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After Balakot show, government to have more desi eyes in the sky

The 'eye in the sky' project — an aircraft-mounted radar that can look deep into enemy territory and direct combat assets for a strike — is set to get a boost with the defence ministry likely to clear next week the acquisition of two Airbus A330 p...

By Manu Pubby

New Delhi: Impressed with the performance of home-developed early warning aircraft during the Balakot air strikes earlier this year, the government is set to speed up the indigenous programme with the acquisition of two larger platforms that will give wider radar and surveillance coverage.

The 'eye in the sky' project — an aircraft-mounted radar that can look deep into enemy territory and direct combat assets for a strike — is set to get a boost with the defence ministry likely to clear next week the acquisition of two Airbus A330 platforms that will be modified by the Defence Research and Development Organisation (DRDO).

India currently operates the domestically developed 'Netra' airborne early warning and control aircraft, two of which were used during the Balakot strikes. The Netra aircraft were used to safely guide Mirage 2000 fighter jets into Pakistani airspace to drop smart bombs that targeted the terror training camp at Balakot.

However, subsequent operations and the stand-off with Pakistan that lasted several weeks brought out the severe shortage of such aerial platforms that can be used to detect incoming enemy aircraft from well within Indian airspace. India currently operates two of the Netra aircraft and three IL76 'Phalcon' systems that were jointly developed with Israel and Russia.

Officials said the air force has been unimpressed with the loitering time of the Phalcons. Though the aircraft have a wider range of coverage than the Netra, it is unable to stay airborne long enough to meet operational requirements.

Pakistan has six of the Saab 2000 early warning aircraft that were extensively used in the February 27 aerial battle to direct and control 25 fighter jets toward Indian targets. The active participation of

these aircraft in the air skirmish gave Pakistan an extensive view of the battlefield and Indian air deployment that enabled it to direct fighters to the target zone. Indian early warning aircraft were outnumbered by the Pakistani air force.

The strategic programme to develop next-generation airborne warning and control systems (AWACS) that will act as a major force multiplier for the air force was cleared in 2015 for an estimated Rs 5,200 crore but orders have not yet been placed for the platform. As reported by ET, DRDO requires a wide-bodied aircraft for the AWACS and the only response DRDO got to a tender for the project was from Airbus for A330.

DRDO will oversee structural modifications and adaptations for a 10m rotodome that will be mounted on the aircraft. The system will have an electronically scanned array radar that will give 360 degree radar coverage. The air force estimates that the two indigenous AWACS will be inducted into service by 2025 and will be a major force multiplier over the coming years.

https://economictimes.indiatimes.com/news/defence/after-balakot-show-government-to-have-more-desi-eyes-in-the-sky/articleshow/72177176.cms

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Rajnath Singh calls for increased synergy between DRDO, domestic defence industry

Addressing the DRDO Industry Synergy Summit 2019 at Hyderabad through video conferencing, Rajnath Singh said defence public sector units (DPSUs), industry, research institutes and armed forces need to work in tandem to achieve the target of incorp...

New Delhi: Defence Research and Development Organisation (DRDO) and domestic defence industry should explore new ways for enhancing synergy to achieve the goal of self-sufficiency, Defence Minister Rajnath Singh said on Friday.

Addressing the DRDO Industry Synergy Summit 2019 at Hyderabad through video conferencing, Singh said defence public sector units (DPSUs), industry, research institutes and armed forces need to work in tandem to achieve the target of incorporating at least 25 artificial intelligence based products into defence in near future.

"Raksha Mantri appreciated that DRDO has nurtured more than 1,800 industries which are actively working together to produce defence systems. He asked the DRDO and industry to explore new ways for enhancing synergy to achieve the goal of self-sufficiency," a government press release said.

Singh said under the Defence Production Policy, the Ministry of Defence (MoD) has set the target of USD 26 billion for aerospace, defence services and goods by 2025.

"In this, approximately USD 10 billion is targeted for creating job opportunities for 20-30 lakh people," the release said.

In his address, G Satheesh Reddy, Secretary, Department of Defence, Research and Development, who also holds the charge of Chairman of DRDO, elaborated about latest policies of the DRDO like zero fees for Transfer of Technology (ToT) and zero royalty for Development-cum-Production Partners (DcPP) and free usage of DRDO patents by domestic Industry.

