



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Corydon, Indiana	Accident Number:	CHI04LA057
Date & Time:	January 16, 2004, 19:30 Local	Registration:	N17254
Aircraft:	Cessna 150L	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The airplane collided with trees during a forced landing due to fuel exhaustion. The accident occurred during the student's first solo cross country flight. The flight was planned from the Madison Municipal Airport (IMS), Madison, Indiana, to the Hook Municipal Airport (MWO), Middletown, Ohio, with a return leg to IMS. The student reported that during the first leg he overflew MWO and landed at the Green-County-Jackson Regional Airport (I19), in Dayton, Ohio. I19 is approximately 21 nautical miles past MWO. After receiving directions, he departed I19 for MWO where he landed and had his logbook signed. The student then departed for IMS. The student stated that while en route it became dark. The student over shot IMS by about 48 nautical miles. The student stated he did not know where he was until he saw a water tower with an unfamiliar town name on it. The student reported the engine then quit due to fuel exhaustion. He stalled the airplane just above treetops in a wooded area during the forced landing. The airplane settled through the trees coming to rest inverted. The student pilot had a total of 30 hours of flight time, and no night flight time had been logged in his logbook. A review of the student's navigational logs for the flights showed they were not complete or accurate.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The student pilot become lost during the cross country flight and the instructor's inadequate supervision of both the flight and preflight planning. This led to the in-flight loss of engine power due to fuel exhaustion, a forced landing, and impact with trees. Factors contributing to the accident were poor preflight planning, fuel exhaustion, inadequate training, night conditions, and the student's lack of cross country and night experience.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL

Phase of Operation: CRUISE

Findings

1. (F) PREFLIGHT PLANNING/PREPARATION - POOR - PILOT IN COMMAND
2. (C) SUPERVISION - INADEQUATE - FLIGHT INSTRUCTOR(ON GROUND)
3. (F) INADEQUATE TRAINING - FLIGHT INSTRUCTOR(ON GROUND)
4. (F) LIGHT CONDITION - NIGHT
5. (C) BECAME LOST/DISORIENTED - PILOT IN COMMAND
6. (F) LACK OF TOTAL EXPERIENCE IN TYPE OPERATION - PILOT IN COMMAND
7. (F) FLUID,FUEL - EXHAUSTION

Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

8. (F) OBJECT - TREE(S)

Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

9. TERRAIN CONDITION - GROUND

Factual Information

On January 16, 2004, about 1930 eastern standard time, a Cessna 150L, N17254, piloted by a student pilot collided with trees during a forced landing near Corydon, Indiana. The student pilot received minor injuries and the airplane was substantially damaged. The 14 CFR Part 91 solo instructional cross country flight was operating in visual meteorological conditions without a flight plan. The flight originated from Madison Municipal Airport (IMS) about 1630 en route to Hook Municipal Airport (MWO), and was to return to IMS.

The student's certified flight instructor (CFI), who was not on board the airplane, reported the student passed MWO and landed at the Green County-Jackson Regional Airport (I19), in Dayton, Ohio, where he received directions back to MWO. The student then flew back to MWO where he landed prior to departing at 1735 for the return flight to IMS. The CFI reported the student then over flew IMS and fuel exhaustion was experienced over Corydon. The airplane was landed in a heavily wooded area where it contacted trees prior to coming to rest inverted.

According to the student pilot, he took off from IMS and proceeded towards MWO, but over shot MWO by approximately 30 miles. He then landed at I19, before he turned around and landed at MWO. He had someone sign his logbook to verify his landing at MWO, and then took off for IMS at 1735. The student reported that it got dark and he did not realize that he passed IMS. The student pilot stated he was lost until he saw a water tower. He circled the water tower and found out that he was in the unfamiliar town of Corydon. While he was circling Corydon, the engine sputtered and the pilot realized he ran out of gas. The pilot put the airplane into a controlled glide around 70 miles per hour and turned on his landing light. When he saw/felt/heard treetops hitting the plane, he held the nose up to reduce impact and eventually stalled. The airplane rested on top of trees for a moment, then flipped to the left and fell upside-down for about 100 feet. After landing upside-down, the pilot unbuckled his seat belt, exited the plane, and ran to the nearest house.

