

May
2020

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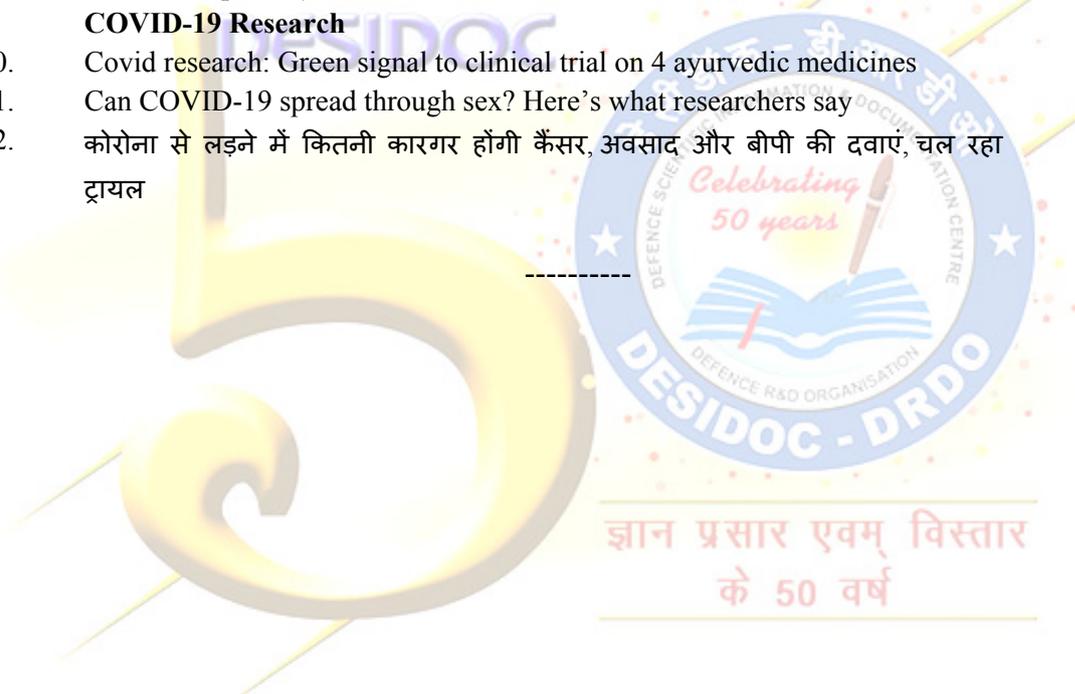
Volume: 45 Issue: 106 10 May 2020



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Vande Bharat Mission: Now a UV based luggage disinfecter system from DRDO

The baggage undergoes a 180-degree vertical orientation change between 2 separate UV chambers which help in ensuring uniform radiation exposure all throughout the surface

The first-ever UV based luggage disinfecter system developed and installed by Defence Research and Development Organisation (DRDO) at the Cochin International Airport (CIAL) in record time. NPOL – the sole DRDO laboratory in the state of Kerala has developed this system just in time to be used at the airport which is bring back the Indians who have been stranded overseas due to COVID-19 as part of the 'Vande Bharat Mission'

More about the system

It is a scaled-down version of a larger, fully automated, permanent luggage disinfecter system which was also designed by the DRDO for the Cochin Airport and the Indian Navy right when the pandemic started.

According to DRDO officials a prototype of the advanced larger system is already undergoing technical trials. The production partner for this product of DRDO is M/s. Apollo Micro Systems Limited, Hyderabad and the production of the grade version is expected soon.

Ahead of the 'Vande Bharat Mission', NPOL had to rework the design and came out with a system that can now be retrofitted on installations that were already at the airport.

According to NPOL director, Vijayan Pillai, "This is the extension of the UV baggage scanner that was being developed for the Indian Navy and for the use of DRDO. And plans are to have a UV based system for disinfecting the baggage of all vendors coming inside the building of NPOL post-COVID-19."

The scientists from NPOL scientists have been working closely with doctors at the Government Medical College, Ernakulam in an effort to calibrate the UV dosage required to disinfect various types of baggage.

How does the system work?

It forces every piece of baggage to undergo a 2 stage disinfection regime.

Then a fine shower of sodium hypochlorate is first sprayed onto the luggage, followed by a calibrated UV bath.

The baggage undergoes a 180-degree vertical orientation change between 2 separate UV chambers which help in ensuring uniform radiation exposure all throughout the surface.

The state government of Kerala has PSU M/s. Keltron to establish the CIAL model at all the 3 other airports including Kannur, Kozhikode and Thiruvananthapuram.

<https://www.financialexpress.com/defence/vande-bharat-mission-now-a-uv-based-luggage-disinfecter-system-from-drdo/1953385/>



It forces every piece of baggage to undergo a 2 stage disinfection regime.

DRDO, Noida firm design hands-free 'mist' sanitiser for govt offices

*Rashtrapati Bhawani, PMO, Supreme Court and other ministries
have already been equipped with the OakMist atomizer*

By Rinchen Norbu Wangchuk

Throughout the day, we frequently touch our eyes, nose and mouth. In fact, according to some studies, we touch our face about 23 times an hour.

Following this, if you use a bottle of hand sanitiser, and then somebody else touches its nozzle, there is a possibility of cross-contamination. While this wouldn't be a big deal otherwise, in the post-COVID world, it has become imperative to ensure that hands remain clean and hygienic throughout the day.



Responding to this requirement, a Noida-based firm

called Riot Labz worked with the Centre for Fire Explosive & Environment Safety (CFEES), a laboratory operating under the Defence Research and Development Organisation (DRDO), to manufacture a product called OakMist, which is a contact-less dispenser spraying alcohol-based hand sanitiser solution. Or in other words, a hand-free 'mist' sanitiser, that prevents any chance of cross-contamination and wastage of water.

At present, all government offices and residences of notable personnel, including the Rashtrapati Bhawan, the PMO, Supreme Court, Ministry of Home Affairs, among others have been equipped with OakMist.

From Prototype to Production

Prior to developing these OakMist units, Riot Labz had worked with CFEES on other projects as well.

