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Defence sector more prone to cyber Threats Sitharaman

Defence Minister Nirmala Sitharaman today said the defence sector is more prone to cyber threats and



there is a need to safeguard the country's cyberspace from possible attacks. Sitharaman touched upon the need to create a workforce in all establishments in accordance with the nation's vision to become a dominant force in cyberspace. Inaugurating a one-day workshop on Cyber Security Framework for Department of Defence organised by DDP, she stressed upon the fact that the Defence sector is more prone to cyber threats and hence it becomes important to safeguard "our cyberspace with anticipation of possible attacks".

Congratulating the Department of Defence Production for formulating a cyber security framework for DDP and also establishing cyber security cells at various levels to handle cyber security related issues, she said there was requirement of creating the work force in all establishments in accordance with the nation's vision to become a dominant force in cyber space. Earlier, Secretary (Defence Production) Ajay Kumar emphasised that all Defence PSUs and Ordnance Factories are increasingly relying on information technology. However, any compromise in information and cyber security in defence production environment can have far reaching consequences on effectiveness of defence forces and national security. Therefore, it is important to establish a strong, robust and resilient cyber security infrastructure on priority basis, he said. Addressing the workshop, chief information security officer of DDP Amit Sahai said the workshop has been organised by the Ministry of Defence to bring in a synchronised approach for cyber security based on framework document released by the Department of Defence Production in 2018. The framework which is in line with national policies and guidelines, provides a common mechanism for all organisations to describe their current cyber security posture and the target area for cyber security and progress towards the target area.

THE ECONOMIC TIMES

Wed, 20 June, 2018

L&T opposes plan to give submarine project to Mazagon Dock

With the government considering a proposal to move a Rs 60,000-crore project to build submarines to the public sector on a nomination basis, India's top shipbuilder Larsen and Toubro has sought the Niti Aayog's intervention, asking that it be reserved for the private industry as per the original plans. The mega 'Make in India' project — named P75I — is for the construction of six conventional submarines with advanced abilities to stay underwater for extended periods with Air Independent Propulsion (AIP). The project was picked up as the biggest under an ambitious strategic partnership policy in 2016 to promote private sector involvement in defence. However, there have been recent moves by the Navy to nominate the government-owned Mazagon Dock Shipbuilders (MDSL) for the project, based on the argument that it's the only shipyard in the country that has experience in constructing a conventional submarine. The matter is expected to be taken up at a defence acquisition meeting shortly. An alarmed L&T has shot off a representation to the Niti Aayog for



intervention. The letter, which ET has seen, asks that the project be kept reserved for the private sector as the industry is "best prepared for this segment" under the strategic partnership model. Pointing to its successes on the nuclear submarine programme, the company made the point that it has considerable expertise to take on the project. L&T is India's most experienced submarine builder in the private sector that has worked extensively on the nuclear submarine project as well. The project would not only create thousands of highly skilled jobs but also augment falling force levels of the submarine arm of the Navy, L&T said. The letter also raised the issue of a level playing field between the private sector and defence ministry owned shipyards.

NITI AAYOG TO TAKE UP ISSUE

Sources said the Niti Aayog is considering the matter in detail. It is also taking up the larger issue of stopping the blind nomination of government-owned entities for defence contracts and batting for a more competitive process that involves private industry.

Industry experts point out that on an average, government-owned defence units undertake less than 15% of real value addition on projects they are awarded, with the rest being imports. For this, they charge a profit of over 17%. In contrast, Indian private sector programmes have demonstrated up to 65% value addition on defence systems, which has even gone up to 85% in some cases. Officials said that the Navy's drift towards MDSL is due to a growing concern that the submarine fleet is dipping and needs replacements at the earliest. With MDSL already constructing the Scorpene class of submarines with the French Naval

Group, the argument is that the yard is best suited to take on a new project with its trained manpower and existing infrastructure. The shipyard has also made representations to the government that it will shortly be out of orders after the Scorpene submarine are put to sea by 2020 and that it needs continued work to retain manpower.

