

REPORT ON INCIDENT TO TELANGANA STATE
AVIATION ACADEMY CESSNA-172R AIRCRAFT VT-CAM AT
BEGUMPET AIRPORT ON 06.04.2021.

General Information:

1	Aircraft	Type	Cessna 172R
		Nationality	Indian
		Registration	VT-CAM
2	Owner and Operator		M/s Telangana State Aviation Academy
3	Pilot-in-Command		Student Pilot License Holder
	Extent of injuries		Nil
4	Date & Time of incident		06.04.2021, 0739 UTC
5	Place of incident		Begumpet Airport
6	Co-ordinates of the incident site	Latitude : 17 ⁰ 27' 10" N	
		Longitude : 78 ⁰ 27' 44" E	
7	Last point of Departure		Begumpet Airport
8	Intended place of landing		Begumpet Airport
9	No. of crew on board		01
10	Type of Operation		Training Sortie
11	Phase of Operation		Approach Circuit & Landing
12	Type of Incident		Abnormal runway contact

(All timings in the report are in UTC)

SYNOPSIS:

Cessna -172R aircraft VT-CAM, belonging to M/s Telangana State Aviation Academy (TSAA), while engaged in a solo training flight (Circuit and landing) under the command of trainee pilot was involved in an incident at Begumpet Airport on 06.04.2021.

The Flight Instructor authorized the trainee pilot to carry out solo local circuit and landing exercises. The first sortie of the trainee pilot was uneventful. For the second sortie, the aircraft got airborne at 0731 UTC from RWY 09 and climbed to circuit altitude without any issues. The take-off, climb, and circuit were uneventful and subsequently the Air Traffic Controller cleared aircraft VT-CAM for landing. During the landing, the trainee pilot reported that a sudden strong gust caused the aircraft to balloon during the flare. In an attempt to recover from the ballooning, the trainee pilot pushed the control stick slightly forward to pitch the nose down for landing, but the aircraft hit the runway which resulted in collapsing of nose gear and damage to the propeller. Thereafter, aircraft stopped on the runway and trainee pilot came out from the aircraft by herself.

The incident took place at 07:39 UTC. The weather was fine with a wind of 040⁰/04 kt.

The DGCA has instituted an investigation into the incident to investigate the cause of the incident by appointing an Investigator-in-charge vide order No. DGCA-15018(19)/3/2021-DAS dated 16.04.2021 under Rule 13(1) of Aircraft (Investigation of Accident and Incidents) Rules, 2017.

The investigation has concluded Improper handling of flight control during landing resulted into aircraft contacting the runway on nose landing gear.

1. FACTUAL INFORMATION:

1.1 History of flight:

On 06.04.2021, Cessna 172R aircraft VT-CAM, belonging to M/s Telangana State Aviation Academy was scheduled to operate in the northern sector for local flying. The Aircraft Maintenance Engineer carried out a daily inspection of the aircraft as per the approved schedule. There was no snag reported on the aircraft.

The first Circuit and landing sortie was undertaken along with the instructor and aircraft took off at 0610 UTC from RWY 09. After completion of emergency procedures, the aircraft landed uneventfully, and vacated the runway via taxiway 'D' and chocked ON at 0710 UTC.

The weather reported by ATC was fine and visibility prevailing was 5000m. The Flight Instructor authorized the trainee pilot to carry out solo local circuit and landing exercises. Take off clearance was obtained from Begumpet ATC. The aircraft departed for first solo C/L at 0715 UTC and landed back at 0729 UTC.

The first solo circuit and landing was uneventful. The trainee pilot reported that the approach was stable with the speed maintained at 70 knots on final and flaps setting at 30⁰.

After landing, the trainee pilot back tracked and lined up on runway 09. The aircraft took off from runway 09 at 0731 UTC. The aircraft completed circuit flying uneventfully.

