



Three New Fighter Jets

 drishtiias.com/printpdf/three-new-fighter-jets

Why in News

According to the Ministry of Defence, **three new fighter** jets will be flying by 2026, of which **two will be for the Air Force** and **one for the Navy**.

- This includes a new **LCA (the Mk-2 version)** and **AMCA (Advanced Medium Combat Aircraft)** for the Air Force and the **TEDBF (Twin-Engine Deck-Based Fighter)** for the Navy.
- Earlier, the **Cabinet Committee on Security (CCS)** had cleared a deal worth Rs. 48,000 crore for the acquisition of 83 **Tejas Light Combat Aircraft** (Mk-1A and Mk-1 versions) for the Indian Air Force.

Key Points

- **Light Combat Aircraft (LCA) Mk-2:**

THE NEW TEJAS

The long-awaited indigenous fighter Tejas Mk II, which will be manufactured by HAL, will go into production by 2025-2026

17.5 ton

Tejas Mark II will be the same weight as the Mirage, Jaguar and Grippen

ADDITIONS THE NEW GEN

- Heavier stand-off weapon capacity
 - State-of-the-art AESA radar
- Indigenously developed air-to-air missile Astra (with a range of 70km)

WHEN: Set to go into production after the Tejas LCA order of 123 aircraft to replace the IAF's ageing MiG-21s is completed

ALSO IN THE WORKS

Advanced medium combat aircraft (AMCA) given a go-ahead by IAF late last year

25-ton fighter will be powered by two engines capable of super-cruise speeds

Will have advanced tech to ensure minimum radar signatures



- **About:**

- It is a **4.5 generation aircraft** which will be used by the **Indian Air Force**.
- It is a replacement for the **Mirage 2000 class of aircraft**.
It has got a bigger engine and can carry **6.5 tonnes of payload**.
- The technology is already developed in **Light Combat Aircraft (LCA)**.
 - The **Light Combat Aircraft (LCA) programme began in the 1980s** to replace India's ageing MiG-21 fighters.
 - **Following the Mk-1A is the Mk-2** which will provide a high degree of manoeuvrability.

