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Wed. 25 March 2020

## Discussions with DRDO on making indigenous ventilators: Health Ministry

New Delhi: Union Health and Family Welfare Ministry on Tuesday said that discussions have been held with the research-related organisations on making available indigenous ventilators which are needed in hospitals in the treatment of COVID19 patients.

Lav Agarwal, Joint Secretary, Health Ministry, said, "Today at a Cabinet Secretary-level meeting, DRDO, Bharat Electronics Limited and other main organisations of Government of India which are research-related were consulted as to how to promote our indigenous manufacturers so that sufficient ventilators can be provided to the country."

The government of India has prohibited the export of sanitizers and all ventilators including any artificial respiratory apparatus or oxygen therapy apparatus or any other breathing apparatus, falling under any ITCHS Code (Indian Trade Clarification based on Harmonized System), with immediate effect.

According to the data compiled by the Indian Council of Medical Research (ICMR), the total number of the infection-related death toll in the country rose to nine on Tuesday, while the total number of active cases reached 482.

Briefing media persons here today, Lav Agarwal, Joint Secretary, Health Ministry, said: "We have asked states to make dedicated COVID-19 hospitals."

He said that as per the information received so far, the work has started at the state level in Gujarat, Assam, Jharkhand, Rajasthan, Goa, Karnataka, Madhya Pradesh, and Jammu and Kashmir.

https://www.aninews.in/news/national/general-news/discussions-with-drdo-on-making-indigenous-ventilators-health-ministry20200324183740



Wed, 25 March 2020

## States need to begin placing orders for equipment needed to combat COVID19: Health Ministry

The Union Health and Family Welfare Ministry said on Tuesday that the states need to impose complete lockdown to break the chain of the spread of coronavirus and also start placing orders for equipment needed to combat against the virus

New Delhi: The Union Health and Family Welfare Ministry said on Tuesday that the states need to impose complete lockdown to break the chain of the spread of coronavirus and also start placing orders for equipment needed to combat against the virus. "The state governments have been ordered to place their requirements for equipment to combat coronavirus," said Aggarwal at a press conference here.

Briefing media persons here today, Lav Agarwal, Joint Secretary, Health Ministry, said: "We have asked states to make dedicated COVID-19 hospitals." He said that as per the information received so far, the work has started at the state level in Gujarat, Assam, Jharkhand, Rajasthan, Goa, Karnataka, Madhya Pradesh, and Jammu and Kashmir.

He also said that though most states and Union Territories have imposed a complete lockdown, "there are a few states where lockdown has been enforced partially." He also said, "The partial lockdown will not help the Central government's intention to break the chain of the spread of coronavirus."

Meanwhile, West Bengal, Himachal Pradesh, Maharashtra announced a complete lockdown on Sunday. "Today at a Cabinet Secretary-level meeting, DRDO, Bharat Electronics Limited and other main organisations of Government of India which are research-related were consulted as to how to promote our indigenous manufacturers so that sufficient ventilators can be provided to the country," said the Joint Secretary.

This discussion was held in the backdrop of the government prohibiting the export of sanitizers and all ventilators including any artificial respiratory apparatus or oxygen therapy apparatus or any other breathing apparatus, falling under any ITCHS Code (Indian Trade Clarification based on Harmonized System), with immediate effect. According to the data compiled by the Indian Council of Medical Research (ICMR), the total number of the infection-related death toll in the country rose to nine on Tuesday, while the total number of active cases reached 482. (ANI)

(This story has not been edited by Devdiscourse staff and is auto-generated from a syndicated feed.) <a href="https://www.devdiscourse.com/article/law-order/974740-states-need-to-begin-placing-orders-for-equipment-needed-to-combat-covid19-health-ministry">https://www.devdiscourse.com/article/law-order/974740-states-need-to-begin-placing-orders-for-equipment-needed-to-combat-covid19-health-ministry</a>



Wed, 25 March 2020

### Chaffs and flares: Passive countermeasures to thwart missile attacks

A passive countermeasure system against incoming anti-aircraft missiles forms an important and effective part in an aircraft's arsenal. Similarly, warships to carry these last-minute support self-defence systems onboard as a standard fit.