During the landing, the engine throttle was set to idle. The trainee pilot had planned for a full stop landing. According to the trainee pilot, during the landing, a sudden strong gust caused the aircraft to balloon. In an attempt to recover from the ballooning, the trainee pilot pushed the control stick slightly forward to pitch the nose down for landing, but the aircraft hit the runway and bounced. After the second touch-down, the trainee pilot initiated a Go-around. But, the aircraft hit the runway which resulted in collapsing of nose gear and damage to the propeller. The aircraft then veered to the right and came to a stop on the runway in a nose-down position, 77.98 feet to the right of the RWY 09 centerline.

According to the Flight Instructor who was overseeing the flight, the aircraft was at a slightly higher speed than usual during the final approach. As a result, the aircraft first ballooned and then bounced upon landing. Following the initial bounce, it was noticed that the nose wheel collapsed and the propeller was damaged.

The trainee pilot didn't receive any injuries during the incident. There was no evidence of fire at any stage during the incident.

1.2 Injuries to persons

INJURIES	CREW	PASSENGERS	OTHERS
FATAL	NIL	NIL	NIL
SERIOUS	NIL	NIL	NIL
MINOR/NONE	01	NIL	NIL

1.3 Damage to Aircraft

The aircraft sustained damages in nose area including nose landing gear, engine propellers and nose bottom surface.

Following are a few pictures of the damages sustained by the aircraft.



Fig.1. Damage of nose landing gear.

The nose landing gear assembly has come out of the top support assembly breaking attachment bolt, the orifice assembly piston support came out from its position.

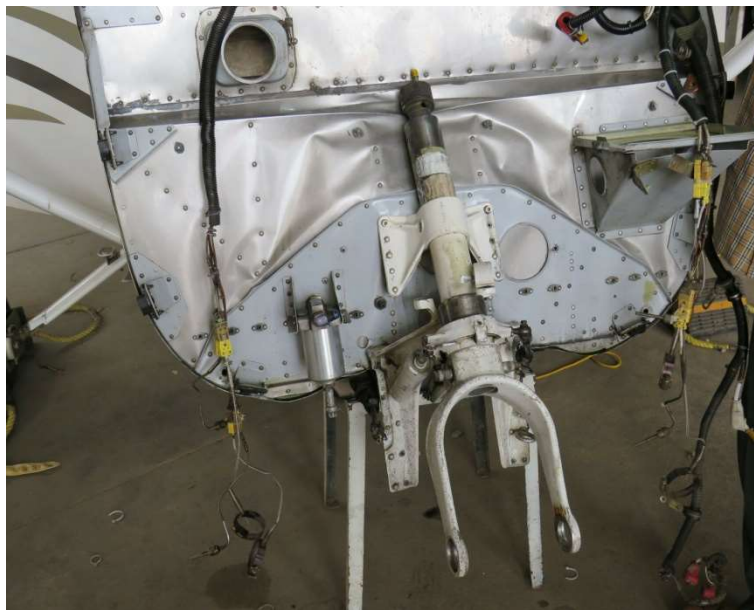


Fig. 2 Damaged orifice assembly piston support

Both propeller blades exhibited impact damage and the blade tips were bent rearward (See Figure 3).



Fig. 3 Propeller blades bent rearward & damaged

There were minor wrinkles observed on the bottom surface of the fuselage (See Figure 4). The complete fire wall was damaged.



Fig. 4 Damage to bottom surface of the fuselage

Nose cowling of the aircraft received dents.



Fig. 5 Dent on nose cowl

1.4 Other Damage

Nil

1.5 Personnel Information

1.5.1 Student Pilot

Age/Sex	: 22 years approx./Female
License	: Student Pilot License
Category	: Aeroplane
Validity (SPL)	: 17.09.2023
Aircraft Ratings	: Cessna 152, Cessna 172
FRTOL(R) validity	: 21.04.2029
Med. Exam Valid upto	: 05.09.2021 (Class-I)
Total flying experience	: 149:55hrs
Total solo flying experience	: 75:30hrs
Experience on type (C-152)	: 146:55 hrs
Experience on type (C-172R)	: 03:00hrs
Total flying experience during last 365 days	: 109:40 hrs
Total flying experience during last 180 days	: 70:40 hrs

Total flying experience during last 31 days : 06:20 hrs
Total flying experience during last 07 days : 03:00hrs
Total flying experience during last 24 Hrs : 01:25hrs

The trainee pilot joined the Telangana State Aviation Academy in September 2018 to undergo flying training for the grant of CPL. She commenced flying in October 2018 and had her first solo flight in November 2019.