PARTNERS LOGJAM

In 2016, the defence ministry announced that it will prioritise high-value contracts — ranging from ammunition for the army, submarines for the navy and aircraft for the air force — under the strategic partnership (SP) model that will select private companies for long-term manufacturing projects. The muchtalked-about SP model is however yet to fully take off, with the ministry trying to firm up the modalities to select companies and award contracts. Foreign vendors have been sent a request for information for the submarine project, with responses coming from Russia, France, Germany and Sweden. However, formal tenders have not been issued yet, nor has the process to identify Indian companies for the project begun.



Wed, 20 June, 2018

BSF laser wall to plug riverine gaps ready

Project along Pak border completed in 4 yrs; Pathankot, Gurdaspur attackers came via unfenced points By Vijay Mohan

About four years after the concept was mooted, the Border Security Force is ready to install the first "laser wall" along the India-Pakistan border that is intended to plug gaps in riverine areas where installation of a conventional fence is not feasible. Sources in the BSF said the pilot project to develop the laser wall prototype was complete and was expected to be implemented along the western border shortly. The BSF, however, is keeping the location of the project under wraps. A large number of riverine gaps exist along the

course of Sutlej and Ravi rivers in Punjab, which criss-cross the border. In addition, several rivulets in the Kathua region of J&K as well as the marshy region of Kutch in Gujarat also pose challenges due to their terrain.

These are stretches which cannot be fenced due to the vagaries of the terrain, making it vulnerable to infiltration. There are over 40 such points along the western border identified by the BSF as vulnerable where laser walls can prove helpful. It is believed that the perpetrators of the terrorist attacks at Gurdaspur and Pathankot in the recent past had sneaked in through such unfenced gaps. The BSF has also been experimenting with the use of various hi-tech surveillance equipment along the border to check cross-border smuggling and infiltration.

Invisible fence

- A laser wall is a complex interface of laser beams, receptors, thermal imagers, infrared and other sensors relayed across a designated stretch of land that creates a kind of invisible fence
- It is not a single linear layout, but comprises several near parallel overlapping layers of sensors that could have a depth of up to 500 meters
- Type of layout, number of sensors and layers would depend upon terrain and width of gap to be covered.

Business Standard

Wed, 20 June, 2018

Solar Industries India partners Eurenco for major artillery tender

By Ajai Shukla

On Tuesday, Solar Industries India Ltd (hereafter Solar). one ofIndia's fastest growing companies in defence manufacturing, announced a strategic tie-up with Eurenco, the European leader in high-energy materials for explosives and propellant technologies. Announcing the partnership at the EUROSATORY 2018 defence exhibition near Paris, the two firms said they would bid jointly for a forthcoming multi-billion dollar Indian tender to manufacture artillery propellants – called the bi-modular charge system (BMCS). "We have built a strong relationship with Eurenco and are working on a collaborative approach to set up infrastructure facilities under the 'Make in India' programme of the Government of India to fulfil the needs of the Indian Army," said Solar's chief executive, Manish Nuwal. The Nagpur-headquartered Solar, India's largest manufacturer and exporter of explosives and initiating systems, is highly regarded by the defence ministry. In January, Defence Minister Nirmala Sitharaman handed it technology to manufacture solid propellant boosters for the Indo-Russian BrahMos cruise missile — a favour normally bestowed only on defence public sector undertakings (DPSUs). Solar's ambitious growth plans in the defence sector rest on the military's increasing requirement of ammunition and propellants.

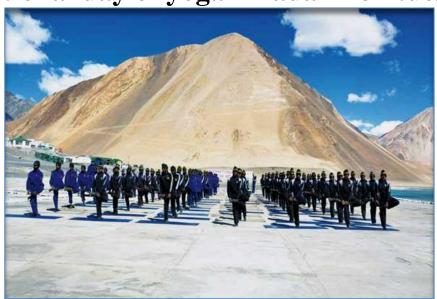
Besides needing to make up a large shortfall in war reserve ammunition stocks, the military requires warhead explosives and propellants for indigenous weaponry like the Pinaka rocket launcher, the Akash, Nag, Astra, BrahMos and LR-SAM missiles, indigenous artillery guns like the Dhanush and the Advanced Towed Artillery Gun System (ATAGS), and a range of new artillery gun systems entering service, such as the M777 ultra-light Howitzer. India currently imports 35 solid propellant boosters annually for the BrahMos cruise missile. In addition, the IAF will be inducting large numbers of BrahMos as an airlaunched cruise mssile (ALCM), mounted on the Sukhoi-30MKI fighter. Solar would benefit directly from these orders. In July 2016, Eurencoand Solar signed a preliminary agreement to "evaluate various cooperation options". On Tuesday, that was translated into a "strategic partnership" for supplying "propellants, bombs, ammunition filling and modular charges technologies under the 'Make in India' policy for the private sector", according to a Solar press release. "This partnership agreement is at the heart of our strategy in India which is today one of the key markets that we aim for as part of our global export policy in Asia", said Eurenco_chief Dominique Guillet.

