# नवभारत टाइम्स

Fri, 06 Dec 2019

# रक्षा मंत्रालय ने पांच साल में भारतीय कंपनियों को 1,96,000 करोड़ रुपये के ठेके दिए

नयी दिल्ली: रक्षा मंत्रालय ने 2014 से अब तक भारतीय कंपनियों को 180 से ज्यादा ठेके दिए हैं। इन अनुबंधों का मूल्य 1,96,000 करोड़ रुपये से अधिक है। मंत्रालय ने बृहस्पतिवार को जारी बयान में पिछले पांच सालों में हुए कुछ बड़े रक्षा अनुबंधों से जुड़ी जानकारियां भी साझा की है। मंत्रालय का यह बयान ऐसे समय आया है जब इस बात की आलोचना की जा रही है कि ' मेक इन इंडिया ' कार्यक्रम रक्षा क्षेत्र में सफल नहीं रहा। बयान में कहा गया है , " रक्षा मंत्रालय ने 2014 से भारतीय उद्योग के साथ 1,96,000 करोड़ रुपये से अधिक मूल्य के 180 से ज्यादा अनुबंधों पर हस्ताक्षर किए हैं जबकि भविष्य में कुछ अनुबंधों पर हस्ताक्षर होने हैं। " रक्षा मंत्रालय ने कहा कि पी 17 ए परियोजना के तहत भारतीय नौसेना के लिए युद्धपोत बनाने के लिए मिजोरम डॉकयार्ड लिमिटेड (एमडीएल) को फरवरी 2015 में 45,000 करोड़ रुपये का ठेका दिया गया है। इसके अलावा , अक्टूबर 2018 में दो युद्धपोत के निर्माण के लिए गोवा शिपयार्ड लिमिटेड के साथ अनुबंध किया गया था। इसका मूल्य 14,100 करोड़ रुपये है। बयान में कहा गया है कि भारतीय वायुसेना के लिए 41 एडवांस्ड लाइट हेलीकॉप्टर (एएलएच) और भारतीय नौसेना के लिए 32 एएलएच बनाने के लिए हिन्दुस्तान एरोनॉटिक्स लिमिटेड को 2017 में कुल 14,100 करोड़ रुपये के ठेके दिए गए हैं। यह फरवरी 2015 में एचएएल के साथ 1100 करोड़ रुपये के 14 ड्रोनियर 228 विमानों की खरीद के लिए किए गए अनुबंध से अलग है। मंत्रालय ने कहा कि भारत इलेक्ट्रॉनिक्स लिमिटेड (बीईएल) से आकाश मिसाइल प्रणाली के सात स्कवैड्रन खरीदे जा रहे हैं। इसका मूल्य 6,300 करोड़ रुपये है। इससे अलग , 7,900 करोड़ रुपये के अनुबंध के तहत एकीकृत उन्नत कमांड एवं नियंत्रण प्रणाली (आईएसीसीएस) खरीदी जा रही है। मंत्रालय ने कहा , " सरकार की ' मेक इन इंडिया ' पहल के अंतर्गत एलएंडटी से सौ 155 x 52 एमएम स्वचालित तोपों की खरीदी जा रही हैं। इसका मूल्य 4,300 करोड़ रुपये है। "

https://navbharattimes.indiatimes.com/business/business-news/ministry-of-defense-awardedcontracts-worth-rs-196000-crore-to-indian-companies-in-five-years/articleshow/72389717.cms

## THE MAR HINDU

Fri, 06 Dec 2019



Fri, 06 Dec 2019



#### **Def Ministry signed 180 contracts**

New Delhi: In an effort to sustain the pace of modernisation of the armed forces, the Defence Ministry has signed more than 180 contracts valued at over Rs 1,96,000 crore with the Indian Industry since 2014 while a few are in the pipeline to be signed in near future.

A contract for manufacture of Frigates under Project P 17A was signed in February 2015 with Mazagon Dockyards Limited (MDL), Mumbai valued at Rs 45,000 crores while 02 Frigates under Project P1135.6 are slated to be manufactured by Goa Shipyard Limited (GSL) under a contract signed in Oct 2018 valued at Rs 14,100 Crore.

Further, contracts for manufacture of 41 Advanced Light Helicopters for Indian Air Force (IAF) and 32 ALH for Indian Navy (IN) have been signed with Hindustan Aeronautics Limited (HAL) in March 2017 and Dec 2017 with a combined value of Rs 14,100 crore. This is in addition to procurement of 14 Dornier 228 aircrafts from M/s HAL valued at Rs 1100 crore through a contract signed in February 2015.

