

FINAL INVESTIGATION REPORT OF ACCIDENT TO
M/s ACADEMY OF CARVER AVIATION PVT. LTD., CESSNA 172 R AIRCRAFT
VT- BUD ON 29-06-2013 AT BARAMATI AIRFIELD, BARAMATI.

1	Aircraft	Type	Cessna 172 R
		Nationality	Indian
		Registration	VT-BUD
2	Owner and Operator	M/s Academy of Carver Aviation Pvt. Ltd., Mumbai	
3	Pilot – in –Command	Student Pilot License holder	
	Extent of injuries	Nil	
4	Date & Time of Accident	29.06.2013; 1025 UTC.	
5	Place of Accident	Baramati Airfield, Baramati.	
6	Last point of Departure	Baramati Airfield, Baramati, Maharashtra.	
7	Intended landing place	Baramati Airfield, Baramati, Maharashtra.	
8	No. of Passengers on board	NIL	
9	Type of Operation	Training flight	
10	Phase of Operation	Landing	
11	Type of Accident	Runway Excursion	
12	Co-ordinates of Accident Site	Lat	018° 13 ' 70 "N
		Long	074° 35 ' 30 " E

(All timings in the report are in UTC)

SYNOPSIS:

On 29th June 2013, trainee pilot was detailed by CFI for Skill test and solo "circuit and landing" on Cessna 172 R aircraft VT-BUD at Baramati Airfield. The training flight was carried out as per DGCA requirement to convert the Australian CPL to Indian CPL.

Trainee pilot took-off for 03 "circuit and landing" exercise at 1000 UTC from runway 29. The first circuit & landing was uneventful. However during second landing after touchdown on Runway, aircraft drifted right of the centerline, entered into Kutchra and toppled into upside down position. The trainee pilot was rescued from the aircraft by the academy people. There was no injury to trainee pilot and there was no fire. Aircraft was damaged substantially.

Prior to the accident flight the trainee pilot had flown 01:40 hrs with 07 landings, this included 00: 45 minutes of skill test flying and 03 landings with CFI on the same aircraft.

The Ministry of Civil Aviation constituted a committee of inquiry to investigate the cause of the accident vide order No. AV 15018/24/2013-DG dated 30th August 2013 under Rule 11 (1) of Aircraft (Investigation of Accidents and Incidents), Rules 2012 comprising of Sh. Amit Gupta as Chairman and Sh. K. Ramachandran as Member.

The Committee of inquiry determines that the "probable cause of the accident was primarily due to overcorrection of rudder given by the trainee pilot while landing in cross wind conditions".

Winds was a contributory factor to the accident.

1. FACTUAL INFORMATION:

1.1 History of Flight:

On 29th June 2013, M/s Carver Aviation Pvt. Ltd. Cessna-172 R aircraft, VT-BUD was engaged in local training flying at Baramati Airfield. The preflight Daily Inspection Schedule was carried out by the AME and aircraft was release to service. The aircraft flew for 01 hour of local flying and four landings were carried out by another trainee pilot.

Thereafter at 0755 UTC the trainee pilot along with CFI carried out 00:45 minutes of flying with 03 landings for exercise "Skill Test by Day" on the same aircraft. Subsequently at 0840 UTC the trainee pilot was released to carry out 03 "Solo circuit & landing", 30 minutes of flying. The flight was uneventful.

Later at 1000 UTC the CFI again released trainee pilot for solo flying and to carry out another 03 circuit and landing. After take-off, pilot completed the circuit and came on final for landing. ATC reported winds SW (240⁰) with 13 kts. Pilot used normal cross wind landing technique, crabbing by pointing nose into the wind to maintain aircraft on centerline and carried out safe landing. Trainee Pilot then backtracked on Runway 29 and took off again for second circuit and while carrying out landing ATC again reported crosswind SW with 13 kts i.e. 240⁰/13kts. After touchdown on Runway29, the aircraft started drifting right of the centerline and eventually entered into Kutcha. The nose wheel of the aircraft got stuck in the soft ground and the aircraft toppled upside down over the ditch into the Kutcha area. ATC immediately activated emergency Siren and informed CFI & AME on intercom. AME along with fire person rush to the site, opened the left door and rescued trainee pilot out of the aircraft. The accident occurred around 1025 UTC. There was no fire and aircraft was substantially damaged. The trainee pilot was rushed to hospital and declared medically fit.