Expressing confidence in defence industry, Reddy said healthy scenario needs to be fostered for closer interactions between industry and the DRDO to overcome the gaps.

https://economictimes.indiatimes.com/news/defence/rajnath-singh-calls-for-increased-synergy-between-drdo-domestic-defence-industry/articleshow/72187718.cms?from=mdr

दैनिक जागरण

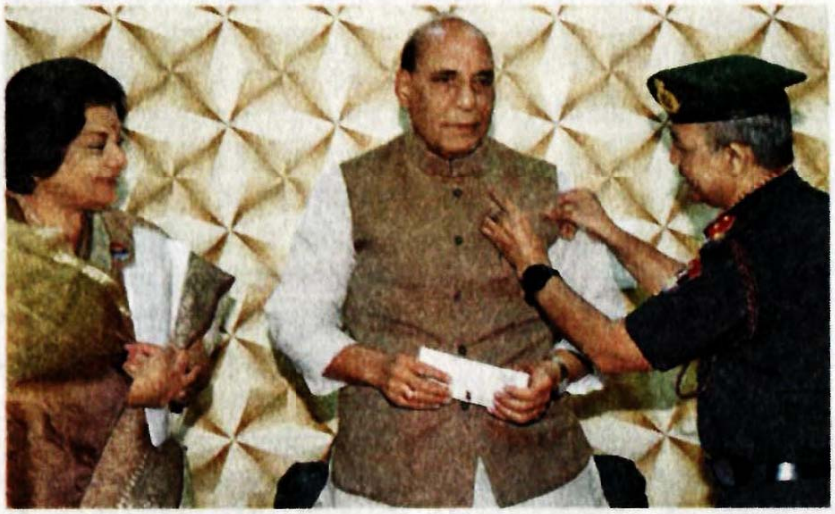
Sat, 23 Nov 2019

रक्षा मंत्री का डीआरडीओ और घरेलू रक्षा उद्योग के बीच तालमेल पर जोर

नई दिल्ली, प्रेट्र : रक्षा मंत्री राजनाथ सिंह ने शुक्रवार को कहा कि रक्षा अनुसंधान एवं विकास संगठन (डीआरडीओ) और घरेलू रक्षा उद्योगों को आत्मनिर्भरता का लक्ष्य हासिल करने के लिए साथ मिल कर नए तरीके तलाशने चाहिए।

हैदराबाद में आयोजित 'डीआरडीओ उद्योग समन्वय बैठक 2019' को वीडियो कांफ्रेंसिंग के जरिए संबोधित करते हुए रक्षामंत्री ने रक्षा प्रणालियों एवं प्रौद्योगिकी के स्वदेशी विकास को प्रोत्साहित करने के लिए किए जा रहे समन्वय का स्वागत किया। उन्होंने कहा कि डीआरडीओ रक्षा प्रणाली विकास के क्षेत्र में आत्मनिर्भरता प्राप्त करने के लिए महत्वपूर्ण कदम उठा रहा है। डीआरडीओ ने प्रक्षेपास्त्र, लड़ाकू विमान, नौसना प्रणाली, राडार, 'सोनार' तथा शस्त्र प्रणाली के क्षेत्र में अनुसंधान, डिजाइन और विकास की दिशा में योगदान किया है।

रक्षामंत्री ने कहा कि रक्षा उत्पादन की नीति के अन्तर्गत रक्षा मंत्रालय ने 2025 तक एयरोस्पेस, रक्षा सेवाओं और सामग्रियों के लिए 26 अरब डॉलर खर्च (लगभग 1.82 लाख करोड़ रुपये) करने का लक्ष्य निर्धारित किया है। इसमें से लगभग 10 अरब डॉलर (लगभग 70 हजार करोड़ रुपये) का उपयोग 20-30 लाख लोगों के लिए रोजगार के अवसर पैदा करने में किया जाएगा। रक्षा क्षेत्र में नवाचार और आत्मनिर्भरता को प्रोत्साहित करने के सरकार के कार्यक्रमों की चर्चा करते हुए सिंह ने रक्षा नवाचार और उन्हें अपनाने में उत्कृष्टता की आवश्यकता पर बल दिया। उन्होंने कहा कि निकट भविष्य में 25 'आर्टिफिशियल इंटेलीजेंस' आधारित उत्पादों को शामिल करने के लिए सार्वजनिक क्षेत्र की रक्षा इकाइयों, उद्योग, अनुसंधान संस्थानों और सेवाओं को एक साथ मिलकर काम करने की आवश्यकता है। रक्षा मंत्री ने 1,800 से अधिक उद्योगों के फूलने-फलने में योगदान देने को लेकर डीआरडीओ की सराहना की।



