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समाचार पत्रों से चयनित अंश
Newspapers Clippings

डीआरडीओ समुदाय को डीआरडीओ प्रौद्योगिकियों, रक्षा प्रौद्योगिकियों, रक्षा नीतियों, अंतर्राष्ट्रीय संबंधों और विज्ञान एवं प्रौद्योगिकी की नूतन जानकारी से अवगत कराने हेतु दैनिक सेवा

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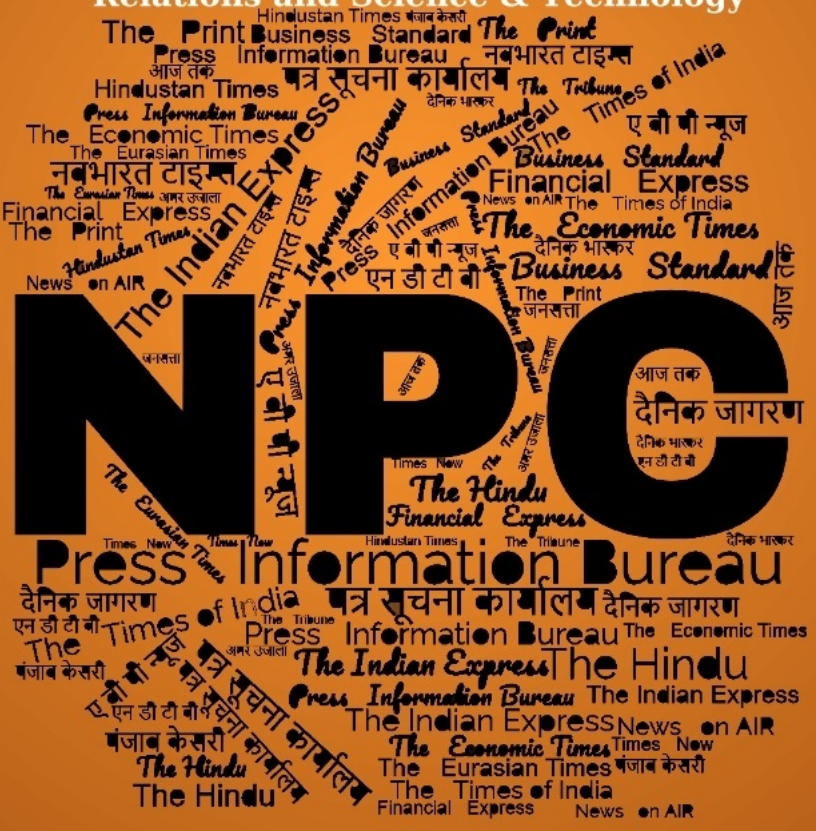

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DRDO News

French Safran and DRDO combine to give India its first jet engine

Source: Hindustan Times, Dt. 11 Sep 2025

India may soon approve a joint project by French firm Safran S.A and India's Gas Turbine Research Establishment (GTRE), a lab under the Defence Research and Development Organisation (DRDO) to develop and produce 120 Kilo Newton engine which will power India's twin engine Advanced Medium Combat Aircraft (AMCA) fighter, a move that comes shortly after Prime Minister Narendra Modi called for indigenous development of jet engines from the ramparts of Red Fort during his Independence Day speech, people familiar with the matter said.

Defence Minister Rajnath Singh has also indicated that India will soon embark on the critical task of developing engines for fighter jets. HT learns that Safran-GTRE will develop nine prototypes of fighter engines within a time frame of 12 years. The engines will initially developed with 120 KN power but go up in capacity to 140 KN by the end of the 12 year time period.

The jet engines will be developed in India under Indian IPR with Safran transferring 100% of the technology to DRDO, including crystal blade technology, the people cited above added. These are blades in the engine that are usually constructed from a single crystal using super-alloys, and which are efficient, long-lasting, and also cope better with higher heat and stress. DRDO has the technology, but shaping it for high-powered jet fighter engines presents a different level of challenge.

The idea of both Safran and DRDO combining to develop a jet engine has been hanging fire for the past two years but now the Modi government has pushed DRDO to come up with a proposal which will soon be given green light at the apex level. This 120-140 KN engine will power the twin engine advanced multi-role aircraft (AMCA), which will be developed and produced by Indian private sector with the Tata group, L &T and Adani Defence all ready to pitch in for the national effort.

