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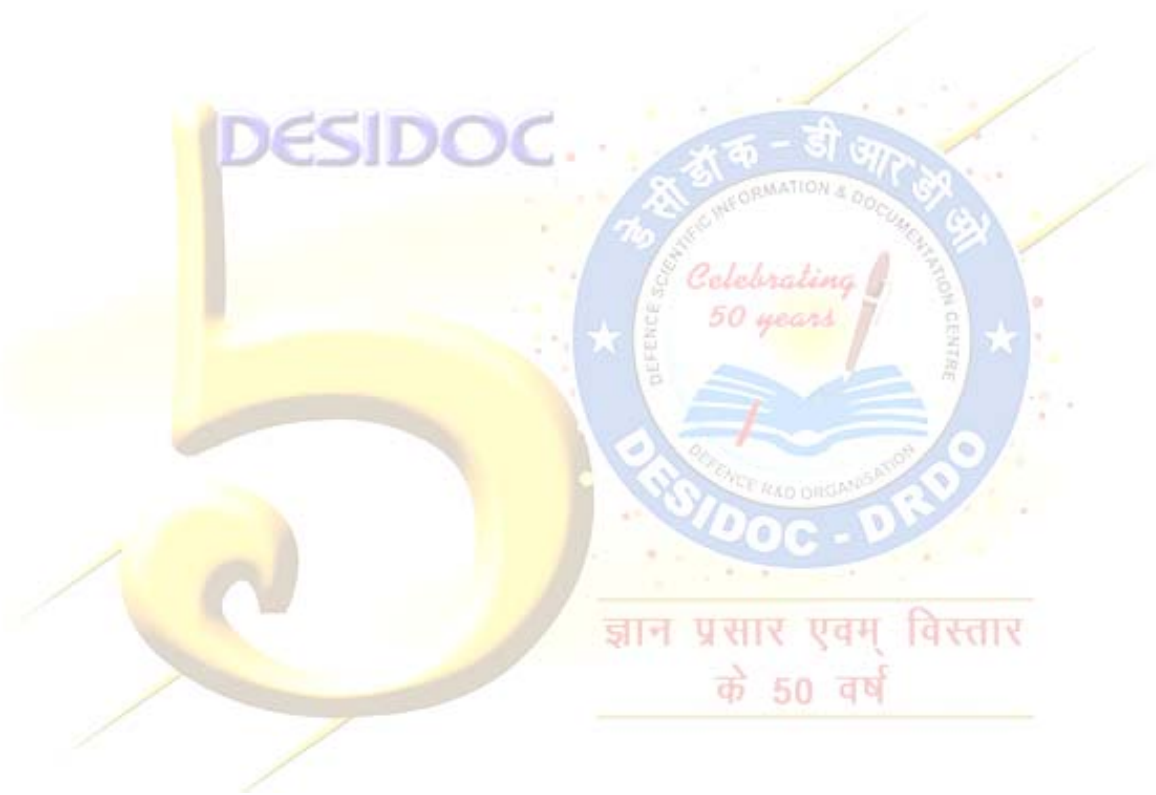


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Fri, 10 July 2020

Why fear when we are here, says Lt Gen Madhuri Kanitkar while assessing Delhi's COVID facility

New Delhi: Sardar Vallabhbhai Patel COVID-19 Hospital in Delhi Cantonment that was inaugurated by Defence Minister Rajnath Singh and Union Home Minister Amit Shah recently is expected to take in COVID-19 patients from Friday.

To assess the preparedness of the facility and its readiness to take in patients, Vice Admiral R Hari Kumar, Chief of Integrated Defence Staff to the Chairman Chiefs of Staff Committee (CISC), along with Lt Gen Madhuri Kanitkar, Deputy Chief of Integrated Defence Staff (Medical) visited the facility on Thursday. The hospital team includes Major General SS Bhatia as CEO and Col Saroj Patnaik as registrar.

Speaking to ANI, Lt Gen Madhuri Kanitkar also a coordinator for three service headquarters and healthcare teams said that building up this facility in a "record time of 12 days" is a matter of "great honour and pride".

"This is an example of what we can achieve together. From illness to wellness, 'I' goes away, and 'we' comes in, and this is the mantra for success. People of Delhi need not worry. Why fear when we are here. We bring in professionalism," said Kanitkar.

Elaborating on the COVID facility, Kanitkar informed that it is an integrated effort of various ministries and DRDO along with few other stakeholders.

"We have specially trained professionals to take care of patients and health staff. We can give 250 ventilators and oxygen to all those admitted here. We will step up preparation once patients start coming in," she stated.

Physicians, pulmonologist, intensivists, public health specialists, microbiologists, biochemist, hospital administrators and residents are being deployed.

"Where there is a will there is a way. The present government wanted us to deliver. We fulfilled the challenge," added the Lieutenant General.

The hospital staff would work in shifts of six hours as it gets very uncomfortable to be in PPE kits for long hours. Acknowledging that mental health is fast emerging as a health challenge, Kanitkar said that training of health staff to give counselling to patients and their relatives is being done.

"We are ensuring psychological counselling and healthcare workers need to be motivated. In fact, we gave out posters for mental resilience-building support for not just for patients, but for the relatives as well. Our staff has been trained to counsel patients," she added while stating that for patients who are tested positive of COVID-19, this hospital will take the patient in and take care free of cost.



Why fear when we are here, says Lt Gen Madhuri Kanitkar while assessing Delhi's COVID facility

Principal matron of the COVID facility, Lt Col Sindhumol PK claimed that they have been prepared since the virus spread began in Wuhan.

"We are ensuring that patients will be counselled and the team remains motivated to help COVID patients. Also, we are mentally prepared to wear PPE kits. Our families are obviously worried but we are in service and service comes first," said the principal matron. Vice-Admiral Joy Chatterjee, Director General Hospital Services (Armed Forces) too paid a visit to the facility.

Named after former Union Home Minister Sardar Vallabh Bhai Patel, the COVID hospital was built in a record time of 12 days by Defence Research and Development Organisation (DRDO) in joint efforts with Ministry of Defence, Ministry of Home Affairs, Ministry of Health and Family Welfare, Tata Sons and other industry players. (ANI)

<https://www.aninews.in/news/national/general-news/why-fear-when-we-are-here-says-lt-gen-madhuri-kanitkar-while-assessing-delhis-covid-facility20200709161257/>

DRDO Technology News



Fri, 10 July 2020

After Philippines, Indonesia explores options to buy BrahMos missile from India

By Raunak Kunde

India and the Philippines are in talks for the purchase of several defence platforms from India including the Brahmos missile and according to Philippines media and Indian, both have moved past price negotiation talks for the BrahMos cruise missile jointly developed by India and Russia and intend to conclude a deal in Q3 of 2020 for Truck Based BrahMos Batteries for coastal defence.

Informed sources close to idrw.org have told that Indonesia is also in the early stages of exploring the procurement of the BrahMos missiles from India along with Vietnam and Thailand.

The Philippines also has shown interest in acquiring BrahMos for Anti-ship missions to be installed on their frontline warships. Growing Chinese muscularity in the South China Sea (SCS) has prompted many countries in the region to beef up their Naval defenses by acquiring weapons ranging from Patrol boats to submarines to counter growing interference of Beijing in the area.

The Philippines will be getting Anti-Ship BrahMos version for Coastal defense with a range of 290km, Indonesia to has shown interest in Coastal batteries of BrahMos and have been briefed about BrahMos-A which can be carried by a Sukhoi-30MKI. Indonesian Air Force operates a small fleet of Su-27 and Su-30MK2s which will require considerable modifications to the airframe if Indonesia decides also to acquire BrahMos-A also soon.

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<https://idrw.org/after-philippines-indonesia-explores-options-to-buy-brahmos-missile-from-india/>



INDIA
TODAY

Fri, 10 July 2020

India looks at next step after pullback by Chinese troops, Rajnath to meet NSA, CDS, top defence officials

With Indian and Chinese militaries pulling back at several points, including Pangong Tso in the Ladakh region after a 9-week standoff, India's defense establishment is preparing for the next step

By Rahul Shrivastava

New Delhi: With Indian and Chinese militaries pulling back at several points, including Pangong Tso in the Ladakh region after a 9-week standoff, India's defense establishment is preparing for the next step.

On Thursday, Defence Minister Rajnath Singh is expected to chair a meeting with the National Security Advisor (NSA), Chief of Defense Staff and other officials, including the three service chiefs.

Sources say a complete review of preparedness, situation on the ground, verification reports on pullback and future strategy is on the cards in the meeting.

Ahead of this, Army Chief General Manoj Mukund Naravane met Rajnath Singh on Wednesday evening.

With the Chinese shifting back tents, armoured and defence vehicles and troops by 1-2 kilometres from locations identified as points of disengagement, the Indian government wants the next item in the agreement to be put in motion.

The two sides had agreed to not only pull back and increase the distance between the two formations, but also reduce the buildup on each side to make the disengagement and de-escalation more meaningful.

Centre has been backed by the Army, which is also keen to push for "marking the Line of Actual Control", a 3,488-kilometer unmarked boundary shared by India and China, by basing the demarcation on the present ground position of the troops.

The agreement to clarify the Line of Actual Control in 1993 flopped as the talks between the two sides ran out of steam in 2002.

Despite the pull back, Modi government is still wary of Chinese movement. There is uncertainty over complete de-escalation in the form of pullout of thousands of personnel, artillery and armoured assets from the region.

Also there is a view in the Army that clarity through marking of the LAC would reduce chances of future clashes of the kind that took place on June 15 in the Galwan region.



Rajnath Singh will be meeting CDS Bipin Rawat and other top officials of the defence forces. (PTI)

Meanwhile, the government has asked the personnel to be cautious even when pullback is concerned. A much more extensive exercise to monitor the pullback has been mounted this time. Apart from the Army, Air Force and military intelligence (MI) even the National Technical Research Organisation (NTRO) a technical intelligence agency, will be assisting in the measures.

The agencies under the National Security Advisor has been asked to keep tabs on the activities behind the high mountains.

While the defence forces manage a delicate situation, diplomatic channels are soon likely to get activated.

Sources in the government have said that a meeting of the Working Mechanism for Consultation and Coordination on India-China Border Affairs (WMCC) may take place any time since Thursday.

The WMCC established in 2012 is an institutional mechanism for consultation and coordination for management of India-China border areas, as well as to exchange views on strengthening communication and cooperation, including between border security personnel.

<https://www.indiatoday.in/india/story/india-looks-at-next-step-after-pullback-by-chinese-troops-1698610-2020-07-09>

hindustantimes

Fri, 10 July 2020

Rajnath Singh inaugurates 6 bridges in J&K

Rajnath Singh congratulated the Border Roads Organisation for completing the works of six bridges in record time and complimented them for contributing to nation-building by working in one of the most hostile terrain and weather conditions

By Ravi Kishan Khajuria

Jammu: Defence Minister Rajnath Singh on Thursday dedicated six major bridges to the nation via a video-conference link from New Delhi in a bid to ensure better connectivity of roads and bridges in sensitive border areas close to the 198-kilometre (km)-long India-Pakistan International Border (IB) and the 744-km-long Line of Control (LoC) in the union territory of Jammu & Kashmir (J&K).

Singh congratulated the Border Roads Organisation (BRO) for completing the works of six bridges in record time and complimented them for contributing to nation-building by working in one of the most hostile terrain and weather conditions.

He said that roads and bridges are the lifelines of any nation and play a vital role in the socio-economic development of far-flung regions.

Reiterating the Central government's commitment to prioritise development activities in J&K, he said that Prime Minister Narendra Modi is regularly monitoring the progress of these projects and adequate funds are being provided for their timely execution.

He said, "It is a pleasant experience to inaugurate these bridges that 'connect people', at a time when the world is insisting on maintaining distance, being isolated from each other (due to the coronavirus disease, Covid-19). I would like to congratulate them on completing this important task with great skill."

He added: "Continued construction of roads and bridges in the border areas of the country with total commitment by the BRO would help in realisation of the efforts of the government to reach the remotest areas. Roads are the lifeline of any nation," he added.



Defence Minister Rajnath Singh speaks during the virtual inauguration of 6 BRO bridges, at Ministry of Defence in New Delhi (PTI)

“Roads in the border areas are not only strategic strengths, but also, act to connect remote areas with the mainstream. In this way, be it the strategic necessity of the Armed Forces or other development work related to health, education, and trade, all these are possible only with connectivity,” he said.

He hoped that the construction of modern roads and bridges would bring prosperity to the region.

“Our government is committed to promoting infrastructure on our borders and the necessary resources will be provided for this. Our government has a keen interest in the development of J&K. Keeping in mind the need of the people of J&K and Armed Forces, many other development works are also in the pipeline, which will be announced in due time. About 1,000-m-long long roads are under construction in the Jammu region,” he said.

The six bridges were inaugurated in the presence of Dr. Jitendra Singh, Minister of State (MoS) (independent charge) and MoS Prime Minister’s Office (PMO), Ministry of Personnel, Public Grievances & Pensions, Department of Atomic Energy and Department of Space. Jugal Kishore Sharma, Member of Parliament (MP), Jammu, also joined the inauguration programme via a video-link.

The two bridges are located on the Tarnah Nallah in Kathua district and four bridges are situated on Akhnoor-Pallanwala road in Akhnoor in Jammu district, spanning between 30 and 300 metres, and were constructed at a cost of Rs 43 crore.

These bridges, constructed by Project Sampark of the BRO, will facilitate the movement of armed forces in this strategically key sector and will also contribute towards the overall economic growth of the remote border areas.

The annual budget of the BRO, which varied between Rs 3,300 crore and Rs 4,600 crore in the fiscal years 2008-16, was increased to Rs 8,050 in the fiscal year 2019-2020.

The budget for the fiscal year 2020-21 is likely to be Rs 11,800 amid the Modi government’s keen focus on improving infrastructure in remote border areas.

An enhanced budget will give a major boost to ongoing projects and will also expedite the construction of strategic roads, bridges, and tunnels along the strategically-important northern borders.

Speaking on the occasion, Lt Gen Harpal Singh, director-general (DG), BRO, underlined the organisation’s contribution to the nation building and thanked the defence minister for his continuous guidance and support while expressing confidence in meeting the targets in line with the government’s geo-strategic objectives.

Chief of Army Staff General MM Naravane; defence secretary Dr. Ajay Kumar; DG BRO Lt Gen Singh in Delhi and along with Brigadier YK Ahuja, chief engineer Project Sampark, Sanjeev Verma, Divisional Commissioner, Jammu, senior army and civil administration officials also attended the inauguration programme.

<https://www.hindustantimes.com/india-news/calls-for-probe-in-staged-arrest-among-top-10-developments-in-kanpur-gangster-vikas-dubey-case/story-VHEJxn7nl6W0mJI0S4ViOJ.html>

Generals to meet again to chart out troop reduction

Both sides to physically verify commitment to 3-km buffer zone

By Ajay Banerjee

2ND Pullback Phase

- *A fresh round of Lt Gen-level talks will begin tentatively by mid-July.*
- *Meetings to lay down framework for the 2nd stage of de-escalation, which will include withdrawing war-like stores.*
- *At present, there is no change in location or number of long-range guns, tanks & missiles.*

New Delhi: Lt General-level commanders of India and China have been tasked to carry out a complex de-escalation of the military buildup along the Line of Actual Control (LAC) in Ladakh.

