

# समाचार पत्रों से चयित अंश Newspapers Clippings

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Thu, 02 Jan 2020

## PM to inaugurate 5 DRDO young scientists' labs

New Delhi: Prime Minister Narendra Modi will be in Karnataka on January 2 and 3 when he will inaugurate five DRDO Young Scientists' Laboratories, a statement said on Wednesday.

The development is a boost to indigenous research capabilities in the defence sector, the statement added.

"Prime Minister Narendra Modi will dedicate five DRDO Young Scientists Laboratories to the nation on Thursday, January 2, 2020," the statement said.

Modi will also visit the Sree Siddaganga Mutt, where he will unveil a plaque to mark the laying of the foundation stone for a memorial museum of Shri Shri Shivakumar Swamiji.

He will also distribute Krishi Karman Awards and Commendation Awards to states at a public meeting in Tumkur, Karnataka on Thursday, another statement said.

The PM will also give away the Agriculture Minister's Krishi Karman Awards for Progressive Farmers.

The event will also witness the release of the third installment of PM-Kisan (Pradhan Mantri Kisan Samman Nidhi) of Rs 2,000 for December 2019-March 2020. This will benefit approximately 6 crore people.

The Prime Minister will also hand over certificates to beneficiaries under PM-Kisan from eight states/UTs.

At the same event, the Prime Minister will also handover the Keys of Deep Sea Fishing Vessels and Fishing Vessel Transponders to select farmers from Tamil Nadu.

He will also distribute Kisan Credit Cards (KCC) to select farmers from Karnataka, the statement said.

<https://www.deccanherald.com/national/national-politics/pm-to-inaugurate-5-drdo-young-scientists-labs-790588.html>

*Thu, 02 Jan 2020*

## **Procurement: One hell of a tank**

Indian defense experts were surprised when, at the end of 2019, the government signed a licensing agreement with Russia for Indian production of another 464 Russian T-90 tanks. India already has a little over a thousand of these tanks, most of them assembled in India from Russian made components. The new batch of tanks will cost \$3.12 billion, or \$6.73 million per tank. However, 62 percent of that amount will be paid to Russia for licensing fees and Russian made components. The licensing fees alone are 38 percent of each T-90s cost. The Indian Ministry of Defense is demanding that India be allowed to produce 80 percent of the tank components versus the current 40 percent. Russian and many Indian manufacturing experts believe using a higher proportion of Indian components is not practical. There have already been a lot of problems with the T-90 and the cause is often the quality of Indian made components. The most expensive imported T-90 component is the engine and associated mechanical devices. The current force of T-90s was built under the terms of agreements signed in 2001, 2006 and 2007. Because of current sanctions the Russians will be paid in Russian rubles, obtained from the sale of Indian products to Russia or currency markets.

Currently, India has about 3,500 tanks in service. Two-thirds of them are improved Cold War era Russian T-72s. Most of the rest are T-90s, which are also based on the T-72 but given a new designation to reflect all the new components and features. Russia itself does not use many T-90s as the Russian army prefers another improved (more than the Indian version) T-72B3M that is cheaper than the T-90. More reliable and more user-friendly. Most of the T-90s Russia did buy are in storage.

Since 1990s India has had one problem after another with its tank fleet. A major problem was the effort to develop and produce the locally designed Arjun tank. The army was forced to buy the first 120 of these in order to keep an Indian tank factory going. After several years of use, over 70 percent of those Arjuns were inoperable because of technical problems, mostly relating to imported spare parts. Over half the Arjun components are foreign made and the procurement bureaucracy, the army and the Arjun factory cannot agree on specifications and quantities of these parts. In addition to that, there were dozens of unresolved technical problems with Arjun. All this added up to about a hundred separate problems that had to be resolved to increase the readiness rate. The government seems to agree that Arjun was a failure but the project had a lot of political support and another 120 “Improved Arjun” were built and delivered in 2016.

In 2010 when competitive tests involving in tests of mobility, endurance and gunnery were conducted at the urging of DRDO, the government defense research and development organization. This resulted in an unexpected victory by the Arjun. This was surprising because until then Arjun was considered an expensive and embarrassing failure. Development of the Arjun began in the 1980s and by 2006 the army had received only five of them, for testing and evaluation. The evaluation did not go well. Originally, the Arjun was to have replaced thousands of older Russian tanks, but after so many delays, the army only reluctantly accepted enough to equip one Armored Brigade. The new test reports resulted in renewed pressure on the army to buy more Arjuns.

One good thing came out of this competition and that was the agreement by the Arjun developers to address the many technical problems with Arjun. To spare government or military officials’ embarrassment this was described as an effort to develop the next generation battle tank. Called the FMBT (Future Main Battle Tank), this vehicle aimed to build on the “success” of the Arjun.

