

समाचार पत्रों से चयित अंश Newspapers Clippings

दैनिक सामयिक अभिज्ञता सेवा
A daily Current Awareness Service

Vol. 42 No. 142 24 July 2017



रक्षा विज्ञान पुस्तकालय
Defence Science Library
रक्षा वैज्ञानिक सूचना एवं प्रलेखन केन्द्र
Defence Scientific Information & Documentation Centre
मैटकॉफ हाऊस, दिल्ली 110054
Metcalf House, Delhi- 110054

BSF to use capsicum-based teargas for crowd control

The new bio-friendly oleoresin capsicum-based teargas shells will be produced in collaboration with DRDO and the chilli will be sourced from northeast and Andhra Pradesh.

After trying out PAVA shells, security forces have now turned to capsicum gel-based teargas to quell mobs in the Kashmir valley and other places.

A senior BSF official said the new teargas will be ready for use by security forces in spray can and shell forms, as early as next month.

The non-lethal munition can be used by security forces at any location in the country where there is a law and order problem but the largest inventory of the product is expected to be shipped to the Valley owing to the number of public protests and incidents of stone pelting, the official said.

The shells will be produced by the Tekanpur (Madhya Pradesh)-based Tear Smoke Unit (TSU) of the Border Security Force.

Last year, the TSU had launched the PAVA teargas munitions which, the BSF said, was “effectively” used by various police and security forces.

However, sources in the security establishment had said the personnel on ground in Kashmir had given feedback that PAVA (Pelargonic Acid Vanillyl Amide) was not an effective replacement for the controversial pellet guns and hence some other non-lethal ammunition should be provided to them to counter stone pelters and protestors.

The new bio-friendly oleoresin capsicum-based teargas shells will be produced in collaboration with the Defence Research and Development Organisation (DRDO).

The official said the chilli ingredient for these new munitions will be sourced from the jungles of the northeast and Andhra Pradesh and have two variants.

“One will be a teargas shell and the other spray can. The ultimate product will be helpful for police and security forces to combat both close-quarter and distant targets,” the official said.

In the first go, about 50,000 shells will be produced by the TSU which will be followed by subsequent need-based orders from the forces.

An annual general body meeting of the TSU was also held under the chairmanship of BSF Director General K K Sharma at the forces’ headquarters here today.

“The governing body also reviewed the progress of automation and production management of the TSU,” a BSF statement later said.

PAVA was introduced last year by the Union home ministry after scores of protestors were blinded by the use of pellet guns in the Kashmir valley.

The pellet guns have not been discarded and are now used sparingly by the forces there.

Chicken biscuits, tulsii bars developed by DRDO for security personnel

Defence minister Arun Jaitley said the development of nutritional food by Defence Research and Development Organisation for armed forces was an ongoing process based on their requirements and technological research in the area.

Various nutritious and protein-rich food items have been developed by the DRDO for security personnel deployed at high altitude and snow-bound areas, Parliament was informed on Friday.

The major food products developed by the Defence Research and Development Organisation (DRDO) in the last three years and the current year are chicken biscuits, protein rich mutton bar, composite cereals bars, egg protein biscuits, iron and protein rich food bar, chicken kathi rolls and anti-fatigue tulsii bar, defence minister Arun Jaitley said in a written reply in the Lok Sabha.

“There is no food production unit in DRDO. However, after developing these products, production technologies have been transferred to various industries for bulk production,” he said.

He added that development of nutritional food by DRDO for armed forces was an ongoing process based on their requirements and latest technological research in the area.



Mon, 24 July, 2017

India kick-starts `mother of all underwater def deals'

By Rajat Pandit

India has finally kick-started its `mother of all underwater defence deals' after an excruciating 10-year delay , with France, Germany , Russia, Sweden, Spain and Japan being in the fray to build six advanced stealth submarines for an estimated Rs 70,000 crore (\$10.9 billion) in collaboration with an Indian shipyard.

This conventional submarine programme called Project-75 (India), languishing in politico-bureaucratic apathy , files and committees since it got the government's `acceptance of necessity' in November 2007, is likely to be the first mega project under the new `strategic partnership' policy finalised by the defence ministry in May . But it's early days yet. The six shipbuilders -Naval Group-DCNS (France), ThyssenKrupp Marine Systems (Germany), Rosoboronexport Rubin Design Bureau (Russia), Navantia (Spain), Saab (Sweden) and the Mitsubishi-Kawasaki Heavy Industries combine (Japan) -have to first respond to the RFI (request for information) issued to them last week by September 15, officials said.

