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Army finalises purchase of arms worth Rs 40,000 cr to replace ageing weapons

The Army needs around 7 lakh 7.62x51 mm assault guns to replace its INSAS rifles.

New Delhi: The Army has finalised one of its biggest procurement plans for infantry modernisation under which a large number of light machine guns, battle carbines and assault rifles are being purchased at a cost of nearly Rs 40,000 crore to replace its ageing and obsolete weapons.

The broad process to acquire around 7 lakh rifles, 44,000 light machine guns (LMGs) and nearly 44,600 carbines has been finalised and the defence ministry is on the same page with the Army in moving ahead with the procurement, official sources said.

The world's second largest standing Army has been pressing for fast-tracking the procurement of various weapons systems considering the evolving security threats including along India's borders with Pakistan and China.

Apart from kick-starting the procurement process, the government has also sent a message to the Defence Research and Development Organisation (DRDO) to expedite its work on various small arms, particularly on an LMG.

The sources said a fresh RFI (request for information) to procure the LMGs will be issued in the next few days, months after the defence ministry scrapped the tender for the 7.62 calibre guns as there was only one vendor left after a series of field trials. The plan is to initially procure around 10,000 LMGs.

The Army has also finalised the specifications for a new 7.62 mm assault rifle and the Defence Acquisition Council (DAC), the defence ministry's highest decision making body on procurement, is expected to give the go-ahead for the much needed procurement soon.

"The General Service Quality Requirements (GSQR) for the new assault rifle has been finalised. The procurement plan will soon be placed before the DAC for approval," said a senior official, who is part of the acquisition process.

In June, the Army had rejected an assault rifle built by the state-run Rifle Factory, Ishapore, after the guns miserably failed the firing tests.

The procurement of assault rifles has witnessed significant delays due to a variety of reasons including the Army's failure to finalise the specifications for it.

The Army needs around 7 lakh 7.62x51 mm assault guns to replace its INSAS rifles.

The Army had issued RFI for the rifles in September last year and around 20 firms responded to it. An RFI is a process whose purpose is to collect information about capabilities of various vendors.

In June, the Army had kick-started the initial process to procure around 44,600 carbines, nearly eight months after a tender for it was retracted, also due to single-vendor situation. Around half a dozen firms including a few global arms manufacturers have responded to the RFI.

Army sources said various specifications for the LMGs and battle carbines were tweaked to ensure that the problem of single vendor does not recur.

The combined cost of the LMGs, assault rifles and carbines will be in excess of Rs 40,000 crore, said an official.

On DRDO missing a number of deadlines in finalising the LMG, an official said the defence secretary has called a meeting this week of all stakeholders to discuss the project.

"The infantry modernisation plan is a major initiative of the Army and it will significantly bolster the overall capability of the foot soldiers," said a senior army official.

The issue was extensively discussed at the recently concluded Army Commanders conference which felt modernisation of the Army must be in tune with the evolving security threat facing the country.

Defence Minister Nirmala Sitharaman conveyed to the Army during the conference that modernisation of the force was a priority for the government and all its "deficiencies" will be addressed to strengthen its combat capability.



Fri, 27 Oct, 2017
(Online)

DRDO lab to hold robotics expo

R&DE(E), which is based in Dighi in Pune, will initially conduct the zonal level competitions at six zonal centres (Bengaluru, Pune, Tezpur, Jodhpur, New Delhi and Kolkata) in 2018 to facilitate wide participation from engineering students.

As a part of Defence Research and Development Organisation's (DRDO) diamond jubilee celebrations, Research and Development Establishment, Engineers, R&DE(E), a key DRDO laboratory in Pune engaged in developing state-of-the-art defence systems, is organising a Robotics and Unmanned Systems Exposition (DRUSE) for students from across the country.

