समाचार पत्रों से चयित अंश
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INDIAN DEFENCE NEWS

Tue, 14 Jan 2020

TEJAS does 1st carrier landing, but will Indian Navy ever buy it?

The program to design a naval variant of the TEJAS was initiated in 2003

On Saturday morning, congratulatory messages poured in for the DRDO and the Aeronautical Development Agency (ADA) for conducting the first landing on an aircraft carrier of the naval variant of the TEJAS fighter. The naval variant of the TEJAS Mk-1, a single engine aircraft, undertook its first-ever arrested landing on the INS Vikramaditya on Saturday.

Defence Minister Rajnath Singh tweeted, "Extremely happy to learn of the maiden landing of DRDO developed TEJAS Navy on INS Vikramaditya. This successful landing is a great event in the history of Indian Fighter aircraft development program."

However, the Indian Navy's Twitter handle seemed to describe the importance of the naval TEJAS's carrier landing milestone in terms of providing inputs for a future twin-engine fighter that could make its first flight by 2026.

The Indian Navy tweeted, "With this feat, the indigenously developed niche technologies specific to deck based fighter operations have been proven, which will now pave the way to develop and manufacture the Twin Engine Deck Based Fighter for the #IndianNavy."

During his annual press conference ahead of Navy Day, Indian Navy chief Admiral Karambir Singh, effectively, confirmed a proposal for a new project by DRDO to develop a twin engine fighter for aircraft carriers.

Singh said the new twin-engine aircraft would be ready for its first flight by 2026. “The qualitative requirements are being made. They [DRDO] said they should be able to push it out by 2026. If it meets our time and QR requirements, we will definitely take it," Singh was quoted as saying by The Hindu. Singh added that the current TEJAS Mk-1 was a "technology demonstrator" to prove technologies for the proposed twin-engine fighter.

The program to design a naval variant of the TEJAS was initiated in 2003. The naval variant featured modifications of the nose of the aircraft to improve visibility for landing as well as reinforced undercarriage and landing gear to deal with the increased airframe stress due to carrier operations. The naval TEJAS prototype made its first flight in April 2012.

In 2016, then Indian Navy chief admiral Sunil Lanba signalled that the naval version of the TEJAS Mk-1 did not meet Indian Navy requirements and had been plagued by delays. By then, the Navy had reportedly spent over Rs 3,000 crore on supporting design work on the naval TEJAS.

According to Delhi Defence Review, a defence publication, modification of the TEJAS Mk-1 for carrier operations reduced its capability to carry heavy weapons and fuel tanks under its wings, undermining its utility in combat operations. The DRDO had also offered the Indian Navy a MK-2 variant of the TEJAS, which would feature a more powerful engine.

Concept images of the proposed twin engine fighter have been circulated on social media since December. The proposed fighter would also have an Air Force variant, which NDTV reported would

be called the Omni Role Combat Aircraft (ORCA). The concepts show a fighter similar in configuration to the Rafale fighter being purchased from France for the Indian Air Force. However, the significantly larger size of the proposed twin engine fighter and changes needed to accommodate two engines could complicate its design and development process.

The Indian Navy is already considering the purchase of 57 fighters at an estimated cost of around Rs 90,000 crore, for which the Rafale and US-built Super Hornet are considered to be the main contenders.

http://www.indiandefensenews.in/2020/01/tejas-does-1st-carrier-landing-but-will.html

THE TIMES OF INDIA

Tue, 14 Jan 2020

New Army Deputy-Chief to look after ops & strategic planning post-Doklam

By Rajat Pandit

New Delhi: The 1.3 million-strong Army has cleared the decks for creation of the new crucial post of deputy chief (strategy), as part of the overall restructuring and flattening of the Army headquarters, by shifting the entire Rashtriya Rifles (RR) directorate from New Delhi to the Northern Command in Kashmir.

The need for the new post of Deputy Chief of Army Staff (Strategy) or DCOAS (S) was acutely felt during the 73-day troop confrontation between India and China at Doklam near the Sikkim-Bhutan-Tibet tri-junction in June-August 2017, which saw the two rival armies move additional infantry battalions, tanks, artillery and missile units towards the border.

