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‘Clearance for defence projects to be eased’

MoS Defence lauds Border Roads Organisation for meeting targets

Union Minister of State for Defence Subhash Bhamre on Tuesday lauded the Border Roads Organisation personnel for achieving their targets in construction of strategic roads in border areas, especially the completion of the Rohtang tunnel in Himachal Pradesh.

Mr. Bhamre was addressing the annual ‘Chief Engineers Conference, 2017’ of the BRO held here.

The Minister spoke about the Centre’s policy decisions to ease procedures for clearance to defence projects, which is often a major hurdle faced by the BRO in the construction of border roads.

Policy relaxations

“We expect that these policy relaxations will bring greater responsibility upon the BRO to be more concerned about the preservation of ecology and environment. At the same time, the organisation faces challenges in the form of rugged terrains and inhospitable climates as well as paucity of funds. However, I am confident that the BRO will overcome these hurdles to enhance the pace of construction and adopt newer technologies and procedures,” said the Union Minister.

The three-day conference, which will conclude on Wednesday, witnessed brainstorming on critical issues facing India’s primary infrastructure construction agency.

Topics particularly related to the construction of India-China border roads in the backdrop of the recent Doklam stand-off with China were discussed.

Tunnel projects

Among the BRO’s achievements this year were the completion of the 8.8-km-long, all-weather Rohtang tunnel (expected to be opened by 2019); the 578-m-long Theng tunnel in Sikkim and the construction of the world’s highest motorable road over Umling La (in Ladakh) at a height of over 19,300 ft.

The Rohtang and the Theng tunnels are a part of the BRO’s project to construct 17 highway tunnels totalling 100 km in length along the Line of Actual Control.

दैनिक जागरण

अमेरिका के जीपीएस से दस गुना बेहतर होगा हमारा 'नाविक'

भारतीय अंतरिक्ष अनुसंधान संगठन (इसरो) उपग्रह आधारित निगरानी प्रणाली विकसित कर रहा है। इसके जरिये देश के चप्पे-चप्पे पर पैनी नजर रखी जा सकेगी। इसरो के असिस्टेंट जनरल मैनेजर विश्वजीत सिंह के मुताबिक इंडियन रीजनल नेविगेशन सेटलाइट सिस्टम (आईआरएनएसएस) के अगले साल जून तक लॉन्च होने की उम्मीद है।

सेटलाइट आधारित स्वदेशी निगरानी प्रणाली से देश की सीमाओं सहित आंतरिक सुरक्षा व्यवस्था को मजबूती मिलेगी। सुदूर क्षेत्रों, पर्वतों, जंगलों आदि में भी छोटी से छोटी गतिविधियों पर नजर रखी जा सकेगी। इसरो के इस "रडार" पर सब कुछ होगा। खास बात यह कि नक्सल प्रभावित इलाकों की सटीक मॉनीटरिंग में यह कारगर साबित होगा। दावा

किया जा रहा है कि स्वदेशी प्रणाली अमेरिका की जीपीएस (ग्लोबल पोजीशनिंग सिस्टम) प्रणाली से दस गुना बेहतर साबित होगी।

अगले साल होगी लॉन्च

इंडियन रीजनल नेविगेशन सेटेलाइट सिस्टम (आईआरएनएसएस) यानी भारतीय क्षेत्रीय निगरानी उपग्रह प्रणाली पर सभी काम पूरा हो चुका है। सब कुछ ठीक रहा तो आईआरएनएसएस का रिकवर माँड्यूल मई-जून 2018 तक अंतरिक्ष में स्थापित हो जाएगा। इस प्रणाली को "नाविक" (एनएवीआईसी यानी नेवीगेशन विद इंडियन कांस्टेलेशन) नाम भी दिया गया है।

