

# समाचार पत्रों से चयित अंश Newspapers Clippings

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Fri, 31 May 2019

## India to conclude user trials of first locally developed howitzer

The Indian Army (IA) is expected to successfully complete user trials of the 155 mm/52 calibre Advanced Towed Artillery Gun System (ATAGS) within the next two months: a move that would pave the way to start series production of India's first locally designed howitzer.

Industry sources told *Jane's* that two different prototypes of the ATAGS, which was jointly developed by the state-owned Defence Research and Development Organisation (DRDO) and private-sector companies Tata Power SED, Bharat Forge and Kalyani Strategic Systems, have been undergoing trials with the IA since 24 May at Pokhran in India's north-western desert region.

They said that once these trials are completed around July, the Ministry of Defence (MoD) will issue a request for proposals to both Tata Power, which provided the 'G1' prototype, and Bharat Forge, which provided the 'G2' prototype, for the supply of 150 guns for the IA for an estimated INR36.65 billion (USD524 million). The MoD's Defence Acquisition Council had approved the ATAGS procurement in August 2018.

Thereafter, one of two howitzer prototypes, either Tata Power's G1 or Bharat Forge's G2, is expected to be shortlisted for procurement based on performance and commercial bids.

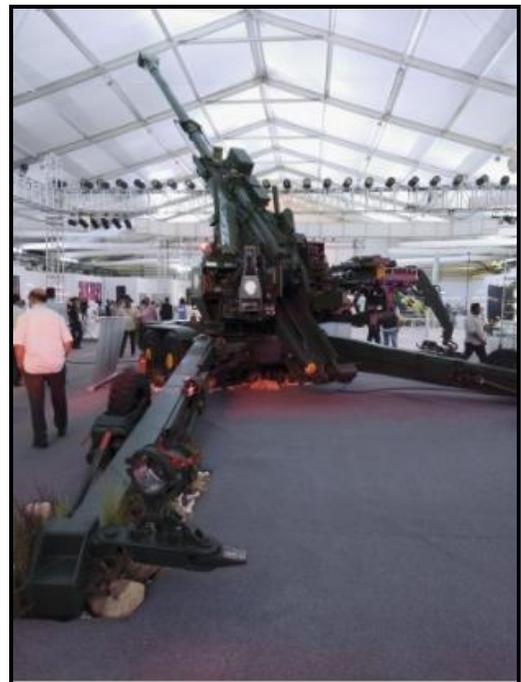
Officials said the lowest bidder, or L1, will be awarded a contract to build 100 of the 150 ATAGSs while the runner-up will be allowed to manufacture the remaining 50 guns (of the same model) in what will be India's first-ever public-private partnership (PPP) project in the defence sector.

The ATAGS programme was launched in 2013 by the DRDO's Armament Research & Development Establishment to boost the IA's depreciated artillery profile. In September 2017 the gun set a local record by firing three shells, reportedly undisclosed model high-explosive base bleed (HE-BB) projectiles, to a distance of 47.2 km at Pokhran.

This was made possible by the gun's 25-litre chamber, which allows for a revised propellant charge that increases the muzzle velocity of projectiles while staying within design pressure limits, giving the projectiles a longer range. Most other howitzers have a 23-litre chamber.

The ATAGS is also one of the few howitzers capable of firing a six-round burst in 30 seconds, unlike other 155mm/52cal guns that have three-round magazines and require re-loading after firing.

The ATAGS also features an all-electric drive that operates all of the gun's controls and ammunition handling systems, opening and closing its breech and ramming shells into its chamber. An auxiliary power mode, advanced communication and automated command-and-control system, complete the ATAGS.



Industry officials said these enhanced performance attributes have increased the weight of the gun to 17–18 tonnes. That said, the IA seems willing to accept the added weight because of the weapon's enhanced operational performance.

An executive associated with the ATAGS programme said Tata Power and Bharat Forge had made five prototypes, each of which test-fired over 1,000 rounds over the past two years in varied terrain and climates.