TO SHED NON-OP FLAB

- Need for post of deputy chief of army staff (strategy) was felt during faceoff with China at Doklam in 2017
- Currently, ad hoc panel constituted to handle operations, plans & logistics during a Doklam-like crisis
- Aim to eliminate duplication, get rid of non-operational flab and provide single-point advice to Army chief

The DCOAS (S) will have the directors-general of military operations (DGMO), military intelligence (DGMI), operational logistics (DGOL), perspective planning (DGPP) and information warfare (DGIW) under him at the Army HQs. “As of now, an ad hoc committee is constituted to handle operations, plans, logistics etc during a crisis like Doklam. There is no unity in structure and chain of command among different verticals. In the future, the five DGs will jointly brief the DCOAS (S) during any major crisis,” said a top official.

The Union Cabinet is likely to soon approve the plan to restructure the Army HQs, which is largely “revenue-neutral” and does not include any new additional post of a Lt General. “The DCOAS (S) post will be created in lieu of the DGRR post. The overall aim is to remove duplication, cut non-operational flab and provide single-point advice to the Army chief. It will bring integration within the Army, and then with the Navy and IAF,” he added.

As was earlier reported by TOI, this Army HQs’ restructuring will lead to the shifting out of over 100 officers to operational field formations. In another significant change, the existing post of DCOAS (planning and systems) will transform into the DCOAS (capability development and sustenance), with all capital and revenue procurements under him. “Ammunition procurements, for instance, were being handled by different capital and revenue verticals during the Doklam crisis, ” said another officer.

Similarly, the DCOAS (information systems and training) will change to DCOAS (information systems and coordination). The post of DGMT (military training), in turn, will be subsumed under the Army Training Command, whose HQs will be shifted to Meerut from Shimla. The RR directorate at the Udhampur-based Northern Command will now be headed by a Major General or ADG. First raised as a small force in 1990 to handle specialised counter-insurgency operations in J&K, the RR now has 63 battalions (almost 70,000 soldiers) divided into five division-like headquarters commanded by Major Generals.

They are Delta Force (Doda district), Kilo Force (Kupwara and Baramulla), Romeo Force (Rajouri and Poonch), Victor Force (Anantnag, Pulwama and Budgam) and Uniform Force (Udhampur and Reasi). "If the RR is deployed only in J&K, there is no need to have a DGRR in New Delhi," said another officer.

https://timesofindia.indiatimes.com/india/new-army-deputy-chief-to-look-after-ops-strategic-planning-post-doklam/articleshow/73236702.cms

