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MoD India Reviews Russian 'Product 1775'

- The Indian Ministry of Defence delegation's visit to Moscow's UEC-Salyut engine manufacturing complex marked a significant step in deepening Indo-Russian aerospace cooperation.
- During the tour, United Engine Corporation (UEC) provided an extensive overview of its current and future engine technologies, with a particular emphasis on performance, lifecycle support, and local manufacturing partnerships with Indian industry.
- A key highlight of the presentation was the unveiling of UEC's next-generation "Product 1775" engine concept. This powerplant is being positioned as a modern, modular turbofan designed to offer increased thrust, enhanced fuel efficiency, and improved durability compared with earlier systems.
- The engine reportedly incorporates advanced digital controls and thrust-vectoring capabilities aimed at future fighter platforms, including export-configurations of the Su-57E.
- In addition to Product 177S, UEC-Salyut showcased the AL-41F1S engine that currently powers the Su-35. Detailed discussions were held on its possible adaptation for India's Su-30MKI fighters under an upcoming mid-life upgrade program.



SJ-100 Regional Jet In India By 2028

- HAL and Russia's Public Joint Stock Company United Aircraft Corporation (PJSC-UAC) have signed a MoU to jointly produce the civil commuter aircraft SJ-100 in India.
- The agreement was formalised on 27 October 2025 in Moscow, marking a significant step in Indo–Russian industrial collaboration within the civil aviation sector.
- The MoU was signed by Shri Prabhat Ranjan on behalf of HAL and Mr Oleg Bogomolov representing PJSC-UAC. The signing took place in the presence of Dr D. K. Sunil, Chairman and Managing Director of HAL, and Mr Vadim Badekha, Director General of PJSC-UAC.
- The ceremony highlighted the deepening partnership between the two aerospace industries, traditionally rooted in defence cooperation and now expanding into civil aviation.
- Under the proposed framework, the two companies will work towards the licensed production and potential localisation of the SJ-100 regional jet, positioning it as a modern short-haul commuter aircraft suitable for Indian and export markets.
- The collaboration will also focus on supply chain development, component manufacturing, and maintenance, repair and overhaul (MRO) capabilities in India.



Swan Defence, Mazagon Dock Sign Pact

- Mazagon Dock Shipbuilders Ltd (MDL) and Swan Defence and Heavy Industries
 Ltd have entered into a strategic agreement to jointly design and construct
 Landing Platform Docks (LPDs) for the Indian Navy.
- The collaboration follows the recent approval from the Defence Acquisition Council, which cleared the acquisition of these sophisticated vessels to enhance the Navy's amphibious operations and humanitarian assistance capabilities.
- The agreement aims to synergise MDL's shipbuilding expertise with Swan Defence's modern infrastructure. MDL brings decades of experience in naval ship design, project management, and advanced systems integration.
- Swan Defence, on the other hand, contributes one of the largest and most modern shipbuilding facilities in India, enabling large-scale manufacturing and faster delivery timelines.



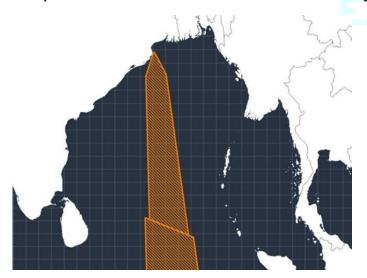
Safran open LEAP engine parts unit in Hyderabad

- Tata Advanced Systems Limited (TASL), in partnership with Safran Aircraft Engines, inaugurated a state-of-the-art rotating parts manufacturing facility for the LEAP engine at Adibatla on the outskirts of Hyderabad.
- Located at the Tata Centre of Excellence for Aero Engines, the facility will manufacture complex rotating parts for CFM International's LEAP engines, bringing advanced machining and special processes under one roof, a release said.
- The inauguration ceremony was attended by Telangana IT and Industries Minister D Sridhar Babu, senior officials from Tata Advanced Systems and Safran, and other government dignitaries.
- The event marks a key milestone in the strategic collaboration announced in January 2024, when the two companies signed a long-term agreement for the production of rotating parts for the LEAP engine, developed by CFM International - a 50:50 joint venture between GE Aerospace and Safran Aircraft Engines.
- LEAP engines, which power most new-generation narrow-body aircraft, continue to deliver superior performance with 15 per cent better fuel efficiency, significantly lower noise levels, and high utilisation compared to previousgeneration engines, it added.