The Navy will then formulate the NSQRs (naval staff qualitative requirements) before the formal RFP (request for proposal) is issued to the six for submitting their technical and commercial bids for evaluation. The Indian shipyard for the strategic partnership with the selected foreign collaborator will be chosen in a parallel process.

“It may take around two years for the original equipment manufacturer (OEM)Indian shipyard combine to be down-selected. Moreover, the first new submarine will be rolled out only seven to eight years after the final contract is inked. But the aim is to fasttrack the entire process,“ said a defence ministry official. The Navy wants the six w diesel-electric subma new diesel-electric submarines to have land-attack cruise missiles, air-independent propulsion for greater underwater endurance, and the capability to integrate indigenous weapons and sensors as and when they are developed.

“The stress will be on transfer of technology from the OEM and indigenisation. The submarines, to be built with indigenous steel, should also be less maintenance-intensive to ensure a better operational cycle with minimal downtime,” said the official. According to approved plans, the Navy should have 18 diesel-electric submarines as well as six nuclear-powered attack submarines (called SSNs) and four nuclear-powered

submarines with long-range nuclear-tipped missiles (SSBNs) for effective deterrence against China and Pakistan, as earlier reported by TOI.

INDIA'S SINKING SUBMARINE STRENGTH

- ▶ India needs at least **18 diesel-electric subs, 6 nuclear-powered attack subs (SSNs) & 4 nuclear-powered subs with nuclear-tipped missiles (SSBNs)**
- ▶ But has only **13 old diesel-electric subs** (only 7/8 operational at any given time), **1 SSBN (INS Arihant) & 1 SSN (INS Chakra)**
- ▶ **6 Scorpene diesel-electric subs**, being built at Mazagon

Docks under Rs 23,652 crore Project-75, to be **delivered by 2021**. INS Kalvari to be inducted in August & INS Khanderi in December 2017

- ▶ **3 more SSBNs**, after INS Arihant, being built at Vizag

under secretive Rs 90,000cr Advanced Technology Vessel programme

- ▶ **India to get second SSN on 10-year lease from Russia** under \$1.5 billion deal. First one, INS Chakra, came in 2012 for \$900 million

OTHERS:

- CHINA:** 56 submarines, including 5 advanced JIN-class SSBNs with 7,400-km range JL-2 missiles
- PAKISTAN:** 5 diesel-electric subs. To induct 8 more from China
- US** has 72 nuclear subs, Russia over 40, UK & France have 8-12 each

But the force is grappling with just 13 old conventional submarines, only half of them operational at any given time because at least 10 are over 25 years old, apart from two nuclear-powered submarines, INS Arihant (SSBN) and INS Chakra (SSN).

The six French Scorpene diesel-electric submarines being built at Mazagon Docks under the Rs 23,652

crore Project-75, after an over four-year delay, will be delivered by 2021. But by then, many of the 13 existing submarines will be up for retirement despite mid-life upgrades and refits.

While Russia, Germany and France already have submarine-building experience in India, the possibility of Japan also being included as a contender for Project-75 (I) was first reported by TOI in January 2015. “Project-75 (I) may just be the right arena for Japan,” said an official.



Mon, 24 July, 2017

Russia keen on selling MiG-35 jet to India

Asked if India has expressed any interest in the MiG-35, Mr. Tarasenko said, “Of course they have.”

Russia is keen on selling its new fighter jet MiG-35 to India with the MiG corporation’s chief saying the country has evinced interest in the aircraft and talks were on to understand its requirements.

Director General of Russian Aircraft Corporation MiG Ilya Tarasenko said the MiG-35 was “the best” and definitely better than Lockheed Martin’s fifth-generation combat aircraft F-35. He claimed that the MiG-35 would beat the American jet in air to air combat.

Mr. Tarasenko, while talking to reporters on the sidelines of the MAKS 2017 air show in Zhukovsky, said after having presented MiG-35 in January, the MiG corporation began to actively promote the aircraft in India and in other parts of the world.

“We are proposing supply of the aircraft for tenders in India and we actively work with its Air Force in order to win the tender,” he said.