THE ECONOMIC TIMES
WWW.ECONOMICTIMES.COM

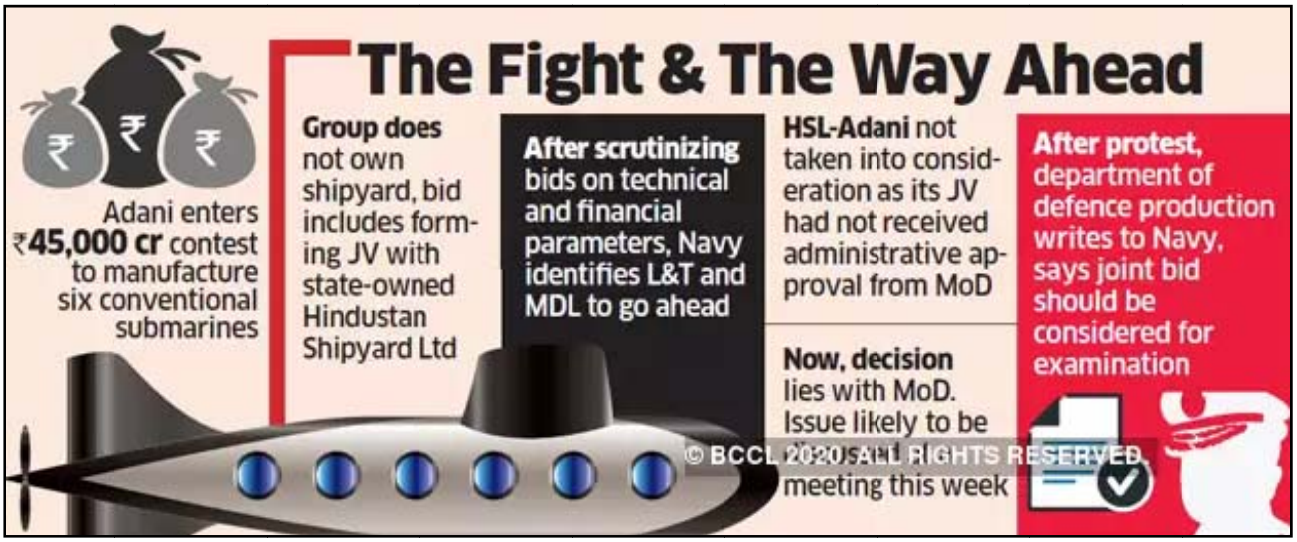
Tue, 14 Jan 2020

Navy, Ministry of Defence in a tussle over biggest submarine project

At the centre of the controversy is the Rs 45,000-cr submarine contest for the Navy—referred to as P 75I—that will see the winning Indian entity producing six submarines domestically with a foreign technology partner. The contract is being processed under the 'strategic partnership model'

By Manu Pubby

New Delhi: A tussle has erupted over the biggest 'Make in India' project after the navy refrained from going ahead with a joint public-private bid while the defence ministry has emphasised that such teaming arrangements should be considered, as per procurement guidelines.



At the centre of the controversy is the Rs 45,000-cr submarine contest for the Navy— referred to as P 75I—that will see the winning Indian entity producing six submarines domestically with a foreign technology partner. The contract is being processed under the 'strategic partnership model'.

Sources told ET that after an examination of financial records and manufacturing facilities, the navy's empowered committee has shortlisted two Indian entities that would qualify to bid for the

project—state-owned Mazagaon Docks Ltd and private sector giant Larsen and Toubro—both of which have considerable experience in shipbuilding.

On the other hand, all five foreign technology collaborators who applied have been cleared to take part in the competition.

However, a third bid that was jointly made by Adani Defence and state-owned Hindustan Shipyard Ltd (HSL) has not been cleared on the grounds that administrative permissions are not in place for the joint venture that responded to the competitive process.

This has emerged as a point of contention, with the Department of Defence Production, under which HSL operates, asking the navy that the HSL-Adani bid also be considered for examination. The department has recommended this on the basis of procurement rules that state that cooperative arrangements between public and private sector companies should be considered.

At the same time, the department has confirmed that the proposal for the formation of a JV by HSL with Adani has been received and is under consideration by the ministry. The letter to the navy is believed to have been issued after the matter was raised by HSL-Adani.

The tussle has put the ministry in a unique position. At one hand, procurement rules and past precedence rules state that whenever possible, the widest possible competition needs to be ensured, to arrive at the most competitive pricing. On the other hand, the committee for shortlisting of Indian partners has hit on a technical point that was enshrined in the procurement bid issued by it.

The matter is now expected to land up at the defence ministry's decision-taking body on procurement that is scheduled to meet at the end of this week.

The biggest shipbuilding plan under the strategic partnership model is expected to see the state owned MDL as the front runner.

https://economictimes.indiatimes.com/news/defence/navy-ministry-of-defence-in-a-tussle-over-biggest-submarine-project/articleshow/73237525.cms?from=mdr

INDIA TODAY

Tue, 14 Jan 2020

New entrants Chinook, Apache helicopters to be part of Republic Day flypast

Apache and Chinook will take part in the Republic Day flypast for the first time on January 26

By Abhishek Bhalla

New Delhi: Newly inducted Chinook heavy airlift and the Apache attack helicopters will be part of the Republic Day flypast by the Indian Air Force.

Three Chinook helicopters will be seen at R-Day flypast followed by the 'Apache' formation comprising the latest attack helicopters. Five aircraft will be flying in 'arrowhead' formation.

The helicopters called 'flying tanks' are a potent acquisition and multi-role in nature that can operate in mountainous terrains armed with anti-tank missiles.

With the first batch of eight helicopters already been inducted, the Indian Air Force will have 22 more

by 2020 that will be split in two squadrons - Punjab's Pathankot to combat threats from Pakistan and the other in Jorhat, Assam with an eye on China.

The pilots have already been trained and will be part of exercises to be combat ready and test real time challenges, sources said.

The Indian Air Force inducted eight US manufactured Apache attack helicopters in its fleet giving a boost to its firepower that will enhance military capabilities against Pakistan and China.