PM Modi pushed for an indigenous aircraft engine because this is an apex defence technology with significant civilian spin-offs. While US, Russia, UK and France have the capacity to design, develop and produce own aircraft engines, even China still does not have its own aircraft engines and uses Russian or reverse engineered engines to power its front-line fighters. India's GTRE tried to develop indigenous engine Kaveri but the project never took off.

While US defence major GE is supplying India with 212 F-404 engines (a deal for the second tranche of 113 engines is to be signed this month), it is also transferring technology of the heavier GE-414 engine but the technology transfer is only around 70 %.

India is looking at its trusted partner France to co-develop the engine as the US offer is often conditional and prone to strategic disruptions as in the past, the people said. They pointed out that France that did not sanction India for the Pokhran Shakti series of tests in 1998 and continued to provide state of the art INGPS systems for Indian missiles as well as spare parts for Mirage 2000 fighters.

With 73 KN M-88 Snecma engine powering the 36 Indian Rafale fighters, it is only logical that India also looks at Dassault for making 114 additional fighters in India for the multi-role combat program. The design, development and co-production of 110 KN engine will change the complexion of strategic game for India as the Indian Air Force will not be dependent on any third country to provide engine and fighters for power projection, the people said.

The Indian Navy will also get its twin engine deck based fighter with the more powerful Safran-GTRE jet engine for its aircraft carrier strike force. It is with the 120-140KN engine that India will power its front-line fighters in coming decades.

https://www.hindustantimes.com/india-news/french-safran-and-drdo-combine-to-give-india-its-first-jet-engine-101757555156249.html

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Defence News

नौसेना ग्रीस के साथ करेगी पहला द्विपक्षीय अभ्यास, तुर्की कनेक्शन पर भी नज़र

Source: NavBharat Times, Dt. 11 Sep 2025

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■ नई दिल्ली : पहली बार इंडियन नेवी ग्रीस की नेवी के साथ बाइलैटरल (द्विपक्षीय) एक्सरसाइज करने जा रही है। इस एक्सरसाइज में इंडियन नेवी का वॉरशिप INS त्रिकंठ शामिल होगा। अब तक ग्रीस के साथ इंडियन नेवी पासेक्स यानी पासेज एक्सरसाइज ही करता रहा है, जिसका मतलब है कि वहां से गुजरते हुए एक्सरसाइज।

बाइलैटरल एक्सरसाइज अब एक स्थापित एक्सरसाइज हो जाएगी जिसके बाद सालाना यह एक्सरसाइज हो सकेगी। यह एक्सरसाइज 13 से 18 सितंबर तक होगी। यह सिर्फ एक एक्सरसाइज नहीं, बल्कि भारत और ग्रीस के बीच रणनीतिक रिश्ते और मजबूत करने की भी पहल है।

इसका तुर्किये कनेक्शन भी है। तुर्किये ने ऑपरेशन सिंदूर के दौरान पाकिस्तान का साथ दिया था। तुर्किये ने पाकिस्तान को ड्रोन दिए जिनका इस्तेमाल पाकिस्तान ने भारत पर हमला करने के लिए किया।

13-18 सितंबर तक एकसरसाइज, वॉरशिप INS त्रिकंठ भी शामिल होगा।

भारत के एयर डिफेंस ने तुर्किये के ड्रोन को मार गिराया था। तुर्किये से मिले ड्रोन को पाकिस्तान निगरानी रखने और आत्मघाती हमले करने के लिए इस्तेमाल कर रहा था। तुर्किये के विदेश मंत्रालय ने ऑपरेशन सिंदूर के दौरान पाकिस्तान के पक्ष में बयान भी जारी किया था। जिसके बाद भारत में तुर्किये को लेकर काफी नाराजगी भी देखी गई और बायकॉट तुर्किये कैंपेन भी चला। तुर्किये पाकिस्तान का रणनीति साझेदार है।

