FINAL INVESTIGATION REPORT OF ACCIDENT TO M/s GARG AVIATION LTD., CESSNA 152 AIRCRAFT VT- SGN ON 03-09-2014 AT KANPUR.

1	Aircraft	Type	Cessna 152
		Nationality	Indian
		Registration	VT-SGN
2	Owner and Operator		M/s Garg Aviation Pvt. Ltd., Kanpur.
3	Pilot – in –Command		Student Pilot License holder
	Extent of injuries		Serious
4	Date & Time of Accident		03.09.2014; 0936UTC.
5	Place of Accident		Near Kanpur Airfield
6	Co-ordinates of Accident Site		Lat N 26°26.420' Long E 80°20.791'
7	Last point of Departure		Kanpur Civil Aerodrome
8	Intended landing place		Kanpur Civil Aerodrome
9	No. of Passengers on board		NIL
10	Type of Operation		Training flight
11	Phase of Operation		Final Approach
12	Type of Accident		Aircraft stalled and fell on roof top of an abandoned building.

SYNOPSIS:

On 03/09/2014 M/s Garg Aviation Ltd. Cessna 152 aircraft VT-SGN was engaged in local circuit and landing training flight activity at Kanpur Civil Aerodrome. The aircraft was under the command of student trainee pilot. The training flight was authorized by Flight Instructor to carryout solo local circuit and landing exercise. The first sortie of the student trainee pilot was uneventful. For the second sortie, the aircraft got airborne at about 0900 UTC from Rwy10and climbed to circuit altitude safely. The take-off, climb and circuit was uneventful and subsequently the Air Traffic Controller cleared aircraft VT-SGN for landing. However, on final approach, the trainee pilot noticed some bird activities in the approach path. In order to avoid the birds trainee pilot took a continuous right turn from the approach track and thereafter got completely disoriented from the flight path. The aircraft kept deviating from the flight path and also kept loosing height and speed. The trainee pilot completely lost control of the aircraft after the stall warning activated and the trainee pilot declared MAYDAY. The aircraft nose wheel hit the roof top of the abandoned building around 40 ft high, got airborne again and while executing 180 degrees turn, aircraft stalled and crash landed on roof top in a nose down attitude. The ATC controller immediately activated the emergency services for search and rescue. The aircraft was located at around 0940 UTC. The trainee pilot was rescued from the aircraft by the local villagers and taken to the nearby Airforce hospital for immediate medical attention. There was no fire. The aircraft sustained substantial damage.

The Ministry of Civil Aviation constituted a committee of inquiry to investigate into the cause of the accidentvide order No. AV 15018/20/2014-DG dated November 2014 under Rule 11 (1) of Aircraft (Investigation of Accidents and Incidents), Rules 2012 comprising of Sh. A. X. Joseph,Deputy Director AAIB as Chairman and Sh. K. Ramachandran Air Safety Officer, AAIB as Member.

1. FACTUAL INFORMATION:

1.1 History of Flight:

On 03/09/2014 Cessna 152 aircraft VT-SGN was engaged in local circuit and landing flying activities at Kanpur Civil Aerodrome. The flight was authorized by Flight Instructor who was supervising flying activities at M/s Garg Aviation Ltd. in the absence of the Chief Flying Instructor (CFI). Prior to the accident flight on the same day the trainee pilot carried out a local solo circuit and landing sortie for 55 minutes from 0630 to 0725 UTC which was uneventful. Thereafter Assistant Flight Instructor carried out a training flight with another student pilot on the same aircraft VT-SGN for about 40 minutes. There was no snag reported on the aircraft and the weather reported by the Assistant Flight Instructor after the flight was fine with no unusual weather phenomena. The Flight Instructor thereafter authorised the involved trainee pilot for her second local solo circuit & landing. The weather at the time of take-off was winds 090/08 knots and visibility 5Km. ATC cleared aircraft VT-SGN for take-off from Rwy 10. The aircraft took-off at about 0900 UTC from Rwy10. The trainee pilot reported all operations normal during flight and the circuit was uneventful. Thereafter ATC cleared aircraft VT-SGN for landing on Rwy 10 and reported winds 090/08 knots. The approach was normal and the trainee pilot was following correct approach path.

During final approach the trainee pilot observed birds in the flight path and manoeuvred the aircraft towards a continuous right turn in order to avoid birds. The trainee pilot stated that the aircraft kept on turning right and simultaneously started losing height in banked condition. In the process the stall warning was generated. She also mentioned that as the stall warning was generated she panicked and immediately added power and pitched up the aircraft to gain height and also declared MAY DAY. However, the aircraft nose wheel hit the edge of the abandoned building around 40 ft high, got airborne again and while executing 180 degrees turn, aircraft stalled and crash landed on roof top in a nose down attitude.