First proposed in 2006, the heavy lift Chinook helicopters that can transport artillery guns in high altitudes were inducted in the Indian Air Force in March last year.

The Heavy Lift Helicopters will add to the army's battle capabilities as it can transport troops and newly inducted M777 Howitzer guns to higher reaches in combat locations.

The CH-47 Chinook is an American helicopter manufactured by Boeing and India inked the $ 3 billion deal in 2015.

Leading the fixed wing formations this year will be Dornier formation consisting of three Dornier aircraft in 'vic' formation.

After this, the three C-130J Super Hercules ac will fly in 'vic' formation. This will be followed by the 'Eye in the Sky- Netra' formation, comprising a single AEW&C flanked by two Su-30MKIs.

Thereafter, a formation of three C-17 Globemasters, in 'displaced trail vic' formation called 'Globe' formation will fly past the dais, showcasing the IAF's heavy lift capabilities. Following the Globe formation is the first fighter formation, the 'Jaguar' formation, consisting of five Jaguar aircraft in arrowhead formation.

This will be followed by five Mig-29 Upgrade aircraft in similar formation, callsign 'Fulcrum'. Thereafter, 'Sukhoi' formation comprising three SU-30 MKI aircraft from AF Station Jodhpur, will execute the famous Trishul manoeuvre.

In this, the lead Su-30 would execute a vertical manoeuver on reaching in front of the dais while the flanking ac would split outwards forming a trident. The end of the parade will be marked by a single SU-30 MKI aircraft Flanker of the IAF, carrying out the signature 'vertical charlie' in front of the dais. All aircraft will fly-in from the Rashtrapati Bhavan side and exit towards the India Gate at heights between 60 metres to 300 metres above ground level.

https://www.indiatoday.in/india/story/republic-day-chinook-apache-helicopter-flypast-1636401-2020-01-13

THE HINDU

Tue, 14 Jan 2020

Indian Navy adopts new fuel with higher specifications

The new specification will not only ensure a better quality fuel but also result in a reduced carbon footprint, the Navy said

New Delhi: The Indian Navy in collaboration with Indian Oil Corporation Limited (IOCL) has adopted a new fuel with higher technical specifications - High Flash High Speed Diesel (HFHSD – IN 512)- which was formally launched on Monday.

“The new specification will not only ensure a better quality fuel but also result in a reduced carbon footprint,” the Navy said in a statement.

With this, the country will be able to ensure “interoperability” amongst foreign navies during fleet exercises and provide fuel of quality better than that mandated to all foreign navies under “bilateral/multi-national logistics support pacts,” the statement added.

The change is an outcome of an extensive study and a comparative evaluation of existing international regulations based on which a revised technical specification was arrived at consisting of 22 test parameters, including critical parameters cetane number, flash point, sulphur content, sediment content, oxidation stability and Cold Filter Plugging Point (CFPP), the Navy said.

This effort is expected to benefit other IOCL consumers like the Indian Coast Guard and other merchant marine in the coming years.

https://www.thehindu.com/news/national/indian-navy-adopts-new-fuel-with-higher-specifications/article30561959.ece

hindustantimes

Tue, 14 Jan 2020

Tanks will never become obsolete, says Major General S Jha at annual firepower exercise in Ahmednagar

The sound of lethal and accurate fire power by tanks echoed across the Kharjuna Khare (KK) Ranges in Ahmednagar on Monday during the annual integrated firepower and manoeuvre exercise by the Indian mechanised forces.

“Over the years, several questions have been raised regarding the existence of the tanks, but military tanks have time and gain proved their importance in wars as recent as tackling the ISIS, said Major General S Jha, commandant, Armoured Corps Centre and School, while addressing the media during the annual event.

He stressed that “military tanks will never become obsolete”. He also added that tanks, which first appeared in 1916 during the First World War and then in 1936, were updated with mobility and fire power. Jha said, “Mechanised forces are always under upgradation with new technology being integrated in new tanks. We have used tanks in a war as recent as in the Middle East against the ISIS. Mechanised infantry gives protection to the infantry and can surprise the enemy because of their mobility and ease to move in any terrain. Tanks have three special qualities which are mobility, fire power and protection. The same tank can attack using three different types of fire power. Heavy calibre and small calibre, both, can be mounted on the tanks and they can be used effectively in plain and mountainous terrains as well.”