Seven Squadrons of Akash Missile System are being procured from BEL through a contract of October 2019 valued at Rs 6,300 crore as also the Integrated Advanced Command and Control System (IACCS) Nodes valuing Rs 7,900 crore. OFB has been tasked to supply 464 T-90S/SK tanks worth Rs 19,100 crore for which indent has been placed on it by the Ministry as recently as November 2019.

Also 100 units of 155x52mm cal Self-Propelled Guns are being procured under the 'Make in India' initiative of the Government from L&T valued at Rs 4,300 crore. Also Contract for Modernisation of Airfield Infrastructure (MAFI) to be executed through Indian vendors is under final stages of contracting.

https://www.dailypioneer.com/2019/india/def-ministry-signed-180-contracts.html

# The**Print**

Fri, 06 Dec 2019

#### India has no plans for another anti-satellite missile test, but will improve tech

India proved its A-SAT capability on 27 March when it knocked off one of its own satellites 300 km in space. However, the Chinese threat still persists By Snehesh Alex Philip

New Delhi: India is not planning to carry out a second test of its anti-satellite (A-SAT) missile, either in lower or higher orbits, after the maiden test earlier this year ticked off all the checkboxes, ThePrint has learnt.

However, work will continue on improving the missile and technology, said sources.

"There is no second A-SAT test that is being planned. The first test was fully successful. We have proven our capability to the world. Fine-tuning of the systems will of course take place to provide it with more lethality," a top government official told ThePrint. India had successfully test-fired an anti-satellite missile on 27 March, knocking off one of its own satellites 300 km in space, thereby joining a small group of countries — the US, Russia and China — to possess such a capability.

Soon after, Defence Research and Development Organisation (DRDO) Chairman G. Sateesh Reddy ruled out future A-SAT missile tests in the lower Earth orbit, but hinted at keeping the options open for possible experiments in higher orbits.

Reddy said the interceptor used for the A-SAT missile test had the capability to hit targets 1,000 km away, but DRDO had intentionally chosen the target at an altitude of 283 km to prevent the creation of space debris.

The interceptor missile was a three-stage missile with two solid rocket boosters.

While there are other ways to demonstrate A-SAT capabilities such as "fly-by tests" and jamming, India had relied on the "kinetic kill technology".

#### The main challenger

Officials have said in the past that Indian scientists moved towards the A-SAT test after China proved its capabilities in space and conducted the test in 2007 at an altitude of 865 km.

The Indian A-SAT technology came as a by-product of the Ballistic Missile Defence Programme.

In the mid-2000s, India secured Swordfish, an Indian active electronically scanned array (AESA) long-range tracking radar, specifically developed to counter the ballistic missile threat.

The radar is a derivative of the Israeli Green Pine long-range radar, which is a critical component of the country's Arrow missile defence system.

During trials for the anti-ballistic missile systems, DRDO noticed that the radar was so powerful that it could even track satellites in lower Earth orbits of about 600 km.

When China carried out its test, the DRDO rushed to the government stating that it too could develop such a missile.

Given the wide condemnation that China attracted, the DRDO was asked by the government to focus on the anti-ballistic missile systems.

#### Chinese threat

While India has proved its space capabilities now, the Chinese threat persists.

In a review of Indian A-SAT missile test, think tank Carnegie Endowment for International Peace said the Chinese counter-space strategy since 2007 has clearly shifted in the direction of emphasising nondestructive means of space denial whenever possible.

"The available evidence suggests that China is currently pursuing several different alternatives, all of which singly or in combination would deeply threaten India's ability to use space for civilian or military purposes in crises or in wartime," it said.

It also noted that China's counter-space capabilities are wide-ranging, highly diverse, and span the entire intersection of lethality and reversibility.

This includes capability to carry out sophisticated cyber attacks directed at ground stations with the intent of either corrupting or hijacking the telemetry, tracking, and command systems used to control various spacecraft on orbit.

"They also involve huge investments in developing ground-, air-, and space-based radio frequency jammers that target the uplinks, downlinks, and crosslinks involved in either the control of space systems or the transmission of data arising from various space system activities," the think tank said.

https://theprint.in/defence/india-has-no-plans-for-another-anti-satellite-missile-test-but-will-improvetech/330831/



Fri, 06 Dec 2019

## Govt says 194 defence tech startups under 'Startup India'; reveals iDEX data

By Aman Rawat

- These startups are working in aeronautics, aerospace and defence sectors
- Government has launched Innovations for Defence Excellence framework to achieve selfreliance in defence sector
- DRDO has launched the Technology Development Fund under the Make In India initiative

While Indian startups are leveraging new-age technologies to bring in a substantial change in the everyday lives of citizens, close to 200 startups are helping the country to boost its defence capabilities, according to the government.