The ATC controller also stated that he was monitoring the aircraft from the watch tower after giving the landing clearance. He further stated that he observed the bird

activities in the flight path and advised trainee pilot to exercise caution. Thereafter he observed that the aircraft suddenly took a right turn and subsequently gave a MAYDAY call. He immediately activated the emergency services for search and rescue. Another Cessna 152 aircraft VT-ONS on ground of M/s Garg Aviation Ltd. tried to contact VT-SGN but there was no RT contact. The fire tender and ambulance reached Rwy 10 end but informed there was no aircraft inside the airport premises. The aircraft was finally located on a roof top of an abandoned house of railway loco shed at about 0940 UTC.

The trainee pilot was immediately rescued from the aircraft and taken to the nearby Air force hospital for immediate medical attention and later shifted to bigger hospital in ICU. The trainee pilot received serious injuries during the accident. The accident occurred at approximately 0936 UTC. There was no fire. The aircraft sustained substantial damage.

1.2 Injuries to Persons :

Injuries	Crew	Passengers	Others
Fatal	NIL	NIL	NIL
Serious	01	NIL	NIL
Minor/None	NIL	NIL	

1.3 Damage to Aircraft:

The aircraft was substantially damaged. The damages observed on the aircraft were, both the Propeller blades were bent and got dislodged from the propeller hub. The engine mount was broken as the nose portion of the aircraft was completely destroyed. The Nose landing gear had sheared off.

Aircraft final resting position on roof top

The front Fuselage section was completely damaged with dents on the rear section.Top & Bottom engine cowlings were completely damaged. The left main landing gear wheel had sheared-off from wheel axle. Both port & starboard wings were completely damaged. The left side control stick had dislodged from its attachment and came out of the cockpit. Both the cabin doors were deformed and damaged. All the avionics and instruments were damaged.

1.4 Other Damages: A portion of the abandoned building roof top was damaged.

1.5 Personnel Information:

1.5.1 Pilot- in- Command

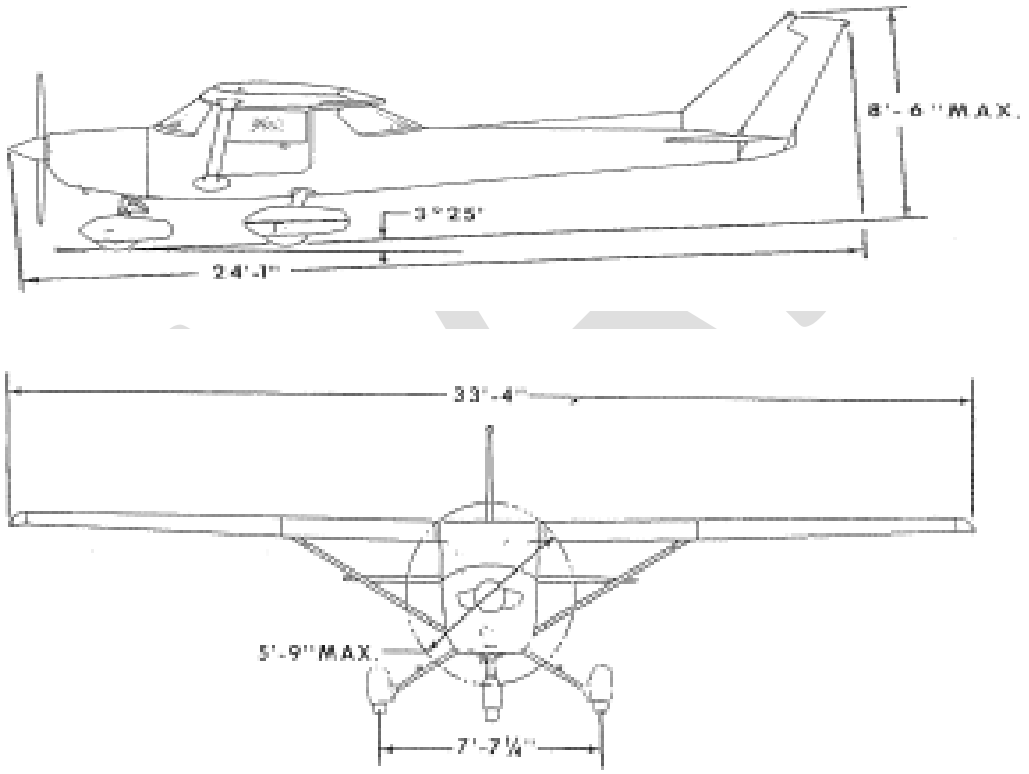
AGE/Sex	: 20 years 06 Months, female
License	: Student Pilot License
Date of Issue	: 16/12/2011
Valid up to	: 15/12/2016
Category	: Aeroplane
Class	: Single Engine Land
Type	: Cessna 152
Date of Class I Med. Exam.	: 03/06/2014
Class I Medical Vaid up to	: 02/06/2015
Date of issue FRTOL License	: 20/01/2012
FRTO License Valid up to	: 19/01/2022
Total flying experience	: 41 hours 45 Mins
Total flying experience during last 01 year	: 41 hours 45Mins
Total flying experience during last 06 Months	: 41 hours 45 Mins
Total flying experience during last 30 days	: 19 hours 20Mins
Total flying experience during last 07 Days	: 09 hours 45 Mins
Total flying experience during last 24 Hours	: 00 hours 55Mins

The trainee pilot had started her flying training with Haryana Institute of Civil Aviation, Karnal. However after logging only 04 Hours 05 minutes the trainee pilot migrated to another flying academy, M/s Garg Aviation, Kanpur and started her flying on 03.07.2014. She was released for her first solo flight on 19.07.2014 after logging 09:55 flying hours.