On 29-06-2012, aircraft had carried out a total of 02:40 hrs of flying with 11 landings before the accident flight.

After the accident another Cessna 172 aircraft VT-HOT of M/s Carver Aviation with solo flying landed safely at 10: 45 UTC.

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 had toppled in an upside down position in the ditch and substantially damaged. Following damages were observed on the aircraft:-

1. Both propeller blades were found bent and twisted.
2. Spinner was found damaged.
3. Top & Bottom cowling was damaged.
4. The induction manifold was totally broken along with air filter from the lower cowling.
5. Nose oleo along with nose wheel was bent inside towards the fuselage side and detached from the firewall joints.
6. Engine exhaust was found broken.
7. Engine mount broken from top and bottom joints of firewall RH side.
8. Firewall was bent inside and damaged.

9. Both LH & RH wing tip were damaged.
10. RH wing lift strut was bent. LH wing was having wrinkles.
11. RH wing leading edge damaged/bent, tips bent downwards.
12. Bottom surface of both wings were damaged/wrinkled and fuel was found leaking from wing tanks.
13. Rudder and vertical fin was damaged.
14. Engine mount and left magneto mounting was damaged.
15. Battery box was bent inside and damaged.

1.4 Other Damages : Nil

1.5 Personnel Information:

1.5.1 Pilot- in- Command

AGE	: 29 years, Male
License	: Student Pilot License
Date of Issue	: 29/10/2012
Valid up to	: 28/10/2017
Category	: Aeroplane
Date of Class I Med. Exam.	: 21/01/2013
Class I Medical Vaid up to	: 20/01/2014
Date of issue FRTOL License	: 04/12/2012
FRTOL License Valid up to	: 03/12/2017
Total flying experience {Including at Australia}	: 501 hours 40 Min

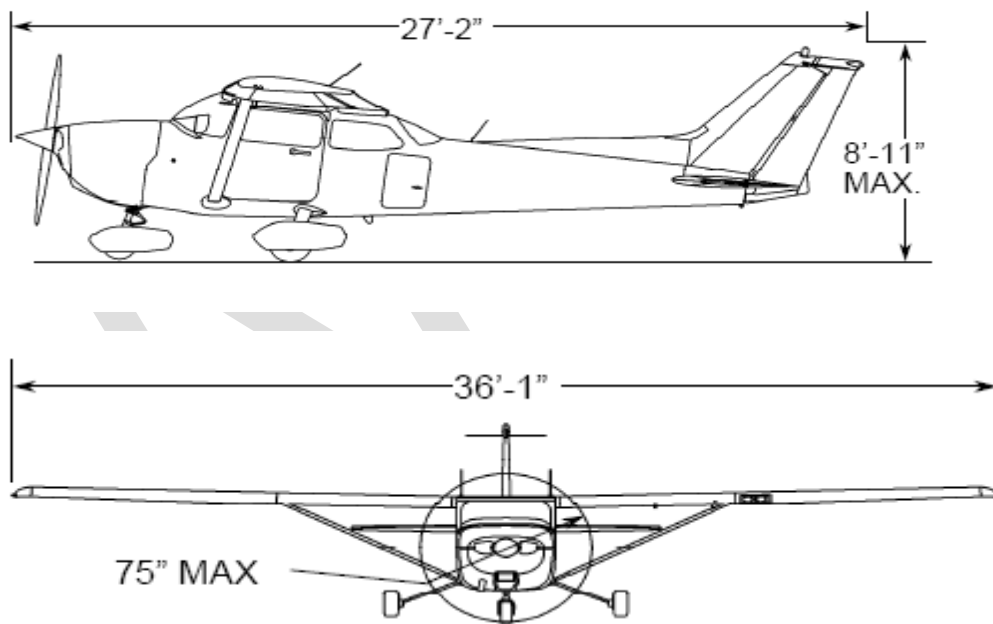
Total flying experience during last 1 year : 36 hours 45Mins
Total flying experience during last 6 Months : 36 hours 45 Mins
Total flying experience during last 30 days : 36 hours 45 Mins
Total flying experience during last 07 Days : 20 hours
Total flying experience during last 24 Hours : 05 hours 15Mins
Total number of landings in last 1 year : 52 landing