However, when the design for a sanitiser dispenser unit first came on 15 April from CFEES with the requirement to develop a prototype immediately, the founders—Varun Gupta, Shishir Gupta and Nithin K David—decided to work on one from the confines of their home using whatever devices that were available to them ranging from electronic sensors to pumps drawn out from an aquarium.

“To develop a legitimate prototype, however, we needed permission to get out of our homes. So, we sent them our first shabbily-developed prototype showing them that making a more robust device was indeed possible. Once we got the DRDO's approval, we had permission to open our factory partially. In three days, which included barely any sleep, our team developed a final version of the prototype and installed two units at the DRDO headquarters. After using it for a few days, the higher-ups at DRDO said that this is the kind of unit they needed to prevent cross-contamination,” says Nithin, speaking to The Better India.

“Eventually, we got the go-ahead to manufacture this at scale. We went from prototype development to factory production in over a week, which is unheard of in our industry, but this was an emergency requirement. Initially, we were manufacturing 100-150 units per day, but now we have scaled up to 1,000 units a day with our factory in Noida,” he adds.

How does it work?

“The product is based on water mist aerator technology. The unit operates without contact and is activated through an ultrasonic sensor. A single fluid nozzle with a low flow rate is used to generate aerated mist to dispense the hand rub sanitiser. This sanitises the hands with minimum wastage. Using an atomiser, only 5-6 ml sanitiser is released for 5 seconds in one operation, and it gives the full cone spray over both palms so that disinfection operation of hands is complete,” says the press release issued by the firm earlier this week.

Nithin goes on to add that all you need to do is place your open palms under the unit and it starts spraying sanitiser.

“Following which, you keep rubbing your hands together for 20 seconds till it evaporates. It’s effortless to use and install since you can hang it on the wall by drilling two screws. Also, you don’t have to keep checking the unit to see whether there is enough sanitiser. We have indicators on the unit to let you know when to refill. The sanitiser comes out of a nozzle, which operates at high pressure and thus creates a mist. Any liquid hand sanitiser with more than 70% alcohol can be used to refill this unit. Nonetheless, I must emphasise that it has to be free-flowing liquid and not a gel-based sanitiser,” informs Nithin.

With a 5-litre capacity that releases 5-6 ml of the sanitiser, these units aren’t meant for domestic use, but for hospitals and large organisations, where a large number of users are going to use it at a high frequency.

Priced at Rs 12,990, the firm has taken orders from private hospitals as well, where a majority of their orders are coming from, alongside other private companies as well.

For the COVID-19 Battle

Established in 2015, Riot Labz was initially developing products for air conditioning control using IoT.

Today, they make products like smart plugs and smart remotes, beside a device for water tank management which will measure the amount of water in your tank and switch your pump on or off based on whether you have a municipal supply or underground supply. With the ongoing public health emergency, however, the firm decided to expand the scope of its product development and join the collective effort in managing COVID-19.

“India’s fight against COVID-19 can only be won by adopting healthy healthy habits, starting with better hygiene. Riot Labz is taking this innovation across the length and breadth of the country, and hopefully we have played our part in this fight,” concludes Shishir.

<https://www.thebetterindia.com/225897/coronavirus-innovation-hands-free-sanitiser-oakmist-drdo-noida-startup-pmo-office-nor41/>

DRDO Technology



Sun, 10 May 2020

S400 and MRSAM: How India changed firing protocols for effective use in the region

A Strike package of 24 jets come close to the Line of Control (LOC) fired their error-prone 1st Generation precision-guided munition and make a run for it when confronted without being

engaged by the Indian Army's air defense missile system (ADS) which were posted in the vicinity but did not fire at the aircraft thus giving Pakistan Air Force enough time to back off and head home to fight another day. Indian Army's Air defense missile system (ADS) is allowed to engage aerial targets only if IAF gives clearance or the target has intruded deep into Indian Air Force and has been confirmed to be a hostile aircraft. Firing protocols in place to prevent accidental drowning of enemy aircraft at LOC by mistake thus faring tension in the region.

Army's Foot soldiers who are usually armed with Man-portable Igla Air defense system claim that many times enemy aircraft come close to LOC and go back and in some rare instances when they do cross the invisible line but by the time it's confirmed and firing permissions come after approval from IAF, this jet is back in their airspace.

Firing protocols followed by both IAF and IA meant that they relied on each other for target confirmation and were engaged to fire only if intruded upon which changed on 27th February last year when it PAF jets fired PGMs and BVRAAMs while staying in its airspace.

India's first integrated Air Defence Command will be up and running by June this and according to media reports, many tweaks have been made in the firing protocols for the air defense missile system (ADS) units posted near the border areas to prevent 27th February in the future and inflict heavy casualty to the enemy aircraft.

In the first of tweaks, Currently, India has service-specific commands where the Army, Air Force, and Navy have their commands all over the country which prevented immediate action at the border but now under integrated tri-services command will be headed by a three-star Indian Air Force (IAF) officer who will have the power to bring all resources at his disposal, be it the IAF, the Army or the Navy seamlessly.

Under the Integrated theatre command, firing protocols will be changed and air defense missile system (ADS) units will be cleared to fire without permission if the hostile aircraft breaches a 10 km buffer zone within each other airspace and seems hostile. To prevent any friendly fire ADS units will improve on their Identification Friend-or-Foe (IFF) technology and also will rely on IAF's input for possible missions across the border.

With India starting to induct long range Surface to Air missile-like MR-SAM and S-400 Air defense missile system (ADS), New Firing protocols will allow hostile targets to be engaged deep within enemy airspace if they are not engaged by the short-medium range Air defense missile system (ADS) units due to range restrictions.

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<https://idrw.org/s400-and-mrsam-how-india-changed-firing-protocols-for-effective-use-in-the-region/#more-227109>





Sun, 10 May 2020

Covid-19: Armed Forces set up quarantine facilities for those returning from overseas

The Indian Navy has also set up a facility at Visakhapatnam, which too can take in 200 people with all the facilities available inside

By Huma Siddiqui

Six quarantine facilities have been readied by the Indian Armed Forces which can accommodate around 2,100 evacuated citizens from across the world. These facilities have been set up in close coordination with the Ministry of External Affairs and other government departments and state authorities, and will be housing returning Indians coming from countries like the UAE, Kuwait, Saudi Arabia, Bahrain and Malaysia.

