



MiG-21 Crash

For Prelims: Indian Airforce, IAF Modernization Drive, Flying Coffin

For Mains: MiG-21 Aircrafts, Aircraft Crashes

Why in News?

- Recently, a **MiG-21 Bison aircraft** of the [Indian Air Force \(IAF\)](#) crashed in Barmer, Rajasthan killing the two pilots aboard the trainer version of the fighter aircraft.
- Currently, the IAF has around 70 Mig-21 aircraft and 50 Mig-29 variants.
- There are **four squadrons of MiG-21 Bison aircraft** currently in service in the IAF with each squadron comprising 16-18 aircraft, including two trainer versions.



What drives the Phase out of Aircrafts?

- The Indian Air Force (IAF) plans to phase out the four MiG-21 fighter squadrons with one of them set to retire from service in September 2022.
- The IAF also plans to start the phasing out of the **three squadrons of MiG-29 fighter jets in the next five years.**
- It is part of the [IAF's modernization drive.](#)
- The plan is to retire **all four MiG-21 squadrons by 2025.**

What is MiG-21?

- The **Mikoyan-Gurevich MiG 21** is a [supersonic jet fighter and interceptor aircraft](#), designed by the **Mikoyan-Gurevich Design Bureau in the Soviet Union.**

- MiG is a product of the Soviet Union which entered into service in 1959.
- Approximately 60 countries on four continents have **flown the MiG-21, and it still serves many nations six decades after its maiden flight.**
- India inducted the **MiG-21 in 1963 and got full technology transfer and rights to license-build** the aircraft in the country.
- Russia stopped producing the aircraft in 1985, while India continued operating the upgraded variants.

Why so many MiG-21 crashes in India?

- Over the last ten years, **108 air accidents and losses have taken place involving all arms of the military - IAF, Navy, Army, and Coast Guard.**
- Out of these, **21 crashes have involved the Mig-21 Bison and its variants**, though the IAF flies mostly the former now.
 - **The high rate of accidents** earned the aircraft the nickname of **‘Flying Coffin’**.
- There is no single, common reason for military aircraft crashes. They can range from **weather, human error, technical error to bird hits.**
- The MiG-21 is a single engine fighter, and that could also be a **cause for some of the crashes.**
 - It is a single engine fighter and when it loses that engine, it needs to be re-started. More often than not **it re-lights but it takes a finite amount of time to re-light any engine**, so if you are below the minimum height, you have to leave the aircraft.

Way Forward

- Preventing future aircraft accidents lies in the usage of a combination of technology and **appropriate and adequate pilot training.**
- The installation of Ground Proximity Warning System in the aircraft will generate early signals that can alert the flight crew to take preventive measures against the onset of CFIT.
- **Effective training of pilots to develop situational awareness** and carry out the right intervention must be emphasised in pilot training.

[Source: TH](#)

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