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## Navy to purchase 24 multi-role choppers

By Ajit K Dubey

Proposal to buy these choppers expected to be discussed in the defence ministry meeting next week.



In A desperate bid to buy multi-role helicopters, the Indian Navy is moving a proposal worth over ₹12,000 crore to buy 24 of these choppers which would be deployed for anti-submarine warfare as well as operations by its Marine Commando (MARCOS) special forces. “We have moved a proposal worth ₹12,000 crore to buy 24 multi-role helicopters through a tender under the buy global category of the defence procurement procedure for our warships and sea-based operations,” a source in the Navy told MAIL TODAY.

The proposal is expected to come up for discussion during an important meeting of the defence ministry scheduled to be held next week under defence minister Nirmala Sitharaman, the source said. The move has come at a time when the defence ministry was forced to retract a more-than-nine-year tender to purchase choppers from American firm Sikorsky Corporation due to very high price and the refusal of the firm to extend its contractual validity in view of the long acquisition process.

After the contract was scrapped, the navy was trying to procure the choppers from American firm under the Foreign Military Sales programme, but it is learnt that the defence ministry put its foot down as it wants a multi-vendor competition in all defence deals to avoid monopolistic situations. In almost all the single-vendor cases, the vendors increase the price of their products manifold while trying to bypass the procedures given under the defence procurement rules.

Once the proposal is cleared, the navy will issue a global request for proposal in which the American firm Sikorsky and European firm Airbus Helicopters are expected to participate. In the previous tender, the navy had wanted to buy 16 choppers but now it wants to go for 24 choppers in view of the increased responsibilities in its area of operations. Some navy officers claimed that the force was in a bad condition as its old Seaking multi-role choppers were getting older and its warships were operating without multirole choppers.

The navy also has plans of issuing an international tender for purchasing 123 Naval Multirole Helicopters (NMRH) which would allow it to deploy one chopper

  
We have moved a proposal worth ₹12,000 cr to buy 24 multi-role helicopters through a tender under buy-global category of the defence procurement procedure for our warships and sea-based operations.  


each on all of its warships. Navy officers claimed that recently when the MARCOS were operating in the Gulf of By Ajit K Dubey in New Delhi Exclusive Aden in thwarting a piracy bid, they felt restricted while taking action against a group of pirates who ran away from the site.

The defence ministry has already given a go-ahead to the maritime force to purchase 111 naval utility helicopters for its requirement to replace its vintage Cheetah/Chetak choppers.



Sat, 09 Dec, 2017

## India gets admission into Wassenaar Arrangement

*Space, defence to gain from entry to export control regime*

### A shot in the arm

Founded in 1996, the Wassenaar Arrangement (WA) is an elite club of countries subscribing to arms export controls, similar to the NSG and the Missile Technology Control Regime

- Headquartered in Vienna, it has 42 members, the latest entrant being India. Barring China, all permanent members of the U.N. Security Council are its signatories

- Its goal is to “promote transparency and greater

responsibility in transfer of conventional arms and dual-use goods and technologies”

- Since it’s not a signatory to the Nuclear Non-Proliferation Treaty, India will look to the WA membership to boost its credentials to enter NSG

The Ministry of External Affairs on Friday welcomed the decision of the Wassenaar Arrangement to admit India as the 42nd member of the organisation which aims to regulate trade and use of dual use technology.

Officials said that following admission into the club, India will get access to high technology, which will help address the demands of Indian space and defence sectors.

It will also boost New Delhi’s chances of joining the Nuclear Suppliers Group (NSG).

“The Plenary meeting of the Wassenaar Arrangement (WA) held on 6 to 7 December 2017 in Vienna, Austria, has decided to admit India, which will become the Arrangement’s 42nd participating state. The necessary procedural arrangements for India’s admission will be completed shortly,” the spokesperson for the Ministry of External Affairs said at his weekly briefing.

On the scope of the Arrangement, he said, “India’s membership is expected to facilitate high technology tie-ups with Indian industry and ease access to high-tech items for our defence and space programmes.”