These facilities which are in Jodhpur, Jaisalmer, Bhopal, Kochi, Vishakhapatnam and Chennai are going to be maintained by the three services: Army, Navy and the Air Force.

According to the Ministry of Defence, all the evacuees have to undergo mandatory quarantine as per the Standard Operating Procedures (SOP) in the quarantine facilities where they will get all the medical help, meals as well, recreational facilities.

It has been decided by the authorities that the 1000 Indians who have returned from Saudi Arabia are going to be kept at quarantine facilities at Jodhpur and Jaisalmer; 400 people from Kuwait are going to be at the Indian Army facility at Bhopal. And those coming from the UAE will be kept at Kochi, at a facility which can take in 200 people.

Those 150 coming from Bahrain will head to the Visakhapatnam facility run by Indian Navy, and the 350 returning from Malaysia would go to the Chennai quarantine facility. The Chennai facility is being managed by the Indian Air Force.

Quarantine Facilities set up by the Indian Navy

The Naval base, Kochi under Southern Naval Command (SNC), is already there to provide quarantine facilities for Indian nationals who are being evacuated from various countries from across the world. There are arrangements to take 200 people at one time. Inside the naval base, all facilities have been readied.

The Indian Navy has also set up a facility at Visakhapatnam, which too can take in 200 people with all the facilities available inside.

Also, in accordance with a Department of Health & Family Welfare, the Western Naval Command (WNC) has also operationalised a 100-bed quarantine camp within its premises at Ghatkopar, Mumbai. This facility could be used for keeping any asymptomatic patients under observation. This facility will be managed round the clock by a team of naval doctors, nurses, and medical assistants.

Facility Managed by Indian Army

Indian Army has set up quarantine facilities in various states across the country. Also, a team of doctors from the Army will be taking care of those who will put up at the Narela Quarantine Centre in Delhi. This is the largest facilities created in the country and those who are coming back from other countries may also be sent to this centre.

<https://www.financialexpress.com/defence/covid-19-armed-forces-set-up-quarantine-facilities-for-those-returning-from-overseas/1953295/>

Operation Samudra Setu: Two Indian Navy ships head to the UAE; INS Jalashwa sails back

Around 2,000 Indians will be evacuated from the island nation. And for this purpose two Ships of the navy – INS Jalshwa and INS Magar are being used

By Huma Siddiqui

Two Indian Navy ships — INS Shardul and INS Airavat are already heading towards the United Arab Emirates (UAE) to bring back the stranded Indians in that country. These ships are in addition to the flights of Air India “This is in addition to the Air India flights which have already landed in India with the stranded citizens who have been repatriated from there. The modalities of the ships entering the ports in UAE are being worked out and by the weekend they will be in,” said sources in the Indian Navy.

The Indian Navy ships which are going to different ports are carrying onboard medical teams and supplies as well as other materials as well as food grains which will be offloaded in several countries in the Indian Ocean Region (IOR). On return, there will be Indians who are being repatriated from countries in the IOR.

INS Kesari has already proceeded on deployment to Southern Indian Ocean Region and will be there until June. It will visit Madagascar, Comoros, Maldives and Seychelles where it is expected to deliver 10-12 tonnes of medicines each to all these countries and also deliver 660 tonnes of food grains to the Maldives.

India has dispatched medical teams to Medical teams comprising of 14 medical personnel including eight doctors and six paramedics to Mauritius and Comoros respectively.

Repatriation from Maldives onboard INS Jalashwa

Sources have confirmed to Financial Express Online that around 2,000 Indians will be evacuated from the island nation. And for this purpose two Ships of the navy – INS Jalshwa and INS Magar are being used.

These ships are expected to make a total four voyages and will return to the ports in Kochi and Tuticorin. “Though 4,500 out of the total the population of 27,000 Indians there have registered to return, first preference will be given to compelling cases such as medical, senior citizens, family emergencies and those who are jobless,” the source added.

“The Government of Male which is lockdown itself has been extending a helping hand to the Indian mission and the Indian Navy in the whole repatriation process”, said the source.

<https://www.financialexpress.com/defence/operation-samudra-setu-two-indian-navy-ships-head-to-the-uae-INS-jalashwa-sails-back/1953421/>



These ships are expected to make a total four voyages.

Why Air Force won't be a part of India's massive Covid evacuation for now

India plans to bring home over 2 lakh Indians stranded abroad due to the coronavirus pandemic. But unlike earlier evacuations, the IAF is on stand-by

By AVM Manmohan Bahadur (Retd)

The Akshay Kumar-starrer *Airlift* based on the 1990 Kuwait evacuation may be getting a plot for its sequel. India has planned the massive evacuation of almost two lakh Indians stuck in at least 12 countries due to the coronavirus pandemic.

This is one gigantic task that India is undertaking. The planning required is intricate and the execution has to be timely to meet the aspirations of the Indian community wanting to come home. To borrow a term used by aviators, it is catering to the GetHomeItis (get-home-itis) syndrome that normally afflicts flyers.

India has undertaken evacuations of such magnitude many times before, the one from Kuwait in 1990 being legendary in which 1,70,000 Indians were airlifted, predominantly by Air India and supported by the Indian Air Force (IAF). Then, from Libya in 2011 during the Libyan Civil War, where, under Op Safe Homecoming, around 15,000 nationals were given a sealift from Libya to Malta by the Indian Navy, and from there, by Air India back home. In 2015, under Op Rahat, Air India, the IAF and Indian Navy evacuated over 5,000 Indians during the Yemeni crisis. Some of the sorties flown by Air India pilots from Sanaa airport in Yemen were truly outstanding, in conditions that can only be described as hazardous – dust haze reduced visibility and absence of landing aids forced them to do visual approaches.

In the coronavirus evacuation, the Indian Navy, Air India and the IAF, if required, would be the flag bearers, once again.

I was the Assistant Chief of Air Staff at Air Hq looking after transport aircraft and helicopter operations, and can attest to the close inter-ministerial coordination required to plan such a massive operation, the intricate planning done in operational squadrons to sequence the flow of assets used in the evacuation and the dedication expected (and always exhibited) of the executors of the plan – pilots, sailors and technicians.