The commanders of the two sides will begin meeting each other, yet again, anytime next week. They will draw up a timeline for the second stage of the three-step pullback process agreed to by both sides. They will focus on de-escalating the present deployment of war-waging weapons and thousands of troops. Before entering the second stage, the two sides will physically verify the ongoing process of creating a 3-km buffer zone at the LAC between the troops of both sides. The creation of a buffer zone is the first of the three-step process of pulling back. The process started on Monday and the physical verification may start next week.

Currently, there is no change in the deployment. Hundreds of artillery guns and tanks, deadly rocket launchers, missiles, fighter jets, airborne bombers and attack helicopters of both sides are lined up near the LAC. Long-range artillery guns, which can take 40-km shots, are deployed 2-3 km away from the LAC, said an official. Both sides have ensured “mirror deployment” (each side matching the other). An estimated 45,000 troops have been deployed by either side along the 826-km LAC in Ladakh. Any miscalculation can lead to a skirmish. From the Indian perspective, China has moved its troops and weapons from 2,000 km away to station them at the LAC, so the PLA cutting back 1.5 km for the buffer zone is of little meaning.

Sources said the buffer zone was the smallest of the steps for the de-escalation process. Other than reducing immediate friction along the LAC, it does not cut down military threat posed by weapons.

From the Indian side, Leh-based 14 Corps Commander Lt Gen Harinder Singh will be meeting his counterpart of the South Xinjiang military region. There could be multiple meetings before a consensus is reached.

<https://www.tribuneindia.com/news/nation/generals-to-meet-again-to-chart-out-troop-reduction-110302>

India-China LAC clash: No pullback by Chinese troops in Pangong Tso area, only slight reduction in PLA troops

The PLA reduced its troops in Pangong Tso area of eastern Ladakh but there has been no pullback like the one which took place in Galwan Valley and Gogra-Hot Springs

Key Highlights

- *The Chinese military has already withdrawn troops from Galwan Valley and Hot Springs; pull back in Gogra likely to be over on Thursday*
- *Indian Army will continue to maintain its aggressive posturing along the LAC*
- *The Indian and Chinese armies are locked in the bitter standoff in multiple locations in eastern Ladakh for the last eight weeks*

New Delhi: China's People Liberation Army (PLA) has reduced its troops in the Pangong Tso area of eastern Ladakh but there has been pullback similar to the ones which took place in Galwan Valley and Gogra-Hot Springs.

The Phase-1 of the de-escalation plan will be completed only after the Chinese soldiers withdraw from Finger-4 to Finger-5 area on the north bank of Pangong Tso.

This comes ahead of the joint verification expected to be carried by the Indian and Chinese armies in eastern Ladakh to assess the implementation of the disengagement process.

PLA yet to vacate the area

The two militaries are set to hold extensive talks on finalising modalities for restoring normalcy and bringing back peace and tranquillity in the region after the verification of the disengagement exercise is completed, sources told PTI.

According to a report by TOI, while the PLA has pulled down few tents, moved some vehicles back and slightly reduced its troop at Finger-4 but is yet to vacate the area.

However, Chinese heavy armoured vehicles are still present in the depth areas in the Galwan river area.

Sources aware of the development told TOI that troop confrontation in the lake area is "proving to be the toughest to resolve with over 3,000 PLA soldiers occupying the 8-km stretch from Finger-4 to 8 since early May."

PLA claims territory till Finger-2

The Chinese military has already withdrawn troops from Galwan Valley and Hot Springs, while the pullback is likely to be over in Gogra on Thursday.

While India wants China to pull back to their post at Finger 8 and permanent bases at Sirijap-I and II further beyond, PLA has claimed territory till Finger-2 after building fortifications and occupying heights from Finger-4 to 8.

India has a post between Finger-2 and 3 and maintains an administrative base between Finger-3 and 4.

<https://www.timesnownews.com/india/article/india-china-lac-clash-no-pullback-by-chinese-troops-in-pangong-tso-area-only-slight-reduction-in-pla-troops/618591>



Pangong Tso area

LAC disengagement: India to look out for signs of China not abiding by deal

By Indrani Bagchi

New Delhi: The top defence-security establishment in India plans to keep a hawk eye for any signs of Beijing not abiding by the phase-wise disengagement and de-escalation agreed to by Indian and Chinese military commanders on June 30. The process gathered momentum after a discussion between NSA Ajit Doval and Chinese foreign minister and state councillor Wang Yi on July 5.

If the dirt-track road the Chinese have built along the Galwan river all the way to the LAC is found to have been “black-topped” to asphalt in coming weeks, or if the People’s Liberation Army begins stocking up provisions and shelters for the winter, these would be read as indications the Chinese want to settle in rather than disengage, top-level officials in government here have told TOI.

For the present, after both sides arrived at an agreement at the military commanders meeting on June 30, the Chinese side, according to sources involved in the negotiations, is clearing out of areas covered by PP14, PP15 and PP17A, where, at last count, five structures had been removed.

On the northern bank of Pangong Tso, the Chinese have cleared out of three points on Finger 4, moved to Finger 5, but have held out on further disengagement on 3-4 points in the upper reaches there until “Phase 2” of the process. However, in the Depsang area, Indians continue to be physically prevented from patrolling areas which they used to. The Chinese have built a road up to the LAC and they now physically stop Indian foot patrols. That has not changed.

The careful monitoring of Chinese actions to see if they match pledges made in parleys is part of the drill the Indian side will follow given the extreme distrust that has crept into relations after the bloody scrum at Galwan on June 15 that left 20 Indian and an unspecified number of Chinese troops dead. Apart from monitoring of recently created buffer zones, Indian forces will keep a close watch on the Chinese build-up along the LAC.

The next round of WMCC (Working Mechanism on Coordination and Consultation) will meet this week, which will be followed by another meeting of military commanders to verify disengagement.

Another round of Ajit Doval-Wang Yi special representative talks is expected to take place in a fortnight. In a series of conversations with high-level functionaries engaged in managing relations with China, both on the ground and diplomatically, it is clear that the Indian government, at both policy and operational levels, regard the ongoing disengagement in eastern Ladakh as something that needs to be verified at every step.

The disengagement process actually started on July 2. It was halted for the day on July 3, when PM Modi visited Nimu in Ladakh to meet soldiers with the visit intended to shore up morale and accuse China of “expansionism”. In fact, by the time Doval and Wang got talking on July 5, the disengagement was already underway.

In Naku La, Sikkim, which saw a clash on May 9, security sources said Indian troops were stopping Chinese patrols “at the watershed” and added that “Chinese claims of a stone wall being the boundary is nonsense. We even have accounts by an English adventurer well over a century ago recording this stone wall in India.”

<https://timesofindia.indiatimes.com/india/lac-disengagement-india-to-look-out-for-signs-of-china-not-abiding-by-deal/articleshow/76863783.cms>

Patrolling Points: What do these markers on LAC signify?

Patrolling Points (PPs) are identified and marked on the LAC, which are patrolled with a stipulated frequency by the security forces

By Sushant Singh

New Delhi: The standoffs between Indian and Chinese troops in Ladakh on the Line of Actual Control (LAC), where initial steps towards disengagement have taken place, are around a number of patrolling points or PPs in Galwan, Hot Springs and Gogra areas.

What exactly are Patrolling Points?

PPs are patrolling points identified and marked on the LAC, which are patrolled with a stipulated frequency by the security forces. They serve as a guide to the location of the LAC for the soldiers, acting as indicators of the extent of 'actual control' exercised on the territory by India.

By regularly patrolling up to these PPs, the Indian side is able to establish and assert its physical claim about the LAC.

Are all the Patrolling Points numbered?

No. Some of the PPs are prominent and identifiable geographical features, such as a pass, or a nala junction where no numerals are given. Only those PPs, where there are no prominent features, are numbered as in the case of PP14 in Galwan Valley.

Are all on the Patrolling Points bang on the LAC?

Mostly, yes. Except for the Depsang plains in northern Ladakh, where PP10, PP11, PP11A, PP12 and PP13 – from Raki Nala to Jivan Nala – do not fall on the LAC. These are short of the LAC, on the Indian side.

Are these Patrolling Points not manned?

The PPs are not posts and thus not manned. Unlike on the Line of Control (LoC) with Pakistan, the border with China is not physically held by the Army all along. They are just physical markers on the ground, chosen for their location and have no defensive potential or tactical importance for the Army.

If the Patrolling Points are not manned, how is the claim actually asserted?

The claim is asserted by the Army or joint Army-ITBP patrols as they show more visible presence in these areas. This is done by physically visiting PPs with a higher frequency, as the deployment has moved closer to the LAC and due to improved infrastructure. As the Chinese may not see when the Indian patrols visit these PPs, they will leave come cigarette packets or food tins with Indian markings behind. That lets the Chinese know that Indian soldiers had visited the place, which indicates that India was in control of these areas.

Who has given these Patrolling Points?

These PPs have been identified by the high-powered China Study Group, starting from 1975 when patrolling limits for Indian forces were specified. It is based on the LAC, after the government accepted the concept in 1993, which is also marked on the maps with the Army in the border areas. But the frequency of patrolling to PPs is not specified by the CSG – it is finalised by the Army Headquarters in New Delhi, based on the recommendations made by the Army and ITBP.



A map of Ladakh. (Express)

What is this frequency?

The frequency of reaching various PPs are given in the annual patrolling programme. Based on the terrain, the ground situation and the location of the LAC, the duration for visiting each PP is specified – it can vary from once a month to twice a year.

Which Patrolling Points are currently under dispute?

PPs 10 to 13 in Depsang sector, PP14 in Galwan, PP15 in Hot Spring, and PP17 and PP17A in Gogra are currently being disputed by both sides, where the standoffs have taken place in the past nine weeks.

<https://indianexpress.com/article/explained/explained-what-do-patrolling-points-pps-on-lac-signify-6496840/>



Fri, 10 July 2020

Chinese forces created standoff in Middle Sector along Uttarakhand border in June

While the Chinese unilaterally changed the status quo in Western Sector in Eastern Ladakh, they increased their ante on the Indian forces in the Middle sector along the state of Uttarakhand soon after its soldiers clashed with the Indian Army in Ladakh in May first week. They raised flags multiple times on different occasions and also caused a standoff on June 5.

On June 5, a Chinese Patrolling Party appeared with a large red banner asking Indian side to dismantle its infrastructure and to leave the place even when Indian jawans were on their side. The banner held by four soldiers had message printed over it saying, "Please dismantle infrastructure and go back to maintain the peace and stability of border areas." Further they approached their Indian counterparts asking them to leave the place.



According to a source, traditionally the Chinese have been objecting to a hut prepared for Indian Kailash-Mansarovar Yatris to safeguard them from extreme cold, rain and assist them in case of any medical help needed which was not frequently used.

The Chinese activities in the area of Lipulekh increased since the Chinese standoff and mobilization of forces in the Eastern Ladakh. Also, Nepal objected immediately to an Indian road for the Mansarovar Yatris leading close to Lipulekh Pass inaugurated by Defence Minister Rajnath Singh on May 8.

Lipulekh Pass at about 17,060 feet is used for Mansarovar yatris and local business community to cross over into China. This reaction of Nepal was seen to be done after a third party prodding. Indian Army chief General MM Naravane on 15 May said Nepal would have raised objection at someone else's behest.

Nepalese President Bidya Devi Bhandari gave approval to a new political map of the country featuring Lipulekh, Kalapani and Limpiyadhura areas which India maintains belong to it.

Indian MEA spokesperson Anurag Srivastava had clarified immediately and had termed the "artificial enlargement of territorial claims" as unacceptable to India. "The Government of Nepal has released a revised official map of Nepal today that includes parts of Indian territory," he said.

But June 5 incident was a tipping point as the Chinese side have been provoking the Indian soldiers continuously in the month of May. The Chinese had raised flags of protest thrice in May alone.

The standoff situation generated by the Chinese on June 5 was handled convincingly by the patrolling party of the Indo Tibetan Border Force (ITBP) and they not only were able to put across their points but also showed ground evidence and maps on their mobile. The situation finally diffused and both sides returned back to their camps.

<https://www.defencenews.in/article/Chinese-forces-created-standoff-in-Middle-Sector-along-Uttarakhand-border-in-June-861521>

hindustantimes

Fri, 10 July 2020

China may win, without fighting | Opinion

Instead of insisting on status quo ante, India has helped create a new status quo. Beijing is smiling

By Brahma Chellaney

China's territorial revisionism has been unrelenting. Under Mao Zedong, China more than doubled its size by annexing Tibet and Xinjiang, making it the world's fourth-largest country in area. Under Xi Jinping, China's expansionism increasingly threatens its neighbours, big and small. Xi's regime has just opened a new territorial front against one of the world's smallest countries, Bhutan, by disputing its eastern borders.

In this light, the outcome of China's aggression against India will have an important bearing on Asian security. If the current India-China military disengagement ends up like the 2017 Doklam disengagement in making China the clear winner, an emboldened Xi regime will likely become a greater threat to neighbours.

China's strategy after its disastrous 1979 invasion of Vietnam has been to win without fighting. Deception, concealment and surprise have driven China's repeated use of force — from seizing the Johnson Reef in 1988 and the Mischief Reef in 1995 to occupying the Scarborough Shoal in 2012 and now vantage locations in Ladakh. It has changed the South China Sea's geopolitical map without firing a shot or incurring any international costs.

China has displayed its art of deception even in its disengagement process with India. The first accord of June 6 to disengage collapsed after the People's Liberation Army (PLA) erected structures on Indian territory and then ambushed and killed Indian Army men on verification patrol. The disengagement process restarted after Prime Minister (PM) Narendra Modi seemed to let China off the hook with his June 19 speech at the all-party meeting. But the fresh process became a ruse for PLA to encroach on two new Indian areas — the Depsang Y-Junction; and the Galwan Valley site of the ambush killings.

India and China are now in their third disengagement series. But while the previous two abortive rounds followed military-level talks, the latest cycle is being driven politically. We now know that Modi's July 3 Ladakh visit, and his tough words there, were essentially designed to create domestic political space for his government to seek de-escalation with China. Barely 48 hours after his visit, India and China hammered out a disengagement deal.

Will the latest deal stick? Having encroached on key areas that overlook India's defences, PLA is sitting pretty. A full return to status quo ante as sought by India seems remote, thanks to India's own mixed signals. Moreover, by encroaching on additional areas behind the previous disengagement facade, China has armed itself with greater leverage to impose a revised status quo, including by applying the precept that "possession is nine-tenths of the law".

Disengagement (pullback of rival forces from close proximity), if not de-escalation (ending hostilities through demobilisation of forces), meshes well with China's interest in presenting India a *fait accompli*. Removing the threat of an Indian counteroffensive or Indian tit-for-tat land grab will help China win without fighting.