These systems are also categorized in Electronic Warfare terms as expendable ECM (Electronic Counter Measure) to protect the platform. When Chaff and Flares are launched from the onboard Counter Measure Dispensing System (CMDS), these degrade the performance characteristics of adversaries weapon system and help safeguard own platform.

#### **Indigenization Effort of CMDS**

Defence Research and Development Organisation (DRDO) has taken up the task of indigenous development



of chaff cartridges to bridge the technology gap in this field and evolve an import substitute for Defence. This becomes a critical requirement since Chaff is one of the most widely used expendable electronic countermeasure devices.

A need for more than hundred thousand Chaffs and flares exists in next five years, making indigenization an important factor. DRDO has reported that the checks and trials of indigenously developed Chaff cartridge system have been undertaken onboard a fighter jet by Indian Air Force's Aircraft and Systems Testing Establishment (ASTE) in 2018.

These checks include safe ejection of chaff from indigenous Chaff cartridge, envelope clearance trials in sub-sonic, super-sonic range and manoeuvrability test. Further checks are in progress in various configuration like Nose-on, sideways (beamforming) and tail-on configurations. For the airborne CMDS Bharat Dynamics Ltd.

https://www.defenceaviationpost.com/2020/03/chaffs-and-flares-passive-countermeasures-to-thwart-missile-attacks/

### **THE FINANCIAL EXPRESS**

Wed, 25 March 2020

### Self-Propelled Air Defence Gun Missile System: Independent monitors to decide the fate of SPAD-GMS deal

In fact, "during the recently concluded DefExpo 2020, an announcement was expected to be made about the winner of the contract," said the officer who wished to remain anonymous By Huma Siddiqui

The Ministry of Defence (MoD) has decided to refer the Propelled Air Defence Gun Missile System (SPAD-GMS) deal to the independent monitors who are expected to prepare a report and share soon. A senior officer has confirmed to the Financial Express Online that "Russia had raised objections to the short listing of the South Korean company Hanwha Defense's offer for the Self Propelled Air Defence Gun Missile System (SPAD-GMS) project. Companies from Russia and South Korea had responded to the request for proposal for this platform. However, no decision has been taken yet as Russia has raised its concerns with the Indian side."

In fact, "during the recently concluded DefExpo 2020, an announcement was expected to be made about the winner of the contract," said the officer who wished to remain anonymous.

To ensure that all the steps have been followed and concerns raised by those who could not be shortlisted, the MoD has decided to have independent monitors to come out with a comprehensive report and to outline the concerns if any.



#### Story so far

It all started with five bidders. However, only Russia and South Korea made it to the trials stage. Russia failed the trials. This left South Korean company in the fray, creating a single vendor situation.

The deal is for around \$ 3 billion. However, those who could not clear the trials have been reaching out to the MoD and expressed concerns against the South Korean company. Issues related to the non-compliance to the specifications in the RFP has been pointed out in several representations made by the Russian side in various meetings.

Russians have indicated that the system offered is one generation older and will have to go for an upgrade immediately.

#### What does Hanwha Defense say?

However, Hanwha Defense officials in an exclusive interaction with Financial Express Online have denied such reports.

"The system is in compliance to the specifications mentioned in the RFP — Hybrid Biho, which is an improved version of the original Biho mobile air-defense system. It features upgraded firing capability, newer sensors, and other improved devices," they say.

"Also, it has an electro-optical sights fire control system too, and the system can detect low-flying aerial targets, including drones or UAS, as tests and evaluations were successfully taken for the sale of the systems to some other countries," officials added.

#### What concerns were raised?

According to sources some companies claimed that the major issue which was raised stated that the K-30 Biho (Flying Tiger) twin 30mm short-range mobile self-propelled anti-aircraft system has no fire control radar.

Also that it has offered 2 D Doppler radar – not in line with the RFP. And it is old and outdated.

Though the independent monitors will be preparing their own observations in a report, the Indian Army is also looking at which is in the process of being developed. The Indian Army is planning to replace its 1360 obsolete Bofors L 70 40mm single barrel and Soviet-era ZU-23-2 towed 23 mm twinbarrel weapon systems.