In an impressive display of capabilities of mechanised warfare platforms in the arsenal of Indian mechanised forces, the exercise showcased effective man-machine integration as part of conventional assured response strategy in an integrated and networked battlefield. Spread over 36,000 acres, KK Ranges proved to be the perfect place for the exercise which aims to acquaint the Defence Services Staff College and Technical Staff Officers Course officers with the operational capabilities of the mechanised forces.

The exercise was conducted in two parts, the technological and tactical capability of various tanks, Infantry Combat Vehicles (ICV) and attack helicopters was showcased in the first half, while in the second, the tanks and ICVs displayed integrated firing with speed and agility.

The tanks that were on display this year at the exercise were T-90 Bhishma, T-72 Ajeya, BMP-II, attack and utility helicopters and indigenously produced MBT Arjun.

Maj Gen Jha further added, “Mechanised forces stand between defeat and victory for any country in any battle. They are also used to indicate intent and resolve of the country. Wherever the mechanised forces are placed, the place of war is identified over there.”

When questioned as to who has a better mechanised force, India or Pakistan, Jha replied that both have the same shell power, but the training imparted to Indian soldiers and their spirit is far greater than the enemies anywhere.

The innovative manoeuvrers in a simulated battlefield environment by composite combat entities capable of leveraging new age technologies was organised by Armoured Corps Centre and School and Mechanised Infantry Regimental Centre, which are training institutions of the Indian mechanised forces.

https://www.hindustantimes.com/cities/tanks-will-never-become-obsolete-says-major-general-s-jha-at-the-annual-firepower-exercise-at-ahmednagar/story-z0lxEgdz5MDHr8jvV7JZ9N.html

THE ECONOMIC TIMES
WWW.ECONOMICTIMES.COM

Tue, 14 Jan 2020

Raisina Dialogue to begin on Tuesday, PM Modi to attend inaugural session

The fifth edition of the prestigious Raisina Dialogue, jointly organised by the Ministry of External Affairs and the Observer Research Foundation, will bring together 700 international participants from over a 100 countries, in one of the largest gathering of its kind

New Delhi: India's flagship global conference on geopolitics and geo-economics Raisina Dialogue will begin on Tuesday with Prime Minister Narendra Modi attending the inaugural session at which seven former heads of state or government will share their views on important challenges facing the world. The fifth edition of the prestigious Raisina Dialogue, jointly organised by the Ministry of External Affairs and the Observer Research Foundation, will bring together 700 international participants from over a 100 countries, in one of the largest gathering of its kind.

The three-day conference will see participation of 12 Foreign Ministers, including from Russia, Iran, Australia, Maldives, South Africa, Estonia, Czech Republic, Denmark, Hungary, Latvia, Uzbekistan and the EU.

Iran foreign minister Javed Zarif's participation assumes significance as it comes following the killing of Iranian Quds Force commander Qassem Soleimani.

The Secretary General of the Shanghai Cooperation Organisation and the Secretary General of the Commonwealth will also attend, the MEA said in a statement.

The NSA of Afghanistan, the Deputy NSA of the United States and several ministers of state, including from Germany, will also present their ideas at the conference, the MEA said.

The Heads of over 30 think-tanks from around the world will also moderate or present their views across different sessions, it said.

The inaugural session on Tuesday will be attended by Prime Minister Modi and seven former heads of state or government, with high international stature and rich experience in governance, will share their views during the inaugural session on important challenges facing the world related to globalisation, 2030 agenda, role of technology in modern world, climate change and counter-terrorism.

The former heads of government who will engage in a discussion are former New Zealand Prime Minister Helen Clark, former Afghan President Hamid Karzai, former Canadian Prime Minister Stephen Harper, former Swedish Prime Minister Carl Bildt, former Danish Prime Minister Anders Rasmussen, former Bhutanese premier Tshering Tobgay and former South Korean Prime Minister Han Seungsoo.

Over the course of two days intensive deliberations will take place over 80 sessions around 5 thematic pillars - the nationalist impulses challenging global institutions and collective action, debate on the global trading architecture, role of technologies in determining political, economic and military power, global development agenda and the state-individual relationship in the age of digital communities and cyberspace.