This explains why China has accepted disengagement — but on its terms. This is illustrated in the Galwan Valley, where India has pulled back from its own territory and created a “buffer zone” on its side of the Line of Actual Control (LAC). These steps, though temporary, create a new, China-advantageous status quo that PLA could seek to enforce because it keeps India out of China's newly-claimed zone — the Galwan Valley.

The risk that, like at Doklam, the current disengagement may not end well for India is high. Instead of demonstrating strength and resolve, India has displayed zeal to end the stand-off, despite its armed forces being mobilised for possible war.

At a time when the international environment is beginning to turn against China, India could have prolonged the stand-off until winter to compel restoration of status quo ante. But, instead, it has kicked status quo ante down the road and settled merely for disengagement. This allows China to hold on its core territorial gains and trade the marginal occupied territories for Indian concessions, as part of its well-known “advance 10 miles and retreat six miles” strategy.

Far from imposing military costs, India has shied away even from trade actions against the aggressor, as if to preserve the option of another Modi-Xi summit. India's steps so far (banning Chinese mobile apps and announcing an intent to restrict Chinese investment in some areas) have been designed to assuage public anger at home, but without imposing substantive costs on Beijing or damaging bilateral relations.

In 1967, a weak India, while recovering from the 1962 and 1965 wars, gave China a bloody nose. But in 2017 and again now, after its soldiers displayed extraordinary bravery in tackling China's aggression, a nuclear-armed India hastily sought disengagement. Its decision-makers remain loath to fundamentally change the China policy even when faced with aggression.

Bite by bite, China has been nibbling away at India's borderlands, even as successive Indian PMs have sought to appease it. When political calculations trump military factors and a nation lives by empty rhetoric, it can win neither war nor peace.

The present path risks locking India in a “no war, no peace” situation with China and imposing mounting security costs. This path aids China's time-tested strategy of attrition, friction and containment to harass, encumber, encircle, deceive and weigh India down.

If India wants Himalayan peace, it must make China pay for its aggression to help create a deterrent effect. The present aggression — the most serious since the 1960s — resulted from India letting China off the hook too easily in 2017, allowing it to capture Doklam. And if China emerges the winner from the current crisis, its next aggression could be worse. Only a chastened China saddled with high costs and loss of face will rein in its aggressive expansionism.

(Brahma Chellaney is a geostrategist. The views expressed are personal)

<https://www.hindustantimes.com/columns/china-may-win-without-fighting/story-4M3g3EhhwmYlxKRMxc7GUN.html>



Fri, 10 July 2020

In stand-off, keeping an eye on the nuclear ball

Despite domestic and external challenges, there is now growing evidence that the People's Republic of China (PRC) continues to expand its nuclear arsenal, which is worrisome but at the same time, not be surprising. China is pursuing a planned modernisation of its nuclear arsenal because it fears the multi-layered missile defence capabilities of the United States. It is arming its missiles with Multiple Independently Targetable Re-entry Vehicles (MIRVs) capabilities to neutralise America's missile shield. China's DF-31As, which are road mobile Intercontinental Ballistic Missiles (ICBMs), are equipped with MIRVs and potent penetration aids.

Estimates and what it means

The Peoples Liberation Army Rocket Force (PLARF) also fields a range of Medium Range Ballistic Missiles (MRBMs) and Short-Range Ballistic Missiles (SRBMs). The PRC's ballistic missile tests in 2019 were the highest among the designated Nuclear Weapon States (NWS). China's Lop Nur was the site of Chinese sub-critical testing since the PRC adopted a moratorium on hot testing in 1996, enabling China to miniaturise warheads and



develop new designs that have been progressively integrated into its nuclear arsenal. The PRC also sits on a sizeable inventory of fissile material. China, according to the International Panel on Fissile Materials (IPFM) is estimated to possess 2.9+0.6 metric tonnes of Weapons-grade Plutonium (WGP) compared to India's is 0.6+0.15 tonnes of WGP.

China's expansion is cause for concern because even as the U.S. and Russia are attempting to reduce the size of their respective arsenals, the PRC is on an expansionist mode. The Stockholm International Peace Research Institute (SIPRI) observes that China's nuclear arsenal has risen from 290 warheads in 2019 to 320 warheads in 2020.

This increase might not seem large relative to the size of the nuclear arsenal of the U.S. and Russia but it indicates a gradual shift toward a larger arsenal. This presents India with challenges because New Delhi has to contend with a nuclear-armed Pakistan as well. The Indian nuclear arsenal, according to the SIPRI, stands at roughly 150 nuclear warheads with the Pakistani slightly ahead with 160 warheads. The Chinese state mouthpiece, Global Times, has recently called for a 1,000-warhead nuclear arsenal, underlining the motivation of the PLA and the hard-line factions of the Communist Party of China (CPC) to match U.S. and Russian nuclear force levels.

While these numbers are important, what is equally, if not more, consequential for New Delhi is what China's nuclear modernisation and diversified nuclear capabilities are likely to do for conventional military escalation along the China-India boundary. The conventional military balance between Indian and Chinese forces along the Line of Actual Control (LAC) presents significant challenges for Indian decision-makers. Given the variegated and highly sophisticated nature of Chinese nuclear capabilities relative to India, they give Beijing considerable coercive leverage. Beijing could commit further aggression under the cover of its nuclear arsenal.

Indeed, the PRC has already engaged in nuclear signalling with set piece videos, which have been doing the rounds on social media platforms. The message is clear to New Delhi from China's leadership: we have presented you with a fait accompli; accept it and move on. Beijing is communicating that an escalatory response from New Delhi will incur punitive responses with China mounting aggressive military action at several points along the LAC. However, this time it will be more consequential, unlike the last in March-April when the Peoples Liberation Army

(PLA) mounted a rapid tactical offensive to occupy small territory at Pangong Tso and caught the Indian Army by surprise. Notwithstanding efforts to de-escalate particularly at Patrolling Point 14 (PP-14) in the Galwan River Valley, Hot Springs and Gogra, Chinese ground units have consolidated their position in the Pangong Tso area and the entire stretch of the LAC. To be sure, India is doing the same, but the Fingers 4 to 8 in Pangong Tso, where the PLA is entrenched, is a serious potential flashpoint as the Indian Army is locked in an eyeball-to-eyeball confrontation against its Chinese adversary. It could become a staging ground for further PLA ingress, notwithstanding Indian defensive preparations, triggering hostilities that widen to the Karakoram and Arunachal Pradesh. The Chinese nuclear arsenal could serve as an instrument of coercion under which the PRC could press ahead with a limited aims war.

More challenges for India

Consequently, Indian decision-makers need to be aware of the PLARF's land-based missile forces. The PRC is believed to base a part of its nuclear arsenal in inland territories such as in the Far-Western Xinjiang Region, which is close to Aksai Chin. China's land-based missiles are a primarily road mobile and could play a key role in any larger conventional offensive the PLA might mount against Indian forces along the LAC.

Korla in Xinjiang is believed to host DF-26 IRBMs with a range of 4,000 kilometres, which can potentially strike targets across most of India. Their mobility gives them a high degree of survivability. The DF-26 IRBMs can be armed with either a conventional or nuclear warhead. Since the IRBMs could be either conventional or nuclear tipped, assessing Chinese trip-wires will make things tricky as the PLARF's conventional and nuclear forces are likely to be embedded together, presenting challenges for both the Indian civilian and military leadership.

Be on guard

Thus, conventional escalation between Chinese and Indian forces along the LAC must factor the role of nuclear weapons and their impact on military operations executed by the Indian Army and the Indian Air Force. India's Strategic Forces Command (SFC) needs to be on a heightened state of alert to ward off Chinese nuclear threats and brinkmanship as well as geared to support India's conventional forces.

While escalation of the current stand-off between Indian and Chinese forces is not inevitable, it would be a terrible mistake on the part of the Indian government to ignore the possibility, because it might not come from New Delhi but Beijing.

Whatever the outcome of the current crisis, New Delhi should start seriously assessing its extant nuclear doctrine and redouble efforts to get a robust triadic capability for deterrence.

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<https://idr.org/in-stand-off-keeping-an-eye-on-the-nuclear-ball/>

India must secure the Indian Ocean to deter China's assertion along the border

By Don McLain Gill

While the violent face-off between Indian and Chinese troops in the Galwan Valley of eastern Ladakh appears limited to the border between the two states, the confrontation extends to the sea as well. Here, India may hold an advance if it improves its power-projection capabilities.

China's increasing presence and involvement in the Indian Ocean is certainly not negligible, although it would be rash to say that the People's Liberation Army Navy (PLAN) has the upper hand in the Ocean.

China's overall naval capabilities have exceeded India's. However, the PLAN has limited experience in operations beyond coastal waters. It also has a limited number of blue water naval combatants and only a few long-range air strike capabilities. The lack of logistical support and the obstacle of going through chokepoints to reach the Indian Ocean significantly constrain China's naval capabilities in the area. In fact, it would seem like an extremely arduous task for China to secure all its Indian Ocean sea lines of communication (SLOCs). According to You Ji, an Australian expert on Chinese military affairs, Beijing acknowledges that the use of military force to meet conventional threats to secure its Indian Ocean SLOCs is not realistic.

India, however, cannot remain complacent. China is continuously developing its naval capabilities and forging partnerships with strategically located states in the Indian Ocean. In 2017, China established its first offshore military base in Djibouti. This would provide it with a considerable capacity to monitor the Indian Navy's movements in the Indian Ocean. In addition, the developments of the China-Pakistan Economic Corridor will also provide China with an enhanced military presence in the Indian Ocean region. Among Beijing's port developments in the region, Pakistan's Gwadar Port has the potential to become another offshore military base.

From Non-Alignment to Multi-Alignment

For India to maximise its strategic interests in limiting China's growing presence in its geographic neighbourhood, it would have to deviate from its Cold War policy of non-alignment and engage more with other like-minded states. Among these states, Japan and Australia have cemented their position as key partners of India. And for obvious reasons: China has been ramping up its incursions into Japanese territory in the East China Sea and continues to impose economic coercion over Australia for the country's desire to investigate the causes of the coronavirus pandemic. These confrontational activities, including the recent border row with India, have pushed the three states closer strategically.

In a significant step that would advance their strategic partnership, Japan and India held their inaugural 2+2 dialogue on 30 November 2019. With an eye on China, both states have also expedited the conclusion of their military logistics agreement – the Acquisition and Cross-Servicing Agreement (ACSA) – to expand the strategic reach of both militaries.

Through ACSA, Japan would be able to gain access to Indian facilities in the strategically located Andaman and Nicobar Islands which lie at the mouth of the Strait of Malacca, while India would also have access to Japan's naval facility in Djibouti and other potential bases in Japanese territory. This move would enhance the logistical capabilities of both countries, and would be a platform for them to check China.

Last month, India and Australia announced two bilateral strategic declarations for cooperation in the Indo-Pacific and inked seven other pacts, including a key Mutual Logistics Support Agreement for defence purposes. Through this, the two countries can use each other's bases for repair and replenishment of supplies, including fuel and spare parts. Initial collaboration would likely centre on India's Andaman and Nicobar Islands and Australia's Cocos Islands, which border some of Asia's most vital trade routes.

In addition to Australia, India has also inked reciprocal military logistics pacts with the US, France, South Korea and Singapore.

Implications and Challenges for the Indian Navy

Indian Navy Admiral Sunil Lanba, who served as Chief of Staff of the Indian Navy, neatly summed up what needs to be done: 'As far as the Indian Navy is concerned, we have only one front. And that is the Indian Ocean. We have overwhelming superiority over [the] Pakistan navy in all fields and domains. In the Indian Ocean region, the balance of power rests in our favor compared to China'.

Yet, despite its prominence in the Indian Ocean, India still needs to address several challenges facing its navy. Among them, three stand out.

First, enhancing what may be termed as 'maritime consciousness' is crucial to the development of the Indian Navy. Since 1947, maritime issues have often been neglected by India due to two factors: excessive concentration on continental threats emanating from the north and northwestern frontiers, and the distance between maritime boundaries and decision-makers in New Delhi. Traditionally speaking, the Indian Navy has been a neglected branch of the armed forces, resulting in a relative decline in spending trends.

Second, there is a lack of acceleration in terms of modernisation. For, although India is trying to enhance the capacity of its navy, developments remain slow. With respect to this, the primary hurdle is to ensure that ships and aircraft are always available.

Third, the quality and reliability of India's indigenous naval buildup remains questionable. Despite the success of the indigenously produced aircraft carrier INS *Vikrant* and the nuclear-powered ballistic missile submarine INS *Arihant*, India's indigenous defence production has been marred by serious technical and organisational problems, leading to significant delays in the development of key defence technologies and platforms. Consequently, India finds it difficult to translate its commitment to self-reliance into practice.

Still, the latest clashes with China may have prompted a rethink in New Delhi about the broader naval domain, where India can maintain the upper hand.

(Don McLain Gill is based in the Philippines and has written extensively on regional geopolitics and Indian foreign policy. The views expressed in this Commentary are the author's, and do not represent those of RUSI or any other institution.)

<https://rusi.org/commentary/india-must-secure-indian-ocean-deter-china%E2%80%99s-assertion-along-border>

Red tape leaves IAF's Kargil heavyweight, Mi-26, out of LAC action

The overhaul of the fleet has been delayed for years

By Vijay Mohan

Chandigarh: Over 20 years ago in India's last border conflict, the IAF's Mi-26 heavy-lift helicopter had played a key role in the military build-up along the Line of Control (LoC) to evict Pakistani intruders, but during the current stand-off with Chinese troops on the Line of Actual Control (LAC) they have remained on ground as the overhaul of the fleet has been delayed for years.

The IAF has three Soviet-origin Mi-26s, the world's largest helicopter, that are based with No 126 Helicopter Unit at Chandigarh, the same outfit that operates the newly inducted US-made CH-47 Chinook heavy-lift helicopter.

During the 1999 Kargil conflict, that was fought between mid-May to July-end, the Mi-26s had airlifted and positioned artillery guns, including the Bofors howitzers, which were instrumental in neutralising enemy bunkers, to strategic positions. In addition, they had also ferried troops and heavy equipment to the frontline.

According to IAF officers, the Mi-26 can lift up to 20 tonnes of load or accommodate 82 troops. "A Bofors gun that weighs 11,700 kg cannot be airlifted or tactically re-deployed by any other helicopter in a single sortie," an IAF officer said. "Similarly, there is no other alternative to rapidly position trucks, fuel bowsers, specialist vehicles, bulldozers and construction equipment in remote areas," he added.

If build-up of heavy fire support is needed in the mountains, the Chinooks will be able to airlift only the new 155 mm ultra-light howitzers, which weigh 4,200 kg and of which 25-30 are reported to be in service so far.

The Chinooks, which were inducted in 2019, currently make up the IAF's vertical heavy lift component, but their payload capacity is about half that of the Mi-26 and it cannot singularly airlift heavier equipment like the Bofors or a truck. Last year, in its report on capital acquisitions by the IAF, the Comptroller and Auditor General had made some critical observations on the selection process between the Mi-26 and Chinook.

