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Wed, 10 Oct 2018

DRDO's grand exhibition a crowd puller!

LUCKNOW: Of the many hangars on the Gomti Nagar railway ground, one of the venues of the 4th India International Science Festival (IISF) 2018 being organised in the state capital, the one set up by the Defence Research and Development Organisation (DRDO) drew large crowds of visitors on Saturday.

The wide-ranging display included models of the latest aeronautical systems, armament and combat engineering systems, and communication systems.

Starting from models of long range surface-to-air missile (LRSAM) to NBC Permeable Suit MK-IV to the ship launched heavy weight torpedo — the elaborate display gave the hangar a grand look.

“It’s a chance for us to see models of latest armament from close quarters. It is also an opportunity to get to know a part of our defence personnels’ lives,” said Shah Ahmed, a college student from Hussainabad area of the city.

Shobhit Khanna, a school student, said, “This exhibition is inspiring. We are getting to learn of facts and statistics about latest missiles, torpedos, tanks and other weapons that we had seen only in Hollywood movies so far. This place is definitely worth a visit.”

The armament and combat engineering system section was among the most crowded places on the day.

It housed look-alikes of the Advanced Towed Artillery Gun System (ATAGS), Pinaka MK III Guided missile, 120mm Penetration Cub Blast (PCB), Arjun MBT MK I, Arjun MBT MKII, Wheeled Armour Platform and other sophisticated systems.

“It’s perhaps the biggest display of the DRDO aimed at highlighting the achievements of the organisation. It is telling people how the country’s prosperity is being enhanced by establishing a world-class science and technology base and by equipping the defence services with internationally competitive systems and solutions,” said Hemant Shukla, scientist, DRDO, while answering visitors’ queries.

Shukla said the response of the people was “extremely positive”. “People not only inquired about the equipment, but also about how they could get into the DRDO. I am sure this exhibition will help many in determining the course of their career,” he said.

Other organisations that took part in the exhibition included the Indian Space Research Organisation (ISRO), the Research Design and Standard Organisation (RDSO), the Green India Mission, the National Centre for Earth Science Studies, and the department of science and technology.

<https://www.pressreader.com/india/hindustan-times-lucknow/20181007/281603831415612>

Tue, 09 Oct 2018

3 Scientists detained after papers leaked to ISI

New Delhi: Two scientists from the Defence Research and Development Organisation and one from Brahmos Aerospace have been detained for allegedly leaking confidential documents to a suspected Pakistan-based ISI agent after becoming targets of a honeytrap. Two of the scientists are working with the DRDO’s Defence Materials and Stores Research and Development Establishment in Kanpur. The third scientist is working at a Brahmos unit in

Nagpur, which is involved in making critical components for the missile, according to sources. The missile, which is supersonic, can be fired from submarines, ships, aircraft or land. This person had been working at the Technical Research Section of the Nagpur unit for several years. The three scientists were active on some social media sites, where they were allegedly compromised. The Military Intelligence wing of the Central Army Command had been examining their activities on these sites and figured that they had allegedly become targets of honeytrap. It is suspected that the scientists had transferred some confidential documents to an ISI agent, who was pretending to be a woman, according to sources. The Uttar Pradesh and Maharashtra ATS were alerted about the matter and the scientists were thereafter detained. The computers of the three individuals have been seized and the authorities are questioning their associates.



Tue, 10 Oct 2018

BrahMos engineer arrested: ‘Pak handlers’ promised him job in US, fat pay

Nishant Aggarwal, the senior systems engineer of BrahMos Aerospace Private Limited, who was arrested on Monday on espionage charges, was promised a job in America with a hefty pay package by his “Pakistani handlers”, sources privy to the probe said on Tuesday.

“His interrogation has revealed that he was promised better job prospects by the handlers who posed as women and honey-trapped him. These accounts have been traced to Pakistan,” said an official.

