

Daily Defence Current Affairs

17 December 2025

Commissioning of DSC A20

- The Indian Navy commissioned DSC A20, first of the five Diving Support Craft (DSC), built indigenously by M/s Titagarh Rail System Limited, during a ceremony held at Naval Base, Kochi, on 16 Dec 2025 .
- The contract for building five Diving Support Craft, was signed between MoD and M/s Titagarh Rail System Limited, Kolkata on 12 Feb 21. The Hydrodynamic Analysis and Model Testing of the ship during design stage, was undertaken at Naval Science and Technological Laboratory (NSTL), Visakhapatnam.
- It is a catamaran-hull ship, with a displacement of approx 390 Tons . Fitted with state-of-the-art Diving Equipment, the vessel would play a vital role for underwater repairs & inspections, harbour clearances and critical diving missions in coastal waters.



DRDO Picks Bombardier Global-6500 Jets

- The Indian Air Force stands on the cusp of a transformative upgrade in its intelligence, surveillance, target acquisition, and reconnaissance (ISTAR) capabilities.

- Under a monumental ₹10,000 crore initiative, three Bombardier Global-6500 ultra-long-range business jets will be converted into sophisticated airborne command centres.
- ISTAR mission equips these aircraft to serve as elevated nerve centres for military operations. They will monitor enemy movements across vast distances, detect emerging threats, and relay precise targeting data to strike assets.
- This Canadian-manufactured jet, renowned for its luxury in civilian aviation, boasts an unrefuelled range of 6,600 nautical miles—equivalent to roughly 12,200 kilometres.
- Twin Rolls-Royce Pearl 15 engines, each delivering 15,125 pounds of thrust, propel it to Mach 0.90—around 950 km/h. Maximum take-off weight hits 48,307 kg, with the militarised interior prioritising consoles over passenger seats for 10-12 operators.



India Launches Dhruv64

- India has reached a pivotal milestone in its semiconductor journey with the unveiling of DHRUV64, the nation's first indigenous 1.0 GHz, 64-bit dual-core microprocessor.
- Developed by the Centre for Development of Advanced Computing (C-DAC) under the Microprocessor Development Program (MDP), this processor represents a fully homegrown technology capable of powering both strategic and commercial applications.

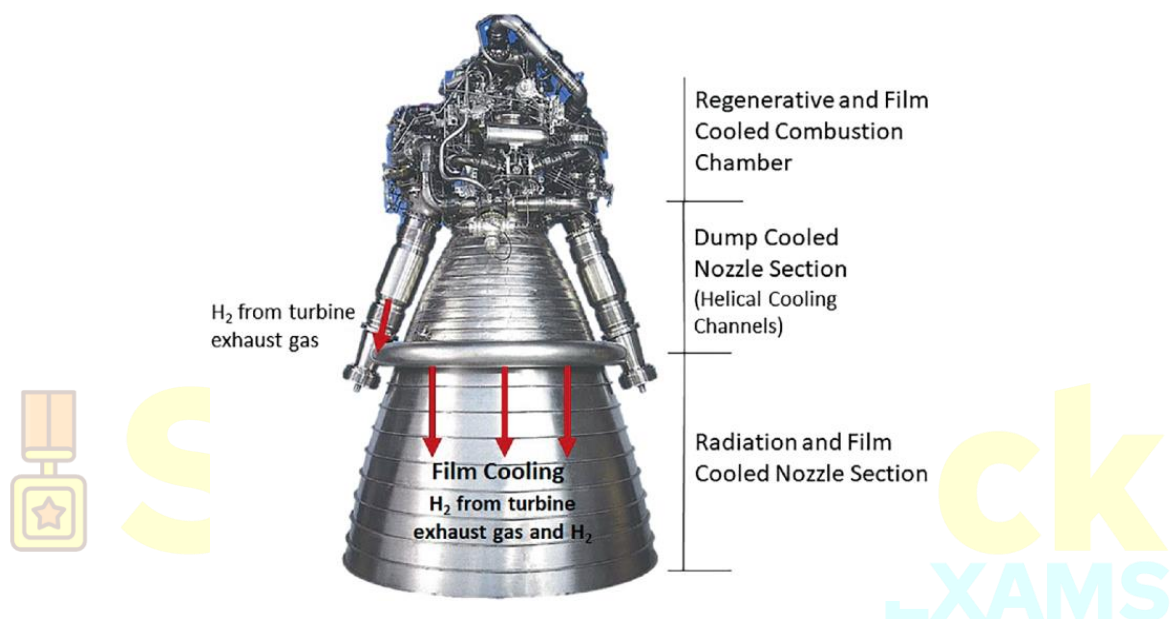
- Microprocessors serve as the core intelligence behind modern devices, from mobile phones and computers to automobiles, medical equipment, defence systems, and satellites. For India, mastering this technology is crucial to diminish dependence on foreign suppliers and bolster the burgeoning electronics and digital economy.
- DHRUV64 empowers startups, academia, and industry to prototype and scale computing products using homegrown technology, bypassing foreign dependencies. It lowers costs for new system architectures and harnesses India's 20 per cent share of the world's chip design engineers to cultivate skilled professionals.