The MiG-35 is Russia's most advanced 4++ generation multipurpose fighter jet developed on the basis of the serial-produced MiG-29K/KUB and MiG-29M/M2 combat aircraft.

Asked if India has expressed any interest in the MiG-35, Mr. Tarasenko said, "Of course they have."

MiG aircraft have been used by India for almost 50 years and MiG corporation proposes its new products to India among the first countries and intends to continue supplying India with its most modern aircraft, the MiG chief said.

Asked about the current status of the proposal of the aircraft to India, he said, "We are in the negotiation stage where talks on technical and technological specifications that MiG can present to India and the requirements that India has for this aircraft were taking place."

"Since this is a very new plane, it will still take some time to negotiate on exactly what India needs and adjust the product to it," he added.

Talking about the cost of the plane, Tarasenko said it was economical due to the after-sales services being offered along with the aircraft.

"We propose not just the aircraft, but also training for its use, as well as after-sales servicing where we take upon the responsibility to service it for 40 years," he added.

He stressed that in comparison to its competitors, the prices offered by MiG were 20-25 per cent cheaper, making it an attractive option for those who wish to purchase this aircraft.

Highlighting the main features of the MiG-35, Tarasenko said its technical specifications were close to a fifth generation aircraft, namely its flight capabilities, its new weapon range and defence systems, including stealth.

"I would like to note the demand for this aircraft for our own air force, as well as our foreign partners. The plane is light, multi-functional and has high manoeuvrability," Tarasenko said, adding that the MiG was also offering special commercial terms to its partners.

He also stressed that the plane was fully Russian-made with Rostec companies like United Engine Corporation (UEC), KRET and Technodinamika participating in the project.

At MAKS 2017, the MiG-35 grabbed all the limelight as it took to the skies and enthralled the audience with breathtaking manoeuvres like the tail slide, barrel roll and the nesterov loop.

Meanwhile, Director of Russia's Federal Service for Military and Technical Cooperation Dmitry Shugayev also said that Russia is ready to take part in India's tender for the supply of light fighter jets with its MiG-35 plane.

"Principally, Russia is ready to participate in future aviation tenders in India. However, as of now, we do not have information on the opening of a tender and, correspondingly, on the plane's technical requirements set by the Indian side," he was quoted as saying by Russia's TASS news agency.

Mikhail Belyaev, the Lead Test Pilot of MiG-35, told reporters that the main feature of this aircraft was the new on board equipment and the new quality of weapons — air-to-air, air-to-ground and air-to-sea.

"Compared with the basic version of the MiG-29, it is a new aircraft, new airframe, fly-by-wire, glass cockpit, adapted for night vision goggles...new engines, more power, more fuel, new on board equipment and new weapons," said Belyaev, who was earlier this year presented the star of the 'Hero of Russia' by President Vladimir Putin for bravery in piloting and testing of aviation equipment.

Asked if it was easier to fly MiG-35, Belyaev said new tasks were required for such an aircraft so one needs to learn these.

"On the basic level it is not that difficult to switch from MIG 29 to 35 as the plane remains the same. It is still a light simple plane. The combat tasks that can be achieved from this plane are much more serious and much more complex," he said.

"More combat tasks can be achieved from this plane than with the MiG-29. So it will take time to learn new tasks and to adapt," he added.

An overhauled MiG-35 multi-role fighter completed a successful demonstration flight at the MAKS 2017 air show, with Russian officials saying the first combat-ready plane will be delivered to the Air Force next year.

While speaking to reporters at MAKS, Tarasenko also noted that around 30 countries are using various modifications of MiG-35's predecessor, the MiG-29, and that "talks are already ongoing with potential buyers."

The fighter jet features improved flight and technical characteristics, the most advanced on board radio-electronic equipment and a wide arsenal of air-to-air and air-to-surface missiles.

The flight tests of MiG-35 fighter aircraft began on January 26 and the plane's international presentation was held in the Moscow Region on the following day.