Earlier this year, the IAF has evacuated 170 Indians from China and Iran. But why is the IAF aircraft not being used this time and on stand-by? Four factors come in to play when Air Force assets are involved.

Major clearances required for IAF

First, is the country from where the evacuation is to be done friendly to India? The Yemen mission required diplomatic skills of our foreign office to plan the flights, and only Air India, not the IAF, flew the Yemen-Djibouti leg after which the IAF took over. Remember, Gen. V.K. Singh, of the Ministry of External Affairs, was stationed in the area to lend weight to diplomatic interventions.

Second, the country from where the evacuation has to happen may be friendly, but are the countries over which the aircraft have to fly willing to play ball? I remember that during my tenure at Air Hq, a decade back, the biggest obstacle was getting overflight clearances from Pakistan for IAF aircraft launched to Afghanistan for evacuating Indian casualties of numerous blasts that hit our Embassy and Consulates. Third, if there are numerous countries that the aircraft have to



File photo | A C-17 'Globemaster' aircraft of the Indian Air Force at Hindon airbase | PTI Photo

overfly, then multiple clearances have to be obtained. These are valid for a particular time period, and with some countries being notorious for giving clearances only at the last moment, any delay by one means starting the whole process again. In one Central Asian country, the clearance was given *personally* by the President — and he could not be woken up before 10 am, bringing-in an additional obstacle for an urgent mission.

Fourth, are there diversionary airfields available in a friendly country if an IAF aircraft has to divert for any reason? A Mi-26 helicopter on a ferry flight to Russia had planned to avoid Pakistani airspace but had to divert to Karachi due a technical defect – the crew had a very ‘interesting’ tale to recount on the time spent there.

Civil aircraft better for carrying people

So, whether to use IAF aircraft or not in an evacuation of the type being undertaken now is a decision governed by many factors. On the other hand, civil aircraft have to only file a flight plan as per civil aviation rules – it’s a process that is streamlined, fast and relatively hassle-free. Additionally, they have the advantage of having onboard facilities made for passengers– proper seats, overhead storage, good lighting, galley for food and, most importantly, toilets – imagine 150 people on a 10-hour flight with just one rudimentary toilet onboard an IAF IL-76. Yes, C-17s are slightly better, but there are other tasks for them that the civil fleet cannot fulfil.

The transport fleet of the IAF, comprising C-17, IL-76, C-130 and An-32, has the primary role of warfighting, when ordered to do so. These assets are vital and have to be nurtured, especially in these Covid-19 times. It’s a no brainer that funds would be at a premium the next few years due to austerity measures, and hence, the flying hours and the residual ‘life’ available have to be used judiciously. The decision *not to use* IAF aircraft, at this stage of the Vande Bharat mission, is a sound one; but if required, the warriors in blue can easily carry out the mission.

(The author is Addl. Director General, Centre for Air Power Studies, New Delhi. Views are personal)

<https://theprint.in/opinion/why-air-force-wont-be-part-of-india-covid-evacuation/417633/>

Defence Strategic: National/International

THE TIMES OF INDIA

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Sun, 10 May 2020

Forces must shun imports, go for ‘Make In India’, says Gen Bipin Rawat

By Rajat Pandit

New Delhi: The armed forces have to get rid of their overwhelming dependence on exorbitant foreign weapon systems, and instead put their entire weight behind ensuring that ‘Make in India’ does not remain a mere slogan, chief of defence staff General Bipin Rawat told TOI in an exclusive interview on Saturday.

“We are not expeditionary forces that have to deploy around the globe. We have to guard and fight only along our borders and, of course, dominate the Indian Ocean Region. So, we should not go in for large amounts of imports by misrepresenting our operational requirements,” said Rawat.

“Covid-19 has affected everybody. We need to be realistic, start adjusting and have a major relook at our operational priorities and what we actually need. Arms imports, along with supply of spares and maintenance, have become increasingly cost prohibitive,” said the country’s first tri-service chief.

His forthright remarks mean that the over 15-lakh strong armed forces have to undergo a major reorientation to wean themselves off foreign-made arms that have been their preferred option for long. The remarks are also significant in the backdrop of the temporary freeze in new major deals for foreign weapons and the possibility of the defence budget being slashed due to the enormous impact of the Covid-19 pandemic on the country's finances.

India currently languishes in the strategically vulnerable position of being the second-largest buyer of foreign weaponry after Saudi Arabia in the world, accounting for 9.2% of the total global arms imports during 2015-2019.

India has in recent years signed several big-ticket purchases for defence equipment, like the ones for 36 French Rafale fighter jets (Rs 59,000 crore) and five Russian S-400 Triumf surface-to-air missile squadrons (Rs 40,000 crore), even as the government has sought to promote home-grown options.

Rawat said there was no other option but to build a robust domestic defence-industrial base, even if indigenous weapon systems were initially produced with "reduced technical specifications" or GSQRs (general staff qualitative requirements) than those framed by the armed forces.

"We should boost 'Make in India' by hand-holding our domestic industry even if they deliver weapons with only 70% of the GSQRs in the beginning...given the opportunity, they will eventually deliver cutting-edge technology," he said.

The armed forces often push for imports because they come up with "unrealistic GSQRs" for weapon systems that DRDO, ordnance factories and the domestic industry simply cannot deliver in time. "We should define GSQRs as per our own operational requirements, and not look at what the US or other advanced countries have," said Gen Rawat.

If the armed forces need some high-tech weapon systems that cannot be made indigenously, then the focus should be on tying up with foreign partners for 'Make in India' projects with concrete transfer of technology. "India started small with Maruti-800 but has now become a major automobile manufacturing hub," he said.

The Army, for instance, is now importing a limited number of advanced assault rifles and light machine guns for frontline troops from the US and Israel, but the bulk of its requirements will be met through 'Make in India' projects.

The armed forces, while going in for genuine integration and slashing non-operational flab and manpower to reduce the ballooning revenue expenditure and pension bill, also have to better manage the financial resources available to them. "You will never have the resources you desire. Optimal utilisation of the available budget is needed," said Rawat.

There also needs to be proper prioritisation of operational requirements. The Navy, for instance, needs to decide whether it should push for a third aircraft carrier at this stage. "Anything on the surface can be picked up by satellites and knocked off by missiles. I think the Navy needs more submarines rather than aircraft carriers, which themselves require their own individual armadas for protection," he said.