Astro Base Develops Full-Flow Staged Combustion Rocket Engine

- Bangalore based Astrobase, a start-up founded in 2024 by industry veterans and former ISRO engineers, is pioneering next-generation rocket technology with a high-performance methane-fuelled engine.
- The company focuses on a full-flow staged combustion (FFSC) cycle, using liquid oxygen (LOX) and methane propellants, which ranks among the most efficient propulsion systems globally. This ambitious design mirrors SpaceX's Raptor engine, routing both fuel and oxidiser through separate pre-burners to minimise thermal stress, enhance reliability, and enable reusability.
- The Bangalore-based firm has also operationalised a 46,000 sq. ft. assembly factory and India's first private high-thrust LOX-LNG rocket engine test facility, approved earlier in 2025.

- The engine, delivering around 800 kN of thrust, powers a reusable medium-lift launch vehicle with a four-metre diameter booster employing seven engines in a configuration reminiscent of Falcon-9.
- This first stage is engineered for recovery and reuse, addressing India's launch bottlenecks for constellation deployments and sovereign missions. Astrobase's infrastructure development, including cold flow testing and stage static fires, positions it for rapid progress toward operational readiness.



REVIEW QUESTIONS

1. Where was DSC A20 commissioned into the Indian Navy?

- Mumbai
- Visakhapatnam
- Kochi
- Chennai

ANSWER: C

2. Which company is building the Diving Support Craft (DSC) series for the Indian Navy?

- Mazagon Dock Shipbuilders
- Garden Reach Shipbuilders
- Larsen & Toubro
- Titagarh Rail System Limited

ANSWER: D

3. The Bombardier Global-6500 aircraft selected for ISTAR missions are primarily meant for which role?

- A. Strategic bombing
- B. Air refuelling
- C. Airborne surveillance and command
- D. Fighter escort

ANSWER: C

4. DHRUV64 is India's first indigenous microprocessor with which key feature?

- A. 32-bit single core
- B. 64-bit dual core
- C. Quad-core architecture
- D. AI-only processor

ANSWER: B

5. Astrobase's rocket engine uses which propulsion cycle?

- A. Gas generator cycle
- B. Pressure-fed cycle
- C. Staged combustion cycle
- D. Full-flow staged combustion cycle

ANSWER: D

6. Ex 'JIMEX' Conducted b/w India &

- A. Qatar
- B. Oman
- C. Japan
- D. Jamaica

ANSWER: C

7. Home Port of The INS Satpura Is In Joint Exercises B/w

- A. ENC
- B. WNC
- C. SNC
- D. None

ANSWER: A

8. INS Satpura Is A

- A. Destroyer
- B. OPV

- C. Submarine
- D. Frigate

ANSWER: D

9. Cho La Incident Was Done In

- A. 1967
- B. 1988
- C. 1998
- D. 1980

ANSWER: A

10.VL-SRSAM Is A Quick Reaction Surface-to-air Missile Developed By

- A. NASA
- B. BEL
- C. DRDO
- D. ISRO

ANSWER: C

11.Wartime Gallantry Award Is/Are

- A. Param Vir Chakra
- B. Maha Vir Chakra
- C. Vir Chakra
- D. All of the above

ANSWER: D

12.WNC Is In

- A. Mumbai
- B. Kochi
- C. Chennai
- D. Panaji

ANSWER: A

13.Mitra Shakti Ex Held B/w India &

- A. Sri Lanka
- B. USA
- C. UK
- D. Nepal

ANSWER: A

14.SLNS Sayurala Is A Ship Of

- A. Oman
- B. Qatar

- C. Sri Lanka
- D. Maldives

ANSWER: C

15. "The Blue Book: A Writer's Journal" Book Written By

- A. Amitava Kumar
- B. Vikas Kumar Jha
- C. Usha Uthup
- D. Richa Mishra

ANSWER: A

16. CONAKRY Is The Capital Of

- A. GUINEA
- B. GUATEMALA
- C. GRENADA
- D. GREECE

ANSWER: A

17. IRBM Stands For

- A. Intermediate Resource Ballistic Missile
- B. Intermediate Range Ballistic Missile
- C. Intermediate Range of Ballistic Missile
- D. Intermediated Range Ballistic Missile

ANSWER: B

18. BEL HQ Is In

- A. Bengaluru
- B. Noida
- C. New Delhi
- D. Chennai

ANSWER: A

19. Major Rank Of Indian Army Is Equivalent To Which Rank Of The Indian Navy?

- A. Captain
- B. Inspector
- C. Lt Commander
- D. Vice-admiral

ANSWER: C

20. War Cry of ASSAM REGIMENT

- A. Parakramo Vijayate
- B. Rhino Charge

C. Jai Bajrangbali

D. Duty, Honour, courage

ANSWER: B