The pilot, age 17, held a student certificate with an endorsement for a Cessna 150L. The pilot reported a total flight time of approximately 30 hours. The pilot had approximately 18 hours in the make and model of the accident aircraft, and approximately 5 logged hours of pilot-in-command. He had not logged any solo cross county time or night flight time.

The reported weather at Bowman Field Airport in Louisville, Kentucky, located approximately 7 NM east of the accident, at 1853 was:

Winds: 090 degrees at 7 knots

Visibility: 10 statute miles

Sky Conditions: Clear

Temperature: 03 degrees Celsius

Dew Point: -07 degrees Celsius
Altimeter: 30.16 inches of mercury.

According to the pilot report, the fuselage was torn at station (STA) 174, and buckled at STA 201 on the left side of the fuselage. The left wing was "crumpled", and the right wing was "crumpled" at STA 84 outwards. Both the stabilizers were "crumpled."

The pilot also reported that tree trunks were skinned vertically above the aircraft, and small limbs from the tree were broken.

A review of the student's Cross Country Navigation Log for the first leg of the flight showed a distance of 4 NM between IMS and the first checkpoint. The student estimated time en route (ETE) was 43 minutes with an estimated time of arrival (ETA) of 1627. The actual time en route (ATE) from IMS to the first checkpoint was reported as 6 minutes, and the actual time of arrival (ATA) as 1544. The student calculated a groundspeed of 90 knots for this waypoint.

The distance from the first checkpoint to the second checkpoint was reported as 22 NM. The ETE was 27 minutes with an ETA of 1625. The ATE was 14 minutes with an ATA of 1558. The groundspeed calculated for this waypoint was 95 knots.

The distance between the second checkpoint and the third checkpoint was reported as 20 nautical miles. The ETE was 21 minutes with an ETA of 1641. The ATE was 22 minutes with an ATA of 1620. The groundspeed calculated for this waypoint was 65 knots.

The distance between the third checkpoint and the fourth checkpoint (MWO) was 23 NM. The student did not fill in any times for this waypoint portion of the leg.

The Cross Country Navigation Log for the second leg of the flight showed a distance of 4 NM between MWO and the first checkpoint. The student ETE was 53 minutes with an ETA of 1823. The ATE was 5 minutes with an ATA of 1740. There were no additional entries for time and groundspeed for this leg of the flight.

The distance between MWO and I19 is approximately 21 nautical miles (nm) and the distance between IMS and Corydon, Indiana, is approximately 48 nm.

Pilot Information

Certificate:	Student	Age:	17,Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	July 2, 2003
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	30 hours (Total, all aircraft), 18 hours (Total, this make and model), 5 hours (Pilot In Command, all aircraft), 2 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N17254
Model/Series:	150L	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Utility	Serial Number:	15073690
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	November 6, 2003 100 hour	Certified Max Gross Wt.:	1600 lbs
Time Since Last Inspection:	51.3 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	4436.3 Hrs as of last inspection	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	O-200A
Registered Owner:	LRT CO LLC	Rated Power:	100 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Night
Observation Facility, Elevation:	LOU,546 ft msl	Distance from Accident Site:	7 Nautical Miles
Observation Time:	18:53 Local	Direction from Accident Site:	90°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	90°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.15 inches Hg	Temperature/Dew Point:	3°C / -7°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Middletown , OH (MWO)	Type of Flight Plan Filed:	None
Destination:	Madison, IN (IMS)	Type of Clearance:	None
Departure Time:	17:35 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	38.357223,-86.214721

Administrative Information

Investigator In Charge (IIC):	Sullivan, Pamela
Additional Participating Persons:	Alfred A Hight; Indianapolis, IN FSDO; Indianapolis, IN
Original Publish Date:	July 29, 2004
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=58637

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