The renewed thrust on 'Make in India', incidentally, comes after TOI last December reported that none of the major indigenous projects in the defence arena — new-generation stealth submarines, minesweepers, infantry combat vehicles, transport aircraft, fighter jets and two types of light utility helicopters for the armed forces - have actually taken off in the last six years. These seven long-pending projects, collectively worth over Rs 3.5 lakh crore, are either stuck or still meandering through different stages, without the final contracts to launch production being inked till now.

<https://timesofindia.indiatimes.com/india/forces-must-shun-imports-go-for-make-in-india-says-gen-bipin-rawat/articleshow/75652962.cms>

Why airmen are leaving Indian Air Force

*Western Air Command has asked its field commanders
to sensitise airmen about the policy changes*

By Bhartesh Singh Thakur

Chandigarh: An internal survey of the Indian Air Force (IAF) has revealed that airmen are leaving the service due to lack of a suitable environment and better prospects in civilian life.

As per a letter, circulated by Western Air Command to all Air Officers Commanding (AOC), Station Commanders and Commanding Officers (CO) of its units, dated April 30, the survey was conducted for two years with the target audience of Sergeants with a service bracket of 13-20 years.

About 32 per cent responded that airmen leave, after 20 years, due to lack of a suitable environment, while 25 per cent believed that there are better prospects in civilian life.

Other reasons were frequent movement (19 per cent), lack of career progression (17 per cent) and poor pay (7 per cent).

The analysis of the data for the past five years, by Air Force Record Office (AFRO), has revealed that 45 per cent airmen proceeded on discharge after completion of initial regular engagement of 20 years without availing further extension of service.

“Any professional organisation can ill afford to lose trained and experienced human resource, in such large numbers. It is essential that necessary steps need to be initiated to retain expertise, as it would have an adverse impact on the functioning of IAF,” said the letter.

It is also mentioned that IAF is a technology-intensive force and in order to maintain various platforms at a high state of readiness, it is imperative “to have experienced and trained manpower”.

It adds that IAF invests “valuable time and resources to train and maintain skilled air warriors for ensuring the availability of equipment in the desired state”.

The Western Air Command has asked its field commanders to sensitise airmen about the policy changes in the last few years.

“Engagement of air warriors by field commanders will go a long way in convincing many of them to continue in service. Towards this, all the field commanders are to give feedback so that the same can be used by Air Headquarters in shaping future policies,” said the letter.

The feedback has to be sent by May 17.

<https://www.tribuneindia.com/news/nation/why-airmen-are-leaving-indian-air-force-82569>

SundayGuardianLive

Sun, 10 May 2020

Truth, transparency must determine India-China relations

By Subramanian Swamy

New Delhi: The whole world in general and the Indian people in particular, will insist that the Indian Government take a clear stand on what, prima facie, really happened in the Wuhan University research laboratory that enabled the unholy birth of a new Dr Frankenstein’s monster called Covid-19 virus, a new and more deadly member of the coronavirus species.

Before I express my view as to what stand India ought to take in light of the evidence available, I must emphasise that any stand India takes will invite criticism from one side or the other, or even both if we equivocate on the matter.

At this tragic juncture, we cannot afford to equivocate on who is complicit in the birth of this deadly virus, or in the cover-up, if any. However, we should take our stand on the basis of the facts made available, without playing to the gallery or submitting to a powerful country's pressure.

It is clear that on this issue, the United States has emerged as the self-appointed prosecutor; and that it claims that it has suffered enormously from Covid-19 compared to other countries like India. China is the defendant, since the virus first emerged in Wuhan, China.

In this regard, it must first be pointed out that the US Department of Defense also participated in the Wuhan University research project on the bat virus. In Nagaland, the Tata Institute of Fundamental Research [TIFR] joined these two institutions (incidentally without Government of India's permission or knowledge), to facilitate the experiment on bats in Nagaland. Although, reportedly after the national daily, the Hindu published the joint tripartite research, the Indian government ordered an inquiry, the issue is whether a fair inquiry will take place or not. I believe that it will depend on whether the nefarious influence of the TIFR Chairman forces the Indian government to wind it up or fudge the result.

The US too has a Presidential election later this winter. China bashing is popular with American voters, and the Republican Party's Donald Trump is up for re-election.

Hence, till November this year there will be a lot of allegations thrown at the alleged Chinese complicity, but it is unlikely that any final report will be published before the US Presidential election is over. My guess is that after the election, the appetite for this subject will vanish. China and the US will start negotiating trade deals.

In India too the knee-jerk reaction of the Indian people against matters of Chinese "perfidy" is because of the humiliating defeat in 1962 of an ill-prepared Indian Army, and the failure of then Prime Minister Nehru to prepare for the border conflict. This humiliation acts as a trigger of emotions for us Indians.

It has been India's misfortune that there has been a failure of its leaders in office to understand clearly the Chinese perspective on its relations with India and the ability to respond to the same proportionately.

Hence the people of India are always in doubt whether China can be a dependable friend or a diabolical enemy. Forming opinions requires a rational understanding of our past historical events and the lessons to be learnt on our part; and thereafter we need to move on.

China has been a dependable friend of Pakistan for 63 years. This is a world record of sorts. Indians find this as a sinister threat. However, recently Pakistan has begun to lose the warmth of that Chinese dependability because of the Islamic jihadi entry into Xinjiang province.

The fact is that India must act on its national interest and not on the atmospherics.

Time and again, it is essential to hammer in the point that national security policy is made on the military and economic capacity of one's adversary; and that it is this capacity we must prepare against, and that it cannot be based on a perception that our adversary has displayed a "friendly" intention, i.e. it must not be based on phenomena such as the "smiles" or embraces of its leaders.

By his faulty perception of Chinese friendly behavior, Nehru sacrificed our defence preparedness. This is attested by the exchange of correspondence between Deputy Prime Minister Sardar Patel and Prime Minister Nehru in November 1949 [see my book: India's China Policy].

Patel had wanted Nehru to obtain a clear agreement with the Chinese on the inviolability of our pre-1950 traditional borders with Tibet and Xinjiang before handing over Tibet unopposed to the invading China People's Liberation Army [PLA]. Not only did Nehru not heed Patel's sage advice but he disingenuously replied to Patel that this matter was a foreign policy issue with which subject Patel was not familiar.