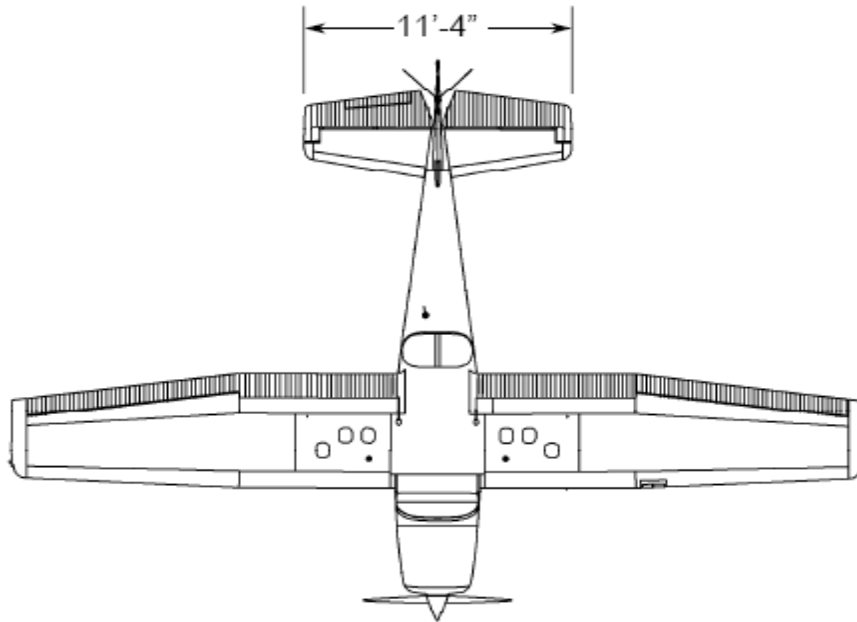
The involved trainee pilot started his flying training in January 2007 and flew till December 2009 at M/s Tristar Aviation, Moorabbin Airport, Victoria, Australia logged total of 464.9 Hrs. The Australian Commercial Pilot License was issued to him on 09-05-2008 with Grade 3 Single Engine Aeroplane Instructor Rating issued on 24-11-2008. The trainee pilot started flying at M/s Academy of Carver Aviation Pvt. Ltd., Baramati from 15th June 2013 for converting his Australian license into Indian license as per the requirement laid down in the DGCA CAR issue of Indian Commercial Pilot license and recency requirements. The pilot did not fly from January 2010 to May 2013.

1.6 Aircraft Information:

1.6.1 General Description

Cessna 172R is a high-wing monoplane of all metal semi monocoque construction. The aircraft is equipped with fixed tubular spring steel main landing gear struts and a steerable nose landing gear. The aircraft is powered by an AVCO-Lycoming Engine, Model No. Lycoming IO-360 L2A. It is normally-aspirated, direct drive, air-cooled, horizontally opposed, carburetor equipped, four cylinder engine with horse Power rating of 160 BHP at 2700 RPM. The aircraft is fitted with 02 Blades, fixed pitch Maculey Propellers, model No. IC 235/LFA 7570. The aircraft is certified for single pilot operation. There are two doors one for each seat. There is provision for additional two passenger seat at the rear.





Cessna 172R aircraft Dimensions

The airplane's flight control system consists of conventional aileron, rudder and elevator control surfaces. The control surfaces are manually operated through mechanical linkage using a control wheel for ailerons and elevator, rudder/brake pedals for the rudder.

The airplane has a single-disc, hydraulically-actuated brake on each main landing gear wheel. Each brake is connected, by hydraulic line, to a master cylinder attached to each of the pilot's rudder pedals.

1.6.2 Aircraft Information

- | | | |
|----|----------------------|---|
| a) | Aircraft Model | : Cessna 172 R |
| b) | Aircraft S. No. | : 17280469 |
| c) | Year of Manufacturer | : 1998 |
| d) | C of R | : 3513 dated 31 st May 2007 |
| e) | C of A | : 2292 |
| f) | C of A Validity | : 12 th April 2013 to 11 th April 2015. |
| g) | A R C issued on | : 12/04/2013 |
| h) | ARC valid up to | : 11/04/2014 |

- i) Engine Type : Lycoming I O-360 L2A
- j) Engine Sl. No. : L-1552-51 A
- k) Propeller Type : Maculey IC 235/LFA 7570
- l) Propeller Sl. No. : RD-068
- m) Aircraft Empty Weight : 760.80 Kg
- n) Maximum Takeoff weight : 1112 Kg
- o) Date of Aircraft weighment : 17-06-2007
- p) Total Aircraft Hours : 8826:15 hrs
- q) Total Engine Hours : 9775:35 hrs
- r) Engine Hours (Since O/H) : 1989:30 hrs

The Aircraft is registered in "Normal" category & Sub Division-"Passenger Aircraft".