तुर्किये और ग्रीस के बीच पुराना विवाद

ग्रीस के साथ भारत की बढ़ती रणनीति दोस्ती इसलिए भी अहम है क्योंकि तुर्किये और ग्रीस के बीच भी पुराना विवाद है। इस वजह से दोनों देश नाटो के सदस्य होते हुए भी कई बार जंग के करीब आए हैं। ग्रीस और तुर्किये के बीच एजियन सागर में समुद्री सीमाओं को एक्सक्लूसिव इकॉनमी जोन को लेकर विवाद है। तुर्किये का दावा है कि ग्रीक द्वीपों को पूर्ण EEZ का अधिकार नहीं है जबकि ग्रीस संयुक्त राष्ट्र समुद्री कानून संधि (UNCLOS) के आधार पर अपने द्वीपों के लिए पूर्ण समुद्री क्षेत्र का दावा करता है। ग्रीस का दावा है कि उसका हवाई क्षेत्र 10 समुद्री मील तक है जबकि तुर्किये सिर्फ 6 समुद्री मील को मान्यता देता है।

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Indian Navy's 1st Training Squadron Arrives at La Réunion, Mauritius for Bilateral Engagements

Source: The Statesman, Dt. 11 Sep 2025

Ships of the Indian Navy's First Training Squadron (1TS), INS Tir, ICGS Sarathi, and INS Shardul, arrived at La Réunion and Port Louis (Mauritius), respectively, as part of their Long Range Training Deployment in the Southwest Indian Ocean Region.

Elaborating on the details, the naval spokesperson said that at La Réunion, Tir and Sarathi were received by the French Navy ship FS Nivose, with a Passage Exercise (PASSEX) marking the welcome.

The visit includes professional interactions such as cross-training visits, joint diving exercises, yoga sessions, and sports fixtures, strengthening the India–France naval partnership. The Senior Officer of 1TS also called on the French Naval Base Commander and the Commandant Supérieur des FAZSOI, where discussions focused on regional security, prospects for joint exercises, and avenues for enhancing maritime cooperation under the shared vision of building bridges of friendship, the spokesperson added. Simultaneously, INS Shardul arrived at Port Louis, Mauritius, where she conducted joint patrolling and Exclusive Economic Zone (EEZ) surveillance with MCGS Victory and a Mauritius Coast Guard Dornier before arrival.

During the port call, the Commanding Officer of INS Shardul called on senior Mauritian leadership, including the Commissioner of Police, the Commandant of the National Coast Guard, and the Secretary of Home Affairs. A series of joint training exercises is planned with the National Coast Guard of Mauritius, covering diving operations, firefighting, damage control, and shipboard familiarisation drills. Community outreach, yoga sessions, cultural programmes, and friendly sports fixtures are scheduled to foster camaraderie and people-to-people connect. Cross-deck visits, school tours, and open-ship events will provide opportunities for the public and the Indian diaspora to gain an insight into life at sea and the role of the Indian Navy, the spokesperson said.

https://www.thestatesman.com/india/indian-navys-1st-training-squadron-arrives-at-la-reunion-mauritius-for-bilateral-engagements-1503484338.html

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Next-gen fighter jet war heats up, protests reach design body

Source: The Economic Times, Dt. 11 Sep 2025

The high-stakes battle to develop India's next-generation fighter jet is heating up, with protests reaching design body Aeronautical Development Agency (ADA) on the terms and conditions for the selection of a manufacturing partner.

Sources said Hindustan Aeronautics Limited (HAL) has submitted to ADA that the qualifying terms and conditions when it comes to financial performance of companies are skewed against it.

ADA had, in June, floated an expression of interest (EOI) -- akin to a tender -- inviting Indian companies to participate in the ambitious project to manufacture at least five protoypes of the Advanced Multirole Combat Aircraft (AMCA). The last date of submission has been extended to September 30 and meetings have already been held with prospective competitors.

As per the plan cleared by the defence ministry, Indian companies -- both private and public sector -- would compete to become a developmental partner for the project to first manufacture the prototypes and later get larger orders once the fighter jet has been certified for induction.

Prior to the EOI, several private sector companies had conveyed to the ministry that they would be hard pressed to compete against HAL for the major project. The common line taken was that the government has invested heavily over the years on creating infrastructure at HAL, while the private sector would need to do this from scratch, making it harder for them to compete.

The other point raised by private companies was that technical parameters for selection should be fair to enable them to qualify for the competition. Very few companies in the private sector have expertise in aeronautical manufacturing at present. To encourage the private sector to compete, the ministry ensured that a major part of the infrastructure required to make the prototypes would be provided by ADA and no unfair advantage would be given to state-owned entities.