In response to a global tender in 2013, upgraded Tunguska system was fielded by Almaz Ante and Pantsir by KBP Tula systems from Russia went in for trials and failed. South Korea's Hanwha Defense — Hybrid Biho system was found to be not fully compliant, which the company denies.

#### What does the Indian Army say?

As has been reported earlier, sources in the Indian Army observe that there are short comings in both the systems offered by the Russian as well as what has been offered by the South Korean side.

https://www.financialexpress.com/defence/self-propelled-air-defence-gun-missile-system-independent-monitors-to-decide-the-fate-of-spad-gms-deal/1908069/



Wed, 25 March 2020

## India's limited war capability hit hard as procurement worth billions halted due to COVID-19

On Monday, India issued instructions to restrict movement at all military establishments, cantonments, and formations. While numbers of coronavirus cases across the country are on rise, there is a lone case reported in the armed forces.

India's Ministry of Defence has decided to halt the procurement process related to critical equipment for the nation's infantry and navy due to the Coronavirus outbreak.

A notification issued by the defence ministry said that it has extended the last date for the submission of responses to tenders for defence capital acquisition, given the current situation regarding COVID-19.

The Indian Army had aimed to close the tenders worth over \$10 billion such as man-portable loitering munition systems, assault rifles, light machine guns, armoured vehicles, etc., which are crucial for the country's limited war capability. Loitering munition systems play a crucial role in destroying enemy targets near the border without venturing into the enemy's firing range.

The kinetic energy penetrator Armour-Piercing Fin-Stabilised Discarding Sabot (APFSDS) is among other capital acquisition plans, and is the primary ammunition of any armoured regiment.

The decision to postpone the dates for every tender was made after industry associations approached the ministry and claimed that attending meetings with officials would be difficult amid the coronavirus outbreak.

On Monday, the Indian Army issued fresh instructions to all military establishments, cantonments, formations and units in 82 districts throughout the country which are under lockdown. The Indian Army has restricted movement in cantonments and military stations across the country.

The army last week reported its first case of coronavirus after a soldier in Leh – a region bordering China – tested positive. The Indian health ministry reported a total of 492 positive cases of coronavirus on Tuesday.

The government has announced a complete shut-down of flight services in the country while 32 out of 36 states/territories have been put under lockdown to curb the spread of the pandemic.

https://www.defencenews.in/article/India%e2%80%99s-Limited-War-Capability-Hit-Hard-as-Procurement-Worth-Billions-Halted-due-to-COVID-19-809883



Wed, 25 March 2020

## Indian Navy monitoring Chinese vessels as dozen underwater drones deployed: Report

Though media reports suggest that oceanographic data was transmitted by the drones, such data is often used for submarine warfare operations by the naval intelligence

Amid reports of China deploying a fleet of underwater drones in the Indian Ocean Region to monitor movements in the area, India has started keeping a strict vigil in the area, reported the Times of India.

China already has a deployment of ships in the region for hydrographic survey and oceanic research, and Indian security agencies are skeptical about the motive behind the deployment of the drones. While these are usually used to conduct surveys for commercial activities such as deep-sea mining, they can also be exploited to aid in their submarine and anti-submarine operations.

According to a recent Forbes report, China has deployed at least 12 drones called Sea Wing from their research vessel Xiangyanghong 06. The long-range gliders were launched in the IOR in December last year and taken out in February after they made more than 3,400 observations.

The data was reportedly collected for the ocean ecology research project of China's Ministry of Natural Resources. Though media reports suggest that oceanographic data was transmitted by the drones, such data is often used for submarine warfare operations by naval intelligence.

While the Indian Navy is yet uncertain about the "authenticity" of the Forbes article, they are constantly tracking Chinese research vessels. A handful of such research vessels are usually always present in different parts of the IOR. To find out the best route for submarines, these vessels gauge the salinity, temperature, and chlorophyll level of seawater by conducting marine surveys.

<u>https://www.moneycontrol.com/news/trends/indian-navy-monitoring-chinese-vessels-as-dozen-underwater-drones-deployed-report-5068601.html</u>

### THE TIMES OF INDIA

Wed, 25 March 2020

### Coronavirus scare: A first, Army puts off training in officers training academy

By Ajay Sura

Chandigarh: In an unprecedented step, the Indian Army has perhaps for the first time postponed the training of officers at the prestigious Officers Training Academy (OTA) in Chennai to avoid the spread of Covid-19. The training for the short service commission (SSC) courses was to commence from the first week of April to train around 260 officers (including women).