Airworthiness Review Certificate was issued on 12-04-2013 and valid up to 11-04-2014. Radio Certificate to Release to Service (C. R. S.) was issued on 16-03-2013 and valid up to 15-03-2014. Aircraft was issued with Aeromobile License No. A-0009/001/WRLO-07 and valid up to 31-12-2013. Last major Inspection carried was Operation 3/150 Hrs at 8800:30 Hrs on 21-06-2013. Daily inspection/pre flying Schedule was carried out on 29-06-2013. Prior to the accident the aircraft had flown for 02:40 hrs with 11 landings.

Scrutiny of the snag register revealed that there was no snag reported on the aircraft prior to the accident flight. The last snag recorded in the snag register on 16/04/2011 was "Artificial Horizon toppling in flight at regular interval". The snag was rectified and no further snag was recorded in the register. Fuel consumption and Oil consumption was computed and was found within limit.

Load and trim sheet of accident flight was not prepared. However, it was computed after flight and center of gravity was found within limit.

After the accident ELT found activated and was switched off by the AME who reached the crash site.

1.7 Meteorological Information:

There is no Indian Metrological Department (IMD) Metrological (MET) office situated at Baramati Airfield. Nearest MET office is at Pune Airfield which is at a distance of 44 Nm. To have a better control & system functioning. M/s Carver Aviation has setup their own ATC station which is manned by the retired person from Air Force. ATC, Baramati uses Davis Vintage Pro 2 instrument to monitor wind Speed, Wind Direction, Humidity, Temp., Dew Point, forecast etc. The METAR recorded on register at 0900 UTC was variable winds 10 knots at 240⁰, visibility 6000 meters, temp 30 deg, Dew point 22⁰C, few scattered cloud and QNH 1006 Hpa. ATC during landing on both the occasions i.e. the accident flight and the circuit prior to the accident flight informed the pilot about winds as South-Westerly (SW) 240⁰ variable between 12-13 kts (240⁰/13 kts) for Runway 29. With winds 240⁰/13 kts, the cross wind component was calculated as 10 kts.

1.8 Aids to Navigation:

There is no Navigational aid available at Baramati airfield other than the windsock and aerodrome beacon.

1.9 Communication:

On 29-06-2013 communication were handled by an M/s Carver Aviation Pilot who was positioned at ATC tower. There was always two way communications between the aircraft and the Baramati ATC at frequency 129.25 MHz and aircraft had reported all operations normal. However, there is no recording facility for ATC Communication.

1.10 Aerodrome Information:

The Baramati Airfield is owned by Maharashtra Industrial Development Corporation (MIDC) and given on lease to M/s Reliance Airport Developers Private Limited, Mumbai. There is one Runway with orientation 11/29 having length of 7700 feet and width of 150 feet. The Runway surface is made of

Bitumen. Both Runway directions are in use depending upon the wind direction. The strip is an uncontrolled airfield. M/s Carver Aviation has set up local ATC which is manned by the Pilots of flying club. Other than the aerodrome beacon and the wind sock there are no navigational aids available on the airfield. The emergency services i.e. the fire fighting vehicle and the medical emergency is manned by the M/s Carver Aviation personnel. The elevation of Baramati Airfield is 1995 feet. There are two Windsock installed near the Runway. One at Runway 11 end and other near middle of Runway.

During site inspection & runway inspection on 13.07.2013 it was observed that loose pebbles were found all around the Runway 29 threshold area. The Baramati airfield is not licensed by DGCA. Aerodrome License are issued by DGCA as per Rule 78 of Aircraft Rule 1937 for Public and Private use.

1.11 Flight Recorders :

Cockpit Voice Recorder (CVR) and Digital Flight Data Recorder (DFDR) were neither fitted nor required on this aircraft as per Civil Aviation Requirements.