The agencies are probing if Aggarwal leaked sensitive data pertaining to the supersonic cruise missile, BrahMos, to his “handler”, who is suspected to be from Pakistan.

BrahMos Aerospace is a joint venture between India’s Defence Research & Development Organisation and Russia’s Military Industrial Consortium, NPO Mashinostroyeniya. “Aggarwal seem to have shared some sensitive information in a coded form and we are trying to decode the same,” said the official.

The sleuths are also going to study his bank accounts and those of his relatives to see if any money was sent by the handler. “While the money wouldn’t have followed an official channel, but still his bank accounts will be probed to ascertain if there are unexplained funds deposits or transfers,” the official said.

Sources said Aggarwal was chatting with three different Facebook accounts, which the Indian agency suspected was being operated by the same handler. Aggarwal, who was active on social media, could have been spotted by Pakistan’s ISI as an easy bait, sources added.

“Though he was working on a sensitive project that involved national security, he had put out his professional details, including his rank, profile, the nature of the job he handled on social media and professional networking website. This could have been picked up by those trying to look for potential contacts in the Indian defence establishment to get data on country technology,” said an official.

Aggarwal’s Facebook profile states that he studied at the National Institute of Technology, Kurukshetra, and also worked as a research intern at IIT-Roorkee.

He worked as head of the Hydraulic-Pneumatics and Warhead Integration (Production Department) with the company and headed a 40-member team, including personnel from systems, engineers, technical and technology R&D group of BrahMos.

Aggarwal was supervising the new projects at BrahMos’ Nagpur and Pilani facilities and was privy to a lot of sensitive information, said officials. The handlers seem to be interested in getting information on the new technology that was being developed jointly by India and Russia.

Meanwhile, a local court in Nagpur on Tuesday granted the Uttar Pradesh Anti-Terrorism Squad (ATS) three-day transit remand of Aggarwal, who has been booked under Official Secret Act and Information Technology Act. Aggarwal was arrested in a joint operation of the UP ATS and Military Intelligence (MI) on Monday.

Aggarwal's father, a doctor from Roorke, who was in Nagpur on Tuesday, said his son was innocent. Aggarwal had got married in April and was staying in a rented house with his wife in the Ujjwal Nagar area of Nagpur.

Meanwhile, an UP ATS team is in Hyderabad to make enquiries with the company where Aggarwal was previously employed.

<https://indianexpress.com/article/india/brahmos-engineer-arrested-pak-handlers-promised-him-job-in-us-fat-pay-5394655/>



Wed, 10 Oct 2018

Army women officers for raid de Himalaya

Two women officers of the Army will ride motorbikes to compete in the 20th edition of the Raid De Himalaya, considered one of the 10 toughest high-altitude cross-country rallies of the world. Maj K Renuka and Capt Prabhakaran Santheni will ride the Royal Enfield Himalayan at the Raid in the Moto Adventure category. Major Renuka is from the Armed Service Corps and Capt Santheni from the Army Nurse Corps (AMC). Capt Santheni is currently working at the Army's Research and Referral Hospital in New Delhi.

The Raid De Himalaya will begin tomorrow from Kargil. For the first time, the Army has also fielded a women's team in Raid Xtreme (4X4), an extreme endurance event of marathon proportions. Maj Euthica of the ASC will drive a Maruti Gypsy at the Raid with navigator Capt Tejal Parashare, also of the ASC.

More than 200 competitors will race to Sankoo, the bowl-shaped valley known as Ladakh's Gulmarg (valley of flowers). The Raid will also go to Umba La, a high mountain pass at an elevation of 4.496 metres, and to Drass, called the gateway to Ladakh, in Kargil.



Wed, 10 Oct 2018

Army sets its sight on the future

The week-long biannual Army Commanders conference began here on Tuesday in which the service is keen to finalise several radical measures to right size the force and optimise the ballooning revenue expenditure. "As part of the conclave, commanders and directorates at Army Headquarters will deliberate on important studies that have been ordered to meet future operational challenges. There are four studies examining operational and optimisational issues of the Army and the headquarters as also human resources management aspects," the Army said in a statement.