Solar said on Tuesday it is "willing to build dedicated infrastructure facilities with the technical assistance of Eurenco on its explosives and propellant facilities in Nagpur, India". Besides Nagpur, Solar manufactures at 24 locations in India and six locations abroad – in South Africa, Turkey, Zambia, Nigeria, Australia and Ghana – for a significant portfolio of American and European customers. Since it was established in 1995, Solar has built facilities to produce sophisticated, military-grade explosives such as HMX, RDX and TNT. Solar also builds composite propellants, rockets, warheads, mines, tank ammunition, bombs and electronic fuses. Besides serving defence requirements, Solar also manufactures explosives for the mining and infrastructure sectors, serving Coal India Limited, Singareni Collieries, Vedanta, Reliance, Jindal and other companies.

THE ASIAN AGE

Wed, 20 June, 2018

Soldiers at army base camp in leh practice yoga ahead of international day of yoga in ladakh on tuesday



THE TIMES OF INDIA

Wed, 20 June, 2018

Pakistan remains ahead in nuclear warheads but India confident of its deterrence capability

By Rajat Pandit

Pakistan may continue to remain slightly ahead of India in terms of the number of nuclear warheads, with China having double the quantity, but the Indian defence establishment believes its deterrence capability is "robust", designed to ensure "survivability" for retaliatory strikes and firmly on track for further modernization. Pakistan now has 140-150 nuclear warheads as compared to 130-140 of India, with China hovering around 280, as per the latest assessment of the Stockholm International Peace Research Institute (SIPRI), which was released on Monday.

The US and Russia are in a different league altogether with 6,450 and 6,850 nuclear warheads respectively, together accounting for 92 per cent of the 14,465 nuclear weapons around the globe. Arsenals of

the other seven nuclear-armed countries are considerably smaller, but all are either developing or deploying new nuclear weapon systems. India and Pakistan are both expanding their nuclear weapon stockpiles as well as developing new land, sea and air-based missile delivery systems. China continues to modernize its nuclear weapon delivery systems and is slowly increasing the size of its nuclear arsenal," said SIPRI. Defence establishment sources here say India, confronted with the collusive threat from China and Pakistan, has no other option but to systematically build nuclear deterrence that is "credible" and capable of inflicting massive damage in a retaliatory strike to any first strike by an adversary.

"The number of warheads do not really matter. With a declared no-first use (NFU) nuclear policy, India



is keen to ensure survivability and credibility of our assets and NC3 (nuclear command, control and communication) systems for assured second-strike capabilities...We have achieved this to a large extent," said a source. Pakistan, of course, has deliberately kept its nuclear policy ambiguous to deter India from undertaking any conventional military action despite repeated provocations, even as it fast supplements its enriched uranium-based nuclear programme with a weapons-grade plutonium one through the four heavy water reactors at the Khushab nuclear complex with help from China. Islamabad also often brandishes its 70-km range Nasr (Hatf-IX) nuclear missiles as an effective

battlefield counter to India's "Cold Start" strategy of swift, high-voltage conventional strikes into enemy territory. "For India, nuclear weapons are not war-fighting weapons. But we need credible minimum deterrence, with the certainty of massive retaliation against adversaries," said the source.