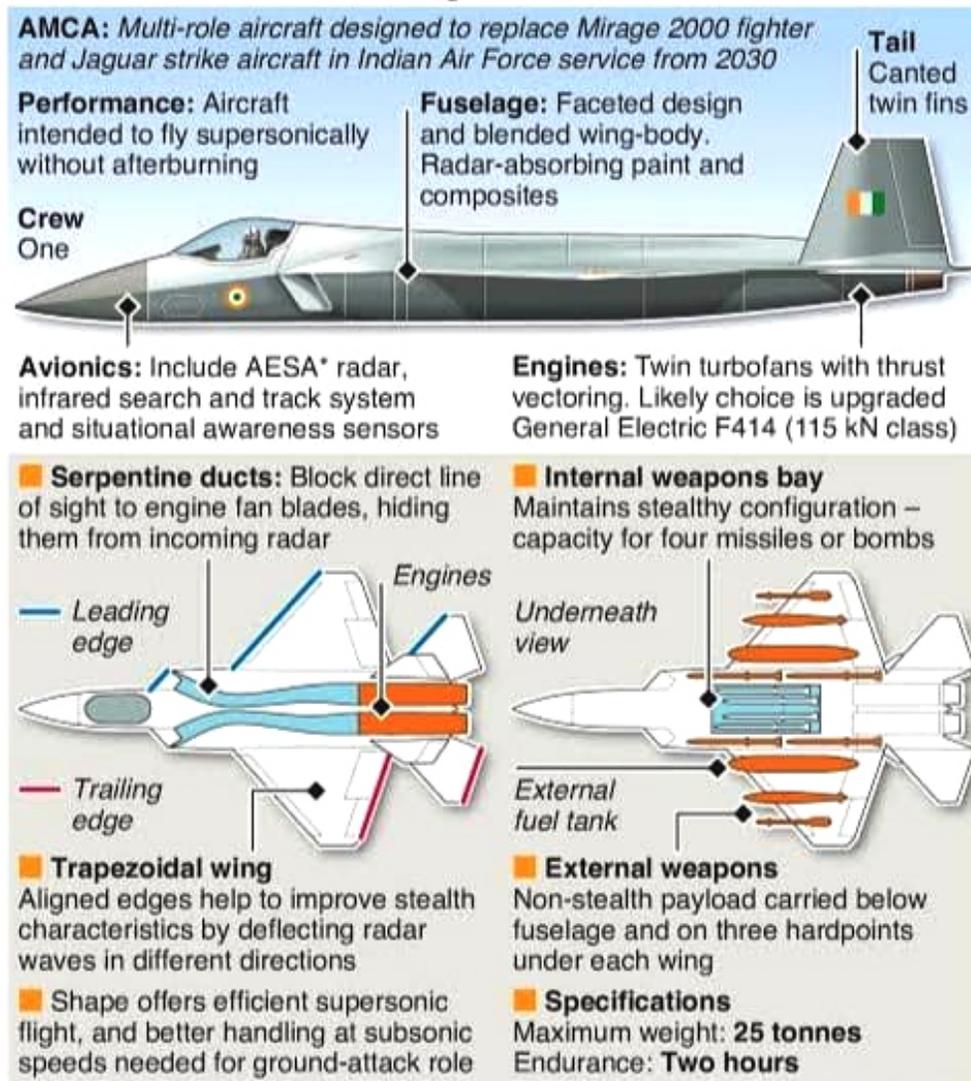
- **Production:**

The roll-out is planned for 2022 and first flight by 2023 and production of the Mk-2 version by 2026.

- **AMCA (Advanced Medium Combat Aircraft):**

India designing new stealth fighter

India is beginning preliminary design work for a new fifth generation fighter jet, named the Advanced Medium Combat Aircraft (AMCA), with the first flight scheduled for 2024



- **About:**

- It is a **fifth generation aircraft**. And will be used by the **Indian Air Force**.
- It is a **stealth aircraft**, i.e. designed for stealth and unlike the LCA, which is designed for maneuverability.
 - It has a **unique shape to achieve low radar cross-section** and has got internal carriage of weapons.
 - When the external weapons are removed, this aircraft has enough fuel and weapons inside to do a very capable operational role in stealth mode.

- **Range:**

It will have a range from over **1,000 km up to 3,000 km** in different modes.

- **Variants and Engine:**

It has **two variants Mk-1 and Mk-2**, While **AMCA Mk-1 will have an imported engine**, same as LCA Mk-2, the **AMCA Mk-2 will have an indigenous engine.**

- **Production:**

The first flight is expected in 2024-25, followed by trials and tests. It will be in full production by 2029.

- **Twin-Engine Deck-Based Fighter (TEDBF):**



- **About:**

- This fighter will be manufactured for the Navy.
- It will replace the Navy's **MiG-29K**.
- It will be the **first twin engine aircraft project in India** that too for dedicated carrier based operations.
- It will operate from the **INS Vikramaditya** and the upcoming indigenous aircraft carrier.

- **Weapons:**

The aircraft will be equipped **predominantly with domestic weapons.**

- **Size and Capacity:**

It will have a **maximum mach number of 1.6**, service ceiling of 60,000 feet, maximum **take off weight of 26 tons**, unfolded wing span of 11.2 meters, folded wing span of 7.2 and a **length of 16.3 meters.**

- **Engine:**

While the engine configuration has not been disclosed, it could well use the same engines that power the **LCA Tejas aircraft.**

- **Induction:**

It will be induced in the Navy by 2030.

INS Vikramaditya

- INS Vikramaditya is the country's **most powerful aircraft carrier.**

- It was **built in 1987**.
- The **Indian navy purchased the vessel in 2004** and commissioned it in November 2013 at Severodvinsk in Russia.
- It was retrofitted with a **Barak missile** system under joint development with Israel.

Source:IE