In service with the IAF since 1986, the first Mi-26 was grounded in 2013, followed by the second in 2014 on expiry of their stipulated technical life. The third, though still fly-worthy, has remained non-operational since 2017, IAF sources said. They are required to be ferried to Russia for overhaul. The IAF set into motion the process to give a fresh lease of life to these grounded flying machines about four years ago but the plans remain mired in bureaucratic machinery.

Ideally, the first overhauled helicopter should have been back in service about five years ago, sources said, but apparently financial issues and some observations by officials in the Ministry of Defence have held up the overhaul process.

The IAF expects each helicopter to take 10-12 months for being returned to fly-worthy state. This would involve non-destructive analysis of the airframe, engine components and other systems to assess their integrity, replacement of certain parts and refurbishment of the flight deck and fuselage. The overhauled machines would be expected to continue serving for another 15-20 years.



According to IAF officers, the Mi-26 can lift up to 20 tonnes of load or accommodate 82 troops.

The IAF had initially projected a requirement for six Mi-26s, but four were procured from the erstwhile Soviet Union. One was lost in a freak incident at Chandigarh in 1998, when it toppled over during a storm. It was replaced by a new helicopter in October 2002. In 2010 another Mi-26 crashed near Jammu while taking off.

Though expensive to maintain, the Mi-26s have performed yeoman's service both during military operations as well as in aid to civil authorities during natural calamities. Besides air maintenance of forward posts, they have also airlifted heavy equipment and construction machinery for civilian infrastructure development projects.

<https://www.tribuneindia.com/news/nation/red-tape-leaves-iafs-kargil-heavyweight-mi-26-out-of-lac-action-110143>

ThePrint

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Armed forces to limit flying Cheetah choppers as Covid hits spares production at HAL

HAL has reduced spare production for the ageing Cheetahs, and it has been communicated to the forces that the shortage is expected to last around 3 months

By Amrita Nayak dutta

New Delhi: The Covid-19 pandemic and the subsequent lockdown has hit the state-owned Hindustan Aeronautics Limited (HAL)'s production of spares, prompting the armed forces to curb flying hours on the ageing Cheetah helicopters and limit their use to essential maintenance and operational requirements.

Defence sources told ThePrint that HAL has reduced its production of spares for the ageing fleet of helicopters due to the Covid crisis and it has been communicated to the forces that the shortage is expected to last around three months.

The Cheetah is a single-engine utility helicopter used by the Army and the Air Force.

"The formations have been told that the lack of spares may affect the serviceability of the Cheetah fleet in their area of operation," a senior Army officer told ThePrint.

Speaking about the curtailed usage of Cheetah, a senior service officer said certain places such as Siachen and few forward bases in the north and north-east, which are sustained by constant air effort, would be given priority.

With the supply of spares and overhaul posing to be a challenge, it could impact flight safety, said the sources.

Army sources told ThePrint that this move has not impacted operational flying in any way. "We have adequate spares to take care of the entire spectrum of operations," a top Army officer told ThePrint.

ThePrint reached the IAF for a comment but there was no response until the time of publishing this report.

HAL spokesperson Gopal Sutar told ThePrint that the company is facing supply chain challenges due to the pandemic, but its support to the armed forces continues unhindered, including for Cheetah helicopters.



“The work related to this particular platform (Cheetah) is not affected at HAL end so far, as all-out efforts are made by HAL teams working on this platform. No issues of concern have been reported by our teams till now,” he said.

“Please note that in spite of being an old and obsolescence platform, HAL continues to extend full support to Cheetah and Chetak. There are challenges in supply of spares, considering difficulties related to obsolescence. However, those concerns are being attended to, even though the supply chain remains affected due to the pandemic,” he said.

‘Routine sorties and training will be affected’

The service officer quoted above said casualty evacuation from high altitude would also continue to be given a high priority. “Routine sorties, visits of senior officers and training on helicopters would be curtailed for the time being till the supply of spares is restored,” he said.

A second officer said the development could probably result in the consolidated use of Cheetah in extreme high altitude areas where they have the maximum requirement.

The officer said other options, such as Advanced Light Helicopters, could be used in areas where the requirement of Cheetah may not be an operational necessity.

Cheetah undergoes three types of servicing. The first line of servicing is carried out on a daily basis. The second line is done in the maintenance flight of the squadron at 400 and 800 hours of flying, respectively. The third line is the overhaul of the helicopter, which is done at HAL premises after 3,200 flying hours.

The Cheetah helicopters

The Cheetah helicopters were first inducted in 1976. Over a period of time, HAL has been manufacturing these through technology transfer agreements with foreign companies.

These helicopters are designed for operation in conditions with a very wide range of weight, centre of gravity and altitude. They are multi-role, highly manoeuvrable and hold the world record in high altitude flying among all categories of Helicopters, according to the HAL website.

The helicopter is powered by Artouste-III B turbo shaft engine and is suitable for commuting, observation, surveillance, logistics support, rescue operations and high altitude missions.

HAL has so far produced over 275 Cheetahs. It has also collaborated with France’s Turbomeca to make a more powerful ‘Shakti’ engine for the Cheetah, in a variant called the Cheetal, for use in high altitudes.

As compared to the older single-engine light utility Chetak helicopters, which have a bulkier body, Cheetahs are leaner and have skis as their landing gear. The Cheetahs also have fewer seating capacity and can land on the smallest of the helipads.

The IAF describes the Cheetah and Chetak fleet as the backbone in search and rescue operations, casualty evacuation and route transport role.

The Army and the IAF are expected to buy about 200 Light Utility Helicopters (LUHs) to replace the Chetak and Cheetah fleet. The HAL-developed LUHs got the initial operational clearance in February this year.

In an interview in May, Air Chief Marshal R.K.S. Bhadauria said the LUH programme has fructified, but needs to demonstrate some operational requirements at high altitude, and fix some other flying qualities issues.

India has also entered into a deal with Russia to manufacture 200 light utility choppers Kamov-226T by way of a joint venture between HAL and Russian Helicopters. However, it is still in the works in the Ministry of Defence.

<https://theprint.in/defence/armed-forces-to-limit-flying-cheetah-choppers-as-covid-hits-spares-production-at-hal/457023/>

144 armed forces veterans sign statement on China, highlight need to revamp intelligence

Statement also underlines 'communication gap' on India-China stand-off from the govt and the military, urges national policy and strategy on neighbours

By Amrita Nayak Dutta

New Delhi: A 'Statement on China' signed by 144 armed forces veterans has highlighted the urgent need for a revamp of India's intelligence system, in the context of the Galwan Valley clash on 15 June that killed 20 Indian soldiers.

The statement, sent to President Ram Nath Kovind, Prime Minister Narendra Modi, Defence Minister Rajnath Singh, Chief of Defence Staff Gen. Bipin Rawat and the three service chiefs on 2 July, said the Galwan incident could only have happened because of failure at one or more levels in the political, civil and military establishments, especially in continuous intelligence acquisition and dissemination.

"While we accept that failures can happen in any system, in the current instance, either our intelligence system was found wanting, or the intelligence which was obtained did not reach the field units in time," the veterans stated. "We therefore urge that our nation's intelligence system be urgently revamped."

Air Marshal K.C. 'Nanda' Cariappa (ret'd), one of the signatories to the statement, told ThePrint that it was the brainchild of former Navy chief Admiral L. Ramdas (ret'd).

"I went through the letter and we signed it out of our love for the armed forces and the country," Cariappa said.

The Galwan incident, Cariappa added, has seen a lot of "twisting of facts", prompting the veterans to come out with the statement.

'Nanda' Cariappa is the son of Field Marshal K. M. Cariappa, the first Indian chief of the Indian Army, and was a prisoner of war in Pakistan in the 1965 war.

Communication gap

The veterans' statement also highlighted the communication gap from the government and the military during the stand-off with China at the Line of Actual Control in Ladakh, and said a formal statement should have been issued by either soon after the Galwan clash, which would have put rumours and guesswork to rest.

"It would have prevented China from taking advantage of contradictions between ambiguous or inaccurate verbal statements needing later clarifications," the veterans stated, adding that in the event of such future situations, only formal statements be issued to ensure that the Indian public is not confused and the "aggressor nation" does not gain political advantage.

The statement further read that a fact-finding body needs to be immediately instituted regarding the "intrusions, incursions and encroachments by China" in Aksai Chin (Depsang, Galwan, Pangong Tso etc.), and elsewhere along India's long border with it.

"We request that the report of this fact-finding body be tabled in the Lok Sabha with time-bound framework," it said.



The armed forces veterans' statement has been sent to Prime Minister Narendra Modi (centre), CDS Gen. Bipin Rawat (left) and Army chief Gen. M.M. Naravane (right), among others (representational image) | Photo: ANI

National policy and strategy

The veterans went on to say that India urgently needs a national policy and strategy on neighbourhood management, featuring all of India's immediate and more distant neighbours, especially China and Pakistan.

"Formulation of such national policy and strategy has been neglected by successive governments," they said.

This should be immediately initiated to safely guide India's political, military, bureaucratic and diplomatic establishments towards "stable relations with our neighbours, small and large, friendly or inimical".

"Having an overarching national policy and strategy will reduce casualties among our troops, which occurred due to the heightened risk of being reactive to conflict situations created by China or Pakistan," the veterans said.

Report on 1962 war be made public

The statement also sought the release of the Henderson Brooks-Bhagat report on the 1962 India-China war into public domain, so that the "military-bureaucratic-political system and the public can learn from the mistakes of the past".

"We urge that the government should take very early steps towards concluding boundary agreements with all our neighbours, but especially China and Pakistan, by employing all available diplomatic means and pressures, together with the power of India's membership position for 2021-22 in the UN Security Council," it said.

"This does not in any manner imply reduction in deployment of our armed forces or let up in our intelligence systems, but it will enable us to better attend to development for our people within our country," it added.

The veterans' statement also said proactive steps should be taken to use non-electoral political tools of consultation, discussion and negotiation to resolve all domestic disputes and situations, instead of coercion and force. This, it said, would strengthen the nation's integrity and resolve to face any and all aggressive designs by inimical and aggressive neighbours.

"These steps will enable state and central governments to devote more attention and resources towards development of our people within our country," it said.

<https://theprint.in/defence/144-armed-forces-veterans-sign-statement-on-china-highlight-need-to-revamp-intelligence/457912/>



Fri, 10 July 2020

Boeing completes Apache deliveries to IAF, next batch in 2023

By Raunak Kunde

IAF has taken deliveries of All 22 Apache Helicopters after five Apache helicopters which got delayed due to COVID situation have reached India and have been assembled and flown to forward bases at Pathankot and Jorhat air stations. Boeing will deliver six Apache Helicopters meant for the Indian Army in 2023 but both in terms of capabilities IAF and Indian Army version will be identical since it was procured as follow on order from the original deal for 22 which was signed in 2015.

Army has decided to go with a different color scheme and will move away from light blue livery seen in the IAF version. Indian Army is keen to acquire 5 more Apache Helicopters under the

original contract at the same price since the original contract had follow on order option for 11 helicopters.

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<https://idrw.org/boeing-completes-apache-deliveries-to-iaf-next-batch-in-2023/#more-230666>



Fri, 10 July 2020

India-China row shows need to revamp these 3 organisations

The India-China face-off along the border with Tibet has spotlighted three organisations that we as a country need to completely revamp—and rapidly. These three critical organisations are the Indo-Tibetan Border Force (ITBP), the Ordnance Factory Board (OFB) and the Border Roads Organization (BRO).

Let us talk about the ITBP. Initially set up as a specialized force for the India-Tibet border, it has, like all other central paramilitary forces, ballooned in size. However, its quality and professionalism are at best questionable today. It is quite clear that the ITBP has been found wanting in its response to the threats and the thrusts by the Chinese Border Defence Regiments, that have been the main protagonists of the current stand-off. Ideally, the ITBP should have forcefully dealt with this, and allowed the Indian Army to have been the mailed iron-fist a few miles behind the LAC, as the Chinese PLA is. Instead, the Indian Army today is reduced to the ridiculous spectacle of trying to shore up the LAC with lathis and clubs, while other Indian Army formations lie a few miles behind to reinforce the disposition on the LAC.



This duality within the same organization needs to be totally obviated and is the raison d'être for specialized border management forces such as the ITBP. We have now seen repeated demonstrations of such mishaps in Ladakh, not to mention at the Arunachal borders.

This is not an unfixable problem. The manpower of the Army and the ITBP comes from the same stock. What needs to change is the leadership. The last two months demonstrated that we no longer have the luxury of treating the India-Tibet border like a job for the police. It is now amply clear that this is a militarised border with an adversary that not only has an infrastructure advantage but also has the integration and command and control flowing seamlessly within the PLA, for both the regular Chinese army formations and their Border Defence Regiments. It is high time we fix this issue on our side. The nitty-gritty of how the transformation of the ITBP happens is a subject for another article, but let us start by recognizing the problem first—the ITBP's command and control needs to be integrated with the Army's.

The second problem that needs to be fixed, and this arguably is the most complicated of all, is the well-established and pathetic situation of how the Indian armed forces always find themselves short of quality indigenous equipment in an active combat situation. The Ladakh crisis is déjà vu all over again from the Kargil crisis when the then Indian Army chief commented that we would

fight with whatever we have. Today, with at least a two-front scenario, it is nobody's case that the battle has to be fought primarily with indigenous weapons. It is equally nobody's case that we do not have the quantity and the quality that we require of our key weapon systems, ranging from basic ones like small arms to medium technology items like 155mm howitzers.

A large part of the blame for this tragic shortcoming has to fall on the Ordnance Factory Board. Not only has it not been able to provide contemporary equipment, it has also opposed the [entry of the] Indian private sector. Can we just imagine how much more confident and aggressive our posture would have been if we had 400 additional indigenously manufactured 155mm howitzers or one hundred more Pinaka rocket launchers? Our nation, in its typical lackadaisical style, meanders along on key decisions. Perhaps, just perhaps, we will start to change now, and allow the Indian private sector to participate in the nation's defence rather than subject it to a perverse OFB monopoly.

The third aspect we need to deal with is ironically a well-performing one—it is because of its robust performance in the last few years that the Chinese are so spooked. I talk, of course, of the Border Roads Organization (BRO), and its stellar performance; especially under its current DG, who I happen to know well.

The remit for the BRO is now extensive and spans not just the entire Tibet border but also substantial parts of the Pakistan border. To those unaware, the BRO is also responsible for building and maintaining the national highways in states such as Uttarakhand, Himachal Pradesh, Arunachal Pradesh, Sikkim, and of course J&K. The BRO has responded well to the impending crisis and has raised multiple new formations in the last few years including specialized bridge-building units.