China, with its rapid military modernization and expanding nuclear and missile arsenals, of course remains a major worry. Towards this end, it's estimated that India, which has a largely plutonium-based nuclear weapons programme, would like to achieve a stockpile of around 200 warheads in the decade ahead. The tri-Services Strategic Forces Command is now in the process of inducting India's first intercontinental ballistic missile, the over 5,000-km range Agni-V missile, which can hit even the northernmost region of China. But the continuing lack of an adequate number of nuclear-powered submarines armed with long-range nuclear-tipped missiles, which can silently stay underwater for extended periods, needs to be plugged to achieve a credible nuclear weapons triad. "Projects are underway to achieve this," said the source.

https://timesofindia.indiatimes.com/india/pakistan-has-more-nuclear-warheads-india-credible-deterrence/articleshow/64641056.cms



Wed, 20 June, 2018

South Korea, US confirm suspending military drills

South Korean and US officials confirmed on Tuesday the suspension of scheduled joint military drills, making good on a pledge by President Donald Trump during his summit with North Korea's leader. Seoul, which has tens of thousands of US troops on its soil to help protect it from its hostile northern neighbour, said the suspension would affect the large-scale Ulchi Freedom Guardian exercises slated for August. "South Korea and the US plan to continue discussions for further measures," the South's defence ministry said in a statement, adding that "no decisions have been reached for other ensuing drills." Some 17,500 US military personnel were due to take part in the Freedom Guardian drills. "We are still coordinating additional actions. No decisions on subsequent war games have been made," Pentagon spokeswoman Dana White said in confirming the suspension.

"There is no impact on Pacific exercises outside of the Korean Peninsula." White said US Defence Secretary Jim Mattis, Secretary of State Mike Pompeo and National Security Advisor John Bolton would meet later this week at the Pentagon to discuss the issue. Last week, Trump made the surprise announcement that the US would halt "war games" with its South Korean security ally -- without making clear when the freeze would begin. The US leader raised eyebrows by describing the exercises as "provocative" -- a term used by the North. US and South Korean forces have been training together for years, and routinely rehearse everything from beach landings to an invasion from the North, or even "decapitation" strikes targeting the North Korean regime. Pyongyang typically reacts furiously. Following drills last year, the North fired ballistic missiles over Japan, triggering global alarm. Trump's decision raised concern in Japan, which hosts tens of thousands of US troops and has eyed the diplomatic outreach to Pyongyang with deep suspicion. But officials were sanguine on the announcement today, with Defence Minister Itsunori Onodera saying Trump's move would not affect US-Japan exercises.

"In talks with Secretary Mattis, we confirmed that we will implement drills between Japan and the US," he told reporters. Foreign Minister Taro Kono added that Tokyo understood the drills were being halted as a way to press Pyongyang to negotiate in good faith. "I understand that if North Korea stops negotiating with good will, the joint drills will resume," he said. Choi Hyun-soo, a South Korea defence ministry spokeswoman, added: "We are expecting a corresponding measure from North Korea in response to the suspension of the joint drills." At their landmark Singapore summit, Trump and North Korea's Kim Jong Un signed a joint statement in which Pyongyang committed to "work toward complete denuclearisation of the Korean Peninsula." But critics have pointed to the vague wording of the non-binding document and raised fears that the summit could weaken the international coalition against the North's nuclear programme.

MAIL TODAY

Wed, 20 June, 2018

Trump tells military to create new Space Force

President said US would return to moon & send humans to Mars

President Donald Trump announced on Monday that he is directing the Pentagon to a new 'Space Force' as an independent service branch aimed at ensuring American dominance in space. Trump envisioned a bright future for the US space program, pledging to revive the country's flagging efforts, return to the moon and eventually send a manned mission that would reach Mars. The president framed space as a national security issue, saying he does not want 'China and Russia and other countries leading us'. Trump had previously suggested the possibility of creating a space unit that would include portions equivalent to parts of the Air Force, Army and Navy.

But his directive will task the Defense Department to begin the process of establishing the Space Force



as the sixth branch of the US armed forces. He said the new branch's creation will be overseen by Gen. Joseph Dunford, the chairman of the Joint Chiefs of Staff. "When it comes to defending America, it is not enough to merely have an American presence in space. We must have American dominance in space," Trump said. He added, "We are going to have the Air Force and we are going to have the Space Force, separate but equal. It is going to be something. So important." The United States, however, is a member of the Outer Space Treaty, which bars the stationing of weapons of mass destruction in space and only allows for the use of the moon and other celestial bodies for peaceful purposes. "My administration is reclaiming America's heritage as the

world's greatest spacefaring nation," Trump said in the East Room, joined by members of his space council. "The essence of the American character is to explore new horizons and to tame new frontiers." Trump also

used the White House event to establish a new policy for reducing satellite clutter in space. The policy calls for providing a safe and secure environment up in orbit, as satellite traffic increases.