This pitted the Defense Ministry weapons development and procurement bureaucrats against the generals. The bureaucrats were under pressure to deliver because the competition was won by Arjun mainly because it was assumed that Arjun would have fixed all the problems it was having with its

electronics and some other components. The main problems were with the fire control system, the engine, and the fact that its size and weight prevented it from being used with current tank transporters. Thus the FMBT was to be lighter (50 tons) and based on what worked in the Arjun and other modern tanks. The FMBT is expected to replace older Russian tanks. The result was called Arjun 2 and it fixed most of the Arjun problems, including the size and weight issues. Arjun 2 weighs 50 tons and 60 percent of the components are Indian made. All this is optimistic, given what happened with the original Arjun and Indian developed weapons in general. The Arjun was originally intended as a replacement for most of the older T-72s and that still might happen. The problem with the FMBT effort is that the development of the Arjun went on for over three decades and DRDO has demonstrated an inability to do any better.

In 2009 the Indian-made T-90s cost about \$3 million each. India has already bought 700 Russian made T-90 tanks, at a cost of \$3.5 million each. The Arjun 2 is expected to cost over \$5 million each. The high price is due to a lot of high tech. This includes an active defense system to defeat anti-tank missiles, a much more powerful engine, lots of electronics and a hermetically sealed crew department to provide protection against chemical weapons and radiation. All this stuff is tricky to develop, just the sort of thing DRDO excels at screwing up. This is mostly the fault of the DRDO bureaucrats, who are not very good at using all the technical and manufacturing talent India has.

Back in 2006, India adopted the Russian T-90 as its new main battle tank. By 2020, India will have 2,000 upgraded T-72s, over 1,500 T-90s, and a few hundred other tanks, including over 240 Arjuns, depending on how the Arjun 2 works out in practice. This will be the most powerful armored force in Eurasia unless China moves ahead with upgrades to its tank force. The border between China and India is high in the Himalayan Mountains, which is not good tank country. India's tank force is mainly for use against Pakistan.

The T-90 is a highly evolved T-72. Originally, the T-90 was a fallback design. The T-80 was supposed to be the successor to the T-72. But like the T-62 and T-64 before it, the T-80 didn't quite work out as planned. So the T-72, with a much improved turret and all manner of gadgets, was trotted out as the T-90. Weighing 47 tons, its 7 meters (23 feet) long, 3.4 meters (11 feet) wide and 2.3 meters (7.5 feet) high. Same package, better contents. And with well-trained crews, it can be deadly. The original Arjun was a larger vehicle (59 tons, 10.7 meters long and 3.9 meters wide).

Arjun 2 is similar in size to the T-90. Indian armor experts, both military and civilian, are hoping the Arjun 2 is more like the T-90 than the Arjun. But the most worrisome aspect of the FMBT, or Arjun 2 project is DRDO which also developed Arjun. It's feared that the DRDO wonks have not learned from the many errors made with the Arjun. The hope is that the FMBT 2 will not be another DRDO disaster. That is optimistic as the development of the Arjun took over three decades and DRDO has demonstrated the same poor performance with numerous other weapons that are still in development or recently entered service.

<https://www.strategypage.com/htmw/htproc/articles/20200101.aspx>

## **Creation of Department of Military Affairs, institutionalisation of CDS post are momentous reforms: PM Modi**

*that the Army, the Navy and the Air Force will work as a team, says Gen Bipin Rawat*

New Delhi: The creation of the Department of Military Affairs and institutionalisation of the post of Chief of Defence Staff (CDS) are momentous reforms, Prime Minister Narendra Modi said on Wednesday.

Modi also paid his tributes to those who fought in the Kargil war. "I recall the valiant personnel who fought in Kargil, after which many discussions on reforming our military began, leading to today's historic development," he said.

Recalling that he announced the formation of the Office of the CDS during his Independence Day speech, Modi said, "This institution carries tremendous responsibility of modernising our military forces. It would also reflect the hopes and aspirations of 1.3 billion Indians."

Congratulating General Bipin Rawat for his appointment as the country's first Chief of Defence Staff (CDS), Modi said he is an outstanding officer who has served India with great zeal.

"Creation of the Department of Military Affairs with requisite military expertise and institutionalisation of the post of CDS is a momentous and comprehensive reform that will help our country face the ever-changing challenges of modern warfare," the prime minister tweeted.

### **Appointment of CDS momentous, historic for India: Shah**

Union Home Minister Amit Shah said on Wednesday that the appointment of the first Chief of Defence Staff (CDS) was a momentous and historic for India and it will further the Narendra Modi government's efforts towards ensuring welfare of personnel of all three services of the armed forces.

In a series of tweets, Shah also said Prime Minister Narendra Modi has fulfilled yet another long-pending demand with India getting its first CDS.

"The Chief of Defence Staff will not only further Modi government's efforts towards ensuring welfare of personnel of all the three wings of Indian Armed Forces, modernise our military and fulfil aspirations of a #NewIndia.

"A momentous and historic day for India as PM @narendramodi ji fulfils yet another long-pending demand and India gets its First Chief of Defence Staff. I am confident that this decision will further strengthen India's resolve to be among the best defence forces in the world," Shah said.

The home minister also congratulated General Bipin Rawat, on taking charge as India's first CDS.