He also pointed out that the ATAGS has successfully cleared high-altitude winter trials in the Himalayan Sikkim region in north-eastern India, achieving a range of around 58 km using undisclosed ammunition.

<https://janes.ihs.com/Janes/Display/1877187>



Fri, 31 May 2019

## IAF Chief's Squadron to be first Rafale combat aircraft unit

*"The first unit to receive the Rafale combat aircraft would be the 17 Squadron which was earlier located in Bhatinda in Punjab and will now be shifted to Ambala in Haryana," IAF sources said*

New Delhi: The first Rafale combat aircraft would be inducted into the Indian Air Force's 'Golden Arrows' 17 Squadron which was commanded by Air Chief Marshal BS Dhanoa during the Kargil war in 1999.

"The first unit to receive the Rafale combat aircraft would be the 17 Squadron which was earlier located in Bhatinda in Punjab and will now be shifted to Ambala in Haryana," IAF sources told ANI.

The other squadron of the fighter aircraft would be based out of Hashimara in West Bengal to tackle the front facing China, sources added. The 17 Squadron used to operate the MiG-21s earlier and is 'number-plated' at the moment.

The first Rafale is expected to be handed over to the Indian Air Force in September 2019 but it would be required to undergo intensive 1,500 hours of testing to validate the India Specific Enhancements on it. So, the first batch of the four planes is likely to arrive at Ambala around May 2020.

Ambala base has been housing Jaguar aircraft squadrons mainly looking after the Pakistan front but due to rapid deployment capabilities, the planes can be utilised on both the fronts in case of requirement. Dassault's Rafale is a state-of-the-art flying machine whose presence will significantly help India's armed forces.

In September 2016, India signed a deal with the French government and Dassault Aviation to acquire 36 Rafale fighter jets for over Euro 7.8 billion to arrest the fall of combat squadrons and meet urgent requirements on the eastern and western fronts. The plan to deploy one squadron of the planes at the Saraswat air base in Uttar Pradesh did not work out due to land acquisition issues.

<https://economictimes.indiatimes.com/news/defence/iaf-chiefs-squadron-to-be-first-rafale-combat-aircraft-unit/articleshow/69554999.cms>

## Imbibe skills to face techno-driven warfare: IAF Chief

*Air Chief Marshal Dhanoa reviews passing out parade of the 136th course cadets of National Defence Academy*

*By Shoumojit Banerjee*

Pune: Emphasising on the importance of technology in modern warfare, Chief of the Air Staff, Air Chief Marshal (ACM) B.S. Dhanoa on Thursday said that modern warfare had become the byproduct of technological advancement. ACM Dhanoa was addressing cadets after reviewing the passing out parade of the 136th course of the National Defence Academy (NDA) in Khadakwasla.

### **Driven by technology**

ACM Dhanoa said, “The improvement in the range and power of firearms and combat gear, the introduction of nuclear, biological and chemical weapons and the advent of sophisticated electronic and night-fighting capabilities has transformed the range and tempo of warfare.”

He said the extensive use of digitised communication and high-tech sensors at the operational level coupled with real-time battlefield-surveillance, target acquisition and reconnaissance had made modern warfare complex and multi-dimensional. He impressed upon the cadets the pressing need to imbibe skills in order to face “techno-driven warfare squarely and effectively”.

A total of 291 cadets graduated from the academy, including 218 cadets from the Army, 34 cadets from the Navy and 39 cadets from the Air Force. Among them were 15 cadets from seven ‘friendly foreign countries’: Afghanistan, Sri Lanka, Bhutan, Maldives, Papua New Guinea, Tajikistan and Vietnam. ACM Dhanoa complimented the cadets for their elegant turnout, impressive march-past and precision in drill movements.

The Air Chief Marshal said, “The penchant for perfection in consonance with an insatiable drive for innovation has earned the NDA a pride of place.” He said that the NDA had carved a niche for itself among the leading military institutions of the world.

