



National Transportation Safety Board Aviation Accident Final Report

Location:	Elberta, AL	Accident Number:	ATL04LA105
Date & Time:	05/01/2004, 1730 CDT	Registration:	N5099D
Aircraft:	Cessna 182A	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

According to the pilot, after the four parachute jumpers exited the airplane, and as he maneuvered the airplane for a landing, the engine lost power. Initial efforts by the pilot to restore full power were unsuccessful, however as the pilot continued, the engine regained partial power. The pilot entered a straight approach for runway 18, While on short final to land on runway 18, the pilot thought he was too high and too fast to land and he initiated a go around. During the go around, the airplane lost engine power. The pilot elected to land on another part of the same field. The aircraft touched down approximately 840 feet west of the approach end of runway 36 on a heading of 270 degrees, heading towards a paved road, power lines and a tree line. The pilot stated that after touchdown, the airplane engine began to develop power. The pilot decided to abort the landing to avoid hitting the road and the trees. During the aborted landing, the airplane flew under the power lines, crossed the paved road but, the right main gear collided with the ground and the airplane nosed over approximately 220 feet west of Baldwin County Road in a wheat field. The pilot stated that he had "insufficient speed to continue take-off." Prior to the flight, the pilot reported that he refueled the airplane to a total of 25 gallons of fuel. Examination of airplane revealed the wings were bent at the outboard leading edge, damage to the right spar and main wheel strut, the propeller was bent rearward at both tips with curved signatures, the firewall was bent near bottom and the right gear was detached. Examination of the flight control system revealed no mechanical malfunctions. An engine test run was also performed. After removing the main fuel line from the firewall, a piece of foreign material was found. The main fuel line was shook and the foreign material escaped out the end of the line allowing fuel to flow freely. The foreign material was searched for in the belly of the airplane but was not found. The main fuel line was reassembled to the firewall and fuel selector valve and fuel to the engine was verified. The engine ran normal to 1800 rpm and a magneto check was performed with a 100 rpm drop noted.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of engine power due to a foreign substance blockage of the fuel line which resulted in

fuel starvation, and the pilot's failure to maintain terrain clearance during an aborted landing.

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - NONMECHANICAL
Phase of Operation: DESCENT

Findings

1. FLUID,FUEL - FLOW RESTRICTED
 2. (C) FUEL SYSTEM,LINE - BLOCKED(PARTIAL)
 3. FUEL SYSTEM,LINE - FOREIGN MATERIAL/SUBSTANCE
 4. (C) FLUID,FUEL - STARVATION
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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: LANDING - ABORTED

Findings

5. (F) TERRAIN CONDITION - GROUND
 6. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
 7. MANEUVER TO AVOID OBSTRUCTIONS - ATTEMPTED - PILOT IN COMMAND
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Occurrence #3: NOSE OVER
Phase of Operation: LANDING - ABORTED

Factual Information

On May 1, 2004, at 1730 central daylight time a Cessna 182A, N5099D, registered to and operated by Emerald Coast Sky Diving Center, collided with the ground in a field near Elberta, Alabama. The flight was operated under the provisions of Title 14 CFR Part 91 with no flight plan filed. Visual meteorological conditions prevailed. The private pilot received minor injuries and the airplane was substantially damaged. The local flight departed Horak Airport, Elberta, Alabama, on May 1, 2004, at 1650.

The pilot had just let four parachute jumpers out and was on his recovery flight back to Horak Airport. The pilot stated the airplane had partial power loss while descending through 6000 feet, approximately four miles north of Horak Airport. The pilot checked the mixture, fuel selector and applied carburetor heat and the engine regained power. The pilot entered a straight in approach for runway 18 at Horak. On arrival, the pilot was over the approach end of the runway at approximately 300 feet above ground level, at 100 knots and in the clean configuration. The pilot thought he was "too high and too fast" to land and he initiated a go around.