"I am sure under his leadership all the three forces will collectively work as a team and leave no stone unturned in securing our nation against all odds," he said

### **Focus on integration**

Earlier, newly-appointed Chief of the Defence Staff General Bipin Rawat said that his focus as the CDS will be to integrate the efforts of the three services and to work as a team. "I want to assure you, that the Army, the Navy and the Air Force will work as a team. The CDS will keep control over them, but action will be taken through teamwork," said Gen Rawat after receiving a Guard of Honour by the three services.

Gen Rawat, who took charge as CDS on Wednesday, said his focus will be to ensure best and optimal use of resources allocated to the three services. "The task cut out for the Chief of Defence

Staff is to integrate the three services and enhance their capability. We will continue working towards that,” he said.

“The CDS will not try to run a force by his directions. Integration is needed. We have to ensure that 1+1+1 combine of the three services adds up to 5 or 7 and not 3. You have to achieve more through synergy and integration, that is the aim of the CDS,” Gen Rawat said.

Apart from giving attention to integration and joint training, he said efforts will be made to ensure uniformity and integrating of systems for procurement so that the Army, the Navy and the Air Force can work in coordination with each other.

Asked about establishment of theatre commands, Gen Rawat said, “There are methods of doing theaterisation, I think we all are copying western methods and what others have done. We can have our own systems. We will work out mechanisms through understanding with each other and I think it will work.”

On the government’s timeline of three years for achieving integration between the forces, the CDS said it was possible and he will strive to achieve it.

### **On infiltration by Pakistan**

Asked about the killing of two army personnel in a gunfight with heavily-armed Pakistani infiltrators along the Line of Control (LoC) in Jammu and Kashmir’s Rajouri district, he said he would not like to comment on it. “Plans are not made open to public. Don’t want to comment on that,” he said when asked if there were plans of the three services acting on Pakistan-occupied Kashmir (PoK).

Gen Rawat also said that he would remain neutral to the three services as the CDS. “My head is feeling lighter because, I have had to take off that angled Gurkha hat that I have been working with for 41 years, I have come back to this peak cap that I am wearing which is to say that we are now neutral. Will be neutral to all the three services,” he said.

Asked about the challenges on the northern border and China’s actions there, the general said the Army will continue to work through integrated efforts.

### **Defence forces and politics**

Asked about allegations that the Army was being politicised and questions being raised by the Congress over the creation of the CDS’ post, he said, “We stay away, we stay far away from politics. We work on the directives of the government in power.”

The Congress on Tuesday had raised several questions over the appointment of Gen Rawat as the CDS, saying the government has started on a "wrong foot". Some Opposition politicians have accused Gen Rawat of having political leanings.

<https://www.thehindubusinessline.com/news/we-will-work-as-a-team-says-chief-of-the-defence-staff-gen-bipin-rawat/article30449137.ece#>

## Won't copy models of the West: CDS Rawat

*General Rawat's first public comments after taking over came on the day PM Narendra Modi said the appointment of the CDS was a "momentous and comprehensive reform" that would help India face challenges of modern warfare and that the position carried the "tremendous responsibility of modernising our military forces"*

*By Rahul Singh*

New Delhi: India's first Chief of defence staff (CDS) General Bipin Rawat on Wednesday said he would work towards creating theatre commands to prepare the military for future battles, adding that India's armed forces need not necessarily imitate the models devised by western militaries for this. The three services are not in agreement on theaterisation.

General Rawat's first public comments after taking over came on the day Prime Minister Narendra Modi said the appointment of the CDS was a "momentous and comprehensive reform" that would help India face challenges of modern warfare and that the position carried the "tremendous responsibility of modernising our military forces".

Theaterisation refers to placing specific units of the army, the navy and the air force under a Theatre Commander. Such commands will come under the operational control of an officer from any of the three services, depending on the function assigned to that command. Experts believe that theatres are key to the way battles will be fought in the future.

"I think there are methods of doing theaterisation. I think we all are copying Western methods and what others have done. We can have our own system. We will work out a mechanism. We have to study and work with the three services to come out with a mechanism that suits the Indian system," Rawat said, responding to a question from HT on the Indian Air Force's traditional resistance to theaterisation.

In April 2018, then IAF chief Air Chief Marshal BS Dhanoa disapproved of the concept of theatre commands, saying it would require the creation of more assets. "Compartmentalising will require more assets. We believe in one country, one theatre," he said, pointing out the pitfalls of cherry picking concepts of western warfighting. Two former IAF chiefs HT spoke to also opposed the idea of theaterisation.

As CDS, Rawat's mandate includes facilitating the restructuring of military commands for optimal utilisation of resources by bringing about so-called jointness in operations, including through establishment of theatre commands.

IAF chief Air Chief Marshal RKS Bhaduria said the appointment of a CDS was a "big and bold" step. He said the onus was now on the three services to fully support the CDS and make the model succeed.

The government expects the CDS to bring about jointness among the three services in operations, logistics, transport, training, support services, communications, repairs and maintenance within three years. Rawat said the objective could be achieved in the time-frame laid down by the government.

