



Aviation Investigation Final Report

Location:	CAHOKIA, Illinois	Accident Number:	CHI99LA022
Date & Time:	November 4, 1998, 10:43 Local	Registration:	N1073K
Aircraft:	Mooney M20J	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The landing was being made on runway 30L with a right quartering tailwind of 10 to 13 knots. The airplane traveled off the left side of the runway during the landing roll. The pilot added power in an attempt to fly over a ditch; however, the airplane contacted the far side of the ditch approximately two feet from the top.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's failure to maintain directional control of the airplane during the landing roll. Factors associated with the accident were the quartering tailwind and the ditch that the airplane contacted.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: LANDING - ROLL

Findings

1. (F) WEATHER CONDITION - TAILWIND
 2. (F) WEATHER CONDITION - CROSSWIND
 3. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND
-

Occurrence #2: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: LANDING - ROLL

Findings

4. (F) TERRAIN CONDITION - DITCH

Factual Information

On November 5, 1998, 1043 central standard time, a Mooney M20J, N1073K, collided with a ditch following a loss of directional control while landing on runway 30L (6,997' x 100') at the St. Louis Downtown-Parks Airport, Cahokia, Illinois. The private pilot was not injured. The airplane was substantially damaged. The 14 CFR Part 91 instructional flight was operating in visual meteorological conditions without a flight plan. The flight originated from the St. Louis Downtown-Parks Airport, at 0955 cst.

The pilot reported that he checked the ATIS prior to returning to the airport for landing at which time the winds were being reported as 020 degrees at 10 knots. He reported he centered the airplane over the runway by using a "lot of left rudder and right aileron." The pilot reported the airplane touched down "perfectly", but he was unable to control the "snake-like" motion of the airplane during the landing roll. He reported that instead of over controlling the airplane he decided to let it travel off the left side of the runway into the grass. He reported that there was a ditch in front of him and to minimize the impact he added power in an attempt to fly over it. He continued to report that due to the tailwind, he was unable to clear the ditch and the propeller hit the terrain.

Post accident inspection of the airplane by an inspector from the Federal Aviation Administration St. Louis, Missouri, Flight Standards District Office revealed the ditch was approximately 6 to 7 feet deep and 30 to 40 feet wide. The inspector reported the airplane contacted the far side of the ditch approximately two feet below the top of the ditch. The airplane traveled another 60 to 75 feet prior to coming to a stop. The main landing gear were separated from the airplane and the nose gear had collapsed. Holes were punctured in the wings at the main gear attach points. Both the nose and cowling area were wrinkled.

Reported local winds 9 minutes after the accident were from 050 degrees at 13 knots.

Pilot Information

Certificate:	Private	Age:	29, 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:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	July 1, 1998
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	245 hours (Total, all aircraft), 25 hours (Total, this make and model), 98 hours (Pilot In Command, all aircraft), 36 hours (Last 90 days, all aircraft), 13 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Mooney	Registration:	N1073K
Model/Series:	M20J M20J	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	24-3145
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	September 29, 1998 100 hour	Certified Max Gross Wt.:	2740 lbs
Time Since Last Inspection:	60 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	6565 Hrs	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	IO-360
Registered Owner:	PARKS COLLEGE	Rated Power:	200 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:	CPS ,413 ft msl	Distance from Accident Site:	
Observation Time:	10:52 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Unknown	Visibility	10 miles
Lowest Ceiling:	Overcast / 3800 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	13 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	50°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	6°C / -1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(CPS)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	VFR
Departure Time:	09:55 Local	Type of Airspace:	Class D

Airport Information

Airport:	ST. LOUIS DOWNTOWN PARKS CPS	Runway Surface Type:	Macadam
Airport Elevation:	413 ft msl	Runway Surface Condition:	Dry
Runway Used:	30L	IFR Approach:	None
Runway Length/Width:	6997 ft / 100 ft	VFR Approach/Landing:	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	38.569374,-90.169563(est)

Administrative Information

Investigator In Charge (IIC):	Sullivan, Pamela
Additional Participating Persons:	RAY CALLAHAN; ST. ANN , MO
Original Publish Date:	July 2, 1999
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=45186

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).