R&DE(E), which is based in Dighi in Pune, will initially conduct the zonal level competitions at six zonal centres (Bengaluru, Pune, Tezpur, Jodhpur, New Delhi and Kolkata) between March 24 and April 15 in 2018 to facilitate wide participation from engineering students. After that, the qualified teams from the zonal centres will compete at a national level competition to be organised by R&DE(E) at DRDO headquarters in New Delhi.



Mon, 30 Oct, 2017

Female commandos on exit spree at NSG

By Kamaljit Kaur Sandhu

We are working on an ambitious project of a crack team of women commandos. We will soon have women commandos who will be part of the counter-terror team. — Sudhir Pratap Singh NSG DG

The black cats, also known as National Security Guards (NSGs), seem to have lost their feminine touch. All women commandos have bowed out of the force. The last known woman commando officer went on maternity leave recently, leaving the force an all-male bastion. The woman commando will rejoin her cadre after she returns from her maternity leave. In 2011-12, a woman commando was inducted amidst much fanfare for anti-terror operations along with male commandos. A squad of women 'black cat' commandos was trained for deployment in special operations such as hostage situations and VIP security.

Unfortunately, five years down the line, the women combatants have disappeared from the elite force. Incidentally, the women commandos faced their first hurdle from women chief ministers — former UP CM Mayawati and Tamil Nadu CM J Jayalalithaa — who refused to have the girls with guns as their 'shadows'. In 2012, both Mayawati and Jayalalithaa had been accorded Z+ security with NSGs guarding them. The female soldiers left no stone unturned, undergoing a 90-day rigorous training period. They crossed the physical and

mental threshold to be inducted in two units of the Special Rangers Group (SRG) deployed for guarding high-risk VIPs/VVIPs. As the women were found to be equally competent, they were considered for 11 SRG, meant for counter-terror operations on the lines of Special Action Group (SAG).

Former NSG DG RC Tayal said the decision to induct women commandos has taken a hit after women commandos, who were considered assets, were no longer part of the elite force. He told India Today TV, “In situations where even state police are unable to produce good quality women soldiers, the skills of these women were useful. These women had no relaxation due to their gender.” A senior officer in the force even referred to the women as dinosaurs, saying the last of the lot was recently shunted back to the cadre since most of them came from the Central Armed Police Force (CAPF) and even state police. A senior CAPF officer said, “With the current government stressing on women empowerment with schemes such as Beti Bacho, Beti Padhao, and the Home ministry’s own diktat to paramilitary forces to have 33 per cent women in the ranks, the NSG seems to be lagging behind.”

The last word, however, came from NSG DG Sudhir Pratap Singh, who said he is looking at reviving the force’s women squad. Singh, who is set to retire in a few months, told India Today TV, “Though it is unfortunate that we do not have women commandos, but we are working on an ambitious project of a crack team of women commandos.” “We will soon have women commandos who will be part of the counter-terror team, at par with their male counterparts. They will also be part of all counter-terror operations,” Singh added.



Mon, 30 Oct, 2017

INS Viraat to become museum

By G.V.R. Subba Rao

Navy warhorse to be refurbished at Kakinada

The Detailed Project Report (DPR) for refurbishing INS Viraat will be ready in a fortnight and it will be then submitted to the Union government.

The Andhra Pradesh government intends to convert the Navy’s warhorse aircraft carrier into a museum and a hotel in the sea, depending on the logistics.

The ship will be brought to Kakinada for refurbishment as soon as the DPR is approved by the Union government. Representatives of Mumbai-based Master and Associates, which is preparing the DPR, are likely to meet Chief Minister N. Chandrababu Naidu in the next couple of days to discuss “some key aspects” of the report. In fact, the meeting was put on hold because of Mr. Naidu’s foreign tour.

Based on the suggestions and inputs by the Chief Minister, preparation of the DPR would be finalised, according to sources in the Secretariat.

“It would cost between ₹15 crore and ₹20 crore to bring INS Viraat from Mumbai to Kakinada,” the sources said. According to the Navy, the ship cannot be dragged onto the land and has to be kept afloat.