The MEA spokesperson said, “While membership of the Arrangement would not automatically entail any preferential treatment from other WA members, it would create the grounds for realignment of India in the export control policy framework of other WA members, including eligibility for certain licensing exceptions.”

Membership in the Arrangement has been part of India’s quest for membership in the export control organisations.

*The Hindu* had earlier reported that Russia had expressed optimism about India’s membership in the Wassenaar Arrangement. Deputy Foreign Minister Sergey Ryabkov had said earlier this week that Russian support for Indian membership in the organisation will help bilateral ties, and added,

“This is an example and reflection of Russia’s unwavering support to India’s membership of international nuclear control regimes.”

## In a democracy, armed forces must remain apolitical

*Introspection of the sort indulged in by Army chief is best behind closed doors*

The Army chief, Gen Bipin Rawat, came out with yet another surprising formulation at a public interaction organised by an Army-backed think-tank. In less than a year since taking over as the Army chief, the general has proven to be more garrulous than probably all his predecessors combined. Besides talking up the surgical strikes in Pakistan, which of course was a done thing for the Army after South Block took public ownership of a cross-border operation in peace time for the first time, several of the Army chief's statements have been on the razor's edge where detached professionalism acquires hues of partisanship towards the ruling arrangement.

But what the army chief said this time was the right opposite: he spoke of politicisation of the armed forces and hoped the military "should be somehow" kept away from politics. If this is what an Army chief feels in public, then there is something amiss. The principal professional obligation of a service chief is to ensure his force remains resolutely non-political and is steeped in conformity with constitutional principles. The army may have aggregated a few blemishes for pulling out the politicians' chestnuts out of the fire by endless deployment for internal security operations, but in the main, it has a stellar record of causing minimum collateral damage and discomfort to the civilian population. If the Army chief was rankled by internal conversations, he should have opted to convey his impressions to his crowd under Chatham House rules.



## Military diplomacy vital, but 'unexplored'

*Ex-Army Chief Gen VP Malik says much more can be achieved with participation of forces*

*By Vijay Mohan*

Former Army Chief Gen VP Malik here today said military diplomacy could effectively supplement foreign policy, but India was unable to make full use of this aspect because of the set up of the Central Government where military was not adequately consulted or even recognised as an important element of diplomacy.

Maintaining that while military diplomacy could never replace regular diplomacy, Gen Malik said much more could be achieved in the realm of foreign policy with active participation of the military. "Joint exercises, delegation exchanges and high-level visits can lead to better understanding between militaries and can help avoid war or hostile situations. Coercive diplomacy or quiet liaisoning can play a vital role if the military comes into the picture," he said.

Lt Gen SR Ghosh (ret'd) said joint exercises with friendly countries, part of military diplomacy, was important as these sent a clear message to the target nation. "Because of their high visibility, such operations are critical to power projection," he said.

Lt Gen TS Shergill (ret'd) said joint drills were a means of learning about the weapon system and tactics of other countries and also offered a useful insight into contemporary military practices and thought.

Recalling a visit by then Defence Minister Pranab Mukherjee to Washington where the American protocol was tweaked, Lt Gen Ghosh, then defence attaché, said, "While working out the schedule, the issue of

US Secretary of Defence Donald Rumsfeld hosting a dinner for Mukherjee came up and we were told Rumsfeld never ever hosted a dinner for anyone.”

On repeated insistence and after being told that the Americans should reciprocate Mukherjee hosting dinner for Rumsfeld in New Delhi, they finally agreed, but the dinner was to be held in a restaurant. As the dinner was progressing, then US Vice President Dick Cheney walked in through backdoor to join in, he added.

Lt Gen HS Lidder (retd), who was posted as defence attaché to Washington in the wake of India’s second nuclear tests, recalled how for over a year, there was nothing to do because of the cold shoulder extended by the US. “Then 9/11 happened and we were called in for the first time and told by the Americans that they now understand India’s experiences and the pain it has been enduring. They sought our inputs,” he said.