The IAF chief said the academy, since its inception, has taught the basics of leadership to over 37,000 cadets, including over 900 from ‘friendly foreign countries’, and groomed them in the facets of synergised warfare. ACM Dhanoa said he felt great pride in reviewing the glittering military display. He lauded the initiatives taken by the commandant, the officers and staff, which helped maintain the academy’s standards as a global brand of excellence.

### **Top awards**

Divisional Cadet Captain Sandeep Koranga won the President’s gold medal for standing first in the overall order of merit. Battalion Cadet Adjutant Divyam Dwivedi won the silver medal, while Battalion Cadet Captain S.K.S. Chauhan won the bronze medal. The ‘Kilo’ Squadron was presented the prestigious ‘Chiefs of Staff Banner’ for being the champion squadron.

On Wednesday, 251 cadets were conferred with degrees from the Jawaharlal Nehru University, which included 55 cadets in the science stream, 114 in the computer science stream and 82 in the arts stream. Seven cadets from ‘friendly foreign countries’ were also awarded degrees during the programme. In addition, the first NDA batch of B.Tech comprising 32 Naval cadets also received their training completion certificates of three years. They will be conferred with degrees after the completion of the remaining one year of training at the Indian Naval Academy at Ezhimala in Kerala.

<https://www.thehindu.com/news/cities/mumbai/imbibe-skills-to-face-techno-driven-warfare-iaf-chief/article27358797.ece>

## Eastern Naval Command gets new chief

*By Jayanta Gupta*

Kolkata: Vice Admiral Atul Kumar Jain took over as the Flag Officer Commanding-in-Chief (FOC-in-C), Eastern Naval Command (ENC) from Vice Admiral Karambir Singh at an impressive ceremonial parade held at the the naval base at Visakhapatnam on Thursday. Vice Admiral Jain inspected the ceremonial guard and reviewed platoons of naval personnel drawn from various ships and establishments of the ENC and attended by all flag officers and commanding officers of ships, submarines and establishments. Vice Admiral Karambir Singh, the outgoing FOC-in-C will assume charge as Chief of the Naval Staff on promotion to the the rank of Admiral on Friday.

Commissioned into the Indian Navy in July 1982, Vice Adm Atul Kumar Jain is an alumnus of Sainik School Rewa, National Defence Academy, Defence Services Staff College (Wellington), the College of Naval Warfare (Mumbai) and the National Defence College (Pretoria, South Africa (<https://timesofindia.indiatimes.com/topic/South-Africa>)). He received his Masters in Defence and Strategic Studies from Madras University.

A Gunnery and Missile Specialist, Vice Admiral Jain held various operational, staff and command appointments in the course of his distinguished career spanning over 37 years. He commanded the missile boat INS Nirghat, missile corvette INS Khukri, destroyer INS Rajput and the indigenously built destroyer INS Mysore. He also had the privilege of being the commissioning executive officer of INS Brahmaputra and the fleet operations officer of the Eastern Fleet at Visakhapatnam.

On promotion to the flag rank in October 2011, he was appointed as the first Flag Officer Commanding, Karnataka Naval Area. Thereafter, he commanded the prestigious Eastern Fleet and also served as the Chief of Staff, HQ SNC. He was promoted to the rank of Vice-Admiral on April 1, 2015 while he was Controller Personnel Services (CPS).

The Flag Officer was holding the appointment of Chief of Staff, HQ ENC from Feb 16 to Dec 17 and Deputy Chief of Integrated Defence Staff at New Delhi prior to taking over as the FOC-in-C.

<https://timesofindia.indiatimes.com/india/eastern-naval-command-gets-new-chief/articleshow/69586250.cms>



Fri, 31 May 2019

## New Defence Minister will have to hit ground running

*By Rahul Datta*

New Delhi: The new Defence Minister will have to hit the ground running to sustain the pace of modernisation of the armed forces amidst the ever present threat of a two-front war with Pakistan and China. The eastern neighbour has stepped up its efforts to modernise its forces thereby posing a direct challenge to India and it can ill afford to lag behind in operational readiness due to lack of State of the art weapons and allied systems.

