Aug
2021

समाचार पत्रों से चयित अंश
Newspapers Clippings

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खंड : 46 अंक : 161 14-16 अगस्त 2021

Vol.: 46 Issue : 161 14-16 August 2021

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Sun, 15 Aug 2021 5:23PM

Celebrations of 'Azadi Ka Amrit Mahotsav' at DRDO

Key Highlights:

- ***DRDO scientists celebrate 75th Independence Day in villages of border areas***
- ***Various events including hoisting of National Flag, expeditions, interactions with local people & awareness camps organised***
- ***Teams were virtually flagged-off by RM on Friday***

The teams of scientists of Defence Research and Development Organisation (DRDO) celebrated 'Azadi Ka Amrut Mahotsav', commemorating 75 years of India's Independence, in villages of border areas. The teamsfrom various DRDO laboratories, which were flagged-off by Raksha Mantri Shri Rajnath Singh on August 13, 2021, organised a series of events to mark the momentous occasion.

The scientists from Defence Institute of High-Altitude Research (DIHAR) hoisted the national flag at world's highest terrestrial R&D laboratory at Changla (17664 ft) in Ladakh, a strategically important research centre of DRDO. DIHAR- DRDO organised a field day cum interactive meet with the local people of Thang village for betterment of agro-animal development. Thang is the last Indian village situated in Siachen sector of Ladakh. The team of DIHAR interacted with nomads of Changthang valley bordering China and celebrated the 75thIndependence Day.

DIHAR also organised an expedition to Tangla-la Pass in Leh-Ladakh (17,480 ft), which is a key mountain pass connecting Leh with Himachal Pradesh. The event was attended by representatives from civil administration and ex-officials of DRDO. An expedition was organised by DIHAR upto the Kyon-Tsolake (16,437 ft) in Changthang valley of Ladakh bordering China. The members of expedition team had a fruitful interaction with the Armed Forces deployed in the area. Director, DIHAR Dr OP Chaurasia hoisted the national flag at DIHAR campus in Leh and addressed the gathering.

Defence Institute of Bio-Energy Research (DIBER) at Haldwani celebrated 'Azadi ka Amrit Mahotsav' by organising activities at its field stations at Pithoragarh and Auli to demonstrate the technologies of the laboratory to farmers as well as Army jawans and to train them in these technologies. The laboratory sent its teams to various project sites and locations at borders of Uttarakhand.

Defence Geoinformatics Research Establishment (DGRE), Chandigarh celebrated the 75th Independence Day at its outposts in Mountain Met Centres Srinagar &Auli and R&D Centres at Lachung&Manali. DGRE scientists and officials held an interaction with the local people and school children. The DGRE officials briefed them about the activities of DRDO and achievements of the laboratory. The dignitaries appreciated the efforts of DGRE in making people aware about the latest know how and the technologies being used by DRDO in the making the nation 'AatmaNirbhar'. On the occasion, children conducted a cultural programme at MMC Sasoma (Siachen) and MMC Srinagar.

On the occasion, DGRE RDC Manali hoisted the National Flag at Rohtang Pass. A special event was organised at Government Senior Secondary School Bahang, Tehsil Naggar, KulluDistrict, which was attended by teachers, students and officials from panchayat as well as local public. The team of DRDO scientists informed the gathering about the technologies developed by DGRE for the Armed forces and civilians. Another team of DRDO scientists visited Vashisht village, where local population of the village was called for flag hoisting. The team made people aware about the achievements of DRDO and visual aids for basic avalanche awareness were distributed among them.

Defence Research Laboratory (DRL) Tezpur organised flag hoisting ceremony and interacted with the soldiers and local people in border and rural areas of Arunachal and Assam. Flag hoisting event was held at DRL, R&D Centre, Tawang. DRDO vegetable seed kits and women sanitation kits were distributed in border village (Changbu), Tawang District of Arunachal Pradesh. Flag hoisting event was also held at Boha village (Kalaktang) of West Kameng district of Arunachal Pradesh along with local people. An awareness camp relating to health & hygiene was organised on the occasion. Similar events were also organised in Udmari village, Sonitpur district of Assam. Workshops and interactions regarding awareness of water purification and demonstration of DRL, water purification system (Iron Removal Unit) was conducted with Army Unit, 11PARA (SF), Missamari. Workshop and interaction on protected cultivation and agricultural technologies was also conducted with Army Unit, 1812 Pioneer Unit in Sonitpur District of Assam.

Flag hoisting event was also held at DRL, R&D Centre, Salari. Fruit tree sapling distribution to the local people of Salari village was also conducted. An event of tree plantation and children drawing competition was organized in DRL, Tezpur as part of the celebrations.

https://pib.gov.in/PressReleasePage.aspx?PRID=1746106

पत्र सूचना कार्यालय
भारत सरकार

रक्षा मंत्रालय

Sun, 15 Aug 2021 5:23PM

डीआरडीओ में 'आजादी का अमृत महोत्सव' समारोह

प्रमुख बातें:

- ***डीआरडीओ के वैज्ञानिकों ने सीमावर्ती क्षेत्रों के गांवों में मनाया 75वां स्वतंत्रता दिवस***
- ***ध्वजारोहण, अन्य अभियान, स्थानीय लोगों के साथ बातचीत और जागरूकता शिविरों सहित विभिन्न कार्यक्रम आयोजित किए गए***
- ***टीमों को शुक्रवार को रक्षा मंत्री द्वारा वर्चुअल माध्यम से झंडी दिखाकर रवाना किया गया***

रक्षा अनुसंधान और विकास संगठन (डीआरडीओ) के वैज्ञानिकों की टीमों ने सीमावर्ती इलाकों के गांवों में भारत की आजादी के 75 साल के उपलक्ष्य में 'आजादी का अमृत महोत्सव' मनाया। विभिन्न डीआरडीओ प्रयोगशालाओं की टीमें, जिन्हें 13 अगस्त, 2021 को रक्षा मंत्री श्री राजनाथ सिंह द्वारा झंडी दिखाकर रवाना किया गया था, ने महत्वपूर्ण अवसर को मनाने के लिए कई कार्यक्रमों का आयोजन किया।

डिफेंस इंस्टीट्यूट ऑफ हाई एल्टीट्यूड रिसर्च (डीआईएचएआर) के वैज्ञानिकों ने डीआरडीओ के रणनीतिक रूप से महत्वपूर्ण अनुसंधान केंद्र लद्दाख के चांगला (17,664 फीट) में दुनिया की सबसे ऊंची स्थलीय अनुसंधान एवं विकास प्रयोगशाला में राष्ट्रीय ध्वज फहराया। डीआईएचएआर-डीआरडीओ ने कृषि-पशु क्षेत्र के विकास की बेहतरी के लिए थांग गांव के स्थानीय लोगों के साथ एक फील्ड डे कम इंटरएक्टिव मीट का आयोजन किया। थांग लद्दाख के सियाचिन सेक्टर में स्थित अंतिम भारतीय गांव है। डीआईएचएआर की टीम ने चीन की सीमा से लगी चांगथांग घाटी के खानाबदोशों से बातचीत की और 75वां स्वतंत्रता दिवस मनाया।

डीआईएचएआर ने लेह-लद्दाख (17,480 फीट) में तंगला-ला दर्रे के लिए एक अभियान भी आयोजित किया जो लेह को हिमाचल प्रदेश से जोड़ने वाला एक प्रमुख पर्वतीय दर्रा है। इस कार्यक्रम में नागरिक प्रशासन के प्रतिनिधियों और डीआरडीओ के पूर्व अधिकारियों ने भाग लिया। डीआईएचएआर द्वारा चीन की सीमा से लगे लद्दाख की चांगथांग घाटी में क्योन-सोलेक (16,437 फीट) तक एक अभियान का आयोजन किया गया। अभियान दल के सदस्यों ने क्षेत्र में तैनात सशस्त्र बलों के साथ सार्थक बातचीत की। डीआईएचएआर के निदेशक डॉ. ओपी चौरसिया ने लेह में डीआईएचएआर परिसर में राष्ट्रीय ध्वज फहराया और सभा को संबोधित किया।

हल्द्वानी में रक्षा जैव-ऊर्जा अनुसंधान संस्थान (डीआईबीईआर) ने किसानों के साथ-साथ सेना के जवानों को प्रयोगशाला की तकनीकों का प्रदर्शन करने और उन्हें प्रशिक्षित करने के लिए पिथौरागढ़ और औली में अपने फील्ड स्टेशनों पर कार्यक्रमों का आयोजन करके 'आजादी का अमृत महोत्सव' मनाया। प्रयोगशाला ने अपनी टीमों को उत्तराखंड की सीमाओं पर विभिन्न परियोजना स्थलों और स्थानों पर भेजा।

रक्षा भू-सूचना विज्ञान अनुसंधान प्रतिष्ठान (डीजीआरई), चंडीगढ़ ने पर्वतीय मौसम केंद्रों श्रीनगर और औली में अपनी चौकियों और लाचुंग और मनाली में अनुसंधान एवं विकास केंद्रों में 75वां स्वतंत्रता दिवस मनाया। डीजीआरई के वैज्ञानिकों और अधिकारियों ने स्थानीय लोगों और स्कूली बच्चों के साथ बातचीत की। डीजीआरई के अधिकारियों ने उन्हें डीआरडीओ की गतिविधियों और प्रयोगशाला की उपलब्धियों के बारे में जानकारी दी। गणमान्य व्यक्तियों ने देश को 'आत्मनिर्भर' बनाने में डीआरडीओ द्वारा उपयोग की जा

रही नवीनतम जानकारी और तकनीकों के बारे में लोगों को जागरूक करने में डीजीआरई के प्रयासों की सराहना की। इस मौके पर एमएमसी ससोमा (सियाचिन) और एमएमसी श्रीनगर में बच्चों ने सांस्कृतिक कार्यक्रम का आयोजन किया।

इस अवसर पर डीजीआरई आरडीसी मनाली ने रोहतांग दर्रे पर राष्ट्रीय ध्वज फहराया। राजकीय वरिष्ठ माध्यमिक विद्यालय बहंग, तहसील नग्गर, कुल्लू जिले में एक विशेष कार्यक्रम का आयोजन किया गया, जिसमें पंचायत के शिक्षकों, छात्रों और अधिकारियों के साथ-साथ स्थानीय जनता ने भाग लिया। डीआरडीओ के वैज्ञानिकों की टीम ने सभा को सशस्त्र बलों और नागरिकों के लिए डीजीआरई द्वारा विकसित प्रौद्योगिकियों के बारे में जानकारी दी। डीआरडीओ के वैज्ञानिकों की एक अन्य टीम ने वशिष्ठ गांव का दौरा किया, जहां गांव की स्थानीय आबादी को झंडा फहराने के लिए बुलाया गया था। इस टीम ने लोगों को डीआरडीओ की उपलब्धियों से अवगत कराया और उनके बीच हिमस्खलन की बुनियादी जागरूकता के लिए दृश्यात्मक सामग्री का वितरण किया।

रक्षा अनुसंधान प्रयोगशाला (डीआरएल) तेजपुर ने ध्वजारोहण समारोह का आयोजन किया और अरुणाचल और असम के सीमावर्ती और ग्रामीण क्षेत्रों में सैनिकों और स्थानीय लोगों के साथ बातचीत की। डीआरएल, आर एंड डी सेंटर, तवांग में ध्वजारोहण कार्यक्रम आयोजित किया गया। अरुणाचल प्रदेश के तवांग जिले के सीमावर्ती गांव (चांगबू) में डीआरडीओ वेजिटेबल सीड्स किट और महिला स्वच्छता किट वितरित की गई। स्थानीय लोगों के साथ अरुणाचल प्रदेश के पश्चिम कामेंग जिले के बोहा गांव (कलाकतांग) में भी ध्वजारोहण का आयोजन किया गया। इस अवसर पर स्वास्थ्य एवं स्वच्छता से संबंधित जागरूकता शिविर का आयोजन किया गया। असम के सोनितपुर जिले के उदमारी गांव में भी इसी तरह के कार्यक्रम आयोजित किए गए। जल शोधन के बारे में जागरूकता और डीआरएल, जल शोधन प्रणाली (आयरन रिमूवल यूनिट) के प्रदर्शन के संबंध में कार्यशालाएं और बातचीत सेना इकाई, 11 पैरा (एसएफ), मिसामारी के साथ आयोजित की गई थी। असम के सोनितपुर जिले में आर्मी यूनिट, 1812 पायनियर यूनिट के साथ संरक्षित खेती व कृषि प्रौद्योगिकियों पर कार्यशाला और बातचीत भी आयोजित की गई।

डीआरएल, आर एंड डी सेंटर, सलारी में ध्वजारोहण कार्यक्रम भी आयोजित किया गया। सलारी गांव के स्थानीय लोगों को फलदार पौधों का वितरण भी किया गया। समारोह के हिस्से के रूप में डीआरएल, तेजपुर में वृक्षारोपण और बच्चों की ड्राइंग प्रतियोगिता का आयोजन किया गया।

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Press Information Bureau
Government of India

Ministry of Defence

Sat, 14 Aug 2021 7:39PM

English rendition of Raksha Mantri Shri Rajnath Singh's address on All India Radio to Armed Forces on the eve of Independence Day 2021

My dear Sainik brothers and sisters,

The nation is ushering in an important phase of Independence from midnight today, the 75th year of it. There is an atmosphere of celebration all around the country on this momentous occasion. I extend my warm greetings on behalf of the grateful nation to the brave soldiers and military officers of the Army, Navy, Air Force and the Coast Guard who are engaged in protecting the Nation from the high peaks of the Himalayas to the depths of the Oceans and from the Thar desert to the arduous forests of the North-East.

Our Army Subedar Neeraj Chopra has made this year's Independence Day even sweeter by winning first Gold Medal in the Javelin Throw event of track and field events for the country at the Tokyo Olympics. Subedar Neeraj as well as other Olympic medalists of Indian athletes have been especially invited to the Independence Day celebrations at the Red Fort tomorrow. I thank Hon'ble Prime Minister Shri Narendra Modi ji for this.

I also extend my greetings to the brave Ex-Servicemen of the country at this auspicious occasion of Independence Day who were always ready to protect the Nation. And... no one can forget the families of our brave soldiers who have offered their dearest youths to the Service of the Nation.

It is also an occasion today to remember the brave soldiers who have made their supreme sacrifice in the service of the nation. I assure their family members that not only all Indians are with you but the grateful nation will always remember them.

Indian Civilisation has always been peaceful since ancient times, but peace is not possible without power. There is also saying:

अहिंसा परमोधर्मः धर्म हिंसा तथैव च

If non-violence is our ultimate duty, protecting integrity of the Nation equally important. Therefore, we are ready to sacrifice anything for unity and integrity of the Nation.

Therefore, in order to maintain peace and prosperity in the country, it is necessary that you should be alert and aware in protecting the nation wherever you are in water, land, sky. The grateful Nation always appreciates your great deeds in serving the country while staying away from your family and relatives.

On this auspicious occasion, I would like to share some of the main events and decisions with you that are important for strengthening our freedom.

The situation along the Line of Control in Jammu and Kashmir remained under control in the last one year due to our vigilance and indomitable valour. Ceasefire violations have also come down since February 2021. The infiltration from across the border has stopped due to vigilance of the Armed Forces and para-military forces.

In Eastern Ladakh, efforts are being made to resolve the differences on the Line of Actual Control (LAC) through dialogue with China. The process of disengagement has been completed at some places.

The Government of India has always been aware to meet your operational requirements. In the Union Budget for the financial year 2021-22, in a historic effort for modernisation of defence sector Capital Outlay has been increased from Rs 1.13 lakh crore to Rs 1.35 lakh crore which is

18.75 per cent higher than the previous financial year. I want to assure you that the Government will take every step to protect the country.

You may recall that in order to maintain the Operational Edge of the Air Force, the Government of India had signed Government to Government agreement with France for procurement of 36 Rafale fighter aircraft. So far, 26 aircraft have arrived in India. On July 28, the Rafale was formally inducted into 101 squadron at Hashimara Air Force Station of Eastern Air Command. So far, only 101 squadrons have got the distinction of being equipped with Rafale after Air Force Station Ambala, 17 Squadron 'the Golden Arrow'. Soon the remaining Rafale aircraft will also arrive in India which will bring qualitative enhancement in the defence capability of our Air Force.

The Union Cabinet on January 13, 2021 decided to procure indigenous fighter aircraft 83 LCA Tejas MK-1A for the Air Force at the cost of about Rs. 46,000 crore (Rs. 45,696 crore). Light combat Aircraft MK-1A is a fourth-generation state-of-the-art fighter aircraft designed and developed in our own country. Hindustan Aeronautics Limited will manufacture these aircraft in India itself. This is a remarkable example of strengthening the aim of 'Atma Nirbhar Bharat' in the field of defence.

Indigenous Aircraft Carrier IAC Vikrant completed its four days maiden sea voyage on August 08, 2021. Indigenous Aircraft Carrier (IAC) 'Vikrant' designed by Indian Navy's Directorate of Naval Design (DND) is being built at Cochin Shipyard Limited (CSL). Built with more than seventy-six per cent indigenous material, the vessel is a major achievement of 'Atma Nirbhar Bharat' and provides thrust to Indian Navy's 'Make in India' initiatives.

In another important initiative of 'Make in India', Ministry of Defence has launched a project worth over Rs 40,000 crore for construction of six conventional submarines named Project 75 (India) for Indian Navy on July 20, 2021. Request for Proposal for Acquisition Programme (RFP) under Strategic Partnership Model has been issued to the partners selected for the project. These submarines will be very effective in protecting India's strategic interests.

Defence Research and Development Organisation (DRDO) recently successfully demonstrated hypersonic scramjet technology with the testing of Hypersonic Technology Demonstration Vehicle (HSTDV). It also successfully test-fired Agni P and some other missiles.

Defence Research and Development Organisation (DRDO) also launched anti-tank guided missile through man portable launcher. In the meantime, the New Generation Akash (Akash-NG) missile was successfully test fired. The flight test has validated the functioning of complete weapon system consisting of the missile with indigenously developed RF Seeker, Launcher, Multi-Function Radar and Command, Control & Communication system.

Border Roads Organisation personnel have always been working to ensure road connectivity in the inaccessible areas of remote northern and eastern India, but they have contributed yeoman for some time now. The most important example of this is the incredible achievement of building an Atal Tunnel at one of the most difficult terrain of the Pir Panjal ranges of Himachal Pradesh. It was inaugurated by the Hon'ble Prime Minister Shri Narendera Modi on October 03, 2020. The 9.2 kilometre-long tunnel is the longest tunnel in the world constructed at the height of more than 10,000 feet.

The Border Roads Organisation has constructed a 52 kilometres long charcoal road in eastern Ladakh near Umlingla Pass at an altitude of 19,300 feet this month by creating a world record. The temperature in this area usually remains minus 50 degrees and the oxygen level in the body reaches 50 per cent. I congratulate all the colleagues of BRO for this achievement.

Ministry of Defence has decided to set up 100 new Sainik Schools to prepare future generations of versatile brave warriors. All these schools will be co-ed which also benefit the daughters of our country and increase their scholarly participation in the defence of the nation.

Continuous efforts are being made to increase the participation of women in all branches of the Indian Army. In the same route, the first batch of Women Military Police has been inducted into the Indian Army. I extend my best wishes to 83 women soldiers who passed out in May 2021 after 61 weeks of rigorous training.

In the light of the judgement of the Hon'ble Supreme Court, the Government had constituted the Special Number 05 Selection Board in September 2020 for Permanent Commission of women officers. On the recommendation of the Board, Permanent Commission was awarded to some officers in November 2020. The Hon'ble Supreme Court in March 2021 had passed another order for permanent commission to women officers who could due to revised norms. Thereafter, on the recommendation of the Board, 147 more women officers were awarded permanent commission last month. So far, 424 women officers out of 615 have availed this benefit.

Indian Coast Guard has been consistently progressing towards women empowerment and offers equal opportunity to women officers in all spheres. They have been marching shoulder to shoulder with male officers, which include their combat role as Pilots, Observers and Air Cushion Vehicle (Hovercraft) operators.

The officers of the Army's Short-Term Service Commission had been demanding for decades that they too should have the right to exercise their rank when they retired. The Ministry of Defence took a positive decision on the subject. It is expected that this will not only address the grievances of those officers but also inspire the new candidates to join the Short Service Commission.

E-Chhawani Portal has also been launched in February, 2021. This is providing online civic services to 20 lakh residents of 62 Cantonment Boards.

Indian Forces have always been ready to serve in times of natural calamities. Our forces and coast guard with the National Disaster Management Force played an important role in averting loss of life and property during cyclones Niwar, Burevi, Toukate and Yas and monsoon floods in day and night last year.