"I want to assure you, that the army, the navy and the air force will work as a team. The CDS will keep control over them, but action will be taken through teamwork," he said, adding that he would be impartial in his new role.

Rawat outlined his role with a new math equation. "As a team, we will work towards a goal where 1+1+1 (the three services) is either five or seven, and not three. What I mean is, the synergised effort



should not be the sum of the whole... it should be much more. And we have to achieve that through integration,” he said.

Rawat said he would focus resource management, better utilisation of funds, joint training and uniformity in procurement. He added that his head feels lighter in the peaked cap that is part of his new uniform, after wearing the Gorkha hat for 41 years.

In a series of tweets, PM Modi talked about the significance of the appointment of the CDS and the department of military affairs under the four-star officer.

“Creation of the Department of Military Affairs with requisite military expertise and institutionalisation of the post of CDS is a momentous and comprehensive reform that will help our country face the ever-changing challenges of modern warfare,” the PM tweeted.

A gazette notification issued by the government on Monday created the new department of military affairs or Sainya Karta Vibhag that will be headed by the CDS. The new department is an addition to the four existing verticals in the defence ministry — the departments of defence, defence production, defence research and development and ex-service welfare.

“On 15th August, 2019, from the ramparts of the Red Fort, I announced that India will have a Chief of Defence Staff. This institution carries tremendous responsibility of modernizing our military forces. It would also reflect the hopes and aspirations of 1.3 billion Indians,” Modi said in another tweet.

The appointment of a CDS was one of the most significant recommendations made by the K Subrahmanyam-led Kargil Review Committee (KRC) that was constituted in the immediate aftermath of the 1999 Kargil war to examine lapses that allowed Pakistani soldiers to occupy strategic heights, the initial sluggish Indian response, and suggest measures to strengthen national security.

The KRC report was tabled in Parliament in February 2000. Over the years, several committees also recommended that a CDS be appointed but successive governments failed to create the post. However, PM Modi on August 15 announced the creation of the new post for better cross-service cooperation.

“As the first CDS takes charge, I pay homage to all those who have served and laid down their lives for our nation. I recall the valiant personnel who fought in Kargil, after which many discussions on reforming our military began, leading to today’s historic development,” the Prime Minister tweeted.

The government cleared the appointment of the CDS on December 24 and appointed Rawat on Monday with effect from December 31. As CDS, Rawat will act as the principal military adviser to the defence minister on all matters related to the tri-services.

“I am delighted that as we begin the new year and new decade, India gets its first Chief of Defence Staff in General Bipin Rawat. I congratulate him and wish him the very best for this responsibility. He is an outstanding officer who has served India with great zeal,” Modi said on Twitter.

<https://www.hindustantimes.com/india-news/won-t-copy-models-of-the-west-cds-rawat/story-QSxEjHQBDa0H7xZA6YEWUO.html>





**Chief of Defence Staff Gen Bipin Rawat inspected the Guard of Honour at South Block in New Delhi on Wednesday. He said the armed forces stay away from politics, and work in line with the directives of the government**

PHOTO: PTI

AJAI SHUKLA

New Delhi, 1 January

On New Year's Day, the Army got its 28th chief, General Manoj Mukund Naravane, and the military its first Chief of Defence Staff (CDS), General Bipin Rawat.

Congratulating Rawat, who he described as "an outstanding officer who has served India with great zeal", Prime Minister Narendra Modi tweeted: "This institution (CDS) carries tremendous responsibility of modernising our military forces."

Modi also acknowledged that the Ministry of Defence (MoD), as it earlier existed, was short of military domain expertise. He tweeted: "Creation of the Department of Military Affairs (DMA) with requisite military expertise and institutionalisation of the post of CDS... will help our country face the ever-changing challenges of modern warfare."

Several questions remain, however, over Rawat's role and functions.

**Is the CDS the commander of all three services — Army, Navy, and Air Force?**

Yes, at a purely ceremonial level. In rank and salary, Rawat will remain the equal of the Army, Navy, and Air Force chiefs, with the government having notified the CDS in "the rank of a four-star General with salary and perquisites equivalent to a Service chief." However, he will also be the ex officio permanent chairman, Chiefs of Staff Committee (PC-COSC) — a body that includes all three Service chiefs.

As its permanent chairman, Rawat will be the first among these equals, like an elder in a gentlemen's club. However, the government has specifically stated: "CDS will not exercise any military command, including over the three Service chiefs."

Rawat's second and more consequential role, from where he will draw substantive power over the Services, will be as head of a new DMA in the MoD. In this capacity, he will oversee substantive matters

relating to the three Services, including promotions, postings, and foreign assignments. This will translate into enormous clout.

**Who will be senior, the CDS or the defence secretary?**

In rank, precedence, and salary, Rawat — like the three Service chiefs — will be senior to the defence secretary, since Service chiefs are the seniority equivalent of the Cabinet secretary.

Traditionally, the defence secretary, who heads the Department of Defence, enjoys greater importance than the MoD's other four secretaries — who head the Department of Defence Procurement, Defence Research and Development, Ex-servicemen Welfare, and Defence Finance. In the allocation of business rules, the defence secretary is responsible for the 'defence of India'.