दैनिक जागरण

Mon, 24 July, 2017

चौथी पीढ़ी का उन्नत विमान मिग-35

एयरो इंडिया 2007 में सामने आया: रूस लंबे समय से इस विमान को भारत को बेचना चाहता था इसलिए उसने इसके सबसे पहले मॉडल को बेंगलुरु में एयरो इंडिया एयर शो में प्रदर्शित किया।

04 करोड़ डॉलर : एक विमान की लागत

29,700 किग्रा : इतने वजन के साथ उड़ान भरने में सक्षम

17.3 मीटर लंबाई

12 मीटर, डैने का फैलाव

4.73 मीटर : ऊंचाई

28 जनवरी, 2017 : मिग-35 का आधिकारिक प्रदर्शन किया गया

2 हजार किमी : मारक क्षमता

ईईएसए रडार

फैजोट्रॉन जूक-ए/एई एक्टिव इलेक्ट्रॉनिकली स्कैन्ड एर (ईईएसए) रडार से लैस है। इसे किसी भी रूसी लड़ाकू विमान में पहली बार इस्तेमाल किया गया है। इससे फ्रीक्वेंसी की बड़ी रेंज पर काम किया जा सकता है। लेजर डिटेक्शन तकनीक के जरिए एक समय पर 30 लक्ष्यों का पता लगा सकता है। एक बार में हवा में छह लक्ष्यों और जमीन पर चार लक्ष्यों को भेद सकता है।

खासियत

- अत्याधुनिक रेडियो इलेक्ट्रॉनिक उपकरण से लैस।
- हवा से हवा, हवा से जमीन और हवा से समुद्र में मार करने वाली मिसाइलों को दागने में सक्षम
- रूसी व विदेशी हथियारों की एप्लीकेशन पर काम करने में सक्षम।
- युद्ध के दौरान बचाव के लिए कई प्रकार की सुरक्षात्मक प्रणालियों मौजूद।

भारत के जखीरे में रूसी विमान

- सुखोई एसयू-30 एमकेआइ
- मिकोयन मिग-29
- मिकोयन मिग-27 एमएल बहादुर
- मिकोयन-गुरेविच मिग-21
- इल्युशिन 2-76 एमडी
- इल्युशिन 2-78 एमकेआइ
- बिरीव ए-50ईआइ
- मिल माइ-35
- मिल माइ-26
- मिल माइ-8
- मिल माइ-17

चौथी पीढ़ी का उन्नत विमान

यह विमान मिग-29 के/केयूवी और मिग-29एम/एम2 सीरीज का आधुनिक विमान है। इसका इंजन पहले से कहीं अधिक शक्तिशाली है। इसमें एयरफ्रेम, फ्लाइट-वाय-वायर, ग्लास कॉकपिट और नाइट विजन गॉगल्स तक सब कुछ पूर्ववर्ती संस्करणों से उन्नत हैं।

इनके पास चौथी पीढ़ी का उन्नत विमान

- रूस : सुखोई एसयू-35,
- अमेरिका : बोइंग एफ-15एसई

- मिस्र ने अगस्त 2015 में 2 अरब डॉलर में 46 मिग-35 लेने का सौदा किया। 2020 तक मिलने का अनुमान है।

Army to Host Big Event for Small Cos This Week As It Cuts Imports

By Shaurya Gurung

LOCAL ROLE MSMEs being roped in for manufacturing components & subsystems of crucial arms

The Army is looking to procure components and subsystems of crucial equipment such as tanks, artillery and guns from local companies to address shortages of ammunitions and spares and end import dependency, officials said.

The army will hold a two-day event starting Tuesday in New Delhi to ensure greater participation of micro, small and medium enterprises (MSMEs) in manufacturing required spare parts and subsystems, and help create an ecosystem in the private defence industry.

The Master General of Ordnance (MGO) branch, which is responsible for procurement of equipment, and components, will organise the event, 'Annual MGO Industry Cooperation Meet', officials said.

"The event has traction because we are not looking at very high end technological equipment," said a senior MGO branch official. "We intend to tap the vast potential of the industry to provide the components and spares that are already being manufactured," the person said.

This will ensure that India does not have to depend on the foreign original equipment manufacturers (OEMs) for spare parts. The process of procuring spares and components from OEMs is long, officials said. In addition, the army is facing shortages in ammunition and spares, which can adversely affect its capabilities, they said.

So, the army wants, for instance, a "can't do without" engine part of T-90 tanks, or the bore of the Bofors guns, or the magazine of AK-47 assault rifles, to be manufactured by the MSMEs. Such components are being currently imported. The army imports about 60% of its equipment, according to sources.

MGO and Ordnance Factory Board procure spares worth over `10,000 cr annually. With the participation of MSMEs, India's dependence on imports will greatly reduce.