1.12 Wreckage & Impact Information :

The aircraft landed on Runway 29 and after touchdown started drifting right of the Runway centerline and entered the runway paved surface. The aircraft entered into kutchra, travelled approx. 1240 feet diagonally in kutchra. The nose wheel got stuck in the soft ground and with the momentum toppled upside down over a ditch. The propeller blades were found bent. Though the aircraft fuel was dripping from the tank but there was no fire. There was no disintegration of any part of the aircraft in flight and the wreckage of aircraft was confined around its final rest position. Tyre marks were observed on the kutchra area.

1.13 Medical & Pathological Information:

After the accident, post flight medical check of pilot was carried out at the S.J Government Hospital, Baramati and found satisfactory.

1.14 Fire: There was no pre or post impact fire.

1.15 Survival Aspects: The accident was survivable.

1.16 Test and Research

1.16.1 Fuel, Engine Oil & Transmission Sample Report

A sample of fuel from the fuel tank was collected and subjected to full specification test at the Fuel lab in the Directorate General of Civil Aviation (DGCA). As per the test report received, there was no abnormality in the sample and it passed the entire specification test.

A sample of Engine Oil and Transmission Oil were drained from Aircraft and subjected to specification test at Fuel lab in the Directorate General of Civil Aviation (DGCA). As per the test report received, there was no abnormality in the sample.

1.16.2 Brake Test

After the aircraft wreckage was shifted from the crash site, "insitu" Brake function were checked and found satisfactory. Both the Tyres were found in good condition with no flat spot.

1.16.3 Spark Plug

All the eight (08) Spark Plugs were removed from the aircraft after accident & found in good condition.

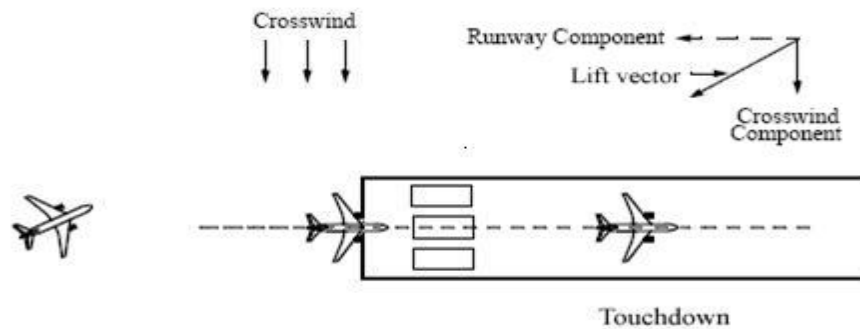
1.17 Organizational & Management Information:

M/s Academy of Carver Aviation Pvt. Ltd., is a Flying Training Academy located at Baramati, Pune. The approval of Flying Training Organization was renewed by DGCA on 30-04-2013 and valid for a period of one year. The flying training academy has one (01) CFI and five (05) API for imparting training to the trainee pilots. The academy has a total of 11 aircraft out of which 02 Cessna 152, 06 Cessna 172, 02 CTLS and 01 P-68 C. The M/s carver Aviation has in house maintenance setup which is approved as per CAR 145 and valid upto 31/12/2013.

1.18 Additional Information:

1.18.1 Cross Wind landing

A crosswind landing is a landing maneuver in which a significant component of the prevailing wind is from crosswind, wind perpendicular to the Runway center line. In simpler words "a cross-wind landing is when you have some amount of wind coming from the left or right". In situations where a crosswind is present, the aircraft will adopt a yaw orientation with respect to the Runway and will drift laterally as it approaches the Runway. These pose significant safety issues when safe operation of the undercarriage requires the body and the velocity of the aircraft to be aligned with the Runway at touch-down.



Aircraft Landing in Cross Wind

There are three accepted methods of Cross wind landing Techniques:-

(a) The Crab Method.

