

Daily Defence Current Affairs

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Trials of Indigenous Integrated Life Support System for LCA Tejas

- The **Defence Bio-Engineering & Electro Medical Laboratory (DEBEL)**, a Bengaluru-based lab under the DRDO successfully conducted high-altitude trials of the Indigenous On-Board Oxygen Generating System (OBOGS)-based Integrated Life Support System (ILSS) for the LCA Tejas aircraft.
- The OBOGS-based ILSS is a cutting-edge system designed to generate and regulate breathable oxygen for pilots during flight, eliminating dependence on traditional liquid oxygen cylinder-based systems.
- The ILSS underwent rigorous testing on the LCA-Prototype Vehicle-3 aircraft of HAL/ Aeronautical Development Agency (ADA), meeting stringent aeromedical standards in varied flight conditions, including altitudes of up to 50,000 feet Above Mean Sea Level and high-G maneuvers.
- The system has been manufactured by L&T as a Development cum Production Partner, reflecting a significant collaboration between DRDO and Indian defence industries.



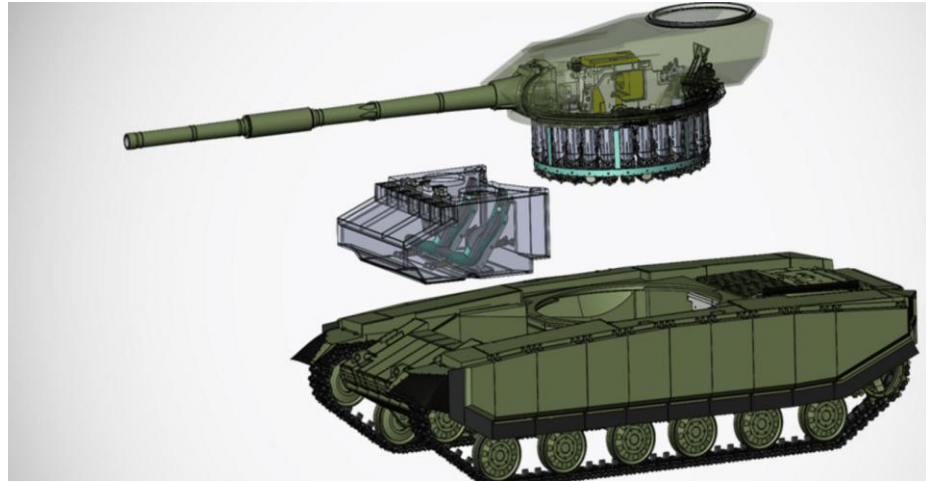
IAF Requirement For More Multirole Fighter Aircraft Accepted

- At a time when the Indian Air Force is seeing a fall in squadron strength, it is learnt that a high-level Defence Ministry committee has accepted the need for getting new multirole fighter aircraft for the service to enhance its fighting capabilities.
- The acceptance of the Indian Air Force requirement is learnt to be part of the report submitted by Defence Secretary Rajesh Kumar Singh to the Defence Minister on 'Capability Enhancement of IAF'.
- Committee has accepted the need for the Indian Air Force to have new multirole fighters to meet its requirements for preparing for the next generation of conflicts.
- Indian Air Force would prepare the statement of case for acquiring capabilities, and the Defence Ministry would work towards getting the required approvals at different levels in a time-bound manner.
- The committee submitted the recommendations to the government when the US was pushing for selling its single-engine F-35 fifth-generation fighter aircraft while the Russian side was offering its Su-57 fifth-generation fighter.
- If the Indian Air Force follows a tender process to acquire the new aircraft, the **French Rafale and Swedish Gripen**, along with the fifth-generation fighters, are also likely to be involved.
- These aircraft are a mix of single and twin-engine fighters. In the past, the Indian Air Force has projected a requirement for **114 multirole fighter aircraft with 4.5-plus generation** capabilities.
- However, the delays caused by dependence on foreign sources for critical components like engines and other equipment have raised serious concerns about meeting timelines.



EPHL To Manufacture Tank Turrets In India

- Belgium's leading defence company, John Cockerill Defence, has partnered with India's **Electro Pneumatics and Hydraulics Ltd** (EPHL) to establish a joint venture for manufacturing tank turrets in India.
- This collaboration is aimed at supporting India's defence modernization and self-reliance goals, particularly for the Indian Army's Zorawar light tank program, also known as **Project Zorawar**.
- The joint venture will focus on manufacturing, assembling, and commissioning turrets for the Indian Light Tank program, which is designed to enhance India's combat capabilities in challenging terrains, especially along the border with China.
- The partnership involves a **60:40 joint venture**, with John Cockerill holding the majority stake. The manufacturing facility will be located in Chakan, Pune, marking the first time John Cockerill will set up a turret manufacturing facility outside Europe.
- **Thales Belgium's Defence Integration**
- Thales Belgium is playing a significant role in enhancing India's defence capabilities through several key collaborations. The company has partnered with India's state-owned **Armoured Vehicle Nigam Ltd** (AVNL) to integrate a **70mm rocket system** onto military vehicles for the Indian armed forces.
- A notable milestone in 2025 will include a joint demonstration featuring live firing exercises, as announced by Belgian embassy officials.