The development will also lead to creating a defence manufacturing ecosystem for the new strategic partnership model, which aims at ensuring participation of private companies in manufacturing major military platforms such as tanks, aircraft and submarines.

Most of the equipment being used by the Indian armed forces are based on Russian technology. But a major grievance of the forces is that the supply of critical spares and equipment from Russia takes a long time. This affects the maintenance and functioning of the equipment.

Lack of spare parts is also affecting the operational effectiveness of the army. Indigenous production of spares will ensure that the army is operationally prepared for any eventuality, including a two-front war. In addition, in view of the "voids" in the army's capabilities, Vice Chief Lt Gen Sarath Chand has been granted full financial powers to procure critical ammunition and spares.

Strategic Partnership Model

One of the defining features of the Defence Procurement Procedure (DPP-2016) is to enhance the role of MSMEs in the sector. Leading from this procurement policy is a Make in India initiative called the strategic partnership model. The strategic partner is expected to play the role of a system integrator by building an extensive ecosystem, comprising development partners, specialised vendors and suppliers, especially MSMEs.

The army has been working on creating such ecosystem. Before this week's meet, it had conducted five regional meets. In Bengaluru, the meet was conducted to ensure participation of MSMEs in producing spares

and subsystems for the army's electronic equipment. In Kolkata it was for engineering equipment, in Pune for indigenisation of tanks, in Jabalpur for guns and armament, and lastly in Vadodara. About 100 industries participated at each of the regional events.

60% Equipment imports by the Army

₹10,000 cr Spares procured annually by the MGO and Ordnance Factory Board

Filling Up Big Gaps

MSMEs to help create an ecosystem for the new strategic partnership model, which aims at ensuring participation of private companies in manufacturing major military platforms such as tanks, aircraft and submarines

Indigenous production of spares will ensure that the army is operationally prepared for any eventuality, including a two-front war.

Vice Chief Lt Gen Sarath Chand has been granted full financial powers to procure critical ammunition and spares.

Business Standard

Mon, 24 July, 2017

Talks on easing defence FDI on

By Surajeet Das Gupta

Further liberalization will give a fillip to Make in India and generate jobs

The government is in discussion with stakeholders on further liberalising the country's foreign direct investment (FDI) in defence in order to give a fillip to Make In India and generate employment.

Talks are on among government departments, the NITI Aayog, and other stakeholders on various items such as whether it should increase the cap under the FDI automatic route from 49 per cent to 51 per cent in a broad sweep of products except for some like small arms and ammunition.

Currently, under the FDI policy, the government has opened up most products on the automatic route but has kept a cap of 49 per cent. However, it has permitted up to 100 per cent only after its approval.

Talks are also on whether FDI on the automatic route with a cap of 76 per cent should be allowed in areas where investments in a product can have a knock-on effect on the civilian sector, such as making aircraft or helicopters. So, for example, making a fighter aircraft in India will give an impetus to manufacturing civilian aircraft also. So is the case with helicopters.

Also, the same cap could be kept for sunrise cutting-edge technologies to encourage companies that own them to bring them to India without any fear of losing their intellectual property.

It is also being discussed whether certain products in which India has no manufacturing capability, or which are not lethal, should be allowed an FDI limit of 100 per cent on the automatic route. These include hovercraft, sea planes, and aero engines.

The new move comes at a time when the NITI Aayog has stipulated a target of bringing in FDI in defence worth \$5 billion by 2020.

In their discussion with the government, foreign companies have pointed out that without a majority stake they are concerned about protecting their intellectual property rights (IPRs) or the business, and are wary of investing. That is reflected in the fact that not much FDI has come into the sector. They say that India has

undertaken a similar exercise in other strategic areas like telecom in which the cap went up gradually from 49 per cent to 100 per cent and it has worked well.

However, stakeholders in India say that the problem is not of FDI caps but the fact that defence orders are taking a long time to come, discouraging international players. Also, many say that foreign firms having a majority stake would discourage Indian private sector defence companies, which include top corporate houses, to grow in the areas concerned because they will then become dependent on their foreign partners.

The government is also looking at suggestions on how to push defence exports. The suggestions include giving aerospace and defence infrastructure status and setting up a Defence Export Promotion Council.