The trainee pilot was not involved in any serious incident/accidents in the past.

1.5.2 FTPR: Trainee pilot's Flight training progress report was examined

During the trainee pilot's flying training, she flew with 7 different instructors and accumulated 74 hours and 25 minutes of flying time with instructors, as well as 75 hours and 30 minutes of solo flying time. Her first solo flight took place after 28 hours and 45 minutes of dual flying. Prior to her first solo flight, multiple instructors provided training to the trainee pilot. The Deputy Chief Flight Instructor had released the trainee pilot for the first solo, who had never given training to the trainee pilot. Before the trainee pilot's first solo flight, most of the instructors who had trained her gave negative comments regarding her performance, stating that her approach and landing techniques were not satisfactory and that she needed more practice. The instructors briefed the trainee pilot accordingly and made her fly more hours to improve her approach and landing techniques.

Based on the technical paper, the trainee pilot had shifted from Cessna -152 to Cessna -172R aircraft. The trainee pilot had flown for 2 hours and 35 minutes as a dual on a Cessna 172R aircraft. Over the course of three days, the trainee pilot had undergone flying training with three different instructors on a C-172R aircraft.

The grading system was provided at the end of the Flight Training Progress Report to track the performance of the trainee pilot. The trainee pilot's performance during training is assessed through periodic evaluations based on the type/stage of training, and every quarter by the instructors. Initially, the Chief Flight Instructor conducted periodic assessments, but later on, neither the Chief Flight Instructor nor the Deputy Chief Flight Instructor conducted regular assessments to monitor the trainee pilot's performance.

According to Section 4, paragraph 4.6.8 of the training and procedure manual, trainee pilots are required to have a minimum rest period of one hour after each flight lasting one hour or more. But, in this case, the trainee pilot did not receive sufficient rest after a one-hour dual-flying sortie. Instead, the trainee pilot was only given a five-minute break before releasing for a solo circuit and landing sortie.

1.6 Aircraft Information

The Cessna-172R airframe is an all-metal construction. It is primarily aluminum 2024- T3 alloy, although some components such as wing tips and fairings are made from glass-reinforced plastic. The fuselage is a semi-monocoque structure: it has vertical bulkheads and frames joined by longerons which run the length of the fuselage. The metal skin of the aircraft is riveted, which allows loads to be spread out over the structure. The aircraft is equipped with a Lycoming IO-360-L2A engine. The Lycoming IO-360- L2A engine is a four cylinders, direct drive, horizontally opposed, wet sump, air-cooled model.

The maximum operating altitude for the aircraft is 14000 ft and maximum take-off weight is 1111.3 Kgs. Aircraft length is 27.23 feet, wingspan is 36 feet and height of this aircraft is 6.92 feet.

Aircraft VT-CAM (MSN 17281501) was manufactured in 2008. The aircraft is registered with DGCA under the ownership of M/s Telangana State Aviation Academy. The aircraft is registered under Category “A” and issued with Certificate of Registration Number 3881/3 on 30.09.2014.

The Certificate of Airworthiness (CoA) Number 5090 under the "Normal category" subdivision “Passenger” was issued by DGCA on 12.09.2013. As per the CoA, the specified minimum operating crew is one, and the AUW is 1111.3 Kgs. At the time of the incident, the CoA was current and valid until unless suspended/cancelled, subject to the validity of ARC. The ARC was issued on 25.09.2020 and was valid up to 26.09.2021.

