



**FINAL INVESTIGATION REPORT ON RUNWAY EXCURSION INCIDENT TO
M/s. NAGPUR FLYING CLUB
CESSNA 152 AIRCRAFT, VT-EUK
ON 01.04.2023 AT Dr. BABASAHEB AMBEDKAR INTERNATIONAL
AIRPORT, NAGPUR.**

**GOVERNMENT OF INDIA
OFFICE OF DIRECTOR OF AIR SAFETY (WR)
INTEGRATED OPERATIONAL OFFICE COMPLEX,
SAHAR ROAD, VILEPARLE (E), MUMBAI – 400099**

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ABBREVIATIONS

A/c	Aircraft
AMSL	Above Mean Sea Level
AOP	Air Operator Permit
ARC	Airworthiness Review Certificate
ASDA	Accelerate -Stop Distance Available
ATC	Air Traffic Control
CFT	Crash Fire Tender
CSN	Cycles Since New
FRTO	Flight Radio Telephony Operator
GPS	Global Positioning System
IAS	Indicated Air Speed
IFR	Instrument Flight Rules
ILS	Instrument Landing System
IR	Instrument Rating
LDA	Landing Distance Available
LHS	Left Hand Side
Operator	AOP holder of the incident aircraft
PAPI	Precision Approach Path Indicator
PDR	Pilot Defect Report
PIC	Pilot in Command
QNH	Pressure Setting to Indicate Elevation of Landing Aerodrome
QRH	Quick Reference Handbook
RA	Radio Altitude
RHS	Right Hand Side
RWY	Runway
SCT	Scattered
SOP	Standard Operating Procedure
SPL	Student pilot's License
TO/GA	Take-off/ Go-around
TODA	Take-off Distance Available
TORA	Take-off Run Available
TSN	Time Since New
TWY	Taxiway
UTC	Coordinated Universal Time
VFR	Visual Flight Rules
VOR	Very high frequency Omni Range

**FINAL INVESTIGATION REPORT ON RUNWAY EXCURSION SERIOUS
INCIDENT TO M/s. NAGPUR FLYING CLUB**
**CESSNA 152 AIRCRAFT VT-EUK AT Dr. BABASAHEB AMBEDKAR INTERNATIONAL AIRPORT,
NAGPUR ON 01.04.2023**

GENERAL INFORMATION

1. Aircraft Type : CESSNA
 Model : 152
 Nationality : INDIAN
 Registration : VT-EUK
2. Name of the Owner/Operator : M/s NAGPUR FLYING CLUB
3. Place of the incident : Dr. BABASAHEB AMBEDKAR INTERNATIONAL AIRPORT, NAGPUR.
4. Date and time of incident : 01.04.2023, 11:12 UTC
5. Pilot in Command : STUDENT PILOT LICENSE HOLDER
Extent of Injuries : NIL
6. No. of Passengers onboard : NIL
7. Extent of Injuries : NIL
8. Geographical location of site : 21° 5' 25" North 79° 02' 51" East
Of Occurrence (Lat. Long) :
9. Last point of Departure : Dr. BABASAHEB AMBEDKAR INTERNATIONAL AIRPORT, NAGPUR.
10. Point of intended landing : Dr. BABASAHEB AMBEDKAR INTERNATIONAL AIRPORT, NAGPUR.
11. Type of operation : TRAINING FLIGHT (SOLO)
12. Phase of operation : LANDING
13. Type of occurrence : RUNWAY EXCURSION

SYNOPSIS

Cessna 152 aircraft VT-EUK of M/s Nagpur Flying Club was involved in a Runway Excursion incident at Nagpur Airport on 01.04.2023 during a solo training flight (Circuit & landing).