1.6 Aircraft Information:

1.6.1 General Description

Cessna 152 is a single engine aircraft fitted with Avco Lycoming O-235-L2C engine and is manufactured by Cessna Aircraft Company Inc., USA. The aircraft is certified in normal category, for subdivision passenger operation. The maximum operating altitude is 14,700 feet (4480.56 m)and maximum takeoff weight is 759Kgs. Aircraft length is 7.234 meters, wingspan is 10.16 meters and height of this aircraft is 2.59 meters. The Aircraft is approved in the "Normal" category.



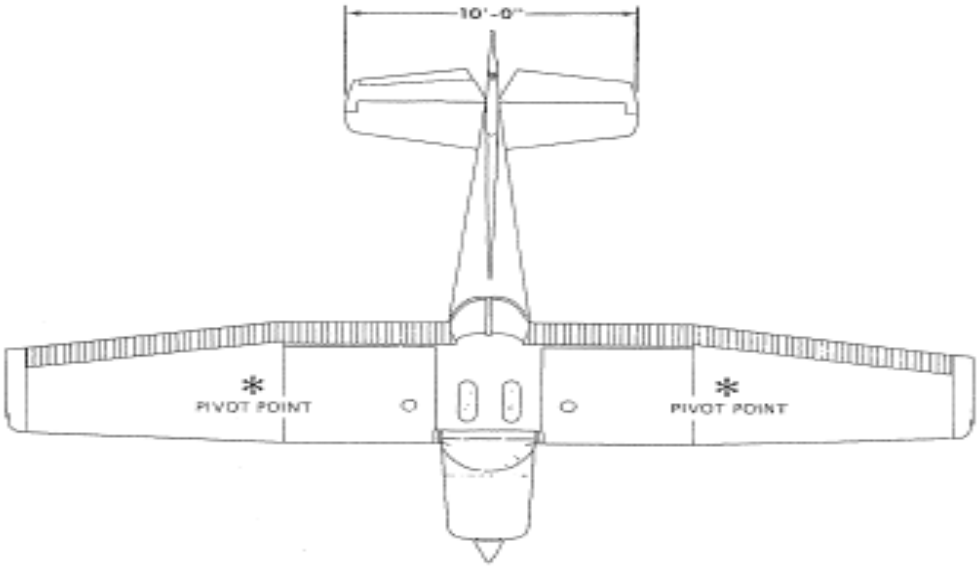


Fig: Three view diagram

Construction:

The primary structure of Cessna 152 includes fuselage which is a semi-monocoque type structure, fuselage is made of all metal construction. The fuselage has circular cross section. The fuselage main structure consists of components such as Bulkheads, Fuselage frames, Stringers and Skin panels. All the sections are joined by rivets.

The main wing is semi-cantilever, semi-monocoque construction. The outer wing skin is made of metal structures with riveted to ribs. The trailing edge flaps and engine cowls are made of metal structure. The aircraft is provided with all metal construction type stabilizers bolted to fuselage tail section. The horizontal stabilizer is of metal type. The horizontal stabilizer is fitted to top end of vertical stabilizer spar by means of 04 bolts. The aircraft vertical stabilizer is composed of metal construction fin. The ribs are made of aluminium alloy.

Cessna 152 aircraft VT-SGN (MSN.15284935) had been manufactured in 1981. The aircraft was registered with DGCA under the ownership of M/s Garg Aviation Ltd. on 13.06.1996. The aircraft is registered under category 'A' and the Certificate of Registration No.2763.

The Certificate of Airworthiness Number 2251 under "Normal category" was issued by DGCA on 13.06.1996. The specified minimum operating crew is 01andthemaximum all up weight is 759 kgs. At the time of accident the Certificate of Airworthiness was current and was valid upto16.02.2015. The Aircraft was holding a valid Aero Mobile Licence No. 087/002 at the time of accident. This Aircraft was operated under Flying Training Operator's Permit No. 02/2001 which was valid up to 28.10.2014. As on 3rd September 2014 the aircraft had logged 19143:20 Airframe Hours.

The Cessna 152 aircraft and its engine are being maintained as per the maintenance program consisting of calendar period/ flying Hours or Cycles based maintenance as per maintenance program approved by Regional Airworthiness office, Lucknow (Northern Region).

Accordingly, the last major inspection '100 hours Approved Inspection Schedule' carried out at 19107:10 airframe Hrs on 22.08.2014. Subsequently all lower inspections were carried out as and when due before the accident.