The aircraft was holding Aero Mobile License No A-064/01-RLO (SR) at the time of the incident which was valid up to 31.12.2022.

The aircraft and its engines are being maintained as per the ‘Maintenance Program’ consisting of calendar period/ flying Hours or Cycles based maintenance as per the maintenance program approved by the Deputy Director of Airworthiness Office, Hyderabad.

The following Last Major scheduled inspections were carried out as a part of the maintenance work:

Inspection details	Carried out on	at A/F hrs
Operation I/ 50 Hrs.	08.03.2021	9574:25
Operation II/ 50 Hrs.(100 Hrs.)	15.03.2021	9624:25
Operation III/ 50 Hrs.(150 Hrs.)	19.03.2021	9674:25
Operation IV/ 50 Hrs.(200 Hrs.)	30.03.2021	9725:10

The last major inspection undertaken on the aircraft was the “200 hrs inspections” and was carried out on 30.03.2021.

All concerned Airworthiness Directives, Mandatory Service Bulletins, DGCA Mandatory Modifications on this aircraft and its engine were complied with as on the date of the event. No scheduled inspection was found due at the time of the incident.

1.7 Meteorological Information:

The following is the METAR information for Begumpet Airport of the date of incident.

Time(UTC)	Winds	Visibility	Clouds	Max/MinTemp	QNH	Forecast
0630	200 ⁰ /03Kt	5Km	NSC	34/21	1014	NOSIG
0730	110 ⁰ /08Kt	5Km	NSC	35/19	1014	NOSIG
0830	110 ⁰ /07Kt	5Km	SCT	35/18	1012	NOSIG

At 0730 UTC, as per METAR data visibility was 5000 meters, Winds 110/08 knots with no significant change in the prevailing weather conditions.

1.8 Aids to Navigation:

Begumpet Airport Hyderabad was equipped with navigational aids such as DVOR, DME co-located with DVOR and ILS Cat I, and all were maintained operational by Airports Authority of India.

The aircraft is equipped with VOR. However, in this case the aircraft was flying under visual flying rules in the vicinity of Airport and navigation aids were not used.

1.9 Communication:

There was two way communications between the aircraft and the ATC.

1.10 Aerodrome Information:



Fig.6 Runway09&27atBegumpetAirport, Hyderabad

The airport at Begumpet, also popularly known as Hyderabad Airport, is controlled and maintained by the Airport Authority of India. Besides civilian aircraft the airport is also used by defense aircraft. The airport is located at 17°27'11"N, 78°28'03"E with 1742 ft of elevation from AMSL. The direction of the runway is 09/27, used depending on the wind

direction. The dimension of the runway is 10597.11X147.64 ft total runway length is 10,600 feet.

1.11 Flight Recorders:

Not fitted with FDR/CVR as per regulation.

1.12 Wreckage & Impact Information:

The aircraft approached from RWY 09. Based on the propeller strike markings on the runway, it is indicating that the first point of contact of the propeller blades from the threshold of RWY 09 was 721 feet. The damage on the runway from the propeller blade strike with one hit followed by a second propeller hit marking a distance of 4 feet. After 12 feet from the second strike of the propeller, there were continuous propeller hit markings on the runway for about 196 feet. The damage on the runway surface from the propeller blades strikes were observed on the RHS of the Runway Centerline. The aircraft had moved 312 feet further where only tyre markings were observed on the RHS of the Runway Centerline, indicating suspected engine power loss.

The aircraft moved forward for approximately 787 feet and finally stopped at 77.7 feet to the right of the runway centerline. The tyre mark was found. (See Figure 7 wreckage plot).

