



Preliminary Report: Accident involving M/s Red Bird Flight Training Academy Tecnam P2008 JC Aircraft VT-RBC at near Baramati Airport on 19.10.2023

1. General Information

1.	Aircraft	Type	Tecnam P2008 JC
		Nationality	Indian
		Registration	VT- RBC
2.	Owner and Operator	M/s Red Bird Flight Training Academy Pvt Ltd	
3.	Pilot	ATPL Holder	
	Extent of Injuries	Minor	
4.	Co Pilot	--	
	Extent of Injuries	--	
5.	Date & Time of Accident	19.10.2023, 10:38 UTC	
6.	Place of Accident	Near Baramati Airport	
7.	Co-ordinates of Accident Site	18°13'36.6"N, 74°35'48.3"E	
8.	Last point of Departure	Baramati Airport	
9.	Intended landing place	Baramati Airport	
10.	Type of Operation	Training	
11.	Phase of operation	Take off	

2. Aircraft Information

The aircraft was manufactured in 2019 and had a valid Certificate of Airworthiness (CoA) and Certificate of Registration (CoR). According to the CoR, the aircraft was owned and operated by M/s Redbird Flight Training Academy Private Limited. As per the aircraft log book, the last scheduled major inspection i.e 100 hours was carried out on 13.10.2023. There were no major snags or repairs carried out after the last maintenance. The aircraft was equipped with a Rotax 912S2-01 engine. The aircraft had accumulated 3308:41 hours. The engine had completed 668:40 hours since new before the accident flight. The engine was installed on 30.06.2023.

3. Crew information

Crew had valid licenses and were current to operate this flight.

License	ATPL
Valid up to	18.09.2024
Date of Class I Med. Exam.	24.01.2023
Class I Medical Valid up to	27.01.2024
Date of issue FRTOL License	08.01.2018
FRTO License Valid up to	25.10.2037
Endorsements as PIC	C152, P68,C172, PA34, DA42, Tecnam P2006T, Tecnam 2008JC (under open rating)
Total flying experience	5822:07 Hours (Approx)
Total flying experience on type	1014:45 (Approx)

4. Aerodrome Information

Baramati Airport is owned by the Maharashtra Industrial Development Corporation and operated under a lease by Baramati Airport Limited. M/s Redbird had an agreement with Baramati Airport Limited to utilize the facility. The airport is currently uncontrolled and serves as a hub for general aviation and pilot training. Two Flying Training Organisations M/s Carver Aviation and M/s Red Bird Flight Training Academy are based at Baramati. The airfield's elevation is 1996 feet, and Runway 11/29 measures 5500 x 100 feet, with turning pads at both ends. Three taxiways are available to connect the airstrip to two adjacent aprons connecting M/s Carver Aviation and M/s Red Bird Flight Training Academy. ATC services are provided by M/s Carver and M/s Red Bird on a roster basis and advisories are being provided over VHF frequency to pilots engaged in training flights.

5. Weather Information

As per the METAR register, the weather information at the time accident were as follows;

Time (UTC)	Wind	Visibility	Cloud	Temperature	QNH	Weather
10:30	120/06 KT	5000 M	SKC	32 deg C	1014	NOSIG

The weather report shows that visibility conditions were good and acceptable for Flying

6. Brief description of accident flight

On 19.10.2023, M/s Red Bird Flight Training Academy Pvt. Ltd. operated a flight on Tecnam P2008JC aircraft VT-RBC at around 1037 UTC from Baramati Airport. This was the 8th sortie of the day for VT-RBC as per the Tech Log. VT-RBC had earlier operated a sortie for the carrying out a Check for issue of AFIR to a M/s Red Bird Flight Instructor. The sorties was operated by the CFI.

As per the statement of CFI, sluggish operation of the brake and unusual noise from the aircraft after landing was noticed during the sortie. The snag was, however, not mentioned in the PDR. CFI stated to have operated the accident flight to check the brake operations and the reason for unusual noise from the aircraft himself before handing over the aircraft for further flights by other instructors.

As per the CFI's statement, he performed flapless take off to check the sluggish operation of the aircraft brakes and abnormal noise in the aircraft. The aircraft got airborne and at around 100 feet height, the CFI stated to have experienced engine power loss. The aircraft banked to the right then turned abruptly to the left followed by loss of altitude resulting in aircraft crashing just outside the Baramati airport fencing approximately 395 m from the RWY 29 threshold.



Figure 1: Aircraft trajectory from take off

There was no fire on aircraft after impact and CFI escaped with minor injuries. Post-accident CFI was taken to hospital for first aid. Post flight BA examination was also carried out and the result was negative.