अब तक इस तरह की प्रणाली केवल अमेरिका (ग्लोबल पोजीशनिंग सिस्टम, जीपीएस), रूस (ग्लोबल नेविगेशन सेटेलाइट सिस्टम, ग्लोनास), यूरोप (गैलीलियो) और चीन (कॉम्पास) के पास है। इसरो इस पर 2011 से काम कर रहा। 2103 से 2016 के बीच इस प्रोजेक्ट से जुड़े सात उपग्रह पृथ्वी की कक्षा में स्थापित किए गए। इनमें से पहला उपग्रह, जिसे जुलाई 2013 में स्थापित किया गया था, में कुछ अड़चन आने के कारण अगस्त 2017 में इसकी जगह नया उपग्रह स्थापित करने का प्रयास किया गया। जो सफल नहीं हो सका।

जीपीएस से दस गुना बेहतर

स्वदेशी निगरानी प्रणाली अमेरिका की जीपीएस प्रणाली से दस गुना अधिक प्रभावी होगी। इसरो के सहायक प्रबंधक विश्वजीत सिंह ने एक खास बातचीत में बताया कि स्वदेशी तकनीक बेजोड़ है। उन्होंने कहा कि उम्मीद है कि जल्द ही यह प्रोजेक्ट पूरा कर लिया जाएगा। इस वर्ष हमारा प्रक्षेपण अभियान विफल हो गया था। अब इसे पुनः लॉन्च किया जा रहा है। इस बार सफलता की पूरी उम्मीद है।

ऐसे बनेगा निगरानी तंत्र

विश्वजीत ने बताया कि नेविगेशन सेटेलाइट की मदद से भारत अपने चारों ओर 1500 किमी के इलाके पर नजर रख सकेगा। इससे हमारे देश की सीमाएं सुरक्षित होंगी। रिकवरी माड्यूल के अंतरिक्ष में स्थापित होने के बाद भारत के प्रत्येक राज्य में रिमोट सेंसिंग एप्लीकेशन सेंटर स्थापित होंगे। इससे एकीकृत सतत आंतरिक निगरानी तंत्र विकसित किया जा सकेगा। झारखंड और छत्तीसगढ़ जैसे राज्यों में नक्सलवाद की समस्या है।

इन सेंटर्स के बनने पर हम इस समस्या से भी कारगर तौर पर निपट सकते हैं। सेटेलाइट के जरिए हम चप्पे-चप्पे पर पैनी नजर रख सकेंगे और सुरक्षा एजेंसियों को सही और सटीक जानकारी समय पर देने में सक्षम होंगे। यह प्रणाली लोकेशन बेस्ड सर्विस देगी। भारतीय नौवहन में सहयोग के अलावा इससे वायुसेना को भी मदद मिलेगी। दुश्मन को लोकेट और टारगेट कर अचूक वार किया जा सकेगा।

हमें उम्मीद है कि अगले साल जून तक हम इसे लॉन्च कर देंगे। यह प्रणाली भूस्थिति, भूभागीय निगरानी के अलावा समुद्री नौवहन, उड्डयन, वायुसेना, नौसेना, आंतरिक सुरक्षा, सीमाओं की निगरानी, आपदा प्रबंधन में मददगार साबित होगी। यह अब तक की सबसे बेहतर प्रणाली है।

What China can teach us on research

By Claude Arpi

During His report to the 19th CPC National Congress, President Xi Jinping disclosed his plans for the future of the People's Liberation Army (PLA): "We will make it our mission to see that by 2035, the modernisation of our national defence and our forces is basically complete; and that by the mid- 21st century our people's armed forces have been fully transformed into world-class forces."

The Chinese media announced: "As chairman of the Central Military Commission (CMC), Xi is tasked with ensuring the world's largest military take a 'crucial leap' in the new era from being simply large to being strong." A few weeks earlier, The South China Morning Post wrote about "China building giant facial recognition database to identify any citizen:".

Project

The project is to achieve an accuracy rate of 90 per cent, though it faces formidable technological hurdles and there are serious concerns about privacy. The powerful facial recognition system should be able to identify 1.3 billion citizens within three seconds. Chen Jiansheng, of the department of electrical engineering at Tsinghua University, told the Hong Kong newspaper that the government would use this system to track wanted suspects as well as for public administration. In April 2107, the McKinsey Global Institute published a report, 'Artificial Intelligence: Implications for China', which describes the importance of artificial intelligence (AI): "The idea that computer systems can perform functions typically associated with the human mind, has gone from futuristic speculation to present-day reality."