In this backdrop, the new Minister will have to ensure that the depleting fighter squadron strength of the IAF is addressed immediately. Even though, the first lot of Rafale jets will start coming in by

this year end and entire lot of 36 expected to join the IAF in two years, the IAF will still fall critically short of fighter jets to ward off any threat from China. It is fast modernising its air force and the IAF, now down to 32 squadrons though the sanctioned strength is 42, is faced with a real threat. Moreover, the squadron strength is expected to fall down to 28 by end of next year.

The government issued a global tender for acquiring 114 fighter jets last year worth over five billion dollars to close the gap and the new minister will have to address this issue on an urgent basis to enable the IAF to become a modern, potent and strategic fighting force. This matter assumes greater importance now with China backing Pakistan in its efforts to modernize its air force and the IAF has to prepare itself for fighting a two-front war if need be.

Besides bolstering the operational capability of the IAF, the new minister will also have to pay attention to the long delayed project to acquire six more conventional submarines. At present, the navy has 13 odd submarines with half of them in the last leg of their operational life. Even if the six Scorpene submarines, now under construction at Mazagon Docks Limited, Mumbai, join the service in the next two year, the navy still has to have new submarines to replace the ageing fleet and have a fleet of 24 submarines.

The government earlier this year floated tenders under the Strategic Partnership programme to build six submarines within the country and the new minister will have to propel the process. Incidentally, China has 50 submarines thereby presenting a grave threat to India's maritime interests especially in the Indian Ocean region.

As regards the Army, the new defence minister will have to carry forward reforms now underway to make the force more effective to fight modern day conventional war besides handling insurgency in Jammu and Kashmir and the North-East.

Efforts are already on to make the Army lean and mean to meet future challenges by merging various administrative and operational units for effective command and control structure besides saving money. Moreover, plans are on to free up mid level officers from administrative postings and deploy them on operational duties thereby making the shortfall on the one hand and ensuring lesser administrative structures which are no longer needed. The Army also plans to cut flab by undertaking manpower reduction of 1.5 lakh personnel over the next five to seven years to save Rs 6000 to 7,000 crores in terms of salaries and pensions.

This apart, the new minister will have to address the issue of shortage of ammunition and weapons to even fight a ten-day war as pointed out the Comptroller and Auditor General(CAG) in its report some time back.

Moreover, the Standing Committee on Defence, in its report tabled in Parliament early this year had flagged the budgetary allocations were enough for the Indian Army's modernisation programme, to equip itself for a 'two-front war'. The deposition of the vice chief of Army Staff before a parliamentary panel in March last year exposed the state of modernisation in defence, as he claimed that 78 per cent of Indian Army's weaponry is vintage.

Given this report card about the state of affairs of the three Services, the new minister will have to focus on the Nareendra Modi government's programmes like 'Make in India' and bigger role for the private sector in manufacturing big ticket items like fighter jets, warships and tanks within the country.

The 'Make In India' project has to be boosted to meet the growing demand of the armed forces for modern weapons on the one hand and make India self-reliant in defence production and make it a industrial hub for building weapons on the other.

Coming to budgetary allocations, the armed forces have to make do with lesser capital as major chunk of the budgetary provisions are taken away by salaries, pensions and revenue expenditure. In fact, only 25 to 28 percent budget is available for modernization and acquisitions due to ever increasing pension and salary bill. The new minister will have to ensure that a balance is arrived at

between capital and revenue heads in the defence budget to ensure that modernization does not falter due to want of funds.

As the nature of warfare is fast changing due to information technology, the country will have to change its old mindset of working in silos and the armed forces will have to integrate to achieve military and political objectives while fighting a war. This is imperative as advanced countries including China are now using space also to advance its strategic interests and India is now on its way to have its own Space Command besides Cyber division to meet the challenge. However, the minister will have to ensure the pace of integration does not slacken due to administrative and financial hurdles.