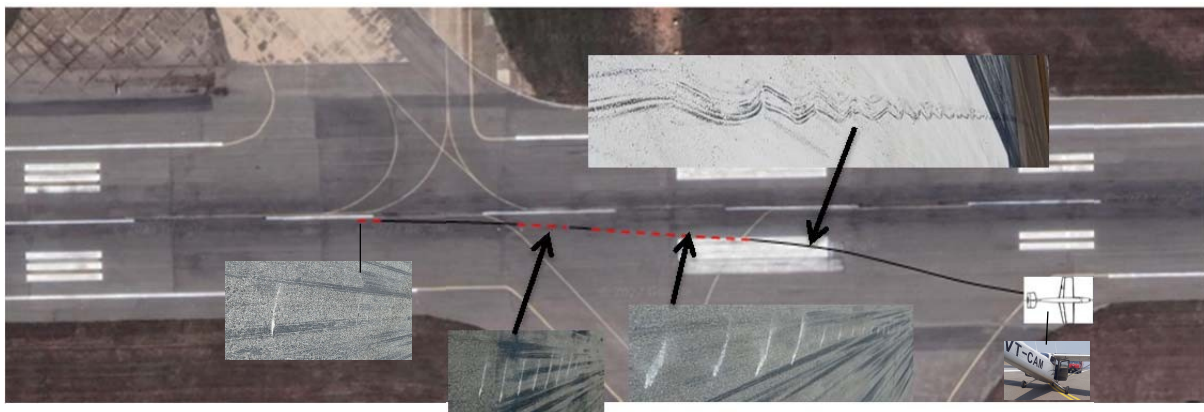


Fig. 7 Wreckage plot

1.13 Medical & Pathological Information:

After reporting to the flying academy, as per CAR Section 5 Series F Part III and DGCA Order No. DGCA-15031/4/2020-DAS dated 02.03.2021 the trainee pilot had given a self-declaration that she was not under the influence of alcohol prior to the flying flight. The post flight medical examination was done on 06.04.2021, and the reports did not indicate any signs of alcohol in the body.

1.14 Fire:

There was no evidence of fire in flight or after the impact.

1.15 Survival aspects:

The Incident was survivable.

1.16 Tests and research:

The engine of the incident aircraft was removed from the aircraft for a detailed examination. A general external inspection was carried out at M/s Telangana State Aviation Academy hangar in the presence of the IIC. The observations made during the general visual inspection of the engine are mentioned below:

1. A dent was found on the engine cowling near the nose section.
2. All spark plugs from all the cylinder heads were removed for inspection and found to be intact.
3. The ignition harness was checked and found to be satisfactory.
4. The condition of the magnetos was found to be satisfactory.
5. The alternator was found to be satisfactory.
6. The fuel supply lines and fuel filter were checked and found to be satisfactory.

Engine Strip Examination:

The engine was sent to M/s Varman Aviation Pvt. Ltd., a DGCA-approved MRO in Bengaluru, for a strip examination. According to the Quality Manager, the following parts have been rejected during NDT, visual inspection, and dimensional inspection:-

- Tube assembly
- Screen fuel nozzles
- Valve Exhaust
- Bolt starter
- Lock nut

The exhaust valves were sent to DGCA, HQ to determine the cause of the deep pitting at the valve neck point on the exhaust valve. After laboratory examination, AED concluded that “The exhaust valves are found to be corroded on their fillet region”.

1.17 Organization and Management information:

M/s Telangana State Aviation Academy (TSAA), located in Hyderabad is an institution owned by the Government of Telangana. The training academy is approved by the DGCA, Govt. of India, and is situated at Begumpet Airport where local flying activities take place.

The institute has a fleet of 02 Cessna 152, 01 Cessna A152, 01 Cessna 172R (VT-CAM involved in the incident), 02 Cessna 172S, and 01 Diamond DA42 NG which are maintained by the organization. It holds a DGCA approved Training and Procedure Manual meant to be an approved reference document for imparting flying training.

1.17.1 Training and Procedures Manual:

M/s. Telangana State Aviation Academy's Training and Procedure Manual was approved by the DGCA on 06.01.2021. In para. 4.6.8 of section 4 the minimum rest period between duty periods for Instructors and Crew is mentioned below:

The students are given a minimum rest period of 1 hour after each flight of duration 1 hour or greater; however, a rest period of a minimum of 2 hours is given after a solo cross country flight.