The synergies and collaborations in the Raisina Dialogue represent India's deliberative ethos as well as its international credibility and convening power, the MEA said.

https://economictimes.indiatimes.com/news/politics-and-nation/raisina-dialogue-to-begin-on-tuesday-pm-modi-to-attend-inaugural-session/articleshow/73233027.cms

THE ECONOMIC TIMES
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Tue, 14 Jan 2020

Chinese Navy commissions first fourth generation destroyer

The warship named Nanchang was commissioned by People's Liberation Army Navy (PLAN) in the port city of Qingdao, official media reported. Launched on June 28, 2017, the Type 055 destroyer is equipped with new air defence, anti-missile, anti-ship and anti-submarine weapons

Beijing: China on Sunday commissioned its first fourth generation guided-missile destroyer, which is expected to accompany aircraft carriers in new battle groups.

The warship named 'Nanchang' was commissioned by People's Liberation Army Navy (PLAN) in the port city of Qingdao, official media reported.

Launched on June 28, 2017, the Type 055 destroyer is equipped with new air defence, anti-missile, anti-ship and anti-submarine weapons.

The commissioning of Nanchang marks PLAN's leap from the third generation to the fourth generation of destroyers, a statement issued by People's Liberation Army Navy said.

Having a displacement of more than 10,000 tons, the Type 055 is a 180-meter-long, 20- meter-wide guided missile destroyer with 112 vertical launch missile cells capable of launching a combination of surface-to-air missiles, anti-ship missiles, land-attack missiles and anti-submarine missiles, according to media reports.

Beijing-based naval expert Li Jie said that Nanchang is expected to accompany aircraft carriers in battle group, state-run Global Times reported.

The Type 055 will serve as a powerful escort to aircraft carriers and is also very versatile and can lead a task group without a carrier and conduct a wide range of missions, Li said.

Five other Type 055 destroyers have been launched at the Dalian Shipyard, Northeast China's Liaoning Province and Jiangnan Shipyard in Shanghai, according to reports.

China has two aircraft carriers and building more.

Official media reports said that China plans to build five to six aircraft carriers in the near future.

Also on Friday, Chinese President Xi Jinping conferred China's top science award to Huang Xuhua, the chief designer of China's firstgeneration nuclear submarines.

Expanding its navy at a feverish pace as part of its efforts to increase its global influence, China reportedly has about a fleet of 68 submarines which include nuclear as well as conventional submarines.

China is constructing a major underground nuclear submarine base near Sanya, Hainan. The base could be capable of hiding up to 20 nuclear submarines from spy satellites, reports said.

As the first Asian country to have developed nuclear submarines, China has been operating N-submarine since 1970.

Since then the N-submarines carried out major upgrades and started taking part in battle groups since 1990.

In 1988, Huang took the vessel to its maximum depth to test it, a task so dangerous that many crew members wrote farewell letters to their families to be delivered in the event of their death, state-run China Daily reported on Sunday.

Huang was also one of the eight recipients of the Medal of the Republic last year for his outstanding contributions to the nation.

https://economictimes.indiatimes.com/news/defence/chinese-navy-commissions-first-fourth-generation-destroyer/articleshow/73215602.cms

THE ECONOMIC TIMES
WWW.ECONOMICTIMES.COM

Tue, 14 Jan 2020

After Gaganyaan, ISRO Chairman K Sivan to set sights on space station

India has earmarked over Rs 10,000 crore for the human space flight mission, which has been in the works for nearly two decades. It moved to mission mode with tight deadlines after PM Narendra Modi turned the spotlight on the programme in his Independence Day address to the nation in 2018

By Ayan Pramanik, Raghu Krishnan

Bengaluru: The Indian Space Research Organisation (Isro) aims to undertake more human space flights and also build a station in the outer space, once it successfully completes its maiden mission — Gaganyaan — in 2022, Isro chairman K Sivan said. Aiming to be the fourth country to launch a human space mission from its own soil, Isro has identified the first cohort of pilots to be trained for the ambitious programme.

“Before Independence Day (in) 2022, we are targeting the first manned mission,” Isro chairman said. “We will sustain that with more (human spaceflight) missions. Then we will have our own space station,” he said in an exclusive interview with ET.

ISRO has designed an autonomous 3.7 tonnes spacecraft to carry a three-member crew to space, but is likely to have only one astronaut in its maiden human space flight.

