available to biopharmaceutical companies, hospitals, blood banks and other plasma-screening facilities.

“By leveraging our drug development and diagnostic capabilities, we are working tirelessly to find solutions to prevent and treat COVID-19,” said Paul Kirchgraber, M.D., chief executive officer, LabCorp’s Drug Development business. “The launch of this neutralizing antibody assay is the latest effort in our company’s commitment to accelerate the evaluation of vaccine candidates so that a successful candidate may reach patients sooner.”

As the research for a safe and effective vaccine continues, some clinicians are relying on the serum collected from convalescent patients who had COVID-19 to support treatment of the severely ill. As research advances, the PhenoSense® assay may be an essential element in defining the neutralizing antibody activity correlated with the therapeutic efficacy of convalescent plasma administration, as well as the relative protective immunity of vaccine candidates.

“This assay, available only through LabCorp, is based on a proven and trusted platform developed by our scientists that has been used for decades in the evaluation of vaccine candidates designed to prevent other viral infections, including HIV, Ebola virus, influenza virus, and respiratory syncytial virus (RSV),” continued Kirchgraber.

About LabCorp

LabCorp (NYSE: LH), an S&P 500 company, is a leading global life sciences company that is deeply integrated in guiding patient care, providing comprehensive clinical laboratory and end-to-end drug development services. With a mission to improve health and improve lives, LabCorp delivers world-class diagnostics solutions, brings innovative medicines to patients faster, and uses technology to improve the delivery of care. LabCorp reported revenue of more than \$11.5 billion in 2019.

To learn more about LabCorp, visit www.LabCorp.com, and to learn more about LabCorp’s Covance drug development business, visit www.Covance.com.

<https://orthospinenews.com/2020/06/25/labcorp-launches-new-neutralizing-antibody-test/>

Fri, 26 June 2020

Phase 1 study of adjuvanted covid-19 vaccine candidate begins

By Brian Park, PharmD

A phase 1 study evaluating the safety, reactogenicity and immunogenicity of SCB-2019, a vaccine candidate for coronavirus disease 2019 (COVID-19), has been initiated by Clover Biopharmaceuticals.

SCB-2019 is an investigational protein-based COVID-19 S-Trimer vaccine that utilizes Clover's proprietary technology (Timer-Tag©) in combination with GlaxoSmithKline's pandemic adjuvant. According to preclinical data, the addition of the adjuvant to SCB-2019 has resulted in high neutralizing antibody levels in multiple animal species.



SCB-2019 is a protein-based COVID-19 S-Trimer vaccine that uses Clover's proprietary technology (Timer-Tag©) in combination with GSK's pandemic adjuvant.

The randomized, double-blind, placebo-controlled phase 1 study will assess SCB-2019 at multiple dose levels with and without adjuvant in approximately 90 healthy adult patients and 60 healthy elderly patients at the Linear Clinical Research in Perth, Australia. The Company expects preliminary safety and immunogenicity results for the phase 1 study in August 2020. Additionally, a global phase 2b/3 vaccine efficacy trial is anticipated to begin later in 2020.

The incorporation of an adjuvant may allow for greater production of vaccine doses, as the amount of protein required per dose would be reduced. Vaccine adjuvants are also used to enhance and prolong immune responses.

“Our deliberate approach is to combine our proven pandemic adjuvant technology with protein-based COVID-19 vaccine candidates from several collaborators,” said Thomas Breuer, Chief Medical Officer, GSK Vaccines. “We believe this holds the promise to produce vaccines at scale, potentially benefiting billions of people.” The Company is collaborating with several partners in North America, Europe and China to develop vaccines for COVID-19.

<https://www.infectiousdiseaseadvisor.com/home/topics/covid19/coronavirus-diseases-vaccine-candidate-scb-2019-phase-1-trial-initiated/>