Mon, 24 July, 2017

CAG flags delay in work on corvettes

'Designs constantly modified resulting in inadequate systems, inflated costs of anti-submarine vessels'

The Comptroller and Auditor-General (CAG) has faulted the Navy and Garden Reach Shipbuilders and Engineers Ltd. for delay in construction of anti-submarine warfare corvettes and hampering their capabilities because of delayed decisions.

The report said the approved designs were amended 24 times till as late as last year.

Weapons not installed

In the report presented in Parliament last week, the CAG, referring to specific equipment to be installed on two of the four ships delivered, said, "Against the 18 weapons and sensors to be installed on ASW corvettes, audit observed that the two ASW corvettes delivered were not fitted with 'X' weapon and sensor systems. Thus, ASW corvettes could not perform to its full potential as envisaged."

On the overall project, the report noted that while the Letter of Intent (LoI) was issued in March 2003, only a sketchy specification of the ship was made available to Garden Reach Shipbuilders and Engineers Limited (GRSE) and finalisation of system design as well as specification of equipment, weapon and sensor fit were to be undertaken by the Directorate of Naval Design.

"The Directorate of Naval Design finalised the same only in the year 2006 and major modifications continued till 2008," the audit report said.

Due to the major design modifications, the cost went up from the original sanction of Rs. 3,051.27 crore to Rs. 7,852.39 crore.

The first corvette was delivered to the Navy in July 2014 and the second in November 2015.

According to the contract for the project, the third ASW corvette should have been delivered in July 2014 and the fourth one in April 2015.

The auditor also noted that harbour acceptance trials (HATs) were still pending as of December 2016 in respect of the second ASW Corvette for over a year.

Trials incomplete

In addition, Sea Acceptance Test (SAT) on six weapons and sensors in the first corvette and all weapons and sensors on the second one were pending satisfactory completion.

Navy Chief touring two African nations

The Chief of the Naval Staff, Admiral Sunil Lanba, on Sunday began an eight-day tour of Mozambique and Tanzania with an aim to explore new avenues of bilateral defence cooperation. Admiral Lanba, who also heads the powerful Chiefs of Staff Committee, will be in Mozambique till Tuesday.

India, Japan Target Maritime Security Pact During Abe's Sept Visit

By Dipanjan Roy Chaudhury

Abe to attend an event for railway project that uses Shinkansen tech

India and Japan hope to put in place a maritime security pact when PM Shinzo Abe visits mid-September for the annual summit amid China's growing aggression in East and South China Seas besides Indian Ocean Region - a common concern for both New Delhi and Tokyo.

Abe's visit in the backdrop of the Sino-Indian standoff at Doklam could also help India and Japan develop a common understanding amid China's unilateral moves to change the status quo along land boundary (Indo-Bhutan-China trijunction) and maritime boundary in East China Sea in Japan's territory .

In the backdrop of the Sino-Indian boundary standoff, the Japanese PM's visit for this edition of the annual summit gains added significance as both neighbours of China have been at the receiving end of Beijing's encroachment along disputed boundaries.

Besides a highlight of Abe's trip could be attending a ceremony in Gujarat related to High Speed Railway project using Japanese Shinkansen technology funded by Tokyo. This is the only HSR project approved in India so far.

India plans to start construction of the approximately 500-km rail link between Ahmedabad and Mumbai in 2018 and get it operational in 2023. Japan has extended a \$12 b package for HSR at a nominal interest of 0.1% for 50 years with a moratorium on repayments up to 15 years.

The agreement on the HSR, the MoU on civil nuclear cooperation and two defence pacts were key outcome of Abe's last visit to India in December 2015. The civil nuclear pact was operationalised last week.

Once hero, now 'white elephant'

By Dennis S. Jesudasan

Decommissioned submarine Vagli lies idle in Chennai port after plan to convert it into a museum fails

She served the Indian Navy and the nation for over 36 years and could have become only the second submarine museum of the country. But since her decommissioning in 2010, the Russia-designed submarine INS Vagli has taken a tedious and uncertain course. She currently lies idle at the Chennai port.

The submarine, which was to be the centrepiece of the maritime heritage museum planned by the Tamil Nadu government in the tourist town of Mamallapuram, was expected to be displayed on a 30-acre stretch of land near the Shore Temple of the UNESCO-declared World Heritage group of monuments.

However, the inability of a contractor to mount the submarine on the intended site at Mamallapuram has forced the vessel to lie idle at the Chennai port.