The aircraft was last weighed on 28.01.2009 at Lucknow and the weight schedule was prepared and duly approved by the office of Director of Airworthiness, DGCA, Lucknow, Northern Region. As per the approved weight schedule the empty weight of the aircraft is 559.50 kgs. Maximum fuel capacity is 102.77 kgs (useable). Maximum permissible load with full fuel and Oil is 759 Kgs. Empty weight CG is 0.8186 meter aft of datum. As there has not been any major modification affecting weight & balance since last weighing. Prior to the accident flight the weight and balance of the aircraft was well within the operating limits.

All the concerned Airworthiness Directive, Service Bulletins, DGCA Mandatory Modifications on this aircraft and its engine have been complied with as on date of event.The Engine S/N RL18676-15 had logged 333:40 engine TSO upto 02.09.2014 Hrs.

1.7 Meteorological Information:

There is no Indian Metrological Department (IMD) /Metrological (MET) office situated at Kanpur Civil Aerodrome. MET information is obtained telephonically from Chakeri Defence Aerodrome which is around 17 Nm from Kanpur Civil Aerodrome. As per the MET information the weather prior to accident flight was reported to be fair with visibility more than 5Km and winds 08 to 09 knots. There was no significant change in the weather conditions after the accident.

1.8 Aids to Navigation:

Other than wind sock there is no navigational aid available at Kanpur Civil Aerodrome.

1.9 Communication:

The Air Traffic services of Airports Authority of India are available at Kanpur Civil Aerodrome. There was always two way communications between the aircraft and the ATC. The last communication recorded was a MAY DAY call from the trainee pilot.

1.10 Aerodrome Information:

The Kanpur Civil Aerodrome is a controlled airfield. There runway orientation is 10/28 which is approximately 3550 feet long and 150 feet in width.

Co-ordinates:
ARP : 26°26'25" N 080°21'53"E

Elevation : 410 feet (125m.)

Runway Orientation and Dimension	: 28/10 and 3550ftX150 ft.
Runway & Taxi Tracks Markings	: Standard
Night landing facility	: Aerodrome Beacon, Lighted Wind Sock, Tarmac Lights, Gooj Neck Lamps Available
MET Services	: Not available.
Navigation Aids	: Not Available

Kanpur Civil Aerodrome is located approximately at around 17 Nm from Chakeri Defence Airfield.

1.11 Flight Recorders :

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

1.12 Wreckage & Impact Information :

During examining of the wreckage site following observations were made. The first impact was the aircraft nose gear hitting the edge of the building and shearing off from its attachment.

Flight path of the aircraft before impacting the building

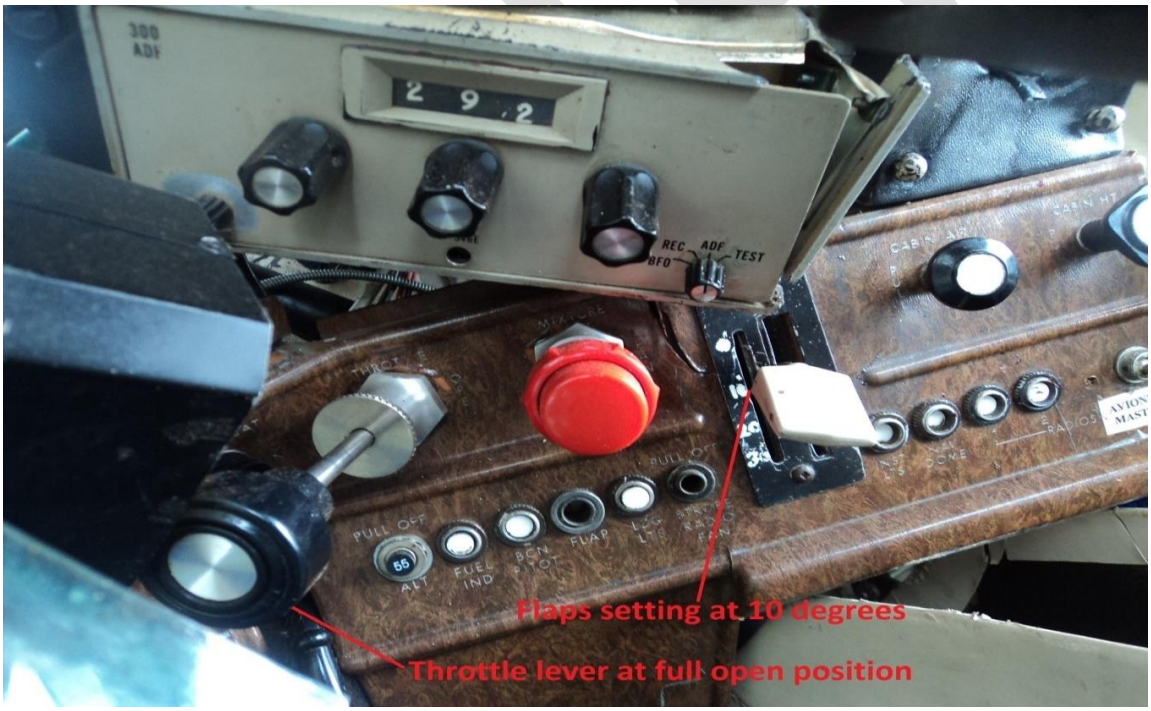
Thereafter the aircraft main wheel rolled on the building top and the aircraft got air borne again. While executing a 180 degree turn it hit a tall tree next to the building as it was evident from the dent/impact marks observed on the fuselage / wing structure and also the marks on the tree top.