In response to a question in the Lok Sabha, Shripad Naik, Minister of State for defence, said that 194 defence startups are registered with Startup India and are innovating in the aeronautics, aerospace and defence sectors.

Revealing plans about how the defence ministry is bolstering startups, Naik said that the government had launched Innovations for Defence Excellence (iDEX) framework in 2018 to achieve self-reliance and to foster innovation and technology development in defence and aerospace sector.

As of now, India is the world's largest arms importer and it is looking to reduce its reliance on defence imports with the launch of iDEX. For the iDEX framework, the defence ministry works closely with MSMEs, startups, individual innovators, research and defence institutes and academia, Naik added.

So far, 44 iDEX winners have been identified for 14 problem statements and now the government is now looking for solutions to three new problems with the third phase of Defence India Startup Challenge (DISC), recently launched under the iDEX programme.

In addition to iDEX, the defence research and development organisation (DRDO), defence ministry's R&D arm, has launched Technology Development Fund (TDF) for meeting the requirements of army, navy, and airforce. The programme was established with the aim to promote self-reliance in defence technology as part of the Make in India initiative.

Naik further said that the defence ministry has simplified the process — Make-II procedure — to promote innovative solutions working towards substituting defence imports. "The simplification will encourage wider participation of MSMEs and startups for timely acquiring of equipment into Indian armed forces," he added.

Moreover, DRDO has evolved a new industry-friendly patent policy for transfer of DRDO developed technologies to industries. The policy will help Indian startups to get free access to use DRDO patents and work on innovative solutions aimed to improve India's defence capabilities.

The Indian government is also considering funding over 250 startups over the next five years to achieve approximately 50 'tangible innovations' for the Indian defence sector. To make this into a reality, the government is currently seeking approval to allocate INR 500 Cr.

https://inc42.com/buzz/govt-says-194-defence-tech-startups-under-startup-india-reveals-idex-data/

# **CONSTRUCTION WEEK ONLINE**

Fri, 06 Dec 2019

### Land parcels identified for Tamil Nadu defence corridor project

An MoU was signed between DRDO and TIDCO

The government of Tamil Nadu has identified land parcels for the Defence Industrial Corridor. The five nodes include -- Chennai, Coimbatore, Hosur, Salem and Tiruchy -- which form the 'Defence Quadrilateral'. Around 1,500 acre have been identified between Hosur and Nallampalli in Dharmapuri.

Also, a memorandum of understanding (MoU) was signed between the Defence Research and Development Organisation (DRDO) and the Tamil Nadu Industrial Development Corporation (TIDCO).

The project will create an ecosystem where industries will be encouraged to take up more defence projects. The government is planning a Research and Development (R&D) centre in the Tamil Nadu Defence Corridor, where industries will be hand-held and groomed by Indian scientists.

In January 2019, an investment of over Rs 3,100 crore was announced by the Ordnance Factory Board/Departmental Public Sector Undertakings and private industries for the Tamil Nadu Defence Corridor. Further, the government has also appointed a consultant for preparation of a detailed project report (DPR) for the defence corridor.

"A memorandum of understanding (MoU) was signed between the Defence Research and Development Organisation (DRDO) and the Tamil Nadu Industrial Development Corporation (TIDCO)."

https://www.constructionweekonline.in/projects-tenders/11577-land-parcels-identified-for-tamil-nadudefence-corridor-project

# Stock Daily Dish

Fri, 06 Dec 2019

#### **Defence salary bill leaves less for new weapons**

Most of the scanty 6.35% rise in the defence budget is accounted for by manpower and running expenses By Ajai Shukla

The modest 6.35% rise in defence allocations – from Rs 405,193 crore in last year's revised estimates, to Rs 431,011 crore in Friday's Budget — presents an even more worrying picture when the budget is disaggregated.

An analysis of the defence budget in a three-year window indicates that most of this scanty rise is accounted for by the revenue heads of manpower and running expenses.

Meanwhile, the important capital budget component, which funds equipment modernisation, has grown significantly slower.

From the baseline of the 2016-2017 budget to the present, three annual increments have raised spending on the three services by a total of 23%.

During this period, allocations for manpower (including salaries and pensions) have grown by 26%, while running costs have grown by 25%.

In comparison, the capital budget has grown by only 15%, averaging barely 4% each year.