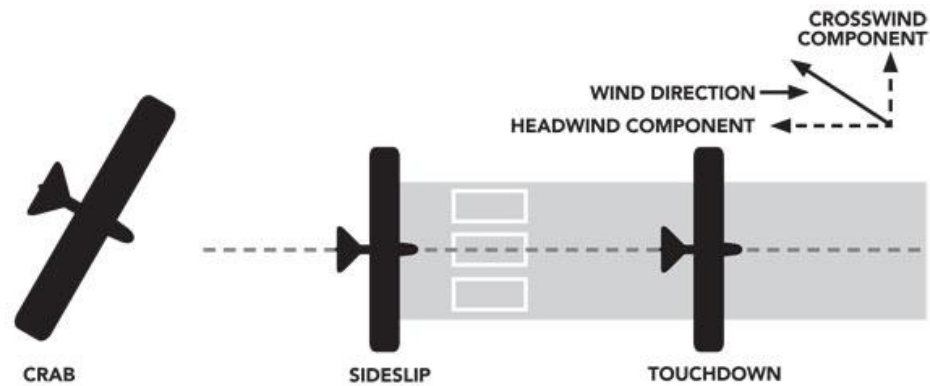
The crab method is done by keeping the airplane aligned with the centerline by establishing crab angle. Then after crossing the threshold, rudder is applied to align the airplane with centerline while simultaneously lowering the windward wing. In crab method, after turning to the finals, turn the airplane nose into the wind to compensate for wind drift, adjusting your crab angle so the airplanes ground track remained aligned with the extended centerline of the Runway.

(b) The wing-down or Side Slip method.

The wing down method consist of keeping the airplanes longitudinal axis aligned with the flight path and the Runway by lowering the windward wing while applying opposite rudder. In side slip method, the aircraft is aligned with the centerline prior to reaching the approach end of the Runway by dipping the wing into the wind and applying opposite rudder.

(c) The combination of both above method.

Initial Approach with "crab Method" and for last approximately 100-150 ft above ground use "Side Slip "method.



1.18.2 Aircraft Limitation for landing in Cross –Wind

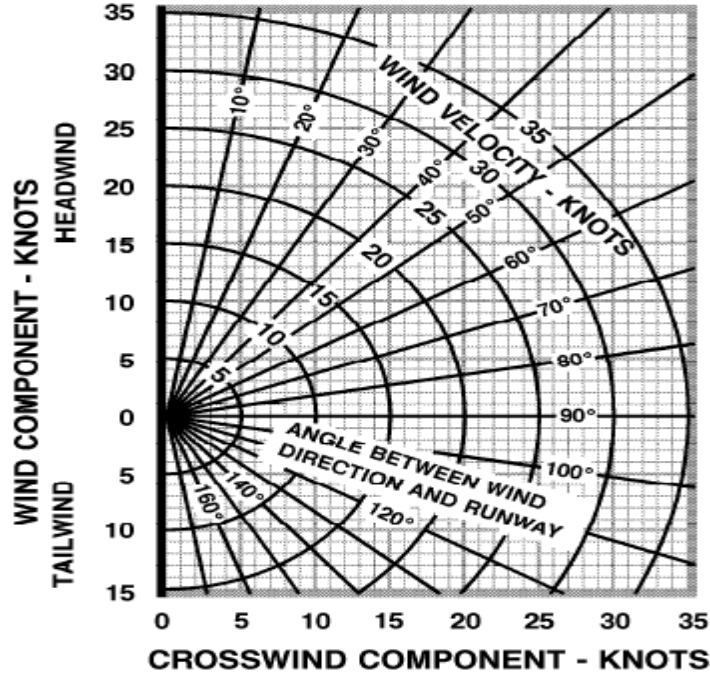
According to Pilot Operating Handbook (POH) of Cessna 172 R Aircraft the maximum demonstrated cross wind component is 15 Knots and it is also mentioned that 15 knots is not a limitation.

Training Manual of Academy of Carver Aviation Pvt. Ltd.Rev 0, Issue I Para 20, Page 163 deals with the effect of cross wind landing.

With winds reported by ATC as 240°/13 kts for Runway 29, the cross wind component was calculated as 10 kts which was within the acceptable limits.

WIND COMPONENTS

NOTE:
Maximum demonstrated crosswind velocity is 15 knots (not a limitation).



NOTE

Maximum demonstrated crosswind component is 15 knots (not a limitation).

Graph showing maximum demonstrated crosswind component

1.18.3 Chief Flying Instructor (CFI) Submission

As per CFI, trainee pilot after touch down because of cross wind component didn't apply sufficient rudder to maintain the centerline and drifted off the Runway. Trainee pilot tried to control the aircraft with the help of the Brakes, Rudder and Ailerons but the corrective action was late and not sufficient which eventually resulted into the accident

1.18.4 Pilot Submission

As per the statement of trainee pilot "during landing he applied normal cross wind landing technique, crabbing by pointing the nose into wind to maintain aircraft on extended centerline as to counteract the crosswind. He further stated that the aircraft may have hit by a sudden gust after the

touchdown and although he applied corrections to his best, they were insufficient to the amount of drift experienced by the aircraft”.