He said India would never be a great power unless it migrated from being a reactive to a proactive nation. And if that has to be done, military diplomacy would have to come of age. Recalling his tenure in Washington from 1992-96 when the Indo-US relations were at its lowest ebb, Lt Gen Shergill said then US Assistant Secretary of State for South Asia was intensely pro-Pakistan.



*Sun, 10 Dec, 2017*

## **Parrikar Slams Cong Leaders for Raking Up Rafale Deal**

Former Defence Minister Manohar Parrikar on Saturday came down heavily on Congress leaders criticising the Rafale fighter jet purchase deal on the eve of the Gujarat Assembly elections, claiming the criticism was out of ignorance.

Parrikar also said that in a fighter jet deal, the actual cost of combat plane was actually less than the cost of other special components which are also a part of the composite deal, while also slamming the role of the United Progressive Alliance and former Defence Minister A.K. Antony for delaying the deal, which was necessary to arm the Indian Air Force.

I was watching many of the Congress stalwarts talking about Rafale in Gujarat election and I realised these people don't know anything about Defence. A fight aircraft is not only aircraft. Aircraft is probably smaller part of the total cost. The real cost comes in special equipment,” Parrikar said late on Saturday, while speaking at the Goa Art and Literary festival on the outskirts of Panaji.

“How many of you know that this particular deal has a helmet to be worn by the pilot and a target was locked by just watching at the target. It is a virtually 360 degree visibility. The pilot doesn't have to actually check up. You must have seen on many movies, pilot locking the opponent on his radar and then firing. Here he didn't have to do that. He has to just watch,” the Goa Chief Minister said.

“I am explaining this only to make you understand that an aircraft may cost 92 million Euros, but the other components will cost you 150 million Euros because you have to make it fighting fit. Unluckily we in India deal with aircraft purchases, or the fighter purchases like we think of tur dal and moong dal.

They are not,” Parrikar said, while speaking at a literary event near the state capital, late on Saturday.

Parrikar was Defence Minister when the Indian and French governments signed an agreement to purchase 36 Rafale fighter planes from Dassault for the cost of Rs 58,000 crore.

The Congress has alleged a scam in the purchase of the planes, claiming Rafale planes were overpriced.

The former Defence Minister also slammed the UPA as well as Antony for delaying the purchase of the fighter planes, which were needed to upgrade the Indian Air Force fleet.

## ‘Indian drone missing for 2 weeks’

By Sanjib Kr Baruah

*The UAV is about 20 km from Indian border inside Doklam.*

New Delhi: The Indian military’s Heron Unmanned Aerial Vehicle (UAV) went missing about two weeks ago and over an area, about 20 km from the Indian border inside Doklam, the site of the 73-day-long standoff between the Indian and Chinese armies, this newspaper has learnt.

Confirming that the incident site is indeed inside Doklam, a Chinese state-owned media report also confirmed the same on Saturday saying, “The intrusion took place at the same location where a standoff broke off not too long ago between the Chinese and Indian militaries. In a time and at a location so sensitive, both sides should have avoided acting in ways that the other might perceive as provocative to prevent new frictions arising. But India clearly did not behave itself”.

Even as it warned India of ‘far worse consequences’ if found that the drone had indeed entered Chinese airspace with ‘hostile intentions’, the scathing report added: “It (India) needs to apologize to China and promise no such incident will ever happen again”.

Sources have told this newspaper that the Indian military’s Israeli-made drone had been missing for about two weeks before the Chinese official protest was lodged on Thursday even as Indian authorities activated internal systems to deal with the eventuality and mounted quiet efforts to retrieve the Unmanned Aerial Vehicle which is believed to be in ‘decent shape’.

It is felt that the effort to hush up the matter and not owning responsibility for the missing UAV for about two weeks has backfired with China going on the offensive and demanding an explanation for what it terms as an ‘intrusion’. Indian Army’s spokesperson Colonel Aman Anand had said on Thursday that the Unmanned Aerial Vehicle which was on a regular training mission inside the Indian territory lost contact with the ground control due to some technical problem and crossed over the LAC in the Sikkim Sector.