7. Wreckage and Impact information

Inspection of the aircraft post-accident showed severe damage to its structure. Both the wings and engine were found detached from the mountings and the propeller was found broken. Nose undercarriage got detached from its mounting post impact into the ground. The cockpit area was severely damaged. However, CFI sustained only minor injuries.



Figure 2: Aircraft's Main Wreckage

8. Gathering of Evidence

8.1 Fuel Records

M/s Red Bird procures, AVGAS, MOGAS and Jet AV fuel for its operations. About 3000-4000 litres of fuel was observed stored in an open space in the airport premises, without any formal approval for the same. AAIB team demanded records pertaining to fuel procured by M/s Red Bird and sought copies of Fuel Challans, Fuel Procurement Order and Fuel Stock register etc. However, the same was not provided to AAIB team.

8.2 Flight Performance Data from GARMIN Cockpit

A team comprising two personnel from AAIB was deputed to Baramati to carry out Investigation and to gather and preserve all evidence. The aircraft VT-RBC aircraft is equipped with Garmin Cockpit which has the facility for recording flight parameters and storing the data on a SD Card. The Investigation team did not find the SD card in the aircraft on its arrival. On enquiry it was informed that the SD card were removed by M/s Red Bird. No such instruction was issued by AAIB or the DGCA team that was available at the site.

One SD Card was handed over to AAIB on 20 Oct 2023 at night. The data file for the accident flight did not have the data for complete flight and data for the duration after take-off and till impact only was available in the SD Card. The data also did not have parameters related to engine performance.

The data from SD card retrieved from another aircraft had Flight Data Recording for complete duration of flight starting from Engine Start-up to Engine shutdown and also has recording of Engine Parameters.

The properties of files in the SD Card provided to AAIB team on 20.10.2023 night showed that these were modified on 20 Oct 2023 in the afternoon. The files therefore appear to have been modified before the SD Card were handed over to AAIB.

CCTV Footage

AAIB team also sought recording from CCTV cameras installed in the premises of M/s Red Bird. M/s Red Bird has 02 cameras installed on ATC building and 03 cameras installed on the Apron Area. On demanding the footage from the CCTV, AAIB team was informed that the Hard Disks from the DVR have been removed and sent to Pune for retrieval of CCTV footage. This was again done without permission from AAIB.

AAIB then sought the data that had been retrieved from the hard disks. A short clip only from Camera 01 was provided to AAIB by the M/s Red Bird. AAIB team demanded to be shown complete footage and to be provided complete footage of the day. The M/s Red Bird informed that they do not have any monitor connected to the DVR that controls the 03 cameras in Apron Area, but monitor is available for DVR controlling the 02 cameras on ATC building.



M/s Red Bird arranged for the replay of CAM 1 and CAM 2. An attempt to replay was carried out in presence of AAIB team by IT personnel of M/s Red Bird and their 03 Flight Instructors. The Hard Disk that was said to be brought back from Pune was inserted back in the DVR and replay was attempted, but disk did not show any data. The DVRs are connected to internet and the CCTV footage is also recorded on the Cloud server. M/s Red Bird was asked to provide access to its Login on Cloud Server so that the CCTV footage can be viewed and downloaded. However, the same was not provided to AAIB team. The Hard Disks from both DVRs were then confiscated by AAIB team.

9. Progress of Investigation

1. The integrity of data in the SD Card and CCTV Hard Disks would be checked.
2. Engine and Garmin unit has been quarantined for further examination and analysis.
3. Techlog, engine logbooks, METAR, Load and trim sheet, flight authorisation book, work orders, on-board documents, and major inspection records related to VT-RBC have been collected from the operator for scrutiny.
4. Aircraft's fuel and oil samples has been collected for further analysis.

5. Documents/files related to Crew and Aircraft have been sought from DGCA.
6. Statements from crew, witnesses and concerned personnel have been obtained.
7. Efforts are being made to gather all missing information and details from the operator.

10. Interim recommendation

In view of the fact that crucial evidence like SD Card from wreckage and CCTV Hard Disks were removed before arrival of AAIB team without any intimation or permission, it is recommended that necessary action may be taken by DGCA against M/s M/s Redbird Flight Training Academy Pvt. Ltd for obstructing the proceedings of the Investigation Team as per the extant provisions.

11. Investigation Team

Investigation In-Charge : Sh. Anandan P, Assistant Director

Investigator : Sh.Kanimozhivendhan.G, Assistant Director