<https://www.dailypioneer.com/2019/india/new-defence-minister-will-have-to-hit-ground-running.html>



Fri, 31 May 2019

## **After Pulwama attack, Navy built up pressure on Pak, says Admiral Lanba**

*'Indian Ocean dominance to continue; third aircraft carrier needed'*

*By Ajay Banerjee*

New Delhi: The Navy's deployments to maintain dominance in the Indian Ocean would continue even as it wanted the Ministry of Defence to clear its project to have another aircraft carrier, said Admiral Sunil Lanba, the outgoing Indian Navy Chief, while talking to The Tribune on the penultimate day of his service.

Admiral Lanba, who retires on May 31, said the Navy had, over the past couple of years, started permanent deployments at all ingress routes of the Indian Ocean. "We maintain our dominance in the Indian Ocean Region (IOR) and will continue to do so. We monitor all Chinese warships," said the Admiral when asked whether India's dominance would continue despite China's growing interests in the IOR.

India has been maintaining a permanent deployment in the Gulf of Aden near Yemen since 2008. In the past couple of years, the Navy has added patrolling in southern part of the Indian Ocean, off the east coast of Africa and the island countries. In the past 24 months, it has added patrols at the Straits of Malacca — world's busiest sea trade route lying a couple of hundred miles south east of the Andaman and Nicobar Islands.

Referring to the Navy's role after the February 14 Pulwama attack, the Admiral said: "The Navy terminated its ongoing exercise, made deployments towards the north of Arabian Sea (facing Pakistan) and maintained sustained surveillance (military parlance for maintaining pressure)." He side-stepped a question on the outcome if the Navy was asked to launch an attack saying "it is a hypothetical question".

On the aircraft carrier, the Admiral said, "We have decided the form and fit of the carrier and its propulsion; an approval is awaited from MoD." India has a goal of having a three-carrier Navy. It has INS Vikramaditya while the second carrier, INS Vikrant, is under construction and expected to go for trials in 2020. The Navy wants its third carrier to be a 65,000-tonne warship with latest technology of EMALS, which enables electro-magnetic launch of fighter aircraft from the deck.

Commenting upon the deployments of the Chinese, the Admiral said since 2008, the Chinese deployment in the IOR had been same — six to eight warships at any time — and was not decreased. "Only time will tell if they increase it," he said.

“China is an energy-deficient nation and its economy depends on the sea lanes of communication,” he said, appreciating Beijing for its warship-building pace.

Asked if India would take sides in the South China Sea dispute, he said: “Prime Minister (Narendra) Modi has made it clear that India is committed to the freedom of navigation at sea.”

### **We shifted deployment in Arabian Sea**

The Navy (post-Pulwama attack) terminated its ongoing exercise and made deployments towards the north of Arabian Sea (facing Pakistan), besides maintaining sustained surveillance (military parlance for maintaining pressure). — Admiral Sunil Lanba, Outgoing Navy chief.

<https://www.tribuneindia.com/news/nation/after-pulwama-attack-navy-built-up-pressure-on-pak-says-admiral-lanba/780740.html>



*Fri, 31 May 2019*

## **India's buying of S-400 from Russia will have serious implications on defence ties: US**

India's decision to buy the long-range S-400 missile defense system from Russia will have serious implications on defence ties, the Trump administration has warned.

The S-400 is known as Russia's most advanced long-range surface-to-air missile defence system. China was the first foreign buyer to seal a government-to-government deal with Russia in 2014 to procure the lethal missile system.

India and Russia signed a \$5 billion S-400 air defence system deal in October last after wide-ranging talks between Prime Minister Narendra Modi and Russian President Vladimir Putin.

A senior State Department official told a group of reporters on Thursday that New Delhi's decision to buy S-400 air defence system from Moscow was significant, disagreeing with the view that it "isn't a big deal".

The official disagreed with the view that India's buying of S-400 from Russia might not have an impact as long as it increases its military purchase from the US.

"I disagree. The S-400 is significant because of CAATSA sanctions. It's also significant because of what it precludes, in terms of future high-tech cooperation," the official said.

The S-400 missile defence system deal could result in US sanctions under the Countering America's Adversaries Through Sanctions Act (CAATSA) instituted by the US Congress on arms purchases from Russia.

