



Air-Launched Unmanned Aerial Vehicle

Why in News?

Recently, a prototype of the [Air-Launched Unmanned Aerial Vehicle \(ALUAV\)](#) developed jointly by **India and the United States** is likely to be flight tested in **2023**.

- The **U.S. delegation to Aero India 2023** also mentioned the possible participation of the [F-35 stealth aircraft](#) in the air show.

What is Aero India 2023?

- On February 13, Prime Minister of India inaugurated **Aero India 2023**, a five-day event at India **Air Force station in Bengaluru, India**.
- This year's theme is '**The runway to a billion opportunities**' and the focus is on showcasing India's growth in aerospace and defense capabilities.
- Aero India 2023 displays **indigenous equipment/technologies** and forge partnerships with foreign companies, aligning with the '**Make in India, Make for the World**' vision.
- The major exhibitors at Aero India include **Airbus, Boeing, Dassault Aviation, Lockheed Martin, Israel Aerospace Industry**, BrahMos Aerospace, SAAB, Hindustan Aeronautics Limited (HAL) etc.

What is ALUAV Project?

- In 2021, the Indian Ministry of Defence and U.S. Department of Defense signed a Project Agreement for ALUAV, under the **Joint Working Group Air Systems** in the [Defence Technology and Trade Initiative \(DTTI\)](#).
- The ALUAV is being developed to be launched from an aircraft, specifically the **C130J aircraft**.
- The **Bengaluru-based Aeronautical Development Establishment (ADE)** and the **Aerospace Systems Directorate at the U.S. Air Force Research Laboratory** are the principal organizations involved in the project.
 - The project agreement also involves technology transfer, which is seen as a great step in the relationship between India and the U.S.
- India and the U.S. are working together in various areas to ensure a **free and open, prosperous, connected, and resilient Indo-Pacific region**, where democracies can thrive.

What is an Air-Launched Unmanned Aerial Vehicle?

- An **ALUAV** is a type of drone or unmanned aerial vehicle (UAV) that is **launched from an aircraft**, typically a military transport plane.
- The ALUAV is designed to **provide aerial reconnaissance, surveillance, and intelligence gathering capabilities** to the military.
- The ALUAV is typically equipped with advanced **sensors and communication equipment**, and can operate at high altitudes and for extended periods of time.

What is the Defence Trade and Technology Initiative (DTTI)?

▪ About:

- The DTTI is a **bilateral program between India and the United States** aimed at deepening their defence ties through cooperation in military technology development and trade.
- The **initiative was launched in 2012** and is designed to facilitate **collaboration in defence manufacturing, research and development, and technology transfer.**
- It seeks to enhance the **interoperability of military forces** and promote regional stability by building a strong defence partnership between the two countries.

▪ Projects: The projects under DTTI have been identified as the near, medium and long term projects.

- The near-term projects included so far are **Air-launched Small Unmanned Systems, LightWeight Small Arms Technology** and [Intelligence-Surveillance-Targeting & Reconnaissance \(ISTAR\)](#) systems.
- The medium-term projects identified are **Maritime Domain Awareness Solution** and **Virtual Augmented Mixed Reality for Aircraft Maintenance or VAMRAM.**
- The two long term projects are **Terrain Shaping Obstacle (lethal munitions)** and **anti-drone technology called Counter-UAS, Rocket, Artillery & Mortar (CURAM) system** for the Indian Army.

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