1.19 Useful and Effective Techniques: NIL

2. ANALYSIS:

2.1 Serviceability of Aircraft

The aircraft was manufactured by M/s Cessna Aircraft Company USA in 1998. The aircraft was issued with Indian Certificate of Registration (C of R) no.3513 on 31-05-2007 under category 'A' in the name of Academy of Carver Aviation Pvt. Ltd. It also held valid Indian Certificate of Airworthiness no. 2292, which was initially issued on 28/06/2007 under category Normal, Sub-Division Passenger. The last C of A renewal was done on 12/4/2013 and was valid till 11/4/2015. Airworthiness Review Certificate was issued on 12-04-2013 and was valid till 11-04-2014. Prior to the accident the aircraft had done 8826:15 airframe hrs. The engine had done in 1989:30 hrs since last overhaul and had done 9775:35 hrs since new. Radio Certificate to Release to Service (C. R. S.) was issued on 16-03-2013 and valid up to 15-03-2014. Last major Inspection carried was Operation 3/150 Hrs at 8800:30 Hrs on 21-06-2013. Scrutiny of the snag register revealed that there was no snag pending on the aircraft prior the accident flight.

On the day of accident, aircraft was engaged in local flying. The aircraft had carried out a total of 02:40 hours of flying and 11 landings before accident. The involved trainee pilot had carried out 01:40 hrs of flying with 07 landings on the aircraft on the day of accident. Brakes and Spark plugs were checked after the accident and found satisfactory.

The aircraft was maintained as per Continuous Maintenance Program approved by Director of Airworthiness (DAW).

Examination of the wreckage revealed that it was confined around the place of impact indicating that there was no in-flight disintegration of any part of the aircraft.

In view of the foregoing, it can therefore be inferred that serviceability of the aircraft is not a factor to the accident.

2.2 Weather

The weather at the time at 0900 UTC at Baramati Airfield was variable winds 10 knots at 240°, visibility 6000 meters, temperature 30°C, Dew point 22°C, few scattered cloud and QNH 1006 Hpa.

During landing at 1025 UTC, ATC informed pilot about winds South Westerly (SW) i.e. 240° varying between 12-13 kts for Runway 29. Though the winds at the time of landing were high but within the acceptable limits of Pilot Operating Handbook (POH).

In view of the above, it is inferred that winds was a contributory factor to the accident.

2.3 Aerodrome

The Baramati Airfield is owned by Maharashtra Industrial Development Corporation (MIDC) and on lease to M/s Reliance Airport Developers Private Limited, Mumbai. The airfield is an uncontrolled airport with local ATC setup. The fire fighting services and the medical emergency are controlled by M/s Carver Aviation personnel. There are two Windsock installed near the Runway. One is on Runway 11 end and other near middle of Runway. Loose pebbles were found all around the Runway 29 threshold. Even though the runway is utilized for conducting training purpose, the Airfield is not licensed by DGCA.

2.4 Pilot Handling of the Aircraft

The trainee pilot started flying at M/s Academy of Carver Aviation Pvt. Ltd., Baramati from 15th June 2013 for converting his Australian license into Indian license as per the requirement laid down in the DGCA CAR.

On 29th June 2013, prior to the accident flight the trainee pilot had carried out 03 circuit & landings with CFI on board for "Skill test by day". Subsequently the trainee pilot was cleared for 03 solo "circuit and landing" on the same aircraft. The flights were uneventful and there was no snag reported on the aircraft by the trainee pilot.