While 111 cadets were to report for training for SSC non-technical course, 54-candidates for technical course, 25 for SSC women (nontechnical and technical), 47 cadets for SSC (NCC special entry for men and women) and 24 cadets were to join for SSC (judge advocate general) branch course. OTA Chennai conducts training courses twice in year—April and October. The interview conducted by the SSB for October course has also been ordered to be suspended by the authorities.

#### **Nursing Officers' Exam Postponed**

Even on Monday, the Army authorities announced suspension of any kind of medical examination or appeal against rejection in medical examination for new candidates for the officer cadre.

The examination to train girls as nursing officers (on commissioned officers rank) in the defence forces has also been postponed by the authorities.

With this the entire training as well as selection process for officers for the force has been suspended in the country.

Military veterans have never heard of postponement of training of officers in the past. They only remember early commissioning of cadets undergoing training at academies during the 1971 war.

"Situation has never been like this in the past. In 2009, when the swine flu broke out in the country, we told our cadets not to go out of academy," said Major General B S Grewal, former deputy commandant of national defence academy (NDA).

Lt Gen K J Singh, former Army Commander of Western Command, termed the postponement of training as a timely and pragmatic action.

"Whenever the situation gets normalised, the candidates can be informed through e-mail or telephonically to join back immediately," he added.

The Army has already suspended recruitment rallies for selection of jawans in the first week of March.

https://timesofindia.indiatimes.com/city/chandigarh/coronavirus-scare-a-first-army-puts-off-training-in-officers-training-academy/articleshow/74801987.cms



Wed, 25 March 2020

## Russia is currently designing Husky-class fifth-generation of submarines

There is little open information on the latest Husky-class fifth-generation submarines. Their characteristics can be only imagined. In particular, the underwater displacement is likely to comprise

12-13 thousand tons. They will have a two-section construction and the crew will number close to 90 men. They will be smaller than the current Yasen-M-class SSGN of project 885M. It will increase the maneuverability and stealth characteristics of new submarines.

Reports said the Husky is designed in two options. The antisubmarine option will fight U-boats, mostly SSBN of the US Columbia class and the British Vanguard.

The second option will be armed with Tsirkon hypersonic missiles to destroy big surface warships, nuclear aircraft carriers, cruisers and destroyers, universal amphibious assault ships, etc. Tsirkon has a cruising speed of over 7000 km/h and can hit targets at a distance of 1000 km.

The submarines will be less noisy than fourth-generation U-boats. They will have a composite hull. Composites will be used to make the bow and stern rudders, stabilizers, mast housing, propellers and shaft lines. The materials will decrease the reflection of adversary sonars and the weight of a submarine.

The Husky will have a single integrated combat information system with artificial intellect.

The fifth-generation submarine is designed by Malakhit Bureau in St. Petersburg. The Husky has to replace Antey-class SSGN of project 949A, as well as SSN of project 971, Shchuka-class project 671TMK, Condor-class project 945A, and Barracuda-class project 945.

Some reports said the fifth-generation submarines will have a completely new reactor instead of the water-cooled and water-moderated one (VVER). It is likely to be a development of the reactor installed in Lira-class SSN of project 705. "The main power plant of the project was a reactor and a steam generator with a liquid crystal heat exchanger (lead and bismuth alloy) and a single-shaft steam turbine," expert Konstantin Makienko said.

Submarines with liquid-metal plant exceeded second-generation VVER submarines two times in maneuverability and 1.5-2.5 times in power/weight ratio. They are 1.3-1.5 times better in specific weight indicators. However, liquid metal demands to constantly keep the steam unit in a hot state and thus triggers additional power consumption.

Besides, special operations to prevent alloy oxidizing, control its state and periodically withdraw oxides were necessary to keep the physical-chemical stability of the liquid-crystal heat exchanger.

There are grounds to believe the Husky will not face the problems. The main power plant is likely to be a single-shaft, single-reactor unit with a steam turbine and increased steam parameters.

