

# Daily Defence Current Affairs

## 16 May 2025

### DRDO Develops High-pressure Polymeric Membrane

- DRDO has successfully developed indigenous nanoporous multilayered polymeric membrane for high-pressure sea water desalination.
- **Defence Materials Stores and Research & Development Establishment** the Kanpur-based laboratory of DRDO, has developed the tech for desalination plant in **ICG ships**, based on their operational requirement to address the serious challenge of stability when exposed to chloride ions in saline water.
- The initial safety and performance trials of the polymeric membranes were found to be fully satisfactory. The final operational clearance will be given by ICG after 500 hrs of operational testing.
- The Defence Research and Development Organisation (DRDO) is an agency under the Department of Defence Research and Development in the Ministry of Defence of the Government of India, charged with the military's research and development, headquartered in Delhi, India.
- It was formed in 1958 by the merger of the Technical Development Establishment and the Directorate of Technical Development and Production of the Indian Ordnance Factories with the Defence Science Organisation under the administration of Jawaharlal Nehru.



## Exercise Raahat

- Guwahati: Indian Army engineers under the Spear Corps collaborated with the National Disaster Relief Force (NDRF) to orchestrate a groundbreaking disaster relief exercise, aptly christened 'Exercise Raahat'.
- Defence spokesman Lt Col Amit Shukla on Thursday said that the meticulously planned 3-day exercise was held in Rangapahar Military Station in Nagaland from May 13 to 15 May, marking a new paradigm in the field of disaster management and response.
- The exercise unfolded over three action-packed days, with 13 and 14 May being dedicated to intensive planning sessions. Here, the sharpest minds from both forces engaged in spirited discussions, war-gamed complex scenarios and dissected real-life case studies. Group discussions fostered dynamic responses, ensuring that every conceivable challenge was met with innovative solutions.



## Pak nukes should be under IAEA: Rajnath Singh

- Defence minister Rajnath Singh on Thursday said that Pakistan's nuclear weapons should be taken under the supervision of the **International Atomic Energy Association** and reiterated that the talks with Pakistan will only be held on terrorism and Pakistan-occupied Kashmir.
- Singh landed in Srinagar on Thursday morning for the first time after **Operation Sindoor** and addressed a gathering of armed forces at Badami Bagh Cantonment in the city which is also the headquarters of the **Chinar Corps of the Army**.
- **IAEA**

- Founded in 1957, the IAEA serves as a central forum for scientific and technical cooperation in the nuclear field.
- **Headquarters:** Vienna, Austria



## Andhra Pradesh Exempts Defence Personnel From Property Tax

- The Andhra Pradesh government has granted property tax exemption to houses owned by Indian Defence personnel within the gram panchayat limits in the state.
- The Jana Sena leader stated that the NDA government under the leadership of **Chief Minister N. Chandrababu Naidu** has taken a decision as a mark of deep respect and gratitude to brave soldiers.
- “The Panchayat Raj Department has taken a significant decision, to grant property tax exemption to houses belonging to personnel of the Indian Defence Forces within Gram Panchayat limits.
- This decision honours the unwavering courage of our defence forces **Army, Navy, and Air Force, Paramilitary, CRPF** personnel who dedicate their lives for the security of our nation,” stated Pawan Kalyan.



## Russia's S-400 vs China's HQ-9

- The effectiveness of India's S-400 Sudarshan Chakra was seemingly demonstrated on May 8, 2025, with the system reportedly neutralising China's 'advanced' HQ-9 air defence system.
- Developed by Russia's Almaz-Antey, the S-400 is a surface-to-air missile system, while the HQ-9 is its counterpart developed by China Aerospace Science and Industry Corporation.
- Furthermore, the S-400 air defence system is one of the world's most advanced long-range surface-to-air missile (SAM) systems, capable of engaging multiple targets at distances of up to 400 kilometres.
- In contrast, the HQ-9 is the derivative imitation of the S-300, a series of long-range surface-to-air missile systems developed by the former Soviet Union. In this article, we'll take a look at the strengths and weaknesses of Russia's S-400 vs China's HQ-9.
- Air Defence System: S-400 (SA-21 Growler)
- Manufacturer country: Russia
- S-400 Cost: Estimated around \$1.25 billion
- Speed: 17,000 km/h (approximately Mach 14)
- Range: 120-600 km
- Features: Prominent for its advanced radars, long-range missiles, high mobility, adaptability, flexibility, and networking capabilities



- Air Defence System: HQ-9 (CH-SA-9)
- Manufacturer country: China
- HQ-9 Cost: Estimated around \$599 million
- Speed: approximately Mach 4.2
- Range: 120-300 km
- Features: It is designed to intercept various aerial threats, including, Aircraft (fighter jets, bombers, etc.), Cruise missiles, Air-to-surface missiles, and Tactical ballistic missiles. Some variants are reported to have anti-stealth capabilities and limited anti-ballistic missile capabilities.