The main function of our forces is to protect the country from the enemies. But how can our fighters lie in peace when an invisible biological enemy appears under threat to the nation! It is also said that in times of crisis, capable comes forward and protects the society. That is what our forces did. Whether it was Army or Navy, Air Force or Coast Guard, all of them, along with our scientists, doctors, medical personnel and other social workers, efficiently carried out relief and rescue operations, corona vaccination, patient service, and oxygen supply against Corona.

The Armed Forces Medical Service was the first to set up quarantine centres for Indians brought back from Corona affected countries irrespective of the safety of its officers and personnel. Despite the spread of the epidemic, the armed forces have firmly adhered to epidemic control measures and maintained high fighting capacity against the epidemic in the military forces. During the time when the Galwan Valley was in the national media news, the forces peacefully extended a helping hand to the civilians and showed solidarity in the central government's fight against covid-19. The soldiers posted at the forward posts on the remote borders of the country were vaccinated so that they could be prepared to deal with the enemy at any time.

During the second wave of Corona, all the wings of Ministry Defence established covid care hospitals. To address the shortage of oxygen in the medical system, 935 medical oxygen plants based on technology of DRDO are being set up in every district hospital funded by PM Care across the country.

DRDO got a major breakthrough in finding medicine for Covid treatment. Institute of Nuclear Medicine & Allied Sciences (INMAS) in collaboration with Dr Reddy's Laboratories (DRL), Hyderabad developed a medical application of a drug called 2-Deoxy-D-Glucose (2-DG) for the treatment of Covid-19 patients which has been very effective. Today we are at a turning point in fight with corona. I am confident that the victory will be ours.

We want that the next generation should be familiar with the valour of our soldiers. The National Cadet Corps (NCC) has contributed immensely to value-based character-building including discipline among the youths. We strived to take NCC to all corners of the country. In the last one and a half years, three lakh NCC vacancies have been released out of which one lakh vacancies each are for border & coastal areas, senior and junior divisions. Information Technology

has been made part of the training system for making the NCC curriculum even more modern for the benefit of our youth.

Dear soldiers, the dimensions of security are constantly changing in the evolving environment. Therefore, I call upon you to be prepared for any challenge that may come at your way. I assure you that the Government is ready and will continue to always meet the needs of you and your loved members.

And finally, with these words, I would request you all to join hands in salutation for the Motherland!

https://pib.gov.in/PressReleasePage.aspx?PRID=1745890

पत्र सूचना कार्यालय
भारत सरकार

रक्षा मंत्रालय

Sat, 14 Aug 2021 7:39PM

स्वतंत्रता दिवस की पूर्व संध्या पर रक्षा मंत्री श्री राजनाथ सिंह द्वारा सैनिक भाइयों एवं बहनों से सम्बोधन

मेरे प्यारे सैनिक भाइयों एवं बहनों,

राष्ट्र आज मध्य रात्रि से स्वतंत्रता के एक महत्वपूर्ण पड़ाव, यानि इसके 75वें वर्ष में प्रवेश कर रहा है। इस अवसर पर देश में चहुंओर उत्सव का वातावरण है। हिमालय की ऊंची चोटियों से लेकर महासागर की गहराइयों तक एवं थार के मरुस्थल से लेकर पूर्वोत्तर के दुरूह जंगलों तक राष्ट्र की रक्षा में तल्लीन थलसेना, नौसेना, वायुसेना एवं तटरक्षक बल के बहादुर सैनिकों एवं सैन्य अधिकारियों को मैं इस ऐतिहासिक क्षण में कृतज्ञ राष्ट्र की ओर से हार्दिक बधाई देता हूं।

हमारी सेना के सूबेदार नीरज चोपड़ा ने टोक्यो ओलंपिक में ट्रैक एवं फील्ड इवेंट की भाला फेंक प्रतियोगिता में देश के लिए सर्वप्रथम स्वर्ण पदक अर्जित कर इस वर्ष के स्वतंत्रता दिवस को और भी आनंददायी बना दिया है। सूबेदार नीरज के साथ-साथ अन्य ओलंपिक पदक विजेता भारतीय खिलाड़ी कल लाल किले पर स्वतंत्रता दिवस समारोह में विशेष रूप से आमंत्रित किए गए हैं। इसके लिए मैं माननीय प्रधानमंत्री श्री नरेंद्र मोदी जी का आभार प्रकट करता हूँ।

मैं इस पावन घड़ी में देश के उन वीर पूर्व सैनिकों को भी स्वतंत्रता दिवस की शुभकामनाएं देता हूं जो राष्ट्र की रक्षा में सदैव तत्पर रहे। और... हमारे वीर सैनिकों के परिजनों को कौन भूल सकता है जिन्होंने अपने सबसे प्रिय युवाओं को राष्ट्र की सेवा में समर्पित किया है।

यह वर्ष इसलिए भी कुछ खास है क्योंकि पचास वर्ष पूर्व 1971 में आपने अपनी वीरता के झंडे गाड़े थे। इस उपलब्धि को भी राष्ट्र आज गर्व से याद करता है।

आज का यह अवसर वीरगति प्राप्त उन सूरमाओं को भी स्मरण करने का है जिन्होंने राष्ट्र की सेवा में अपना सर्वोच्च बलिदान दिया है। मैं उनके परिवारजनों को आश्वासन देता हूं कि हम सब भारतवासी न केवल आपके साथ हैं बल्कि कृतज्ञ राष्ट्र उन्हें सदा याद करता रहेगा। सरकार ने इस वर्ष जनवरी में वीरगति प्राप्त सैनिकों को सदा के लिए अमर करने के लिए गैलंट्री अवार्ड पोर्टल शुरू किया। अनुरोध है कि आप भी इससे जुड़कर माँ भारती के उन महान वीर सपूतों को श्रद्धांजलि अर्पित करें।

प्यारे सैनिकों, भारतवर्ष की सभ्यता प्राचीन काल से ही शांतिप्रिय रही है परंतु शक्ति के बिना शांति संभव भी नहीं है। हमारे यहाँ कहा भी जाता है:

अहिंसा परमोधर्मः धर्महिंसा तथैव च

यदि अहिंसा हमारा परम धर्म है तो राष्ट्र धर्म की रक्षा भी उतना ही प्रासंगिक! अतः देश की रक्षा में हम सदैव कुछ भी कर गुजरने को तैयार रहेंगे, भले ही उसके लिए कोई भी मूल्य चुकाना पड़े!

अत: देश में शांति और समृद्धि बने रहने के लिए आवश्यक है कि आप जल, थल, नभ चाहे जहाँ भी हों, राष्ट्र की रक्षा में सदैव सचेत और सजग रहें। कृतज्ञ राष्ट्र परिवार एवं परिजनों से दूर देश की सेवा में तत्पर आपके इन महान कर्तव्यों की सदैव प्रशंसा करता है।

आज़ादी के इस पावन पर्व के अवसर पर मैं पिछले वर्ष की कुछ प्रमुख घटनाओं एवं निर्णयों को साझा करना चाहता हूँ जो हमारे देश की स्वतन्त्रता को और भी सुदृढ़ करने वाले हैं।

हमारी सजगता एवं अदम्य पराक्रम के कारण गत एक वर्ष में जम्मू एवं काश्मीर में नियंत्रण रेखा पर परिस्थितियां नियंत्रण में रहीं हैं। फरवरी 2021 के बाद युद्ध विराम उल्लंघन भी कम हुआ है। सीमा पार से घुसपैठ पर सेना और सैन्य सुरक्षा बलों की सतर्कता के कारण रोक लगी है।

पूर्वी लद्दाख में वास्तविक नियंत्रण रेखा (LAC) पर चीन के साथ आपसी बातचीत के द्वारा मतभेदों को सुलझाने का प्रयास जारी है। मतभेद वाले कुछ स्थानों पर disengagement की प्रक्रिया सफलता पूर्वक पूरी की जा चुकी है।

भारत सरकार आपकी परिचालन संबंधी आवश्यकताओं (Operational Requirements) की पूर्ति के लिए सदैव सजग है। रक्षा क्षेत्र के आधुनिकीकरण के लिए वित्तीय वर्ष 2021-22 के केंद्रीय बजट में ऐतिहासिक प्रयास करते हुए रक्षा पूंजी परिव्यय (Defence Capital Outlay) 1.13 लाख करोड़ से बढ़ाकर 1.35 लाख करोड़ रुपये कर दिया गया है जो पिछले वित्तीय वर्ष से 18.75 प्रतिशत अधिक है। मैं आपको आश्वस्त करना चाहता हूँ देश की सुरक्षा के लिए सरकार कोई कसर नहीं छोड़ेगी।

आपको स्मरण होगा कि वायु सेना के तीक्ष्ण परिचालन (Operational Edge) को बनाए रखने के लिए भारत सरकार ने 36 राफेल विमानों की खरीद के लिए फ्रांस की सरकार के साथ समझौता किया था। अब तक 26 विमान भारत आ चुके हैं। बीते 28 जुलाई को पूर्वी वायु कमान के हाशिमारा वायु सेना स्टेशन में राफेल को 101 स्क्वाड्रन में औपचारिक रूप से शामिल किया गया है। अब तक, वायु सेना स्टेशन अंबाला, 17 स्क्वाड्रन द गोल्डन एरो के बाद केवल 101 स्क्वाड्रन को ही राफेल से लैस होने का गौरव प्राप्त हुआ है। शीघ्र ही शेष राफेल विमान भी भारत आ जाएंगे जिससे हमारी वायु सेना की रक्षा क्षमता में गुणात्मक वृद्धि होगी।

केंद्रीय मंत्रीमंडल ने 13 जनवरी 2021 को वायु सेना के लिए लगभग 46 हजार करोड़ रुपये की लागत से 83 एलसीए तेजस एमके-वन ए देसी लड़ाकू विमानों की खरीद का निर्णय लिया है। हल्के लड़ाकू विमान एमके-वन ए अपने ही देश में डिज़ाइन और विकसित किये गये चौथी पीढ़ी के अत्याधुनिक लड़ाकू विमान हैं। भारत में ही हिंदुस्तान ऐरोनौटिक्स लिमिटेड इन विमानों का निर्माण करेगा। यह रक्षा के क्षेत्र में आत्मनिर्भर भारत के ध्येय को मजबूत करने का एक उल्लेखनीय उदाहरण है।

स्वदेशी विमानवाहक पोत आईएसी विक्रांत ने 08 अगस्त 2021 को अपनी पहली चार दिवसीय समुद्री यात्रा पूरी की है। नौसेना डिज़ाइन महानिदेशालय के द्वारा इसकी रूपरेखा तैयार की गई एवं निर्माण कार्य कोचीन शिपयार्ड द्वारा किया गया है। छिहत्तर प्रतिशत से अधिक स्वदेशी सामग्री के साथ निर्मित यह पोत 'आत्मनिर्भर भारत' और भारतीय नौसेना की 'मेक इन इंडिया' की एक प्रमुख उपलब्धि है।

'मेक इन इंडिया' की एक और महत्वपूर्ण पहल में रक्षा मंत्रालय ने प्रोजेक्ट 75 (इंडिया) के अंतर्गत 20 जुलाई को छः पारंपरिक पनडुब्बियों के निर्माण के लिए 40,000 करोड़ रुपए से अधिक लागत की परियोजना प्रारम्भ की है। परियोजना के लिए चयनित साझेदारों को रणनीतिक साझेदारी मॉडल के तहत अधिग्रहण कार्यक्रम के लिए आरएफपी जारी किया है। ये पनडुब्बियां भारत के सामरिक हितों की रक्षा में काफी कारगर सिद्ध होंगी।

रक्षा अनुसंधान एवं विकास संगठन (डीआरडीओ) ने हाल ही में हाइपरसोनिक टेक्नोलॉजी डेमोस्ट्रेशन व्हीकल (एचएसटीडीवी) के परीक्षण के साथ हाइपरसोनिक स्क्रैमजेट प्रौद्योगिकी का सफल प्रदर्शन किया। साथ ही, परमाणु क्षमता वाली नई पीढ़ी की बैलिस्टिक मिसाइल अग्नि पी और अन्य कई मिसाइलों का सफल परीक्षण भी किया।

इसी बीच डीआरडीओ ने मैन पोर्टेबल लांचर के माध्यम से एंटीटैंक गाइडेड मिसाइल (एमपीएटीजीएम) भी लांच किया। नई पीढ़ी आकाश (आकाश-एनजी) मिसाइल का भी सफल परीक्षण इस बीच किया गया है। इस उड़ान परीक्षण से स्वदेश में विकसित आरएफ सीकर, लांचर, मल्टी-फंक्शन रडार और कमांड के साथ साथ मिसाइल से नियंत्रण और संचार प्रणाली के तारतम्य के आधार पर सम्पूर्ण आयुध प्रणाली का परीक्षण सफल हुआ है।

सुदूर उत्तर और पूर्वी भारत के दुर्गम क्षेत्रों में सड़क सम्पर्क सुनिश्चित करने के लिए सीमा सड़क संगठन के कार्मिक सदा प्रयत्नशील रहे हैं किंतु पिछले कुछ समय से उन्होंने भागीरथ योगदान किया है। इसका सबसे महत्वपूर्ण उदाहरण हिमाचल प्रदेश के पीर पंजाल पर्वतमाला के दुर्गम क्षेत्र में अटल सुरंग का निर्माण है। इस सुरंग का उद्घाटन आदरणीय प्रधानमंत्री श्री नरेन्द्र मोदी ने 03 अक्तूबर 2020 को किया था। 9.2 किलोमीटर लंबी यह सुरंग 10 हज़ार फीट से अधिक ऊंचाई पर दुनिया की सबसे लंबी सुरंग है।

सीमा सड़क संगठन ने इसी महीने 19 हजार 300 फीट ऊंचाई पर उर्मलिंगला दर्रे के पास पूर्वी लद्दाख में तारकोल की 52 किलोमीटर लंबी सड़क बनायी है जो एक विश्व कीर्तिमान है। इस क्षेत्र में तापमान प्राय: शून्य से 50 डिग्री कम रहता है और शरीर में ऑक्सीजन का स्तर 50 प्रतिशत तक पहुंच जाता है। मैं इस उपलब्धि के लिए सीमा सड़क संगठन के सभी साथियों को हार्दिक बधाई देता हूं।

प्रतिभाशाली वीर योद्धाओं की भावी पीढी तैयार करने के लिए रक्षा मंत्रालय ने 100 नये सैनिक स्कूल स्थापित करने का निर्णय लिया है। ये सारे स्कूल सह-शिक्षा वाले होंगे जिससे हमारे देश की बेटियों को भी लाभ होगा और राष्ट्र की रक्षा में उनकी तत्पर भागीदारी बढ़ेगी।

भारतीय सेना की सभी शाखाओं में महिलाओं की भागीदारी बढाने के लिए लगातार प्रयास किए जा रहे हैं। इसी क्रम में महिला सैन्य पुलिस के पहले बैच को भारतीय सेना में शामिल किया गया है। मई 2021 में 61 सप्ताह के कड़े प्रशिक्षण के पश्चात उत्तीर्ण हुई 83 महिला सैनिकों को मैं इस अवसर पर विशेष शुभकामनाएं देता हूं।

आदरणीय सर्वोच्च न्यायालय के निर्णय के आलोक में महिला अधिकारियों के स्थायी कमीशन के लिए सरकार ने सितम्बर 2020 में स्पेशल नम्बर 05 सेलेक्शन बोर्ड गठित किया था। बोर्ड की अनुशंसा पर नवंबर 2020 में कुछ अधिकारियों को स्थायी कमीशन प्रदान किया गया। आदरणीय सर्वोच्च न्यायालय ने मार्च 2021 में एक और आदेश देकर उन महिला अधिकारियों को भी स्थायी सेवा बहाल करने को कहा था जिन्हें पुनरीक्षित मानकों के कारण स्थायी कमीशन दिया नहीं जा सका था। तत्पश्चात बोर्ड की अनुशंसा पर गत माह 147 और महिला अधिकारियों को स्थायी कमीशन दिया गया। अब तक 615 में 424 महिला अधिकारी यह लाभ प्राप्त कर चुकी हैं।

भारतीय तटरक्षक बल भी महिला सशक्तीकरण की दिशा में लगातार प्रगति कर रहा है और सभी क्षेत्रों में महिला अधिकारियों को समान अवसर प्रदान करता है। वे पुरुष अधिकारियों के साथ कंधे से कंधा मिलाकर चलती हैं, जिसमें पायलटों, पर्यवेक्षकों और एयर कुशन व्हीकल (होवरक्राफ्ट) ऑपरेटरों के रूप में लड़ाकू भूमिका शामिल है।

सेना के अल्पकालिक सेवा कमीशन के अधिकारियों की दशकों से यह मांग थी कि सेवानिवृत्त होने पर उन्हें भी अपने रैंक के प्रयोग का अधिकार हो। रक्षा मंत्रालय ने इस विषय पर सकारात्मक निर्णय लिया। आशा है कि इससे न केवल उन अधिकारियों की शिकायतें दूर होंगी वरन् नए अभ्यर्थियों को अल्प सेवा कमीशन में आने की प्रेरणा प्राप्त होगी।

फरवरी 2021 में ई-छावनी पोर्टल का भी आरम्भ किया गया है। इससे 62 छावनी बोर्डों के 20 लाख निवासियों को ऑनलाइन नागरिक सेवाएं प्राप्त हो रही हैं।

प्राकृतिक आपदाओं के समय भारतीय सेनाएं सदैव सेवा के लिए तत्पर रही हैं। गत वर्ष निवार, बुरेवी, तौकाते और यास जैसे चक्रवातों तथा मानसूनी बाढ़ के दौरान हमारी सेनाओं और तटरक्षक बल ने राष्ट्रीय आपदा प्रबंधन बल के साथ दिन-रात एक कर जान-माल के नुकसान को टालने में अहम भूमिका निभायी।

हमारी सेनाओं का मुख्य कार्य शत्रुओं से देश की रक्षा करना है। परंतु, जब कोई अदृश्य जैविक शत्रु राष्ट्र पर संकट बनकर आए तो हमारे सेनानी शांति से बैठे कैसे रह सकते हैं! कहा भी जाता है कि संकट के समय सामर्थ्य आगे आकर समाज की रक्षा करते हैं। यही हमारी सेनाओं ने किया। हमारी सेनाओं ने, चाहे थलसेना हो या जलसेना, वायुसेना या फिर तटरक्षक, सबने कोरोना के विरुद्ध हमारे वैज्ञानिकों, चिकित्सकों, चिकित्साकर्मियों एवं समाज के अन्य कर्मयोगियों के साथ मिलकर राहत एवं बचाव कार्य, कोरोना टीकाकरण, रोगियों की सेवा, एवं ऑक्सीजन आपूर्ति जैसे कार्यों को कुशलता से पूरा किया है।

सशस्त्र सेना चिकित्सा सेवा ने अपने अधिकारियों और कार्मिकों की सुरक्षा की परवाह न करते हुए कोराना प्रभावित देशों से भारतीयों को वापस लाने के लिए सबसे पहले क्वारंटीन सेंटर स्थापित किए। महामारी के प्रसार के बावजूद, सशस्त्र बलों ने महामारी नियंत्रक उपायों का दृढ़ता से पालन किया है और सैन्य बलों में महामारी से लड़ने की क्षमता उच्च स्तर पर बनाए रखा है। जिस दौरान गलवान घाटी राष्ट्रीय मीडिया सुर्खियों में था, उस समय सेनाओं ने शांतिपूर्वक नागरिकों की ओर सहायता का हाथ बढ़ाया और कोविड-19 के विरुद्ध केंद्र सरकार की लड़ाई में एकजुटता दिखाई। देश की सुदूरवर्ती सीमाओं पर अग्रिम चौकी पर तैनात सैनिकों का टीकाकरण किया गया, ताकि वे किसी भी समय शत्रु से निपटने के लिए तैयार रहें।

कोरोना की दूसरी लहर के दौरान, रक्षा मंत्रालय के सभी अंगों ने मिलकर देश में विभिन्न स्थानों पर कोविड केयर अस्पतालों को खड़ा किया। चिकित्सा तंत्र में ऑक्सीजन की कमी दूर करने के लिए भारतीय वायुसेना ने ऑक्सीजन सिलिंडरों एवं टैंकरों का परिवहन किया। पीएम केयर द्वारा वित्त पोषित व डीआरडीओ की प्रौद्योगिकी पर आधारित 935 मेडिकल ऑक्सीजन संयंत्रों की स्थापना की जा रही है।

डीआरडीओ को एक बड़ी सफलता कोविड उपचार के लिए दवा खोजने में मिली। डीआरडीओ की प्रयोगशाला इंस्टीट्यूट ऑफ न्यूक्लियर मेडिसिन एंड एलाइड साइंसेज ने कोविड-19 के रोगियों के उपचार के लिए डॉ. रेड्डीज लेबोरेटरीज, हैदराबाद के सहयोग से टू-डिऑक्सी-डी-ग्लूकोज (2-डीजी) नामक दवा का चिकित्सकीय अनुप्रयोग विकसित किया जो काफी प्रभावी रही है। आज हम कोरोना से लड़ाई में निर्णायक मोड़ पर हैं। मुझे पूर्ण विश्वास है कि कोरोना से युद्ध में अंततः जीत हमारी होगी।

हम चाहते हैं कि अगली पीढ़ी हमारे सैनिकों की वीरता से परिचित हो। युवाओं में अनुशासन सहित मूल्य आधारित चरित्र निर्माण में नेशनल कैडेट कोर (एनसीसी) का बड़ा योगदान रहा है। अतः हमने प्रयास

किया है कि एनसीसी को देश के कोने-कोने तक पहुंचाया जाए। पिछले डेढ़ वर्ष में तीन लाख एनसीसी वेकेंसी रीलीज की गयी हैं जिनमें एक-एक लाख वेकेंसी सीमावर्ती व तटीय क्षेत्रों, सीनियर और जूनियर डिवीजन के लिए हैं। एनसीसी के पाठ्यक्रम को और भी आधुनिक बनाकर सूचना प्रौद्योगिकी को ट्रेनिंग शैली का अंग बनाया गया है जिससे हमारे युवा अधिक से अधिक लाभान्वित हो सकें।

प्यारे सैनिकों, बदलते परिवेश में सुरक्षा के आयाम बदल रहे हैं। अतः आपसे अनुरोध है कि आने वाले किसी भी चुनौती के लिए स्वयं को तैयार रखें। मैं आपको आश्वासन देता हूँ कि सरकार आपकी और आपके परिजनों की आवश्यकताओं को पूर्ण करने के लिए सदैव तत्पर है और आगे भी रहेगी। अंत में, इन्हीं शब्दों के साथ मैं आपसे अनुरोध करुंगा कि हम सब मिलकर करें राष्ट्र का अभिनंदन!