The first sortie(circuit and landing) during the first half of the day was completed successfully in duration of 30 minutes. The incident occurred during the first landing of the second sortie of the training flight(Solo) during the second half of the day;i.e.The aircraft touched down slightly left of the runway centerline. Thereafter, the aircraft started drifting towards the right side of the centerline on the student pilot's right rudder inputs. Further the student pilot applied excessive left rudder inputs resulting in the aircraft veering to the left and exiting the runway. Subsequently the aircraft went in the grass field, and halted at 60m left from the edge line of runway 32.

There were NIL injuries reported and NIL damage to the aircraft, there was neither smoke nor fire after the incident. The Emergency services were activated and the aircraft was recovered safely by Airport Fire Fighting Services.

The incident was reported to DGCA and the investigation was instituted under Rule 13(1) of Aircraft (Investigation of Accidents and Incidents) Rules 2017 by appointing Investigator-in-Charge.

The investigation revealed that the student pilot was unable to maintain the aircraft on the RWY centerline while landing resulting in the aircraft touching down slightly left of the runway. This was followed by the student pilot applying left and right rudder inputs as an attempt to align the aircraft with the RWY centerline. The application of excessive left rudder inputs resulted in the aircraft veering towards the left side of the runway.

1. FACTUAL INFORMATION:

1.1 History of Flight:

On 01.04.2023, a Cessna C 152 aircraft, registration VT-EUK was scheduled for training sortie at Nagpur Airport in Nagpur. The daily inspection checks including the ground run of the aircraft was carried out by an authorized engineer and no observations were made. There were no pending snags. The aircraft flew 03 sorties with different crew before the incident sortie. All the sorties were uneventful with NIL sector snags.

On the day of incident, the student pilot reported to the hangar of the Nagpur Flying Club at 0255 UTC for the training and completed the Breath Analyzer test at 0305 UTC, followed by the preflight inspection. Authorization for the flight to the student pilot was given by Dy.Chief Flight Instructor. Further the Authorization log entry was made by the student pilot and the Dy.CFI.

The student pilot had completed his first sortie (solo circuit & landing) successfully in the first half of the day with duration of 30 minutes and landed safely on RWY 32. After

that the aircraft went on 100 nm cross-country flight.

The student pilot was scheduled for second sortie in the second half of the day, once the aircraft arrived from cross country. The student pilot had carried out pre-flight inspection and was satisfactory. The fuel On-board was 80 litres and oil was 5.5 quarts. All the documentation works such as filling the L & T sheet, signing the MET register & authorization book were carried out by the student pilot.

The VT-EUK was planned to be flown under VFR conditions and the visibility was 5000m. After successful preflight checks, start up, taxi and line up checks, the aircraft took off for solo circuit and landing sortie from RWY 32 at 1055 UTC. On downwind, ATC advised him to extend downwind, which he did and later ATC advised him to report on finals. On finals ATC gave landing clearance with winds calm; Student pilot gave read back and continued approach towards the runway 32 for landing. Student pilot continued approach maintaining speed of 80 kt at a height of 1800 ft. The student pilot continued approach on finals maintaining speed 70 kt and flaps 20 0.

Over threshold, student pilot cut power to idle and flared the aircraft giving rudder correction to compensate the winds. Student pilot touched down slightly left of runway centerline and when he released the nose during touch down, rudder position was not neutral due to which the aircraft started drifting towards left. The student pilot immediately applied right rudder to correct for the same and the aircraft started veering towards right of the runway centerline. In order to align back to the centerline, the student pilot again gave excessive left rudder and the aircraft started moving left of the runway centerline due to over correction. As the aircraft reached left edge of the runway 32 after rolling approximately 150 m from touchdown point, the student pilot applied brakes to stop the aircraft. But by then the aircraft left wheel had already gone out of the runway edge and subsequently the whole aircraft went out of the runway on the left side into the grass.