As the pilot turned the airplane to the left to enter a right downwind for runway 36 the airplane lost engine power. The pilot elected to land on another part of the same field. The aircraft touched down approximately 840 feet west of the approach end of runway 36 on a heading of 270 degrees, heading towards a paved road, power lines and a tree line. The pilot stated that after touchdown, the airplane engine began to develop power. At this time the pilot decided to attempt a second go around to avoid hitting the road and the trees. During the second go around, the airplane flew under the power lines, crossed the paved road but, the right main gear collided with the ground and the airplane nosed over approximately 220 feet west of Baldwin County Road in a wheat field. The pilot stated that he had "insufficient speed to continue take-off."

Prior to the flight, the pilot reported that he refueled the airplane to a total of 25 gallons of fuel. The pilot used a homemade graduated measuring stick that measured fuel at 5-gallon increments. After refueling, the pilot stated that the right tank had a total of 15 gallons of fuel and the left tank had a total of 10 gallons of fuel. According to the type certificate data sheet for the Cessna 182A, the fuel capacity is 65 gallons; 3 gallons of fuel are unusable.

Examination of airplane revealed the wings were bent at the outboard leading edge, damage to the right spar and main wheel strut, the propeller was bent rearward at both tips with curved signatures, the firewall was bent near bottom and right gear was detached. Examination of the flight control system revealed no mechanical malfunctions. An engine test run was also performed. The damaged propeller was removed and a test club was installed. The cowling was removed to visually inspect the engine before the test run was actually performed. Ten gallons of fuel was placed in the left fuel tank and the firewall fuel strainer was checked for fuel, but no fuel was found. The fuel strainer was then disassembled and checked for obstructions and none were found. The main fuel line from the fuel selector valve to the firewall was loosened and no fuel was found there. After removing the main fuel line from the firewall, a piece of foreign material was found. The main fuel line was shook and the foreign material escaped out the end of the line allowing fuel to flow freely. The foreign material was searched for in the belly of the airplane but was not found. The main fuel line was reassembled to the firewall and fuel selector valve and fuel to the engine was verified. The engine ran normal to 1800 rpm and

a magneto check was performed with a 100 rpm drop noted.

Pilot Information

Certificate:	Commercial	Age:	50, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Without Waivers/Limitations	Last FAA Medical Exam:	06/17/2003
Occupational Pilot:		Last Flight Review or Equivalent:	06/30/2002
Flight Time:	1020 hours (Total, all aircraft), 574 hours (Total, this make and model), 13 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N5099D
Model/Series:	182A	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	51199
Landing Gear Type:	Tricycle	Seats:	5
Date/Type of Last Inspection:	12/20/2003, 100 Hour	Certified Max Gross Wt.:	2650 lbs
Time Since Last Inspection:	58.2 Hours	Engines:	1 Reciprocating
Airframe Total Time:	5337.7 Hours as of last inspection	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	O-470-L
Registered Owner:	Emerald Coast Sky Diving Center	Rated Power:	235 hp
Operator:	Emerald Coast Sky Diving Center	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	NPA, 30 ft msl	Distance from Accident Site:	13 Nautical Miles
Observation Time:	1755 CDT	Direction from Accident Site:	140°
Lowest Cloud Condition:	Thin Broken / 5000 ft agl	Visibility	6 Miles
Lowest Ceiling:	Overcast / 18000 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	12 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	140°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.9 inches Hg	Temperature/Dew Point:	24° C / 22° C
Precipitation and Obscuration:			
Departure Point:	Elberta, AL (7AL9)	Type of Flight Plan Filed:	None
Destination:	Elberta, AL (7AL9)	Type of Clearance:	None
Departure Time:	1650 CDT	Type of Airspace:	Class G

Airport Information

Airport:	Horak (7AL9)	Runway Surface Type:	Grass/turf
Airport Elevation:	110 ft	Runway Surface Condition:	Dry
Runway Used:	36	IFR Approach:	None
Runway Length/Width:	2500 ft / 100 ft	VFR Approach/Landing:	Go Around

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	30.468611, -87.541389

Administrative Information

Investigator In Charge (IIC):	Phillip Powell	Report Date:	07/07/2005
Additional Participating Persons:	Edward Blount; Birmingham FSDO-09; Birmingham, AL		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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