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Ministry of Defence

Fri, 13 Aug 2021 4:08PM

Raksha Mantri Shri Rajnath Singh flags off nationwide events as part of 'Azadi ka Amrit Mahotsav'

Highlights of Shri Rajnath Singh's address:

- ***Events to instill sense of national pride among people***
- ***India is a peace-loving nation but fully capable of giving a befitting reply if challenged***
- ***Government aims to develop a powerful & self-reliant India***
- ***Dependency on arms imports has decreased due to measures taken by the Government***

Raksha Mantri Shri Rajnath Singh virtually launched from New Delhi on August 13, 2021 a series of major events, organised by the Armed Forces & various other organisations of Ministry of Defence, to mark the 75th anniversary of India's Independence, being celebrated as 'Azadi Ka Amrit Mahotsav'. Addressing the gathering, Shri Rajnath Singh congratulated the Ministry & the Armed Forces for organising various events across the country which will instill a sense of national pride among the people. He stated that events represent the Indian ethos of 'unity in diversity'.

Shri Rajnath Singh paid homage to all the bravehearts who laid down their lives and defended the sovereignty & integrity of the country. Remembering Captain Vikram Batra who made the supreme sacrifice during the Kargil war, the Raksha Mantri said the bravery and deep-rooted passion of the gallant heroes will always be an inspiration for generations to come.

The Raksha Mantri also threw light on the five pillars (*Freedom Struggle, Ideas at 75, Achievements at 75, Actions at 75 and Resolves at 75*) envisioned by Prime Minister Shri Narendra Modi when he had kicked off the 'Azadi Ka Amrit Mahotsav' celebrations in March 2021. He stated that the five pillars will act as a guiding force for the country to move forward in the path of development.

Echoing the Government's resolve, Shri Rajnath Singh stated "we aim to develop a powerful & self-reliant Bharat which is peace-loving but fully capable of giving a befitting reply whenever challenged". He assured the nation that the Armed Forces are fully equipped to deal with any challenge that endangers the safety, security, unity and integrity of the nation. He said the decisions aimed to promote jointness among the Armed Forces will play a pivotal role in bolstering the security infrastructure of the country.

Reiterating the Government's action plan to make India 'AatmaNirbhar', the Raksha Mantri said no stone is being left unturned to make the country self-reliant in defence manufacturing. He said the country's dependency on imports has decreased considerably due to measures taken by the Government, including notifying two positive indigenisation lists to promote self-reliance and defence exports. He also made special mention of Indigenous Aircraft Carrier (IAC) Vikrant, the first aircraft carrier to be built in India, saying that it was a moment of immense pride for the entire nation when the aircraft carrier undertook its maiden sea voyage recently.

Shri Rajnath Singh lauded the Armed Forces and different organisations of Ministry of Defence for providing continuous support to the civil administration in the fight against COVID-19. He highlighted the crucial role played by Defence Research and Development Organisation (DRDO) in setting up COVID care hospitals across the country and developing anti-COVID drug '2-DG'. He also commended the Armed Forces for providing logistic support to civil authorities to meet the oxygen requirement.

The Raksha Mantri also congratulated the Indian contingent for its excellent performance in the recently concluded Tokyo Olympics, especially Subedar Neeraj Chopra who bagged India's only Gold of the Games in Javelin Throw.

Speaking on the occasion, Chief of Defence Staff General Bipin Rawat remembered Mahatma Gandhi and Netaji Subhas Chandra Bose for their leadership role in India's Independence movement. Saying that the Armed Forces are ready to deal with any challenge, he stated that the efforts taken to increase jointness among the forces will enhance their capabilities.

In his welcome address, Defence Secretary Dr Ajay Kumar gave a brief overview of the various events launched on the occasion, saying that these are aimed at inculcating a sense of patriotism among the people on the 75th anniversary of Independence Day.

The events inaugurated by the Raksha Mantri are as follows:

- **Hoisting of National Flag at 75 Passes/Places**: 75 teams of Border Roads Organisation (BRO) departed to unfurl the National Flag at 75 Important Passes and Places in the country. The most prominent among them is 'Umlingla Pass', which is the Highest Motorable Road in the World at 19,300 feet, in Eastern Ladakh. The national tri-colour will also be unfurled at prominent infrastructure landmarks like Atal Tunnel, Rohtang and Dhola Sadiya Bridge in the Northeast, besides in friendly foreign countries.
- **Hoisting of National Flag in Islands**: The Raksha Mantri launched proceedings for unfurling of National Flag at 100 islands Pan-India by Indian Coast Guard on August 15, 2021.
- **Army Expedition**: The Raksha Mantri flagged off the expedition of Indian Army teams which will scale 75 mountain passes to mark this momentous occasion. The passes include Saserla Pass in Ladakh region, Stakpochan Pass in Kargil region, Satopanth, Harshil, Uttarakhand, Phim Karnla, Sikkim and Point 4493, Tawang region of Arunachal Pradesh.
- **Cleaning of statues**: To pay homage to the freedom fighters and the bravehearts of the country, Shri Rajnath Singh launched a Pan-India event, 'Swatantra Senaniyon ko Naman', organised National Cadet Corps (NCC). On the occasion, the NCC cadets carried out cleaning and maintenance of 825 statues adopted by 825 NCC Battalions.
- **Gallantrypedia module for Gallantry awards portal**: A Gallantrypedia module of Awardees' has been launched (https://www.gallantryawards.gov.in/) to honour the Gallantry awardees and motivate people, especially the youth, to interact with the portal. People will now be able to share their own content about the awardees which would help in making the portal more engaging, dynamic and informative.

- **Book on 'Deeds of Gallantry'**: A book 'Deeds of Gallantry', commemorating India's victory in the 1971 war, was unveiled by the Raksha Mantri. The book details 20 selected battles and highlights the valour of Indian soldiers.
- **Defence Exports**: To showcase and expand the defence export capabilities, Shri Rajnath Singh launched 'Off the Shelf' Export Ready Defence Products Portfolio beginning with Fast Interceptor Boat by Goa Shipyard Limited (GSL); a Transducer Manufacturing & Production facility developed by Bharat Electronics Limited (BEL) to cater to the production of wide range of Transducers & underwater equipment and oxygen concentrator developed by BEL.
- **Jan Sampark Abhiyan**: Jan Sampark Abhiyan for the Ex-servicemen has been launched wherein a representative each of the respective Zila Sainik Board along with a representative of Indian Ex-Servicemen League, a recognised ESM association, will interact simultaneously with the ESM fraternity in 75 districts across the country. On the occasion, Shri Rajnath Singh virtually interacted with ex-servicemen in different states who shared their views on some issues faced by the veterans. The Raksha Mantri urged the ex-servicemen to give suggestions to the Ministry on the issues faced by them, stating that all efforts will be made to resolve them in a time-bound manner.
- **Rejuvenation of water bodies**: Underlining the importance of water conservation, Shri Rajnath Singh flagged-off activities for rejuvenation of 75 water bodies across 62 Cantonments. He inaugurated the work on the Patel Park Lake in Ambala Cantt.
- **DRDO Scientists**: The Raksha Mantri also flagged off a team of DRDO scientists to border area villages to celebrate Independence Day.

Chief of the Army Staff General MM Naravane, Chief of the Naval Staff Admiral Karambir Singh, Chief of the Air Staff Air Chief Marshal RKS Bhadauria, Secretary (Defence Production) Shri Raj Kumar, Secretary (Ex-servicemen Welfare) Shri B Anand, Secretary, Department of Defence R&D and Chairman, DRDO Dr G Satheesh Reddy, Financial Advisor (Defence Services) Shri Sanjiv Mittal, DG Indian Coast Guard Shri K Natarajan, DG National Cadet Corps Lieutenant General Tarun Kumar Aich, DG Border Roads Organisation Lt Gen Rajeev Chaudhary and other senior civil & military officials of Ministry of Defence were present on the occasion.

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Press Information Bureau
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Ministry of Defence

Sun, 15 Aug 2021 9:00AM

President Confers Shaurya Chakra on Wing Commander Varun Singh (27987) Flying (Pilot)

Wing Commander Varun Singh (27987) Flying (Pilot) is a pilot in a Light Combat Aircraft (LCA) Squadron.

On 12 Oct 20, he was flying a system check sortie in LCA, away from parent base, after major rectification of Flight Control System (FCS) and pressurisation system (life support environment control system).

During the sortie, the cockpit pressurisation failed at high altitude. He correctly identified the failure and initiated a descent to lower altitude for landing. While descending, the Flight Control System failed and led to total loss of control of the aircraft. This was an unprecedented catastrophic failure that had never occurred. There was a rapid loss of altitude while in usual attitude, with the aircraft pitching up and down viciously going to the extremities of G limits. Despite being in extreme physical and mental stress in an extreme life-threatening situation, he maintained exemplary composure and regained control of the aircraft, thereby exhibiting exceptional flying skill. Soon thereafter, at about 10,000 feet, the aircraft again experienced total loss of control with vicious manoeuvring and uncontrollable pitching. Under such a scenario, the pilot was at liberty to abandon aircraft. Faced with a potential hazard to his own life, he displayed extraordinary courage and skill to safely land the fighter aircraft. The pilot went beyond the call of duty and landed the aircraft taking calculated risks. This allowed an accurate analysis of the fault on the indigenously designed fighter and further institution of preventive measures against recurrence. Due to his high order of professionalism, composure and quick decision making, even at the peril to his life, he not only averted the loss of an LCA, but also safeguarded civilian property and population on ground.

For this act of exceptional gallantry, Wg Cdr Varun Singh is conferred with the Shaurya Chakra.

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Press Information Bureau
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Ministry of Defence

Sun, 15 Aug 2021 9:00AM

राष्ट्रपति ने विंग कमांडर वरुण सिंह (27987) फ्लाइंग (पायलट) को शौर्य चक्र प्रदान किया

विंग कमांडर वरुण सिंह (27987) फ्लाइंग (पायलट) एक हल्के लड़ाकू विमान (एलसीए) स्क्वाड्रन में पायलट हैं।

12 अक्टूबर 2020 को वरुण लाइट कॉम्बैट एयरक्राफ्ट के साथ उड़ान पर थे। वह अपने मूल बेस से दूर थे तभी फ्लाइट कंट्रोल सिस्टम (एफसीएस) और प्रेशराइजेशन सिस्टम (लाइफ सपोर्ट एनवायरनमेंट कंट्रोल सिस्टम) में खराबी आ गई।

उड़ान के दौरान, ऊंचाई पर पहुंचने पर उन्हें कॉकपिट में खराबी का पता चला। उन्होंने विमान में आई खराबी को सही तरीके से पहचान की और लैंडिंग के लिए कम ऊंचाई पर उतरने का फैसला किया। विमान को ऊंचाई से नीचे लाते समय फ्लाइट कंट्रोल सिस्टम (एफसीएस) पूरी से ठप हो गया जिससे उनका विमान पर नियंत्रण पूरी तरह से समाप्त हो गया। यह एक अभूतपूर्व खराबी थी जो पहले कभी नहीं हुई थी। एफसीएस में खराबी आने से विमान तेजी से नीचे आ गया, जबकि सामान्य हालात में ऐसा नहीं होता है। इस विकट स्थिति में भारी जान-माल के नुकसान होने की आंशका के चलते अत्यधिक शारीरिक और मानसिक तनाव में होने के बावजूद, उन्होंने अनुकरणीय संयम बनाए रखा और विमान पर फिर से नियंत्रण हासिल कर लिया। इस तरह उन्होंने असाधारण उड़ान कौशल का प्रदर्शन किया। हालांकि, इसके तुरंत बाद, लगभग 10,000 फीट पर, विमान का फ्लाइट कंट्रोल सिस्टम फिर से काम करना बंद कर दिया और विमान फिर से कंट्रोल से बाहर हो गया। आमतौर पर ऐसी स्थिति में पायलट अपनी जान बचाने के लिए विमान से कूद जाते हैं लेकिन वरुण ने ऐसा नहीं किया। उन्होंने अपनी जिंदगी को दाव लगाकर उस संकट के समय को सामना करते हुए, उन्होंने लड़ाकू विमान को सुरक्षित रूप से उतारने के लिए असाधारण साहस और कौशल का प्रदर्शन किया। उन्होंने पायलट ड्यूटी से हटकर अपना जीवन की परवाह नहीं करते हुए विमान को सफलता पूर्वक लैंड कराया। इससे सेना के लिए स्वेदशी रूप से डिजाइन किए गए लड़ाकू विमान में अचानक आई खराबी की जांच एवं रिसर्च करने का अवसर भी मिल गया है।

वरुण ने बेहतरीन कौशल, संयम और त्वरित निर्णय लेकर, यहां तक कि अपने जीवन को जोखिम में डालकर, उन्होंने न केवल एक एलसीए के नुकसान को टाला, बल्कि नागरिक संपत्ति और जमीन पर भारी आबादी की रक्षा भी की।

असाधारण वीरता के इस कार्य के लिए विंग कमांडर वरुण सिंह को शौर्य चक्र से सम्मानित किया जाता है।

https://pib.gov.in/PressReleasePage.aspx?PRID=1746047

ANI
South Asia's Leading Multimedia News Agency

Mon, 16 Aug 2021

DRDO's Counter Drone Technology installed to monitor Red Fort on Independence Day

By Nishant Ketu

New Delhi [India], August 15 (ANI): Adding to the security measures taken as part of India's Independence Day Celebrations on Sunday, a Counter Drone Technology developed by the Defence Research and Development Organisation (DRDO) was installed to monitor the Red Fort and its surrounding area.

The system, installed to monitor the Red Fort and its surrounding area, has the ability to detect and deactivate drones of any size within a radius of 4 kilometres.

Sharing detailed information about the creation of this technology, DRDO scientist Bharat Bhushan Kataria said that 'this technology is the result of the thinking of Dr Satheesh Reddy, Chairman of DRDO.

"It was he who started the effort towards developing such technology. Mainly based on D4 technology that is Drone, Detect, Deter and Destroy, this system has been jointly made by four labs of DRDO, LRDE, IRDE, DLRL, and CHESSS under the leadership of Dr Chandrika Kaushik," said Kataria.

"Its radar covers an area of 360 degrees up to 4 kilometres. It has a high-resolution camera, through which we see the object. This system is effective on all types of drones. It takes only 15 to 20 seconds to disable any drone in any way. This technology was developed as an anti-missile defence system. The laser beam in it moves at the speed of light. Keeping this in view, as soon as we see an object, it takes only a few seconds to destroy it with a laser beam at this speed. It can remain in operation 24*7," he added.

It is worth noting that for some time there has been a steady increase in the incidents of drone strikes or infiltration by anti-national forces in an area. In such a situation, the challenges before the security agencies have increased manifold. In view of this, this technology is very important.

Giving information about the operation of this technology, Colonel Abhishek Srivastava, Additional Director, DRDO said, "This Counter Drone Technology which has been developed by DRDO has 4 parts. It has a radar that can locate any micro drone from 4 kilometres. The nano drones that are there can detect them with a radius of 2 kilometres. After that, it has Radio Frequency Jammer and GNSS Jammer. The third part is the system of laser-based articles. The fourth part is an integrated system of softkill and hardkill."

"If an article is aiming at you and if your radar is on, the radar can catch even the smallest of particles. After this, it hands over the target to the integrated system. In this way, if you have seen a target, you can confirm it and neutralize it. Because its control command link RF Based it will be useless. The battery will run out. It also has a GPS jammer, so that it gets lost," he added.

Colonel Srivastava further said, "There are many big radars, which have the ability to track objects up to 100 kilometres, 150 kilometres, 300-500 kilometres. But, with those radars, you cannot track small objects. We developed its radar, jammer in such a way that even the smallest of particles can be detected. Its accuracy is 100 per cent."

This is the fourth time that Counter Drone Technology has been used to make the security system tighter.

"Earlier it was used in Ahmedabad during the visit of then US President Donald Trump to India last year, followed by Independence Day last year and also during this year's Republic Day celebrations. It has certainly helped in dealing with any conspiracy to sabotage the security system through nano or micro-drones," said Srivastava. (ANI)

https://www.aninews.in/news/national/general-news/drdos-counter-drone-technology-installed-to-monitor-red-fort-on-independence-day20210815175656/

R. REPUBLICWORLD.COM

Mon, 16 Aug 2021

DRDO's anti-drone system deployed near Red Fort on Independence Day as 'security measure'

Defence Research and Development Organisation's anti-drone system was deployed near the Red Fort on Independence Day as part of security measure

By Vishnu VV

Adding to the security measures taken as part of India's Independence Day celebrations on Sunday, August 15, an anti-drone system developed by the Defence Research and Development Organisation (DRDO) was deployed near the Red Fort. The anti-drone system capable of detecting and jamming micro drones was brought in to provide protection against any drone activity in the region. Apart from the anti-drone system, a multi-layered security cover was also put in place to secure the historic Red Fort.

IMAGE: ANI

DRDO's anti-drone system gained importance as a recent terror attack at IAF station in Jammu airport was done majorly using drones. Around 5,000 security personnel were deployed around the Red Fort. The multi-layered security ring, including NSG snipers, elite SWAT commandos, kite catchers, canine units, and sharpshooters on high-rise buildings, was placed adhering to social distancing norms. Over 70 police vehicles including PCR vans, 'PRAKHAR' vans and QRT (Quick Reaction Team) vans were also stationed in the area, which was put under strict patrol by the Delhi police. Security at the Delhi borders had also been tightened in view of the event.

Security boosts ahead of Independence Day

Ahead of the Independence Day celebrations, the Delhi Police last week strengthened the security in Delhi-NCR with multi-layered arrangements. The security was tightened to avoid any untoward incidents. Under the tightened security measures, posters of the most wanted terrorists were also put up at various places to aware people. The police had earlier informed that training to tackle any unfriendly object and counter the anti-drone challenge were given to the staff members. Earlier, the Archaeological Survey of India (ASI) had also closed entry to the Red Fort from July 21 to August 15 till the Independence Day celebrations are over. In its order, the ASI declared that the Red Fort will remain shut for public tourism due to the COVID-19 pandemic and security reasons.