The high-profile mission — the first after Wing Commander Rakesh Sharma became the first Indian to go to space on a Russian rocket in 1984 — will see four IAF pilots head to Russia later this month to begin an intensive programme to train as astronauts. India has sought Russian help to both train its astronauts and build life support systems in the crew capsule. The spacesuits for the astronauts will also be stitched in Russia, Sivan said.

Meanwhile, Isro will send a humanoid into space later this year, the first of the two unmanned missions, using its most powerful rocket — Geosynchronous Satellite Launch Vehicle MkIII. The

rocket will be human rated, that is, fine-tuned to be safe enough with zero or minimum errors to carry a human crew on board.

The humanoid will have systems that simulate human functions," said Sivan. The space agency will carry six micro gravity experiments in the crew capsule during the two unmanned missions.

India has earmarked over Rs 10,000 crore for the human space flight mission, which has been in the works for nearly two decades. It moved to mission mode with tight deadlines after Prime Minister Narendra Modi turned the spotlight on the programme in his Independence Day address to the nation in 2018. A plan to send an Isro scientist to space on a US space shuttle was shelved in 1986 following the Challenger tragedy, when the space shuttle blew up 72 seconds into launch killing six astronauts.

ISRO is also launching dedicated two communication satellites — Indian data relay satellite system (IDRSS) to ensure that the Astronauts are in constant touch with the space agency's scientists on ground throughout the mission.

Pointing out the need for a roundthe-clock communication system once a human is launched into space, Sivan said of the many options, IDRSS was the least expensive.

"I think August 2022 is a somewhat aggressive target given the complexity of human missions to Low Earth Orbit (LEO)," said Susmita Mohanty, CEO of Earth2Orbit, India's first private space startup.

"So far, we have tested 2 unmanned capsules for atmospheric re-entry technologies: SRE-1 in January 2007 and CARE in December 2014. Isro should publish a comprehensive roadmap instead of simply announcing a target launch date."

https://economictimes.indiatimes.com/news/science/after-gaganyaan-isro-chairman-k-sivan-to-set-sights-on-space-station/articleshow/73237162.cms?from=mdr

दैनिक जागरण

Tue, 14 Jan 2020

17 जनवरी को लॉन्च होगा संचार उपग्रह जीसैट-30, साल 2020 का ISRO का पहला मिशन

इसरो के नए संचार उपग्रह जीसैट-30 का प्रक्षेपण एरियन-5 लॉन्च व्हैकल से 17 जनवरी को किया जाएगा। यह प्रक्षेपण फ्रेंच गुएना के कोउरू शहर से तड़के 2.35 बजे होगा।

नई दिल्ली: भारतीय अंतरिक्ष अनुसंधान संगठन (ISRO) के नए संचार उपग्रह जीसैट-30 का प्रक्षेपण एरियन-5 लॉन्च व्हैकल से 17 जनवरी को किया जाएगा। यह प्रक्षेपण फ्रेंच गुएना के कोउरू शहर से तड़के 2.35 बजे होगा। इसकी जानकारी इसरो ने दी है। यह इसरो का इस साल यानी 2020 का पहला मिशन होगा। इसे लेकर तैयारी अंतिम चरण में है।

जीसैट -30 इसरो द्वारा डिजाइन किया हुआ और बनाया गया एक दूरसंचार उपग्रह है। यह इनसैट सैटेलाइट की जगह काम करेगा। इससे राज्य-संचालित और निजी सेवा प्रदाताओं को संचार लिंक प्रदान करने की क्षमता में बढ़ोतरी होगी। मिशन की कुल अवधि 38 मिनट, 25 सेकंड होगी। इसका का वजन करीब 3100 किलोग्राम है।यह लॉन्चिंग के बाद 15 सालों तक काम करता रहेगा। इसे जियो-इलिप्टिकल ऑर्बिट में स्थापित किया

जाएगा। इसमें दो सोलर पैनल होंगे और बैटरी होगी जिससे इसे ऊर्जा मिलेगी। यह 107 वां एरियन 5 वां मिशन होगा। कंपनी के 40 साल पूरे हो गए हैं।