The Army further stated that these studies aimed to improve the teeth-to-tail ratio, with the purpose of strengthening the structures within the Army, to make it combat-ready for the future.

Cadre review

The four studies being carried out by separate study groups are for restructuring of Army headquarters and Army restructuring, which includes cutting down the strength, cadre review of officers and review of terms and conditions of Junior Commissioned Officers and Other Ranks. Several mid-reviews were undertaken by the Chief of the Army Staff, General Bipin

Rawat, over the past few months and it will be debated threadbare at the highest level, the sources said. “The aim is to finalise the broad roadmap of the restructuring in this conference and agree on a roadmap on rolling out the measures,” an Army source said. The biggest concern for the Army is the mounting revenue expenditure and pensions, which leave very little for capital procurements.

While some of the measures can be rolled out immediately as they are within the service, some need approval from the Defence Ministry.



Wed, 10 Oct 2018

I'm not undermining HAL but need to look at reality: Nirmala Sitharaman

The government had reached the Rafale deal with France without any internal dissent, defence minister Nirmala Sitharaman told Shaurya Karanbir Gurung and Manu Pubby in an extensive interview in which she spoke about a range of issues including the recent S-400 deal with Russia and her upcoming trip to France. She emphasised that there are no longer any middlemen in the defence ministry and that her response in a TV show to a question on beheading by Pakistani terrorists was misinterpreted. Excerpts: Now that the S-400 deal has been signed and American statements have indicated possible sanctions, should India be concerned? It's not just after the signing of the contract, but even before it a lot of discussions happened within the ministry.

The need for a missile system like that has been well established. Except for China, no one else has an S-400. The importance and criticality of procuring a system like that need not be emphasised. I think that Prime Minister Modi was very clear. That we have to be taking care of India's position, located as we are, especially with both our borders having to be given that much more attention. He wanted to be sure that our armed forces are not left without the best of equipment. So we took a conscious call. The Prime Minister was clear that it's in India's interests. There is also the question of difficulties in processing payments to Russia due to American financial sanctions. As regards payments, sanctions are being imposed on Russia and not so much on us. The statement which came from the US probably says that they are not looking at country specific sanctions but more at identified people and institutions in Russia. It doesn't affect us so much but, yes, we have to see how the payments are going to be made. You are visiting France in the next few days. Could you tell us about the visit and what is on the agenda, including a possible meeting with the French President? Well, the appointment with the President is not finalised yet.

It is likely that it will happen. It is a visit which has been pending for a long time. Annual discussions of the ministerial level meeting are due, and therefore this visit. There is no other special context. But France has been maintaining a very special relationship with India on defence matters. There are so many agenda points for our discussion. They have asked me to visit a few of their air force and naval bases. It might be useful because I am going with a good delegation from the ministry, represented by the Army, Navy and Air Force. This is one way of building from strength to strength with the French.

Do you think the Rafale controversy will be a handicap for the French given that they are in contention for two possible contracts for India's Navy and Air Force? Well, the RFI (request for information) which has been issued will have its own standards and quality specifications. It will also have the IAF (Indian Air Force) going through the process. As and when there are purchases for any other force, or navy, each one will go through each of the process. Their trials and everything else will be done.

I don't think any particular discussion or controversy influences the other. Each one goes by the list of its merits. Do you think the dissent notes on Rafale were handled in the right manner? For every discussion, not just on Rafale, whether it is a technical team, a civil team, a negotiating team, they all have open discussion. Even in the Defence Acquisition Council (DAC), you have a lot of discussion. Everything is recorded. Everyone is free to say what they want. Every voice will be entered. So suppose there is a voice which is different and the rest are roughly on the same page, discussions carry on. But once the final call is taken, it is the final version which prevails. While the discussion happens, that one voice which is different would have been answered. In this specific case of Rafale, after the final discussions one position was taken by everybody.