Now, given the increased mobility of India's strike formations such as the Mountain Strike Corps, which need to have the flexibility to operate across multiple axes into Tibet, it would be pertinent to have the BRO involved deeper with state and central PWDs to ensure uniform codes in road and bridge classification. It is not sufficient to just build border roads, but the roads in the hinterlands too must also enable rapid movement of heavy military formations. The BRO, under the aegis of the NHAI, should harness the extensive road construction experience built up in the country over the last decade towards not just bridging but bettering the infrastructure gap with China.

Finally, the current government is to be rightly credited with having done the most towards implementing the Kargil Review Committee report including the formation of the office of the CDS. It is therefore hoped that the current dispensation, in the spirit of critical analysis and hard-but-necessary decision making, takes the dragon by its horn and tames it, permanently.

The above ideas and thoughts have been mulled over for a fair number of years. The difference now is that with the clear and present danger from China, we no longer have the luxury of kicking decision making down the road.

<https://idrw.org/india-china-row-shows-need-to-revamp-these-3-organisations/>

Explained: Honey Trap - इस वजह से Indian Army

ने Tinder, Bumble और OK Cupid को किया बैन

हनी ट्रेप के जरिए भारतीय सैन्यकर्मियों से गोपनीय जानकारी निकालने के प्रयासों की वजह से भारतीय सेना ने 89 ऐप्स को बैन किया है।

Indian Army ने पिछले साल दिसंबर में ऐसे 150 प्रोफाइल्स की पहचान की थी जिनका उपयोग पाकिस्तान भारतीय सेना के अधिकारियों को Honey Trap में फंसाने के लिए कर रहा था। ऐसे मामलों में खूबसूरत लड़कियां सामने वाले व्यक्ति को गोपनीय जानकारी प्रकट करने या कुछ नासमझी भरा काम करने के लिए लुभाती हैं।

ऐसे मामलों की बढ़ती संख्या के मद्देनजर भारत सरकार ने सैन्यकर्मियों को Facebook, Instagram समेत कुल 89 ऐप्स अपने मोबाइल फोन से डिलीट करने को कहा। बैन किए गए इन ऐप्स में Tinder, Bumble, Truly Madly और OK Cupid समेत कुल 15 डेटिंग ऐप्स भी शामिल हैं।

क्या होता है Honey Trap?

भारतीय सेना के अनुसार इसमें आमतौर पर शुरुआत सोशल मीडिया पर किसी खूबसूरत युवा लड़की द्वारा सैनिक की पोस्ट को लाइक करने से होती है। इसके बाद कुछ दिनों तक सामान्य बातचीत के बाद वह महिला उस सैनिक से गन, टैंक्स और एयरक्राफ्ट्स के ज्यादा फोटो पोस्ट करने का अनुरोध करती है। इसके बाद यह संवाद डायरेक्ट मैसेज और WhatsApp चैट तक पहुंचता है जिसके बाद पाकिस्तान की इंटर सर्विसेज इंटेलीजेंस (ISI) की यह सदस्य उस सैनिक को हनी ट्रेप में फंसाकर डिफेंस की जानकारी लीक करने के लिए ब्लैकमेल करती है।

खुद को Military Nursing Corps में कैप्टन बताने वाली Anika Chopra नामक महिला ने भारतीय सेना के 50 जवानों को फंसाने का प्रयास किया था। एक अन्य मामले में रोहतक के एक जवान द्वारा कम से कम 18 आर्मी भर्ती केंद्र के फोटोज शेयर किए जाने का पता चला था।

Honey Trap का इस्तेमाल भी हथियार की तरह:

इन दिनों दुश्मनों द्वारा Honey Trap का इस्तेमाल आम बात हो गई है। इसके चलते सैन्यकर्मियों को महिलाओं से ऑनलाइन प्लर्ट करने से बचने को कहा गया है। इसके अलावा उन्हें सेना की यूनिफॉर्म में, हथियारों के साथ और कैंप के अंदर के फोटोज Facebook, Twitter और Instagram पर पोस्ट करने से मना किया गया है। इसके अलावा सैन्यकर्मियों को सोशल मीडिया पर अपने नाम, रैंक और पोस्टिंग का खुलासा नहीं करने को कहा गया है। उन्हें सोशल मीडिया पर सेना से जुड़ी उपलब्धियों की जानकारी देने से भी रोका गया है। सैन्य अभ्यास, ऑपरेशंस, ट्रांसफर और प्रमोशन की जानकारी उजागर करने पर उनके खिलाफ कार्रवाई की जा सकती है।

भारतीय नौसेना द्वारा हनी ट्रेप किए गए सैन्यकर्मियों का पता लगाने के लिए ऑपरेशन Dolphin Nose के तहत जांच चल रही है। दिसंबर में सात नौसैनिकों को गोपनीय और संवेदनशील जानकारी पाकिस्तान को लीक करने के आरोप में गिरफ्तार किया गया था। इस साल जनवरी में तीन नौसैनिकों को खुफिया जानकारी एकत्रित करते हुए पकड़ा गया था। Indian Navy ने पिछले साल अपने अधिकारियों के Facebook के उपयोग पर बैन लगा दिया था। उन्हें बेस और डॉकयार्ड्स पर अपने स्मार्टफोन ले जाने से मना कर दिया गया था। विदेशी युद्धपोतों पर जाने के दौरान भी उन्हें अपने फोन साथ में ले जाने की अनुमति नहीं होती थी। ऑपरेशन Dolphin Nose के जरिए हुए खुलासे के बाद ही Indian Navy ने सावधानी बतौर सात कदम उठाए हैं।

<https://www.naidunia.com/national-explained-honey-trap-the-reason-why-the-indian-army-banned-tinder-bumble-and-ok-cupid-5695572>

On Permanent Commission for Women Officers, the Army continues to drag its feet

The measures taken to implement the apex court's order in February have been tardy, fragmented and discriminatory and have done little to alleviate the fears of serving women officers

By Prerna Dhoop and Vandana Dhoop

On February 17, 2020, the Supreme Court of India granted 'Permanent Commission' (PC) to 'Short Service Commission' (SSC) female officers of the Indian Army in the 'Service Arms' and 'Combat Support Arms' streams on the same terms as for male officers.

After a long legal battle spanning over two decades, the mental ordeal and emotional anguish seemed to have finally ended for the women officers who would henceforth, not just have the choice to opt for PC but shall also be eligible for command positions like male officers. The judgment was hailed as a welcome step and a much-needed reform in the gender equality jurisprudence of the Indian Army.



Justice D.Y. Chandrachud and Justice Ajay Rastogi, while revisiting as well as rewriting the Indian Army's conception of 'equality of opportunity in matters of employment' set a strict deadline and ordered that "necessary steps for compliance with this judgment shall be taken within three months from the date of this judgment."

Immediately after the landmark judgment was pronounced by the apex court, Chief of Army Staff General Manoj Naravane stated the decision had brought out "a sense of clarity and purpose to gainfully employ officers for the better efficiency of the organisation. The first step would be to give women officers the option to take PC [...] the process would be the same as applied to male SSC officers. We would be sending out letters to everyone."

However, the initial steps taken by the Indian Army since then have not been promising at all. Rather, the measures to implement the apex court's order have been tardy, fragmented and discriminatory. To say the least, the Indian Army is doing very little to alleviate the fears, apprehensions and vulnerabilities of the serving women officers and almost nothing to guarantee them a favourable future.

The due date of May 17, 2020, has long since gone but there is absolutely no sign of a proper policy in place for the women officers. Instead, the Indian Army sought and received an extension of the deadline from the Supreme Court to comply with the order. The career, as well as the future, of these women officers continues to hang on thin strings like always. For those women officers who are due to retire in the next few years, there is no clarity about what is in store for them. Despite the Supreme Court's order, they continue to abide by the whims, fancies and vagaries of the Indian Army.

Recently, some senior women officers – with a service record of more than 20 years – have been detailed for the Junior Command Course (JCC) at the Army War College, Mhow-Madhya Pradesh which is essentially meant for young Captains and Majors with 5-13 years of service. Currently, the Indian Army is opening up important courses, criterion appointments and command positions to women officers which were previously the sole and exclusive prerogative of male officers.

Possibly, the Indian Army has misunderstood the 'equality doctrine' and interpreted the Supreme Court's decision in a way that equates a senior woman officer with an illustrious career of 26 years with a junior male officer with just 5 years in service. Simply put, from now on, a senior

woman officer holding a rank of ‘Lieutenant Colonel’ would have to learn the art of tactical strategy and train with a male officer who holds the rank of ‘Captain’ or ‘Major’.

Detailing of senior women officers for the JCC together with junior male officer is just a corollary of the unequal past. Female officers had to watch on as male officer who entered service at the same time as them rose higher in the ranks and became ‘Colonels’ and ‘Brigadiers’. The women officers were left behind and ended up addressing their male contemporaries as ‘sir’.

This detailing is certainly not the version of ‘equality’ that women officers have been yearning for since 2003. Along with the policy vacuum, there is a reluctance on the part of the male military establishment to view gender issues fairly and act expeditiously.

Seldom have women been part of important studies, policy formulation and decision-making processes. Deliberation and discussion on important policy matters are done in a clandestine manner within closed doors. How fair, reasonable and just is this practice?

‘National security’ has always been the justification to trump every argument that questions and challenges this age-old practice of the Indian Army’s male brass. To such an extent, that the question of gender equality within the Army’s ranks has also been posed as a threat to national security. No wonder, women officers are not a part of the study group or committee instituted to discuss, formulate and implement a policy that will directly affect them.

Without a well-thought-out policy that accommodates the special circumstances of serving women officers who are close to retirement, the options of study leave, re-employment and other post-retirement plans on an equal footing as their male counterparts, promises of reform remain far-fetched and illusory. For instance, senior women officers with almost 30 years of service who seek to opt for two years study-leave do not have requisite residual service of 5 years under the existing PC policy as applicable to male officers.

Unfortunately, women form a minuscule 4% of the total strength of commissioned officers in the Indian army compared with an average of 11% among NATO countries and 7% in Japan’s Self Defence Force. Despite 11,500 officer vacancies in the Indian Army, the establishment has failed to create a transparent and comprehensive framework to guarantee ‘equality of opportunity in employment’ which would, in turn, assuage the fears of the serving women officers as well as encourage participation from bright female applicants eager to prove their mettle in an essentially male set-up.

Although the judgment of the Supreme Court is praiseworthy, a delayed and insouciant response from the Indian Army will only add to the woes of the women officers who have waited long enough to get their due.

(Prerna Dhoop is a human rights lawyer based in Kolkata and Vandana Dhoop is working with the Indian Political Action Committee (IPAC).)

<https://thewire.in/women/indian-army-women-officers-permanent-commission-delay>



Fri, 10 July 2020

Chinese DF-17 Hypersonic Missile: Biggest threat to India & USA

Information about the Chinese missile DF-17 first appeared from the US military in 2014. Then it was designated as WU-14. One of the most secret Chinese weapons immediately attracted a lot of attention, since it was supposed to develop hypersonic speed.

Specifications

The DF-17 is responsible for the development of the 10th Scientific Research Institute, or the Institute for the Study of Aircraft of Near Space, under the Chinese Aerospace Scientific and Technical Corporation. It is believed that the DF-17 is based on an existing short-range missile DF-16B.

DF-17 (Dong Feng-17) is a Chinese solid-fuel medium-range missile equipped with a hypersonic aircraft DF-ZF. Its length is 11 m, weight is 15 tons, speed is from 5 to 10 Machs (6192–12 348 km / h) in the slip phase. According to American intelligence, the range of the DF-17 is between 1800 and 2500 km. Technically, a missile can carry both a conventional and a nuclear warhead. Although, during the 2019 parade, the Chinese commentator noted that the rocket will perform the usual non-strategic tasks.



The DF-17 missile is mobile and moves due to its installation on a special wheeled chassis with a 10 × 10 configuration. This vehicle can travel in difficult terrain, although it is commonly used on paved roads. According to some estimates, China is also capable of creating an anti-ship version on the basis of DF-17, which will allow China to restrain US marine activity near China.

Test

The first flight tests of the Chinese hypersonic unit were carried out in 2014. Between January 2014 and November 2017, China conducted at least nine flight tests of the hypersonic unit of the DF-ZF rocket. The tests took place at the Taiyuan Satellite Launch Center in Shanxi Province.

<https://www.defenceaviationpost.com/2020/07/chinese-df-17-hypersonic-missile-biggest-threat-to-india-usa/>



Fri, 10 July 2020

Thousands of missiles arrived in India, USA and Russia showed full support India

Recently, India has accelerated the rate of foreign military purchases. Obviously, because our home made missiles are under development or not enough to match up the Chinese strength and some are failed in tests. At the same time, India has thrown large orders for arms purchases to countries such as Europe and the United States.

The United States will certainly not miss such a good thing. It has sent representatives to come to India to discuss cooperation. It not only promises to take credit, but also provides loans to facilitate India's arms purchases and open up green channels. On the other hand, Russia also

actively expressed its willingness to provide weapons to India. According to Russian media reports, the Indian Defense Minister Rajnath Singh personally flew to Moscow in person to meet with Russian military industry executives intensively, and stated that Russia is also willing to give green light for India throughout the process.

The Russian Foreign Minister said that Russia will comprehensively speed up the delivery of arms to India. It clearly shows that how much the world hate the Chinese communist party even russia who is china's one of the best ally is not trusting the CCP.

According to the latest reports, the Indian Ministry of Defense believes that if there is a conflict in the future, the Indian Air Force will play an important role in the war. Therefore, the important task of this military purchase project is to purchase large quantities of heavy fighters.

<https://www.defenceaviationpost.com/2020/07/thousands-of-missiles-arrived-in-india-usa-and-russia-showed-full-support-india/>



Fri, 10 July 2020

Russian technicians keeping INS Vikramaditya battle ready amid flaring regional tensions

INS Vikramaditya has a total of 22 decks and it has the ability to carry over 30 aircraft including MiG 29K/Sea Harrier, Kamov 31, Kamov 28, Sea King, ALH-Dhruv and Chetak helicopters

Russian technicians continue to provide maintenance to Indian Navy's aircraft carrier INS Vikramaditya, despite the all the regional tensions and COVID-18 pandemic, Russian news agency TASS quoted a leading defence portal.

A group of Russian technicians who are supporting the Indian navy in providing timely maintenance for the aircraft carrier INS Vikramaditya have not left the country.

Despite the delays with the carrier's acceptance for service, INS Vikramaditya offers ample opportunities for India's Navy and allows New Delhi to keep its domination in the Indian Ocean, the news portal said in its article.

INS Vikramaditya is a heavy upgrade of the Russian aircraft-carrying cruiser Admiral Gorshkov. The work on the ship's heavy upgrade was carried out at the Sevmash Shipyard and the flattop was handed-over the Indian Navy on November 16, 2013.

Under an inter-governmental agreement signed in 2004, India received the Admiral Gorshkov's hull for free but on condition of its upgrade at the Sevmash Shipyard and its outfitting with Russian-made aircraft.

After its upgrade, INS Vikramaditya displaces 45,000 tonnes and possess a state-of-art flight deck and a ski-jump for aircraft take-offs, navigation and radar systems, communications and aircraft control technology and also other special equipment and assemblies.

