



National Transportation Safety Board Aviation Accident Final Report

Location:	CORNELL, WI	Accident Number:	CHI00FA129
Date & Time:	05/02/2000, 1050 CDT	Registration:	N13145
Aircraft:	Cessna 172M	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	3 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The airplane was destroyed by impact with terrain and by fire following a loss of control during climbout. The pilot and two passengers sustained fatal injuries. A witness stated, 'I observed him taxi and the next I observed was the takeoff. I observed some flaps that seemed to be a short field takeoff. It appeared to not gain the normal altitude. He seemed to be in a climb attitude (not steep) and the flaps remained on. My estimate is aprox. 1 mile before he made his left turn.' He further stated, 'He made the normal pattern for downwind and was still in a climb attitude but not gaining altitude and the flaps appeared to be on. I observed downwind and he seemed to still not gain altitude and appeared to be about 1 1/2 tree lengths above the trees. My line of vision was then obscured by a tree and I heard the crash. I can not remember if the engine was running at the time of impact. It was through the rest. (During the initial climb and takeoff [the airplane operator] ran into the Unicom and called for [the pilot] to raise the flaps. No response. The flaps I believe never went up.)' Another witness stated, 'Crashed/looked as if stalled then nose down and left. Airplane sounded at full power still at or till sound of crash.' The airplane was found impacting terrain approximately 80 degrees pitch down. An on-scene investigation revealed flight control and engine continuity and the engine exhibited a thumb compression at all cylinders. The flap jackscrew was recovered and exhibited 5.9 inches of thread extension which indicated 40 degrees of flap extension.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot not maintaining aircraft control and the stall/spin he encountered. A factor was the extended flaps.

Findings

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

Findings

1. (F) FLIGHT CONTROL, FLAP - EXTENDED
2. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
3. TERRAIN CONDITION - NONE SUITABLE
4. (C) STALL/SPIN - ENCOUNTERED - PILOT IN COMMAND

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

Factual Information

HISTORY OF FLIGHT

On May 2, 2000, at 1050 central daylight time, a Cessna 172M, N13145, piloted by a private pilot, was destroyed by impact with terrain and post impact fire following a loss of control during climbout from runway 27 (2,420 feet X 45 feet, dry/asphalt) at Cornell Municipal Airport, near Cornell, Wisconsin. The personal flight was operating under 14 CFR Part 91. Visual meteorological conditions prevailed at the time of the accident. No flight plan was on file. The pilot and two passengers sustained fatal injuries. The local flight was originating at the time of the accident.

A witness stated, "About time of rotation (nose wheel off) noticed flaps out. [A]mount of deflection unknown. [L]ooked as if flaps came out/down as climb out proceeded. Wasn't climbing well/poor rate of climb. Never got above 200-250 ft. AGL. Airplane came around toward downwind leg of pattern. Airplane looked in slow flight attitude. Sounded as if in full power. Airplane then went out of sight [and] crashed. Crashed/looked as if stalled then nose down and left. Airplane sounded at full power still at or till sound of crash."

Another witness stated, "I observed him taxi and the next I observed was the takeoff. I observed some flaps that seemed to be a short field takeoff. It appeared to not gain the normal altitude. He seemed to be in a climb attitude (not steep) and the flaps remained on. My estimate is approx. 1 mile before he made his left turn." He further stated, "He made the normal pattern for downwind and was still in a climb attitude but not gaining altitude and the flaps appeared to be on. I observed downwind and he seemed to still not gain altitude and appeared to be about 1 1/2 tree lengths above the trees. My line of vision was then obscured by a tree and I heard the crash. I can not remember if the engine was running at the time of impact. It was through the rest. (During the initial climb and takeoff [the airplane operator] ran into the Unicom and called for [the pilot] to raise the flaps. No response. The flaps I believe never went up.)"

Another witness stated, "The plane crossed the highway and then I noticed the wings tipping up and down. It appeared to barely clear the trees over the wooded area on the south side of highway."

PERSONNEL INFORMATION

The pilot was an instrument rated private pilot. He held a Third Class Medical Certificate dated July 2, 1997. The medical indicated that he had asthma and it required him to carry an inhaler to exercise the rights of his certificate. His logbook and records indicated he had a total of 223 hours of flight time and two hours of flight time in the last 90 days.