Our relation with China, therefore, has jerked from one extreme to another for the last 70 years since the founding of the two Republics [Republic of India and Peoples Republic of China] because we have not made a distinction between what is required in national security in contrast with what is needed in executing foreign policy.

Thus from 1950 to 1959, as Prime Minister, Jawaharlal Nehru adopted an attitude of noblesse oblige in India's foreign relations with China. The nation paid a heavy price in 1962 because, as it was to be expected, Chinese leaders took Nehru's generous attitude to mean that India had accepted all China's claims to our territory, especially in Ladakh and Arunachal.

The Chinese Politburo made this assumption when, between 1956 and 1958, Chinese military began construction of the road from Tibet to Xinjiang—a road cutting through Aksai Chin in Ladakh and manifestly fit for heavy artillery traffic. At that time, Nehru was treating Chinese visiting leaders to India to a loud “Hindi-Chini Bhai Bhai” chorus, ignoring this national security threat.

The Chinese further felt vindicated when India did not do a reconnaissance while China was building the road.

Hence, when in 1958, China Pictorial Magazine published photographs and a report on the completion of the Tibet-Xinjiang Road, Chinese leaders did not expect that it would be protested against in India's Parliament. But indeed there was loud protest.

However, the Chinese felt happy that Nehru in his reply to the Opposition's uproarious debate said: “Why make this an issue? After all not a blade of grass grows there”. A senior MP [Mahavir Tyagi] retorted: “Not a blade of hair grows on your head [Nehru was bald]. So does that mean your head can be cut off?” Although Nehru did change his stance a little later, it was not followed up by a structured national security policy.

In 1959, in Tibet, there was a rebellion against the Chinese Communists but which was crushed. It led His Holiness the Dalai Lama to undertake a hazardous journey on land to India to seek asylum.

His Holiness was received in India warmly when he arrived on horseback. He was housed in Dharamshala. An émigré government was set up there, which has functioned since then as the Government in Exile of Tibet! The Cabinet of this government has a Prime Minister and 27 Ministers. It is still functioning even today. This U turn alerted the Chinese.

In 1960, the Soviet Union suddenly broke off all relations with China because Chairman Mao Tse-tung refused to accept Russian Communist Party hegemony as Chairman of the Communist International [COMINTERN]. The Soviets retaliated by withdrawing all blueprints and machinery that the USSR had sent to China, at a time when China was in the throes of construction of major heavy industrial factories.

The withdrawal was timed to coincide with China's stupendous failure of the Chairman Mao inspired Great Leap Forward project which caused disaster in agriculture.

A drought in agriculture, impelled by a failure of rainfall, caused a steep fall in food grains output; and this was followed by a famine, causing about 30 million deaths from starvation.

Hong Kong, which was a British Imperialist colony then, received thousands of starving Chinese who had to brave a swim from China's mainland to the islands of Hong Kong. To the Soviets, it looked as if China was cracking up.

During this period, 1959-61, Chinese Communist Party decided to force Chairman Mao to step down from the post of China's President and replaced him with Liu Shao Chi. But Mao continued as Communist Party Chairman.

By then internationally China was in the pits, held in contempt as a tottering dictatorship. “China, the failed state” was the common media refrain.

In late December 1961, India's Defence Minister Krishna Menon, fearing his possible defeat in his parliamentary election in 1962, from Bombay North East constituency, decided to accept General Kandeth's advice to send the Indian Army to liberate Goa from Portuguese occupation.

It was an easy victory for the Indian Army. As a consequence, a wave of Congress popularity swept the country, and the February 1962 general election was a walkover for the Congress. It earned Menon an impressive victory in the Bombay North East Parliamentary election.

Flushed with victory, and encouraged by the prevailing international contempt for China's communism, Nehru, at the prodding of the US, began to entertain the ambition to take on China next.

The newly elected US President, John F. Kennedy in 1961 invited Nehru to Washington and encouraged him to take on China. He even nudged Nehru to carry out an atomic bomb test before China could do so [China did so in 1964 and India did not till 1974].

Nehru returned to Delhi convinced he could take military action to recover India's land in Aksai China and Arunachal. He ordered the poorly equipped Indian Army to set up "Forward Posts" in Chinese occupied territory—as a first step.

The Chinese Army (which first functioned as a guerilla force in the 1930s and 1940s and was known as the Peoples Liberation Army [PLA]) and the Communist Party, succeeded in 1949 the overthrow of the Kuomintang government from Beijing, and then the pacification and indoctrination of the Chinese people throughout the 1950s. Thus by 1962 the PLA and China was fighting fit.

India had an Army then armed and prepared to take on the Portuguese in Goa, but by no stretch of imagination could it have taken on the PLA in the hills of Arunachal and Aksai Chin.

We did not have proper roads, weapons, and winter clothing, a situation aggravated by the fact that Krishna Menon had ordered Indian defence factories to engage in the production of coffee percolators and tennis balls.

Thus in 1962, China retaliated fully prepared in a response to Nehru's ill-prepared belated "Forward Policy". A shameful disaster followed.

An inquiry and review of this failed policy and lack of defence preparedness in 1962 was made later by General Henderson-Brookes [an Indian] in a comprehensive report. The truth about 1962 and the perfidy therein is detailed in that report.

The report was promptly marked "Secret and Not for Publication". It has remained so since then. The BJP government's Defence Minister, Manohar Parrikar in 2015, had decided to de-classify it and release it. But at the last minute, the then usual suspect in our government intervened and blocked the release. Today that the report should be released and debated on across the nation.

Since 1965, the Indian military has steadily progressed in preparedness to be in the position to take on and defeat either China or Pakistan but not yet the two together.

In 1967, the Indian Army showed how much it had progressed by pushing back Chinese troops from the Sikkim mountain passes. We can now easily take back PoK, if we have only Pakistan to deal with, and China does not intervene.

The question today is whether India can separate Pakistan and China in our bilateral conflict with Pakistan. Many international forces do not want India to be able to do that.

I have personally dealt with China since 1977 on a number of occasions and achieved what was then thought by most of my political colleagues as not possible to achieve with China.