India Issues NOTAM For Missile Test

- India has promulgated a Notice to Airmen (NOTAM) indicating a likely missile
 test from the Integrated Test Range (ITR) at Dr APJ Abdul Kalam Island, off the
 Odisha coast, scheduled for 4 November 2025. The notification designates a
 danger zone spanning 120 kilometres into the Bay of Bengal, alerting mariners
 and aviators to maintain safe distance during the exercise window.
- The NOTAM, issued through the Directorate General of Civil Aviation (DGCA), outlines the coordinates of the restricted area where debris or propulsion remnants could potentially fall. Such advisories are standard practice preceding ballistic or cruise missile trials to ensure full compliance with range safety protocols and international air navigation guidelines.
- This development suggests a planned validation of an advanced missile system under the DRDO. The test may involve a short or medium-range weapon, with the identified range footprint aligning with several indigenous development programs under routine evaluation cycles.
- Range safety assets, including telemetry stations, tracking radars, and recovery
 vessels, are expected to be deployed well in advance along the designated
 corridor. Naval and airspace sanitisation measures will ensure a clear launch
 path to prevent any civilian or commercial interference during live firing.



REVIEW QUESTIONS

- 1. Which organisation developed the next-gen "Product 1775" engine concept showcased to the MoD?
- A. Hindustan Aeronautics Limited (HAL)
- B. United Engine Corporation (UEC)
- C. Safran Aircraft Engines
- D. Roscosmos

ANSWER: B

- 2. The SJ-100 Regional Jet will be jointly produced in India by HAL and which Russian company?
- A. United Aircraft Corporation (PJSC-UAC)
- B. Sukhoi Design Bureau
- C. Tupolev Aviation Company
- D. Rostec State Corporation

ANSWER: A

- 3. MDL and Swan Defence have signed an agreement to design and build which type of naval vessels?
- A. Frigates
- **B.** Aircraft Carriers
- C. Landing Platform Docks (LPDs)
- D. Submarines

ANSWER: C

- 4. The new rotating parts manufacturing facility for LEAP engines was inaugurated at which location?
- A. Bengaluru
- B. Adibatla, Hyderabad
- C. Pune
- D. Coimbatore

ANSWER: B

- 5. India issued a NOTAM for a likely missile test from which test range?
- A. Pokhran Range, Rajasthan
- B. Wheeler Island Range, Odisha
- C. Integrated Test Range (ITR), Dr APJ Abdul Kalam Island
- D. Chandipur Test Range, Odisha

ANSWER: C

- 6. Which submarine is the second boat of the Arihant class indigenous nuclear submarines?
- A. INS Chakra
- B. INS Khanderi
- C. INS Arighat
- D. INS Kalvari

ANSWER: C

- 7. 14,18 SSB Board Is At
- A. Kapurthala
- B. Gandhinagar
- C. Bhopal
- D. Allahabad

ANSWER: D

8. 'Operation Khatma' Book Written By

- A. Robert De Cook
- B. Amit Kumar
- C. RC Ganjoo and Ashwini Bhatnagar
- D. Roger Faligot

ANSWER: C

9. Barrett M82 Is A

- A. Sniper Rifle
- B. Machine Gun
- C. Missile
- D. Fighter Jet

ANSWER: A

10."The Direction of War" Book Written By

- A. Jhon Neil
- B. Napoleon
- C. Hew Strachan
- D. Nathaniel Fick

ANSWER: C

11. Armaments Research & Development Establishment (ARDE) Is Located In

- A. Pune, Maharashtra
- B. Bengaluru, Karnataka
- C. Chennai, Tamil Nadu
- D. None of the above

ANSWER: A

12. The Belt and Road Initiative (BRI) Is A Project Of

- A. Brazil
- B. Russia
- C. China
- D. None of the above

ANSWER: C

13. Motto Of Integrated Defence Staff

- A. Victory Through Jointness
- B. Victory Everywhere
- C. Always Ahead
- D. None of the above

ANSWER: A

14. Asia-Pacific Economic Cooperation (APEC) Hq Is In

- A. Queenstown, Singapore
- B. Berlin, Germany
- C. Abu Dhabi (UAE)
- D. Kathmandu, Nepal

ANSWER: A

15. C-130J Super Hercules Is A

- A. Destroyer
- B. OPV
- C. Submarine
- D. Transport Aircraft

ANSWER: D

16. ADDIS ABABA Is The Capital Of

- A. Ethiopia
- B. Qatar
- C. UAE

D. Maldives

ANSWER: A

17. College of Air Warfare Is At

- A. Pune
- B. Gurugram
- C. Wellington
- D. Secunderabad

ANSWER: D

18. "The Living Mountain" Book Written By

- A. Amitav Ghosh
- B. Anant Vijay's
- C. Hew Strachan
- D. Anindya Dutta

ANSWER: A

19. Captain Rank of Indian Navy Equivalent to Which rank of IAF?

- A. F<mark>lyin</mark>g Officer
- B. Flight Lieutenant
- C. Group Captain
- D. None

ANSWER: C

20. Joint Ex B/w The India And Singapore Is Called:

- A. Bold Kurukshetra
- **B. SLINEX**
- C. Indra
- D. Yudha Abhyas

ANSWER: A