Once the aircraft came to complete halt at 60 m left from the edge line of runway 32, the student pilot received an RT call from ATC enquiring about his situation whether he needed tow assistance or whether the aircraft can taxi on its own. Initially the student pilot informed that the aircraft can taxi on its own. After cross checking with the student pilot, ATC gave clearance for taxing out the aircraft via. B1. The student pilot waited for the firefighting services and ambulance to come and then switched off the master and ignition. However, the student pilot could not start the engine, so requested ATC assistance for towing the aircraft. There were no injuries reported. There was neither smoke nor fire after the incident. The Aircraft did not sustain any damage and was safely removed by Airport Fire Fighting Services personnel.

1.2 Injuries to persons:

Injuries	Crew	Passengers	Others
Fatal	Nil	Nil	Nil
Serious	Nil	Nil	Nil
Minor/None	1	Nil	Nil

1.3 Damages to Aircraft: Nil

1.4 Other Damage: Nil

1.5 Personnel Information:

The details of the licenses and ratings are as follows: -

Pilot in Command:

Pilot	SPL Holder
Age	24 Years
Date of Issue License	08.02.2019 (SPL)
Licence Valid Up to	10.03.2026 (SPL)
Category	Aeroplane
Class	Single Engine Land
Endorsement as PIC	C-152
Date of Medical Exam (Class -I)	21.10.2022
Medical Exam Valid up to	21.10.2023
FRTD Licence Date of issue of	21.03.2022
FRTD Licence Valid up to	20.03.2032
Total Flying Experience	52:17 hrs.
Experience on type	52:17 hrs.
Experience as PIC on type	03:37 hrs.
Last flown on type	01 April 2023
Total Flying Experience during last 180 days	32:27 hrs.
Total Flying Experience during last 90 days	16:52 hrs.
Total Flying Experience during last 30 days	09:02 hrs.
Total Flying Experience during last 07 days	04:42 hrs.
Total Flying Experience during last 24 Hours	00:47 hrs.

Upon scrutiny of the records, student pilot had his last flight on same day of incident (0620 UTC to 06:50 UTC) during which he flew 00:30 hours in C-152 aircraft VT-EUK. The student pilot had sufficient rest before flight.

Student pilot had undergone 52:00 hours of flying training of which included 03: 20 hours of solo. He was released for solo flying at 39:20 hours.

1.6 Aircraft Information:

Airframe details	
Manufacturer	CESSNA AIRCRAFT COMPANY
Type	Cessna 152
Aircraft Registration	VT-EUK
Manufacturer Sl. No.	15284624
Year of Manufacturer	1981

Certificate of Registration No.	2592
Certificate of Airworthiness No.	2080
C of A issued on	21/04/1994
ARC issued on	24/05/2022
ARC Valid up to	23/05/2023
Category of C of A	Normal
Subdivision category of C of A	Passenger
Minimum Crew necessary	01
Aircraft Empty weight	547.13 Kg
Maximum all up weight	757.50 Kg
Date of aircraft weighment	19/08/2008
Last major Inspection	200 Hrs./12 Months Approved Inspection
Last major Insp. Carried out on	21/02/2023
Airframe hours Since New	2417:40 hours TSN
Airframe Hours Since last ARC	234:32 Hours
Aircraft usual station as per C of R	Nagpur Airport, Maharashtra
Aero mobile License No.	A-294/001
Engine details	
Manufacturer	Lycoming
Type	Lyco-o-235-L2C
SI NO	RL-25877-15
Engine hours Since New	264:32 hours
Engine hours Since O/H	Nil (Rebuilt Engine)
Last major Inspection carried out on	21/02/2023
Average Fuel consumption as per fuel/oil register	20.00 Ltrs/Hrs.
Manufacturer specified Max. fuel Consumption	26.00 Ltrs/Hrs.
Average Oil consumption as per fuel/oil register	0.096 Ltrs/Hrs.
Propeller details	
Manufacturer	Macaulay Propeller
Type	1A103/TCM6958
SL. No	FH-019
Last major Inspection	750 Hrs./36 Month Inspection
Last Major Insp. Carried out	27/01/2023
Total hours Since Overhaul	264:32 hours
Date of O/H	-
Last major Inspection	200 Hrs./12 Month Approved Inspection

Nil snags were reported by the previous sector crew on the aircraft and no snag was pending for rectification. No DGCA mandatory modifications were pending. The aircraft and its engine are maintained as per the DGCA approved maintenance program. As per load and trim document and weight and balance sheet, the aircraft operated within its CG

and weight limits.

