

Daily Defence Current Affairs

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Lokayan 2026

- Indian Navy's sail training ship, INS Sudarshini, arrived at Livorno, Italy, on 09 Sep 2026, as part of the ongoing transoceanic expedition, Lokayan 2026.
- The ship has sailed over 17400 nautical miles across 10 countries during the deployment, carrying forward India's maritime traditions and spirit of friendship across the seas.
- En route to Livorno, INS Sudarshini conducted a Passage Exercise with the Italian Navy's sail training ship ITS Palinuro in the Mediterranean Sea.
- The joint evolution involved coordinated manoeuvring and sail-handling drills, providing an opportunity for the crews of the two sailing ships to interact and exchange professional expertise.
- Livorno, home to the prestigious Italian Naval Academy (Accademia Navale), provides an opportunity for further professional engagement between the two Navies. During the port call, Cross-deck visits and interactions between Indian trainees and Italian cadets will be undertaken and the ship will remain open to visitors.
- Lokayan 2026 continues to strengthen India's Maritime Cooperation and advance the vision of **MAHASAGAR (Mutual and Holistic Advancement for Security and Growth Across Regions)**.



Exercise Samudra Laksamana 2026

- As part of the Indian Navy's Operational Deployment, INS Mysore arrived at Lumut, Malaysia, on 09 Sep 2026 to participate in the **4th edition** of bilateral maritime exercise '**Samudra Laksamana**' between the Indian Navy and the Royal Malaysian Navy.
- The ship and her crew were warmly welcomed by personnel of the Royal Malaysian Navy and officials from the High Commission of India in Malaysia.
- Exercise Samudra Laksamana comprises of professional engagements in harbour and at sea, including cross-deck visits, operational interactions and sporting engagements.
- These activities will provide opportunities for personnel of both navies to exchange professional experiences, enhance interoperability and foster greater mutual understanding.
- Building upon the momentum generated by recent bilateral engagements, including the 12th India - Malaysia Sub Committee Meeting held on 01 Jul 2026, the visit underscores the strong and enduring maritime partnership between India and Malaysia and reflects the expanding scope of cooperation between the two navies.
- The engagement is aligned with the Government of India's vision of MAHASAGAR and the ASEAN–India Year of Maritime Cooperation 2026.



India Has 190 Nuclear Warheads

- India is estimated to have assembled around 190 nuclear warheads, including more than 160 associated with operational delivery systems and additional warheads for newer missiles under production, according to a new assessment by the **Federation of American Scientists (FAS)**.
- The US nonprofit policy think tank based its estimate on open-source information, state-originating data and commercial satellite imagery. The assessment was published in an article titled “India’s Nuclear Weapons - 2026” by Hans Kristensen, director of the FAS Nuclear Information Project.
- “We estimate that India may have produced enough military plutonium for 140 to 225 nuclear warheads and might have assembled up to 190,” the report said.
- FAS added that India’s warhead stockpile could grow as additional nuclear-capable delivery systems are developed.
- The FAS assessment cited International Panel on Fissile Materials estimates that India had produced approximately 730 kg, plus or minus about 170 kg, of weapon-grade plutonium by the beginning of 2026.
- The report, however, noted that the calculation has several uncertainties, including the designs of the warheads India has developed and the amount of plutonium actually converted into assembled weapons.
- India’s HEU production is largely assumed to be directed towards fuel for its expanding fleet of nuclear-powered vessels and submarines.
- The assessment also identified the 100-megawatt Dhruva reactor at the Bhabha Atomic Research Centre complex near Mumbai as India’s main source of

weapons-grade plutonium, while noting that the CIRUS reactor at the same site served that purpose until 2010.

- The Bulletin's assessment also points to India's newly operational Prototype Fast Breeder Reactor (PFBR) at Kalpakkam as a potential future source of additional fissile material. The 500-MWt reactor achieved first criticality in April 2026.
- According to its assessment, if the reactor operated at 80% efficiency, it could hypothetically produce an estimated 140 kg of Plutonium-239 annually, an amount the publication said could be sufficient for up to 35 nuclear warheads.
- The Indian Department of Atomic Energy confirmed that the 500 MWe PFBR at Kalpakkam achieved first criticality on April 6, 2026. The department describes the reactor as part of the second stage of India's three-stage nuclear power programme.



