



Pilatus PC-7 Mk II

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Why in News?

Two [Indian Air Force \(IAF\)](#) pilots were killed after their **Pilatus PC-7 Mk II** trainer aircraft crashed during a routine training sortie from the Air Force Academy at Dundigal, Telangana which marks the first crash involving the aircraft in nearly a decade.



What is Pilatus PC-7 Mk II Trainer Aircraft ?

- **Trainer Aircraft:**
 - Trainer aircraft are **specialized planes meant for training pilots and aircrews**. Since modern military planes are complex and challenging for new pilots, trainers serve as a foundational step.
 - These aircraft are simpler, slower, and more forgiving, helping rookies learn basic skills. They are also **cost-effective, allowing air forces to purchase them in large quantities for cadet training**.
- **Types of Trainer Aircraft with IAF:**
 - The IAF currently operates **75 Pilatus PC-7 Mk II aircraft**, which are used for basic training in the first stage of a cadet's flight training.
 - After basic training, cadets progress to the **HAL Kiran**, an intermediate jet-powered trainer, and then to the **BAE Hawk**, a British advanced trainer.
- **Features of Pilatus Aircraft:**
 - The **PC-7** is a turbo-prop aircraft with tandem seating, introduced in the 1990s as an upgraded version of the original model from the 1970s.
 - Powered by a **Pratt & Whitney engine**, it has a maximum speed of **412 km/h**, can reach

over **10,000 m** in height, and has a range of 1,200 km without external tanks, providing slightly over 4 hours of flying time.

▪ **IAF's Need of PC-7 Mk-II:**

- The IAF procured 75 of these aircraft from **Pilatus Aircraft Ltd** (an aerospace manufacturer located in Stans, Switzerland) under a contract signed in 2012, to meet the critical shortage of trainer aircraft urgently needed to carry out the basic flying training for its pilots.
- The shortage emerged after the **indigenously developed HPT-32 aircraft** were grounded in 2010, after fatal crashes which killed multiple IAF pilots.

▪ **Replacing PC-7 Mk II:**

- Defence Ministry signed a contract with **Hindustan Aeronautics Ltd (HAL)** to procure 70 **HTT-40 for replacing PC-7**.
- Designed indigenously, the **HTT-40 is a basic trainer aircraft** powered by a four-bladed turbo-prop engine (PC-7 is three-bladed).
 - The aircraft will have an **air-conditioned cockpit, modern avionics, hot refuelling, and zero-zero ejection seats.**

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