While the sources refused to rule out the impossibility of valuable data being extricated from the Heron Unmanned Aerial Vehicle although it records and streams data real-time, some technical knowledge could ‘definitely’ be gleaned from the crashed vehicle.

The drone incident assumes significance in the backdrop of the 73-day-long standoff at Doklam plateau, a swath of rugged terrain at about 10,500 feet near the tri-junction separating India’s Sikkim,

China, and Bhutan, that ended on August 28. The latest hardening postures take off before the forthcoming meeting of Russia-India-China (RIC) foreign minister level trilateral meet in Delhi from Monday.



## Social media has cut interaction among soldiers

By Vijay Mohan

While social media has several benefits, it is hazardous for military from security point of view and the military must understand how to deal with it. Stating this at a session on ‘The Latest Military Challenge — Social Media’, Col Ajai Shukla (retd) said another social media fallout was reduction in soldier-to-soldier

interaction, which was key for camaraderie. Off-duty soldiers are spending more time on social media than with their buddies, he said, adding among the officers, introspection on social media was missing.

Cautioning about attempts by foreign intelligence agencies to target Indian military personnel, Shukla said there was a need to educate and understand the social media and exploit its positives as a force multiplier.

Maj Navdeep Singh said social media could be used effectively for communication across the military hierarchy and blogs within the military networks could be created for grievance redressal. Stating that sensitive information should be kept out of the domain of social media, he said it could be used to take up matters like pension grievances and implementation of welfare schemes.

Col Avnish Sharma said serving and retired officers had to be careful of their conduct and the use of the social media had to be managed effectively rather than being avoided.



*Sat, 09 Dec, 2017*

## **India, US should launch big Defense programme: envoy**

*By Lalit K Jha*

With India enjoying the status as a Major Defense Partner of the US, it is time the two nations “go big” and launch a “large signature programme” that would bind Indian and American industries and bureaucracies together for years to come, according to former US Ambassador to India Richard Verma.

When India was given an elevated and truly unique status in terms of defense trade in 2016, he said the fundamental premise was that India would be treated as the closest friend and ally for purposes of technology transfer. “We need to follow through on any export control reform matters that prevent this vision from becoming a reality, but I would like to see even bigger advancements under this rubric,” he said.

In the closing months of the Obama Administration, the US put two big ideas on the table - a future ground combat vehicle and a new advanced vertical lift helicopter, which, he termed, would be “outstanding” projects to pursue. “Also, a partnership to build India’s next aircraft carrier. Whatever the project is, I think it’s time to go big and I’m confident we can get there,” the former top US diplomat said at the Wilson Center, America’s key non-partisan policy forum.

“In the Defense Technology and Trade Initiative (DTTI), I do think it’s time to launch a new, large signature programme that binds our two industries and bureaucracies together for years to come,” added.

The DTTI broadly aims to transform the bilateral defense relationship, strengthen India’s defense industrial base and explore new areas of technological collaboration from science and technology cooperation through co-development and co- production. Verma said that he thinks that it was time to enshrine as a matter of US policy, that it is in our collective security interests, to ensure India has the capabilities it needs to prevail in contested domains - whether that be on land, air or sea. We do this with our friends from Israel, who are guaranteed a “qualitative military edge” he said, adding that it is also time for India to do the same.

“This would, of course, require some reciprocal obligations from India - sharing of information, signing of foundational agreements, undertaking greater burden sharing,” Verma said.