The latest underwater detection means are of specific significance for the Husky. It is important to achieve a longer monitoring range of the underwater situation, increase the precision of coordinates and reliability of target identification. Otherwise, it would be problematic to dominate in an armed standoff with adversary submarines in the World Ocean.

"There is no doubt that domestic shipbuilders want to create a maneuverable, speedy and relatively small-displacement submarine, considerably cut the crew, introduce effective arms and complex automation. One of the main tasks is to decrease underwater noise several times against previous submarines," Makienko said.

He believes that if the Husky is constructed by the modular method, the approach will boost Russian underwater shipbuilding, Gazeta.ru said.

https://www.defencenews.in/article/Russia-is-currently-designing-Husky-class-fifth-generation-of-submarines-809877



Wed, 25 March 2020

## Royal Navy deploys ships and submarines in response to Covid-19

The Royal Navy has deployed more than 12 ships and submarines on front-line operations from the mountains of South Georgia to south-east Asia in response to the unprecedented coronavirus (Covid-19) pandemic.

The deployment of the vessels is aimed at keeping the UK safe and the sea lanes open for free trade flow.

As part of the military's response to Covid-19, the Royal Navy and Royal Marines Reservists are being put on standby.

In hospitals across the country, including Derriford in Plymouth and Queen Alexandra in Portsmouth, Royal Navy surgeons, GPs, nurses and medical specialists are working to treat patients with the virus.

Royal Navy head Tony Radakin said: "The Royal Navy's responsibility is to protect and defend the UK and its interests.

"In times of crisis, we are ready to support and assist the government wherever needed. But our duties remain unchanged, and we continue to deliver on operations around the world."

The Royal Navy, Royal Marines and Royal Fleet Auxiliary are continuing to perform their regular duties during the pandemic.

Destroyer HMS Defender, which is currently patrolling the Gulf and Indian Ocean, will be replaced by Frigate HMS Argyll.

New patrol ships HMS Forth and Medway will continue their missions for a longer period and will support the international fight against drug trafficking, remaining ready to provide humanitarian aid wherever it is needed.

Minehunter HMS Grimsby and frigate HMS Sutherland are supporting Nato's work on patrol in the waters of northern Europe.

Survey ships HMS Scott and Enterprise are deployed to the Atlantic and Far East to obtain data about the world's oceans.

Frigates HMS Richmond and Lancaster are carrying out post-refit trials and training in home waters.

https://www.naval-technology.com/news/royal-navy-covid-19-pandemic/



Wed, 25 March 2020

# Boeing suspends KC-46, P-8 Aircraft production amid coronavirus outbreak

By Oriana Pawlik

Boeing Co. has suspended production of its KC-46 Pegasus tanker and P-8 Poseidon surveillance aircraft amid the coronavirus pandemic, the company announced Monday.

The aerospace company, which hosts part of its production in Washington state, has halted its commercial and military-derivative aircraft operations in the Puget Sound region, a company spokesman said in a statement. Both the P-8 and KC-46 are assembled in facilities in Renton and Everett; the intelligence gathering aircraft is a 737 commercial derivative, while the KC-46A is based on the 767 airliner.

"We're actively engaged with our defense customers to minimize any impacts on their missions," the spokesman said. Some work will continue to fix the tanker's remote vision system, or RVS, he added.

"Certain non-production work for all commercial derivative aircraft programs, including for the KC-46 remote vision system enhancements, will continue being done by employees working remotely," he said.

The tanker requires a fix to its RVS, a critical capability that permits the in-flight operator to view the refueling system below the aircraft. The tanker's expected readiness has been pushed back at least to the 2023-2024 timeframe because of an RVS glitch, which doesn't allow an airman to look at a clear, aligned visual of the boom connecting to another aircraft.

Despite that issue, the Air Force accepted its 31st tanker earlier this month, around the same time the State Department approved the first KC-46 sale to Israel. That country would become the second foreign military customer of the tanker, behind Japan.

Meanwhile, Boeing expanded its P-8 reach by delivering the first submarine-hunting and antisurface warfare aircraft to the United Kingdom last fall. The U.S. Navy and Australia already fly the long-range aircraft, and the Indian Navy flies the P-8I variant. Norway has also bought into the program.