INS Vikramaditya has a total of 22 decks and it has the ability to carry over 30 aircraft including MiG 29K/Sea Harrier, Kamov 31, Kamov 28, Sea King, ALH-Dhruv and Chetak helicopters.

<https://eurasianimes.com/russian-technicians-keeping-ins-vikramaditya-battle-ready-amid-flaring-regional-tensions/>

Fri, 10 July 2020

Maruti Suzuki delivers 718 units of Gypsy to Indian Army in June 2020

By Sahil Kukreja

The Maruti Suzuki Gypsy was discontinued last year since it did not meet the latest safety as well as emission norms, however, the car continues to be Indian Army's favourite choice of vehicle.

Maruti Suzuki first launched the Gypsy in the Indian market in December 1985, and the car went on to become a popular choice for the law enforcement in the country, thanks to its performance, reliability, and the go-anywhere capability. However, Maruti Suzuki ended up discontinuing the Gypsy from the country last year since sales were below par, and the car did not comply with the latest emission and safety norms.



However, the Indian Army's love for Gypsy doesn't seem to depart. Even after the car's discontinuation, the Indian Army continues to place orders for the Gypsy when required, and a waiver from the Ministry of Defence makes Maruti Suzuki fulfil the Indian Army's order for the Gypsies.

Maruti Suzuki delivered 718 units of the Gypsy to the Indian Army in June 2020, over a year after the car was taken off the shelves in the country. Powering the Gypsy is a BS4-compliant 1.3-litre petrol engine that puts out 80 hp of max power and 103 Nm of peak torque. The car comes with a four-wheel-drive setup as standard, and also gets a low-range gearbox.

It should be noted that the additional units are not available to be purchased by civilians. However, Maruti Suzuki has something else planned for people who are looking for an affordable rugged offroader, i.e. the Jimny. It should be known that the Gypsy sold in the Indian market was actually the second-gen version of the Suzuki Jimny retailed elsewhere. Now, the latter has entered the fourth-gen avatar.

Maruti revealed the said SUV at the 2020 Auto Expo in order to gauge public response, and the said car is expected to be launched in the country by the end of this year or early 2021, and could be rebranded as 'Gypsy' for the Indian market.

The SUV will likely be offered with the same 1.5-litre four-cylinder petrol engine that other Maruti uses for the Vitara Brezza and the Ciaz. The said engine puts out 105 PS power and 138 Nm torque. Additionally, the Jimny will also get a part-time four-wheel drive setup.

<https://gaadiwaadi.com/maruti-suzuki-delivers-718-units-of-gypsy-to-indian-army-in-june/>

India to invite Australia for naval drill, risking Beijing's ire

New Delhi is expected to clear the way next week for a formal invitation to Australia following final government clearance and consultations with the U.S. and Japan

India plans to invite Australia to join the annual Malabar naval exercise that has so far included just Japan and the U.S., in a move that could risk China's ire.

The decision to include Australia in the drills -- the first time all members of the regional grouping known as the Quad will be engaged at a military level -- comes as Beijing and New Delhi are caught up in their worst border tensions in four decades. The exercise will bring together the navies of India, Japan, Australia and the U.S. in the Bay of Bengal at the end of the year, according to senior Indian officials who asked not to be identified, citing rules.

New Delhi is expected to clear the way next week for a formal invitation to Australia following final government clearance and consultations with the U.S. and Japan, the officials said.

"The timing of India potentially letting Australia into Malabar would be especially significant at this juncture," said Derek Grossman, researcher at the Washington-based RAND Corporation who worked in the U.S. intelligence community for more than a decade. "It would send a significant message to China that the Quad -- U.S., Australia, Japan, and India -- are de facto conducting joint naval exercises, even if not technically conducted under the auspices of a Quad event."

China has been uncomfortable with the informal coalition of four democracies, which was first formed in 2004 to help nations in the Indo-Pacific after the tsunami and revived in 2017. Post the coronavirus pandemic, the grouping has been coordinating efforts every month with Vietnam, South Korea and New Zealand.

Indian Navy Spokesperson Commander Vivek Madhawal declined to comment.

Australian Defense Minister Linda Reynolds' media team on Thursday didn't immediately provide a response to queries about possible participation in the exercises.

Strengthening Ties

While the Malabar exercises between U.S. and Indian navies were instituted in 1992, they have been more regular since 2004 with other Asian nations joining in the annual event. China had objected to the only other time Australia participated in the drills along with India, Japan, U.S. and Singapore in 2007.

India's inclusion of Australia this year follows a defense agreement and upgrading ties to a Comprehensive Strategic Partnership. The Mutual Logistics support agreement announced in May by Prime Ministers Narendra Modi and Scott Morrison allows access to each other's bases and ports. India has a similar agreement with the U.S.

Canberra's inclusion in the games was "only a matter of time" given improving defense and economic ties, according to Biren Nanda, former Indian High Commissioner to Australia and senior fellow at Delhi Policy Group. Australia's merchandise trade with India for the year ended June 2019 was A\$21.1 billion (\$14.5 billion), according to Australia's Department of Foreign Affairs and Trade.

"There's no direct relation between inviting Australia and what's happening at the Sino-Indian border," said Nanda in a phone interview. "This was a natural progression. Yet the question will be



Prime Minister Narendra Modi during a virtual meeting with Australian Prime Minister Scott Morrison (Photo: AP)

raised: how would the Chinese regard this? And they will react negatively. Just like they had done earlier."

Weaponized Quad

China objected to Japan's inclusion in the U.S-India annual Malabar event in 2015 with the then foreign ministry spokesperson Hong Lei warning "relevant countries" to not "provoke confrontation and create tension" in the region. Five years later, with an assertive China pushing neighbors across the Asian seas, Nanda expects a similar response.

Yet, there may be more acceptance to the idea of "like-minded democracies that seek to keep the Indo-Pacific free and open" amid India's rapidly souring on China ties, purely out of frustration, said Rajeswari Pillai Rajagoplan, distinguished fellow at New Delhi-based Observer Research Foundation and author of 'Clashing Titans: Military Strategy and Insecurity Among Asian Great Powers.'

Although India and China are now in the process of disengaging along their 3,488 kilometer (2,167 mile) unmarked boundary in the Himalayas after high-level military and diplomatic talks, the deadly clashes that followed the months-long standoff in the Galwan valley was a blow to relations between the nuclear-armed neighbors.

"Especially after Galwan, there's a growing realization in New Delhi's elite circles that its increasingly difficult to trust China. They have broken more than four decades of agreements. Good trade ties are no guarantee of peace," said Rajagoplan. "They have time and again tried to interfere in other nations' foreign policy. But there's an agreement in India that China should not have a say in who our friends are."

With Washington indicating its willingness to back the region through an increased force deployment in Asia, the Malabar exercises may take on more importance.

"The Quad has always been a security platform but didn't have a military context to it," said Rajagoplan. "The Malabar exercises may give it just that thanks to China upping its ante and threatening the region's security."

(This story has been published from a wire agency feed without modifications to the text. Only the headline has been changed.)

<https://www.livemint.com/news/india/india-to-invite-australia-for-naval-drill-risking-beijing-s-ire-11594337881288.html>



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50 वर्ष

Fri, 10 July 2020

Russia offers the latest Armata tank to T-90/T-72 operators like India

By Raunak Kunde

Russia's Industry and Trade Minister Denis Manturov said in April that Russia was planning to start work with foreign customers of the Armata tank in 2021 and had already received several prior requests from current T-90/T-72 Main Battle Tank operators who are keen on acquiring latest next-generation Main Battle Tank from Russia.

T-90/T-72 Main Battle Tank operators like India were first to be offered the new tank as per Russian media and several countries have shown interest in acquiring them from Russia, but there has been no confirmation if the Indian Army has shown similar interests in the platform.

Indian Army Main Battle Tanks primarily consists of 1900 T-90S and 1900 T-72M and T-72M1 with a small fleet of 128 Arjun Mk1 Tanks. Indian Army is planning to retire around 1000+ older

T-72 series tanks due to aging but it still not clear if it HAS plans to purchase Armata tank or buy a locally developed tank on offer from DRDO and Private defense sector companies

The Armata is a heavy tracked standardized platform serving as the basis to develop the main battle tank, an infantry fighting vehicle, an armored personnel carrier, and some other armored vehicles. The T-14 tank based on the Armata platform was shown to the public for the first time at Red Square's Victory Day parade on May 9, 2015. The new combat vehicle features fully digitized equipment, an unmanned turret and an isolated armored capsule for the crew.



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<https://idrw.org/russia-offers-the-latest-armata-tank-to-t-90-t-72-operators-like-india/#more-230640>

DESID **THEWEEK**

Fri, 10 July 2020

Russia confirms progress on new jet engine. Is it for Pak JF-17 fighter?

Despite repeated Indian protests, Russia has continued supply of RD-93 to Pakistan

A Russian company announced on Wednesday that a new engine for fighter aircraft that it had developed has been shipped for conducting thermal pressure chamber tests.

The state-owned United Engine Corporation controls development and manufacturing of all engines for military, civilian and space use in Russia and for Russian exports. The UEC's Klimov plant in St Petersburg had been developing the RD-93MA engine, which is a modification of the RD-93 engine, used on the JF-17 fighter, being built by Pakistan and China.



The first test flight of the JF-17 Block 3 | Via Twitter

In a press release on its website on Wednesday, UEC said the RD-93MA engine had been shipped from St. Petersburg to Moscow for thermal pressure chamber trials at the Central Institute of Aviation Motors (CIAM). The pressure chamber trials at CIAM are expected to subject the RD-93MA engine to simulated heat and altitude conditions the power-plant would experience in actual flight.

The UEC press release states, "The RD-93MA engine has improved performance. In particular, increased thermodynamic parameters, an improved design of the fan and the hot part, an upgraded automatic power-plant control system... An additional emergency engine start mode was provided... and the possibility of emergency fuel drain was realised. All this is due to the specifics associated with the possible use of the power-plant on a single-engine aircraft..."

The reference to use in single-engine aircraft has given rise to speculation that the new engine is destined for the JF-17 fighter. This is because Russia does not have any active single-engine fighter project at the moment.

According to reports, the RD-93MA engine can produce maximum thrust of 9,300 kgf (kilogram-force). The RD-93MA would have significantly greater thrust than the existing RD-93 engine used on Pakistan's JF-17 fighter, which can produce maximum thrust of 8,300kgf, according to UEC.

Having a new engine offers advantages in addition to increased thrust in combat situations. In December, Chinese state media confirmed that the latest version of the JF-17, dubbed the JF-17 Block 3, had made its maiden flight. The upgraded fighter will have new electronically scanned radar and other electronics, all of which necessitate higher power requirements than can be met by the existing power-plant.

Pakistan has already built over 100 JF-17 fighters for its air force and officials have indicated 62 JF-17 Block 3 fighters will be ordered by 2024.

In 2015, *IHS Jane's Defense Weekly* reported Pakistan would continue to use Russian engines for the JF-17 even though China was developing an alternate engine. "We are completely satisfied with this Russian-made engine," an official Pakistan Aeronautical Complex had told *IHS Jane's Defense Weekly*. Pakistani officials had claimed "changing to another engine would not make any sense and would be disruptive and cause a huge expense for the JF-17 programme".

Interestingly, the RD-93 has a connection to India. The RD-93 is developed from the RD-33 engine that powers the MiG-29UPG fighters of the Indian Air Force and MiG-29K jets of the Indian Navy. India operates over 60 MiG-29UPG jets and about 40 MiG-29K fighters. The government recently cleared the purchase of 21 MiG-29 fighters for the Indian Air Force.

Despite repeated Indian protests in the past two decades, Russia has continued supply of the RD-93 to China and Pakistan.

<https://www.theweek.in/news/world/2020/07/09/russia-confirms-progress-on-new-jet-engine-is-it-for-pak-jf-17-fighter.html>



ISRO to launch Amazonia-1 satellite of Brazil onboard PSLV next month

At the 6th BRICS Summit in 2014, the two countries –India and Brazil had an agreement all signed which talked about setting up a Brazilian earth station to receive data from the Indian satellites

By Huma Siddiqui

The Indian Space Research and Research Organisation (ISRO) gets ready to launch Brazil's Amazonia -1 satellite next month onboard PSLV. Confirming this to Financial Express Online, a top diplomat said "The launch with PSLV next month is confirmed, however, we have not received a confirmed date yet. It is all dependent on the Indian Space Agency and its schedule."

This Brazilian Satellite has been locally designed, assembled and tested in Brazil and will be the first satellite for Earth Observation. It will be the primary payload and will not be a hitch-hiking satellite.

India-Brazil Space Cooperation

At the 6th BRICS Summit in 2014, the two countries – India and Brazil had an agreement all signed which talked about setting up a Brazilian earth station to receive data from the Indian satellites. For operating the station and gathering data through remote sensing, the Brazilian scientists have been getting training at the ISRO facility.



This Brazilian Satellite has been locally designed, assembled and tested in Brazil and will be the first satellite for Earth Observation. (Representative image)

Space Cooperation between the two countries goes back to the early 2000s when the two had an agreement in place at the Government to Government level, under which the South American nation started receiving data from Resourcesat-1 satellite of India from October 2009 to September 2013. Since October 2014 has been receiving data from Resourcesat-2.

On commercial basis, India gets tracking support from ground stations located Alcantara and Cuiaba, in Brazil. This tracking support is for Indian satellites and other space programmes including Chandrayaan-I, Megha Tropiques, MOM, and ASTROSAT.

What is the purpose of Amazonia-1 which PSLV will launch?

Diplomatic sources have confirmed that "the images from the Brazilian satellite will help in observing and monitoring the deforestation of the Amazon Region. And it now has a much more critical role to play after the recent fires in the Amazon Region. Also, the images will help in the agricultural and vegetation areas."

Why ISRO for launching satellites?

Several countries have been coming to ISRO for launching their satellite purely because of commercial consideration. A lot of South American countries have been reaching out to ISRO through the Indian Missions looking for a commercially feasible launch. Post-MARS mission in 2014, India's sophisticated and cost-effective programmes attracted big and small countries from across the globe.

Countries like Mexico, Brazil, Argentina, Chile, Colombia, and Bolivia are among some of the countries who have a Space Cooperation with ISRO at a different level. Several others in the region who want to stay away from China have been reaching out for an understanding with ISRO. <https://www.financialexpress.com/lifestyle/science/isro-to-launch-amazonia-1-satellite-of-brazil-onboard-pslv-next-month/2018693/>



Fri, 10 July 2020

The spin state story: Observation of the quantum spin liquid state in novel material

New insight into the spin behavior in an exotic state of matter puts us closer to next-generation spintronic devices

Aside from the deep understanding of the natural world that quantum physics theory offers, scientists worldwide are working tirelessly to bring forth a technological revolution by leveraging this newfound knowledge in engineering applications. Spintronics is an emerging field that aims to surpass the limits of traditional electronics by using the spin of electrons, which can be roughly seen as their angular rotation, as a means to transmit information.