PM's I-Day speech

In his speech marking the 74 years of Indian Independence, PM Narendra Modi charted India's future for the next 25 years, coining the term Sabka Saath, Sabka Vikas, Sabka Vishwas & Sabka Prayas to achieve a glorious India. Listing the government schemes focusing on OBCs, farmers, women and the poor, he made several key announcements - opening up Sainik schools for women, national Infrastructure plan, Gati Shakti scheme, National Hydrogen mission. The PM also paid tributes to freedom struggle martyrs, partition victims and lauded the Indian Olympians and medical fraternity in his 1.5 hour-long address.

https://www.republicworld.com/amp/india-news/general-news/drdos-anti-drone-system-deployed-near-red-fort-on-independence-day-as-security-measure.html

अमर उजाला

Sat, 14 Aug 2021

हिमाचल: क्यों दरक रहे पहाड़, डीजीआरई और सीडब्ल्यूसी के वैज्ञानिक करेंगे अध्ययन

By अशोक राणा

सार

इस तरह के प्राकृतिक आपदाओं के पीछे के कारणों की तह तक जाने के लिए केंद्रीय जल आयोग के वैज्ञानिक लाहौल पहुंच रहे हैं। जबकि, डीआरडीओ के डिफेंस जियोइंफोर्मेटिक्स रिसर्च इस्टेब्लिशमेंट (डीजीआरई) के वैज्ञानिकों की टीम पहाड़ दरकने के कारणों को जानने के लिए शुक्रवार को ही लाहौल पहुंच गई है।

विस्तार

केलांग (लाहौल-स्पीति): हिमाचल में लगातार पहाड़ों के दरकने की घटनाओं के बाद राज्य सरकार भी अलर्ट हो गई है। किन्नौर, चंबा और सिरमौर में पहाड़ दरकने के बाद शुक्रवार को अचानक पीर पंजाल की पहाड़ी से एक हिस्सा ढह कर चंद्रभागा नदी में जा गिरा। इस तरह के प्राकृतिक आपदाओं के पीछे के कारणों की तह तक जाने के लिए केंद्रीय जल आयोग के वैज्ञानिक लाहौल पहुंच रहे हैं। जबकि, डीआरडीओ के डिफेंस जियोइंफोर्मेटिक्स रिसर्च इस्टेब्लिशमेंट (डीजीआरई) के वैज्ञानिकों की टीम पहाड़ दरकने के कारणों को जानने के लिए शुक्रवार को ही लाहौल पहुंच गई है। ये वैज्ञानिक जियोइंफोर्मेटिक्स उपकरणों की मदद से इलाके की टोपोग्राफी और अन्य भू-गर्वीय पहलुओं पर रिसर्च करेंगे।

इस अध्ययन की मदद से भविष्य में आने वाली प्राकृतिक विपदा को पहले की जान सकेंगे। विशेषज्ञ वैज्ञानिकों की टीम लाहौल के अलावा किन्नौर, मंडी और चंबा में भी इस तरह के अध्ययन करेगी। प्रदेश के मुख्य सचिव राम सुभग सिंह ने कहा कि वैज्ञानिक चंद्रभागा नदी के तट से लगते कई किलोमीटर तक फैली पीरपंजाल रेंज के साथ ग्रेटर हिमालय के पहाड़ों पर भी अध्ययन करेंगे। वैज्ञानिक भू-गर्वीय हलचल की जानकारी हासिल करेंगे। वहीं, केंद्रीय जल आयोग के वैज्ञानिक चंद्रभागा नदी के बहाव से पहाड़ों की तलहटी पर पड़ने वाले प्रभाव के साथ नदी में पिछले कई सालों के पानी के स्तर का तुलनात्मक अध्ययन करेंगे।

https://www.amarujala.com/shimla/landslide-himachal-why-the-mountains-are-cracking-scientists-of-dgre-and-cwc-will-study

जागरण

Sat, 14 Aug 2021

भू-स्खलन की घटनाओं से राष्ट्रीय राजमार्गो की सुरक्षा की चिंता बढ़ी, बचाव का उपाय बताने के लिए गठित होगी समिति

By Arun Kumar Singh, नीलू रंजन

नई दिल्ली: हिमालयी क्षेत्र में भू-स्खलन की बढ़ती घटनाओं से राष्ट्रीय राजमार्गो की सुरक्षा को लेकर चिंता बढ़ गई है। राष्ट्रीय राजमार्गों को सुरक्षित करने का सुझाव देने के लिए केंद्रीय सड़क परिवहन व राजमार्ग मंत्रालय ने विशेषज्ञों की एक समिति के गठन का फैसला किया है। भू-स्खलन से राजमार्गो को सुरक्षित करने के लिए अलग से तीन से चार हजार करोड़ रुपये का प्रविधान भी किया गया है।

राजमार्गो को भू-स्खलन से बचाने का उपाय बताने को गठित होगी समिति

सड़क परिवहन और राजमार्ग मंत्रालय के एक वरिष्ठ अधिकारी ने कहा कि हिमालय क्षेत्र के सीमावर्ती इलाकों में तेजी से सड़क निर्माण का काम हो रहा है। इनमें चार धाम प्रोजेक्ट भी शामिल है। वैसे तो इन सभी सड़कों के निर्माण में भू-स्खलन रोधी तकनीक का इस्तेमाल किया जा रहा है और इसमें जियोलाजिकल सर्वे आफ इंडिया और टिहरी हाइड्रोइलेक्ट्रिकडेवलपमेंट कारपोरेशन की मदद भी ली जा रही है। जिओलाजिकल सर्वे आफ इंडिया के साथ मंत्रालय ने एमओयू भी किया है।

भू-स्खलन से सड़क का बड़ा हिस्सा गायब होने से चिंता बढ़ी

रास्ते में पड़ने वाले पहाड़ों की प्रकृति और स्थायित्व पर यह अपनी विस्तृत रिपोर्ट देता है। लेकिन हिमाचल प्रदेश में हाल के दिनों में जिस तरह पहाड़ खिसकने की घटनाएं सामने आई हैं, जिसमें सड़क का बड़ा हिस्सा ही गायब हो गया, उससे चिंता बढ़ गई है। एक वरिष्ठ अधिकारी ने कहा कि जल्द ही विशेषज्ञों की समिति का गठन कर दिया जाएगा, जो मौजूदा पहाड़ी इलाकों में राष्ट्रीय राजमार्गो के भू-स्खलन की चपेट में आने की आशंकाओं की पड़ताल करेंगे और इसके साथ ही उससे सड़क को पूरी तरह से सुरक्षित करने का उपाय भी बताएंगे।

भू-स्खलन रोधी प्रोजेक्ट पर खर्च होंगे तीन से चार हजार करोड़ रुपये

इसके साथ ही मंत्रालय एक विशेष भू-स्खलन रोधी प्रोजेक्ट शुरू करने की भी तैयारी है, जिसपर तीन से चार हजार करोड़ रुपये का खर्च आएगा। वरिष्ठ अधिकारी ने कहा कि भू-स्खलन की घटनाओं पर अध्ययन कर उससे बचने को तकनीकी उपाय सुझाने के लिए मंत्रालय ने डीआरडीओ के मातहत आने वाले डिफेंस जियोइन्फोरमेटिक्स रिसर्च इस्टैब्लिसमेंट के साथ समझौता किया है। यह समझौता इसी साल 20 जनवरी को किया जा चुका है।

https://www.jagran.com/news/national-concerns-about-the-safety-of-national-highways-increased-due-to-landslides-a-committee-will-be-formed-to-suggest-measures-for-rescue-21928957.html

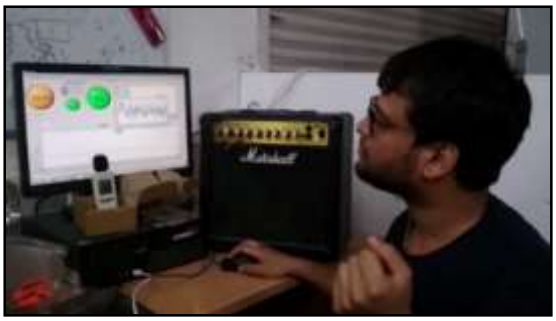
THE TIMES OF INDIA

Sun, 15 Aug 2021

Gujarat: Communication device shoots down din of war

By Parth Shastri

Ahmedabad: King Henry says in Shakespeare's 'Henry V': "When the blast of war blows in our ears, then imitate the action of the tiger…" But in the clamour of modern warfare even that advice will often transmit faintly in soldiers' ears, so an IIT-Gandhinagar post-doctoral fellow has developed a device that helps communication leap like a tiger over the overwhelming din.



Chandan Kumar Jha

Ceaseless fusillades of noise is a feature of today's battles. It comes from the thunder of helicopter rotors, the guttural remorselessness of machine guns, and the crushing howl of artillery.

But now, Chandan Kumar Jha, a post-doctoral fellow at IIT-Gandhinagar, has sought to give freedom to Indian soldiers to communicate clearly with their team members even in war zones, pounding with the reverberations of conflict. He has created a microphone thinner than a hair and an accompanying device the size of a phone that cuts out ambient distractions and allows clear communication.

Jha was recently contacted by the DRDO (Defence Research and Development Organisation) to submit an expanded proposal for further support to develop the product. In October 2019, Jha had won the first prize of Rs 5 lakh, besting 3,000 applicants, for this innovation at the DRDO's Dare to Dream Contest where he had submitted a proof of concept. He was also invited to showcase his work at the DefExpo exhibition organized by the ministry of defence in February 2020.

'Field testing likely this year'

We have been improving the design and making it more sensitive and user-friendly. Field testing is expected to take place this year," said Chandan Kumar Jha who earned a PhD in electrical engineering from IIT-Gandhinagar.

According to several websites, soldiers in operations face an intense barrage of sound: ranging from 110 dB inside a helicopter to 190 dB when a howitzer is fired. To put the figures in perspective, the normal conversation takes place at 60 dB and the level inside a moving car is about 70 dB.

"Having a background in biomedical engineering, my research after my doctoral studies focused on optical fibre technology and its applications," said Jha. "It's often a challenge to relay commands and information clearly when there's so much noise in combat areas. Conventional microphones are unable to selectively pick up human voice or suppress the background noise." Thus, his technology relies on sound directly emanating from the voice box and reduces ambient noise up to 120 dB. "The sensor itself is a piece of optical fibre and thinner than human hair and thus weighs nothing," said Jha.

https://timesofindia.indiatimes.com/city/ahmedabad/gujarat-communication-device-shoots-down-din-of-war/articleshow/85340779.cms

The EurAsian Times

Sun, 15 Aug 2021

India close to inducting its latest Tejas MK-1A Jets; Can it beat Pakistani JF-17 in air combat & exports?

By Aritra Banerjee

India's homegrown Tejas MK-1A is likely to take its first flight test early next year, chairman of the state-run aerospace company HAL, R Madhavan said.

The Hindustan Aeronautics Limited (HAL) is wrapping up the review of the design and other critical systems, reported Hindustan Times. The public enterprise is all set to sign a multi-million-dollar contract with US Company GE Aviation for the purchase of 99 F404 jet plane engines to propel the indigenous Tejas.

The HAL Tejas. (via Twitter)

Earlier this year, India's Ministry of Defence (MoD) awarded a whopping Rs 48,000-crore contract to HAL for 83 LCA Mk-1A fighters for the Indian Air Force. The IAF's first Mk-1A aircraft is expected to be delivered in March 2024, while the rest will be inducted into service by 2029.

"The preliminary design review is over and so is the critical design review for several systems, including mission computer, a digital map generator, and digital flight control systems. We are integrating the active electronically scanned array (AESA) radar and the electronic warfare suite on the final operational clearance (FOC) version of the LCA. After it is proven there, we will integrate it with the final Mk-1A version," Madhavan told HT.

Among the major advantages of an AESA radar are — resistance to electronic jamming, low interception by enemy radars, and it allows high bandwidth data-link between friendly aircraft.

Apart from the AESA radar, the Mk-1A variant will come with digital radar warning receivers, external self-protection jammer pods, advanced beyond-visual-range (BVR) missiles, and significantly improved maintainability.

The fighter's indigenous content is expected to be around 60%, compared to 50% in the existing variants.

Group Captain Badhrish Narasimha Athreya (Retd), a former Chief Test Pilot, told Financial Express about how the Tejas had matured over time since its maiden test flight two decades ago. Once inducted, the Tejas will form the lightweight fighter backbone of the air force for the next quarter-century.

LCA Tejas Vs JF-17

For any combat jet, military aviation enthusiasts love to pitch it against a potential rival in order to assess the aircraft's combat capabilities. The 2019 post-Balakot episode when Indian and Pakistani jets got involved in vicious dogfights also provided fodder to such discussions.

One of the most interesting insights came from IAF Chief RKS Bhadauria. "As far as the [Chinese-Pakistani] JF-17 is concerned, even the LCA FOC [Final Operational Clearance] version is ahead of it.

The Mark-1A would be much ahead of the JF-17s. As far as this comparison is concerned, we will be way ahead of them," the Air Chief Marshal had said earlier this year.

When asked about the specs, he said, "It [LCA Tejas Mark-1A] will have top-of-the-line BVR, the indigenous ASTRA or better. We will have a version which will be ahead, and we plan other sensors and weapons which are top of the line."

The IAF chief confirmed that the latest variant of the indigenous ASTRA would be fitted into the fighter along with a slew of air-to-ground weapons and standoff weapons developed by the Defence Research and Development Organisation (DRDO).

The JF-17 'Thunder' is a light-weight single-engine, multi-role combat aircraft designed by China and produced jointly by Pakistan Aeronautical Complex (PAC) and China's Chengdu Aircraft Corporation (CAC).

He also stated that the capability is beyond what was seen during the Balakot airstrikes. However, military author and defense aerospace analyst, Joseph P Chacko, said, "By the time IAF fields Mk-1A at the forward bases, JF-17 would have caught up technologically with MK 4. If they were to dogfight in the future, only tactics will matter."

According to Air Marshal Anil Chopra (retired), who is currently the Director-General, Centre For Air Power Studies, the latest JF-17 Block III has the Chinese KLJ-7A active electronically scanned array (AESA) radar, digital fly-by-wire flight control system, a new helmet-mounted display, network-centric warfare capability, a holographic head-up display, an infra-red search and track (IRST) system, new electronic warfare systems, weapons upgrade and a radar cross-section reducing 'pseudo-stealthy' airframe.

"The aircraft will be armed with two newer dual-head PL-5EII short-range air-to-air missiles (AAMs). Later, PAF claims, they may get a longer range and more sophisticated PL-15 AAM (150 km).

The Chinese call Block III a 4th generation-plus fighter. The AESA and PL-15 combination, PAF claims, would outrange all IAF aircraft other than Rafale and upgraded SU-30 MKI. The Block III variant has just begun inducting," he wrote for The EurAsian Times.

Group Captain Tej Prakash Srivastava (Retd), an airpower and security analyst, said, "Comparing the Tejas Mark-1A and the JF-17 comes down to what the two platforms are carrying at that time. So, the issue of analyzing platform versus platform…is not an educated one.

"Air combat depends on the situation and the weapon systems being carried at the time. However, if it is to be assessed solely platform-wise, it is a better platform than the JF-17. It [Tejas] is an extremely good platform provided we can manufacture it in significant numbers and come armed with smart weapons."

Earlier, The EurAsian Times had carried out a comparative analysis of India's Tejas Mark-1A and Chinese Pakistani JF-17. Compared to JF-17, many experts suggested that Tejas has an edge with its more potent engine, radar system, and electronic warfare suite, BVR missile capability while others favored 'tried and tested' JF-17s.

According to experts writing for the EurAsian Times, the JF-17 also comes with a Russian engine, about which Malaysia's experience has not been good when it comes to serviceability.

The country also operates the Russian MiG-29s with similar engines, which are said to require significant after-sales support and maintenance. However, Tejas will be powered by a General Electric F404 engine, also used in Malaysia's F/A-18s, which has delivered satisfying performance.

Export Potential

Younis Dar, a defense writer with The EurAsian Times, had made a case for how the LCA Tejas Mark-1A may be shot down by the JF-17 in the export war. His report cites Argentine Air Force chief, Brigadier Xavier Isaac, who told local media that the country is reconsidering the JF-17.

Abhijit Iyer-Mitra, a senior fellow at the Institute of Peace and Conflict Studies, New Delhi, spelled out 10 different reasons why the JF-17 is being preferred by the global market over JF-17s.

He began by saying, "Tejas has a very small set of weapons integrated with it, mostly Indian and some Western. So, on one hand, you force countries to buy Indian weapons that don't work for them – or if you get western, they'll ask, what's the benefit of buying Indian?"

"With Pakistan – the JF-17 essentially slots into the Chinese supply chain – which has a massive variety of proven and demonstrable weapons. So, nations buying the JF-17 already have Chinese

weapons to mate or are comfortable with buying Chinese weapons that anyway have a proven track record.

In fact, countries with bad human rights records like Pakistan, Iran, North Korea would prefer the Chinese as they don't impose sanctions.

"China has a Security Council Veto and any country buying weapons from China can have significant influence over any Security Council decisions (same with US or French or Russian weapon sales). India has no such Veto," he added.

He pointed out that, "Tejas is confused aircraft – it doesn't fit any known market segment. The JF-17 is a modest fighter but whatever advancements it brings are solid and proven. [On the other hand] Tejas is a nightmare – nothing about it is proven – there's been too much mixing and matching and it inspires zero purchaser confidence.

"Finally, the question of re-export. JF-17 uses mostly Chinese but some Italian (avionics and radar) and Russian (engine) equipment – all of which are cleared for re-export to third countries. Tejas uses American engines, Israeli radar, and a mishmash of avionics from countries that will never authorize re-export."

Shahid Raza, a defense expert from Pakistan, echoed similar views. "Tejas also suffers from the fact that currently there's no major operator of this aircraft, not even the Indian Air Force, which only has a handful of these aircraft in service. This reduces the confidence of any potential buyer," Raza said.

In June, The EurAsian Times reported Malaysia has accelerated efforts to acquire a new light combat aircraft and released a tender. India's HAL Tejas is in the race for the contract, along with several other foreign platforms.

It is to be seen whether Indian HAL Tejas can overpower Chinese/Pakistani Jf-17 Thunder in both air capabilities and exports.

https://eurasiantimes.com/india-close-to-inducting-its-latest-tejas-mk-1a-jets-can-it-beat-pakistani-jf-17-in-air-combat-exports/

नवोदय टाइम्स

Sat, 14 Aug 2021

15 अगस्त को आतंकी अलर्ट के चलते सुरक्षा चाक-चौबंद, मेट्रो स्टेशन से बाजारों तक निगरानी कड़ी

नई दिल्ली: 75 वें स्वतंत्रता दिवस समारोह के 48 घंटे पहले से ही राजधानी दिल्ली को अभेद्य बना दिया गया है। आतंकी अलर्ट और ड्रोन से हमले की आशंका को देखते हुए इस बार दिल्ली में सुरक्षा के कड़े इंतजाम किए गए हैं।आकाश और जमीन की सुरक्षा को एजेंसियों ने अपने कब्जे में ले लिया है। साथ ही सभी बॉर्डर भी देर रात से सील कर दिए गए हैं।

सुरक्षा में किसी भी तरह की चूक ना हो इसीलिए तैनात सुरक्षाकर्मी अपने नाम और पदों से नहीं बल्कि विशेष कोरड के जरिए पहचाने जाएंगे। गृह मंत्रालय की पहल पर सिपाही से लेकर आला अधिकारियों को स्पेशल कोड मिले हुए हैं। लाल किला पर इस बार पहली बार रक्षा अनुसंधान एवं विकास संगठन द्वारा दो एनटी ड्रोन रडार लगाए गए हैं।

संदिग्ध ड्रोन के लिए एंटी ड्रोन रडार

अगर कोई संदिग्ध ड्रोन लाल किला के 3-4 किलोमीटर के दायरे में दिखेगा तो डीआरडीओ के जवान उसे वही जाम कर जमीन पर गिरा सकेंगे। पुलिस अधिकारियों का कहना है कि इस बार सीसीटीवी कैमरे भी हर बार की तुलना में काफी अधिक लगाए गए हैं।

प्रधानमंत्री जिन मार्गो से लाल किले पर आएंगे और वापस लोक कल्याण मार्ग जाएंगे उक्त रास्तों के अलावा लाल किला के चारों तरफ जगह-जगह सीसीटीवी कैमरे लगाए गए है। सीसीटीवी कंट्रोल रूम बनाए गए हैं। स्वतंत्रता दिवस को लेकर पूरी तरह सतर्कता बरती जा रही है।

मेट्रो स्टेशनों से लेकर बाजारों तक कड़ी सुरक्षा

मेट्रो स्टेशन, रेलवे स्टेशन, बाजारों और अन्य संवेदनशील इलाकों में पुलिस के अधिकारी भ्रमण कर रहे हैं। मेट्रो स्टेशनों पर सुरक्षा बढ़ा दी गई है। पहले ही शॉपिंग मॉल में सुरक्षाबलों ने मॉक ड्रिल कर ली गई है। कुछ पुलिस कर्मियों को भेजकर सुरक्षा कार्य निरीक्षण कराया गया है।

वहीं 14 अगस्त की रात 10:00 बजे से 15 अगस्त दोपहर 1:00 बजे तक दिल्ली में भारी वाहनों को एंट्री नहीं दी जाएगी। गाजीपुर, आनंद विहार, वजीराबाद बॉर्डर पर पुलिस तैनात कर दी गई है। आने वाले प्रत्येक भारी वाहनों को दूसरे रास्ते पर मोड़ दिया जाएगा।

https://www.navodayatimes.in/news/khabre/75th-independence-day-terrorist-alert-tight-security-in-every-nook-and-corner-of-delhi-kmbsnt/178678/

the pioneer

Sat, 14 Aug 2021

CM for naming Deoghar airport as Baba Baidyanth Airport

Ranchi: Chief Minister Hemant Soren has demanded Deoghar Airport to be named as Baba Baidyanath Airport. The Chief Minister in this connection has written a letter to Union Civil Aviation Minister Jyotiraditya Scindia to name the Deoghar Airport as Baba Baidyanath Airport.