Army to fight N-E rebels on social media

By Manoj Anand

Experts in dissemination and management of information about armed conflicts are also alarmed at the evolving trends in insurgency.

Guwahati: The Indian Army is contemplating an intensive campaign to counter northeast rebel groups on the social media which is increasingly being used as a propaganda tool by the insurgents.

Pointing out that insurgents are using the social media to make their presence felt in the region, defence spokesman Lieutenant Colonel Suneet Newton said, "It has become mandatory for security agencies to sharpen their knives to counter these low-cost and social media platforms from being used by terror groups."

It is significant that Nationalist Socialist Council of Nagaland (Khaplang) recently launched an offensive by attacking an Army camp in Arunachal Pradesh. However, heavily armed NSCN-K rebels were forced to flee soon after a counter attack by Army personnel. The incident was a serious setback for the NSCN-K, but it took to social media claiming that its rebels inflicted heavy casualties on the Army.

Pointing out that the NSCN-K, which takes pride in its strike power, had to face humiliation due to the security forces' prompt retaliation, sources said the rebel group took to the social media to make a false claim about success in the attack on the Army. It was a face-saving gesture by the NSCN-K, said defence source.

In Assam, anti-talk faction of United Liberation Front of Assam-Independent (Ulfa-I) has been using WhatsApp and other social media tools to send extortion demands to business houses, security sources said, adding that "internet mobile" helps insurgent leaders in this regard.

Elusive Ulfa (I) chief Paresh Baruah uses this phone to contact sympathisers and to issue threats to business houses across Assam.

In order to continue their extortion drive, terrorists and their sympathisers or sponsors use several tactics to operate with maximum safety, prolong terrorism wars and project insurgency as the triumphing force against the security forces. They use propaganda as one of the major weapons to market a bogus or imaginary illusion of strength or victory, sources said, adding that even when terrorists are apparently defeated or suffer irrecoverable fatalities. Security sources said that, of late, there have been instances of northeast insurgent groups using social media to spread terror through propaganda.

Admitting that social media platforms have wider penetration in the northeastern states, security sources said NSCN-K and Ulfa (I) rebels are also using various social media platforms to communicate their operational details among the cadres.

Experts in dissemination and management of information about armed conflicts are also alarmed at the evolving trends in insurgency.

Referring to a series of protests and opposition to terrorist outfits by villagers in Arunachal Pradesh, the defence spokesperson said that writing is clearly on the wall that these terror groups have started resorting to misusing social media platforms to spread misinformation and apparent rumours of their successes against the security forces.

Apparently the prime reason for this misinformation campaign seems to be the urge in these groups to sustain their relevance and keep up the bogey of fear they try to enforce on people so as to keep their extortion machinery running unhindered, he added.

In fact, it has been observed that the basic theme of social media campaign perpetrated by these groups is the illusionary casualties they claim to have caused to the security forces in dramatic encounters, without realising that the audience they intend targeting has become aware of the pitfalls of such baseless, malicious

campaigns, Mr Newton said, while citing instances of protest by villagers of Niauxa in Longding district of Arunachal Pradesh.

Security sources also pointed out that terrorists target developmental activities of the government by spreading false propaganda on social media along the Indo-Myanmar border areas as the fear losing their relevance if progress takes place here.

MAIL TODAY

Mon, 30 Oct, 2017

N Korea starts evacuation drills to prepare for war

North Korea has conducted mass evacuation drills in towns across the country as possible ‘preparation for war,’ it was reported on Saturday. Sources in the isolated Communist country reported that the rare drills were being conducted in ‘secondary and tertiary cities and towns’ over the course of the last week.