I mention here two of such achievements. The first was the 1981 re-opening to Hindu pilgrims the Kailash-Manasarovar route, which most people thought was impossible for a Communist nation to agree to and that too on a religious matter.

As a Janata Party Lok Sabha MP in the Opposition then, I was invited to China to meet its topmost leader Deng Xiaoping on 8 April 1981, and I had a 100-minute one to one meeting.

In that meeting I raised the issue and Deng agreed to open the Kailash Manasarovar route—which route has remained never again closed ever since. I had led the first delegation of Hindu pilgrims on 21 August in the same year. Now about 8,000 Hindu pilgrims visit there every year in the summer months.

The second occasion was as a senior Minister of Commerce and Law & Justice in February 1991, when on behalf of India I signed in Beijing the Trade Protocol Agreement with China, which the Chinese had refused to sign from 1983 every year whenever the matter came up for discussion.

My purpose in relating this narration of the India-China relations is to enable the reader to understand that there are many international interests that abhor an India China entente and a common world view being developed between the two nations. After all, China and India have a combined population which is 37% of the world's total. Our GDPs are the second and third largest in the world. Except in 1962, we have a millennia long civilized history of no conflict. Our cultural paradigm is the same, such as respect of elders, family etc. Hence, if without Nehru type romanticism, China and India can have a genuine friendly strategic understanding, both will gain and the world will shake.

Therefore, whether it is the matter of the Wuhan debacle or some other matter, truth and transparency in intentions between the two nations are paramount. Hence, in dealing on this world spread of Covid-19, let Indians say Satyameva Jayate and not be swayed by the international costs and benefits.

(Dr Subramanian Swamy is a six-term MP and internationally renowned scholar of China's economy.)

<https://www.sundayguardianlive.com/news/truth-transparency-must-determine-india-china-relations>

COVID-19 Research

INDIA
TODAY

Sat, 09 May 2020

Covid research: Green signal to clinical trial on 4 ayurvedic medicines

The Council of Scientific & Industrial Research (CSIR) and the Ayush ministry are going to work together to test four ayurvedic formulations - ashwagandha, yashtimadhu, guduchi peepli and Ayush 64 to see their use in battle against Covid-19.

By Milan Sharma

New Delhi: The Ayush Ministry is set to launch clinical research studies on the possibility of using ayurvedic medicines as preventive or add-on to standard care to Covid-19. The Council of Scientific & Industrial Research (CSIR) and the Ayush ministry are going to work together to test four ayurvedic formulations for the purpose - ashwagandha, yashtimadhu, guduchi peepli and Ayush 64.

The trials for these ayurvedic formulations will be done on health workers and people working in high-risk zones with the help of the Sanjeevani app. Around 50 lakh people to be tested through this app, a statement from the ministry said.

These studies will be done as a joint initiative of the Ministry of Ayush, Ministry of Health and the Ministry of Science and Technology through CSIR with technical support of ICMR.

Shekhar Mande, DG, CSIR, said, "Our objective is to try these formulations through Ayush perspective. Noting that our traditional knowledge is very rich, it has evolved over many years and can we approve or disapprove through modern sciences its use. If it turns out to be very effective against Covid-19, it will be an icing on the cake."

"The (Ayush) ministry is also studying the impacts of Ayush-based prophylactic interventions in high-risk population and Ayush advocacies and Ayush measures for prevention of Covid-19," the statement said.

It has set up an Interdisciplinary Ayush Research and Development Task Force with a group of experts under Dr Bhushan Patvardhan, Vice Chairmen, University Grant Commission (UGC) to formulate and develop strategies for this initiative.

The task force has formulated and designed clinical research protocols for prophylactic studies and add-on interventions in Covid-19 positive cases through a thorough review and consultative process of experts.

The ministry has also developed Ayush Sanjeevani mobile app for generating data of a large population with a target of 5 million people.

"The core expected outcomes include to generate data on acceptance and usage of Ayush advocacies and measures among the population and its impact in the prevention of Covid-19," the statement said.

Importance of Ashwagandha:

- Can reduce blood sugar levels
- Might have anticancer properties
- Can reduce cortisol levels: Cortisol is known as a stress hormone given that your adrenal glands release it in response to stress, when your blood sugar levels get too low.
- May help reduce stress and anxiety
- May reduce symptoms of depression
- May increase muscle mass and strength
- May lower cholesterol and triglycerides

Importance of Yashtimadhu (Mulethi)

- Mulethi acts as an antacid and reduces free and total HCL levels in the stomach
- Has anti-inflammatory effects and anti-ulcer properties. It decreases the inflammation of stomach linings
- Can provide 50 to 75% relief from Aphthous ulcers within one day and complete remission of ulcers within three days
- Contains a Glabridin compound, which reduces colonic inflammation
- Is therapeutically helpful in sore throat, throat irritation, cough and bronchitis.
- Attenuates the inflammation of bronchi and soothes the respiratory tract
- Has potency to reduce serum cholesterol levels and hepatic cholesterol.

Importance of Guduchi Peepli (Giloy)

- Guduchi is recognised to accord longevity, enhances memory, improves health, and bestows youth. This herb, activates the immune system of the body, boosting immunity and promoting vitality in a person.
- Guduchi works as a detoxifier and improves complexion and luster of the skin.
- Guduchi has been preferred traditionally to treat ailments such as bronchitis and chronic cough.
- Giloy or Guduchi has the ability to detoxify your liver and help in proper functioning.
- Giloy is an excellent adaptogenic herb, which means that it helps in managing stress and anxiety by normalising your physiological functions.
- This medicinal herb is a health rejuvenator which is also widely known for its effectivity in enhancing natural immunity to fight against a number of illnesses such as fever, jaundice, skin diseases, constipation and tuberculosis
- known for its anti-inflammatory properties which provide relief while dealing with inflammatory conditions such as gout and arthritis.

Importance of Ayush-64

- This is anti-malarial ayurvedic drug, Ayush 64, developed by the ministry, use of sesame oil in the nose, and Tulsi, ginger, Guduchi (tinspora cordifolia) and turmeric in diet.
- Ayush-64 that claims to treat malaria without side effects.