The Chief Minister in his letter stated that 'the city of Deoghar is identified as Baba Baidyanath Dham and the people of the region strongly feel that the airport must operate under the aegis of Baba Baidyanath."

The Chief Minister in his letter to Scindia also highlighted that the Government of Jharkhand recognized this and out of total cost of Rs 850 crore Jharkhand has contributed more than Rs 600 crores including the cost of providing land towards the project.

Sources said that the demand for naming Deoghar Airport as Baba Baidyanath Dham is set to be politicized. The Chief Minister's demand for naming the airport as Baba Baidyanath is seen as a master stroke of Soren, the BJP will never want to refuse the demand of Soren nor will it acknowledge the Chief Minister for making such a demand.

BJP MP from Ranchi Sanjay Seth welcoming the demand of Chief Minister Hemant Soren said, "Baba Baidyanath is master of Universe." However, he refused to say anything on Chief Minister Soren's remark that out of total cost of Rs 850 crore Jharkhand has contributed more than Rs 600 crores including the cost of providing land towards the project.

Baidyanath Jyotirlinga temple, also commonly referred to as the Baidyanath Dham, is one of the twelve Jyotirlinga in India and is considered to be the most sacred abode of Lord Shiva. As Lord Baidyanath is household deity in Santhal Pargana, Chief Minister's demand for naming the airport will consolidate his position among Hindu community.

The Chief Minister though his letter also highlighted that the Deoghar airport is being built for the benefit of the millions of the tourists who visit Deoghar every year to pay offerings to Baba Baidyanath, which is important to the development of religious tourism in the State.

Sources said that the Airport is likely to be operational from September as the Civil Aviation Ministry is planning for formal inauguration of the airport on September 17 the day which coincides with the birthday of Prime Minister Narendra Modi. The airport, once completed, will be the second airport in the State after Ranchi. The airport will be capable of handling flights including large aircraft and is expected to boost regional connectivity and tourism.

This airport is being jointly developed by the Airports Authority of India (AAI), Defence Research and Development Organisation (DRDO) and the Jharkhand government. Prime Minister Narendra Modi laid the foundation stone of this airport on May 25, 2018.

https://www.dailypioneer.com/2021/state-editions/cm-for-naming-deoghar-airport-as-baba-baidyanth-airport.html

The INDIAN PANORAMA

Sun, 15 Aug 2021

Indian Defense Forces: Progressing Ahead

By Brig Akhilesh Bhargava

India: has the second largest standing army, the fourth largest Air Force and the seventh largest Navy in the world. It is among the top five countries in military spending, the highest being in 2019. As per the Union Budget for the financial year 2020-21, the total allocation for defense was USD 71.1 Bn and India ranked second in defense spending. Around one-fourth of the amount was allocated for capital expenditure. India's requirements in defense have been largely met through imports (9.2% of global arms import). Therefore, India has embarked upon a sustained defense procurement plan.

The fearsome Brahmos.

The Government of India (GoI) has made it a priority to create a robust defense industrial base under its 'Make in India' initiative. A self-reliant Indian Aerospace and Defense Sector is also crucial for the success of 'Make in India' initiative.

Just few years back 80% of the domestic defense industry was represented by government owned public sector, to include 50 Defense Research and Development Organization (DRDO), nine Defense Public Sector Undertakings (DPSUs) and 41 Ordnance Factories (OF). However, the scene has changed very rapidly in the last few years. The defense sector has been opened for the private sector in a big way. They have been permitted to enter into strategic partnership, both with Indian DPSUs and with Foreign Original Equipment Manufacturers (FOEMs). Thus, the Indian private industry is able to target global markets and in bargain will be able to bolster exports in the long term.

The silver lining for India has been its entry into the global arms exporters list, making it to 23 ranked in 2019. The ranking is likely to rise sharply over the coming years with the GoI focus on encouraging weapons sales abroad. India has a target to increase its defense exports to USD 5 Bn by 2025.

The GoI since mid-2020 has begun sweeping changes in the defense sector under its 'Atmanirbhar' (self-reliant). The defense ministry unveiled a series of reforms ranging from a decision to convert 41 OF into seven DPSUs, to getting the ministry to release a negative list of over 200 items banned for import. Some thrust areas of the Government are: –

- Streamlining procurement procedures.
- Carry out a focused resource allocation, even during pandemic and perceived economic slowdown.
- Encouraging R&D and innovation.
- Handhold the defense industry through establishment of 'Defense Corridors.'
- Boosting defense exports by boosting private sector.

To promote indigenization, reduce imports, increase self-reliance and upgrade technology, research and production, DRDO has taken steps for more collaboration with the industry, private sector, research and education institutes. Simultaneously, the Government has embarked upon many schemes proactively. Some of these are:

- The Indigenous Defense Equipment Exporters Association (IDEEA) is the government's nodal-agency tasked with processing all export inquiries from global customers and handling exports of Indian military equipment.

- The MoD has formulated a Defense Production and Export Promotion Policy 2020 (DPEPP-2020) to provide a significant thrust to the defense production.
- The government has gradually raised the cap from 26 to 49 and finally to 74 percent through automatic route and 100% through MoD's approval, whereby the investing foreign entity can have ownership up to 100% in the defense manufacturing.
- DRDO has identified military systems and subsystems like navigation radars, tank transporters and missile canisters for the domestic private industry.
- Government has decided to use diplomatic channels to promote the indigenously developed military platforms and weapons in overseas markets.
- Five new Defense Young Scientist Laboratories (DYSLs) led by young directors have been created to drive the country's war technologies of the future under the DRDO. Each one has been assigned research in cutting edge technology.
- The private players have finally been permitted to use the test facilities of the Government and the Services to include testing, trials, proof firing, field firing and more.
- The defense minister has launched the Defense Testing Infrastructure Scheme (DTIS) and eight greenfield ranges for defense and aerospace related production.
- The Government has announced Trade Receivables Discounting System (TReDS), a scheme for setting up and operating the institutional mechanism for facilitating the financing of trade receivables of MSMEs from corporate and other buyers through multiple financiers.

It is heartening to see the GoI taking a top-down approach; a continuous interaction with the user and defense sector manufacturers (both public and private). It has a clear picture of the steps that need to be implemented. The pace is much faster as compared to say five years back. India has realized that it is time to make the best out of reforms and take steps in the positive direction with a positive mindset.

https://www.theindianpanorama.news/article/indian-defense-forces-progressing-ahead/

TIMESDRIVE

Sun, 15 Aug 2021

Independence Day 2021: Top 10 vehicles used by Indian army and defence forces

Independence Day 2021: Mahindra Marksman, Renault Sherpa, Mahinda Meva Straton Plus APC, Tata Merlin, Tata whAP, and Mahindra MPV-I are some of the vehicles used by Indian defence forces

Independence Day is the day when we remember the sacrifices of all the freedom fighters who made India an independent country. But along with that, we also remember those who risk their lives to protect our country against enemies. Our defence forces fight relentlessly to protect our international borders and civilians. This isn't an easy job by any measure; be it patrolling borders or ensuring peace within the country, the defence force personnel endure some of the harshest environments and conditions. And helping them in such situations are some extremely capable vehicles that not only make it possible for forces to negotiate extreme terrains to protect every inch of our borders but also keep them safe from enemy attacks. Let's take a look at some of the vehicles that are used by defence forces in India.

1. Mahindra Armoured Light Specialist Vehicle

Mahindra Armoured Light Specialist Vehicle (ASLV) is an armoured vehicle that offers ballistic protection up to B7, STANAG Level II. As standard, the ASLV provides STANAG Level I Ballistics and Blast protection for the front, side, rear, and four occupants but can be upgraded to STANAG Level II. Besides carrying arms and ammunition inside the crew cabin, the ASLV also has an additional 400 kg cargo load-carrying capacity. The vehicle, as standard, has a gun hatch, run-flat tyres, and tyre inflation system but can be equipped with an automatic grenade launcher, medium machine gun mount, blast mitigation floor mat, and more. It is a modular vehicle and is suitable for patrolling in high-intensity areas, special forces operations, raids in open and desert terrains, border security, and for carrying weapons. Thanks to its versatile nature, Mahindra bagged the order from the Ministry of Defence in March this year to supply 1,300 Light Specialist Vehicles. Mahindra ASLV is propelled by a 3.2-litre, inline-six, turbo diesel engine making 212 bhp and 500 Nm. This engine is coupled to a four-speed automatic gearbox.

2. Kalyani M4

Kalyani M4 joined Indian Army's fleet earlier this year after it was successfully tested in Ladakh during tensions with China. It is a multi-purpose armoured vehicle that will be used for transporting troops at high altitudes in regions with harsh climates. The Kalyani M4 can carry up to eight people and reportedly has a payload capacity of 2.3 tonnes. It uses a turbo diesel engine with CVT gearbox and puts out around 465 bhp and 1,627 Nm.

3. Mahindra MPV-I

Used by the Indian military force, Mahindra Mine Protected Vehicle-I (MPV-I) is a mine-resistant ambush-protected armoured personnel carrier and a hardcore off-road vehicle. This vehicle was specifically designed in 2010 to protect Indian forces while conducting anti-terrorism and anti-Naxalite operations in hilly terrains. According to Mahindra, the MPV-I offers side protection against 10 kg improvised explosive device while the under-carriage can withstand 21 kg TNT explosion directly under any wheel. The MPV-I, as standard, has a roof hatch, gun ports, multi-layered ballistic glass, protected fuel tank, and STANAG 4a ballistic protection. But it can be equipped with laser range finder, multi-purpose pulse doppler radar, fire suppression system, and more. The MPV-I is powered by a 227 bhp diesel engine with a 6X6 drivetrain.

4. Renault Sherpa

The Renault Sherpa Light family of tactical vehicles is actually used by multiple defence forces in India, including the National Security Guard (NSG) and the Central Industrial Security Force (CISF). It features an especially designed 4x4 chassis and the vehicle has a high payload capacity. Renault Sherpa's heavily armoured version is also being used by defence forces like CRPF to conduct anti-militance operations as the vehicle can withstand explosions. It can also accommodate four personnel that can fire from within.

5. Mahindra Marksman

Mahindra Defence Systems has made several armoured vehicles for defence forces, including the Mahindra Marksman. It is an armoured capsule-based light bulletproof vehicle that can seat a total of six people. This vehicle not only offers protection against small firearms but also grenade attacks. Mahindra Marksman is armoured to 'Level B6' and gets a Cuppola machine gun mount with '270-degree traverse and protection'. Besides that, it also gets five side armouring of the passenger compartment that enables protection against 5.56 x 45 mm SS109 ammo.

6. Tata Merlin

Tata Merlin is a light armoured multi-role vehicle (LAMV) that offers STANAG 4569 Level-1 protection and can withstand grenade and mine blasts. It has a 7.6 mm medium machine gun turret on the roof and a 40 mm automatic grenade launcher. It is also well-equipped with anti-tank missiles which indeed make it a remarkable vehicle. However, these specifications can be customized as per the defence force's requirements. Tata Merlin uses a 3.3-litre diesel engine that generates roughly 185 bhp and 450 Nm of peak torque.

7. Mahindra Meva Straton Plus APC

The Meva Straton Plus is an armoured personnel carrier built on Ford F550 that can accommodate up to 12 people. It offers complete protection from explosions and ballistics and is specifically designed to withstand IED blasts. The Straton Plus is suitable for patrolling, special forces operations, convoy protection, riot control, and raids in deserts. It has multi-layered ballistic glass, runflat tyres, roof hatch / turret, and intercom as standard but can be loaded with blast attenuating seats, blast mitigation floor mat, fire suppression system, and more. Mahindra Meva Straton Plus APC draws power from a Ford-sourced 6.7-litre turbo diesel engine that makes 296 bhp.

8. Tata whap

Tata Wheeled Armoured Protection (WhAP) vehicle has been co-developed with DRDO (Defence Research and Development Organisation) laboratory and has been rigorously tested to perform in extreme conditions, including high altitude areas. It is based on Tata Defence Combat Wheeled Armored Amphibious Platform and gets Amphibious Drive Mode as well as independent suspension with hydro-pneumatic struts. Tata WhAP can carry around 10 to 12 personnel and be used as a reconnaissance vehicle, infantry carrier, or logistics carrier.

9. Maruti Suzuki Gypsy

The car joined the Indian Army's fleet all the way back in 1985 -- the same year it was launched in India. Though Maruti Suzuki ceased production of the Gypsy for the masses in 2018, the iconic SUV got a new lease of life when the Indian Army acquired a waiver from the Ministry of Defence so as to allow the company to produce additional units for our country's forces. The SUV is used by armed forces as a patrolling vehicle as its robust construction makes it suitable for handling challenging terrains. The open-top option also allows forces to turn it into a gun carrier.

10. Tata Safari Storme GS800

It is a specially developed version of Safari Storme 4X4 variant that is being used by defence forces, including the Indian Air Force. And though the exact performance specs have not been revealed, the carmaker has shared that GS800 develops 70 per cent more power and 200 per cent more torque as compared to the passenger vehicle that had 155 bhp and 400 Nm on tap.

Honorary mention: Royal Enfield Bullet

Perhaps the most prominent Indian motorcycle of all time, the Royal Enfield Bullet has been a long-time companion of the Indian Army. This started way back in 1952 when the Indian Army gave an order of 500 units of Bullet 350 to the motorcycle maker demanding durability, reliability, and adequate performance over challenging terrains. To date, Royal Enfield continues to be the preferred choice for the Indian army.

https://www.timesnownews.com/auto/features/article/independence-day-2021-top-vehicles-used-by-indian-army-and-defence-forces/797241

COVID 19: DRDO's Contribution

Sat, 14 Aug 2021

रक्षामंत्री राजनाथ सिंह बोले- 2DG दवा असरदार, वैज्ञानिकों ने किया शानदार काम

रक्षा मंत्री राजनाथ सिंह (Rajnath Singh) ने कहा, "जब टोक्यो ओलंपिक (Tokyo Olympic) चल रहे थे उस वक्त हम सोचते थे कि क्या हमें भी गोल्ड मेडल मिलेगा लेकिन सूबेदार नीरज चोपड़ा (Neeraj Chopra) ने वो करिश्मा कर दिखाया और भारत के लिए स्वर्ण पदक जीत लिया।"

नई दिल्ली: "डॉक्टरों ने मुझे बताया कि 2DG एक असरदार दवा है, यह ऑक्सीजन लेवल (कोविड मरीजों में) को बढ़ाती है। कोई दूसरा देश ऐसा नहीं कर सका, लेकिन भारत के वैज्ञानिकों ने इसे संभव बनाया। हमारे सशस्त्र बलों और वैज्ञानिकों ने जब भी जरूरत पड़ी देश को कभी निराश नहीं किया।" ये बात रक्षा मंत्री राजनाथ सिंह ने दिल्ली में डीआरडीओ भवन में आयोजित कार्यक्रम में कही।

दिल्ली में डीआरडीओ भवन में राजनाथ सिंह ने कहा, देश के वैज्ञानिकों ने किया शानदार काम.

रक्षा मंत्री राजनाथ सिंह ने कहा, "जब टोक्यो ओलंपिक चल रहे थे उस वक्त हम सोचते थे कि क्या हमें भी गोल्ड मेडल मिलेगा लेकिन सूबेदार नीरज चोपड़ा ने वो करिश्मा कर दिखाया और भारत के लिए स्वर्ण पदक जीत लिया।" रक्षामंत्री राजनाथ सिंह ने कहा, "आजादी के 100 साल पूरे होने पर हम किस तरह का भारत बनाएंगे। हम एक भारत, श्रेष्ठ भारत के सपने को पूरा करना चाहते हैं।"

रक्षामंत्री राजनाथ सिंह ने कहा, "हम एक ऐसे भारत का निर्माण करना चाहते हैं जो समृद्ध, आत्मनिर्भर, स्वाभिमानी भारत हो। जो किसी दूसरे देश पर हमला नहीं करता है, लेकिन जो भी हम पर बुरी नजर रखता है उसे मुंहतोड़ जवाब देता है।"

https://hindi.news18.com/news/nation/congress-will-hoist-the-tricolor-on-august-15-at-the-new-hi-tech-building-next-year-3693341.html

नईदुनिया

Sat, 14 Aug 2021

एक हजार लीटर प्रति मिनट वाले आक्सीजन संयंत्र की आईं मशीनें

25 दिन पूर्व आई मशीन को लगाने आज आएंगे इंजीनियर

बड़वानी: कोरोना की तीसरी लहर के मद्दनेजर शासन ने जिले को तीन आक्सीजन संयंत्र की सौगात दी है। इसके तहत महिला अस्पताल में स्थापित होने वाले सबसे बड़े एक हजार लीटर प्रति मिनट वाले आक्सीजन संयंत्र के लिए शुक्रवार को डीआरडीओ हैदराबाद से मशीनें जिला अस्पताल पहुंचीं। शनिवार को कंपनी के इंजीनियर यहां पहुंचकर इन्हें प्लेटफार्म पर उतरवाएंगे। ये मशीनें प्रधानमंत्री नागरिक सहायता व आपात स्थिति राहत कोष से प्राप्त हुई हैं।

वहीं ट्रामा सेंटर के पास लगने वाले 570 लीटर प्रति मिनट आक्सीजन संयंत्र की मशीनें 25 दिन पूर्व आई थीं, जो अब तक धूल खा रही हैं। इसे प्लेटफार्म पर इंस्टाल करने के लिए शनिवार को इंजीनियरों की टीम आ सकती है। उल्लेखनीय है कि कोरोना की दूसरी लहर में जिलेवासी खासा प्रभावित हुए थे। इस दौरान जिले में बनाए कोविड केयर सेंटरों में मुख्य रुप से आक्सीजन की कमी सामने आई थी। इस कठिन समय में प्रशासन ने अपने स्तर से 100 से अधिक आक्सीजन कंसंट्रेटर बुलवाकर मरीजों को कुछ सुविधाएं उपलब्ध करवाई। वहीं इसके बाद तीन आक्सीजन संयंत्र स्वीकृत किए गए। फिलहाल तीनों के प्लेटफार्म बनकर तैयार हो चुके हैं। 19 जुलाई को ट्रामा सेंटर के पास प्लेटफार्म की मशीनें आ चुकी हैं। शुक्रवार को महिला अस्पताल में लगने वाले संयंत्र की मशीनें भी उपलब्ध हो गई। अब इन्हें शुरू होने का इंतजार है।

सीटी स्कैन को लेकर हलचल नहीं

उधर ट्रामा सेंटर में स्थापित होने वाली सीटी स्कैन मशीन को लेक कोई हलचल नहीं दिख रही है। पिछले माह संबंधित कंपनी की टीम ने ट्रामा सेंटर में जगह देखी थी। उसके बाद से किसी ने सुध नहीं ली। दूसरी लहर के बाद प्रशासन ने निजी सेंटरों पर सीटी स्कैन का 2500 रुपये शुल्क निर्धारित किया है। वहीं जिला अस्पताल में महज 654 रुपये में सीटी स्कैन की सुविधा प्रस्तावित है।

आज आएंगे इंजीनियर

सिविल सर्जन डा. अरविंद सत्य ने बताया कि शुक्रवार को डीआरडीओ हैदराबाद से महिला अस्पताल में लगने वाले आक्सीजन संयंत्र के लिए मशीनें आई हैं। शनिवार को इंजीनियर आकर प्लेटफार्म पर उतरवाएंगे। वहीं पिछले माह ट्रामा सेंटर में लगने वाले आक्सीजन प्लांट की जो मशीनें आई थी, उसके इंस्टालेशन के लिए भी शनिवार को कंपनी के इंजीनियर आकर काम शुरु करेंगे।

https://www.naidunia.com/madhya-pradesh/barwani-machines-of-one-thousand-liters-per-minute-oxygen-plant-7003049