The procedure was laid down under what circumstances instructors had to be changed for the trainees were given in para. 4.10.6 of the Training and Procedure Manual.

As a general rule, instructor changes are to be kept to a minimum. Nevertheless an instructor change can be requested / decided for several reasons:

- *Due to problems concerning the relationship between the student and instructor.*
- *After serious difficulties concerning a particular exercise.*
- *To attempt to find a solution to an abnormally slow progress.*
- *After failing a progress check.*
- *By the decision of the Chief Flying instructor.*

At regular intervals progress checks are scheduled into the program as mentioned in para 4.8.4.2 of the Training and Procedure Manual.

Trainees will undergo a dual check after 10 hours of solo flying. However, senior trainees may be exempted for dual checks up to 15 hours depending on the trainees experience and performance. This will solely be at the discretion of the CFI.

Flying training progress records are to be monitored on a periodic basis and quarterly progress records to know the performance of the students as given in para. 4.7.3.1 of the training and procedure manual.

The instructor / examiner will make legal entries / endorsements in the appropriate training record (in the comments box of the FTPR associated flight):

- *After any progress check or proficiency check;*

- *At flight frequencies as specified by the DGCA and which shall include quarterly progress reports.*

1.18 Additional Information:

1.18.1 Airplane Flying Handbook (FAA-H-8083-3B)

The Airplane Flying Handbook (FAA-H-8083-3B) in chapter 8 described the aircraft ballooning during round out (flare).

If the pilot misjudges the rate of sink during a landing and thinks the airplane is descending faster than it should, there is a tendency to increase the pitch attitude and AOA (Angle of Attack) too rapidly.

This not only stops the descent, but actually starts the airplane climbing. This climbing during the round out is known as ballooning.

When ballooning is excessive, it is best to execute a go around immediately, do not attempt to salvage the landing. Power must be applied before the airplane enters a stalled condition.

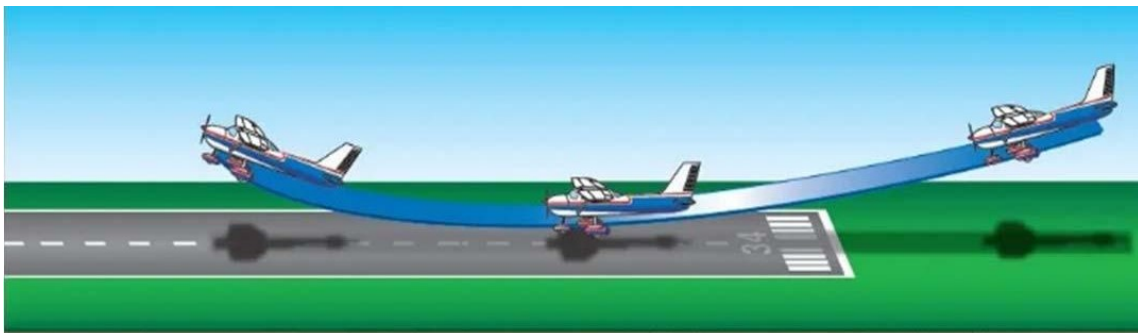


Fig.8 Ballooning during round out

1.18.2 Bounced Landing Phenomenon:

The bounced landing is the result of trying to land with too much airspeed, then leveling too low, followed by jerking the control stick or yoke back. The airplane contacts the runway and bounces back into the air, at which time the in experienced pilot will relax the control pressure allowing the airplane to contact the runway again. The pilot then applies backpressure, causing the airplane to bounce back in the air. Without the proper recovery technique, the bouncer landing will usually conclude with a hard landing when the excess airspeed is finally dissipated, and sometimes followed by loss of directional control.

