



National Transportation Safety Board

Aviation Accident Data Summary

Location:	Kissimmee, FL	Accident Number:	ERA11FA133
Date & Time:	02/02/2011, 1729 EST	Registration:	N415FM
Aircraft:	POTEZ-AIR FOUGA CM 170 MAGISTER	Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General Aviation - Flight Test		

Analysis

After the repair of a number of hydraulic leaks, a post-maintenance check flight was conducted from the vintage jet trainer's home airport with a visiting pilot/mechanic and the pilot/owner onboard. After the airplane took off, it departed the airport traffic pattern for in-flight tests. About 11 minutes later, the airplane reentered the airport traffic pattern and completed a left, overhead, mid-field break about 600 feet above ground level (agl). A voice recognized as the pilot/mechanic's then advised the tower that the three landing gear were down and locked, and the airplane arrived at the abeam position about 500 feet agl and 215 knots. The airplane then eased out of the turn and briefly flew a straight course that angled toward the runway before commencing a sharp turn toward the runway with an observed 90-degree angle of bank. The airplane was then seen descending rapidly before pitching up, overshooting the extended runway centerline, nosing down, and impacting the ground. Both pilots were ejected when the airplane impacted the ground, and neither of the destroyed cockpits nor an airport security video could provide definitive evidence as to which pilot was in which seat. However, because the pilot/mechanic's voice was on all radio transmissions, including a transmission that he was unfamiliar with the airport, it is likely that he was in the front seat and flying the airplane. Wreckage examination revealed that the airplane had impacted the ground in an approximately 45-degree left angle of bank, about 5 degrees nose-low. The landing gear were down and the push button selectors were in the "normal" position, indicating that landing gear were extended normally. The two left-wing flap segments were separated from the extensively damaged wing, and the differing cockpit wing flap indicators were unreliable due to cockpit and airplane damage. However, the two relatively intact right-wing flap segments were up and flush with the wing, consistent with the flaps being up at impact. The emergency airbrake selector was in the "out" position, indicating that the pilot/mechanic had recognized a loss of hydraulic pressure after lowering the landing gear, but before he could effectively deploy airbrakes or flaps. There are no means to lower flaps following a loss of hydraulic pressure. The pilot/mechanic should have extended the downwind leg for a flaps-up approach, per the abnormal procedures. However, he continued the high angle-of-bank, as-configured approach, but did not maintain sufficient airspeed to preclude an "accelerated maneuver stall."

Flight Events

Approach - Sys/Comp malf/fail (non-power)
Approach - Aerodynamic stall/spin
Approach - Loss of control in flight
Uncontrolled descent - Collision with terr/obj (non-CFIT)

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot/mechanic's improper decision to continue a tight-turning landing pattern after a loss of hydraulic pressure, and his subsequent failure to maintain adequate airspeed during that pattern,

which resulted in an accelerated maneuver stall. Contributing to the accident was a loss of hydraulic pressure after the extension of the landing gear.

Findings

Aircraft-Aircraft oper/perf/capability-Performance/control parameters-Airspeed-Not attained/maintained - C

Aircraft-Aircraft systems-Hydraulic power system-(general)-Not specified - F

Personnel issues-Action/decision-Info processing/decision-Decision making/judgment-Pilot - C

Personnel issues-Action/decision-Action-Incorrect action performance-Pilot - C

Pilot Information

Certificate:	Commercial	Age:	53
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	8300 hours (Total, all aircraft)		

Other Flight Crew Information

Certificate:	Commercial	Age:	61
Airplane Rating(s):	Multi-engine Land; Multi-engine Sea; Single-engine Land; Single-engine Sea	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane
Flight Time:	1500 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	POTEZ-AIR FOUGA	Registration:	N415FM
Model/Series:	CM 170 MAGISTER	Engines:	2 Turbo Jet
Operator:	On file	Engine Manufacturer:	TURBOMECA
Air Carrier Operating Certificate:	None	Engine Model/Series:	MARBORE IIC
Flight Conducted Under:	Part 91: General Aviation - Flight Test		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	ISM, 80 ft msl	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	None
Condition of Light:	Day	Wind Speed/Gusts, Direction:	3 knots, 240°
Temperature:	25° C / 19° C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Kissimmee, FL (ISM)	Destination:	Kissimmee, FL (ISM)

Airport Information

Airport:	Kissimmee Gateway Airport (ISM)	Runway Surface Type:	Asphalt
Runway Used:	24	Runway Surface Condition:	Dry
Runway Length/Width:	5001 ft / 150 ft		

Wreckage and Impact Information

Crew Injuries:	2 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC):	Paul R Cox	Adopted Date:	06/28/2012
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=78271		

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