

Daily Defence Current Affairs

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Exercise Maitree – XIV

- The **14th edition** of the **India - Thailand** joint military Exercise MAITREE-XIV commenced with a grand opening ceremony at Joint Training Node (JTN), **Umroi, Meghalaya**.
- The exercise is being conducted from 1st to 14th September 2025.
- The bilateral exercise is part of the ongoing military-to-military exchange programme between the two countries and aims to enhance cooperation, interoperability and mutual understanding between the Indian Army and Royal Thai Army.
- The 13th edition of the exercise was held at Fort Vachiraprakan in Tak Province, Thailand.
- The Indian Army contingent comprising 120 personnel, is being represented by a Battalion of the **Madras Regiment**. The Royal Thai Army contingent comprising 53 personnel is represented by the 1st Infantry Battalion, 14th Infantry Brigade.
- Exercise MAITREE, instituted in 2006, is one of the important joint training exercises between India and Thailand.



Kalam-250 Solid Rocket Motor

- The Kalam-250 solid rocket motor, developed by **Skyroot Aerospace**, represents a breakthrough in India's private spaceflight capabilities, standing out as the largest and most advanced propulsion system successfully tested by the private sector in collaboration with ISRO.
- Fired for the first time in March 2024 at the Satish Dhawan Space Centre, Sriharikota, the stage-two motor is designed using cutting-edge high-strength carbon composite materials that provide exceptional structural robustness while keeping mass low—an essential factor for launch efficiency.
- It incorporates a sophisticated Ethylene-Propylene-Diene Terpolymer (EPDM) thermal protection system (TPS), enabling it to endure extreme thermal and mechanical stresses encountered during lift-off and high-velocity atmospheric flight.
- Another standout feature is its advanced thrust vector control system, which integrates a carbon ablative flex nozzle paired with electro-mechanical actuators to deliver precision steering and optimized **trajectory management**.



What Is Vikram-3201 Chip

- India's semiconductor journey reached a decisive milestone at SEMICON India 2025, when Union Minister for Electronics and IT, Ashwini Vaishnaw, presented Prime Minister Narendra Modi with the Vikram-3201 — a cutting-edge 32-bit microprocessor designed and developed entirely within India.

- This achievement represents a turning point in India's pursuit of technological self-reliance, particularly in critical sectors such as space electronics, defence, and high-reliability applications, where trust in foreign technology is both costly and limited.
- It holds the distinction of being the first indigenously developed 32-bit processor qualified for use in the hostile environment of space launch vehicles, where extreme temperature variations, radiation, and high reliability are non-negotiable requirements.
- The chip has been validated for operations under extreme conditions, performing reliably across a temperature range of -55°C to $+125^{\circ}\text{C}$. Its primary applications lie in navigation, control, and mission management systems of India's space vehicles, where any computational failure can jeopardize an entire mission.
- The development of Vikram-3201 is rooted in India's earlier successes. Since 2009, ISRO has relied on the **VIKRAM1601**, a 16-bit processor, as a fundamental component of its launch vehicle electronics.
- Key advancements include support for 64-bit floating-point arithmetic, enhancing its precision and performance in computation-heavy applications such as trajectory correction, orbital manoeuvre planning, and real-time mission control.



Adani Defence To Join Race For AMCA

- The Advanced Medium Combat Aircraft (AMCA) project represents one of India's most ambitious defence programs, aimed at developing a cutting-edge fifth-generation multirole stealth fighter jet with indigenous capabilities.

- The project, spearheaded by the Aeronautical Development Agency (ADA) under the Defence Research and Development Organisation (DRDO), seeks to strengthen India's strategic autonomy by reducing reliance on foreign combat aircraft platforms.
- The AMCA is envisioned as a twin-engine, stealth-capable fighter designed for a wide spectrum of roles, including air dominance missions, ground attack operations, and advanced electronic warfare tasks.
- Adani Defence's entry into the procurement race marks an important milestone, signalling the growing confidence and capability of India's private sector defence companies to handle complex, high-technology projects.



REVIEW QUESTIONS

1. The 14th edition of Exercise MAITREE between India and Thailand in 2025 is being held at which location?

- A. Fort Vachirapakan, Thailand
- B. Satish Dhawan Space Centre, Sriharikota
- C. Joint Training Node, Umroi, Meghalaya
- D. INS Hansa, Goa

ANSWER: C

2. The Kalam-250 solid rocket motor, developed by Skyroot Aerospace, was first tested in March 2024 at:

- A. Thumba Equatorial Rocket Launching Station
- B. Satish Dhawan Space Centre, Sriharikota
- C. Indian Institute of Science, Bengaluru
- D. Vikram Sarabhai Space Centre, Thiruvananthapuram

ANSWER: B

3. The Vikram-3201 chip India's first indigenously developed ____ processor qualified for use in space launch vehicles.

- A. 8-bit
- B. 16-bit
- C. 32-bit
- D. 64-bit

ANSWER: C

4. The AMCA project, led by ADA under DRDO, aims to develop which type of aircraft?

- A. Long-Range Transport Aircraft
- B. Fifth-Generation Multirole Stealth Fighter Jet
- C. Hypersonic Unmanned Aerial Vehicle
- D. Maritime Patrol Aircraft

ANSWER: B

5. Which regiment of the Indian Army is representing India in Exercise MAITREE-XIV with 120 personnel?

- A. Rajput Regiment
- B. Madras Regiment
- C. Sikh Regiment
- D. Gorkha Regiment

ANSWER: B

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. Samir Kamath
- 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