Though the defence secretary has shed many of his responsibilities to the DMA, he retains responsibility for the defence of India and for making defence policy. He also

remains responsible for all capital procurements from the defence budget. It is likely that, while the CDS will be nominally senior to the defence secretary, the latter will remain more influential.

**Is the appointment of a CDS a masterstroke that will achieve defence modernisation?**

As CDS, Rawat can improve tri-service coordination and economise by eliminating duplication of military resources and facilities. He can also improve the military's operational readiness by prioritising procurement of more urgently needed equipment. However, while obtaining more bang for the buck, he can do little about the primary obstacle to modernisation — which is a defence budget that is under 16 per cent of the central government's expenditure. This is inadequate for equipping the military with sufficiently modern weaponry. Nor is the defence allocation likely to rise in absolute terms, given the current 4.5 per cent economic growth rate.

**Is the appointment of a CDS likely to achieve the creation of battle-ready, tri-service military commands, from the current 17 single-service commands?**

The government has formally given the CDS the task of 'restructuring of military commands for optimal utilisation of resources by bringing about jointness in operations, including through establishment of joint/theatre commands'.

This would greatly improve the operational posture of the three Services and create a culture of integrated tri-service operations. However, there is deep institutional resistance to creating theatre commands, especially from the Air Force. Asked on Wednesday whether he would be able to change entrenched mindsets, Rawat was cautious. "That is something we will have to study. We will work with the three Services and I am sure we will come out with a mechanism that will suit the Indian system. We don't have to copy systems (of tri-service integration) from other countries.

We will do what suits us best," said Rawat.

**In 2001-02, a Group of Ministers recommended that a CDS be appointed to serve as a single-point military advisor to the government. Has that been achieved?**

Not really. The CDS notification states he "will act as the principal military advisor to Raksha Mantri on all tri-services matters. The three chiefs will continue to advise Raksha Mantri on matters exclusively concerning their respective services". This compromise serves a dual purpose. It reduces resistance within the three Services to creating a CDS, by preserving the three chiefs' access to the Raksha Mantri. At the same time, it reduces the government's reliance on a single-point advisor. The Army, Navy, and Air Force chiefs would be able to provide the Raksha Mantri with greater domain knowledge about their respective Services, allowing the CDS to focus on tri-service coordination.



## जन. नरवाने ने कहा-चीन सीमा पर शांति से ही सुलझेगा विवाद

नई दिल्ली, प्रेद : नए सेनाध्यक्ष जनरल मनोज मुकुंद नरवाने ने बुधवार को उम्मीद जताई कि चीन से लगती सीमा पर शांति बरकरार रहने से सीमा विवाद का अंतिम समाधान निकल सकेगा। थलसेना के 28वें अध्यक्ष का पदभार संभालने के एक दिन बाद जनरल नरवाने ने कहा कि उनकी सेना मानवाधिकारों से जुड़े मसलों पर विशेष ध्यान देगी।

सेनाध्यक्ष ने पत्रकारों से बातचीत में चीन से लगती सीमा के वर्तमान हालात पर कहा कि भारतीय सेना उत्तरी सीमाओं पर अपनी क्षमताओं में इजाफा करेगी क्योंकि पूर्व में ध्यान पाकिस्तान से लगती सीमा पर केंद्रित रहा है। उन्होंने कहा, 'हमारी चीन से लगती वास्तविक नियंत्रण रेखा (एलएसी) है। सीमा का सवाल अभी हल किया जाना है। हालांकि, हमने सीमाओं पर शांति बनाए रखने में काफी प्रगति की है। मुझे विश्वास है कि यही हालात बने रहेंगे। सीमाओं पर शांति बरकरार



नई दिल्ली में बुधवार को साउथ ब्लॉक में मीडिया से मुखातिब थल सेना अध्यक्ष मनोज मुकुंद नरवाने • एएनआइ

रखकर हम अंतिम समाधान का मंच तैयार कर सकेंगे।' भारत-चीन सीमा विवाद 3,488 किमी लंबी एलएसी से जुड़ा है। चीन का दावा है कि अरुणाचल प्रदेश दक्षिण तिब्बत का हिस्सा है, जबकि भारत इसे खारिज करता है।

जनरल नरवाने ने आगे कहा, 'मैं देश के लोगों को आश्वस्त कर रहा हूँ कि सैन्य बल देश को सुरक्षित रखने के लिए पूरी तरह तैयार हैं। हम देश

### राष्ट्रीय युद्ध स्मारक पर दी शहीदों को श्रद्धांजलि

जनरल नरवाने बुधवार को दिल्ली स्थित राष्ट्रीय युद्ध स्मारक पहुंचे और शहीदों को श्रद्धांजलि अर्पित की। उन्होंने अमर जवान ज्योति पर भी श्रद्धासुमन अर्पित किए।

को कोई नुकसान नहीं होने देंगे। हम चौबीसों घंटे पूरी तरह सतर्क हैं। हमारी सेनाएं किसी भी चुनौती से निपटने में पूरी तरह सक्षम हैं।