This factors in allocations made to the army, navy, air force and coast guard; but not to the defence ministry, the ordnance factories and the Defence R&D Organisation.

It also assumes the defence budget will be spent in full this year, rather than returning a part of it unspent, as has happened in preceding years.

Government sources argue this year's capital allocation of Rs 108,248 crore cannot be increased further, since it already accounts for one-third of the central government capital expenditure of Rs 338,569 crore.

Defence industry executives also underline a compensatory factor: The benefits of customs exemption that Finance Minister Nirmala Sitharaman announced on the import of defence goods that are not made in the country.

This will make defence imports cheaper by 10.3%, which is the basic customs duty, and effectively increase the capital allocation by 5.15%, assuming half of all capital procurements are imported.

Effectively reduced by 10.3% will be the prices of Rafale fighters, P-8I maritime patrol aircraft, naval helicopters, Apache and Chinook helicopters from the US and S-400 missile systems, Krivak class frigates and a nuclear submarine in the pipeline from Moscow.

There is uncertainty over who will control the DRDO's research budget, which amounts to Rs 10,484 crore this year.

In her budget speech, Sitharaman announced that the government proposed to establish a National Research Foundation to 'fund, coordinate and promote research in the country'.

'NRF will assimilate the research grants being given by various ministries independent of each other,' she said.

It is unclear whether the DRDO budget will be subsumed under this.

Besides the DRDO's research budget, the government allocated Rs 95 crore towards 'Make' category projects, which involve Indian companies developing complex defence platforms.

Last year, the defence budget had allocated Rs 142 crore under this head, but the revised estimates brought it down to Rs 2 crore, indicating that the money had remained unspent.

The Budget has dissatisfied all three services, who believe their role entitles them to a larger share of the defence budget.

The army, by far the largest service, which is involved in counter insurgency duties year-round, notes that its share has come down over the last three years from 68.5% to 66.5% of the military budget.

The navy, which backstops the country's Indo-Pacific strategy and requires more warships, wants more than the 13.75% that its allocation is stagnating at.

The air force, whose budget has grown by almost 2%, wants a larger capital budget to fund a slew of fighter purchases in the pipeline.

https://stockdailydish.com/defence-salary-bill-leaves-less-for-new-weapons/

# HANS INDIA

Fri, 06 Dec 2019

# Tremendous progress made by India in indigenous growth of mechanisms to make life easier

HIGHLIGHTS

• India has made tremendous progress in the indigenous development of mechanisms that can make life easier for humans and also contribute to the growth...

India has made tremendous progress in the indigenous development of mechanisms that can make life easier for humans and also contribute to the growth of the country, a leading scientist also known as the 'Missile Woman' of India' said on Thursday.

Tessy Thomas, the Director General, Aeronautical Systems at DRDO, said this at the 4th International and 19th National Conference on Machines and Mechanisms - iNaCoMM 2019 which is underway at the Indian Institute of Technology - Mandi (IIT Mandi), in Himachal Pradesh.



Thomas, who was the Chief Guest of the inauguration, said that

"Indigenous development has seen tremendous progress in the past decade in mechanism as researchers have been making efforts to make life easier for humans. Indian aerospace has also contributed a lot in the growth of the country. This conference will create a forum for researchers to find solutions related to human advancements. " The conference is jointly sponsored by IIT Mandi, Indian Space Research Organisation (ISRO), Department of Science and Technology (DST), Ministry of Electronics and Information Technology (MEITY), and the Council of Scientific and Industrial Research (CSIR) among others. Researchers, including Shanti Swarup Bhatnagar Prize awardee G. K.

Ananthasuresh from IISc Bangalore, Sambit Bhattacharya from Fayetteville State University in the US, and industry experts such as Jayant Patil, Whole Time Director (Defence) at Larsen and Toubro Ltd, attended the inaugural day of the conference. The schedule for three-day conference from December 5-7 also includes poster and paper presentation events participated by B.Tech and M.Tech students from various colleges including IIT Kanpur, IIT Kharagpur, and IISc Bangalore.

The lectures and the presentations are planned to cover various topics such as the design and analysis of machines, mechanisms and robotics, machine learning (ML), and artificial intelligence (AI). "iNaCoMM 2019 is creating a cross-disciplinary summit that transcends public and private research organizations and lends itself to the integration of research and education in the vital field of machines and mechanisms, " said B D Chaudhary from the School of Computing and Electrical Engineering at IIT Mandi while addressing the gathering.

<u>https://www.thehansindia.com/hans/young-hans/tremendous-progress-made-by-india-in-indigenous-growth-of-mechanisms-to-make-life-easier-587534</u>