When I say everybody, even this particular person who had a different voice, not a dissent voice during the discussion, was on the same page as everyone else. Otherwise, why would you think that the cabinet note which went, went with his signature? So dissension is not difference of opinion when the initial discussions are happening... they are different voices. Once the collective decision is made, if the person was indeed, as you say, dissenting, would he be the one to sign it to send to the cabinet for approval. I want you to understand that in the process of taking a decision, every voice is recorded. To pick on a voice that was different from what the decision was... was later on. And to say if that is dissent, no that is not dissent, that is difference at the level of discussion, post that everybody is on the same page once the collective decision has been made.

The BJP has raised the question of a middleman in the Rafale deal during the UPA tenure. Was that a matter of concern when the Rafale decision was taken, and is the defence ministry today free of middlemen? I can say for sure that the defence ministry has no middlemen walking here or influencing or trying to influence our decisions. With the guidance of the Prime Minister all of us are taking a call transparently. So no middlemen find space in the corridor. As regards the party saying something, I am not going to spend time on do I have proof or don't. But why couldn't they (UPA government) conclude a deal, if so much time was spent on it? Was the benchmark price (in the Rafale deal) changed? Those details are in the records.

There is a perception that only 36 jets have been procured when the number the air force projected was much higher at 126. No. In the (previous) MMRCA deal, some were to be procured in ready-to-fly condition and some others to be produced with a joint venture. The total requirement was 126, 18 in flyaway condition and the rest from HAL NSE 0.88 % and Dassault, with a certain timeline. What have we done is we ordered two squadrons in place of one, 36 in place of 18... 108 were to be produced if Dassault and HAL had agreed. For that we have gone for an RFI (global competition). Where is the number reduced? If anything in fly-away condition we are getting more than what they had. That's because we wanted something quickly. That which could come quickly and was ready to use – we are better off than them. So the number is not being reduced.

The methodology is not changed. Here we went for fly-away, two in place of one squadron and the rest we are going through an RFI. Where is the reduction? up capabilities of HAL? When we talk about capacity I don't want a quick response that HAL doesn't have capacity... I am giving you a calibrated explanation to say where they need help. That help is not something I came here to recognise. It could have been recognised 15 years ago, 10 years ago. Even as you gave the order for 40 (Tejas aircraft under UPA), you knew the timeline that annually they can produce only six or eight. So this debate unfortunately comes down to 'has MoD (ministry of defence) questioned HAL's capacity'? We are talking of HAL's scaling up, technologically becoming a lot more, skilling their manpower, expanding physical capacity. That's where I had two sessions of what we can do to enhance capacity. To give you an example, not to undermine the capacities we have, the Sukhoi under licensed production is probably 45 per cent more than buying Sukhoi from Russia. Now from how many years has the Nashik unit of HAL been producing Sukhoi? Does it mean that you can't produce Sukhoi? You can but with cost overheads. What is it that you can do to bring the cost overheads down? Those sort of things I

talk about when I talk of HAL. I regret that people who want to have meaningful engagement are not going into details.

Let us be honest to ourselves. That doesn't mean I am undermining my own PSU (public sector unit), but I need to look at the PSU's reality and what Modi's government has done within four years. Here I am talking politics... ten years, have you done something for enhancing its capacity? What concrete steps have been taken by the ministry? The first thing I have done for the Tejas is that their capacity to annually produce eight aircraft has now been increased to 16. I have doubled it. For this we have given enough support. We have told them that if they need additional space for testing and trials, we are willing to give it.

In Kashmir, there have been continuing instances of violence on the border and mutilations. There has also been some controversy over your remarks... The difference is we are eliminating them at the border, and this I can tell you for sure. That's not to say that nobody comes in; maybe someone manages to come in in spite of the watch.