AIRCRAFT INFORMATION

The airplane was a Cessna 172M, serial number 172-62528. The airplane had its annual inspection performed on July 23, 1999. The airplane accumulated 6958 hours total time and 50 hours since its last inspection. The engine accumulated 4560 hours total time and 412 hours since its last overhaul.

METEOROLOGICAL INFORMATION

At 1055, the Rice Lake Municipal, Rice Lake, Wisconsin, weather was: Wind 200 degrees at 5

knots; visibility 10 statute miles; sky condition clear; temperature 14 degrees C; dew point 8 degrees C; altimeter 30.11 inches of mercury.

WRECKAGE AND IMPACT INFORMATION

The airplane came to rest in a field 223 degrees and .3 nautical miles from Cornell Municipal Airport and was located at latitude 45 degrees 09.662' N and longitude 091 degrees 06.650' W. The airplane was found resting approximately 80 degrees pitch down and on a 280 degree heading. The fuselage was found destroyed by fire. The left and right wings were found attached to their struts. The left wing tip was found imbedded in terrain immediately adjacent the wing and the outboard two feet of its leading edge was crushed rearward. The right wing's leading was crushed rearward from its strut outboard to the wing tip. The empennage was found inverted, resting on the ground, and on the left wing. The right elevator and rudder were destroyed by fire. The engine and propeller were found beneath the fuselage and were imbedded in soil.

An on-scene investigation was conducted. Control continuity was established to all control surfaces. Control continuity was established to the engine. The engine exhibited a thumb compression at all cylinders. Three and a half gallons of blue liquid were recovered from the compromised left fuel tank. The flap jackscrew was recovered and exhibited 5.9 inches of thread extension. According to the Cessna representative, the thread extension indicated 40 degrees of flap extension.

MEDICAL AND PATHOLOGICAL INFORMATION

The Office of the Medical Examiner, County of Ramsey, State of Minnesota performed an autopsy on the pilot, on May 3, 2000.

The Federal Aviation Administration Civil Aeromedical Institute prepared a Final Forensic Toxicology Fatal Accident Report. The report on the pilot was negative for the tests performed.

FIRE

The airplane sustained a post impact fire. The fire destroyed the cabin, the right wing inboard of the strut, fuselage, and the empennage forward and right of the left elevator. Vegetation near the impact caught on fire. A fire stop ditch was dug. The airplane operator reported that a three and a half acre grass fire occurred.

ADDITIONAL INFORMATION

Parties to the investigation included the Federal Aviation Administration, Cessna Aircraft Company, and Textron Lycoming.

The airplane wreckage was released to a representative of the operator on May 4, 2000.

Pilot Information

Certificate:	Private	Age:	20, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	07/02/1997
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	223 hours (Total, all aircraft), 2 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N13145
Model/Series:	172M 172M	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	172-62528
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	07/23/1999, Annual	Certified Max Gross Wt.:	2300 lbs
Time Since Last Inspection:	50 Hours	Engines:	1 Reciprocating
Airframe Total Time:	6958 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O-320-E2D
Registered Owner:	W R O, INC.	Rated Power:	150 hp
Operator:	CORNELL AERO WORKS	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	RPD, 1105 ft msl	Distance from Accident Site:	32 Nautical Miles
Observation Time:	1055 CDT	Direction from Accident Site:	297°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	14° C / 8° C
Precipitation and Obscuration:			
Departure Point:	, WI (4T5)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1050 CDT	Type of Airspace:	Class G

Airport Information

Airport:	CORNELL MUNICIPAL AIRPORT (4T5)	Runway Surface Type:	Asphalt
Airport Elevation:	1150 ft	Runway Surface Condition:	
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	2420 ft / 45 ft	VFR Approach/Landing:	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	2 Fatal	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	EDWARD F MALINOWSKI	Report Date:	04/18/2001
Additional Participating Persons:	ROBERT W GAY; MILWAUKEE, WI ANDREW L HALL; WICHITA, KS GREGORY ERIKSON; WAYNE, IL		
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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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).