रक्षा मंत्री को लगाया झंडा : नई दिल्ली में शुक्रवार को सशस्त्र सेना झंडा दिवस के उपलक्ष्य में केंद्रीय सैनिक बोर्ड के सचिव ब्रिगेडियर मृगेंद्र कुमार ने रक्षा मंत्री राजनाथ सिंह को झंडा लगाया। इस दिवस पर सशस्त्र बलों के कर्मियों के कल्याण के लिए जनता से धन संग्रह किया जाता है। प्रतिवर्ष सात दिसंबर को यह दिवस मनाया जाता है ● एएनआइ

Sat, 23 Nov 2019

Daksha: Country's first anti-terror Robot

'Daksha' a Remotely Operated Vehicle (ROV) is a robot built for anti-terror activities. 'Daksha' is an electrically powered robot that can be controlled from a distance of 500 meters and can be used continuously for 3 hours after a single recharge. There are around 500 'Daksha' going to be included in the Indian Army

By Hemant Singh

The war or cold war is a worldwide phenomenon. Almost every country of the world have some border and economic disputes with its neighbour country. This warlike situation turns into real war and the soldiers of both sides die in this tussle.

So every rich country in the world is building a robotic army so that loss of life and property can be reduced.

The Defense Research and Development Organization (DRDO) has created India's first anti-terror robot named; Daksha.

About Daksha Robot

The battery-powered robot 'Daksha' is primarily designed for the safe handling and destruction or detection of IEDs using multiple cameras, X-ray devices. It has a shotgun, which can break the closed doors. The scanner installed in it can scan cars to check explosives.

The Remotely Operated Vehicle can be controlled either by wireless communication over 500m line of sight or by fibre optic communication over 100m distance. It can work continuously for 3 hours in just a single recharge.

Daksha can be used to detect IEDs and other explosive elements at the border, which can save the lives of many Indian soldiers during patrolling.

Manufacturing of Daksh Robot

This ROV has been developed indigenously. There are 20 units of Daksha have been awarded to DRDO's Research and Development Establishment (R&DE – Engineers) in September 2010.

The Daksha robot has been developed by R&DE – Engineers in collaboration with Tata Motors, Theta Controls, Bharat Electronics (BE) and Dynalog (I).

As per some media reports; there are 500 more units of Daksha are going to be included in the Indian Army soon.

Features of Daksha Robot

1. It is fully automatic

2. It can destroy biological, chemical and radiological weapons.

3. It has a radio frequency shield that can jam the signal and prevent it from exploding.

4. It can detect any suspicious luggage at the airport and destroy it by taking it out of the airport or away from the crowd.

5. It can lift any object with the help of its robotic arm. If, it is IED or bomb; then it can diffuse it with its water jet disrupter.

6. It has X-ray devices that can scan any car/vehicle for explosive materials.

7. It also has slotted wheels, which help it in climbing the stairs at the time of requirements.

Indian Army's director-general major general Rakesh Bassi said the robot will be an important asset for the anti-terrorist operations and special gift to the army's bomb disposal units.

Therefore, the inclusion of skilled robots in the army will increase the security of India's border, along with the reduction of incidents of IED blasts during patrolling and ultimately reduction in terror activities.

https://www.jagranjosh.com/general-knowledge/daksha-countrys-first-anti-terror-robot-1574428779-1

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Sat, 23 Nov 2019

Pinaka: India's highly successful guided weapon system

Pinaka is an indigenous multi-barrel rocket launch (MBRL) system, which has been developed by the Defence Research and Development Organisation (DRDO) for the Indian Army. Its weapon system has a state-of-the-art guidance kit bolstered by an advan...

Thrust into the action during the 1999 Kargil War, the Pinaka rocket system quickly proved its worth for the Indian Army with its precision and devastating strikes, neutralising enemies sitting on mountain tops.

Since then, the system has seen major upgrades and is now one of the most reliable and effective weapon systems of the Indian Army's artillery wing.