There were no reported drills in the capital, Pyongyang. News of the drills, which included so-called ‘blackout’ exercises whereby whole towns would turn out all the lights at night time so as to avoid illuminating enemy targets. “I have never heard of this type of training exercises before in North Korea, but am not surprised. They must realize how serious the situation is,” said Chun In-bum, a former South Korean military officer. An anonymous source was quoted as saying that the last time drills which approached this scale were conducted was in 2003, when North Korea carried out air raid exercises.

“I have never heard of evacuation exercises happening before,” the source said. News of the reported drills came in light of heightened diplomatic tensions between North Korea and the West. Earlier on Saturday, US Defense Secretary Jim Mattis issued a warning to North Korea that the country is no match for a decades-old American-South Korean alliance. “Make no mistake — any attack on the United States or our allies will be defeated, and any use of nuclear weapons by the North will be met with a massive military response that is effective and overwhelming,” Mattis said. With South Korean defense minister Song Young-moo at his side, Mattis accused the North and its leader Kim Jong-un of illegal and unnecessary missile and nuclear programs. “North Korea has accelerated the threat that it poses to its neighbours and the world through its illegal and unnecessary missile and nuclear weapons programs,” he said, adding, “I cannot imagine a condition under which the United States would accept North Korea as a nuclear power.

Business Standard

Mon, 30 Oct, 2017

North Korea Rouses Neighbors to Reconsider Nuclear Weapons

As North Korea races to build a weapon that for the first time could threaten American cities, its neighbors are debating whether they need their own nuclear arsenals.

The North’s rapidly advancing capabilities have scrambled military calculations across the region, and doubts are growing the United States will be able to keep the atomic genie in the bottle.

For the first time in recent memory, there is a daily argument raging in both South Korea and Japan — sometimes in public, more often in private — about the nuclear option, driven by worry that the United States might hesitate to defend the countries if doing so might provoke a missile launched from the North at Los Angeles or Washington.

In South Korea, polls show 60 percent of the population favors building nuclear weapons. And nearly 70 percent want the United States to reintroduce tactical nuclear weapons for battlefield use, which were withdrawn a quarter-century ago.

There is very little public support for nuclear arms in Japan, the only nation ever to suffer a nuclear attack, but many experts believe that could reverse quickly if North and South Korea both had arsenals.

Prime Minister Shinzo Abe has campaigned for a military buildup against the threat from the North, and Japan sits on a stockpile of nuclear material that could power an arsenal of 6,000 weapons. Last Sunday, he won a commanding majority in parliamentary elections, fueling his hopes of revising the nation's pacifist Constitution.

This brutal calculus over how to respond to North Korea is taking place in a region where several nations have the material, the technology, the expertise and the money to produce nuclear weapons.

Beyond South Korea and Japan, there is already talk in Australia, Myanmar, Taiwan and Vietnam about whether it makes sense to remain nuclear-free if others arm themselves — heightening fears that North Korea could set off a chain reaction in which one nation after another feels threatened and builds the bomb.



Mon, 30 Oct, 2017

Rouhani: Iran Will Continue To Produce Missiles

Iranian President Hassan Rouhani has said Tehran will continue to produce missiles for defence purposes and does not believe its missile development programme violates international accords.

In a speech to parliament on Sunday, Rouhani also hit out at the US, calling negotiations with Washington “madness.”

“We have built, are building and will continue to build missiles,” the 68-year-old was quoted by State TV as saying.

“We are not contradicting UN Resolution 2231.”

Rouhani's comments come after US President Donald Trump refused to certify Iran's compliance with a landmark 2015 deal curtailing Tehran's nuclear programme in exchange for sanctions relief.

Trump has repeatedly criticised the accord, which was negotiated by the Obama administration and enshrined under United Nations Security Council Resolution 2231, as “the worst deal ever” and “an embarrassment”.

Under the agreement, Tehran agreed to limit its disputed nuclear programme in return for the easing of economic sanctions.

Iran has repeatedly denied its missile development breaches the resolution, saying its missiles are not designed to carry nuclear weapons. On Saturday, Iranian army Brigadier General Ahmad Reza Pourdastan also rejected the idea of discussing the country's missile capabilities, calling it “not negotiable.”