Aircraft inspection had been carried out post incident; No damage was found to the Aircraft structure, propeller, Engine, Aircraft landing gears, tires, brakes. Engine ground run was carried out and operations and parameters were found to be satisfactory. Further Taxi check carried out by the Dy. CFI to check the operation of brakes and found satisfactory.

1.7 Meteorological Information:

Nagpur aerodrome is equipped with an Automatic Weather Station setup at the ATC tower which provides MET data from the internet. As per the predicted records maintained at ATC, on 01.04.2023 for Nagpur aerodrome for time 1030UTC, winds were 36005KT, visibility 5000m, clouds FEW 020 SCT025, QNH 1007 and temperature 34 degree Celsius. The METAR register at the ATC shows that the met information is normally recorded every half an hour during the active hours. There is a wind measuring anemometer within the aerodrome along with two windsocks. The forecasted weather at Nagpur aerodrome for the incident date as per METAR records is as follows:

Time (UTC)	0900	0930	1000	1030	1100	1130	1200
Wind	150/05	310/08	260/04	360/05	310/05	290/06	270/07
Visibility	5km						
Clouds	FEW020 SCT025	FEW020 SCT025	FEW020 SCT025	FEW020 SCT025	SCT020 SCT100	SCT020 SCT100	SCT100
Temp	33 ⁰ c	34 ⁰ c	35 ⁰ c	34 ⁰ c	35 ⁰ c	35 ⁰ c	35 ⁰ c
QNH	1008	1008	1007	1007	1007	1007	1007

The incident happened at 11:12 UTC. So looking into the trend and from the student pilot statement, it appears that there were slight winds from the left during landing with strength of 05 kt.

1.8 Aids to Navigation:

Nagpur aerodrome is equipped with DVOR NNP (Freq: 112.700Mhz), ILS & PAPI on Rwy 32, PAPI on Rwy 14, High Intensity Approach lighting System(HIALS), windsock and landing T.

1.9 Communications:

At the time of incident, aircraft was having two-way communications with the ATC personnel at the tower frequency 118.10MHz. There was no snag reported in the communication system of either the aircraft or the ATC.

As per Excerpts from VHF (TWR) communication:

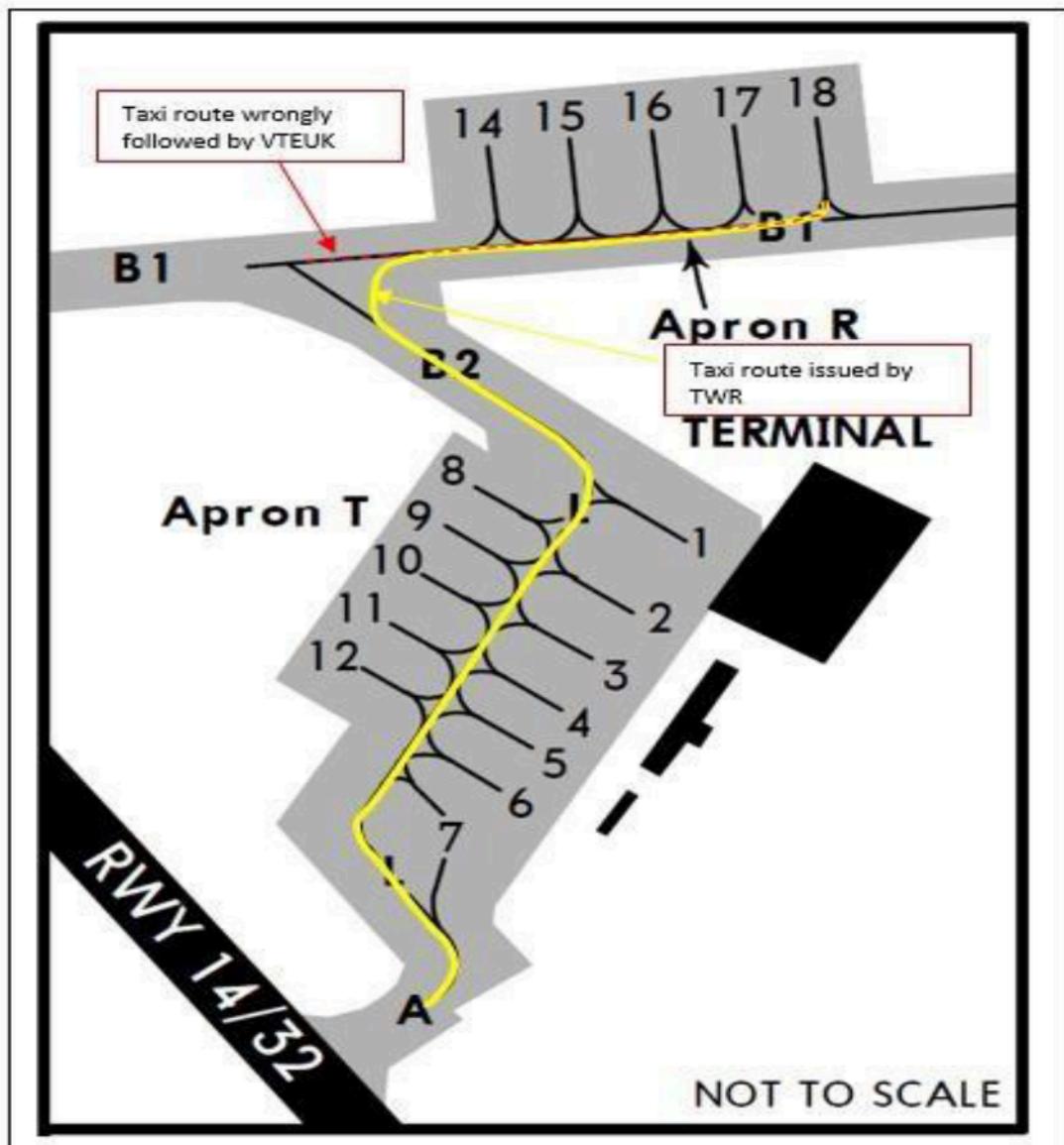


Fig 1: Relevant portion of Aerodrome chart

- The aircraft VT-EUK had been parked at stand #18 and the student pilot had contacted TWR at 10:50:57 UTC. After confirmation of call sign, ADC no. and filed EOBT, startup was approved at 10:53:40 UTC(Refer Fig 1) At 10:55:53 UTC, TWR had issued the taxi instruction to taxi to Holding point of RWY 32 via B1-B2-L-A and the same was readback by the student pilot. As the aircraft was taxiing, TWR instructed to squawk 6002 which was correctly readback. However, instead turning left on B2, the aircraft continued on B1. Observing the deviation in taxi route, the TWR informed that the cleared taxi route was B1-B2-L-A to which the student pilot informed that he will adhere to the issued clearance and had apologized for the same. The reason for the same had not been informed over RT. Thereafter, TWR cleared the aircraft to taxi via B1 HP RWY 32 for a B1 intersection take-off, which was compiled by the student pilot. It is evident that the student pilot had not

- followed the given taxi clearance by taking wrong route for taxi.
- However as per tape transcript, no such wind direction and speed was given and only ATC had informed the winds to be calm.
 - On finals, the student pilot requested ATC clearance for Touch and Go which was approved. However, it was planned to Stop and further Take-off.