The report further elaborated: "Thanks to advances in data collection and aggregation, algorithms, and processing power, computer scientists have achieved significant breakthroughs in artificial intelligence. Where computer systems once had to be programmed to execute rigidly defined tasks, they can now be given a generalised strategy for learning, enabling them to adapt to new data inputs without being explicitly reprogrammed." In the years to come, the PLA plans to benefit from AI to enhance its efficiency 'to win wars' and reach the objectives fixed by Xi Jinping. Elsa Kania from the Center for a New American Security (CNAS) noted in a recent report: "China is no longer in a position of technological inferiority relative to the United States but rather has become a true peer (competitor) that may have the capability to overtake the United States in AI." She adds: "It could alter future economic and military balances of power."

The main use of AI is part of the in-depth reforms of China's defence forces for a wider 'integration' of the different services which are now five. At par with the PLA Ground Forces, Navy and Air Force, are the PLA Rocket Force (formerly, the second artillery) and the Strategic Support Force (SSF), a game changer, according to all observers.

The use of AI will come under the umbrella of the PLASSF. The Diplomat noted a few months back: "While the Chinese PLA's new SSF is a critical force for dominance in the space, cyber and electromagnetic domains... the SSF's function of 'strategic support', namely information support, will be equally vital to the PLA's capabilities to fight and win wars." Apart from restructuring the commands, Xi Jinping also wants to give a boost to research and development (R&D) to catch up with the United States in terms of new weaponry in the decades to come.

A couple of weeks ago, the Chinese Central Television (CCTV) broadcast a TV documentary about the 10 aircraft carriers planned by China. Jane's Review reported that Electromagnetic Aircraft Launch System (EMALS) will "be fitted onto the second of the country's indigenously built aircraft carriers, commonly referred to as the Type 002"; the system is similar to the EMALS used by the United States.

Technologies

A lot of money is also poured into the Hypersonic Vehicle Technology Project; available data shows that China has started developing conceptual and experimental hypersonic flight vehicle technologies such as hypersonic cruise vehicles (HCV) capable of manoeuvring at Mach 5 speeds (6,150 km/h), flying in near-space altitudes. It could be another game changer. Cutting-edge research in the field of quantum communication (which will make communications un-hackable) is also undertaken by the Chinese scientists.

The Academy of Military Sciences explicitly asserted: “Space and cyberspace increasingly constitute important battlefields. A new type of five-dimensional battle-space of land, sea, air, space, and cyber is currently taking shape, which is wide in scope, hyper-dimensional, and combines the tangible and intangible.”

Innovation

The list of new fields of research is long. China is, for example, working on an unmanned combat aerial vehicle named the ‘Black Sword’, which could one day compete with the best US drones. Also in the list are smart materials and structures, high-temperature superconducting technologies, and highly efficient energy materials technologies. Beijing has a medium and long-term programme which aims at transforming China into an ‘innovation-oriented society’ by 2020; the plan defines China’s leading-edge technologies.

Beijing has also “megaprojects for assimilating and absorbing’ technology; an import substitution action plan in order to create indigenous innovations through ‘co-innovation’ and ‘re-innovation’ of foreign technologies. In all probability, the Israeli Heron drone, which recently fell in Chinese hands in Chumbi Valley in Tibet, will soon be ‘assimilated and absorbed’. President Xi Jinping has a dream, the great rejuvenation of Chinese nation: “It is an unstoppable historical trend that won’t be diverted by the will of any individual country or person,” asserts China Military Online.

India has something to learn from the Middle Kingdom in terms of looking into the future. It is, however, doubtful if the Indian public sector has the dynamism to catch up with China. The time has perhaps come for the Modi government to start a new scheme, ‘Research in India’ and involve the private sector. AI could be the first field of research.