<https://www.indiatoday.in/india/story/covid-research-green-signal-to-clinical-trial-on-4-ayurvedic-medicines-1676017-2020-05-08>



Sat, 09 May 2020

Can COVID-19 spread through sex? Here's what researchers say

Can COVID-19– the virus that has created so much mayhem in the world – be sexually transmitted? The answer to this question has suddenly become a little more complicated.

New Delhi: Chinese Scientists has said that the novel coronavirus can, in fact, persist in semen of infected men even after they have started to recover from COVID-19, reports say.

Doctors detected the virus in semen from six of 38 men hospitalized with laboratory-confirmed Covid-19.

Four were still very sick with the disease while two were recovering.

The report from Shangqiu Municipal Hospital in China was published on Thursday in JAMA Network Open.

There was no long-term follow-up so it is not known how long the virus may remain in semen or if men can spread it to their partners during sex.

The results contrast with a study of 34 Chinese men with COVID-19 published last month in the journal Fertility and Sterility. U.S. and Chinese researchers found no evidence of virus in semen tested between eight days and almost three months after diagnosis.

Dr John Hotaling of the University of Utah, co-author of that report, said the new study involved much sicker men, most with active disease.

Authorities believe the coronavirus mainly spreads from droplets produced when infected people cough, which are inhaled by people nearby.

Some studies have reported finding the virus in blood, feces and tears or other fluid from Covid-19 patients with inflammation in their eyes.

Evidence suggesting that other infectious viruses including Zika and Ebola may be sexually transmitted has prompted questions about the coronavirus.

Hotaling said it's an important public health concern but that more research is needed to provide a definitive answer.

The American Society for Reproductive Medicine said the new study shouldn't be cause for alarm.

To be safe, though, "it may be wise to avoid sexual contact with men until they are 14 days without symptoms," Dr. Peter Schlegel, the group's immediate past president, said in a statement.

<https://nenow.in/health/can-covid-19-spread-through-sex-heres-what-researchers-say.html>

कोरोना से लड़ने में कितनी कारगर होंगी कैंसर, अवसाद और बीपी की दवाएं, चल रहा ट्रायल

लाइफस्टाइल डेस्क, अमर उजाला, नई दिल्ली: कोरोना मरीजों की संख्या और बिगड़ते हालात को देख अब डॉक्टर उस हर दवा से इलाज करने की कोशिश में लगे हैं, जिनका प्रयोग अभी दूसरी गंभीर बीमारियों के इलाज में हो रहा है। इसमें सबसे अहम कैंसर, ब्लड प्रेशर, अवसाद की दवाएं शामिल हैं। शोधकर्ताओं को उम्मीद है कि इन दवाओं के प्रयोग से वायरस पर काबू पाया जा सकता है। वायरस से फेफड़ों को जो नुकसान हो रहा है उसे रोका जा सकता है। वैज्ञानिकों का मानना है कि इन बीमारियों की दवा से वायरस को फेफड़े की बाहरी सतह में जाने से रोका जा सकता है।

कैंसर की दवा: रक्सोलिटिनिब (Ruxolitinib)

- बोनमैरो कैंसर के इलाज में इस्तेमाल होने वाली दवा रक्सोलिटिनिब पर वाशिंगटन यूनिवर्सिटी स्कूल ऑफ मेडिसिन में क्लीनिकल ट्रायल चल रहा है।
- विशेषज्ञों का कहना है कि इससे सूजन नहीं आती है और शरीर की रोग प्रतिरोधक क्षमता संतुलित रहती है।
- ये दवा कुछ कैंसर कोशिकाओं को भी मारती है। जब शरीर की रोग प्रतिरोधक क्षमता अपनी ही कोशिकाओं और उत्तकों के खिलाफ काम करने लगती है उसे ये दवा रोक सकती है।

ओसीडी की दवा: फ्लूवॉक्सामाइन (Fluvoxamine)

- मानसिक रोग (ओसीडी) व अवसाद के इलाज में इस्तेमाल होने वाली फ्लूवॉक्सामाइन दवा से भी वैज्ञानिकों को उम्मीद है। बॉस्टन यूनिवर्सिटी में इस पर शोध चल रहा है।
- शोध के अनुसार ये दवा मस्तिष्क में सेरोटोनिन नाम के न्यूरोट्रांसमीटर का संतुलन बनाकर रखती है जो मूड सही रखने का काम करती है।
- इस दवा में मौजूद प्रोटीन से सूजन पर भी नियंत्रण होता है जिससे उम्मीद लगाई जा रही है कि ये रोग प्रतिरोधक क्षमता को संतुलित रखने के साथ सांस फूलने की तकलीफ में फायदा पहुंचा सकती है।

रक्तचाप की दवा: लोसार्टन (Losartan)

- यूनिवर्सिटी ऑफ मिनेसोटा के वैज्ञानिक संक्रमण के इलाज में ब्लड प्रेशर की दवा लोसार्टन पर भी मंथन कर रहे हैं।
- ये दवा शरीर में उस तत्व को प्रतिबंधित करने का काम करती है जिसके कारण रक्त वाहिकाएं सिकुड़ने लगती हैं और तकलीफ बढ़ती है।
- वैज्ञानिकों को उम्मीद है कि ये दवा वायरस के रिसेप्टर को ब्लॉक कर देगी और पूरे शरीर में उसे फैलने से रोक सकती है।

कोरोना वायरस के इलाज के लिए अबतक कोई प्रॉपर दवा नहीं बन पाई है। हालांकि विभिन्न देशों में इसकी दवा तैयार करने में वैज्ञानिक शोधरत हैं। लेकिन जबतक कोरोना की दवा नहीं आ जाती, तबतक पहले से उपलब्ध विभिन्न बीमारियों की दवा में वैकल्पिक उम्मीद ढूंढी जा रही है। हालांकि कैंसर, बीपी और मानसिक अवसाद की दवाएं कोरोना के इलाज में कितनी कारगर होंगी, यह ट्रायल के बाद पता चल पाएगा। अगर सकारात्मक परिणाम सामने आए तो कोरोना से जंग में ये दवाएं बड़ी राहत पहुंचाएगी।

<https://www.amarujala.com/photo-gallery/lifestyle/fitness/covid-19-research-scientists-test-drugs-cancer-depression-high-blood-pressure-treat-coronavirus>