1.10 Aerodrome Information:

DBAI Airport, Nagpur has Runway 14/32 with ILS CAT-1. Runway 32 is Instrument Runway with Precision Approach and Runway 14 is Instrument Runway with Non- Precision Approach.

RWY Designation	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
14	3200	3200	3200	2745	RESA 240 X 90 M
32	3200	3200	3200	3200	RESA 240 X 90 M

Runway used was RWY 32	Latitude	21°05'08.85"N
	Longitude	79°03'08.28"E
	Elevation	1008 ft
	Dimension	3200m x 45m
	Type of Runway	Land
	Height of Runway Edge Light	0.30m
	Note: No center line runway lights are available in this runway	

The recent Runway friction test was carried out on 27.02.2023 which was within limits. RWY inspection was carried out at 1655 IST and found no damage. Only then other aircraft was permitted to land (after delay of 15 minutes).

The cameras installed on the AOCC building were examined for the recordings. On replaying the same, it was showing a distant view of the aircraft landing on the runway and it can be seen that aircraft is moving right then left and towards the grass field left side of the runway.

However due to the limited light being sun set timing, the aircraft roll after touch down and the veer off to the left of RWY 32 are vaguely visible.

1.11 Flight Recorders

The aircraft is not equipped with either a Cockpit Voice recorder or a flight data recorder.

1.12 Wreckage and Impact Information:

There was NIL damage to the aircraft, student pilot & other airport properties.

1.13 Medical and Pathological Information:

There was no injury to the student pilot and no injury to any person on ground. The

student pilot had carried out Breath Analyzer test before the flying and was found to be negative.

1.14 Fire:

There was no fire or smoke before or after the incident.

1.15 Survival Aspects:

The incident was survivable.

1.16 Tests and Research:

NIL

1.17 Organizational and Management Information:

Nagpur Flying Club (NFC), a Govt. of Maharashtra Entity, is one of the Flying Training Organizations (FTO) in India, established in 1947, at Nagpur Maharashtra, NFC was taken over by Maharashtra Govt. in 1990 and continues to operate till date. NFC is structured under board of directors and Accountable Manager. The FTO is approved by DGCA vide approval no. 23/2016 and had validity till 15.11.2023 (at the time of incident). The NFC uses DGCA approved Training and Procedure Manual for carrying out flying training. Nagpur Flying Club has been established primarily to provide various flying and ground training to student pilots. The Engineering setup at the academy is under the approval system of DGCA Airworthiness Mumbai and is an "Approved Maintenance Organization" and an approved "Continuing Airworthiness Management Organization" to cover the maintenance and continuing airworthiness activities of C152 & C172 aircraft operated by the NFC.

1.18 Additional Information:

1.18.1 Excerpts from the training history and METAR conditions:

After flying for 39 hrs 20 mins, the student pilot commenced his first solo training which was under the guidance of Dy.CFI. Further there were 3 more solo flights carried out under the guidance of AFI.

As observed from FTPR records and the given METAR conditions, the student pilot had been given comments by AFI on his landing techniques for many sectors prior to incident sector pertaining to Approach speed being high, improper flare height and unable to maintain centerline resulting to difficulty in landing during cross winds. However the student pilot had been given corrective training after which he was released for 3rd and 4th solo checks. As his 3rd and 4th solo checks were found satisfactory, the student pilot was released for solo circuit and landing.

1.19 Useful or Effective Investigation Techniques:

NIL.

2. ANALYSIS:

2.1 Operational aspects:

On the day of incident, the student pilot was authorized to carry out solo (circuit and landing) sortie by the Dy. CFI. Initially the student pilot successfully completed that circuit and landing sortie with a landing (Total flight duration of 30 minutes).

For the second sortie (incident sortie), aircraft take off was normal after ATC clearance. On long finals, student pilot continued approach maintaining speed 70 kt with flaps 20 0 after getting ATC clearance with winds as calm(strength of 05 kt). The student pilot in his statement has claimed that he experienced some winds from the left at the time of landing. This is probable looking into the trend of winds from METAR issued at 11:00 UTC and 11:30 UTC(incident happened at 11:12 UTC).