Thereafter, the trainee pilot was again cleared for 03 solo circuit & landing on the same aircraft. The trainee pilot took-off and completed the first circuit and during the approach for landing on Runway 29 the ATC reported winds as 240⁰/13 kts. The trainee pilot used normal "Cross wind landing technique" crabbing by pointing nose into the wind to maintain the aircraft on the extended centerline and carried out safe landing. Thereafter the trainee pilot back tracked the aircraft on Runway 29 and was cleared for second sortie. The trainee pilot took-off again and completed the circuit and reported finals for second approach and landing. The ATC again reported winds same as it was during approach on previous sortie 240⁰/13 kts. The trainee pilot again used normal "Cross wind landing technique" for landing, however to align the aircraft on the runway centerline he gave right rudder correction. The trainee pilot was not able to control the right rudder correction, as a result the aircraft veered to the right of the centerline and exited the Runway, entered into kutchra and eventually resulted into the accident. ATC activated emergency siren and informed CFI & AME on intercom. The trainee pilot was rescued from aircraft by the AME.

From the foregoing it is inferred that pilot handling of the aircraft is a factor to the accident.

2.5 Circumstances Leading to Accident.

The Cessna 172 R aircraft of M/s Carver Aviation Pvt. Ltd. was involved in a solo circuit and landing training flight under the command of a trainee pilot at Baramati Airfield on 29.06.2013. At 1000 UTC the trainee pilot took-off and landed the aircraft safely in cross wind conditions on Runway 29.

Thereafter the trainee pilot back tracked the aircraft for another circuit and landing. The aircraft took-off completed the circuit and during approach for landing on Runway 29, the ATC reported winds as south westerly 240⁰/13 kts. With winds reported 240⁰/13 kts the cross wind component was calculated as 10 kts which was within the acceptable limits of the POH. The trainee pilot used the crab technique by pointing the nose into the wind so as to maintain the aircraft on extended centerline. After touchdown the trainee pilot gave right rudder to align the aircraft on the runway centerline. However the trainee pilot gave over correction on the right rudder which resulted into aircraft veering to the right and exited the runway and resulted into the accident.

3. CONCLUSION :

3.1 Findings :

1. On 29th June 2013, M/s Carver Aviation Pvt. Ltd. Cessna-172 R aircraft, was engaged in local flying training at Baramati Airfield.
2. The Aircraft had valid C of A & maintained in serviceable condition.
3. The pilot had valid license and medical.
4. The pilot carried training and flying at M/s Tristar Aviation, Australia from January 2007 till December 2009.
5. The pilot had not flown during the period from January 2010 to May 2013.

6. The Daily Inspection schedule of the Aircraft was carried out by the AME before the flight.
7. Aircraft has carried out total 02:40 hrs flying and 11 landings on the day of accident before the accident flight.
8. The involved trainee pilot had carried out 01:40 hrs of flying with 07 landings including 00: 45 minutes of flying (03 landings) with CFI in the aircraft on the day of accident.
9. Trainee pilot took off at 1000 hrs UTC for 03 "solo circuit and landing". ATC reported winds SW with 12-13 kts during first landing. Pilot used normal cross wind landing technique, crabbing by pointing nose into the wind to maintain aircraft on centerline and carried out safe landing.
10. Pilot took off again for second circuit and ATC reported crosswind SW 12-13 kts. During landing after touchdown on Runway 29, the trainee pilot gave right rudder correction to bring the aircraft on runway centerline but could not control the correction. The aircraft drifted right of the centerline, exited the runway entered into Kutcha and toppled upside down.
11. ATC activated emergency Siren and informed CFI & AME on intercom. AME along with fire person rush to the site and rescued pilot from the aircraft. The accident occurred around 1025 UTC.
12. The cross wind component at the time of landing was calculated as 10 kts which was within the acceptable limits of the aircraft.
13. Winds was a contributory factor to the accident.
14. There was no fire and aircraft was substantially damaged.
15. Though there are two windsocks installed at Runway but no windsock installed at Runway 29 end.
16. Loose pebbles were found all around the Runway 29 threshold. Also, Baramati Airfield was not licensed by DGCA.

3.2 Probable Cause of Accident :

The probable cause of accident was over correction of rudder given by the trainee pilot while landing in cross wind conditions.

Winds was a contributory factor to the accident.

4. Safety Recommendations :

1. To have better estimation of winds to pilots, a Windsock to be installed near Runway 29 end.
2. In the interest of safety, DGCA may consider licensing of airports where regular flying activities were carried out.

K. Ramachandran

(K. Ramachandran)
Air Safety Officer (E), AAIB
Member, COI – VT- BUD

Amit Gupta

(Amit Gupta)
Deputy Director (AED), DGCA Hqrs.
Chairman, COI – VT- BUD

Date: 16th May 2014
Place: New Delhi