While government sources say on condition of anonymity that the project turned out to be a “white elephant” and that they have urged the Navy to “take back” the vessel, Navy sources deny having received any such proposal.

An official of the Chennai Port Trust confirmed that the submarine was still lying on its premises. “Officials have been regularly paying the dues,” the official added.

Plan made in 2012

The Tamil Nadu government, under Chief Minister Jayalalithaa had in June 2012 decided to set up the maritime museum with the submarine, and senior Navy officials handed over INS Vagli to it in April 2013.

In November that year, the then Tourism Minister S.P. Shunmuganathan visited Visakhapatnam along with senior officials to study the museum there, housed in the decommissioned submarine INS Kursura.

INS Vagli has since witnessed a series of incidents. In January 2014, a worker died of asphyxiation while trying to clean the submarine. He was attempting to retrieve his cellphone, which had fallen into the vessel. Two others were hospitalised in the incident.

Later that year, in April, a company that was awarded a contract towed the vessel to Mamallapuram, only to find that the submarine could not be mounted on the intended platform at the historic town. In June that year, INS Vagli was towed back to Chennai port.

Petitioner moves court

Meanwhile, in April 2015, a petitioner moved the Madras High Court, seeking to find an alternative site for the museum, contending that the submarine being a “huge piece of voluminous scrap” had the “potentiality of inviting lightning”. However, the petition was dismissed by the Madras High Court, which observed that the matter fell purely within the administrative domain.

‘Wasteful expenditure’

A 2016 report of the Comptroller and Auditor General (CAG) of India questioned the process adopted by the government to move the submarine to Mamallapuram in one piece and observed that an “infructuous expenditure of Rs. 4.41 crore” was incurred due to a lack of proper planning.

In December 2016, the submarine was almost damaged when Cyclone Vardah hit the Chennai coast.

INS Vagli was commissioned into the Indian Navy at Riga in Latvia, which was part of the erstwhile Soviet Union in 1974, and was decommissioned at Visakhapatnam in December 2010.

The project has become a white elephant and it has been suggested that the vessel be returned to the Navy



Mon, 24 July, 2017

Govt targets ‘Make in India’ supercomputers

As part of the Modi governments Make in India initiative, supercomputers will be manufactured in India under a three-phase programme, officials said. In the initial two phases of the National Supercomputers Mission, the focus will be on designing and manufacturing subsystems such as high-speed Internet switches and compute nodes indigenously. The Rs 4,500-crore project was approved by the Cabinet Committee on Economic Affairs in March last year. A Request for Proposal (RPF) for the project is in its final stages and is being executed by

the Centre for Development of Advanced Computing (C-DAC), Pune, a research and development institution under the Ministry of Electronics and Information Technology.

The NSM envisages nearly 50 supercomputers in three phases. The government has plans to make these high-precision computing machines available for scientific researches across the country. Milind Kulkarni, a senior scientist with the Ministry of Science and Technology who is over-seeing the project, said the plan is to "have six supercomputers in the first phase". In the first phase, three supercomputers will be imported. System assemblies for the remaining three will be manufactured abroad, but assembled in India. C-DAC will be responsible for the overall system design. Two supercomputers will have a peak operational capacity of two petaflops and the rest will be of 500 teraflops.

Floating point operations per second (FLOPS) is the standard unit to measure computational power. A petaflop can be expressed as a thousand trillion floating point operations per second. A teraflop is equal to one million million floating-point operations per second. The six supercomputers will be placed at four IITs -- Banaras Hindu University, Kanpur, Kharagpur and Hyderabad -- Indian Institute of Science Education and Research, Pune, and Indian Institute of Science, Bengaluru.



Mon, 24 July, 2017

Spanish scientists develop ‘anti-Zika drug’

Compound previously used as antibiotic

Researchers from a southeastern Spanish university announced the discovery of a molecule that could be used as a potential drug to fight the effects of a Zika virus infection.

In a statement on Saturday, the San Antonio Catholic University of Murcia said that scientists belonging to its Bioinformatics and High-Performance Computing research group had found that a compound previously used as an antibiotic countered the symptoms of the mosquito-borne disease, Efe news reported.

It's a drug that had been withdrawn from the market because it had lost its potency as an antibiotic, but we know it can be administered to humans, said Jose Pedro Ceron, a member of the research team. The molecular structure of the proteins involved in the Zika virus' replication process was first described only a year ago.