Boeing said it will shut down its Puget Sound operations starting Wednesday, with the intention of keeping plants closed for at least 14 days.

"This necessary step protects our employees and the communities where they work and live," said Boeing President and CEO Dave Calhoun in a news release. "We continue to work closely with public health officials, and we're in contact with our customers, suppliers and other stakeholders who are affected by this temporary suspension. We regret the difficulty this will cause them, as well as our employees, but it's vital to maintain health and safety for all those who support our products and services, and to assist in the national effort to combat the spread of COVID-19."

The shutdown comes as the International Association of Machinists and Aerospace Workers recently delivered a bleak message about the industry to Congress: Given the coronavirus' spread, more than 500,000 aerospace jobs are at risk, depending how long quarantine and stay-at-home mandates continue, it said.

In a March 23 letter sent to lawmakers, the trade union group, which advocates for aerospace and related jobs in both the U.S. and Canada, said industries have already begun notifying thousands of workers that, without additional financial support from the government, layoffs are on the horizon, according to Air Force Magazine.

"This strategic industry cannot be saved without first ensuring the economic security of the workers who make it thrive," said IAM International President Robert Martinez, as reported by the magazine.

That includes "all provisions in the applicable collective bargaining agreements," in addition to salaries, benefits and health insurance, he said.

"It is vitally important to our national security, our domestic supply chain, and our role in the global economy that this industry and the workers which are its backbone receive immediate financial support," Martinez added.

https://www.military.com/daily-news/2020/03/24/boeing-suspends-kc-46-p-8-aircraft-production-amid-coronavirus-outbreak.html



Wed, 25 March 2020

### ISRO plans to launch 36 missions in 2020-2021

India Space Research Organisation (ISRO) has slated as many as 36 missions for the next two years, the central government confirmed on Monday. These will include milestone missions like Chandrayaan-3 (Moonlander mission) and an uncrewed mission for Gaganyaan (human flight mission).

The confirmation came from the Union Minister of State Atomic Energy and Space, Dr Jitendra Singh in a written reply to a question in the Rajya Sabha.

During 2020-21, ISRO has scheduled the launch of several satellites including ten earth observation satellites, three communication satellites, two navigation satellites and three space science satellites.

Among the rocket launches, ISRO has scheduled launches of ten PSLVs, three GSLV MK II, and one GLSV MK III. In addition, two small satellite launch vehicles are also planned for 2020-2021.

"Indian Space Programme is focused on peaceful uses of Outer Space. Towards this, Space Technology should be used for the benefit of the country and society, provide solutions for developmental activities and address problems of the society at large," Dr Singh said in a written statement.

For the 2019-2020 years, ISRO has successfully completed 11 out of the total targeted missions—four Earth observation satellites, Chandrayaan-2, four PSLVs and one communications and one space science satellite.

One of the most anticipated upcoming missions of the space agency, Gaganyaan, is scheduled for launch in 2022. But before that, ISRO is likely to send two uncrewed missions—one by the end of 2020 and another by mid 2021. The precursor missions are supposed to carry a humanoid robot that will study the environment and perform all tasks designated for humans to conduct in orbit.

Furthermore, the prior missions would also help to test the systems on-board, to ease out the task and detect any faults ahead of the maiden human flight. The humanoid robot named 'Vyom Mitra' will also perform a few micro-gravity experiments shortlisted by the Indian space agency. The spacecraft with the robot will travel the distance of 400 kms and will stay in orbit for seven days, just like the Human Gaganyaan mission. The Gaganyaan mission will carry three Indian astronauts to space.

Moreover, the government has also decided on the tentative date of Chandrayaan-3 mission—the first half of 2021. It's the third lunar mission, which aims to do a soft-landing on the Moon's south polar region. As part of the Chandrayaan-2 mission the Vikram lander failed to make a soft-landing on the surface of the moon and ISRO lost contact with it just before the landing. In its second attempt, the Indian Space Research Organisation (ISRO) will again attempt to achieve a soft landing on the south pole of the lunar surface, which is least explored to date.

https://weather.com/en-IN/india/news/news/2020-03-24-isro-plans-to-launch-36-missions-in-2020-2021