सेनाध्यक्ष ने कहा कि उनकी प्राथमिकता सेना को हर समय सामरिक रूप से तैयार रखने की होगी। उन्होंने कहा, 'यह आधुनिकीकरण की वजह से होगा। हम क्षमताओं में इजाफा करना जारी रखेंगे खासकर उत्तर और पूर्वोत्तर क्षेत्र में।'

## Focus on China front more, says new Army Chief

*He said India has land borders with two major nations, and both were equally important*

New Delhi: The new Chief of the Army Staff, Gen. Manoj Mukund Naravane, on Wednesday said India now needs to pay more attention to the China front, and asserted that military capabilities will be bolstered all along the northeastern frontier. He also expressed the hope that maintaining peace and tranquillity on India's border with China will lead to an "eventual solution" to the boundary dispute.

Gen. Naravane also said special attention will be paid to human rights. He said India has land borders with two major nations, and both were equally important.

"While we have been giving attention in the past to our western front (Pakistan border), the northern front also now requires an equal amount of attention. It is in that context that we are now going in for capability development and enhancement of our capacities even in our northern border, which includes northeastern parts of our country," said Gen. Naravane.

He pointed out that India has a Line of Actual Control with China and the border question was yet to be settled. "However, we have made a lot of progress in

maintaining peace and tranquillity along the borders," he said. "I am sure the situation will prevail. And by maintaining peace and tranquillity along the borders, we will be able to set the stage for an eventual solution," he said.

The India-China border dispute covers 3,488-km-long Line of Actual Control. China claims Arunachal Pradesh as southern Tibet, while India contests it.

Gen. Naravane said development will happen only when the borders of the country are secure. He said his priority will be to keep the Army ever-ready to meet any challenge.

He also said the armed forces were ready to deal with any security challenge facing the nation. "I am assuring the people of the country the armed forces are fully prepared to keep the country secure. We will not allow any harm to come to the country. We are fully alert round-the-clock. Our forces are capable of dealing with any challenge," Gen. Naravane added.

<https://www.asianage.com/india/all-india/020120/focus-on-china-front-more-says-new-army-chief.html>

के. सिवन की घोषणा

जनवरी के तीसरे सप्ताह से अंतरिक्ष यात्रियों की ट्रेनिंग का काम शुरू होगा, इसरो ने पेश की नई योजनाएं

## अगले साल होगा चंद्रयान-3 का प्रक्षेपण

एजेंसिया/बंगलुरु

इसरो चीफ के. सिवन ने नए साल के मौके पर देशवासियों के सामने इस साल के लक्ष्य और योजनाएं पेश कीं। साल 2020 में गगनयान और चंद्रयान-3 मिशन को तैयारियों के बारे में जानकारी दी। सिवन ने बुधवार को ऐलान किया कि देश के तीसरे चंद्रमा मिशन चंद्रयान-3 पर काम चल रहा है और प्रक्षेपण अगले साल तक के लिए टल सकता है। तीसरे चंद्रयान मिशन से संबंधित सभी गतिविधियां सुचारू रूप से चल रही हैं। उन्होंने कहा कि इसमें पहले की तरह लैंडर, रोवर और एक प्रोपल्शन मॉड्यूल होगा। परियोजना की लागत पर सिवन ने कहा कि इस मिशन पर 250 करोड़ रुपये का खर्च आएगा। इसके साथ ही इसरो चीफ ने कहा कि अंतरिक्ष विज्ञान के जरिए हमारी कोशिश देशवासियों के जीवन को और बेहतर बनाने की है। इसरो प्रमुख ने बताया कि दोनों महत्वपूर्ण प्रोजेक्ट्स के लिए काफी तैयारी जीते हुए साल में ही

कर ली गई है।

### गगनयान के लिए 4 अंतरिक्ष यात्रियों की पहचान

सिवन ने बताया कि गगनयान मिशन के लिए 4 अंतरिक्ष यात्रियों की पहचान हो गई है। इसरो चीफ ने बताया कि 2019 में गगनयान मिशन पर हमने अच्छी प्रगति हासिल की है। इस मिशन के लिए चार अंतरिक्ष यात्री चुने गए हैं और जनवरी के तीसरे हफ्ते से उन्हें ट्रेनिंग दी जाएगी। उन्होंने कहा कि गगनयान के लिए नेशनल अडवाइजरी कमिटी बनाई गई है।

### चांद पर इसरो की नजर, चंद्रयान-3 के लिए तैयारी

इसरो चीफ ने बड़ी और आधिकारिक घोषणा करते हुए कहा कि चंद्रयान-3 प्रोजेक्ट को मंजूरी



मिल गई है और इसपर काम शुरू हो चुका है। उन्होंने कहा, प्रोजेक्ट पर काम शुरू हो चुका है। इसका कॉन्फिगरेशन चंद्रयान-2 की तरह ही होगा। इसमें भी लैंडर और रोवर होगा। बता दें कि इसरो के चंद्रयान-2 मिशन की भारत ही नहीं दुनिया भर में काफी चर्चा हुई थी।