The official said if India went ahead with its decision to buy the S-400 missile defence system from Russia, it will have serious implications on the defence ties.

The Trump administration has been very clear that the acquisition of advanced Russian technology sends the wrong message to Russia at a time when it continues its aggressions, the official said.

"Those concerns we hold high," said the official who spoke on the condition of anonymity.

"You can look at the very serious conversation that's taking place with our NATO partner Turkey and the same concerns will apply should India proceed with an S-400 purchase," the official said.

"We don't commingle highest technology systems. There are threats posed by the purchase of an S-400. So that conversation you're seeing played out in Turkey right now," the official said, asserting that those same concerns would apply to India as well.

Noting that there is no automatic waivers under CAATSA legislation, the official said that there is a provision that allows for presidential determination.

"Every case would have to be looked at individually. But I think the broader issue is where are India's military relations headed? With whom is it going to share the highest technology and that operating environment? Because certain choices preclude other choices," the official noted.

"As we have discussions about a combat aircraft sales and other advanced systems, the decisions that India makes with regard to S-400 will have an impact on those conversations," the senior State Department official said.

India has been diversifying its weapons supply over the years. The US estimates that probably 60 to 70 per cent of its hardware is of Soviet/Russia origin.

There is still a significant dependence on Russia. But the jump in India's purchase of military equipment from the US from zero to \$18 billion is significant, the official said.

"We do more military exercises with India than with any other country in the world. Through these exercises, through the enhanced cooperation we have, whether it's in the disaster assistance and humanitarian relief area or whether it's on this joint sailing that we did in the south China Sea, there's natural interest and also increasing the interoperability of our military equipment.

"So we, we certainly look forward to ongoing discussions about a variety of ones," the official said.

Asked that India took the decision to buy S-400 from Russia as the US was not willing to share such hardware with it, the official said: "There's another message from the United States and let's talk. We have systems that are effective. There are other platforms that are very effective".

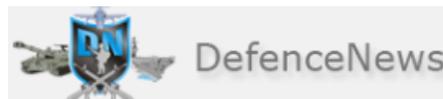
There are other considerations at play as well, the official said.

"But I think there's also a very positive message. We are now able to cooperate in ways that we could not before. We are now reaching agreements that we did not have before that allow us to consider sales that were incomprehensible only five years ago," the official said.

"So, we look forward to continuing the conversation because this really is a conversation. Choices that are made now will establish the framework for the future and we certainly have the ambitions for the broadest possible, deepest possible military relationship with India," the official said.

The official underscored that the US was ready to discuss the full array of equipment available to address India's concerns.

<http://www.defencenews.in/article/Indias-buying-of-S-400-from-Russia-will-have-serious-implications-on-defence-ties-US-584985>



*Fri, 31 May 2019*

## **Will Israeli missiles give more firepower to Su-30MKI ?**

The historic dogfight against an intruding Pakistan Air Force (PAF) fighter jet formation over Jammu and Kashmir seems to have convinced the Indian Air Force (IAF) bosses about the need to upgrade the weaponry on Indian fighter jets. The Pakistani intrusion came after Indian fighter jets' bombed Balakot deep inside Pakistani territory on February 26 in retaliation to the Pulwama terror attack.

Defence experts suggest that India's escape with just one MiG-21 Bison lost after it was hit by a PAF F-16 missile forcing Wing Commander Abhinandan Varthaman to eject to the Pakistani zone of

Kashmir was fortuitous. Though Abhinandan did shoot down an F-16 in the skirmish, the glaring failure to inflict a more telling blow to PAF has led to the discussion on the need for more potent weaponry on Indian fighters.

The situation apparently was cut out for the dominating role of IAF's Sukhoi-30MKI (Su-30MKI) air superiority multipurpose fighter jets, which were expected to be the spearhead of Indian operations. Reports say there were at least two Su-30MKIs in the formation that scrambled to stop the Pakistani formation of older Mirage 5, Chinese-designed JF-17 Thunder and a few F-16, whose presence Pakistan still denies. Apart from Su-30MKI, India had Mirage 2000 Bison, the type of aircraft that scored the hits in Balakot a day earlier, and MiG-21 aircraft.