The aircraft crash landed on abandoned building 0.62 Nm from Rwy 10

The engine was substantially damaged as the aircraft impacted on its nose. The engine had dislodged from its mount after the impact. The LH main landing gear wheel had also sheared off from wheel axle due impact. The instrument panel in the cockpit was completely destroyed. The fuel was leaking from the fuel tank. Both the wings were substantially damaged and had dislodged from its attachments.

The control cables for elevator and rudder were checked for full and free movement and were found satisfactory. The ailerons could not be checked as both the control column was damaged. Other than the nose landing gear the wreckage of the aircraft was confined around its final resting position.

Following Cockpit Control positions was recorded :



1. Both the Control columns had broken and dislodged from its position.
2. The fuel lever were in ON position
3. Master switch were in ON position and had broken from attachment.
4. Ignition switch were in "Both Position"
5. Flaps were at 10^{o} position.
6. Throttle control was at "½ open" position.
7. Ignition key was half broken and half key was inside the ignition switch.

8. Carburettor Heat was at "OFF" position.
9. Mixture control knob was IN.
10. Strobe and navigational light switch was found broken.

The cockpit instruments like Altimeter, Air speed indicator etc. were damaged and were showing some default values.

1.13 Medical & Pathological Information:

The trainee pilot sustained serious injuries and was unconscious after the accident. The local villagers rescued the trainee pilot from the aircraft and took her to the nearest Air Force hospital. She was hospitalised after the accident for immediate medical attention. In the hospital series of operations were under taken by the doctors. The student pilot suffered bone fractures on her right forearm and jaw during the accident.

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

1.15 Survival Aspects: The accident was survivable.

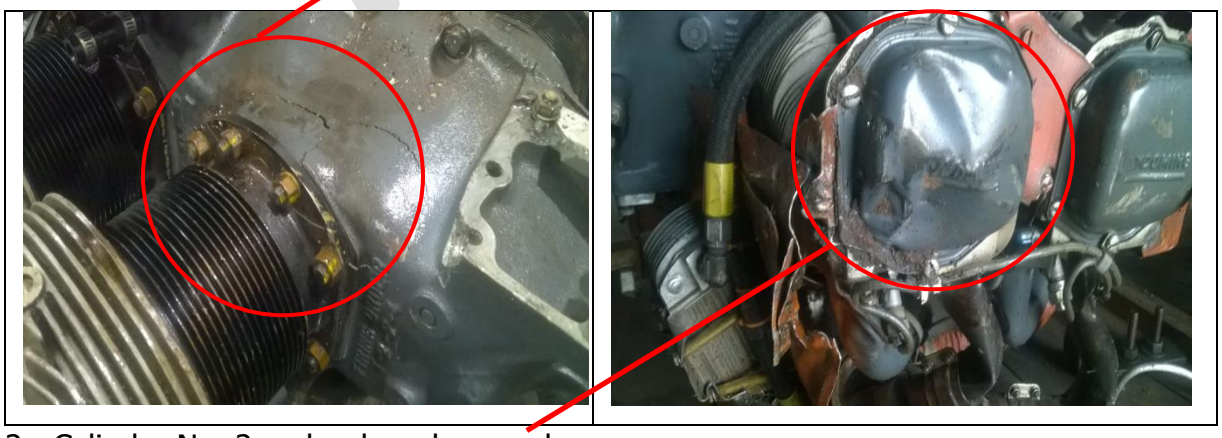
1.16 Test and Research:

1.16.1 Engine Strip Examination:

The involved engine was transported to Delhi and strip examined at Delhi Flying Club, DGCA approved engine overhaul workshop in the presence of the committee members.

