

Air-Launched Unmanned Aerial Vehicle (ALUAV)

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Context- A recent prototype of the Air-Launched Unmanned Aerial Vehicle (ALUAV), which was created by India and the United States in collaboration, is expected to undergo flight testing in 2023.

The F-35 stealth aircraft's potential inclusion in the air show was also mentioned by the US delegation to Aero India 2023.

Key Highlights

About Aero India 2023

- Aero India 2023, a five-day event held at the India Air Force station in Bengaluru, India, was opened on February 13.
- The focus this year is on showcasing India's expansion in aerospace and defense capabilities, with the theme "The runway to a billion opportunities."
- In accordance with the vision of "Make in India, Make for the World," Aero India 2023 will showcase indigenous technologies and equipment and forge partnerships with foreign businesses.
- Airbus, Boeing, Dassault Aviation, Lockheed Martin, Israel Aerospace Industry, BrahMos Aerospace, SAAB, and Hindustan Aeronautics Limited (HAL) are among the major exhibitors at Aero India.

ALUAV Project

- Under the Joint Working Group Air Systems of the Defense Technology and Trade Initiative (DTTI), the Project Agreement for ALUAV between the Indian Ministry of Defence and the U.S. Department of Defense was signed in 2021.
- The ALUAV is being developed so that it can be launched from a plane, specifically a C130J plane.
- The main organizations involved in the project are the Aeronautical Development Establishment (ADE) in Bengaluru and the Aerospace Systems Directorate at the U.S. Air Force Research Laboratory.
- India and the United States are working together in a variety of areas to ensure a free and open, prosperous, connected, and resilient Indo-Pacific region, where democracies can thrive. The project agreement also includes technology transfer, which is regarded as a significant step in the relationship between India and the United States.

What is an unmanned aerial vehicle launched from the air?

- *ALUAVs are a kind of drone or unmanned aerial vehicle (UAV) that are launched from an aircraft, usually a military transport plane.*
- *The purpose of the ALUAV is to offer the military capabilities for aerial surveillance, intelligence gathering, and reconnaissance.*
- *The ALUAV can operate for extended periods of time at high altitudes and is typically outfitted with cutting-edge sensors and communication equipment.*

What exactly does the Defense Trade and Technology Initiative, or DTTI, do?

- The Defense Trade and Technology Initiative (DTTI) is a bilateral program that seeks to strengthen India and the United States' defense ties through trade and cooperation in the development of military technology.
- The initiative, which went live in 2012, aims to make it easier to work together on defense manufacturing, R&D, and technology transfer.
- By establishing a strong defense partnership between the two nations, it aims to improve military interoperability and promote regional stability.
- **Projects:** The near, medium, and long-term projects that fall under DTTI have been selected.
- Air-launched Small Unmanned Systems, LightWeight Small Arms Technology, and Intelligence-Surveillance-Targeting & Reconnaissance (ISTAR) systems are the currently included projects for the near future.
- Maritime Domain Awareness Solution and Virtual Augmented Mixed Reality for Aircraft Maintenance, or VAMRAM, have been identified as projects for the medium term.
- Terrain Shaping Obstacle (lethal munitions) and the Indian Army's Counter-UAS, Rocket, Artillery, and Mortar (CURAM) anti-drone technology are the two long-term projects.