THE ASIAN AGE

Wed, 20 Dec, 2017

Chinese ICBM By 1972

New Delhi: The Defence Minister, Mr. Swaran Singh, told the Rajya Sabha today that China had completed the development of a medium range ballistic missiles and would achieve operational ICBM capacity before 1972.

This statement was received with concern by several members, one of whom asked why India should not develop nuclear bomb as a deterrent, while another asked whether India would seek the protection of a “nuclear umbrella” against the Chinese threat.

Mr. Swaran Singh said there was no defence against ballistic missiles and nuclear weapons which were terrible weapons of mass destruction. There was a sharp difference of opinion among world experts about the value of deterrence, he said.

The Defence Minister rejected the idea of a nuclear umbrella as an illusory guarantee and said it would not be safe or wise for India to enter into defence pacts.

The Defence Minister said India was developing her capacity in all spheres other than nuclear weapons and it was her policy that nuclear energy would not be for purposes other than peaceful uses.

Mr. Swaran Singh added: “Let us not be unduly obsessed with the idea that any country is interested in destroying India cannot survive and let us have some confidence in ourselves.”

US military imagines war without GPS

With GPS-guided bombs, armed drones beaming footage via satellite and spy cameras scooping up intel from the heavens, America's military machine is growing ever more reliant on space-based technology.

But what would happen if an enemy were to target the military's satellites, or somehow jam their signals?

The disastrous scenario is one the Pentagon knows all too well could happen, and for which it is actively preparing.

"Our force structure today is built around the assumption that we have GPS and we have satellite communications. We are very lethal when we have those things," said Colonel Richard Zellmann, commander of the 1st Space Brigade based in Colorado.

"But when you start taking away those combat multipliers, we need to go back then to the days of the industrial-age army where you have to have three times as many people as the adversary does."

About 70 percent of the Army's major combat systems depend on signals being beamed from space, Zellmann said, a fact that has not slipped the attention of other countries.

"Militaries around the world have begun to understand the advantages that the US has enjoyed because of uncontested access to the space domain," Zellmann recently told reporters.

Russia and China are both developing satellites capable of maneuvering through space, potentially allowing them to smash into another orbiting object. America, too, has acquired satellites that can move in orbit and inspect or monitor other space objects.



US blames North Korea for worldwide WannaCryransonware attack

U.S. President Donald Trump's administration is publicly blaming North Korea for a ransomware attack that infected hundreds of thousands of computers worldwide in May and crippled parts of Britain's National Health Service.

Homeland Security Advisor Thomas P. Bossert said the administration's finding of responsibility is based on evidence and confirmed by other governments and private companies, including the United Kingdom and Microsoft.

Mr. Bossert said the Trump administration will continue to use its "maximum pressure strategy to curb Pyongyang's ability to mount attacks, cyber or otherwise."

Pyongyang has previously denied hacking allegations.

The WannaCry attack struck more than 150 nations in May, locking up digital documents, databases and other files and demanding a ransom for their release.

It battered Britain's National Health Service, where the cyberattack froze computers at hospitals across the country, closing emergency rooms and bringing medical treatment to a halt. Government offices in Russia,

Spain, and several other countries were disrupted, as were Asian universities, Germany's national railway and global companies such as automakers Nissan and Renault.

The WannaCry ransomware exploited a vulnerability in mostly older versions of Microsoft's Windows operating system. Affected computers had generally not been patched with security fixes that would have blocked the attack. Security experts, however, traced the exploitation of that weakness back to the U.S. National Security Agency; it was part of a cache of stolen NSA cyberweapons publicly released by a group of hackers known as the Shadow Brokers.

Microsoft president Brad Smith likened the theft to "the U.S. military having some of its Tomahawk missiles stolen," and argued that intelligence agencies should disclose such vulnerabilities rather than hoarding them.

WannaCry came to a screeching halt thanks to enterprising work by a British hacker named Marcus Hutchins, who discovered that the malware's author had embedded a "kill switch" in the code. Hutchins was able to trip that switch, and the attack soon ended. In an unusual twist, Hutchins was arrested months later by the FBI during a visit to the U.S.; he pleaded not guilty and now awaits trial on charges he created unrelated forms of malware.