“Our missile might is among the capabilities that are not negotiable at all,” Iran's Tasnim news agency quoted Pourdastan as saying.

Scientists create the world's fastest, shortest laser pulse

The laser's pulse duration of just 43 attoseconds will allow scientists to observe in detail how electrons move within a molecule or how chemical bonds are formed

Scientists have successfully created the world's shortest X-ray laser pulse with a duration of just 43 attoseconds, an advance that will allow us to observe electrons in slow motion.

In order to fully understand the dynamics during a chemical reaction, scientists must be able to study all movements of atoms and molecules on their basic time scale.

Molecules rotate in the range of picoseconds, their atoms vibrate in the range of femtoseconds, and the electrons move in the range of attoseconds.

Researchers from ETH Zurich in Switzerland succeeded in generating the world's shortest laser pulse with a duration of only 43 attoseconds.

This laser pulse is the shortest controlled event that has ever been created by humans.

The researchers can now observe in high detail how electrons move within a molecule or how chemical bonds are formed. Attosecond spectroscopy could contribute to the development of more efficient solar cells since it is now for the first time possible to follow the process of excitation through sunlight up to the generation of electricity step by step.

A detailed understanding of the charge transfer pathway could help optimizing the efficiency of the next generation of photosensitive elements.

Attosecond laser spectroscopy is not only suitable for mere observation, said ETH professor Hans Jakob Worner. Chemical reactions can also be directly manipulated. Using a laser pulse can alter the course of a reaction; even chemical bonds can be broken by stopping the charge shift at a certain location in the molecule.

Such targeted interventions in chemical reactions have not been possible until now, since the time scale of electron movement in molecules was previously unreachable.

Worner's team is already working on the next generation of even shorter laser pulses.

These will make it possible to record even more detailed images, and thanks to a wider X-ray spectrum even more elements can be probed than before. Soon it will be possible to follow the migration of electrons in more complex molecules with an even higher time resolution, say the scientists.

Portable ultrasound device can spot cancer

Uses tiny 'drums' on semiconductor chip

Scientists have developed a novel smartphone-based portable ultrasound machine that can help detect cancer easily at home.

The machine called Butterfly IQ is a pocket-sized ultrasound device, which is the size and shape of an electric razor. Researchers from Butterfly Network, a U.S. based start-up, developed the device that works by shooting sound waves into the body and capturing the echoes. Usually, the sound waves are generated by a vibrating crystal. However, this machine uses 9,000 tiny drums etched onto a semiconductor chip, *MIT Technology Review* reported.

Earlier this year, John Martin, chief medical officer at Butterfly Network, discovered a cancerous mass in his own throat while testing the device.

Mr. Martin had been having an uncomfortable feeling of thickness in his throat. He used the device, which was connected to his smartphone, to obtain black and grey images.

‘Window into the body’

Mr. Martin found a three centimetre mass that was diagnosed as squamous-cell cancer — a form of skin cancer that develops in the cells of the outer layer of the skin.

“To look at this as just an ultrasound device is like looking at an iPhone and saying it is just a phone. If you have a window into the body where anyone can afford it, everyone can use it, and everyone can interpret it, it becomes a heck of a lot more than an ultrasound device,” Mr. Martin added.



Mon, 30 Oct, 2017

AI system turns images into HD

Scientists have developed an artificial intelligence (AI) system that can create a high-definition version of a low-resolution image.

Technology to create a large-sized image from a low-resolution image is known as single-image super-resolution (SISR) technology. The software adds extra pixels and averages them with the surrounding pixels, but the result is blurriness.

Researchers at the Max Planck Institute of Intelligent Systems in Germany proposed a new approach to give images a realistic texture when magnified from small to large using machine learning.

The team applied artificial intelligence and an adaptive algorithm for upsampling the image learns from experience to improve the result.