India's First AI Lab in Space

- Hyderabad-based space tech start-up TakeMe2Space has successfully raised ₹5.5 crore in a pre-seed funding round led by Sea fund, with participation from Artha Venture Fund, Blume Ventures, AC Ventures, and several prominent angel investors.
- The funds will be utilized to launch MOI-1, India's first AI laboratory in space, which aims to provide satellite research opportunities for early customers.
- Founded in 2024 by Ronak Kumar Samantray, TakeMe2Space is focused on addressing data processing challenges in space through innovative satellite applications and democratizing space exploration by enhancing domestic capabilities in radiation shielding, propulsion systems, and inter-satellite communications.
- TakeMe2Space has already completed two successful space missions in collaboration with ISRO's **PSLV Orbital Experiment Platform (POEM)**, where it demonstrated a novel radiation shielding coat.



'Release Hostages or it's OVER for you': Trump's Ultimatum

- US President Donald Trump has issued a final ultimatum to Hamas, demanding the immediate release of all living hostages and the bodies of those they "murdered."
- "‘Shalom Hamas' means Hello and Goodbye - You can choose. Release all of the Hostages now, not later, and immediately return all of the dead bodies of the people you murdered, or it is OVER for you. Only sick and twisted people keep bodies, and you are sick and twisted!'"
- Hamas, which seized control of Gaza following its 2006 victory in Palestinian parliamentary elections, is still holding 59 hostages, according to Israeli intelligence.
- However, it is believed that only 22 of those hostages are still alive. Among them are five Americans, including Edan Alexander, a 21-year-old from New Jersey, whose condition remains unclear.



REVIEW QUESTIONS

1. Which Hyderabad-based spacetech start-up recently raised ₹5.5 crore in a pre-seed funding round?
 - A. Skyroot Aerospace
 - B. TakeMe2Space

- C. Bellatrix Aerospace
- D. Dhruva Space

ANSWER: B

2. John Cockerill Defence has partnered with which Indian company to manufacture tank turrets?

- A. Bharat Forge
- B. Larsen & Toubro
- C. Electro Pneumatics and Hydraulics Ltd (EPHL)
- D. Tata Advanced Systems

ANSWER: C

3. What is the primary purpose of India's first AI laboratory in space, MOI-1?

- A. Conduct satellite-based weather monitoring
- B. Provide satellite research opportunities for early customers
- C. Develop AI-driven defense systems
- D. Support communication satellite networks

ANSWER: B

4. What is the maximum altitude at which the OBOGS-based ILSS was tested on the LCA Tejas aircraft?

- A. 30,000 feet
- B. 40,000 feet
- C. 50,000 feet
- D. 60,000 feet

ANSWER: C

5. Which American arms manufacturer secured a contract to supply around 1,45,000 assault rifles to the Indian Army?

- A. Colt Defense
- B. Remington Arms
- C. Sig Sauer
- D. Smith & Wesson

ANSWER: C

6. Armoured Corps Centre & School (ACC&S) Is In

- A. Chennai
- B. Pune

- C. Ahmednagar
- D. Nashik

ANSWER: C

7. PADMA Stands For

- A. Pay Roll Automation for Disbursement of Monthly Allowances
- B. Pay Roll Automation for Digital Monthly Allowances
- C. Pay Roll Automated for Disbursement of Monthly Allowances
- D. None of the above

ANSWER: A

8. India's One and Only Tri-Services Command

- A. New Delhi
- B. Northern Army Command
- C. Andaman & Nicobar Command
- D. None of the above

ANSWER: C

9. The ALH MK III Helicopters Have Been Indigenously Manufactured By__.

- A. Boeing
- B. HAL
- C. DRDO
- D. Dassault Aviation

ANSWER: B

10.INS Satpura Is A

- A. Destroyer
- B. OPV
- C. Submarine
- D. Guided Missile Stealth Frigate

ANSWER: D

11. HEAT Stands For ____.

- A. Highly Explosive Anti-Tank
- B. Highest Explosive Anti-Tank
- C. High Explosive Anti-Tank
- D. High Explore Anti-Tank

ANSWER: C

12. Current Secretary, Department of Defence R&D and Chairman DRDO Is__.

- A. Dr. V Narayanan
- B. Dr. Rakesh
- C. Dr. Rajiv Kumar
- D. None of the above

ANSWER: A

13. The Hawker Siddeley HS 748 Is A

- A. Helicopter
- B. Machine Gun
- C. UAV
- D. Transport Aircraft

ANSWER: D

14. Juba Is The Capital Of

- A. South Sudan
- B. Spain
- C. Sweden
- D. Maldives

ANSWER: A

15. "Legend of Suheldev: The King Who Saved India" Book Is Written By

- A. Urjit Patel
- B. Stephen King
- C. J.K Rowling
- D. Amish Tripathi

ANSWER: D

16. Duty, Honour, Courage Is The Motto Of

- A. Maratha Light Infantry
- B. The Grenadiers
- C. Rajput Regiment
- D. Jat Regiment

ANSWER: A

17. Prahaar Missile Manufactured By

- A. MDL
- B. BDL
- C. CSL
- D. DRDO

ANSWER: B

18. Regimental Centre of GARHWAL RIFLES Is In

- A. Happy Valley, Shillong, Meghalaya
- B. Ranikhet, Uttarakhand
- C. Lansdowne, Uttarakhand
- D. None of the above

ANSWER: C

19. INS Jalashwa Is A

- A. Destroyer
- B. OPV
- C. Submarine
- D. Amphibious transport dock

ANSWER: D

20. Exercises B/w The India And UK Is Called:

- A. Desert Eagle
- B. SLINEX
- C. Indra
- D. Indradhanush

ANSWER: D