Reports show Indian Sukhois did get a lock on some Pakistani planes with their beyond visual range (BVR) Russian-made R-77 missiles, but they themselves were painted by the US-made AIM-120C AMRAAM (advanced medium-range air-to-air missile) of F-16 fighters from within Pakistani side of Kashmir across the Line of Control (LoC).

Indian Su-30s may have been forced to retreat in the absence of a better option. However, the Indian formation was ultimately saved from flying into a killing zone by six Mirage 2000 Bison planes that arrived from the shadow of the Pir Panjal Range where they were invisible to Pakistani radars, forcing the Pakistani fighters to drop their payload in a hurry and turn tail.

The near-miss situation of the engagement has made IAF top brass consider integrating Israeli I-Derby ER missile, which is already part of the Spyder air defence system that India is buying, into the Su-30MKI for BVR air-to-air strikes. IAF has already successfully tested the BrahMos hypersonic cruise missile for a ground attack role on the Su-30MKI platform. The integration of I-Derby ER is expected to make Su-30MKI's air superiority role complete.

While Vypel NPO-developed R-77 is a medium-range, active radar homing air-to-air missile that Russia introduced as a counter to AIM-120C. But the Israeli I-Derby ER, derived from French Rafale's Python-4 missile, is said to have better accuracy and range, comparable with AIM-120C.

A report carried by the NDTV website cites an article in Aviation Week as saying, "The new (missile) seeker (of I-Derby) is lighter and more compact than its predecessor, thus clearing valuable space which has been used by the missile designers to increase the propulsion system. This new addition increases the range of the I-Derby ER beyond 100 km., significantly more than its current 'short/medium' range capability."

<http://www.defencenews.in/article/Will-Israeli-Missiles-give-more-firepower-to-Su-30MKI--584978>



*Fri, 31 May 2019*

## **US diplomat to visit to India for talks on defence issues**

A senior American diplomat will visit India next week for talks on strengthening bilateral defence ties, including maritime security, and supporting New Delhi's role as a "Major Defence Partner", the State Department has said.

Assistant Secretary of State for Political-Military Affairs Clarke Cooper will travels to Singapore, India and Sri Lanka from May 29 to June 7.

In New Delhi, after attending the Shangri-La Dialogue from May 31 to June 2, Cooper will hold talks on defence cooperation and peacekeeping, two key areas of the rapidly growing US-India partnership as envisioned in the Trump administration's Indo-Pacific Strategy.

"US-India bilateral defence trade has risen from virtually zero in 2008 to USD 15 billion today. Talks will focus on supporting India's role as a Major Defence Partner, expanding our security cooperation, and furthering opportunities for American industry," the State Department said on Wednesday.

In Sri Lanka, Cooper will meet with government officials and think tank experts to discuss security, peacekeeping, clearance of landmines and unexploded ordnance, counterterrorism and other areas of mutual interest.

In Singapore, Cooper will join Under Secretary of State for Arms Control and International Security Andrea L Thompson on a delegation of senior US officials led by Acting Secretary of Defence Patrick M Shanahan for the Shangri-La Dialogue, a forum for exchanges among defence and security policy professionals from across the Indo-Pacific region.

Cooper will also meet with senior civilian and military officials from countries around the globe to discuss US partnerships in regional security, maritime security and defence trade efforts that contribute to a free, open and inclusive Indo-Pacific region.