So elimination or pushback is happening there at the border. Again, they (Pakistani terrorists) might do it with impunity, but we do follow the conventions. In fact, I have seen (reports on) a comment that India's minister has said... I was in a TV show ... It was in a light-hearted mood... 'Hum bhi karte hain' (we also do it). That doesn't mean 'hum bhi kaatte hain' (we also behead). India has never had a history of doing it... when I say 'hum bhi karte hain', it means we are pushing them back. To get back to me and say how dare... if only I had done (ordered mutilations) wouldn't Pakistan be shouting, look this is what India's army has done. So please criticise me with some facts in hand.

I am not seeking cover, but it was a lighthearted banter. The TV show has a blend of serious questions and jokes. I responded. For them (critics) to immediately say that India's defence minister has said that don't we follow any convention and we also behead them, what can I say?

THE ASIAN AGE

Wed, 10 Oct 2018

China to sell 48 high-end military drones to Pakistan

China, an "all-weather ally" of Islamabad, is the largest supplier of weapon system to the Pakistan Army. Both the countries also jointly manufacture JF-Thunder a single engine multi-role combat aircraft

China will sell 48 high-end military drones to its "all-weather ally" Pakistan in what a military observer said will be the largest deal of its kind, official media here reported on Tuesday. The cost of the deal was not revealed. Wing Loong II, a high-end reconnaissance, strike and multi-role endurance unmanned aircraft system, is manufactured by Chengdu Aircraft Industrial (Group) Company. The Unmanned Aerial Vehicle (UAV) will also be jointly manufactured, state-run Global Times reported.

China, an "all-weather ally" of Islamabad, is the largest supplier of weapon system to the Pakistan Army. Both the countries also jointly manufacture JF-Thunder a single engine multi-role combat aircraft. The announcement by China to permit the sale of high-end military drones comes in the immediate backdrop of India's move to acquire S-400 sophisticated missile defence systems from Russia. The deal was clinched during last week's visit of Russian President Vladimir Putin to New Delhi.

The deal for the acquisition of Chinese drones was announced by Pakistan Air Force's Sherdils Aerobatic Team on its official Facebook account on Sunday, the Global Times report said. It did not reveal the cost of the deal, when it was struck or when the Wing Loong IIs will be delivered, it said.

The air force academy aerobatics team announced that in the future, the Pakistan Aeronautical Complex Kamra and the Aviation Industry Corporation of China's Chengdu Aircraft Industrial (Group) Company will jointly manufacture the drones, the report said.

Chengdu Aircraft Industrial Group did not confirm when the deal was reached.

Wing Loong II made its maiden flight in February last year, an earlier report by the state-run Xinhua news agency said.

A Xinhua report in December last year said Wing Loong II UAS has already obtained the largest order of Chinese UAVs in the overseas market, even before its maiden flight. But the report did not specify the buyer. According to the report, the system is composed of the ground station and various number of unmanned aerial vehicles.

Within 10 months of its maiden flight, multiple live firing tests had been conducted in accordance with the requirement of its customers, including stationary targets, moving targets, time sensitive targets and air-ground coordination, the report said.

A deal involving as many as 48 Wing Loong IIs, if confirmed, would be China's largest export deal for drones to date, Song Zhongping, a military expert and TV commentator, told the Global Times. It makes sense the aerobatic team was closely involved with the deal, Song said, noting that the team is expected to train the drone operators.

The deal is trustworthy given the close military ties between the two countries and Pakistan's need for drones, Song said.

US drones like the MQ-1 Predator and MQ-9 Reaper are technologically more advanced, but Washington limits their export, Song said. Chinese drones will enjoy more success in the international market in the future, he said, as they perform similarly at a lower cost.

"Chinese UAVs like Caihong series also has clients from countries like Iraq and Saudi Arabia," Song added.