It also sets up new guidelines for satellite design and operation, to avoid collisions and spacecraft

When it comes to US wants to send defending America, it robotic explorers to is not enough to the moon next year merely have an Ameras a preparatory ican presence in step towards sending space. We must have astronauts back American dominance there for the first in space. time since 1972. - DONALD TRUMP, PRESIDENT, UNITED STATES - NASA OFFICAL breakups. Trump was joined by Vice President Mike Pence, who leads the recently revived space council, as well as several Cabinet members, NASA Administrator Jim Bridenstine, retired astronauts and scientists. The council's executive secretary, Scott Pace, told reporters before the meeting that space is becoming increasingly congested and current guidelines are inadequate to address the challenge. The announcements were his administration's latest moves to scale up US space exploration. The United States wants to send robotic explorers to the moon as

soon as next year as a preparatory step towards sending astronauts back there for the first time since 1972, a NASA official said on Monday. The National Aeronautics and Space Administration is planning a series of lunar missions beginning next year aimed at developing the capacity for a return to the moon, said Cheryl Warner, a spokeswoman for NASA's Human Exploration Directorate.

TO THE MOON AND BACK

- In December, Trump signed a directive that he said would enable astronauts to return to the moon and eventually lead a mission to Mars.
- He ordered the government last month to review regulations on commercial space flights.
- Americans first landed on the moon in 1969, reaching a goal set by former President John F. Kennedy in 1961 and capping a decade-long space race between Washington and Moscow.
- Since then, U.S. efforts to explore beyond the Earth's orbit have largely focused on remote spacecraft that do not have human crew members.
- American presidents have repeatedly raised the idea of sending human explorers back to the moon or further.
- President George W. Bush in 2004 said humans would return to the moon by 2020.
- His successor, President Barack Obama, said in 2016 the United States would send humans to Mars by the 2030s.



Wed, 20 June, 2018

One killed in fire at Pune DRDO lab

One contract worker died and another was seriously injured in a fire involving explosive material at the High Energy Material Research Laboratory (HEMRL) of the Defence Research and Development Organisation (DRDO), at Pashan in Pune on Tuesday afternoon. Police have identified the deceased worker as Laxmikant Ramesh Sonawane (26), a resident of Ramnagar in Warje, and the injured as Yogesh Kirtikar. "The deceased was a contract worker. All the safety measures were in place at the time of the accident. A high-level DRDO committee will investigate the causes of the accident and come up with a report," said HEMRL Director KPS Murthy. Senior Inspector Arun Waykar of Hinjewadi police station said, "The workers were taking samples of some explosives when suddenly, some of the substances they were handling exploded." HEMRL is one of the oldest laboratories of the DRDO.





NASA's image reveals raging storms across Jupiter

JUPITER is renowned for being a stormy planet, but the latest images reveal it's not just the famous Great Red spot that has horrific weather. This incredible new image captures the intensity of the jets and vortices in Jupiter's North North Temperate Belt. It reveals massive clouds made of ammonia-ice crystals, and mysterious dark patches where scientists think the clouds are deeper. The image was taken when the spacecraft was about 4,900 miles (7,900 km) from the top of the clouds of the gas giant.

NASA's Juno spacecraft took this colourenhanced image at 10:31 p.m. PDT on May 23, 2018 (1:31 a.m. EDT on May 24), as Juno performed its 13th close flyby of Jupiter. The view is oriented with south on Jupiter towards upper left and north towards lower right. The North North Temperate Belt is the prominent reddishorange band left of center. It rotates in the same direction as the planet and is predominantly cyclonic, which in the northern hemisphere means its features spin in a counter-clockwise direction. Within the belt are two gray-colored anticyclones. To the left of the belt is a brighter band (the North North Temperate Zone) with high clouds whose vertical relief is accentuated by the low angle of sunlight near the terminator. These clouds are likely made of ammonia-ice crystals, or possibly a combination of ammonia ice and water.