अमर उजाला

Sat, 14 Aug 2021

ऑक्सीजन प्लांट में मशीनें लगीं

बांदा: ऑक्सीजन की कमी से मरीजों की मौत सरकारें भले न मानें, लेकिन जिस तरह से ऑक्सीजन प्लांट मंजूर कर स्थापित किए जा रहे हैं, इससे साफ है कि कोरोना की दूसरी लहर में ऑक्सीजन का भीषण संकट था।

बानगी के तौर पर बांदा में मेडिकल कॉलेज और जिला अस्पताल समेत चार ऑक्सीजन प्लांट स्थापित करने की मंजूरी मिली। इनमें दो पूरी तरह तैयार हो गए हैं। दो में उपकरण लगाने का काम चल रहा है। स्वास्थ्य विभाग का दावा है कि अब मरीजों के लिए ऑक्सीजन की कमी नहीं होगी।

राजकीय मेडिकल कॉलेज में उत्तर प्रदेश प्रोजेक्ट कारपोरेशन द्वारा वृहद निर्माण मद से लगभग पौने दो करोड़ की लागत का ऑक्सीजन जेनरेशन प्लांट स्थापित किया गया है। इसकी क्षमता लगभग एक हजार एलपीएम (लीटर प्रति मिनट) है। यहां से मेडिकल कॉलेज के वार्डों में चार सौ बेडों तक ऑक्सीजन पहुंचेगी।

प्लांट चालू हो चुका है। इसके अलावा मेडिकल कॉलेज में स्थापित दूसरे ऑक्सीजन जेनरेशन प्लांट की क्षमता 650 एलपीएम है। यह भी लगभग तैयार है। सिर्फ फ्लो सेंसर आना बाकी है। मेडिकल कॉलेज प्रशासन का कहना है कि सेंसर लेकर इंजीनियर जल्द आने वाले हैं।

साथ ही बूस्टर भी जेनरेशन प्लांट में लगाया जाना है। आर्डर हो चुका है। बूस्टर लगने के बाद प्लांट से सिलिंडरों में भी ऑक्सीजन भरी जा सकेगी। उधर, जिला अस्पताल में प्रधानमंत्री केयर फंड से डीआरडीओ द्वारा स्थापित किए जा रहे पीएसए (प्रेशर स्विंग एडजॉर्पशन) ऑक्सीजन प्लांट भी जल्द शुरू हो जाएगा।

मंगलवार की देर शाम नोएडा से यहां उपकरण आ गए हैं। इंजीनियरों की टीम ने मशीनों को लगा दिया है। प्लांट शुरू होने पर अस्पताल और ट्रामा सेंटर के सभी बेडों में मरीजों को आसानी से ऑक्सीजन मिल सकेगी। नरैनी सीएचसी परिसर में स्थित ऑक्सीजन प्लांट भी तैयार है।

टेस्टिंग भी हो चुकी है। अब सिर्फ हरी झंडी का इंतजार है। चिकित्साधिकारी डॉ. बीएस राजपूत ने बताया कि 50 बेड के हिसाब से 95 सेचुरेशन क्षमता का प्लांट है। बेडों तक बिछी ऑक्सीजन सप्लाई लाइन की भी जांच हो चुकी है।

चारों प्लांट शुरू होने के बाद ऑक्सीजन कमी का संकट नहीं रहेगा। अभी सिलिंडर से ऑक्सीजन मरीजों को दी जा रही है। जल्द सिलिंडर के बजाय पाइपलाइन से बेडों तक प्लांट से ऑक्सीजन पहुंचेगी। मरीजों को पर्याप्त और आसानी से ऑक्सीजन मिलने लगेगी। सभी प्लांट अलग-अलग क्षमता के हैं।

-डा. वीके तिवारी, सीएमओ।

https://www.amarujala.com/uttar-pradesh/banda/machines-installed-in-oxygen-plant-banda-news-knp646106312

THE TIMES OF INDIA

Sun, 15 Aug 2021

Hassan district hospital prepared to tackle third wave of pandemic

Hassan: With third wave of the pandemic around the corner, the district administration is leaving not stones unturned to curb the spread of the virus.

All the medicos at the district hospital have undergone paediatric training as according to experts, children will be more susceptible to the virus. An oxygen generation plant from Defence Research and Development Organisation (DRDO) will soon be installed at the district hospital premises.

According to the district hospital sources, more than 350 doctors, including 84 doctors who have recently joined under the one year mandatory service, are working at the hospital. Of them, 14 are paediatricians.

The district hospital has 750 beds. Of them, 600 have oxygen supply lines. The hospital also has 140 ventilators.

Two wards consisting of 100-150 beds are reserved for emergency purposes if the Covid cases surge in the district.

"In the third floor, 200 beds are reserved for those below 18 years of age. Of these, 20 ICU beds are available anytime with 10 ventilators. Mothers will be given one or two separate wards on the same floor. In the district hospital, all doctors and nursing staffs were provided paediatric training for two weeks in July. They were trained about expected symptoms, drug dosage, complications expected, treatment," district surgeon Dr Krishnamurty.

"The oxygen generation plant provided by DRDO has reached the district hospital premises. The process of its installation is underway. This plant produces 1,500 litre per minute. There is 13KL oxygen storage tank. Another 20KL tank was ordered and is yet to arrive. Installation of oxygen generation plant is merely completed at Holenarsipur, Channarayapatna, Arsikere and Sakleshpur taluk hospital. In other taluks, the construction is planned to be completed within a fortnight. Those plants have capacity to generate oxygen in the range of 300-500 liter per minute," he added.

"In the last two weeks, more than 150 children below 18 years have contracted the virus in the district. No one is critical. They are under home isolation," said DHO Dr KM Sathish.

https://timesofindia.indiatimes.com/city/mysuru/hassan-district-hospital-prepared-to-tackle-third-wave-of-pandemic/articleshow/85334648.cms

जागरण

Mon, 16 Aug 2021

यमुनानगर व सरस्वतीनगर अस्पताल के आक्सीजन प्लांट तैयार, जगाधरी में भी तेजी से चला है काम

कोरोना वायरस की तीसरी लहर से पहले स्वास्थ्य विभाग पूरी मुस्तैदी से डटा हुआ है। 16 अगस्त को सरस्वतीनगर व यमुनानगर के अस्पताल में लगे आक्सीजन प्लांट चालू कर दिए जाएंगे। इसके अलावा जगाधरी में भी आक्सीजन प्लांट का कार्य जल्द पूरा होगा।

By Umesh Kdhyani

यमुनानगर: कोरोना की तीसरी लहर आने से पहले ही स्वास्थ्य विभाग ने आक्सीजन प्लांटों को चालू कर दिया है। 16 अगस्त को सरस्वतीनगर व यमुनानगर के अस्पताल में लगे आक्सीजन प्लांट चालू कर दिए जाएंगे। इसके साथ ही जगाधरी व कोविड अस्पताल में लगने वाले आक्सीजन प्लांटों के लिए भी प्रक्रिया तेज कर दी गई। यह प्लांट भी अगस्त के आखिर तक पूरे होने की उम्मीद है।

कोरोना की दूसरी लहर भले खत्म हो गई हो, लेकिन खतरा अभी टला नहीं है। विशेषज्ञ कोरोना की तीसरी लहर का खतरा जता चुके हैं। इसलिए ही स्वास्थ्य विभाग अधिक से अधिक वैक्सीनेशन पर जोर दे रहा है। साथ ही आक्सीजन प्लांट व अस्पतालों में बेड की व्यवस्था करा रहा है। इस समय बेड की व्यवस्था हो चुकी है। चार आक्सीजन प्लांट लगाए जाने हैं। इनमें से दो का कार्य पूरा हो चुका है।

दो और प्लांट लगाने की योजना

जिला परिषद के एमएसडीपी कार्यक्रम के तहत भी दो आक्सीजन प्लांट लगाने की योजना बनाई गई है। यह प्लांट प्रतापनगर व छछरौली सामुदायिक स्वास्थ्य केंद्र के लिए प्रस्तावित हैं। दोनों प्लांटों की क्षमता 500 लीटर प्रति मिनट आक्सीजन की आपूर्ति की होगी। हालांकि अभी यह योजना परवान नहीं चढ़ी है।

दो प्लांट बनकर तैयार

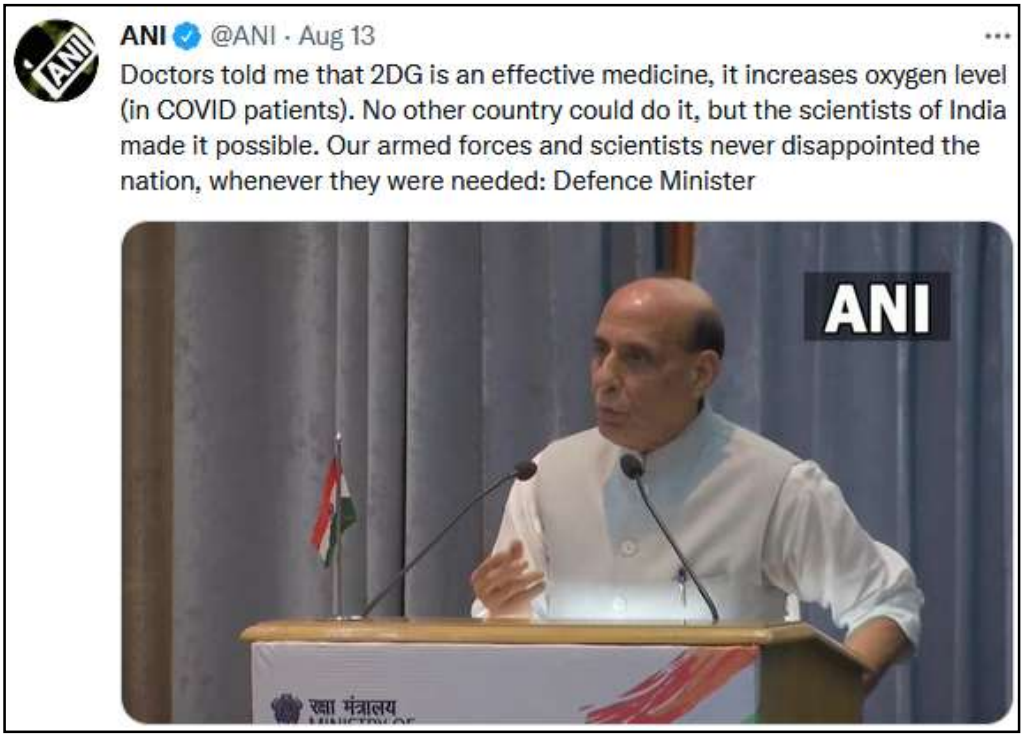
पीएम केयर फंड व सीएसआर प्राेजेक्ट के तहत आक्सीजन प्लांट लगाए जाने हैं। इनमें से 1000 लीटर प्रति मिनट की क्षमता का प्लांट यमुनानगर सिविल अस्पताल में लगेगा। ईएसआइ कोविड अस्पताल व जगाधरी में सीएसआर प्रोजेक्ट के तहत एक हजार लीटर प्रति मिनट की क्षमता के प्लांट लगेंगे। सरस्वतीनगर सामुदायिक स्वास्थ्य केंद्र में 500 लीटर प्रति मिनट की क्षमता का आक्सीजन प्लांट लगेगा। यमुनानगर व सरस्वतीनगर में दोनों प्लांट पीएम केयर फंड से लगाए जाएंगे। यह प्लांट डीआरडीओ ने तैयार कर दिए हैं। जबकि जगाधरी में एचडीएफसी बैंक और कोविड अस्पताल में इस्जैक की ओर से प्लांट लगाया जाना है। इनमें सरस्वतीनगर व यमुनानगर के प्लांट बनकर तैयार हो चुके हैं।

जगाधरी में जल्द पूरा होगा प्लांट का कार्य: डा. विजय दहिया

सिविल सर्जन डा. विजय दहिया ने बताया कि यमुनानगर व सरस्वतीनगर के आक्सीजन प्लांट तैयार हो चुके हैं। 16 अगस्त से यह प्लांट चालू हो जाएंगे। अन्य जगहों पर भी प्लांट लगाए जाने की तैयारी चल रही है। प्राथमिकता में कोविड अस्पताल व जगाधरी का अस्पताल है। यहां पर भी अगस्त माह के आखिर तक प्लांटों का कार्य पूरा हो जाएगा।

https://www.jagran.com/haryana/panipat-oxygen-plants-of-yamunanagar-and-saraswatinagar-hospitals-ready-plant-will-be-ready-soon-in-jagadhri-too-21931039.html

DRDO on Twitter



Defence News

Defence Strategic: National/International

Press Information Bureau
Government of India

Ministry of Defence

Fri, 13 Aug 2021 9:20AM

Maintenance Command Commanders' Conference

Air Chief Marshal RKS Bhadauria PVSM AVSM VM ADC, Chief of the Air Staff (CAS) attended the Commanders' Conference of Maintenance Command at Vayu Sena Nagar, Nagpur on 11 & 12 Aug 21. CAS on arrival was received by Air Marshal Shashiker Choudhary AVSM VSM ADC, AOC-in-C MC.

The two day event was attended by Commanders of Base Repair Depots, Equipment Depots and other Stations/ Units under MC, who reviewed ongoing projects and took stock of goals and tasks for MC in the year ahead.

In his address to the Commanders, CAS noted the pivotal role of MC in meticulous management of the vast and varied inventory of the Indian Air Force. Commending the Command for initiatives launched to meet the evolving needs of a modern and future ready IAF, CAS highlighted the need for building capacity to improve maintainability and operability in complex conditions along with a thrust on active pursuance of indigenised projects.

While highlighting recent events, CAS underscored the importance of due vigilance to meet newer security challenges. He delved on aspects of embracing modern technology such as AI and automation in the task of transformation and re-structuring of IAF to ensure that it is always combat ready.

CAS exhorted the Commanders to imbibe the 'mantras' of indigenisation and modernisation in their efforts to ensure that MC remains the fountainhead of maintenance and logistics support to integrated operations in the future.

https://pib.gov.in/PressReleasePage.aspx?PRID=1745313

पत्र सूचना कार्यालय
भारत सरकार

रक्षा मंत्रालय

Fri, 13 Aug 2021 9:20AM

मेंटेनेन्स कमान के कमांडरों का सम्मेलन

एयर चीफ मार्शल आरकेएस भदौरिया पीवीएसएम एवीएसएम वीएम एडीसी और वायुसेनाध्यक्ष (सीएएस) ने 11 और 12 अगस्त, 2021 को नागपुर के वायुसेना नगर में मेंटेनेन्स कमान (एमसी) के कमांडरों के सम्मेलन में शिरकत की। वहां पहुंचने पर एयर मार्शल शशिकर चौधरी एवीएसएम वीएसएम एडीसी, एओसी-इन-सी एमसी ने वायुसेनाध्यक्ष की अगवानी की।

दो दिवसीय कार्यक्रम में एमसी के तहत आने वाले बेस रिपेयर डिपो, उपकरण डिपो और अन्य स्टेशनों/इकाइयों के कमांडरों ने हिस्सा लिया। इस दौरान चालू परियोजनाओं का जायजा लिया गया तथा आगामी वर्ष में एमसी की गतिविधियों और लक्ष्यों पर गौर किया गया।

कमांडरों को सम्बोधित करते हुये वायु सेनाध्यक्ष ने कहा कि भारतीय वायुसेना की विभिन्न और अहम जरूरतों को पूरा करने तथा उनका सही बंदोबस्त करने में एमसी प्रमुख भूमिका निभाता है। भारतीय वायुसेना की आधुनिक और भावी तैयारियों से जुड़ी जरूरतों को पूरा करने के लिये कमान ने जो कदम उठाये हैं, वायु सेनाध्यक्ष ने उन कदमों की सराहना की। उन्होंने कहा कि इस जटिल समय में रख-रखाव और परिचालन में सुधार करने की आवश्यकता है, जिसके लिये स्वदेशी परियोजनाओं पर बल दिया जाना चाहिये।

हाल की घटनाओं का जिक्र करते हुये वायुसेनाध्यक्ष ने नई-नई सुरक्षा चुनौतियों का सामना करने के लिये सजगता और सतर्कता के महत्त्व को रेखांकित किया। उन्होंने आधुनिक प्रौद्योगिकी को अपनाने की जरूरत बताई, जैसे कृत्रिम बौद्धिकता, बदलावों का अपने-आप वजूद में आने की प्रक्रिया और भारतीय वायुसेना को चुस्त-दुरुस्त बनाना, ताकि यह सुनिश्चित हो सके कि भारतीय वायुसेना हर वक्त चुनौतियों से निपटने के लिये तैयार है।

वायु सेनाध्यक्ष ने कमांडरों की प्रशंसा की। उन्होंने अपने प्रयासों में स्वदेशीकरण और आधुनिकता के "मंत्र" को आत्मसात कर लिया है, ताकि एमसी भविष्य में एकीकृत कार्रवाइयों के लिये रख-रखाव और साजो-सामान की व्यवस्था करने वाले साधन-सम्पन्न संस्थान के रूप में काम करता रहे।

https://pib.gov.in/PressReleasePage.aspx?PRID=1745335

Press Information Bureau
Government of India

Ministry of Defence

Sun, 15 Aug 2021 11:25AM

Visit of Lt Gen CP Mohanty, Vice Chief of Army Staff to United States of America

Lt Gen CP Mohanty, Vice Chief of the Army Staff has proceeded on a five day visit to the United States of America. The aim of the visit is to enhance bilateral military cooperation and explore future avenues for military-to-military defense partnership.

The Vice Chief will attend the multilateral Chiefs of Defense Conference, being held in Hawaii, which will be marked by discussions on three important topics: how Covid-19 will change national security forever; role of minilateralism in a free and open Indo-Pacific; and challenges and opportunities of technology enabled threats. In the course of the visit, Lt Gen CP Mohanty will also interact with the senior military leadership of the countries attending the Chiefs of Defense Conference.

Later, the Vice Chief of the Army Staff will travel to Washington DC and interact with senior military leaders and civilian officials of the Department of Defense of the US. He will also visit the Program Executive Office (PEO) Soldier and witness innovations in close combat squads, Soldier Survivability, Soldier Lethality, Soldier Manouever and Precision Targeting and Integrated Visual Augmentation System. The meetings are aimed at increasing military to military cooperation between the two countries.

https://pib.gov.in/PressReleasePage.aspx?PRID=1746035

पत्र सूचना कार्यालय
भारत सरकार

रक्षा मंत्रालय

Sun, 15 Aug 2021 11:25AM

उप सेना प्रमुख लेफ्टिनेंट जनरल सीपी मोहंती अमरीका के दौरे पर

उप सेना प्रमुख (वाइस चीफ ऑफ द आर्मी स्टाफ) लेफ्टिनेंट जनरल सीपी मोहंती अमरीका की पांच दिवसीय यात्रा पर गए हैं। उनकी इस यात्रा का उद्देश्य द्विपक्षीय सैन्य सहयोग बढ़ाना और दोनों देशों की सेनाओं के लिए रक्षा भागीदारी के अवसरों का पता लगाना है।

उप सेना प्रमुख लेफ्टिनेंट जनरल सीपी मोहंती हवाई में आयोजित होने वाले बहुपक्षीय रक्षा प्रमुखों के सम्मेलन में भी भाग लेंगे। जिसमें तीन प्रमुख विषयों- कोविड-19 किस प्रकार राष्ट्रीय सुरक्षा को हमेशा के लिए परिवर्तित कर देगा; एक स्वतंत्र एवं मुक्त हिन्द-प्रशांत में लघुपक्षवाद (मिनीलेट्रेलिज्म) की भूमिका और प्रौद्योगिकी सक्षम खतरों की चुनौतियों और अवसरों के बारे में विचार विमर्श किया जाएगा। अपनी यात्रा के दौरान लेफ्टिनेंट जनरल सीपी मोहंती रक्षा प्रमुखों के सम्मेलन में भाग ले रहे देशों के वरिष्ठ सैन्य नेतृत्व के साथ भी बातचीत करेंगे।

बाद में, उप सेना प्रमुख लेफ्टिनेंट जनरल सीपी मोहंती वाशिंगटन की यात्रा करेंगे और अमरीका के रक्षा विभाग के वरिष्ठ सैन्य अधिकारियों और नागरिक अधिकारियों के साथ भी बातचीत करेंगे। श्री मोहंती प्रोग्राम एक्जिक्यूटिव ऑफिस (पीईओ) सोल्जर का भी दौरा करेंगे और नजदीकी लड़ाकू दस्तों, सोल्जर

लीथेलिटी, सोल्जर मैन्यूवर एंड प्रीशिसन टार्गेटिंग एंड इंटीग्रेडेट विजुअल ऑग्मेंटेशन सिस्टम में नवाचारों का अवलोकन करेंगे। इन बैठकों का उद्देश्य दोनों देशों के बीच सैन्य सहयोग बढ़ाना है।

https://pib.gov.in/PressReleasePage.aspx?PRID=1746072

THE NEW INDIAN EXPRESS

Sat, 14 Aug 2021

India's armed forces are ready to deal with any security challenge: CDS Bipin Rawat

Gen Bipin Rawat said India is a peace-loving nation but it had to train its forces for war considering the kind of challenges it has been facing

New Delhi: India's armed forces are ready to deal with any security challenge, and measures taken to increase synergy among the three services will enhance their overall capabilities, Chief of Defence Staff Gen Bipin Rawat said on Friday.