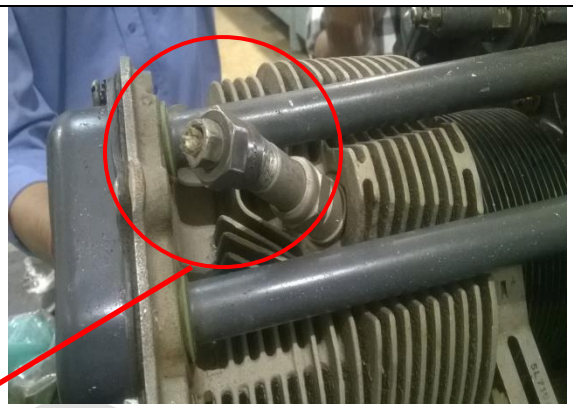
Impact Damages observed on visual examination:

1. The engine crank case found cracked due impact.



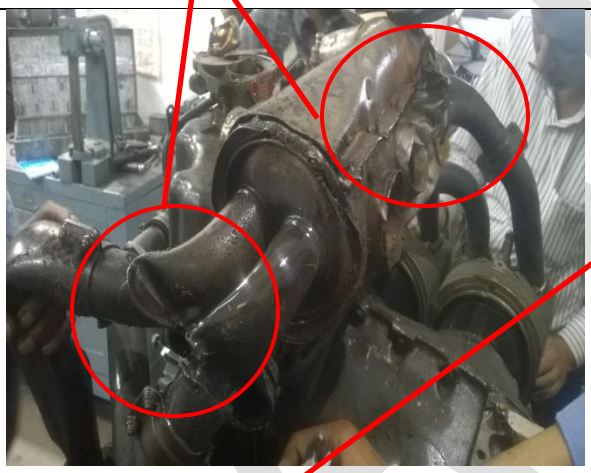
2. Cylinder No. 2 rocker box damaged.

3. Propeller flange found bent.



4. Cylinder No. 02 top spark plug harness broken from magneto side

5. Exhaust found damaged.



6. Complete primary line found broken
7. Carburettor damaged.

Physical Observation on examination:

1) All the 04 cylinders examined and found in a good condition.

The condition of cylinders were found to be satisfactory

2) Magneto tested for its serviceability and found to be working satisfactory.

Magneto was serviceable

Spark plugs found in good condition

3) Spark plugs of all the cylinders tested and found satisfactory.

4) All the pistons examined for damage clearance and found satisfactory.

5) The condition of crank shaft found satisfactory.

Condition of piston/connecting rods were found to be satisfactory

6) Condition of all connecting rods found satisfactory.

7) The condition of all fuel nozzles found satisfactory.

Observation:

i. The type of damage observed on the propeller and shaft indicates that the engine was running and delivering power at the time of accident.

ii. The damages observed were due to the result of the aircraft impacting on hard surface during accident.

1.17 Organizational & Management Information:

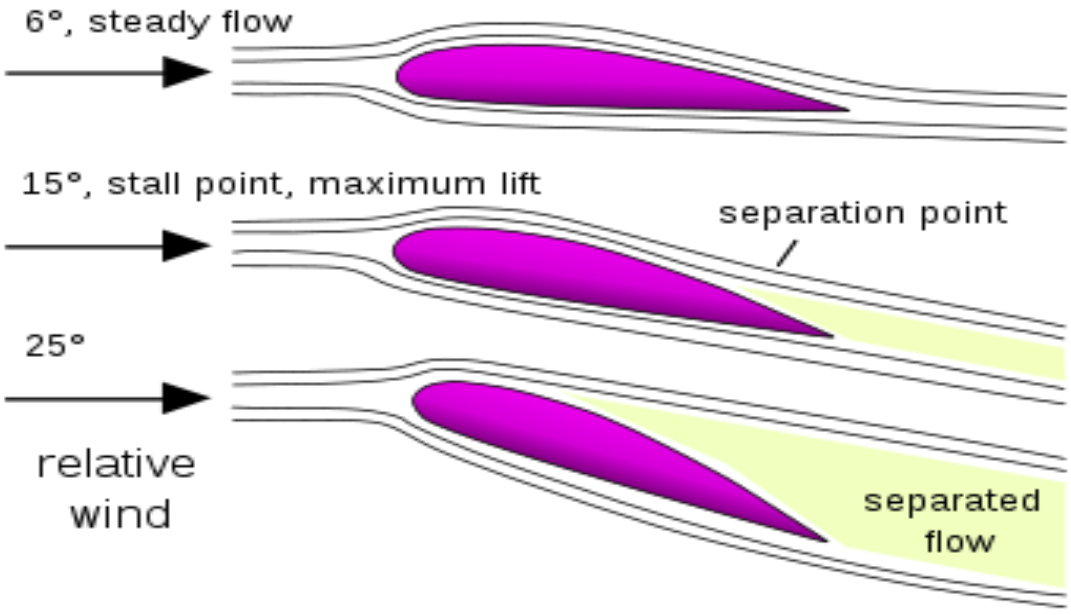
M/s Garg Aviation is a Flying Training Academy. The academy has presently fleet of five aircrafts i.e. two Cessna 152 , one Cessna 172 , one Beech Bonanza A-36 &one Cessna 310.M/s Garg Aviation is headed by its Accountable Manager who is also the owner of the Flying Training Academy. The flying activities are headed by the Chief Flight Instructor and the engineering department by the Chief Engineer. In addition to the CFI there were 03 Assistant Flight Instructors (AFI) and one Flight Instructor (FI) working with the organisation. However CFI was on leave and flying activities were supervised by FI on that day. The M/s Garg Aviation ltd. has in house maintenance setup which is approved by DGCA under CAR 145.