### तृतीकोरिन में होगा देश का दूसरा स्पेस पोर्ट

देश के दूसरे स्पेस पोर्ट के बारे में बताते हुए सिवन ने कहा कि इसके लिए भूमि अधिग्रहण शुरू कर दिया गया है।

दूसरा पोर्ट तमिलनाडु के तृतीकोरिन में होगा। बता दें कि आगामी एक दशक में इसरो के पिटारे में मंगल ग्रह से लेकर शनि ग्रह तक के लिए कई महत्वाकांक्षी प्रोजेक्ट हैं जिन पर तेजी से काम चल रहा है। इसरो के गगनयान मिशन के लिए रूस मदद कर रहा है।

### 250 करोड़ होगी चंद्रयान मिशन-3 की लागत



### विक्रम लैंडर का पता लगाने वाले इंजीनियर की तारीफ की

इसरो प्रमुख सिवन ने वेनई के उस इंजीनियर की भी तारीफ की जिसने चंद्रमा पर चंद्रयान-2 के विक्रम लैंडर का पता लगाया था। उन्होंने कहा कि यह अंतरिक्ष एजेंसी की नीति थी कि वह दुर्घटनाग्रस्त मॉड्यूल की तस्वीर जारी नहीं करेंगे। सिवन ने कहा कि हम जानते थे कि यह कहा दुर्घटनाग्रस्त हुआ था और किस स्थान पर था। विक्रम लैंडर की सॉफ्ट लैंडिंग में क्या दिक्कत हुई? इस सवाल पर उन्होंने कहा कि यह वेग में कमी से जुड़ी विफलता थी और यह अंतरिक्ष कारणों से हुआ था। इसरो ने चंद्रमा के दक्षिणी ध्रुव पर विक्रम लैंडर की सॉफ्ट लैंडिंग कराने का प्रयास किया था। हालांकि तय समय से कुछ क्षण पहले इसरो का विक्रम से संपर्क टूट गया था।



## 4 astronauts shortlisted for manned space mission: ISRO

*A national advisory committee to review the manned spaceflight or Gaganyaan mission has been constituted*

*By Anonna Dutt*

New Delhi: Four astronauts have been shortlisted for India's first manned spaceflight, scheduled for December 2021, and will be trained in India and Russia starting the third week of January, the Indian space agency said on the first day of the new year, while also formally announcing a Chandrayaan-3 mission to the moon in 2020.

A national advisory committee to review the manned spaceflight — or Gaganyaan mission — has been constituted, further setting in motion a plan first announced by Prime Minister Narendra Modi from the ramparts of the Red Fort on August 15, 2018.

ISRO did not name the astronauts, who will all be Indian Air Force pilots.

“We have made good progress on the Gaganyaan mission this year. Many of the designs have been completed. The selection process for the astronauts is over, now the training for the four astronauts identified is planned for the third week of January this year,” said K Sivan, chairperson of the Indian Space Research Organisation (ISRO).

This year, ISRO scientists will work towards human rating the propulsion modules (currently the rockets are not fit to carry humans); test the crew escape system (emergency exit in case of a contingency); and the modified GSLV Mk III vehicle with a 4-metre ogive shape payload faring (top section of the rocket, where the crew will be located). The space agency said in 2019 that the first unmanned flight will take place in December 2020, followed by another unmanned flight in July 2021, and the manned flight in December 2021.

Under the Gaganyaan mission, which is expected to cost ₹ 10,000 crore, two or three astronauts are expected to be in the low earth orbit (an earth-centred orbit with an altitude of 2,000km where most of the manmade objects in outer space are placed) for around seven days.

Apart from the developments in the human spaceflight programme, Isro plans to carry out three purely scientific missions in 2020.

The ISRO chairperson formally announced the Chandrayaan 3 – a lander-and-rover-only mission – to be launched within the year. “This is the year of Chandrayaan 3,” said Sivan. “The work on the mission is progressing smoothly and India will again attempt a soft landing on the lunar surface within the year,” he said.

HT reported on Wednesday that a 2020 Chandrayaan-3 mission was confirmed by Jitendra Singh, minister of state in the department of space, and that it would not carry an orbiter because the Chandrayaan-2 orbiter is already circling the moon in an 100km orbit from where it will keep sending data for nearly seven years.

The Chandrayaan-2 mission in 2019 was India's first attempt to land on moon. After completing a 48-day journey in space, the indigenously developed lander-rover separated from the orbiter and headed towards the lunar surface. But an unexpected loss of velocity during the second phase of the automated descent -- or “15 minutes of terror”, as Sivan called it last year -- led to the lander-rover to make a hard landing 500 metres from the chosen site.

A successful landing would have made India the fourth country in the world to do so after the US, the erstwhile USSR and China and the first country to have landed so close to the lunar south pole.

The other scientific missions planned for the year are India's first solar mission Aditya L1 and a space observatory to study the polarisation of cosmic rays called X-ray Polarimeter Satellite (XPoSat). The Aditya-L1 satellite will travel 1.5 million kilometres from the Earth to the L1 point, or Lagrangian point between the earth and the sun where the gravitational pull of both the bodies on the satellite is equal to the centripetal force needed to keep the satellite in orbit.