Chief of Defence Staff Gen Bipin Rawat (Photo | PTI)

Gen Rawat also recalled Prime Minister Narendra Modi's directions to modernise the armed forces and noted that there was a need to increase their capabilities further.

The Chief of Defence Staff was speaking at an event to mark the 75th anniversary of India's Independence which is being celebrated as 'Azadi Ka Amrit Mahotsav'.

Gen Rawat said India is a peace-loving nation but it had to train its forces for war considering the kind of challenges it has been facing.

"Our prime minister has given us some directions that we have to focus on our country's economic revival, think on human resource development and encourage technology and research. We have to progress towards military defence reforms," Gen Rawat said.

In an apparent reference to cross border terrorism into Jammu and Kashmir, he said ending it is one of the focus areas.

"The armed forces are ready to deal with any challenge," Gen Rawat said, adding efforts taken to increase jointness among the forces will enhance their capabilities.

As part of India's mega defence reform initiative, Gen Rawat has been working on the theaterisation model under which at least six new integrated commands are being envisaged.

As per the plan, each of the theatre commands will have units of the Army, the Navy and the Air Force and all of them will work as a single entity looking after security challenges in a specified geographical territory under an operational commander.

At present, the Army, Navy and the Air Force have separate commands.

Initially, a plan has been firmed up for the creation of Air Defence Command and Maritime Theatre Command.

In his brief address, the Chief of Defence Staff also remembered Mahatma Gandhi and Netaji Subhas Chandra Bose for their leadership role in India's Independence movement.

https://www.newindianexpress.com/nation/2021/aug/13/indias-armed-forces-are-ready-to-deal-with-any-security-challenge-cds-bipin-rawat-2344383.html

R.भारत

Sat, 14 Aug 2021

DRDO भवन में आजादी का अमृत महोत्सव में बोले CDS बिपिन रावत- 'देश की एकता को तोड़ने वालों पर होगी कठोर कार्रवाई'

CDS जनरल बिपिन रावत ने कहा कि मैं यकीन के साथ कह सकता हूं कि आने वाले सालों में हम जिस तरह से अपने सैनिक कार्रवाई की प्रक्रिया में बदलाव लाने जा रहे हैं इससे हमारी शक्ति और बढ़ेगी।

By Ankur Srivastava

रक्षा मंत्री राजनाथ सिंह ने डीआरडीओ भवन में आज़ादी का अमृत महोत्सव से संबंधित रक्षा मंत्रालय के विभिन्न कार्यक्रमों की शुरुआत की। रक्षा मंत्री ने भारतीय सेना की टीम के पर्वतीय अभियान को हरी झंडी दिखाई। इस मौके पर अपने संबोधन में राजनाथ सिंह ने कहा कि रक्षा मंत्रालय के द्वारा ये कार्यक्रम आज़ादी का अमृत महोत्सव के उपलक्ष्य में आयोजित किए गए हैं। इसमें सभी विभागों का सम्मिलित प्रयास हैं। उन्होंने कहा, 'राष्ट्रीय चेतना और राष्ट्रीय स्वाभिमान की भावना मनुष्य के हृदय की सबसे बलवती भावना होती है। राष्ट्रीय स्वाभिमान को दुनिया की कोई ताकत चुनौती देती है तो उसका मुकाबला करने के लिए हमारे तीनों सेना के जवान तैयार हो जाते हैं और मुंहतोड़ जवाब देते हैं।

वहीं इस कार्यक्रम में चीफ ऑफ डिफेंस स्टाफ (CDS) जनरल बिपिन रावत भी मौजूद थे। उन्होंने कहा कि मैं यकीन के साथ कह सकता हूं कि आने वाले सालों में हम जिस तरह से अपने सैनिक कार्रवाई की प्रक्रिया में बदलाव लाने जा रहे हैं इससे हमारी शक्ति और बढ़ेगी। सशस्त्र बल किसी भी काम को अधूरा नहीं छोड़ेंगे। चुनौतियां अभी भी बाकी हैं। उन्होंने आगे कहा, 'देश की एकता और अखंडता को हमें बना कर रखना होगा और कोई संस्था देश की एकता को तोड़ने की कोशिश करता है तो कठोर कार्रवाई करेगें।'

और क्या कहा राजनाथ सिंह ने

राजनाथ सिंह ने कहा कि 75 साल पहले हम आजादी के लिए संघर्ष कर रहे थे, आज आज़ादी का अमृत महोत्सव मना रहे हैं। ये सौभाग्य का क्षण है। 75 साल पहले हमारे स्वतंत्रता संग्राम सेनानियों ने आवश्यकता पड़ने पर पहाड़ों में शरण ली। आज हम उन्हीं पहाड़ों पर पर्वत अभियान कर रहे हैं। उन्होंने कहा, 'हम शस्त्रों के सबसे बड़े आयातक जाने जाते थे। अब भारत शस्त्रों का नंबर एक आयातक नहीं रहा। भारत को हम आत्मनिर्भर बनाएंगे। इस दिशा में प्रयास चल रहे हैं। हम भारत को आयातक नहीं दुनिया का निर्यातक देश बनाना चाहते हैं।'

https://bharat.republicworld.com/india-news/general-news/azadi-ka-amrit-mahotsavstrict-action-will-be-taken-against-those-who-break-the-unity-of-the-country-says-cds-bipin-rawat

THE WEEK

Sat, 14 Aug 2021

Why IAF has an edge over Chinese air force

By Pradip R Sagar

Early this year, when satellite images showed two Chinese J-20 stealth fighters parked in Hotan airfield in China's restive Xinjiang region, a senior Indian Air Force officer said, "Relax, China would never want an aerial skirmish with India, as it could expose its 'hyped-up' capabilities."

When it comes to air power, India is hard to beat, says key IAF men. Air Chief Marshal (retd) B.S. Dhanoa, known as the architect of the Balakot strikes, says India's adversaries would think twice before starting a war as the IAF holds a major edge in the region.

Jewel in the crown: A Rafale jet trial ahead of the 2021 Aero India at Bengaluru | Bhanu Prakash Chandra

The reason behind the swagger: the IAF has acquired some of the world's best aircraft in less than 12 months. Thanks to Dassault's Rafale jets (two squadrons raised), Boeing's Apache and Chinook helicopters and a modern fleet of transport aircraft, it has become a reliably mighty force. India has also integrated its formidable missile arsenal with the IAF fleet.

> "The new acquisitions and upgrades of existing capabilities have given the IAF the visible ability to strike deep even in a contested airspace."

As the 15-month-long border tensions between India and China begin to ease, experts say the IAF's show of power prevented any Chinese misadventure. Unlike 1962, when air power was not used, IAF fighters and attack helicopters had made their presence known during the Ladakh standoff. The new acquisitions and upgrades of existing capabilities have given the IAF the visible ability to strike deep even in a contested airspace. "It's good that we are getting the best available aircraft in the world," said a former air chief. "It gives technological advantage over our immediate neighbours. But, I believe we need more numbers."

So the focus is now on gaps and deficiencies. With more than 1,700 aircraft—around 900 of them fighters—the IAF is the world's fourth largest air force. It has a mixed inventory sourced from the US, Russia and Europe. The IAF is now streamlining and upgrading its fleet of Jaguar, Mirage-2000, MiG-29 and Sukhoi-30 Mki fighters. Half of the 116 Jaguars are being given DARIN III (Display Attack Ranging Inertial Navigation) upgrades, which involves providing a new radar, a fully integrated electronic warfare suite, smart multi-function displays, new avionics and a new attack system. There is also a plan to have a more powerful engine (Honeywell F-125IN) for 80 Jaguars. IAF officials say they are not in hurry—the fleet still has 15 more years of life. Also, apart from upgrades planned for 59 existing MiG-29s, the IAF is also acquiring 21 more MiG-29s and has issued a tender for 114 fighter jets to be manufactured in India on a transfer-of-technology basis.

Experts say the IAF can match, or even better, the Chinese air force in a limited air war. The missile arsenal also gives the IAF a strong advantage. Integrated with fighter jets are a variety of missiles—from the deadly BrahMos and the Advanced Short Range Air-to-Air Missile (ASRAAM) to the long-range, air-to-air Python 5 and MICA missiles. The Air Force also has SPICE 2000 air-to-ground missiles (of Balakot fame) and HAMMER (Highly Agile and Manoeuvrable Munition Extended Range) air-to-ground precision-guided weapon systems. "Most fighter jets have been integrated with these missiles systems," said a top IAF officer. "It enhances not just the firepower multiple times, but also the morale of our pilots."

China has more than 2,000 combat aircraft, including J-20, J-10, J-11 and Su-27 fighter jets. It also has a long-range strategic bomber fleet, around 20 AWACS (airborne warning and control

system) aircraft, and a variety of combat drones. The Chinese air force may have a numerical advantage, but military observers say it suffers from a lack of combat experience. Moreover, most Chinese fighters are a result of reverse-engineering, making it less reliable than a western aircraft.

According to Dhanoa, the combat experience of the People's Liberation Army Air Force remains sketchy. Since its bombing mission in the Korean war, the PLAAF has not carried out any offensive missions. "The IAF is now fully capable of sorting out both Pakistan and China," said Air Marshal (retd) S.B.P. Sinha, former deputy air chief who played a key role in bringing Rafale into India. "With its current strength of fighter aircraft, the IAF will get stretched to an extent in a collusive two-front scenario, but it will still manage because of its excellent training and operational preparedness."

The induction of Rafale jets and the formation of the second squadron of the LCA Tejas boosted numbers. "The Rafale brings in game-changing capabilities," said Air Marshal (retd) Anil Chopra of the Centre for Air Power Studies. "Rafale is better than anything that the PLAAF has to offer."

Private industry is also helping enhance the IAF's combat abilities. Larsen & Toubro has been part of various prestige military projects. "For the LCA programme, L&T supplies complete wings," said J.D. Patil, board member and whole-time director (defence and smart technologies), L&T. "We are also a production partner in a range of airframes, fuselage composite structures, control surfaces and stabilisers and flight control linkages for Advanced Light-utility Helicopter (ALH) and Light Combat Helicopter (LCH). L&T's contribution to the Mirage upgrade is through supply of under-wing launchers and MICA missile sub-systems through offset from MBDA."

The first regimental set of the S-400 air defence system will be delivered this year. It has short-, medium- and long-range missiles, with ranges going up to 400km. "It has a phenomenal capability that will pose a serious threat to China's H-6K bombers and their AWACS and flight refuelling aircraft. It will deter fighter strikes," said Chopra.

The location of the airfields, perhaps, gives the IAF its biggest advantage over China. Indian airbases are within 100km of each other, while Chinese bases in Tibet are as far apart as 400km. Fighter operations need deployments in airfields that offer mutual support.

According to Frank O'Donnell, non-resident fellow of the Stimson Center's South Asia Program, China is still in the process of developing less-scripted exercises for its pilots and integrating its land and air defence systems. "The force-to-force balance between India's China-facing air combat platforms and China's India-facing ones still favours India," he said, "if both are strictly limited to those within India's western, central and eastern air commands and the Chinese western theatre command."

https://www.theweek.in/theweek/current/2021/08/13/why-iaf-has-an-edge-over-chinese-air-force.html

THE HINDU

Sat, 14 Aug 2021

CSL to build anti-submarine corvettes, missile vessels

Works under way to ready INS Vikrant for six more sea trials

Kochi: Personnel of the Indian Navy and Cochin Shipyard Limited (CSL), which constructed India's first Indigenous Aircraft Carrier (IAC), to be christened *INS Vikrant*, are exhilarated at the outcome of the recent maiden five-day sea trial of the vessel. Works are under way to ready the over ₹20,000-crore vessel for the upcoming six sea trials.

A official on duty at the ski jump of INS Vikrant, India's first indigenous aircraft carrier, in Kochi on Friday. | Photo Credit: THULASI KAKKAT

Six personnel — two from the Navy and four from CSL — were on board the vessel for the five-day trial. Among them was Lieutenant Commander (Lt. Cdr.) Janet Maria Philip who hails from Thalassery. "Our task is to ensure that the vessel's massive structure, accommodation spaces, wet spaces, and even paint are intact. During the sea trial, we verified whether the equipment on board adhered to standards set by the Navy," she said.

On the maiden trial, in which around 1,500 personnel participated, she said everything happened as planned owing to robust collaboration between the Navy and the shipyard. The other woman Navy officer who took part in the trial was Lt. Cdr. Darshita Babu.

Among the four woman personnel of CSL were Revathy S. Sanan and Smrithi B. Ms. Sanan explained how the team combated the frequent 'rolling and pitching' of the vessel when the sea turned rough.

The vessel can continuously remain at sea for approximately 8,000 nautical miles (around 15,000 km).

A milestone

Suresh Babu, Director (Operations), CSL, said the vessel was a milestone in India's ship building history thanks to proven workmanship. "The yard has got a ₹6,000-crore contract to build eight anti-submarine warfare corvettes and a ₹10,000-crore project to build next-generation missile vessels. Unlike commercial vessels that are built as per design, the IAC's design evolved concurrent with the construction, enabling inclusion of latest technologies. With 75 % indigenisation, ₹10,000 crore of the vessel's ₹20,000-crore price tag was spent in India," he added.

Flag Officer Commanding in Chief of the Southern Naval Command Vice Admiral A.K. Chawla said the 75% indigenous components had given a push to the Atmanirbhar Bharath initiative, since around 50 Indian PSUs and private firms were involved in supplying components. The percentage will increase for future projects.

https://www.thehindu.com/news/cities/Kochi/csl-to-build-anti-submarine-corvettes-missile-vessels/article35905944.ece

TIMESNOWNEWS.COM

Sat, 14 Aug 2021

[Exclusive] India-Russia defence deal gets go-ahead: AK-203 assault rifles to be made in India

The announcement had been made over a year ago, but the negotiations were prolonged. The manufacture of the AK-203 in India is another triumph for indigenous production

By Srinjoy Chowdhury

New Delhi: On the eve of India's Independence Day, there's been a major breakthrough, not just for the Army but also the central police forces in the country.

After over a year of negotiation, India and Russia have agreed to the terms for the manufacture of the AK-203 assault rifle in a VIP Lok Sabha constituency in Uttar Pradesh.

The announcement had been made over a year ago, but the negotiations were prolonged. The manufacture of the AK-203 in India is another triumph for indigenous production.

Over 6 lakh Kalashnikov assault rifles will be made here, now that the differences between Russia and India have been sorted out. Now, the weapons will be manufactured by a firm called Indo-Russian Private Ltd.

There will be a TOT, or transfer of technology, and importantly, no royalty for weapons made. Under the just worked out agreement, the cost of the rifle will come down, and for now, the quantity. The total cost is going to be about Rs 5,125 crore.

The AK-203, a successor of the famous AK-47, designed by Mikhail Kalashnikov while he lay in a hospital bed, recovering from his injuries during the Second World War, is an easy to use, reliable, and importantly, an inexpensive weapon for soldiers.

After the 1.2 million strong Army gets it-- the AK-203 will be a basic weapon for the troops--it could go to the central police forces as well.

https://www.timesnownews.com/india/article/india-russia-defence-deal-ak-203-assault-rifles-to-be-made-in-india/798717

FINANCIAL EXPRESS
Read to Lead

Sat, 14 Aug 2021

Indian Navy projects power across IOR, carries out drills with Gulf countries

Showcasing its presence in the Persian Gulf region also serves as a reminder to China that the Indian Navy's charge of projecting power across the Indian Ocean Region is not subsiding

By Huma Siddiqui

By focusing on stronger military ties with the UAE and Saudi Arabia – both key global suppliers of hydrocarbons – India hopes to maintain robust diplomatic relations while ensuring coordination in the event of security concerns in crucial sea lanes.

Exercise with Saudi Navy. (Photo credit: Indian Navy)

"The naval exercises conducted by the Indian Navy with the navies of the UAE and Saudi Arabia underline a broader outreach effort by India with nations in the Middle East," Daniel Darling, Senior Military Markets Analyst, Europe & Asia/Pacific Rim, Forecast International Inc., says.

According to the US based expert, "The naval exercises ultimately serve as diplomacy by other means, amounting to "showing the flag" and tightening military-to-military relations. Such exercises may also lead to potential sales of defense materiel to two significant importers of military hardware."

"Rather than cede influence across the region to China, India is undertaking a diplomatic engagement campaign with regional countries of disparate backgrounds and interests, be they Israel, Iran, or the aforementioned Gulf nations," he opines.

"It is important to note that the shipping lane stretching from the Persian Gulf into the Arabian Sea and across the Indian Ocean represents the crucial transport lifeline for about 60 percent of Chinese oil and over 70 percent of India's," Mr Darling says.

Showcasing its presence in the Persian Gulf region also serves as a reminder to China that the Indian Navy's charge of projecting power across the Indian Ocean Region is not subsiding.

"Cooperation with other nation's militaries bolsters the Indian armed forces' out-of-theater sustainability (through potential agreements regarding usage of ports and refueling capabilities, for example), relations with potential security partners, and strategic depth with which to check China's advances in the Gulf," he concludes.

Ex 'Al -Mohed Al-Hindi' (Indian Navy and Royal Saudi Naval Force)

Ambassador of India to the Kingdom of Saudi Arabia Dr Ausaf Sayeed, accompanied by the Flag Officer Commanding Western Fleet (FOCWF), Rear Adm Ajay Kochhar had visited INS Kochi at Al Jubail ahead of the exercises.

On August 12, 2021, the sea phase of the first ever bilateral exercise 'Al – Mohed Al – Hindi' between the navies of India and Royal Saudi Naval Force started off the coast of Al Jubail.

While the Indian Navy has deployed it's indigenously built stealth destroyer Kochi with two Sea King helicopters MK 42B helicopters on board and the Royal Saudi Navy has sent in a missile corvette Badr with two FACs.

Focus of the first ever naval exercise

Anti-piracy, asymmetric threat, replenishment at sea procedures, and boarding operations were the focus of the drill on day one.

Both navies are also in collaborative and complex exercises as well as targeting drills to further enhance interoperability and synergy between the navies of the two countries.

Zayed Talwar 2021 (India – UAE Navy Bilateral Exercise)

This took place off the coast of Abu Dhabi on August 7, 2021, indigenously built INS Kochi, two Sea King MK 42B helicopters, which is presently deployed in the Persian Gulf, participated in the drill. And from the UAE side — Baynunah class guided missile corvette UAES AL – Dhafra, and one AS – 565B Panther helicopter were sent to participate in the drill.

The focus of the exercises was on the Search and Rescue, Electronic Warfare, Tactical manoeuvres, and Over the Horizon Targeting, to strengthen the interoperability and synergy between the two navies.

All through the exercise, according to the Indian Navy helicopters were extensively used.

https://www.financialexpress.com/defence/indian-navy-projects-power-across-ior-carries-out-drills-with-gulf-countries/2310440/

INDIA TODAY

Sat, 14 Aug 2021

What makes the Indian Army's Parachute Brigade so special?

The regiment has been deployed in every conflict since Independence and is the army's emergency rapid response team

By Sandeep Unnithan

New Delhi: In the afternoon of December 11, 1971, Brigadier Abdul Qadir Khan and his officers stood on the verandah of the white Circuit House in Tangail, a town 78 km north-west of Dacca. It was a week after the Indian Army's 'race to Dhaka' had been launched, a three-pronged ground offensive to capture the capital of East Pakistan. A Pakistani flag fluttered atop the building. Khan, the 93 Brigade commander and his officers were, in the words of Major Siddique Salik, 'waiting for some bright idea to come. What came instead, were enemy aircraft, which started dropping men and machines.'

Para Brigade personnel display their combat skills during a demonstration of combat free fall by 75 paratroopers to mark the 75 years of India's Independence at BOC Ground in Agra, on Aug. 13, 2021.

There was dismay as the skies darkened with the silhouettes of IAF An-12s, C-119s and Caribou. As a piece of equipment descended beneath its parachute, an officer exclaimed, 'My God! That looks like a 3.7-inch howitzer!' The officers watched as the 2nd battalion of the Indian Army's Parachute Regiment, over 1,000 paratroopers led by Lt Colonel S.J.S. Pannu, carried out a textbook parachute landing. Later that evening, 2 Para linked up with the advancing 1 Maratha Light Infantry to cut off the 93 Brigade's retreat towards Dhaka. Five days later, the entire East Pakistan military garrison surrendered to the Indian Army, as recounted in minute detail by Lt General A.A.K. Niazi's public relations officer Major (later Brigadier) Salik, in his 1977 book, *Witness to Surrender*.

