



Aviation Investigation Final Report

Location:	GARY, Indiana	Accident Number:	CHI97FA208
Date & Time:	July 12, 1997, 13:08 Local	Registration:	N8197S
Aircraft:	Cessna 150F	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Other work use		

Analysis

The airplane was involved in a banner towing operation. During a low pass to pick up a banner, the airplane was slow and after picking up the banner was unable to fly away with the banner. The pilot elected to drop the banner; however, the airplane departed controlled flight, entered an inadvertent stall/spin from which the pilot did not recover prior to impact with the terrain.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's not obtaining/maintaining airspeed which resulted in a stall.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: CLIMB

Findings

1. (C) AIRSPEED - NOT OBTAINED/MAINTAINED - PILOT IN COMMAND
2. (C) REMEDIAL ACTION - INADEQUATE - PILOT IN COMMAND
3. (F) STALL/SPIN - INADVERTENT - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings

4. TERRAIN CONDITION - GROUND

Factual Information

HISTORY OF FLIGHT

On July 12, 1997, at 1308 central daylight time, a Cessna 150F, N8197S was destroyed on impact with the terrain following a departure from controlled flight. The pilot sustained fatal injuries. The 14 CFR Part 91 flight was picking up a banner at the time of the accident at the Gary/Chicago Airport, near Gary, Indiana. Two eyewitnesses reported that the airplane was "slow" during the approach to the banner and during the initial climb after picking up the banner. The local flight was operating in visual meteorological conditions. No flight plan was on file. The flight originated from the same airport about 1255.

The owner/operator of the banner towing business said that the purpose of the flight was to tow a banner reading, "JANNELLE, MARY ME? HOLY COW." The banner was to be towed over Wrigley Field in Chicago, Illinois. He said the pilot had successfully towed banners for this company for about two months prior to the accident. He said that the banner was set up in the grass, on the east side of runway 20. The owner said that the pilot had used this pickup point previously and had successfully towed banners of this size, with this airplane.

Two air traffic controllers working in the Gary/Chicago tower witnesses the accident. They indicated that after departure the airplane remained in the traffic pattern until a lull in the traffic allowed the pickup of the banner. They said that the pickup pass was to the south adjacent to runway 20. They said that there was a small delay because the rope fell off one of the poles and the accident airplane continued to circle until the rope was again placed on the pole.

The local controller said that the, "Aircraft made a normal pickup; however, appeared extremely slow on climb out." He said that he told a fellow controller, "97S better put his nose down and gain some speed." He said that, "Approximately 40 seconds after the pickup the banner came off and 97S appeared to level off, aiming for runway 02, then nosed into the ground approximately 150 feet south of approach end of runway 02."

The ground controller also witnessed the accident and said, "The pickup appeared normal; however, the aircraft appeared to be struggling for airspeed and altitude immediately after pickup. The aircraft proceeded approximately fifteen hundred feet from pickup site and then dropped the banner in the trees southeast of departure end of runway 20. He then leveled out and appeared to be making an attempt to land on runway 02 when it spun to the right and nosed in approximately one hundred feet from the approach end of runway 02."

PERSONNEL INFORMATION

The pilot born February 2, 1936, was the holder of a commercial pilot certificate with an

instrument rating. His most recent second class medical was received on May 20, 1997, with the limitation, "Must wear glasses for near and distant vision." No personal logbooks were recovered for the pilot. Information regarding his flying experience was obtained through the Federal Aviation Administration records and an interview with the owner of the banner towing business.

AIRCRAFT INFORMATION

The airplane was a Cessna 150F, N8197S, serial number 15061797. At the time of the accident, the airplane had accumulated a total flight time of 5,052 hours. The most recent annual inspection was conducted on October 4, 1996, at 4,917 hours. At the time of the accident, the engine had accumulated 455 hours since overhaul.

WRECKAGE AND IMPACT INFORMATION

The airplane came to rest upright on an east-northeast heading, about 200 feet southeast of the approach end of runway 2. The nose of the airplane penetrated the surface of the ground and the airplane remained stationary with the tail in the air. Both wings were separated from the fuselage top; however, remained attached to the lift struts and both were in their relative position to the fuselage. The right wing displayed a 45-degree crease from the leading edge aft for about four feet from the wingtip inboard. The left wing displayed fore to aft crushing along the entire leading edge. The engine and firewall were displaced rearward into the cockpit area. The tailcone was bent down and to the left about midway between the baggage area and the leading edge of the horizontal stabilizer. The flaps were found in partial extension. Continuity was found through the aileron, rudder and elevator systems. Fuel remained around the accident site and was leaking from the tanks. There was fuel in the fuel lines and the selector (on/off valve).

The propeller was separated at the crankshaft flange with the flange remaining attached to the propeller. There was bending and twist in both propeller blades. The leading edge of both blades displayed nicks, gouges, and chordwise polishing and scratching.

The engine remained in its relative position; however, was separated from broken engine mounts and the firewall. There was deformation in the firewall consistent with impact between the engine and the firewall. The right mag had separated from the mount and was hanging by the high-tension leads. The carburetor was separated from the mount and was hanging from the accelerator pump shaft. Engine oil had leaked out of the broken oil pan. The oil return lines were in place, but were bent during the impact sequence.

The carburetor was examined and found to contain residual fuel. The spark plugs were removed and found to contain combustion products. All cylinders had thumb compression. During rotation, the left mag sparked at all leads. The engine was rotated through the vacuum pump drive and continuity was established throughout.

MEDICAL AND PATHOLOGICAL INFORMATION

A post-mortem examination of the pilot indicated death was due to blunt trauma. No pre-existent pathology was found to suggest incapacitation. A toxicological examination of specimens from the pilot was negative for the drugs screened.

ADDITIONAL INFORMATION

Parties to the investigation were the Federal Aviation Administration, Flight Standards District Office, South Bend, Indiana; Lycoming Engine Company of Williamsport, Pennsylvania; and Cessna Aircraft Company of Wichita, Kansas.

The wreckage was released to the owner of the airplane on July 14, 1997.

Pilot Information

Certificate:	Commercial	Age:	61, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	May 20, 1997
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	987 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N8197S
Model/Series:	150F 150F	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal; Restricted (Special)	Serial Number:	15061797
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	October 4, 1996 100 hour	Certified Max Gross Wt.:	1600 lbs
Time Since Last Inspection:	135 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	5052 Hrs	Engine Manufacturer:	Lycoming
ELT:		Engine Model/Series:	O-320-E2D
Registered Owner:	AD AIR LINES, INC.	Rated Power:	150 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	GYG ,592 ft msl	Distance from Accident Site:	
Observation Time:	13:13 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Unknown	Visibility	8 miles
Lowest Ceiling:	Broken / 20000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	28°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(GYG)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	VFR
Departure Time:	12:55 Local	Type of Airspace:	Class D

Airport Information

Airport:	GARY/CHICAGO GYY	Runway Surface Type:	
Airport Elevation:	592 ft msl	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	
Runway Length/Width:		VFR Approach/Landing:	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	41.600582,-87.409683(est)

Administrative Information

Investigator In Charge (IIC):	Wilson, Stephen
Additional Participating Persons:	WILLIAM T RENKEN; SOUTH BEND , IN GREGORY ERIKSON; WILLIAMSPORT , PA FRED LEEPER; WICHITA , KS
Original Publish Date:	February 29, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=10432

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