The L1 point has an uninterrupted view of the sun and will allow the satellite to study the visible surface of the sun (Photosphere), and the irregular layer above it (Chromosphere), along with the Corona, which extends for thousands of kilometers and has very high temperatures of around 6,000 Kelvin (5726.85 degrees Celsius).

So far, the purely scientific satellites launched by ISRO include the Chandrayaan-1 in 2008, Mars Orbiter Mission in 2013, and India's space telescope AstroSat in 2015. Isro also plans to test the Small Satellite Launch Vehicle meant for carrying small and nano satellites to space. The vehicle will have a carrying capacity of 500kg to the low earth orbit, and will take only 72 hours and six persons to be assembled. In comparison, India's workhorse Polar Satellite Launch Vehicle takes 70 days and 600 people to put together. The GSAT 20 satellite is also likely to be launched this year, completing the four satellite network to provide high bandwidth connectivity of over 100 Gbps, including in-flight and maritime connectivity.

The Indian space agency also plans to launch the IRNSS 1J satellite with an indigenously developed atomic clock, adding to the Indian navigation satellite constellation. NavIC, or India's regional satellite-based navigation system, was approved for use in mobile phones this year by the 3rd Generation Partnership Project (3GPP), which is a standards organisation that develops protocols for mobile phones.

"Soon, our mobile phones will have NavIC along with GPS," said Sivan.

"Now, the launch of satellites for communication, navigation etc has become fairly routine and there is more focus on scientific missions, as it should be. Isro is supposed to be a "research" organisation. None of the announcements made today was surprising as these missions have been in the pipeline, except for the Chandrayaan 3. However, there is a greater need for Isro to let private players conduct routine launches and focus more on the research aspect. This is not likely to happen in the near future as their progress in even privatising the manufacturing of PSLV has been very slow," said Rajeswari Rajagopalan, head, nuclear and space initiative, Observer Research Foundation (ORF).

<https://www.hindustantimes.com/india-news/4-astronauts-shortlisted-for-manned-space-mission-isro/story-Sz7p7rSGubIV8WsRxrqvhI.html>



## Chandrayaan-3 launch likely next year: ISRO

### *Four IAF pilots selected for the maiden manned space mission Gaganyaan*

Bengaluru: ISRO on Wednesday announced that four Indian Air Force pilots have been selected for the ambitious 'Gaganyaan' manned space mission programme, whose astronaut training would commence soon in Russia.

A day after Union Minister Jitendra Singh said India will launch Chandrayaan-3 most likely in 2020, Indian Space Research Organisation chairman K Sivan said the activities for the mission were going on very smoothly and the take-off may shift to next year.

Addressing a press conference here, Sivan said four Indian Air Force airmen have been identified for the country's maiden manned space mission and their astronauts training would start from the third week of this month in Russia.

"We had good progress in 2019 as regards Gaganyaan. And many of the designs were completed and astronauts' selection process is over. Now four are identified for training purpose... that process is also completed," Sivan said. On Chandrayaan-3, he said the work was going on smoothly. "One major announcement I wanted to make here official is that the government has approved Chandrayaan-3 and the project has been formed.

The activities are going on for Chandrayaan-3 very smoothly and its configuration will be similar to that of Chandrayaan-2," he said.

It will have a lander, rover and a propulsion module, he noted. Asked about the launch date, he said it would be announced only when the project nears completion.

He also said the launch of Chandrayaan-3 may shift to next year. Work on both Chandrayaan-3 and Gaganyaan, was going on simultaneously, he added.

Noting that Chandrayaan-2 orbiter's mission life was seven years, he said it would be used for the third lunar mission as well. Giving an estimate of the project cost for Chandrayaan-3, Sivan said, "This particular cost of lander and rover configuration thing is about Rs 250 crore. The total cost of the project is Rs 615 crore."

The objective of Chandrayaan-3 would also be to land in the lunar south pole, he said. On the launch pad to come up at Tuticorin in Tamil Nadu, Sivan said, "apart from the space port at the Sathish Dhawan Space Centre in Sriharikota, the land acquisition for a second one has been initiated in Tuticorin district." As regards the choice of location, he said, "It was mainly to get advantages of southward launch especially for SSLV (Small Satellite Launch Vehicle)."

Observing that the pad, once set up, would be used for launching SSLVs initially, he said it may be expanded for big ones in future.

### **Crew to Train in Russia this month**

- ISRO Chairman K Sivan on Wednesday said the four IAF pilots identified for Gaganyaan would start their training from the third week of this month in Russia, for becoming the first Indian crew to go into space from native soil
- In the run-up to the mission, ISRO will launch 2-3 unmanned missions in 2020 and 2021 with humanoids to test the human rating of the propulsion modules, including the escape system in the event of any eventuality

<https://www.tribuneindia.com/news/chandrayaan-3-launch-likely-next-year-isro-20264>