1.18 Additional Information:

1.18.1 Stall characteristics and recovery

Stall

Stalls in fixed-wing flight are often experienced as a sudden reduction in lift as the pilot increases the wing's angle of attack and exceeds its critical angle of attack which may be due to slowing down below a certain speed which is defined as stall speed in level flight. This critical angle is dependent upon the profile of the wing, its planform, its aspect ratio, and other factors, but is typically in the range of 8 to 20 degrees relative to the incoming wind for most airfoils. The critical angle of attack is the angle of attack at which the maximum lift coefficient occurs. Flow separation begins to occur at small angles of attack while attached flow over the wing is still dominant. As angle of attack increases, the separated regions on the top of the wing increase in size and hinder the wing's ability to create lift. At the critical angle of attack, separated flow is so dominant that further increases in angle of attack produce less lift and vastly more drag.



A fixed-wing aircraft can stall in any pitch attitude or bank angle at any airspeed but commonly occurs while reducing the speed to the un-accelerated stall speed. Un-

accelerated (1g) stall speed varies on different fixed-wing aircraft. The pilot will notice the flight controls have become less responsive and may also notice some buffeting, a result of the turbulent air separated from the wing hitting the tail of the aircraft. In most light aircraft, as the stall is reached, the aircraft will start to descend because the wing is no longer producing enough lift to support the aircraft's weight and the nose will pitch down.

Stall Recovery

For stall recovery the pilot must release the back pressure first to maintain level flight attitude. Then further releasing back pressure gently to return to the level pitch and wait for the airspeed to increase. Apply full power and level wings using co-ordinated control. Thereafter bring the aircraft nose down to level flight. It is advised to lock the elbow against the door to prevent abrupt pitch-up as full power is applied. When airspeed is on the upgrade retract flaps to 20 degrees without allowing sink to occur. At 60 knots retract the rest of flaps and climb.

1.19 Useful and Effective Techniques: NIL

2. ANALYSIS:

2.1 Serviceability of Aircraft

The aircraft VT-SGN was registered with DGCA under the ownership of M/s Garg Aviation Ltd. At the time of accident the Certificate of Airworthiness was current and valid upto16.02.2015. The M/s Garg Aviation was holding a valid Flying Training Operator's Permit No. 02/2001 at the time of accident. As on 3rd September 2014 the aircraft had logged 19143:20 Airframe Hours.The last major inspection '100 hours Approved Inspection Schedule' check was carried out at 19107:10 airframe Hrs on 22.08.2014. Subsequently all lower inspections, were carried out as and when due before the accident. The weight and balance of the aircraft was well within the operating limits.

All the concerned Airworthiness Directive, Service Bulletins, DGCA Mandatory Modifications on this aircraft and its engine has been complied with as on date of the

accident. Scrutiny of the snag register revealed that there was no snag pending on the aircraft prior to the accident flight.During Examination of the wreckage,the control cables for elevator and rudder were checked for full and free movement and were found satisfactory. The movement of ailerons could not be checked as both the control columns were dislodged from its housing. After the accident the engine was stripped examined at DGCA approved engine overhaul workshop and it was observed that the type of damage on the propeller and its shaft indicates that the engine was running and delivering full power at the time of accident and the damages were due to the result of the aircraft impacting on hard surface.

In view of the above, it is inferred that the serviceability of the aircraft was not a factor to the accident.

2.2Weather

The weather reported at 0900 UTC at Kanpur Civil Aerodrome was winds 8 to 9 kts and visibility 5000 meters. There is no MET available at Civil Aerodrome, Kanpur. All the weather is co-ordinated and obtained from Air Force Airfield at Chakeri for flying activities at Civil Aerodrome. There was no unusual weather phenomenon reported by ATC prior to accident. As per the student pilot statement, the weather was fine with visibility more than 5000 metres and no unusual weather was encountered during the flight.

In view of the above, it is inferred that weather was not a contributory factor to the accident.

2.3 Pilot Handling of the Aircraft

On 03.09.2014 the trainee pilot was authorized by Flight Instructor for local solo circuit and landing flight at Kanpur civil aerodrome. The trainee pilot completed a flight of about 55 minutes. The flight was uneventful. After about a gap of 2 hours the Flight Instructor again authorised the involved trainee pilot for her second local solo circuit & landing. The weather at the time of take-off was winds 090/08 knots. The trainee pilot reported all operations normal during flight and the circuit was uneventful. Thereafter

ATC cleared aircraft VT-SGN for landing on Rwy 10 and reported winds 090/08 knots with visibility 5000 m. The approach made by trainee pilot was normal and the trainee pilot was following correct approach path. However during final approach the trainee pilot observed some birds activities in the final approach flight path. The trainee pilot in order to avoid the birds, took a continuous right turn. Thereafter the trainee pilot did not apply any correction to correct the flight path. As the aircraft was configured for landing with low power setting, it lost height and speed simultaneously during the continuous right turn, which resulted in to stall warning.The trainee pilot completely lost control on the aircraft and declared MAY DAY and the aircraft nose wheel hit the roof top of the abandoned building. Thereafter the trainee pilot increased power and simultaneously pulled the stick to gain height and also tried to give aileron correction to correct bank. However in the process the aircraft pitched up, hit the tall tree and stalled while executing a 180 degree turn, aircraft stalled and crash landed on roof top in a nose down attitude.