On August 13 this year, the 50th Parachute Brigade displayed its air-dropped jeep-mounted anti-tank units, artillery pieces and paratroopers at its home base in Agra. Present at the occasion were Lt General Yogendra Dimri, GOC-in-C of the Central Command and Para Brigade commander

Brigadier P.K. Singh. Seventy-five parachutists jumped from IAF aircraft to commemorate India's diamond jubilee celebrations. Appropriately so as the parachute regiment has seen action in all of India's wars. Raised in 1941, it was deployed during the 1947-48 Kashmir War, the 1961 Liberation of Goa, the wars of 1962, 1965 and 1971 and the Kargil conflict of 1999.

Several countries around the world have airborne forces— described as infantry units carried into the combat theatre by aircraft and air-dropped into battle zones. Few outside the five members of the UN Security Council have the vast aviation assets required to launch such special units into the theatre. The Indian Army's Parachute Brigade relies on IAF C-17, C-130s and IL-76s for deployment in battle. The Brigade is the army's smallest force, comprising all arms and services and completely optimised for air insertion. It can also be ground-inserted, or moved across the seas on troop transport ships giving the army a versatile force and an instrument of what an army officer describes as 'lethality, survivability and mobility'.

The Para Brigade comprises three battalions of around 800 soldiers each, backed by BMP-2 Infantry Combat Vehicles, a field artillery regiment, anti-tank and air-defence units, a field hospital, army engineers, signals, ordnance and provost units. The Brigade is fully self-contained because they are designed to be inserted behind enemy lines and hold out until they are joined by the main body of troops. They are designed to be airlifted at a few hours' notice, the reason why the army almost always reaches for them in an emergency. In 1988, when the Maldives was besieged by mercenaries, president Maumoon Abdul Gayoom dialed then Indian prime minister Rajiv Gandhi for assistance. The Indian Army flew the Para Brigade towards the atoll to repel the coup. During the Nepal earthquake on April 25, 2015, the Brigade's field hospital and engineer company were the first foreign aid units to land in Kathmandu. Lt General P.J.S. Pannu (no relation), a former deputy chief of army staff, recalls picking up the phone and asking for the Para Brigade commander. "I asked for the 60 Para field hospital to be deployed immediately, in self-contained mode for 15 days."

Looking ahead, the Para Brigade offers valuable lessons for the army. A modernisation plan currently under way will see army divisions being replaced with Integrated Battle Groups (IBGs)--brigade-sized formations with artillery and armour. These compact all-arms and services fighting units are key to the Army's 'Cold Start' war fighting strategy. They are designed to swiftly launch cross-border assaults in hours as opposed to days and weeks. IBGs will replace the infantry division with 12,000 soldiers as the primary striking arm of its field formations. More than just an idea whose time has come, the Parachute Brigade could be an idea which never really went away.

https://www.indiatoday.in/india-today-insight/story/what-makes-the-indian-army-s-parachute-brigade-so-special-1840661-2021-08-13

NewsOnAIR

Sat, 14 Aug 2021

Indian Navy takes part in US Navy-led SEACAT exercises with 19 other Indo-pacific nation in Singapore

The Indian Navy demonstrated its maritime maneuvers in U.S. Navy-led Southeast Asia Cooperation and Training (SEACAT) military exercise in Singapore. The military exercise also included navies of 20 other partner nations as well.

Nations like Australia, Bangladesh, Brunei, Canada, France, Germany, Indonesia, Japan, Malaysia, Maldives, New Zealand, Philippines, South Korea, Singapore, Sri Lanka, Thailand, East Timor, United Kingdom, United States, and Vietnam took part in SEACAT.

The maritime exercise aimed to foster enhanced cooperation between Southeast Asian countries by incorporating tactics, standardized training, and procedures to combat contingencies or illegal activities in the maritime domain.

Further, the drill is designed to encourage countries to use their naval forces to bolster understanding of the operational environment, build capacity for humanitarian support missions, and uphold international laws and norms.

Notably, the exercise featured a maritime operations center based out of the International Fusion Centre in Singapore, which will serve as a centralised hub for crisis coordination and information sharing of suspicious vessels during the simulation.

In total, the exercise witnessed close to 400 personnel and 10 ships, including the U.S. Navy's littoral combat ship Tulsa, P-8A Poseidon aircraft from Task Force 72, along with personnel from Task Forces 73 and 76, and the Pacific and 7th fleets.

Interestingly, the location of maritime exercise is dubbed as one of the most busiest waterways around the globe and has become an increasing focus of maritime interest.

SEACAT began in 2002 as "Southeast Asia Cooperation Against Terrorism" and this is the 20th iteration of the exercise. In 2020, the event was conducted as part of a virtual symposium amid the COVID-19 pandemic.

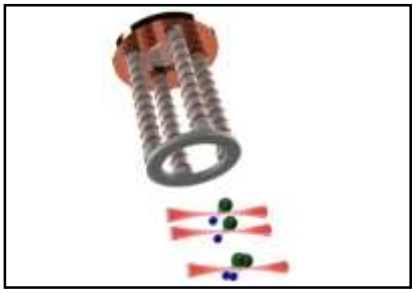
https://newsonair.com/2021/08/13/indian-navy-takes-part-in-us-navy-led-seacat-exercises-with-19-other-indo-pacific-nation-in-singapore/

PHYS.ORG

Sat, 14 Aug 2021

Shielding ultracold molecules with microwaves

Ultracold molecules are promising for applications in new quantum technologies. Unfortunately, these molecules are destroyed upon colliding with each other. Researchers at Harvard University, MIT, Korea University and Radboud University have demonstrated that these collisional losses can be prevented by guiding the interaction between molecules using microwaves in such a way that they repel each other and, therefore, do not come close to each other during collisions. Their paper will be published in *Science* on 13 August.



To shield the molecules, they are exposed to microwaves from an array of antennas. Credit: Radboud University

Upcoming quantum technologies such as quantum computing and quantum simulation are all the hype right now. Huge leaps are made towards their realization in various platforms such as trapped ions and Rydberg atom arrays. Ultracold molecules are another promising platform. Unfortunately, collisions between the molecules lead to loss as if they were chemically reactive, which has limited the ability to cool molecules over the last decade. A team of researchers has now demonstrated these collisional losses can be suppressed by engineering repulsive interactions between the molecules using microwaves.

Eliminating collisional losses and boosting elastic collisions will enable cooling molecules to a quantum gas and bring their application in new quantum technologies within reach. A unique perk of ultracold molecules is that interactions between molecules can be tuned and controlled by the turn of a knob in the lab, using external fields. For example, when the molecules are exposed to microwaves, their dipole moments will oscillate along with the microwaves. In this way we can control interactions between the molecular dipole moments.

Rather than following the microwave field, the dipole moments can also interlock with one another, which can cause either attraction or repulsion between the molecules. Repulsion between the molecules can prevent them from coming close together. "In this way we can shield the molecules from collisional losses," explains Tijs Karman of Radboud University, who proposed this method and whose calculations guided the experiment.

Experimental realization

For the first time, microwave shielding has been demonstrated experimentally in the lab of Professor John Doyle at Harvard University. This experiment uses calcium monofluoride molecules (CaF) that are cooled to a temperature of 100 µK using a technique called laser cooling. These molecules are then stored in individual traps made by focused-down laser light, which are called optical tweezers. Two of these tweezers, each containing a single molecule, are then merged to study collisions between exactly two molecules. To shield the molecules, they are exposed to microwaves from an array of antennas. In this way, physicists engineered repulsive interactions between the molecules that shield them from collisional loss. The loss rate has been reduced by a factor of six.

Cooling to a quantum gas of molecules

In addition to suppressing collisional losses, the repulsion between molecules when they are far apart leads to fast elastic collisions. Here elastic collisions are boosted by a factor 17. These elastic collisions are important for thermalisation. Fast thermalisation and slow loss is exactly what is

needed for further cooling of molecules by evaporation, a long-standing milestone in the field. Therefore, the shielding demonstrated here is major step towards creating a quantum gas of ultracold molecules and realizing future quantum technologies such as quantum computing and quantum simulation.

More information: Loïc Anderegg et al, Observation of microwave shielding of ultracold molecules, *Science* (2021). DOI: 10.1126/science.abg9502

Journal information: *Science*

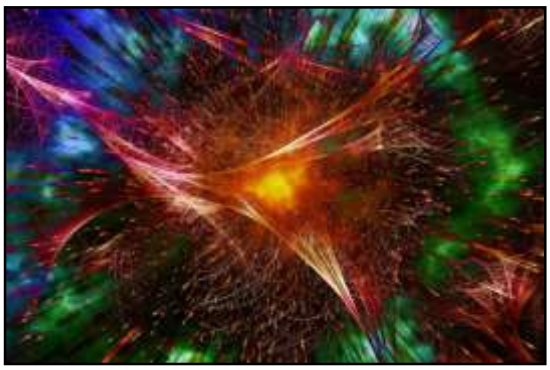
https://phys.org/news/2021-08-shielding-ultracold-molecules-microwaves.html

PHYS.ORG

Sat, 14 Aug 2021

Progress in algorithms makes small, noisy quantum computers viable

As reported in a new article in *Nature Reviews Physics*, instead of waiting for fully mature quantum computers to emerge, Los Alamos National Laboratory and other leading institutions have developed hybrid classical/quantum algorithms to extract the most performance—and potentially quantum advantage—from today's noisy, error-prone hardware. Known as variational quantum algorithms, they use the quantum boxes to manipulate quantum systems while shifting much of the work load to classical computers to let them do what they currently do best: solve optimization problems.



Credit: Pixabay/CC0 Public Domain

"Quantum computers have the promise to outperform classical computers for certain tasks, but on currently available quantum hardware they can't run long algorithms. They have too much noise as they interact with environment, which corrupts the information being processed," said Marco Cerezo, a physicist specializing in quantum computing, quantum machine learning, and quantum information at Los Alamos and a lead author of the paper. "With variational quantum algorithms, we get the best of both worlds. We can harness the power of quantum computers for tasks that classical computers can't do easily, then use classical computers to compliment the computational power of quantum devices."

Current noisy, intermediate scale quantum computers have between 50 and 100 qubits, lose their "quantumness" quickly, and lack error correction, which requires more qubits. Since the late 1990s, however, theoreticians have been developing algorithms designed to run on an idealized large, error-correcting, fault tolerant quantum computer.

"We can't implement these algorithms yet because they give nonsense results or they require too many qubits. So people realized we needed an approach that adapts to the constraints of the hardware we have—an optimization problem," said Patrick Coles, a theoretical physicist developing algorithms at Los Alamos and the senior lead author of the paper.

"We found we could turn all the problems of interest into optimization problems, potentially with quantum advantage, meaning the quantum computer beats a classical computer at the task," Coles said. Those problems include simulations for material science and quantum chemistry, factoring numbers, big-data analysis, and virtually every application that has been proposed for quantum computers.

The algorithms are called variational because the optimization process varies the algorithm on the fly, as a kind of machine learning. It changes parameters and logic gates to minimize a cost function, which is a mathematical expression that measures how well the algorithm has performed the task. The problem is solved when the cost function reaches its lowest possible value.

In an iterative function in the variational quantum algorithm, the quantum computer estimates the cost function, then passes that result back to the classical computer. The classical computer then adjusts the input parameters and sends them to the quantum computer, which runs the optimization again.

The review article is meant to be a comprehensive introduction and pedagogical reference for researches starting on this nascent field. In it, the authors discuss all the applications for algorithms and how they work, as well as cover challenges, pitfalls, and how to address them. Finally, it looks into the future, considering the best opportunities for achieving quantum advantage on the computers that will be available in the next couple of years.

More information: M. Cerezo et al, Variational quantum algorithms, *Nature Reviews Physics* (2021). DOI: 10.1038/s42254-021-00348-9

https://phys.org/news/2021-08-algorithms-small-noisy-quantum-viable.html

PHYS.ORG

Sat, 14 Aug 2021

A complete platform for quantum computing

In a new groundbreaking work, researchers from DTU have now realized the complete platform for an optical quantum computer. The platform is universal and scalable, it all takes place at room temperature, and the technology is directly compatible with standard fiber optic networks. This puts DTU right at the forefront of the development.

Credit: Technical University of Denmark

Optical quantum computers have long been overshadowed by superconducting technologies that have been accelerated by huge development programs run at tech giants like IBM and Google. The situation is now changing, one reason being a string of pioneering projects performed by researchers at the basic research center bigQ at DTU Physics.

In fact, the researchers at DTU are not limiting themselves to simply developing individual components for an optical quantum computer or just a quantum simulator. They are working determinedly on developing a universal measurement-based optical quantum computer.

Can run any arbitrary algorithm

Although the type of quantum computer that the DTU researchers are developing is conceptually very different from a normal computer, there are also similarities.

There are some basic logical devices (qubits) that carry the information, and there are gates that perform operations on one or more qubits, thus implementing an algorithm.

The demonstration of a so-called universal gate set—and the implementation of a number of operations by means thereof—is precisely what constitutes the new advance in optical quantum computing.

"Our demonstration of a universal set of gates is absolutely crucial. It means that any arbitrary algorithm can be realized on our platform given the right inputs, namely optical qubits. The

computer is fully programmable," says Mikkel Vilsbøll Larsen, who has been the main driving force behind the work and who recently completed his Ph.D. studies at DTU.

Scaling makes quantum computer practically relevant

The potential of the quantum computer is enormous, and its dramatically increased processing power relative to standard transistor-based computers will enable disruptive innovation in a wide range of areas of great importance to Denmark, such as the pharmaceutical industry, optimization of the transport sector, and development of materials for carbon capture and storage.

A crucial factor in fulfilling this potential is that the quantum computer is realized on a platform that is scalable to thousands of qubits, explains Senior Researcher Jonas S. Neergaard-Nielsen, who is one of the mainstays of the work.

"Theoretically, there's no difference between whether a quantum computer is based on superconducting or optical qubits. But there's a decisive practical difference. Superconducting quantum computers are limited to the number of qubits fabricated on the specific processor chip. In our system, we're constantly creating new ones and entangling them quantum mechanically with those we are performing calculations on. This means that our platform is easily scalable."

"In addition, we don't need to cool everything down in large cryostats. Instead, we can do it all at room temperature in optical fibers. The fact that the system is based on optical fibers also means that it can be connected directly to a future quantum Internet, without difficult intermediaries."

The researchers passed the scaling milestone already back in 2019 when—in an article in *Science*—they accounted for how, as some of the first in the world, they had produced the basic structure for a measurement-based optical quantum computer—a so-called two-dimensional cluster state with over 30,000 entangled light states.

Already looking determinedly ahead

Although they might be tempted to rest on their laurels for just a while, the team of researchers already have new goals in their sight.

Earlier this year,they developed and patented a full theoretical frameworkfor how their technology can also embrace error correction in the long term. This is one of the great current challenges for quantum computing technology.

"It's an important research result we've just published, and we're proud of it. But our ambitions go much further than that. The long-term goal is a quantum computer that can solve relevant problems and fulfill the potential we're all striving towards," says Professor Ulrik L. Andersen, who is head of bigQ and has supervised the whole research program.

"We know what it takes to place our current technology on an optical chip and introduce error correction, and we have the relevant international collaborations in place. The same applies to the corporate sector, where companies are eager to develop use cases with us."

In other words, the researchers at DTU are ready for the next challenges and to take the next step from basic research to innovation. In fact, funding is the only thing missing.

The research was published in the journal *Nature Physics*.

More information: Mikkel V. Larsen et al, Deterministic multi-mode gates on a scalable photonic quantum computing platform, *Nature Physics* (2021). DOI: 10.1038/s41567-021-01296-y

Mikkel V. Larsen et al, Deterministic generation of a two-dimensional cluster state, *Science* (2019). DOI: 10.1126/science.aay4354

Journal information: *Nature Physics* , *Science*

https://phys.org/news/2021-08-platform-quantum.html

COVID-19 Research News

Hindustan Times

Sat, 14 Aug 2021

Mumbai: IIT-B, Kasturba researchers develop quick test to predict high-risk severe Covid patients

The test – which performed with 85% accuracy in a small pilot study of Covid-19 patients – could in future be used to triage patients in areas with large outbreaks of Covid-19

By Priyanka Sahoo

Mumbai: Researchers from the Indian Institute of Technology-Bombay (IIT-B) and Kasturba Hospital, Mumbai, who were part of a global industry-academia collaboration, have developed an algorithmic model that can predict if a patient is more at risk of becoming severely ill from Covid-19.

The team, which included doctors and scientists from QIMR Berghofer Medical Research Institute in Australia and Agilent Technologies in the United States, have designed a novel method of using infra-red technology to rapidly test which patients are most at risk of becoming severely unwell from Covid-19. Their work was published in the peer-reviewed journal Analytical Chemistry on July 19.

The team was led by Sanjeeva Srivastava, professor in the department of biosciences and bioengineering and head of the Proteomics facility at IIT-B, who has been studying protein patterns in Covid-affected patients since last year. His team has been working with Kasturba Hospital for conducting a comprehensive proteomics-based investigation of nasal swab and plasma samples from Covid-19 patients to identify host prognosis markers by employing simple extraction strategies.

Earlier the team had used high-resolution mass spectrometry to establish a panel of host proteins. Building on this work, Srivastava endeavoured to create a simple test to detect any spike in proteins in the patient. “While mass spectrometry gave us accurate results, the process was cumbersome and required heavy equipment. So we needed to build a more handy test,” said Srivastava.

Fourier-transform infrared (FTIR) spectroscopy was used to measure the levels of different chemical groups in a sample. “From our FTIR study as well as previously performed mass spectrometry-based proteomics study, we can say that there is a correlation between blood chemical signature and becoming severely unwell with Covid-19. However, we can’t conclude that slight differences in these chemical groups cause patients to become more unwell. We can only conclude that there is an association,” Srivastava said.

From their previous works, the team had a large database of protein spikes in patients’ plasma samples. “We recorded the spectra of around 130 patients with mild and severe symptoms using FTIR spectroscopy. There were mild changes in the spectra of samples collected from patients with severe symptoms,” said Srivastava. These changes in spectra were sent for analysis to QIMR Berghofer.

The head of QIMR Berghofer’s Precision and Systems Biomedicine Research Group and associate professor, Michelle Hill, said “We found there were measurable differences in the infra-red spectra in the patients who became severely unwell. In particular, there were differences in two

infra-red regions that correspond to sugar and phosphate chemical groups, as well as primary amines, which occur in specific types of proteins," Hill said.

The head of QIMR Berghofer's Statistics Unit, Dr Gunter Hartel, then used artificial intelligence to develop an algorithm to work out which chemical groups, or 'signatures', were correlated with patients who became severely unwell.

The test – which performed with 85 per cent accuracy in a small pilot study of Covid-19 patients – could in future be used to triage patients in areas with large outbreaks of Covid-19. "It's easy to use and much more convenient than RT-PCR. It's simpler than the tests that doctors are currently doing to study protein spikes such as keratin," said Srivastava.

Dr Jayanthi Shastri, head of the microbiology department from Kasturba Hospital, said this kind of blood-based test will be beneficial for the clinicians in determining the severity of Covid-19 patients in India. The study was primarily funded by India's Science and Engineering Research Board, the Government of India, and a grant from IIT.

Arghya Banerjee, lead author of the study and a doctoral candidate in IIT-B said, "We now need to test the method in additional patient groups to confirm whether the findings of this study can be applied to other populations. We also found that having diabetes was a predictor of becoming severely unwell in this group of patients, so we fed this information into the algorithm. We then tested the algorithm on blood samples from a separate group of 30 patients from Mumbai and found it was 85 per cent accurate in predicting which patients would become severely ill. However, it did result in more 'false positives' than predictions that were based solely on the clinical risk factors of age, sex, hypertension and diabetes. We hope that with more testing we can reduce these false positives".

Scientists feel if the infra-red test proved successful in further trials, the teams hoped it could be used in hospitals facing high volumes of Covid-19 patients.

"While many countries worldwide are quickly vaccinating their populations, we know that it will take longer to vaccinate other nations, particularly in the developing world," Hill said.

"This simple infra-red test only takes a few minutes. We hope it could be a quick and cost-effective way of triaging patients who present at hospitals, particularly where capacity is limited. Patients with a high likelihood of severe Covid-19 complications could be admitted early in their illness, while other patients could potentially be sent home to monitor their symptoms," he added.

https://www.hindustantimes.com/cities/mumbai-news/mumbai-iit-b-kasturba-researchers-develop-quick-test-to-predict-high-risk-severe-covid-patients-101628872195866.html