Quickly clarifying that nothing he was suggesting would be in violation of India’s concerns about sovereignty, he said that “in fact, what I am suggesting would empower India as a lead actor across the Indo-Pacific and help take our security partnership to the next level”. Advocating comprehensive movement in building economic linkages and trade architecture between the two nations, he said the goal of USD 500 billion bilateral trade, at the current pace would take nearly a century. “I don’t want to wait that long.” He said India has been out negotiating and renegotiating trade agreements with Japan, Korea, Canada, ASEAN, the

EU, and several other nations. “These range from comprehensive trade agreements to bilateral investment treaties. Whatever form it takes, we need to put something back on the table to further merge, link and harmonise our two economies.

“The goal should be increased investments, market access, trade, the building of robust innovation ecosystems and most importantly job creation - the component that both our countries need the most,” he said. Cautioning Washington that they should not forget, India has choices too, Verma said, “We should not presume that we will always be the most favoured or largest trading partner. This is something that we have to work at, and it will require the full array of our government agencies and subject matter experts.”

He said that there was a need to fully back US diplomats, development experts and civilians from across the agencies that do such important work abroad.”The cuts to the State Department and its budget, along with the civilian hiring freeze, are self-inflicted wounds that will harm our ability over the long-term to compete across Asia, including in India,” Verma rued.

The former US Ambassador to India said that the underlying foundations of the relationship remain strong -the bipartisan consensus remains intact and US-India ties have not only have weathered this time of global uncertainty, but also continue to serve as a source of great stability. “New initiatives like the quad, the 2+2 dialogue, and an updated South Asia strategy bode well for the year ahead,”



Sat, 09 Dec, 2017

## Japan to buy long-range missiles soon

*Step taken to counter Kim's rising threat*

Japan is set to purchase offensive air-to-surface missiles to counter North Korea's rising military threat, going against its own constitution, which dictates use of force in self-defence only. Defence secretary Itsunori Onodera said the ministry intends to request a special budget for the fiscal year starting April 2018 to purchase long-range cruise missiles deployed on fighter jets.

The ministry reportedly plans to buy 901-km-range air-to-ground missiles from US firms, as well as joint strike missiles with a range of some 500 km from Norway. The move will likely draw controversy as Japan's pacifist constitution bans the use of force as a means of settling international disputes.



Sun, 10 Dec, 2017

## Gaza Rocket Hits Israeli Town: Army

A rocket fired from the Palestinian Gaza Strip enclave hit the southern Israel town of Sderot, the Israeli army said today, but refused to comment on possible casualties.

Public radio said the rocket failed to explode and caused no injuries.

Israel's national ambulance service said its paramedics treated a woman in her 50s for shock.

It was today's third rocket attack and the second night of rocket fire since US President Donald Trump's statement on Wednesday recognising Jerusalem as the capital of Israel.

In Gaza, two Palestinians were killed in border clashes sparked by the deeply controversial Trump declaration.

A third man was in "very critical" condition after being shot in the head during the clashes, the Gaza health ministry said.

It said that 14 people were injured in Israeli air strikes launched in response to rocket fire.

The Israeli army said around 4,500 Palestinians "participated in violent riots at six locations along the border with the Gaza Strip".

It said troops shot at "dozens" of people along the Gaza border, but did not specify how many were wounded.

The Israeli military said earlier that its Iron Dome anti-missile system intercepted a rocket fired from the Palestinian enclave.

It said it later detected a second missile launch, but had so far not found evidence that it had fallen inside Israeli territory. The military retaliated with air strikes on what it said were two targets.

"In response to the projectiles fired at Israel from the Gaza Strip earlier today, Israel Air Force aircraft targeted a Hamas training compound and an ammunition warehouse in the Gaza Strip," an English-language statement said.

Gaza security officials said that both targets were in the vicinity of Beit Lahiya, in the northern part of the strip, close to the border with Israel.



*Sat, 09 Dec, 2017*

## **ISRO to resume sat launches from Jan 2018**

*By Surendra Singh*

New Delhi: Indian Space Research Organisation (Isro) will launch its latest remote sensing satellite of the Cartosat-2 series, along with 28 foreign satellites riding piggy-back, only in the first week of January, a top Isro official said.