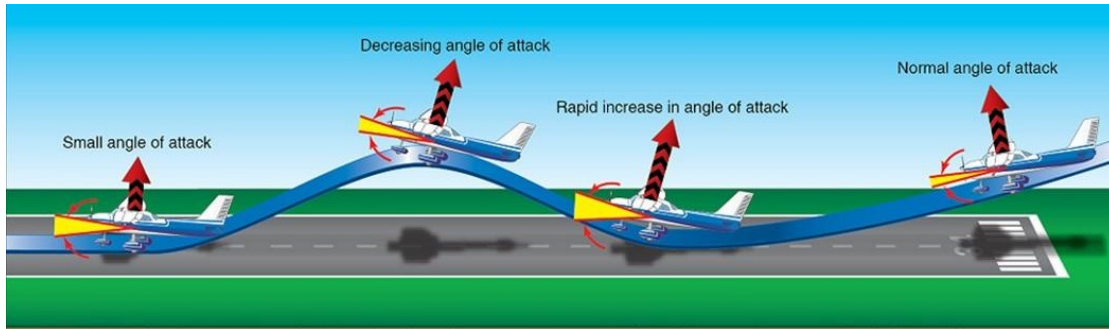


Fig.9 Bouncing during touchdown

1.19 Useful and Effective Techniques:

Not applicable.

2. Analysis:

2.1 Serviceability of the aircraft:

The Cessna 172R aircraft VT-CAM, S/N 17281501, was manufactured in 2008. The aircraft was registered under the ownership of M/s Telangana State Aviation Academy, Hyderabad, on 30.09.2014 with Certificate of Registration No. 3881/3 under category 'A'. The Certificate of Airworthiness number is 5090 under the 'normal category' subdivision passenger, issued by DGCA on 12.09.2013 and was valid. The aircraft was flown with Aero mobile license No. A-064/01-RLO (SR), which is valid up to 31.12.2022. This Cessna 172R aircraft VT-CAM has logged 9736:10 A/F hrs as of 06.04.2021. The last major inspection was done at 9725:10 Hrs on 30.3.2021. The aircraft was not due for any servicing on the day of the incident. The load and trim sheet was prepared, and the Center of Gravity was found to be within limits.

All concerned Airworthiness Directives, Mandatory Service Bulletins, DGCA Mandatory Modifications on this aircraft and its engine were complied with as of the date of the event. No scheduled inspection was found to be due at the time of the incident.

From the above, it is concluded that the aircraft was airworthy and serviceable before and during the flight and serviceability of the aircraft is not a factor to the incident.

2.2 Weather:

The weather report was issued by the India Meteorological Department (IMD), Hyderabad on 06.04.2021. According to the weather report issued at 1300 IST, the visibility was 5000 meters, haze was present in the weather, and the wind speed was 08 knots with a heading of 110°. The prevailing weather was fine. The weather is not a factor to the incident.

2.3 Training Aspect:

- 2.3.1 As per TPM guidelines, instructor changes should be kept to a minimum. However, the FTPR revealed that there were frequent changes in instructors throughout the trainee pilot's training and she was trained by seven different instructors. When the trainee pilot shifted training from C-152 aircraft to C-172R aircraft, it was observed

that within a short span of three days, three different instructors provided training to the trainee pilot. There was no evidence that the flying training organization had followed the procedure of changing instructors as per TPM which requires instructor changes are to be kept minimum. This situation is not only detrimental to the trainee pilot, as she may receive inconsistent aircraft handling techniques from different instructors, which resulted in ineffective assessment and monitoring of the trainee pilot's overall performance.

2.3.2 Dual checks and frequency at various stages:

According to TPM, trainees must undergo a dual check after 10 hours of solo flying. However, senior trainees may be exempt from dual checks for up to 15 hours, based on their experience and performance, at the discretion of the CFI. In this case, the trainee pilot was exempted from dual checks after 10 hours of solo flying, despite remarks of instructors and the time period taken by trainee pilot during progress of training showed that she had to concentrate more on takeoff and needed consistence/confidence, as the improvement was slow.