Sources said HAL's protest has been registered on the EOI which mentions the revenue to order book ratio as one of the qualifying points. No points would be awarded to HAL as it has an extremely loaded order book. The current order book for HAL is close to ₹2 lakh crore.

The idea behind the clause, sources said, was to ensure that all aeronautical work is not cornered by a single entity and an alternate hub is created within the country. There has also been consensus that the private sector needs to be encouraged to enter the challenging field of fighter jet manufacturing, given the huge backlog of work already placed on HAL that includes fighters, helicopters and trainer aircraft.

Sources added that the revenue to order book ratio could also ensure that HAL takes a partner from the private sector to qualify for the AMCA order. This could be in the form of a joint venture or consortium, with the work load being shared, enabling the creation of a private sector entity specialising in aeronautical manufacturing.

https://economictimes.indiatimes.com/news/defence/next-gen-fighter-jet-war-heats-up-protests-reach-design-body/articleshow/123815564.cms?from=mdr

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US defence team heads to India for $2-bn surveillance plane deal

Source: The Tribune, Dt. 11 Sep 2025

AJAY BANERJEE
TRIBUNE NEWS SERVICE

NEW DELHI, SEPTEMBER 10

In what is being seen as an ice-breaker in the India-US military trade ties, a team from Washington is headed to New Delhi to conduct a discussion on the sale of six additional surveillance planes.

The US team was expected in a week, sources said. Since the deal is through the 'foreign military sales' route, the team would have government officials. India is seeking six additional Boeing P8I long-range maritime surveillance planes.

The Navy already has 12 of these planes in its fleet. These were used extensively during Operation Sindoor with Pakistan (May 7-10). Also during the military stand-off in Eastern Ladakh, the planes were often over the Himalayas keeping an eye on Chinese military movement across the Line of Actual Control (LAC)

The US government, in May 2021, approved the sale of six additional Boeing P-8I aircraft for an estimated $2.42 billion under its Foreign Military Sales (FMS) programme. The sale was requested by India. All price offers in military sales have timelines and this one expired. A fresh quote is expected.

India expects a reasonable offer to go ahead. The Indian Navy's fleet of P-8I aircraft comes with high resolution sensors and camera that not just provide a live feed to ground stations, they also track submarines. The planes carry Harpoon anti-submarine missiles which can fire at enemy subs. India got these planes in two tranches of eight and four planes in 2009 and 2016, respectively.

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FOC-in-C of Eastern Naval Command addresses HDMC officers on India-China maritime dynamics

Source: The Statesman, Dt. 11 Sep 2025

STATESMAN NEWS SERVICE
New Delhi, 10 September

Vice Admiral Rajesh Pendharkar, FOC-in-C, Eastern Naval Command, addressed officers of the ongoing Higher Defence Management Course (HDMC), here on Wednesday.

Addressing the officers, the Admiral provided a comprehensive historical perspective and forward-looking insights on the evolving India–China maritime contest.

He traced the maritime histories of both nations, emphasised the criticality of China's dependence on Sea Lanes of Communication, and analysed the growth of the PLA Navy. Highlighting geo-economic and strategic

maritime dimensions, the Admiral underlined India's focus on key initiatives like Sagarmala, Mahasagar, and the Maritime Vision of India as vital enablers of maritime power.

He stressed the growing role of Maritime Domain Awareness and advanced technology in maintaining strategic advantage, reinforcing India's commitment to safeguarding its interests in an era of increasing competition.

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Science & Technology News

ISRO inks pact with HAL for transfer of small satellite launch vehicle technology

Source: The Hindu, Dt. 11 Sep 2025

The aim is to complete the entire technology transfer process within 24 months from the date of signing the agreement, a statement from the Indian National Space Promotion and Authorisation Centre (INSPACe) said.

During this period, ISRO will provide necessary training and technical support to HAL for acquiring the knowhow of the SSLV, it added.

ISRO Chairman V. Narayanan during the signing of an agreement between NewSpace India Limited, ISRO, IN-SPACe and Hindustan Aeronautics Limited for the transfer of the Small Satellite Launch Vehicle technology.

“With India’s liberalisation of the commercial space sector, opportunities are certainly growing. At ISRO, we have a dynamic technology transfer mechanism to realise shared goals,” ISRO chairman V. Narayanan said.

