

To receive Daily news juice pdf on your WhatsApp, send name and city through WhatsApp on 75979-00000.

1. Pilatus PC-7 Mk II crash: 5 things to know about the trainer aircraft

Introduction

Two Indian Air Force (IAF) pilots were killed on December 4 after their Pilatus PC-7 Mk II trainer aircraft crashed during a routine training sortie from the Air Force Academy at Dundigal, Telangana.

The aircraft which took off from the Dundigal Air Force station in the morning, was found completely charred some 40 km away. A Court of Inquiry has been ordered to ascertain the cause of the accident.

This is the first crash involving the aircraft since it was inducted into the Air Force almost a decade earlier, having clocked around 2 lakh hours of flying time since then.

What is a trainer aircraft?

A trainer is a class of aircraft designed specifically to facilitate flight training of pilots and aircrews. Modern military aircraft are notoriously difficult to master for rookie pilots. Hence, they must first be trained on other, more basic aircraft. Trainer aircraft are far more forgiving than the aircraft military pilots will eventually fly — they fly slower, have less complex systems, and are designed to be resistant to and recoverable from stalls and spins, a common challenge for rookie pilots. They are also much cheaper, allowing air forces to buy them in bulk to train cadets.

How many types of trainer aircraft does the IAF have?

Currently, there are 75 Pilatus PC-7 Mk II aircraft in service with the IAF (including the one which crashed today). These are used for basic training, the first stage in a rookie cadet's flight training.

After this, cadets graduate to the HAL Kiran, an intermediate jet-powered indigenously developed trainer aircraft, followed by the BAE Hawk, a British jet-powered advanced trainer aircraft. Currently, the IAF has 78 Kiran and 102 Hawk aircrafts in its fleet.

In addition to this, the IAF, Navy, and National Cadet Corps also operate the Pipistrel Virus, as a basic trainer for Flight Safety and Air Wing Cadets. Currently, 194 of these aircraft are in service, with 72 with the IAF.

What kind of an aircraft is the Pilatus PC-7 Mk II?

Pilatus Aircraft Ltd is an aerospace manufacturer located in Stans, Switzerland, which specialises in producing short take-off and landing aircraft, as well as trainer aircraft for air forces across the world.

The PC-7 is a low-wing, turbo-prop aircraft with tandem seating (the cadet sits in the front, the instructor behind him). While the original aircraft has been in service since the 1970s, the Mk II version was introduced in the 1990s, with a newer airframe and more advanced avionics. Powered by a Pratt & Whitney turbo-prop engine, it has a maximum speed of 412 km/h and can fly to a height of slightly more than 10,000 m. It has a range of 1,200 km without external tanks, which translates to slightly more than 4 hours of flying time.

It is (or has been in the past) used as the ab initio (literally, the first aircraft a cadet flies after training on simulators) trainer by over 20 air forces in the world. Moreover, the likes of Chad, Iran, and Mexico have used the aircraft for combat operations as well.

Why did the IAF obtain the PC-7 Mk II?

The IAF procured 75 of these aircraft 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, including two experienced instructors.

All the 75 Pilatus aircraft were delivered between 2013 and 2015 by the Swiss manufacturer, with the IAF having an option to make an additional purchase of 38 more aircraft. However, this contract was not signed after the Defence Ministry blacklisted the Swiss firm for a year in 2019, on corruption charges, which the Ministry claimed was crucial to Pilatus bagging the Rs 2,800 crore deal in 2012. This ban was partially lifted a few months later, to allow the IAF to maintain its fleet of 75 basic trainer aircraft.

Will the PC-7 Mk II be replaced by the IAF anytime soon?

In March, the Defence Ministry signed a contract with Hindustan Aeronautics Ltd to procure 70 HTT-40 at a cost of over Rs 6,800 crore.

Designed indigenously at HAL's Aircraft Research & Design Centre, 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 (with engines running), and zero-zero ejection seats. The aircraft are scheduled to be delivered over a period of six years.

Relevance: GS Prelims & Mains Paper III; Internal Security

2. NCRB 2022 report on crime in India

Introduction

The National Crime Records Bureau (NCRB) released its annual report recently on crime in India for the year 2022.

The report is a compilation of data on reported crime from across the country, and provides the big picture of broad trends in crime registration. Reports by the NCRB, which functions under the Union Ministry of Home Affairs, include statistics on offences ranging from crimes against women to economic and financial crimes.

How are the data for NCRB reports compiled?

The NCRB was established in January 1986 as a body mandated to compile and keep records of data on crime. It also acts as a “national warehouse” for the fingerprint records of Indian and foreign criminals, and assists in locating interstate criminals through fingerprint search.

For the NCRB’s flagship annual Crime in India reports, information is obtained from the police forces of 36 states and Union Territories. Similar data are furnished for 53 cities with populations exceeding 10 lakh each as per the 2011 Census, by respective state-level crime records bureaus.

The information is entered by state/UT police at the level of the local police station, and is validated at the levels of the district and state, and finally, by the NCRB.

What does the 2022 NCRB report say?

The data cover overall crimes, and separately note crimes against women, Scheduled Castes (SCs) and Scheduled Tribes (STs), cyber crimes, etc. Here are some takeaways from the latest report:

* In 2022, a “total of 58,24,946 cognizable crimes comprising 35,61,379 Indian Penal Code (IPC) crimes and 22,63,567 Special & Local Laws (SLL) crimes were registered”. This was a decline of 4.5% in the registration of cases over the second pandemic year, 2021.

* The crime rate, or crimes registered per lakh population, has declined from 445.9 in 2021 to 422.2 in 2022. This is seen as a better indicator, since absolute numbers on crime increase as the population increases.