Canada Agrees C\$350 Million Air Defense Package For Ukraine

- Canada has agreed a C\$350 million aid package for Kyiv to acquire air defense interceptors, Prime Minister Mark Carney said on Thursday after meeting Ukrainian President Volodymyr Zelenskiy.
- Kyiv is running critically low on U.S.-made Patriot interceptors capable of stopping Russia's ballistic missiles at a time when Moscow is stepping up its attacks.

- "As Russia escalates its barbaric aerial warfare indiscriminately targeting civilian populations, Ukraine's air defences are critical," Carney told reporters in Calgary.
- Canada, one of Ukraine's most vocal defenders, has committed more than C\$25.5 billion in overall aid since Russia invaded in February 2022, including C\$8.5 billion in military assistance.
- Carney also said Canada aimed to ramp up drone production to be able to produce millions of units within the next two years. A third of those would go to Ukraine, he said.
- Canada is home to an estimated 1.3 to 1.4 million people of Ukrainian descent, forming one of the largest Ukrainian diasporas in the world.



ISRO Tests CE20 Cryogenic Engine at 220 kN Thrust

- The Indian Space Research Organisation (ISRO) conducted a flight acceptance hot test of the indigenous CE20 cryogenic engine at an uprated thrust level of 220 kN on 9 September 2026.
- The test took place at the ISRO Propulsion Complex in Mahendragiri, Tamil Nadu, and the engine is linked to the upgraded C32 upper stage of an upcoming LVM3 mission.
- The CE20 is a cryogenic upper-stage engine developed by ISRO for the LVM3 launch vehicle. It uses liquid oxygen and liquid hydrogen as propellants, which are stored at very low temperatures and are used in high-performance rocket stages.

- LVM3 is India's heavy-lift launch vehicle used for large satellite missions and human spaceflight-related applications. The C32 stage is the upgraded upper stage associated with the CE20 engine, and the 220 kN thrust configuration is intended to increase payload carrying capability.
- During the hot test, ISRO also demonstrated the Liquid Oxygen Tank Pressurisation Module, or LTPM, which is designed for the C32 stages of the Gaganyaan missions.
- The test followed an earlier sea-level hot test of the CE20 engine on 10 March 2026, which ran for 165 seconds at 22-tonne thrust with an advanced Nozzle Protection System.



REVIEW QUESTIONS

1. Which Indian Navy sail training ship is participating in the transoceanic expedition Lokayan 2026?

- A. INS Tarangini
- B. INS Sudarshini
- C. INS Mysore
- D. INS Shardul

Answer: B. INS Sudarshini

2. INS Sudarshini arrived at which Italian port during Lokayan 2026?

- A. Naples
- B. Venice

- C. Livorno
- D. Genoa

Answer: C. Livorno

3. Which Italian Navy sail training ship conducted a Passage Exercise with INS Sudarshini?

- A. ITS Amerigo Vespucci
- B. ITS Palinuro
- C. ITS Cavour
- D. ITS San Marco

Answer: B. ITS Palinuro

4. The 4th edition of Exercise Samudra Laksamana is being conducted between India and which country?

- A. Indonesia
- B. Thailand
- C. Malaysia
- D. Singapore

Answer: C. Malaysia

5. Which Indian naval ship participated in Exercise Samudra Laksamana 2026?

- A. INS Vikrant
- B. INS Chennai
- C. INS Mysore
- D. INS Kolkata

Answer: C. INS Mysore

6. According to the Federation of American Scientists' 2026 assessment, India is estimated to have assembled approximately how many nuclear warheads?

- A. 120
- B. 150
- C. 190
- D. 250

Answer: C. 190

7. Which country announced a C\$350 million air-defence package for Ukraine?

- A. United Kingdom
- B. Canada
- C. Germany
- D. France

Answer: B. Canada

8. Who announced Canada's C\$350 million air-defence assistance package for Ukraine?

- A. Justin Trudeau
- B. Mark Carney
- C. Volodymyr Zelenskiy
- D. Emmanuel Macron

Answer: B. Mark Carney

9. At what thrust level did ISRO test the CE20 cryogenic engine on September 9, 2026?

- A. 180 kN
- B. 200 kN
- C. 220 kN
- D. 250 kN

Answer: C. 220 kN

10. The CE20 cryogenic engine is associated with which launch vehicle?

- A. PSLV
- B. SSLV
- C. LVM3
- D. GSLV-F17

Answer: C. LVM3