But the design of devices that can operate using spin is extremely challenging and requires the use of new materials in exotic states--even some that scientists do not fully understand and have not experimentally observed yet. In a recent study published in *Nature Communications*, scientists from the Department of Applied Physics at Tokyo University of Science, Japan, describe a newly synthesized compound with the formula $\text{KCu}_6\text{AlBiO}_4(\text{SO}_4)_5\text{Cl}$ that may be key in understanding the elusive "quantum spin liquid (QSL)" state. Lead scientist Dr Masayoshi Fujihala explains his motivation: "Observation of a QSL state is one of the most important goals in condensed-matter physics as well as the development of new spintronic devices. However, the QSL state in two-dimensional (2D) systems has not been clearly observed in real materials owing to the presence of disorder or deviations from ideal models."

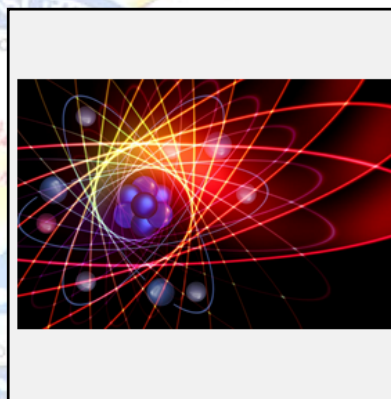


IMAGE: A QSL state can be experimentally observed, which has advanced our knowledge of spin behavior, and its integration in next-generation "spintronic" devices. [view more](#)

What is the quantum spin liquid state? In antiferromagnetic materials below specific temperatures, the spins of electrons naturally align into large-scale patterns. In materials in a QSL state, however, the spins are disordered in a way similar to how molecules in liquid water are disordered in comparison to crystalline ice. This disorder arises from a structural phenomenon called frustration, in which there is no possible configuration of spins that is symmetrical and energetically favorable for all electrons. $\text{KCu}_6\text{AlBiO}_4(\text{SO}_4)_5\text{Cl}$ is a newly synthesized compound whose copper atoms are arranged in a particular 2D pattern known as the "square kagome lattice (SKL)," an arrangement that is expected to produce a QSL state through frustration. Professor Setsuo Mitsuda, co-author of the study, states: "The lack of a model compound for the SKL system has obstructed a deeper understanding of its spin state. Motivated by this, we synthesized $\text{KCu}_6\text{AlBiO}_4(\text{SO}_4)_5\text{Cl}$, the first SKL antiferromagnet, and demonstrated the absence of magnetic ordering at extremely low temperatures--a QSL state."

However, the experimental results obtained could not be replicated through theoretical calculations using a standard " J_1 - J_2 - J_3 SKL Heisenberg" model. This approach considers the interactions between each copper ion in the crystal network and its nearest neighbors. Co-author Dr Katsuhiko Morita explains: "To try to eliminate the discrepancy, we calculated an SKL model

considering next-nearest-neighbor interactions using various sets of parameters. Still, we could not reproduce the experimental results. Therefore, to understand the experiment correctly, we need to calculate the model with further interactions."

This disagreement between experiment and calculations highlights the need for refining existing theoretical approaches, as co-author Prof Takami Tohyama concludes: "While the SKL antiferromagnet we synthesized is a first candidate to investigate SKL magnetism, we may have to consider longer-range interactions to obtain a quantum spin liquid in our models. This represents a theoretical challenge to unveil the nature of the QSL state." Let us hope physicists manage to tackle this challenge to bring us yet another step closer to the wonderful promise of spintronics.

https://www.eurekalert.org/pub_releases/2020-07/tuos-tss070820.php

NEW ATLAS

Fri, 10 July 2020

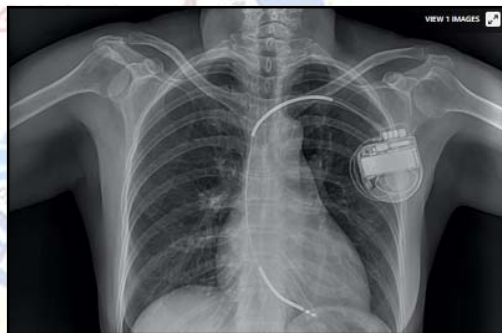
Active photonic power transfer tech uses light to charge implants

By Ben Coxworth

One of the problems with powered implants such as pacemakers is the fact that when their batteries run out of juice, they have to be surgically replaced. According to a new study, though, it may someday be possible to recharge those batteries by shining light through the patient's skin.

Led by Prof. Jongho Lee, a team of scientists at Korea's Gwangju Institute of Science and Technology (GIST) have developed what's known as an "active photonic power transfer" system. It consists of a flexible patch containing an array of micro-LEDs, along with a photovoltaic device that's attached to an implant.

When the patch is applied to the skin and its LEDs are switched on, their light shines down through the patient's biological tissue, reaching the device. *It* responds by generating an electrical current, which is used to recharge the implant's battery – keep in mind that pacemakers are typically located just beneath the skin.



The technology might find use in the non-invasive recharging of pacemakers' batteries
Richmanphoto/Depositphotos

A prototype version of the system has already been tested on mice, successfully recharging implants within the animals' bodies under a variety of settings and environmental conditions.

Once developed further, it is believed that the technology may not only eliminate the need to surgically remove existing implants for battery-changes, but that it could also allow for the creation of new types of implants that have higher power requirements.

"Currently, a lack of a reliable source of power limits the functionality and performance of implant devices," says Lee. "If we can secure enough electrical power in our body, new types of medical implants with diverse functions and high performance can be developed."

And as an interesting side note, Swiss scientists have previously determined that utilizing regular ambient light, solar cells implanted under the skin could generate enough of an electrical current to charge pacemakers' batteries.

A paper on the GIST research was recently published in the journal [PNAS](#).

<https://newatlas.com/medical/active-photonic-power-transfer-implants/>

Ultra-fine X-rays target brain cancer cells with precision

A new radiation therapy technique pioneered by scientists from the University of Wollongong's Centre for Medical Radiation Physics (CMRP) has shown promise for improving treatment outcomes in patients with brain cancer.

Working at the Australian Synchrotron facility in Melbourne, the scientists tested a technique for the treatment of high-grade brain cancer using personalized microbeam radiation therapy (MRT), combining it with an innovative assessment of tumor dose-coverage.

MRT uses ultra-fine X-rays—each smaller in diameter than a human hair—to destroying the cancerous tissue while not harming the surrounding healthy tissue. Precise targeting also enables much higher dosages to be delivered to the tumor in a very short time.

The researchers used CT scans, performed at Monash Biomedical Imaging, to map individual brain tumors in rats, and then used MRT to deliver high dose to the cancer cells with pinpoint precision. The synchrotron is able to produce much more powerful X-rays than conventional hospital X-ray machines.

The MRT treated rats survived for significantly longer than non-irradiated rats with the same aggressive brain tumors. No long-term adverse effects were observed following MRT, and there was no noticeable decline in cognition, vision, mobility, or behavior in the treated rats.

The study, which included researchers from the Illawarra Health and Medical Research Institute (IHMRI), Australian Synchrotron—Australia's Nuclear Science and Technology Organisation (ANSTO), Central Coast Cancer Centre and Prince of Wales Hospital, is published in *Scientific Reports*.

It is the first long-term Australian MRT brain cancer survival study, and the first in the world to look at optimisation of personalized pre-clinical MRT of high-grade brain cancer. The results and methods investigated MRT from multiple points of view including radiation and medical physics, radiobiology, diagnostic imaging, and preclinical survival.

Lead author and UOW Ph.D. student Elette Engels said brain tumors were among the most difficult cancers to treat.

"Brain cancers require more rigorous and novel treatment strategies to overcome their radiation resistance," she said.

"This new MRT technique treats tumors with very narrow wafer-like X-ray blades to deliver very high doses of synchrotron radiation delivered in a very short time.

"This is not feasible with conventional radiotherapy X-ray machines in hospitals. Our research shows that the treatment of tumor cells is much more effective when the radiation dose is delivered using MRT.

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"This new MRT technique treats tumors with very narrow wafer-like X-ray blades to deliver very high doses of synchrotron radiation delivered in a very short time.



University of Wollongong PhD student Elette Engels working at the Australian Synchrotron in Melbourne. Credit: Paul Jones, UOW

"This is not feasible with conventional radiotherapy X-ray machines in hospitals. Our research shows that the treatment of tumor cells is much more effective when the radiation dose is delivered using MRT.

More information: Elette Engels et al. Toward personalized synchrotron microbeam radiation therapy, *Scientific Reports* (2020). DOI: [10.1038/s41598-020-65729-z](https://doi.org/10.1038/s41598-020-65729-z)

Journal information: [Scientific Reports](https://medicalxpress.com/news/2020-07-ultra-fine-x-rays-brain-cancer-cells.html)
<https://medicalxpress.com/news/2020-07-ultra-fine-x-rays-brain-cancer-cells.html>

ScienceDaily®

Fri, 10 July 2020

Bespoke catalysts for power-to-X

Using a synchrotron, scientists watch a power-to-X catalyst at work

Summary:

Suitable catalysts are of great importance for efficient power-to-X applications -- but the molecular processes occurring during their use have not yet been fully understood. Using X-rays from a synchrotron particle accelerator, scientists have now been able to observe for the first time a catalyst during the Fischer-Tropsch reaction that facilitates the production of synthetic fuels under industrial conditions.

Suitable catalysts are of great importance for efficient power-to-X applications -- but the molecular processes occurring during their use have not yet been fully understood. Using X-rays from a synchrotron particle accelerator, scientists of the Karlsruhe Institute of Technology (KIT) have now been able to observe for the first time a catalyst during the Fischer-Tropsch reaction that facilitates the production of synthetic fuels under industrial conditions. It is intended to use the test results for the development of bespoke power-to-X catalysts. The team has published the results in the scientific journal *Reaction & Chemical Engineering*.

On the way to a CO₂-neutral society, power-to-X processes (P2X), i.e. processes that convert renewable energy into chemical energy sources, support the interlocking of different sectors. For example, synthetic fuels can be produced from wind or solar power, enabling climate-friendly mobility and goods transport without additional greenhouse gas emissions. The Fischer-Tropsch synthesis (FTS), which is necessary for this purpose among other things, yielding long-chain hydrocarbons for the production of petrol or diesel from carbon monoxide and hydrogen, is an established process in the chemical industry. However, even though more than one hundred years have passed since the discovery of this technology, the processes involved are still not fully understood scientifically: "This applies in particular to the structural changes in the catalysts required for the process under industrial conditions," says Professor Jan-Dierk Grunwaldt from the Institute for Chemical Technology and Polymer Chemistry (ITCP) of KIT. "During the reaction, undesirable by-products can be formed or disruptive structural changes in the catalyst can occur. So far, it has not been explained sufficiently how this happens exactly during the reaction and what the effects on the overall process are."

In a transdisciplinary project, in cooperation with P2X experts from the Institute for Micro Process Engineering (IMVT) and the Institute of Catalysis Research and Technology (IKFT) of KIT, the team has now achieved a breakthrough in understanding the FTS at the atomic level. "For the analysis, we use methods of synchrotron research, i.e. X-ray absorption spectroscopy and X-ray diffraction," explains Marc-André Serrer (IKFT), one of the authors of the study. "This was the first time that we were able to watch, so to speak, an FTS catalyst at work at the atomic level under real process conditions." While catalytic reactions had already been studied beforehand with a synchrotron, a special particle accelerator for generating particularly intense X-ray radiation, reactions that take place over a long period of time and at high temperatures and pressures, as in real-time operation at a P2X facility, have so far presented an obstacle. For the experiment at KIT,

a novel high-pressure infrastructure has now been added to the CAT-ACT measuring line (CATalysis and ACTinide measuring line) designated for catalyst studies at the KIT synchrotron. With this infrastructure -- which was built as part of the German Federal government's Kopernikus projects for the energy turnaround -- it was possible to determine the function of a commercial cobalt-nickel catalyst operando at 250 °C and 30 bar for more than 300 hours during the FTS. This was also the first time that a sufficient quantity of hydrocarbons could be produced in such an experiment that could be analyzed afterwards.

Catalyst development at the computer

The experiment allowed the scientists to identify hydrocarbon deposits that hinder the diffusion of the reactive gases towards the active catalyst particles. "In the next step, these insights can be used to protect the catalyst specifically against these deactivation mechanisms," says Grunwaldt. "This is done, for example, by modifying the catalyst with promoters, i.e. substances that improve the properties of the catalyst." In the future, the novel atomic understanding of catalytic reactions will contribute to computer simulations for a fast, resource-saving and cost-effective development of bespoke catalysts for P2X processes.

Story Source:

[Materials](#) provided by [Karlsruher Institut für Technologie \(KIT\)](#). Note: Content may be edited for style and length.

Journal Reference:

1. M. Loewert, M.-A. Serrer, T. Carambia, M. Stehle, A. Zimina, K. F. Kalz, H. Lichtenberg, E. Saraçi, P. Pfeifer, J.-D. Grunwaldt. **Bridging the gap between industry and synchrotron: an operando study at 30 bar over 300 h during Fischer–Tropsch synthesis.** *Reaction Chemistry & Engineering*, 2020; 5 (6): 1071 DOI: [10.1039/c9re00493a](https://doi.org/10.1039/c9re00493a)

<https://www.sciencedaily.com/releases/2020/07/200708105921.htm>

COVID-19 Research News

TIMESNOWNEWS.COM

ज्ञान प्रसार एवम् विस्तारः Fri, 10 July 2020

COVAXIN trial: Can India really get a COVID-19 vaccine by Aug 15? Here's how vaccines are approved

Indian researchers will soon start human trials of the country's first indigenous coronavirus vaccine candidate, COVAXIN. Here's how soon we can expect a COVID-19 vaccine

By Salome Phelamei

Key Highlights

- *COVAXIN has become the first vaccine candidate developed in India to receive the DCGI nod to conduct phase 1 and 2 clinical trials*
- *The ICMR's August 15 deadline for the India's first indigenous coronavirus vaccine has created confusion among experts*
- *Can we really have a COVID-19 vaccine by August 15? An expert explains how vaccines are approved*

New Delhi: A safe and effective vaccine is the best way to control and finally end the COVID-19 pandemic, caused by the novel coronavirus. With more than 200 candidates being developed across the world, vaccine development is moving at unprecedented speed. Joining the global race

to create a safe vaccine against the SARS-CoV-2 virus, Indian researchers will soon start testing the country's first indigenous coronavirus vaccine candidate, COVAXIN, on 1,100 people in two phases - phase 1 and 2 clinical trials. Developed by Bharat Biotech in partnership with Indian Council Medical Research (ICMR) - National Institute of Virology (NIV), the experimental inactivated vaccine is derived from a strain of SARS-COV-2 virus isolated by ICMR-NIV, Pune. COVAXIN has demonstrated safety and immune response in preclinical studies.