## REVIEW QUESTIONS

**1. What has the DRDO successfully developed for high-pressure sea water desalination?**

- Reverse osmosis membranes
- Nanoporous multilayered polymeric membrane
- Ceramic filtration unit
- Activated carbon filter

**ANSWER: B**

**2. What is the name of the disaster relief exercise conducted by Indian Army engineers and NDRF?**

- A. Exercise Suraksha
- B. Exercise Jal Raksha
- C. Exercise Raahat
- D. Exercise Sahayata

**ANSWER: C**

**3. Where is the headquarters of the International Atomic Energy Agency (IAEA) located?**

- A. Geneva, Switzerland
- B. Vienna, Austria
- C. New York, USA
- D. Brussels, Belgium

**ANSWER: B**

**4. What benefit has the Andhra Pradesh government granted to defence personnel?**

- A. Free electricity
- B. Property tax exemption in urban areas
- C. Free healthcare for families
- D. Property tax exemption in gram panchayat areas

**ANSWER: D**

**5. Which country developed the S-400 surface-to-air missile system?**

- A. USA
- B. China
- C. Israel
- D. Russia

**ANSWER: D**

**6. LAKSHYA Is A**

- A. Helicopter
- B. Machine Gun
- C. UAV
- D. Robot

**ANSWER: C**

**7. Chengdu J-20 Is A**

- A. Helicopter

- B. Machine Gun
- C. UAV
- D. Fighter Jet

**ANSWER: D**

**8. GPS Stands For**

- A. Geo Positioning System
- B. Global Position System
- C. Global Positioning Security
- D. Global Positioning System

**ANSWER: D**

**9. Joint Exercises B/w India And Russia Is Called:**

- A. Yama
- B. Garuda
- C. Indra
- D. Yudha Abhyas

**ANSWER: C**

**10. Army Cadet College Is At**

- A. Prayagraj
- B. Pune
- C. Kochi
- D. Dehradun

**ANSWER: D**

**11. Combat Army Aviation Training School Is At**

- A. Nashik
- B. Pune
- C. Nagpur
- D. Dehradun

**ANSWER: A**

**12. Ghauri Is A**

- A. Helicopter
- B. Machine Gun
- C. Missile
- D. Fighter Jet

**ANSWER: C**

**13. Regimental Center of Dogra Regiment Is In**

- A. Faizabad, U.P
- B. Bokaro, Jharkhand
- C. Balasore, Odisha
- D. Ambala, Haryana

**ANSWER: A**

**14. Where Is The Hq Of The SAC Of The IAF?**

- A. Kochi
- B. Vishakhapatnam
- C. Shillong
- D. Thiruvananthapuram

**ANSWER: D**

**15. Valletta Is The Capital Of**

- A. Malta
- B. Mauritania
- C. UAE
- D. Maldives

**ANSWER: A**

**16. "Queen of Fire" Book Is Written By**

- A. Devika Rangachari
- B. Sree Ram Chaulia
- C. Hew Strachan
- D. APJ Abdul Kalam

**ANSWER: A**

**17. Joint Exercises B/w The India And France Is Called:**

- A. Yama
- B. Garuda
- C. Shakti
- D. Yudha Abhyas

**ANSWER: C**

**18. Mission Shakti Was Launched In The Year Of**

- A. 2019
- B. 2020



- C. 2021
- D. 2022

**ANSWER: A**

**19. INS Ranjit Is A**

- A. Destroyer
- B. OPV
- C. Submarine
- D. Tank

**ANSWER: A**

**20. GSAT-7B Is a**

- A. Air to Air missile
- B. Sniper Rifle
- C. Anti-tank Guided missile
- D. Communication satellite

**ANSWER: D**