<http://www.defencenews.in/article/US-diplomat-to-visit-to-India-for-talks-on-defence-issues-584973>



Fri, 31 May 2019

## रक्षा मामलों पर बातचीत के लिए भारत आएंगे अमेरिकी दूत

वाशिंगटन, 30 मई। अमेरिकी राजनयिक भारत व अमेरिका के बीच द्विपक्षीय रक्षा संबंधों को और मजबूत करने व अहम रक्षा साझेदार के तौर पर नई दिल्ली की भूमिका को समर्थन देने के लिए अगले सप्ताह भारत की यात्रा करेंगे। अमेरिकी राजनीतिक-सैन्य मामलों के लिए सहायक विदेश मंत्री क्लार्क कूपर 29 मई से सात जून तक सिंगापुर, भारत और श्रीलंका की यात्रा करेंगे। कूपर 31 मई से दो जून तक 'शांगरी ला' वार्ता में शामिल होने के बाद भारत आएंगे। ( भाषा )

Fri, 31 May 2019

## Russia 'probably' conducting banned nuclear tests, US official says

*Russia may be violating a ban on the testing of low-yield nuclear weapons capabilities at a site in the Arctic, a top US intelligence official said*

Lt Gen Robert Ashley, the director of the US Defense Intelligence Agency, said Moscow was "probably not adhering to" the rules of a recognised treaty.

He was referring to the Comprehensive Test Ban Treaty (CTBT), a multilateral agreement prohibiting nuclear testing.

Russia, which ratified the treaty in 2008, says it complies with the CTBT.

The US has signed but has not yet ratified the treaty.

### **Do we really need nuclear treaties?**

"Our understanding of nuclear weapon development leads us to believe that Russia's testing activities would help it improve its nuclear weapons capabilities," Lt Gen Ashley said on Wednesday.

He added that the US expected Russia, which he said was likely testing weapons in the Novaya Zemlya islands, to increase its nuclear arsenal "significantly" over the next decade.

But analysts received the statement with scepticism. The Comprehensive Nuclear Test Ban Treaty Organization (CTBTO) said in a statement that it had not detected any unusual activity.

"The CTBTO has full confidence in the ability of the IMS [its monitoring system] to detect nuclear test explosions," the organisation said in a statement.

The CTBT, which bans nuclear weapons testing anywhere in the world, was adopted by the UN General Assembly in 1996. It sets out nuclear disarmament as a principle but diplomatically avoids the politics of the issue.

<https://www.bbc.com/news/world-us-canada-48454680>

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## Astronomers Spot 'Forbidden Planet' in Neptunian Desert

*By Meghan Bartels*

Astronomers have used a desert-based observatory to identify an exoplanet that falls in the middle of what scientists had dubbed the Neptunian Desert.

That term refers to a phenomenon that astronomers had noticed by which there seemed to be an absence of Neptune-size planets that orbit their star in less than four days. The newly discovered planet is formally known as NGTS-4b but nicknamed "The Forbidden Planet" for its supposed implausibility.

"This planet must be tough — it is right in the zone where we expected Neptune-sized planets could not survive," lead author Richard West, an astronomer at the University of Warwick in the U.K., said in a statement. "It is truly remarkable that we found a transiting planet via a star dimming by less than 0.2% — this has never been done before by telescopes on the ground."

The "Forbidden Planet" orbits a star called NGTS-4, which is located about 920 light-years away from Earth. The planet seems to circle its star once every 1.3 Earth-days, and it is about 20 times the mass and 3 times the radius of Earth. It also seems to retain an atmosphere, which particularly surprised the researchers, since at such a close distance to its star it would be difficult for the planet to cling to gas.

The researchers believe that the planet may exist despite its location because it formed elsewhere and migrated into the Neptunian Desert zone within the last million years or so. It could also have been born much larger and be gradually losing material.

The planet was first spotted in data gathered by the Next-Generation Transit Survey telescope, located in the mountains of the Atacama Desert of Chile. The team used a range of other telescopes to conduct follow-up observations that made them more confident in the detection and characterization of NGTS-4b.

And they hope to build on the new research to find the "Forbidden Planet" some company. "We are now scouring out data to see if we can see any more planets in the Neptune Desert," West said in the statement. "Perhaps the desert is greener than was once thought."

The research is described in a paper published April 20 in the journal the Monthly Notices of the Royal Astronomical Society.

<https://www.space.com/forbidden-planet-ndgts4b-neptunian-desert.html>