He said ISRO would guide the HAL team on the preparedness-to-flight tangent of SSLVs that would define the next phase of deep-tech collaboration in space in India.

“ISRO, HAL, NSIL and INSPACe coming together for the SSLV technology transfer signals a vital leap towards this endeavour. It reflects the Government of India’s vision to empower the space industry and establish India as a global hub for affordable and reliable launch services,” INSPACe chairman Pawan Kumar Goenka said.

He said the agreement would allow HAL to independently take up the realisation of SSLV and cater to both domestic and international markets.

"We are honoured to be in this league to scale India's next big frontiers with the SSLV technology by partnering with ISRO, NSIL and IN-SPACe to operationalise it," D.K. Sunil, Chairman and Managing Director of HAL, said.

Mr. Sunil said HAL would apply its engineering and manufacturing strength to build SSLVs, train the required workforce and progress towards building a self-reliant ecosystem so that India could offer regular, cost-competitive small-satellite launches to domestic and global customers.

https://www.thehindu.com/sci-tech/science/isro-inks-pact-with-hal-for-transfer-of-small-satellite-launch-vehicle-technology/article70034256.ece

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NASA rover finds potential sign of ancient life in Martian rocks

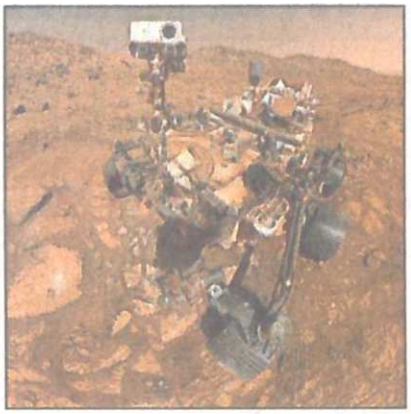
Source: The Times of India, Dt. 11 Sep 2025

Washington: A sample obtained by Nasa's Perseverance rover of rock formed billions of years ago from sediment on the bottom of a lake contains potential signs of ancient microbial life on Mars, according to scientists, though the minerals spotted in the sample also can form through nonbiological processes.

The discovery, detailed in research published on Wednesday, represents one of the best pieces of evidence to date about the possibility that Earth's planetary neighbor once harbored life.

Since landing on the Martian surface in 2021, the six-wheeled rover has been exploring Jezero Crater, an area in the planet's northern hemisphere that once was flooded with water and home to an ancient lake basin, as it seeks signs of ancient life. Perseverance has been collecting samples of rock and loose material called regolith and analyzing them with its various onboard instruments.

The rover obtained the newly described sample, called the Sapphire Canyon sample, in a place called the Bright Angel rock formation. This formation consists of fine-grained mudstones and coarse-grained conglomerates, a kind of sedimentary rock composed of gravel-sized particles cemented together by finer-grained sediments.



Nasa's Perseverance Mars rover

Stony Brook University scientist Joel Hurowitz, who led the study published in the journal Nature, said that a "potential biosignature" was detected in multi-billion-year-old sedimentary rocks. This came in the form of two minerals that appear to have formed as a result of chemical reactions between the mud of the Bright Angel formation and organic matter also present in that mud, Hurowitz said. They are: vivianite, an iron phosphate mineral, and greigite, an iron sulfide mineral.

"These reactions appear to have taken place shortly after the mud was deposited on the lake bottom. On Earth, reactions like these, which combine organic matter and chemical compounds in mud to form new minerals like vivianite and greigite, are often driven by the activity of microbes," Hurowitz said. "The microbes are consuming the organic matter in these settings and producing these new minerals as a byproduct of their metabolism," Hurowitz said.

But Hurowitz offered caution. "The reason, however, that we cannot claim this is more than a potential biosignature is that there are chemical processes that can cause similar reactions in the absence of biology, and we cannot rule those processes out completely on the basis of rover data alone," Hurowitz said. Scientists have suspected that microbial life once could have lived in Jezero Crater. They believe river channels spilled over the crater wall and created a lake 3.5bn years ago. REUTERS

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The Tribune
The Statesman
पंजाब केसरी जनसत्ता
The Hindu
The Economic Times
Press Information Bureau
The Indian Express
The Times of India
Hindustan Times
नवभारत टाइम्स
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