THE ASIAN AGE

Wed, 20 Dec, 2017

Japan to boost defence against N. Korea threat

Japan's government on Tuesday approved the introduction of the US military's land-based Aegis missile interceptor system, beefing up its defence against "serious" and "imminent" North Korea threats.

The regime in Pyongyang has fired two missiles over Japan this year and has threatened to "sink" the country into the sea.

Last month, North Korea testfired an intercontinental ballistic missile that plunged into the waters of Japan's exclusive economic zone.

"North Korea's nuclear and missile development has entered a new stage of threat that is more serious and imminent to our country's security," the government said as it endorsed the introduction of Aegis Ashore at a cabinet meeting.

Japan needs to drastically improve its missile defence, Tokyo added.

Japan plans to introduce the Aegis Ashore system at two locations, covering the entire nation with powerful radars.

The deployment will hand the US ally another layer of defence in addition to SM-3 guided missiles launched by Aegis destroyer vessels and Patriot Advanced Capability-3 missiles. However, it will take years before the Aegis Ashore system is operational.

The contract is yet to be signed with the US and deployment at two locations could cost ¥200 billion (Bt57.8 billion), including the cost of building new facilities.

However, officials insisted the new system would boost Japan's missile defence. "Naval vessels ports regularly for rest ground deployment, we will be able to operate almost 24-7," an official said. AFP

Wed, 20 Dec, 2017

BRITAIN'S NEW £3BN WARSHIP HAS A LEAK

AP



Britain's biggest ever warship, the new £3.1 billion (\$4.2 billion) aircraft carrier HMS Queen Elizabeth, has a leak and needs repairs, the ministry of defence (MoD) said on Tuesday. The 65,000-tonne ship, hailed as Britain's most advanced military vessel and which was only officially commissioned by the queen two weeks ago, has an issue with a shaft seal which was identified during sea trials, the MoD said. 'This is scheduled for repair while she is alongside at Portsmouth,' a Royal Navy spokesman said. 'It does not prevent her from sailing again and her sea trials programme will not be affected.' The Sun newspaper reported that the 920-foot warship was letting in 200 litres of water every hour and the fix would cost millions of pounds. A defence source said the navy was aware the ship, which took eight years to build, had an issue when it was handed over by manufacturers and the Sun said the builders would have to foot the repair bill

THE ECONOMIC TIMES

Wed, 20 Dec, 2017

Saudis Intercept Yemen Rebel Missile over Riyadh

Riyadh: Saudi air defences intercepted a ballistic missile fired towards the capital Riyadh on Tuesday, the Saudi-led coalition said, the latest attack by a Yemeni group that could escalate a proxy war between the kingdom and regional rival Tehran.

There was no immediate report of casualties or damages.

A spokesman for the Iran-aligned Houthi movement said a ballistic missile targeted the royal court at al-Yamama palace, where a meeting of Saudi leaders was under way.

Saudi Arabia has not confirmed this account or whether a meeting of its leaders was taking place.

“Coalition forces confirm intercepting an Iranian-Houthi missile targeting (the) south of Riyadh. There are no reported casualties at this time,” the government-run Center for International Communication wrote on its Twitter account.

Saudi Arabia and Iran are locked in struggle for influence in the Middle East. Riyadh is especially sensitive to the civil war in its backyard Yemen, a conflict that has killed more than 10,000 people and displaced over two million.

A Saudi-backed coalition has launched thousands of air strikes against the Houthis and allied forces since intervening in the war on behalf of the government nominally based in Aden.

The Houthis for their part have fired several missiles at the kingdom, mostly in the south since 2015, but not caused any serious damage, in their bid to pressure Saudi Arabia, a strategic US ally and the world’s biggest oil exporter.

Tuesday’s attack took place hours before Saudi Arabia was due to announce the country’s annual budget in a news conference expected to be attended by senior ministers. Reuters