Over threshold, student pilot cut power to idle and flared the aircraft giving correction (right rudder and left aileron) as the winds were from left. Thereafter, the aircraft touched down at slightly left of centerline ($A=400$ m from threshold) on RWY 32. When the aircraft touched down, the student pilot released the nose wherein the rudder position was not neutral so the aircraft started drifting towards left on the runway as the student pilot felt the aircraft going further left, he applied right rudder followed by excessive left rudder. The tire markings($B=500$ m from thresh hold of RWY) show the aircraft moving towards the left of the center line and exiting the edge line just ahead of the A 41 edge light light($C=550$ m from the threshold).(Refer fig 2)



Fig 2: tire markings of aircraft moving towards the edge line of the RWY



Fig 3: sequential events during landing at RWY 32.

As the aircraft reached left edge of the runway, student pilot applied brakes to stop the aircraft by then the aircraft left wheel was already out of the runway and eventually the whole aircraft had entered unpaved surface and halted at a distance (D=60 m lateral distance from edge line and 650 m horizontal distance from the RWY threshold. (Refer fig 3: sequential events during landing at RWY 32. Further the student pilot switched off ignition and master and informed ATC for assistance.

2.1.1 Correlation of training flights history in FTPR records with the respective METAR conditions :

Correlating with the METAR conditions and the FTPR records for many sectors prior to the incident sector, it is understood that the student pilot was unable to maintain approach speed (speed being high), proper flare height and centerline resulting to difficulty in landing during crosswinds. In most of the instances, for the few sectors wherein the student pilot's performance during landing was found to be satisfactory had no crosswinds (he got either tail wind or headwind with less strength). However as his 3rd and 4th solo checks were found satisfactory, the student pilot was released for solo circuit and landing.

It is evident from above that the student pilot was unable to maintain centerline and approach speed on final approach especially in crosswinds. Further the student pilot was imparted corrective training after which his performance was found satisfactory and further released for solo circuit and landing by the instructor.

In the incident sector the ATC had given clearance with winds calm(strength 05 kt). The winds were from the left when the aircraft was over threshold and thereafter when the student pilot cut power to idle and flare the aircraft. Therefore, in the process of compensating the winds from left, he applied left aileron and right rudder and subsequently the aircraft slightly touched down on the left side of the centerline of RWY 32. Subsequent rudder inputs (right and left) were applied to correct and align with the centerline. However, he did overcorrection by applying excessive left rudder inputs due to which the aircraft veered towards the left of runway.

Further looking into the training history and other aspects pertaining to his alertness, there has been some shortcomings observed:

- As per the scrutiny of FTPR records and given METAR conditions, the student pilot was unable to maintain centerline, his approach speed was high and improper flare height. It is also observed that in most of those instances, crosswinds were prevalent and he had difficulty landing in crosswinds.
- As per TWR communication transcript, it is evident that the student pilot had not followed the taxi clearance given by ATC and took wrong route for taxi.

2.2 Weather aspects:

The incident occurred in day time with visibility of 5000m. The records available in METAR register also shows that the weather parameters were conducive for flying training. As per student pilot statement, there were some winds with speed 05 kt from the left during landing. However this was not very significant so as to affect the performance of the pilot. Hence weather is not considered a factor to the incident.

2.3 Engineering aspects:

All the maintenance/airworthiness documents pertaining to the aircraft VT-EUK was valid at the time of incident. No scheduled inspection was found due on the aircraft before the incident flight. The engine run up and the daily inspection as per schedule performed by approved engineer was satisfactory. No snags were reported by the crew who operated the aircraft before the incident sortie and no snag was pending for rectification before the incident sortie. No DGCA mandatory modification was due on this aircraft.