The world urgently needs a COVID-19 vaccine, which will help prevent and reduce the risk of infection, as well as resultant complications. However, there's also a growing momentum of skeptics raising doubts about future vaccine programmes against other infectious diseases - with safety being a major concern. As COVID-19 continues to spread, pathways of vaccine development are changing in ways as researchers race against time to create a safe jab by shortening process time from the usual 15- to 20-year timeline to one that might be as short as one year. Perhaps, the ICMR's 40-day target to launch Bharat Biotech's COVID-19 vaccine by August 15 has caused alarm among scientists and some in the medical fraternity. While the research body has clarified that the date was 'not a deadline', several experts have warned against any hasty solution that may compromise standards of scientific rigour.



COVAXIN trial: Can India really get a COVID-19 vaccine by Aug 15? Here's how vaccines are approved

But, can we really get a vaccine by Independence Day? In this regard, Times Now Digital talked to Dr Inder Maurya, Consultant - Emergency Medicine - CEO and Founder, Foreign OPD, who also tells us how vaccines are approved by regulators if trials succeed, and by when we can expect a vaccine for COVID-19.

Salome Phelamei: On 2nd July 2020, ICMR DG Balram Bhargava had written a letter to 12 institutes chosen for conducting human trials for Covaxin, saying it is envisaged to launch the vaccine for public use latest by 15th August 2020 after completion of all clinical trials. What's your thought on this?

Dr Inder Maurya: Ideally, the ICMR should not have jumped the gun and it was quickly panned by scientists. Experts familiar with vaccine trials, including the AIIMS Director, New Delhi, have already said that such deadlines may not be met, given the vaccine is yet to undergo the phase 2/ 3 trials and still there are a few more stages to go through before it could get FDA regulatory approval for production, which in itself is a time-consuming task.

Salome Phelamei: When do you think India will get a vaccine for COVID-19?

Dr Inder Maurya: Currently, we have almost 254 therapies and 95 vaccines related to Covid-19 being explored globally. Having said that, less than 10 per cent is in the approval rate by the FDA. So, even if clinical trials vaccine is in accelerated mode all the world (multi-centric trials), the whole process of vaccine approval by FDA to vaccine production and coming to market for effective distribution will not be before August 2021.

Perhaps, I think therapeutic drugs, rather than vaccines, might be the real 'game changers'. Remdesivir has shown very promising signs in vivo and in vitro, and it is already in phase 3 trials. So if the drugs work at an optimal level, it will bring down the hospital admission rates, thereby reducing the burden on healthcare system. It will also narrow down the window period, so a few people can catch the virus.

Salome Phelamei: How long does it take for a vaccine to be approved, if trials succeed?

Dr Inder Maurya: The general stages of the development cycle of a new vaccine are as follows:

- Exploratory stage
- Pre-clinical stage
- Clinical development

- Regulatory review and approval
- Manufacturing

In Phase 1, normal people of a small sample size receive the vaccine and the failure rate is about 37 per cent.

In Phase 2, hundreds of healthy volunteers get tested for immunogenic and adverse effects. Here, the failure rate is about 69 per cent.

In Phase 3, the scientists continue to monitor toxicity, immunogenicity, and severe adverse events (SAEs) on a much larger scale, and in here in all probability, the failure rate is 42 per cent.

The vaccine then is sent for approval and licensing. Upon approval by the FDA, the safety, efficacy and production of the vaccine continue to be closely monitored. At this stage, the failure rate could be 15 per cent only. Many vaccines undergo phase 4 ongoing studies after the vaccine is approved and licensed to check for post-marketing adverse effects and complications.

The timeline normally takes about 2 to 10 years till the vaccine is in the market, so we are conventionally looking at 2036! Chickenpox vaccine took 28 years and Rotavirus vaccine which causes millions of pediatric death in Afro-Asian countries particularly India, due to diarrhoeal illness took 15 years for development.

Right now we are in a situation, where desperate time needs desperate measures - and at the fastest speed, it takes 12 to 18 months. Post-approval by the FDA, it should take around 1 - 1.5 years for the massive production of billions of vaccine doses.

Hence, on the safer side, it looks like August 2021 for a viable COVID vaccine to enter the market.

(The views expressed by the author are personal and do not in any way represent those of Times Network.)

<https://www.timesnownews.com/health/article/covaxin-trial-can-india-really-get-a-covid-19-vaccine-by-aug-15-heres-how-vaccines-are-approved/618596>



Fri, 10 July 2020

All you need to know about India's COVID-19 vaccines

By Siddhant Pandey

As the coronavirus outbreak continues to surge worldwide, efforts to develop a vaccine have been expedited.

Even with reassuring recovery rates, the need for a vaccine is urgent given the contagiousness of SARS-CoV-2, the coronavirus that causes COVID-19.

Amid a global race to develop a vaccine, India, too, is scrambling to launch its two vaccine candidates. Here's all you need to know about them.

Vaccine

COVAXIN — India's first COVID-19 vaccine candidate



COVAXIN has been created from an "inactivated" strain of the coronavirus by the Bharat Biotech and the Indian Council of Medical Research's National Institute of Virology (ICMR-NIV).

An inactivated vaccine uses the killed version of the disease-causing pathogen to generate an immune response.

Vaccines for polio and rabies are among those that utilize an inactivated strain

Process

COVAXIN's trial process begins

The ICMR has roped in 12 institutes to conduct clinical trials for COVAXIN.

The vaccine has been cleared for Phase-I and Phase-II trials by the Drug Controller General of India (DCGI). The process for trials began on Tuesday at Hyderabad's Nizam's Institute of Medical Sciences (NIMS).

ICMR Director-General Dr. Balram Bhargava had asked all institutes to ensure that enrolment is initiated by July 7.

Information

375 participants in Phase-I trials; 750 in Phase-II

375 participants will take part in Phase-I trials. The participants will be split into three groups of 125 and administered two doses— one each of the candidate and control—14 days apart. After the Phase-I trial is completed successfully, 750 people will participate in Phase-II trials.

Completion

When will the vaccine be launched?

The ICMR has urged all institutes to fast-track the development of the vaccine and is aiming to "launch the vaccine for public health use latest by 15th August 2020."

Despite the accelerated timelines to develop a vaccine in the face of a worsening pandemic, researchers and experts say the ICMR's timeline is rushed and may have long-term adverse impacts.

Controversy

ICMR defends August 15 timeline amid criticism

Notably, Dr. Bhargava's letter dated July 2—that established the August 15 timeline—indicated that the preclinical testing for COVAXIN had not been completed at the time.

According to the Clinical Trials Registry-India (CTRI) website, the trial was only registered on July 1.

The ICMR defended itself saying that it was acting in accordance with the globally-accepted norms.

Zydus Cadila

Trials for Zydus Cadila's ZyCoV-D to take 3 months

Separately, Zydus Cadila Healthcare has also been given the DCGI's nod to conduct Phase-I and Phase-II trials for its vaccine candidate, ZyCoV-D.

The trials will be conducted on 1,000 volunteers across multiple sites, *Mint* reported.

Zydus Cadila group Chairperson Pankaj Patel said the trials could take up to three months to finish.

The trials were registered on July 4, as per the CTRI website.

<https://www.newsbytesapp.com/timeline/science/63172/296834/india-s-covid-19-vaccine-all-you-need-to-know>

Fri, 10 July 2020

Preliminary study suggests tuberculosis vaccine may be limiting COVID-19 deaths

By David Fleming

One of the emerging questions about the coronavirus that scientists are working to understand is why developing countries are showing markedly lower rates of mortality in COVID-19 cases than expected.

Research by Assistant Professor Luis Escobar of the College of Natural Resources and Environment and two colleagues at the National Institutes of Health suggests that Bacille Calmette-Guérin (BCG), a tuberculosis vaccine routinely given to children in countries with high rates of tuberculosis infection, might play a significant role in mitigating mortality rates from COVID-19. Their findings have been published in the *Proceedings of the National Academy of Sciences*.



Luis Escobar, pictured, and two colleagues at the National Institutes of Health collected coronavirus mortality data from around the world. Photo courtesy of Luis Escobar for Virginia Tech. Credit: Virginia Tech

"In our initial research, we found that countries with high rates of BCG vaccinations had lower rates of mortality," explained Escobar, a faculty member in the Department of Fish and Wildlife Conservation and an affiliate of the Global Change Center housed in the Fralin Life Sciences Institute. "But all countries are different: Guatemala has a younger population than, say, Italy, so we had to make adjustments to the data to accommodate those differences."

Escobar, working with NIH researchers Alvaro Molina-Cruz and Carolina Barillas-Mury, collected coronavirus mortality data from around the world. From that data, the team adjusted for variables, such as income, access to education and health services, population size and densities, and age distribution. Through all of the variables, a correlation held showing that countries with higher rates of BCG vaccinations had lower peak mortality rates from COVID-19.

One sample that stood out was Germany, which had different vaccine plans prior to the country's unification in 1990. While West Germany provided BCG vaccines to infants from 1961 to 1998, East Germany started their BCG vaccinations a decade earlier, but stopped in 1975. This means that older Germans—the population most at risk from COVID-19—in the country's eastern states would have more protection from the current pandemic than their peers in western German states. Recent data shows this to be the case: western German states have experienced mortality rates that are 2.9 times higher than those in eastern Germany.

"The purpose of using the BCG vaccine to protect from severe COVID-19 would be to stimulate a broad, innate, rapid-response immunity," said Escobar, who noted that the BCG vaccines have already been shown to provide broad cross-protections for a number of viral respiratory illnesses in addition to tuberculosis.

Escobar stresses that the team's findings are preliminary, and that further research is needed to support their results and determine what the next steps should be for researchers. The World Health Organization noted that there is no current evidence that the BCG vaccine can protect people from COVID-19 infections, and stated that it does not currently recommend BCG vaccinations for the prevention of COVID-19. There are currently clinical trials underway to establish whether BCG vaccination in adults confers protection from severe COVID-19.

"We're not looking to advise policy with this paper," Escobar said. "This is, instead, a call for more research. We need to see if we can replicate this in experiments and, potentially, in clinical trials. We also need to come back to the data as we get more information, so we can reevaluate our understanding of the coronavirus pandemic."

Barillas-Mury, a chief researcher who specializes in mosquito-borne disease vectors, noted that establishing a link between BCG vaccines and COVID-19 case severity could result in attempts to stockpile doses of the BCG vaccine, placing countries with high tuberculosis rates at risk.

"If the BCG vaccine is protective, production would have to increase to meet the sudden spike in vaccine demand in order to prevent a delay in distribution to countries that very much need it to fight tuberculosis," she said.

While a direct correlation between BCG vaccinations and a reduction in coronavirus mortalities still needs to be understood more fully, researchers hold hope that the BCG vaccine might be able to provide at least short-term protections against severe COVID-19, particularly for front-line medical workers or high-risk patients. And, if BCG does provide short-term protection, there are longer term considerations about how countries could best utilize BCG vaccines to reduce mortality rates for future viral outbreaks that target the human respiratory system.

<https://medicalxpress.com/news/2020-07-preliminary-tuberculosis-vaccine-limiting-covid-.html>

live**mint**

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Ayurveda for treating Covid-19 patients? India, US to initiate joint clinical trials

By Lalit K Jha

- *Clinical trials for Ayurvedic formulations against Covid-19 to be initiated in India and the United States*
- *To address coronavirus-related challenges, the IUSSTF had given a call to support joint research and start-up engagements*

Washington: Ayurvedic practitioners and researchers in India and the US are planning to initiate joint clinical trials for Ayurveda formulations against the novel coronavirus, the Indian envoy here has said.

In a virtual interaction with a group of eminent Indian-American scientists, academicians, and doctors on Wednesday, Indian Ambassador to the US Taranjit Singh Sandhu said the vast network of institutional engagements have brought scientific communities between the two countries together in the fight against COVID-19.

"Our Institutions have also been collaborating to promote Ayurveda through joint research, teaching and training programs. Ayurvedic practitioners and researchers in both the countries are planning to initiate joint clinical trials of Ayurvedic formulations against COVID-19," Sandhu said.

"Our scientists have been exchanging knowledge and research resources on this front," he said.

The Indo-US Science Technology Forum (IUSSTF) has always been instrumental in promoting excellence in science, technology, and innovation through collaborative activities.

To address COVID-19-related challenges, the IUSSTF had given a call to support joint research and start-up engagements. Large number of proposals are being reviewed on fast track mode by the experts on both the sides, he said.

"Indian pharmaceutical companies are global leaders in producing affordable low-cost medicines and vaccines and will play an important role in the fight against this pandemic," Sandhu said.



Picture for representation.

According to the ambassador, there are at least three ongoing collaborations between Indian vaccine companies with US-based institutions.

These collaborations would be beneficial not just to India and the US, but also for the billions who would need to be vaccinated against COVID-19 across the world, he noted.

Asserting that innovation will be the key driver in pandemic response and recovery, he said tech-companies and start-ups have already begun to take the lead in this direction.

"Telemedicine and telehealth will evolve as will other digital platforms across sectors," he said.

Noting that there has been longstanding collaboration between India and US in health sector, he said scientists have been working together in several programs to understand important diseases at basic and clinical level.

Many such programs have been focused on translational research to develop new therapeutics and diagnostics.

There are over 200 ongoing NIH funded projects in India involving 20 institutions from NIH network and several eminent institutions in India engaged in a wide spectrum of research areas to create health care solutions, the senior diplomat said.

The collaboration under Vaccine Action Program (VAP) resulted in development of ROTAVAC vaccine against rota virus which causes severe diarrhea in children.

The vaccine was developed by an Indian company (Bharat Biotech) at an affordable cost. It has been commercialised and introduced in the Expanded Program on Immunisation.

Development of many other vaccines such as TB, Influenza, Chikungunya are also in progress under the VAP, he said.

"As I speak, the VAP meeting is in progress where experts from both countries are deeply engaged in technical discussions to expedite development of COVID-19 vaccine," Sandhu said in his remarks.

During the interaction, the eminent experts appreciated India's handling of the COVID-19 pandemic and offered their valuable suggestions and best practices in this regard.

They shared their ideas on deepening the knowledge partnership between India and the US.

The experts who took part in interaction, were drawn from a wide-ranging fields including artificial intelligence, quantum information science, biomedical engineering, robotics, mechanical engineering, earth and ocean science, virology, physics, astrophysics, and health sciences.

Prominent among those who attended the virtual interaction were Subhash Kak Regents Professor at Oklahoma State University, Dr Vijay Kuchroo, Samuel L Wasserstrom Professor of Neurology at Harvard Medical School, Dr Ashish M Kamat, Professor of Urology at MD Anderson Cancer Center, Ashutosh Chilkoti, Alan L Kaganov Professor of Biomedical Engineering and Chair of the Department of Biomedical Engineering at Duke University; and Prof Manu Prakash, professor in Department of Bioengineering at Sandford University, among others.

(This story has been published from a wire agency feed without modifications to the text. Only the headline has been changed.)

<https://www.livemint.com/news/india/ayurveda-for-treating-covid-19-patients-india-us-to-initiate-joint-clinical-trials-for-ayurvedic-formulations-1159426579348.html>