2.3.3 Rest Period:

As per Section 4, paragraph 4.6.8 of the training and procedure manual, trainee pilots are required to have a minimum rest period of 1 hour after each flight lasting 1 hour or more. On 06.04.2021, before the incident flight, the trainee pilot had flown a one-hour dual flying sortie with the instructor. After 5 minutes of break, the trainee pilot was released for a solo circuit and landing sortie. It is observed that the trainee pilot did not receive sufficient rest after the one-hour dual flight, as mandated by the training and procedure manual.

2.4 Aircraft handling by the pilot:

- 2.4.1 On the day of the incident, the first circuit and landing sortie was carried out with the instructor for 1 hour. Upon satisfactory performance, the instructor released the trainee pilot for a solo circuit and landing sortie.
- 2.4.2 The first solo circuit and landing was uneventful. The trainee pilot reported that the approach was stable and landed uneventfully.
- 2.4.3 After landing, the trainee pilot back tracked and lined up on runway 09. The aircraft took off from runway 09 at 0731 UTC for second solo circuit and landing exercise. The aircraft completed circuit flying uneventfully.
- 2.4.4 During the landing, the engine throttle was set to idle. It was planned to be a full-stop landing. The trainee pilot experienced a sudden strong gust, and the aircraft ballooned. To recover the aircraft from ballooning, the trainee pilot pushed the control stick forward slightly when the aircraft's speed had decreased, causing the aircraft's nose to point down. As a result of the nose pitching down, the aircraft landed on the nose wheel and bounced. After the second touchdown, the trainee pilot attempted to execute a go-around. But, the aircraft hit the runway which resulted in collapsing of

nose landing gear and damage to the propeller. The aircraft then veered to the right and came to a stop on the runway in a nose-down position, 77.98 feet to the right of the RWY 09 centerline. From examining the aircraft damage and ground marks, it was determined that the aircraft had landed on nose landing gear, resulting in the collapse of the nose landing gear.

Therefore, pilot handling of the aircraft is a contributory factor to the incident.

3 Conclusion:

3.1 Finding:

- i. The weather conditions at the time of the incident were within the limits for operations under VFR and were considered suitable for the trainee pilot to conduct her solo circuit and landing sortie.
- ii. The aircraft had a valid Certificate of Airworthiness and was certified and maintained in accordance with regulatory requirements.
- iii. The aircraft had no pre-flight defects and was serviceable for the flight.
- iv. There was no scheduled maintenance due for the aircraft.
- v. The weight and center of gravity of the aircraft were within limits.
- vi. The frequent change of instructors has led to ineffective assessment and monitoring of the trainee pilot's overall performance.
- vii. In the pre-solo flight assessment, the trainee pilot was checked by the Instructor and was considered suitable for undergoing her solo circuit flight.
- viii. The trainee pilot was authorized by the flight instructor to carry out solo local circuit and landing exercises.
- ix. The trainee pilot was not given adequate rest after one hour of dual flying, as required by the minimum rest period between duty periods as per TPM, before operating the incident flight.
- x. During landing, the trainee pilot encountered a strong gust, causing the aircraft to balloon. To recover, the trainee pilot pushed the control stick forward, causing the aircraft's nose to point down.
- xi. During landing, the nose landing gear of the aircraft collapsed, causing the propeller to strike the runway surface and damaging the bottom surface of the nose section.
- xii. The collapse of the nose landing gear was due to the heavy impact during the landing on nose.
- xiii. The aircraft veered to the right and stopped on the runway in a nose down position.

3.2 Probable Cause of the Incident:

Improper handling of flight control during landing resulted into aircraft contacting the runway on nose landing gear.

4 Safety Recommendations:

- i. The operator should ensure that the instructor's changes kept to a minimum, as mentioned in the TPM.
- ii. The CFI should follow regulations for minimum rest period between duty periods as mentioned in TPM.

Date: 28.06.2024

A handwritten signature in blue ink, appearing to read 'B. Achu Naik Badavath', is written over a faint rectangular stamp.

(Achu Naik Badavath)
Investigator-in-Charge