The aircraft had 80 liters of fuel in tanks and oil 5.5 quarts & above before the chocks off. This was enough fuel & oil with correct specifications available for the sortie. The brake pads were normal and within limits and the brakes were working at the time of incident. The tyres were not damaged during the braking and found without any wear. There were no snags reported to the brake system of the aircraft in the near past. No leakage or damage to the brake units were observed after the incident. The movement of flap system was checked and was found satisfactory. Therefore, the aircraft was considered airworthy before the incident flight and the maintenance factor is ruled out.

3 CONCLUSION:

3.1 Findings:

- 3.1.1 The aircraft was airworthy with all valid certifications. All maintenance schedules, mandatory modifications and checks were carried out as per the requirements. The maintenance aspect was not a contributory factor to the incident.
- 3.1.2 Licenses, medical fitness, and currency on Cessna 152 of the student pilot were valid at the time of incident.
- 3.1.3 The student pilot had authorization from Dy. Chief Flight Instructor to carry out solo flying for circuits and landings and had sufficient rest before the flight.
- 3.1.4 The incident involved student pilot had carried out an uneventful sortie of 30 minutes duration prior to incident sortie. Also a cross country flight was operated uneventfully by other student pilot prior to incident flight.
- 3.1.5 Student pilot had undergone 52:00 hours of flying training of which 03: 20 hours was of solo flying. He was released for solo flying at 39:20 hours.
- 3.1.6 Enough fuel and oil of correct specifications were available in the aircraft.
- 3.1.7 Weather as per METAR at 11 00 UTC was 310/05 kts, Viz:5 km, Hz, Clouds:SCT 2500 ft. It may be noted that ATC had informed winds at the time of the finals as calm. The incident happened during day time and weather conditions (visibility along with calm winds) were favorable for solo flying.
- 3.1.8 The aircraft operated within its Center of Gravity and weight limits. The student pilot was briefed about the takeoff & landing procedures.
- 3.1.9 The winds were from the left when the aircraft was over threshold and thereafter when the student pilot cut power to idle and flare the aircraft. Therefore, in the process of compensating the winds from left, he applied left aileron and right rudder and subsequently the aircraft slightly touched down on the left side of the centerline of RWY 32. Subsequent rudder inputs (right and

- left) were applied to correct and align with the centerline. However, he did overcorrection by applying excessive left rudder inputs due to which the aircraft veered towards the left of runway before coming to a halt in the grass field.
- 3.1.10 As per the scrutiny of FTPR records and the prevailing METAR conditions, the student pilot was unable to maintain centerline, his approach speed was high and improper flare height. It is also observed that in most of those instances, cross winds were prevalent and he had difficulty landing in crosswinds. Further the student pilot was imparted corrective training after which his performance was found satisfactory and further released for solo circuit and landing by the instructor.
 - 3.1.11 As per TWR communication transcript, it is evident that the student pilot had not followed the taxi clearance given by ATC and took wrong route for taxi.
 - 3.1.12 RWY inspection was carried out at 1125 UTC and found no damage.
 - 3.1.13 Last Runway surface friction test was carried out on 27.02.2023, found within limits.
 - 3.1.14 There was neither injury to the student pilot nor any other person outside the aircraft.
 - 3.1.15 There was no fire or smoke during or after the incident and no damages to the aircraft.

3.2 Probable Cause:

The student pilot was unable to maintain the aircraft on the RWY centerline while landing resulting in the aircraft touching down slightly left of the runway. This was followed by the student pilot applying left and right rudder inputs as an attempt to align the aircraft with the RWY centerline. The application of excessive left rudder inputs resulted in the aircraft veering towards the left side of the runway.

4 SAFETY RECOMMENDATIONS:

- Action as deemed fit by DGCA-HQrs in view of the findings.

Vipin Venu
Varakoth
Vipin Venu 2024.11.26
Varakoth 09:12:52+05'30'
(Vipin Venu Varakoth)
Investigation-In-Charge, VT-EUK

Place: Mumbai
Date: 26.11.2024

----End of report—