Wed, 10 Oct 2018

चीन, पाकिस्तान को बेचेगा 48 अत्याधुनिक सैन्य ड्रोन

बीजिंग, 9 अक्टूबर (भाषा)।

चीन अपने परंपरागत सहयोगी पाकिस्तान को 48 अत्याधुनिक सैन्य ड्रोनों की बिक्री करेगा। यह अपनी तरह का सबसे बड़ा ऐसा सौदा होगा।

चीन के सरकारी अखबार ग्लोबल टाइम्स ने मंगलवार को एक रपट में कहा पाकिस्तान को विंग लूंग-दो मानवरहित विमान प्रणाली की बिक्री की जाएगी। हालांकि इस वृहद सौदे की कीमत उजागर नहीं की गई है। इसका निर्माण चेंगदू एयरक्राफ्ट इंडस्ट्रियल (गुप) कंपनी ने किया है।

'First bio-electronic medicine developed'

Washington: Scientists say they have developed the first bioelectronic medicine an implantable, biodegradable wireless device that speeds nerve regeneration and improves the healing of a damaged nerve. Researchers at the Washington University in the US developed a device that delivers regular pulses of electricity to damaged peripheral nerves in rats after a surgical repair process, accelerating the re growth of nerves in their legs and enhancing the ultimate recovery of muscle strength and control. The size of a dime and the thickness of a sheet of paper, the wireless device operates for about two weeks before naturally absorbing into the body, according to the study published in the journal Nature Medicine. The researchers envision that such transient engineered technologies one day could complement or replace pharmaceutical treatments for a variety of medical conditions in humans.

The technology, called "bioelectronic medicine," provides therapy and treatment over a clinically relevant period of time and directly at the site where it's needed, thereby reducing side effects or risks associated with conventional, permanent implants. "These engineered systems provide active, therapeutic function in a prog into the body, without a trace," said John A Rogers from the Northwestern University in the US. "This approach to therapy allows one to think about options that go beyond drugs and chemistry," Rogers said. While the device has not been tested in humans, the findings offer promise as a future therapeutic option for nerve injury patients, researchers said.

For cases requiring surgery, standard practice is to administer some electrical stimulation during the surgery to aid recovery. However, until now, doctors have lacked a means to continuously provide that added boost at various time points throughout the recovery and healing process. "We know that electrical stimulation during surgery helps, but once the surgery is over, the window for intervening is closed," said Wilson Ray, an associate professor at Washington University. "With this device, we have shown that electrical stimulation given on a scheduled basis can further enhance nerve recovery," Ray said. Over the past eight years, Rogers and his lab developed a complete collection of electronic materials, device designs and manufacturing techniques for biodegradable devices with a broad range of options that offer the potential to address unmet medical needs.

The researchers designed and developed a thin, flexible device that wraps around an injured nerve and delivers electrical pulses at selected time points for days before the device harmlessly degrades in the body. The device is powered and controlled wirelessly by a transmitter outside the body that acts much like a cellphone-charging mat. Researchers then studied the bioelectronic device in rats with injured sciatic nerves which send signals up and down the legs and control the hamstrings and muscles of the lower legs and feet. They used the device to provide one hour per day of electrical stimulation to the rats for one, three or six days or no electrical stimulation at all, and then monitored their recovery for the next 10 weeks.

The researchers found that any electrical stimulation was better than none at all at helping the rats recover muscle mass and muscle strength. The more days of electrical stimulation the rats received, the more quickly and thoroughly they recovered nerve signaling and muscle strength. No adverse biological effects from the device and its reabsorption were found. By varying the composition and thickness of the materials in the device, Rogers and colleagues can control the precise number of days it remains functional before being absorbed into the body. New versions can provide electrical pulses for weeks before degrading. The ability of the device to degrade in the body takes the place of a second surgery to remove a non-biodegradable device, thereby eliminating additional risk to the patient.