



Aviation Investigation Final Report

Location:	Westfield, Massachusetts	Accident Number:	ERA11CA261
Date & Time:	April 22, 2011, 18:45 Local	Registration:	N10674
Aircraft:	Piper J3C-65	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The pilot stated that he was hand-propping the airplane, as it was not equipped with an electric starter. A passenger, who had flown with him twice since the previous fall, was sitting in the front seat. The pilot instructed the passenger to hold the heel brakes with her toes, and initially verified her ability to do so by pushing on the propeller hub. He then returned to the cockpit area and explained the application of full-aft elevator stick to prevent propeller airflow from raising the tail, and the use of the throttle, which he opened 1/8 to 1/4 inch for the start. The pilot also explained the use of the magnetos, had the passenger turn the magneto switch through the "Both" and "Off" positions twice, and advised her that if anything went wrong, to switch the magnetos off. After priming the engine, the pilot confirmed that the brakes were set by attempting to push the airplane from the propeller hub, then confirmed elevator movement when the control stick was fully aft. The pilot threw the propeller and on the third attempt the engine caught. As the pilot walked around the wing tip to get into the airplane, the airplane began rolling. He called out for the passenger to turn off the magnetos; however, the airplane rolled into a parked airplane. The pilot did not note any mechanical anomalies with the airplane, nor did he indicate the use of any other airplane securing devices such as chocks or a tail tie-down.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's sole reliance on the passenger for securing the airplane during the engine start and the passenger's inability to maintain braking after the engine started.

Findings

Personnel issues	Decision making/judgment - Pilot
Aircraft	Brake - Incorrect use/operation
Personnel issues	Aircraft control - Passenger

Factual Information

History of Flight

Standing-engine(s) operating	Ground collision
Standing-engine(s) start-up	Loss of control on ground (Defining event)

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	22, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	May 26, 2010
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	April 5, 2010
Flight Time:	751 hours (Total, all aircraft), 67 hours (Total, this make and model), 686 hours (Pilot In Command, all aircraft), 93 hours (Last 90 days, all aircraft), 50 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N10674
Model/Series:	J3C-65	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	20168
Landing Gear Type:		Seats:	2
Date/Type of Last Inspection:	November 16, 2010 Annual	Certified Max Gross Wt.:	1220 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	4870 Hrs as of last inspection	Engine Manufacturer:	CONT MOTOR
ELT:	Installed, not activated	Engine Model/Series:	A&C65 SERIES
Registered Owner:	Mymie Pham	Rated Power:	65 Horsepower
Operator:	Westfield Flight Academy	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	BAF,270 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	18:53 Local	Direction from Accident Site:	
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Broken / 11000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	13 knots / 18 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	190°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.39 inches Hg	Temperature/Dew Point:	11°C / -4°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Westfield, MA (BAF)	Type of Flight Plan Filed:	None
Destination:	Westfield, MA (BAF)	Type of Clearance:	None
Departure Time:		Type of Airspace:	

Airport Information

Airport:	Barnes Municipal Airport BAF	Runway Surface Type:	
Airport Elevation:	270 ft msl	Runway Surface Condition:	
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	42.157775,-72.715835(est)

Administrative Information

Investigator In Charge (IIC):	Cox, Paul
Additional Participating Persons:	Joseph White; FAA/FSDO; Windsor Locks, CT
Original Publish Date:	August 3, 2011
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=78948

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](#).