* 4,45,256 cases of crime against women were registered in 2022. This was an increase of 4% over the 2021 numbers. The largest share of crimes against women under IPC

sections was registered under 'Cruelty by Husband or His Relatives' (31.4%), followed by 'Kidnapping & Abduction of Women' (19.2%), and 'Assault on Women with Intent to Outrage her Modesty' (18.7%).

* Reporting of cyber crime increased significantly by 24.4 percentage points compared to 2021, to 65,893 cases. Around 64.8% of registered cases were of fraud, followed by extortion (5.5%), and sexual exploitation (5.2%).

* An increase of 4.2% was observed in suicides reported during 2022 (1,70,924 suicides) as compared to 2021. 'Family Problems (other than marriage-related problems)' (31.7%), 'Marriage Related Problems' (4.8%) and 'Illness' (18.4%) have together accounted for 54.9% of total suicides in the country during the year 2022. The overall male-to-female ratio of suicide victims was 71.8:28.2.

What are the headline trends in state-wise data in the report?

The states/ UTs reporting the highest charge sheeting rate under IPC crimes are Kerala (96.0%), Puducherry (91.3%), and West Bengal (90.6%). This is the percentage of cases in which the police reached the stage of framing charges against the accused, out of the total true cases (where a charge sheet was not laid but a final report submitted as true, plus the total cases chargesheeted).

Does this mean that these states are more crime-prone than others?

Not necessarily. The NCRB report underlines that the data record the incidence of registered crime, not the actual occurrence of crime.

This is an important distinction — and also an acknowledgement of the fact that there are limitations to the data. So, when reported crimes against women in Delhi rose significantly in the aftermath of the 2012 bus gangrape case, it may have been a reflection of increased awareness about the need for registering crimes, both among those affected and the police, rather than an actual increase in the incidence of crime against women.

Is that the only issue with the data?

The NCRB follows what is known as the 'Principal Offence Rule'. This means that among the many offences registered in a single FIR, the crime that attracts the most severe punishment is considered as the counting unit. Thus, 'Murder with Rape' would be counted as 'Murder', not rape — which would result in an undercounting of the crime of rape.

Also, since the NCRB report is only a compilation of data submitted at the local level, inefficiencies or gaps in data at that level have an impact on the accuracy of the report.

Because of a range of reasons, including the fear of an uncooperative or a hostile response from the police, certain groups may not be willing to come forward and register cases. And a shortage of police officers or unfilled vacancies in the relevant posts at the local level may hinder the collection of data.

Relevance: GS Prelims & Mains Paper II; Governance

Source: The Indian Express and The Hindu

3. 4 factors behind the BJP win in Chhattisgarh, Rajasthan and Madhya Pradesh assembly elections

Why in news?

BJP has secured victory in the state Legislative Assembly elections in Rajasthan, Madhya Pradesh, and Chhattisgarh. On the other hand, Congress has secured victory in only Telangana Legislative Assembly elections. With this, BJP has asserted its presence in three large states in northern India, in what is also called the 'Hindi heartland'.

Despite the exit polls predicting a tight contest in Madhya Pradesh and Rajasthan, the BJP has managed to score an impressive margin ahead of the opposition Congress party. Further, it has gained a significant lead in Chhattisgarh, where it was seen as lagging behind the Congress during the campaign.

What are some of the factors that have helped move the results in the party's favour?

1. **Modi factor:** The BJP has gone to the polls with Prime Minister Narendra Modi as the face of the party. His popularity is still intact on the ground, helping push the party candidates ahead of the rival Congress in key constituencies.
2. **The woman voters:** According to BJP leaders, what worked in BJP's favour in Madhya Pradesh and Chhattisgarh is the women voters' support. Focusing on this demographic, the party announced special schemes in the manifesto.
3. **BJP's organisational strength:** Unlike in the assembly elections in the past, where the voters differentiated between the Lok Sabha and the state elections to favour the opposition parties, the BJP has been able to translate the factors that play in its favour in the general election to assembly elections as well.

Despite the fatigue factor against the party in Madhya Pradesh, where it was in power for almost two decades, the party focussed on its organisational strength and coordination between the party and the government.

4. **The messaging:** BJP leaders said its attempts to present a combination of Hindutva, development and welfare politics to counter the Congress's welfare push through a larger message has worked well on the ground. They added that it helped counter the party's alleged "appeasement" towards certain communities.

Relevance: GS Prelims & Mains Paper II; Governance

Source: PIB

4. George Santos Expelled from US House of Representatives Over Criminal Charges

Introduction

Republican George Santos faced expulsion from the US House of Representatives on December 1, with fellow lawmakers voting 311-114 in favor of immediate expulsion. This vote was well above the two-thirds majority required to oust one of its own. Santos, elected from New York's 3rd congressional district in 2022, was ousted due to criminal corruption charges and allegations of misusing campaign funds.

Santos' Tenuous Relationship with Truth

Santos, 35, claimed an impressive background, including false academic and professional achievements. Investigations revealed fabrications in his biography, such as false claims about his education, work experience, and ancestry.

Multiple Criminal Allegations

Santos faces various criminal allegations, including embezzlement of funds intended for animal welfare, card information skimming from ATMs, and involvement in a cheque-book fraud case in Rio de Janeiro. The Department of Justice charged him with wire fraud, money laundering, stealing public funds, and inflating campaign fundraising numbers.

Santos' Controversial Exit

Refusing to resign despite pressure, Santos introduced his own expulsion resolution against a Democrat and engaged in a heated clash on the House floor. As he left the Capitol building, Santos expressed disdain for the institution, concluding his tumultuous career with the remark: "To hell with this place."

Relevance: GS Prelims; International Issues

Source: The Hindu