वर्तमान में 25 उपग्रह लॉन्च करने की योजना

वर्तमान में इसरो के पास आदित्य-एल 1 उपग्रह सहित 25 उपग्रह लॉन्च करने की योजना है, जो कि पृथ्वी से लगभग 15 लाख किलोमीटर की दूरी पर लग्रनिज बिंदु (एल 1) के आसपास हॉलो ऑर्बिट में प्रवेश कराया जाएगा। आदित्य-एल 1 उपग्रह सौर कोरोना का अध्ययन करेगा, जिसमें एक लाख डिग्री से अधिक केल्विन तापमान होता है। यह सूर्य से निकलने वाले क्रोमोस्फीयर और कण प्रवाह का भी अध्ययन करेगा।

साल के अन्य लॉन्चिंग योजना

साल के अन्य लॉन्चिंग योजना में एसएसएलवी (स्मॉल सैटेलाइट लॉन्च व्हीकल) शामिल हैं, जो पृथ्वी की निचली कक्षा में छोटे उपग्रहों, जीएसएलवी, जीसैट -20 उपग्रह, एनएवीआईसी, इंडियन डेटा रिले सैटेलाइट सिस्टम और एक्सपोसेट को प्रवेश कराएगा।

पिछले साल इसरो ने छह लॉन्च वाहन और सात उपग्रह मिशन लॉन्च किए थे

पिछले साल इसरो ने छह लॉन्च वाहन और सात उपग्रह मिशन लॉन्च किए थे। इसने पोलर सैटेलाइट लॉन्च व्हीकल (PSLV) के 50 वें लॉन्च का जश्न भी मनाया। एरियनस्पेस ने पिछले साल 6 फरवरी को इसरो का जीसैट -31 लॉन्च किया था।

https://www.jagran.com/news/national-gsat30-to-be-launched-on-january-17-isro-first-mission-of-year2020-19931955.html

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China's giant telescope with area of 30 football fields goes live

The "Five-hundred-meter Aperture Spherical radio Telescope" (FAST) is a single-dish telescope and is located in southwest China's Guiyang city, the capital of Guizhou province

By Sutirtho Patranobis

Beijing: China operationalised the world's largest radio telescope with a diameter of half-a-kilometre last week, state media reported, adding that the colossal device is expected to make major scientific discoveries in the coming years.

The "Five-hundred-meter Aperture Spherical radio Telescope" (FAST) is a single-dish telescope and is located in southwest China's Guiyang city, the capital of Guizhou province.

The telescope has a receiving area of around 30 football fields.

The telescope was put to work on Saturday after three years of trial operation, the official news agency, Xinhua reported.

The telescope will gradually open to astronomers around the globe, providing them with a powerful tool to uncover the mysteries surrounding the genesis and evolutions of the universe.

All technical indicators of the telescope have reached or exceeded the planned level, and its performance is world-leading, Shen Zhulin, an official with the National Development and Reform Commission (NDRC) said at the opening of the telescope.

Dubbed as “China Sky Eye”, FAST is about 2.5 times as sensitive as the second-largest telescope in the world and capable of receiving a maximum of 38 gigabytes of information per second.

“With a cost of nearly 1.2-billion-yuan (around US$170 million), FAST was completed in September 2016, over 20 years after it was proposed by Chinese astronomers,” state media reported.

According to state media, scientists from the United States, Britain and Pakistan along with their counterparts from China have worked at FAST.

“More global collaborations are expected in areas such as gravitational wave detection and very-long-baseline interferometry (VLBI) following its formal operation”.

The government has already put in place regulations around the telescope’s location to prevent human activities from affecting its work.

“No cell phones, no digital cameras, and no smart wearable devices - the Guizhou provincial government has revised a regulation to keep the noise down and prevent human activities from affecting the world’s largest telescope”.

“The blanket ban is enforced on radio equipment and electromagnetic gadgets, including tablets, speakers and drones, in the core silence zone of the FAST. The total quiet area of FAST includes a 5-km radius as the core zone, 5 km to 10 km radius as the intermediate zone and a peripheral zone that covers 10 km to 30 km in radius”.

More than 7,000 residents living in the vicinity were relocated because of the project.

They were moved to a town 10 km away from the telescope.

An astronomy-themed park has been built around the site of FAST, drawing a large number of visitors and tourists, the report said.

https://www.hindustantimes.com/world-news/china-s-giant-telescope-with-area-of-30-football-fields-goes-live/story-fMu1EWjHHgblcNVk8Ld8FN.html