Pinaka is an indigenous multi-barrel rocket launch (MBRL) system, which has been developed by the Defence Research and Development Organisation (DRDO) for the Indian Army. Its weapon system has a state-of-the-art guidance kit bolstered by an advanced navigation and control system.

Here is a look at the features that make Pinaka truly special:

1. How and why Pinaka came into being?

Named after the bow of Lord Shiva, the idea of Pinaka was first conceived in 1981, as an answer to the Indian Army's requirement for a long range artillery system. Initially, the Ministry of Defence approved two confidence building projects and the actual development could only begin in 1986 with a sanctioned project-budget of Rs 26.47 crore. After it proved its combat capabilities in 1999, a dedicated Pinaka MBRL regiment was raised in February 2000.

2. How does Pinaka weapon system work?

The complete MBRL system of Pinaka is comprised of six launcher vehicles, each having 12 rockets with six loader-replenishment vehicles, two command post vehicles with fire control computer and a DIGICORA MET radar. Each Pinaka launcher can work independently, as it is controlled by its own computer. The launch system of Pinaka is comprised up of two pods, which are mounted side-by-side to each other on a Tatra launcher vehicle. Each launcher has the ability to fire all the rockets in one go or only a few - in a different direction than others with the help of its control computer. The Pinaka launcher can operate in different modes — autonomous, standalone, remote and manual.

3. What kind of firepower does Pinaka possess?

The launch system of Pinaka can fire a salvo of 12 rockets within 40 seconds and a single battery of six launchers can take care of an area of 1,000 m × 800 m.

4. What is the range of Pinaka weapon system?

The initial version of weapon system was called Mark I, which had a range of 40 km. The upgraded version or Pinaka Mark II has an extended range of 70 to 80 km.

5. What kind of warhead variations can be used in Pinaka?

The rockets of Pinaka can use a wide range of warheads comprised of pre-fragmented high explosive, anti-tank bomblet, anti-tank minelet warhead, anti-personnel mines, incendiary practice and pilot shot. The pre-fragmented warhead is used to inflict 25% to 30% more damage than the conventional warhead. The HMX-based composition is primarily used in anti-tank bomblets while minelets warhed is used to achieve 150mm armour penetration.

https://economictimes.indiatimes.com/news/defence/pinaka-indias-highly-successful-guided-weapon-system/articleshow/72184970.cms

THE Sun
www.sunnewsonline.com

Sat, 23 Nov 2019

Boko Haram: Nigeria, India sign MoU to produce IED detectors

The Defence Research and Development Bureau (DRDB), friday signed a Memorandum of Understanding (MoU), with the Defence Research and Development Organisation (DRDO), India, to produce the Ramon Improvised Explosive Device(IED), materials detector with standoff at distance

By Molly Kilete, Abuja

Abuja: With the agreement, the DRDB is free to make use of the DRDO's photonics laboratory in India to produce the IED, detector which in turn be deployed to troops fighting the counter insurgency war in the north east.

The MoU was signed on behalf of the Federal government by the Director General, of the bureau, Air Vice Marshall Osahor, and the Indian High Commissioner to Nigeria, Abhay Thakur, at the agency's headquarters in Abuja.

In his address at the occasion, Osahor, while noting that the Sucess of a modern day military forces is measured by its ability to develop and employ unique technologies to emerging security challenges, said it was for this reason that the DRDB, was set up to provide defence solution for the Nigerian armed forces through research and development.

He pointed out that even though the boko haram and other terrorists group have been seriously degraded, their continuous use of IEDs against troops and other innocent Nigerians has remained a great threats.

He said "the ability of a nation to wage war and deter potential adversaries depends to a large extent on the nation's level of technological sophistication.

“Similarly, the success of modern day military forces is measured by the ability to develop and employ unique technologies to efficiently confront unique security challenges.

“It is inline with its mandate, DRBD, was tasked in early 2018, to design and develop IED detectors with standoff distance of 50-200 meters.

“The team worked tirelessly for six months after which they came up with standoff range of 50 meters.

“The team also identified all the components, softwares and equipment required for the actualization of these softwares and components, the only challenge in actualizing this noble project was the lack of photonics lab within the country for integrating and testing the components.

“It was at this stage that we approached the DRDO, India for the use of their photonics lab. DRDO, responded by asking for our conceit note which we in turn sent to them which we in turn sent to them”

https://www.sunnewsonline.com/boko-haram-nigeria-india-sign-mou-to-produce-ied-detectors/