From the above it is inferred that the trainee pilot after deviating from flight path did not applied correction to correct the flight path and continued deviating from the flight path and disoriented completely. The trainee pilot could not handle the emergency. Hence pilot handling of the aircraft is a factor to the accident.

2.4 Circumstances Leading to Accident.

After obtaining the landing clearance from ATC on her second sortie the trainee pilot was on landing profile. On final approach the trainee pilot observed some bird activities in the flight path. The trainee pilot manoeuvred the aircraft towards right in order to avoid birds. After avoiding the birds the trainee pilot did not apply any correction to bring the aircraft back on the flight path and kept on deviating away from the flight path. As the aircraft was in a continuously right turn with low power settings, the aircraft speed washed off quickly and the aircraft started losing height and stall warning was generated. In a panic state the trainee pilot further pitched up the aircraft to gain height which further aggravated the condition and the nose wheel of the aircraft hit the roof top of an abandoned building. To salvage the situation she further added power and the

aircraft got airborne again. As the pitch of the aircraft was high the aircraft stalled and came back in a nose down condition and impacted the abandoned building and eventually resulted into the accident.

3. CONCLUSION :

3.1 Findings :

1. The Aircraft had valid C of A & maintained in serviceable condition.
2. The trainee pilot had valid license and medical.
3. Prior to joining M/s Garg Aviation the trainee pilot had carried out flying at Haryana Institute of Civil Aviation, Karnal and logged 04 Hours 05 minutes of flying.
4. She was released for her first solo flight on 19.07.2014 after logging 09:55 flying hours.
5. At the time of accident the trainee pilot total flying experience was 41 hours 45 minutes.
6. The Daily Inspection schedule of the aircraft was carried out by the AME before the flight.
7. The Chief Flying Instructor (CFI) was on leave and the accident flight was authorized by Flight Instructor who was supervising flying activities at M/s Garg Aviation Ltd on the day of accident.
8. Prior to the accident flight on the same day the trainee pilot had carried out a local circuit and landing sortie for 55 minutes and was uneventful.
9. The Flight Instructor again authorised the trainee pilot for second sortie of local solo circuit & landing.
10. The weather at the time of take-off was visibility 5000 m with winds 090/08 knots.
11. The trainee pilot reported all operations normal during flight and the circuit was uneventful.
12. ATC cleared aircraft VT-SGN for landing Rwy10 and reported winds 090/08 knots.
13. During final approach the trainee pilot observed bird activities in the flight path and manoeuvred the aircraft towards right in order to avoid birds.

14. The trainee pilot did not apply any correction to bring the aircraft back on the flight path and kept on deviating away from the flight path.
15. The aircraft was in a continuously right turn with low power settings due which the aircraft speed washed off quickly and the aircraft started descending.
16. The trainee pilot completely lost control on the aircraft and declared MAY DAY.
17. The stall warning was generated and the trainee pilot further pitched up the aircraft which further aggravated the situation.
18. During the process the nose wheel of the aircraft hit the roof top of an abandoned building. She further added power and the aircraft got airborne again, hit the tall tree and stalled while executing a 180 degree turn and aircraft stalled and crash landed on roof top in a nose down attitude.
19. The ATC controller immediately activated the emergency services for search and rescue. Another Cessna 152 aircraft VT- ONS of M/s Garg Aviation Ltd. tried to contact VT-SGN but there was no RT contact. The fire tender and ambulance reached Rwy 10 end but informed that the aircraft was not there.
20. The aircraft was finally located on the roof top of an abandoned building of railway loco shed at about 0940 UTC.
21. The trainee pilot was immediately rescued from the aircraft and taken to the nearby Air force hospital for medical attention and was later shifted to bigger hospital and admitted in ICU for immediate medical attention.
22. The trainee pilot received serious injuries.
23. There was no fire and aircraft was substantially damaged.

3.2 Probable cause of the accident

The probable cause of accident is improper handling of the controls by trainee pilot during final approach which resulted into crash landing of the aircraft on roof top of the abandoned building.

Contributory factor:

a) Deviation from flight path due to bird activities in the approach.
b) Inappropriate corrective action for stall warning by trainee pilot.

4 Safety Recommendations

DGCA shall carry out Audit of M/s Garg Aviation to assess its training procedure for trainee pilots.

K. Ramachandran
Air Safety Officer (E)
Member, Committee of Inquiry VT-SGN

A X Joseph
Deputy Director of Air Safety
Chairman, Committee of Inquiry VT-SGN

Date: 04.05.2016

Place: New Delhi