Director of Thiruvananthapuram-based Vikram Sarabhai Space Centre (VSSC), K Sivan clarified that there will be no launch this month and that launch services, which halted after the unsuccessful launch of navigation satellite IRNSS-1H on August 31, will "resume in the first week of the new year". Its launch is a follow-on mission of the Cartosat-2 series with the primary objective of providing high-resolution scene specific spot imageries.



*Sat, 09 Dec, 2017*

## **Quantum leap in cryptography**

*By Devangshu Datta*

Some 25-odd years ago, computer scientists started worrying about the Y2K problem. For the benefit of young readers, computer programmers used to save storage space on hard drives by using dating systems that ran only the last two digits of the year. That code was embedded on millions of systems, ranging from home PCs, to power-grids, and machines controlling nuclear missiles.

Nobody knew how that code would behave, or misbehave, once “1/1/00” was hit. It took an enormous effort to sort out potential chaos, checking, and rewriting code, line by line. Fixing Y2K cost over \$500 billion. The Indian IT industry was a prime beneficiary since it had the labour to do this tedious task.

Computer scientists are now worrying about the Y2Q problem though nobody is clear as to timelines. Y2Q equates to “Year to Quantum” — the point at which quantum computers become stable devices. In the jargon, “quantum supremacy” would be a practical demonstration that quantum computers could outperform conventional machines. There are hundreds of research programmes around the world hell-bent on achieving this.

In theoretical terms, q-computing is magnitudes more powerful than conventional computing. A normal computer uses binary bits set to either “1” or “0”. A quantum computer uses “qubits”, which exploit quantum superposition to be both 1 and 0 at the same time. So while two bits represent only two numbers and 10 bits represent just 10 numbers, two qubits represent four numbers and 10 qubits can represent 1024 numbers.

In theory, a Quantum machine that handled 50 qubits could out-calculate the fastest super-computers. In practice, superpositions collapse all the time with attendant loss of information. Researchers have broken their heads trying to design stable qubit formations.

A researcher from Google claims that it will have demonstrated “quantum supremacy” by end-2017.

Charles Neill at the University of California Santa Barbara and Pedram Roushan at Google have put together a system that runs currents in both directions through a superconducting loop of metal at very low temperatures. They claim 9 qubit stability with this superconductor loop. They may be able to scale up to 60 qubits. If they do, Y2Q will be a gigantic step closer.

Once Y2Q is here, a mega-effort will be required to upgrade global cryptography standards. Digital cryptography currently depends on elementally simple mathematical logic. It is easier to multiply numbers than to divide numbers into their factors.

Multiplication is a mechanical process even if it’s laborious to multiply large numbers, digit by digit. Division is much more difficult. Another way of looking at it: Multiplying involves taking two known numbers and generating a third by multiplying known digit by known digit. Division involves taking one known number and extracting an unknown number of unknown factors.

If the number is a large prime number, the mechanics involve dividing it by every number that is at least half as large, one-third as large, one-fourth as large, one-fifth as large, etc., until you establish it is prime. This can take very powerful computers thousands of years to accomplish if the number is very large. Clever computational tricks can shorten this process but not by very much.

Most commercial cryptography systems take two very large prime numbers and multiply them together to generate a semi-prime (a number with only three factors, including 1). That semi-prime has to be split into its factors in order to break encryption. Military encryption systems use even larger numbers. The assumption: No cracker will have the computer resources and the time. Most nations try to ban encryption of above certain levels, or arm-twist manufacturers into setting backdoors because of this computational limit.

Quantum computing smashes that paradigm: Reliable qubit computers, running in parallel if required, can divide numbers exponentially quicker. Every sort of device and system imaginable from your smartphone to Amazon’s back-end, to Visa, Aadhaar, to clouds, and nuclear weapons control systems, uses cryptography that is vulnerable if the calculations can be speeded up.

As Y2Q becomes reality, there will be a mega-opportunity to create quantum-safe encryption systems along with new standards, laws, etc. Will India’s IT industry and mathematicians be able to fill that need? Somehow I doubt it.