



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

# Aviation Investigation Final Report

<b>Location:</b>	Newburyport, Massachusetts	<b>Accident Number:</b>	ERA18LA175
<b>Date &amp; Time:</b>	June 20, 2018, 12:45 Local	<b>Registration:</b>	N239AM
<b>Aircraft:</b>	AIRCRAFT MFG & DEVELOPMENT CO CH 2000	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Collision during takeoff/land	<b>Injuries:</b>	1 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The private pilot reported that, after a personal, cross-country flight, he entered the traffic pattern at the destination airport and noted a 20° left crosswind between 9 and 11 knots. The final approach was stable, but after crossing the threshold, the airplane descended and drifted left over grass adjacent to the runway. Because the airplane was not over the runway, the pilot chose to conduct a go-around and added full power, but the left main landing gear struck the grass next to the runway. The airplane did not climb and continued drifting left. The pilot retracted the flaps in an attempt to gain altitude; however, the airplane still did not climb, and the stall warning horn activated. He pushed the yoke forward to avoid a stall, and the airplane touched down on the grass and then impacted trees, which resulted in substantial damage to the wings and fuselage.

The pilot reported that there were no mechanical malfunctions or failures with the airplane that contributed to the accident. A stand of trees was located left of the runway. It is possible that the trees blocked the crosswind when the airplane descended below treetop level and that the pilot did not adequately compensate for the existing winds during the final approach and landing flare.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's failure to adequately compensate for existing crosswind conditions during the final approach and landing flare, which led to the airplane drifting left of the runway, and his delayed decision to go around, which resulted in the airplane touching down in the grass next to the runway and a subsequent collision with trees.

## Findings

<b>Environmental issues</b>	Crosswind - Response/compensation
<b>Personnel issues</b>	Aircraft control - Pilot
<b>Personnel issues</b>	Delayed action - Pilot
<b>Environmental issues</b>	Tree(s) - Effect on operation

# Factual Information

## History of Flight

<b>Approach</b>	Other weather encounter
<b>Approach</b>	Loss of control in flight
<b>Approach-VFR go-around</b>	Attempted remediation/recovery
<b>Landing</b>	Collision during takeoff/land (Defining event)
<b>Landing</b>	Runway excursion

On June 20, 2018, about 1245 eastern daylight time, Aircraft Manufacturing and Development Company CH2000, N239AM, was substantially damaged during a go-around at Plum Island Airport (2B2), Newburyport, Massachusetts. The private pilot sustained minor injuries. The airplane was operated by Bald Eagle Flying Club under the provisions of 14 Code of Federal Regulations part 91 as a personal flight. Visual meteorological conditions prevailed, and no flight plan was filed for flight that originated at Portland International Airport (PWM), Portland, Maine at 1142 and was destined for 2B2.

The pilot reported that he entered at the traffic pattern at 2B2 following an uneventful flight from PWM. The windsock showed a 20° left crosswind between 9 and 11 kts for runway 28. The approach to runway 28 was stable at 65 kts and the airplane was configured properly over the threshold. After crossing the threshold, the airplane descended and drifted to the left. The airplane was no longer over the runway, so the pilot elected to go around. He added full power and the left main gear struck the grass next to the runway. The airplane was not gaining altitude and continued to the left. He retracted the flaps with the hope of gaining altitude; however, the airplane did not climb and the stall warning horn activated. He pushed the yoke forward to avoid a stall and the airplane touched down on the grass and then collided with trees.

An inspector with the Federal Aviation Administration responded to the accident site and examined the wreckage. He reported that the airplane came to rest in an area of thick brush and trees. There was no fire. The wings and fuselage sustained structural damage. The nose when was separated and found about 8 ft west of the main wreckage. The propeller and spinner were separated from the engine.

An examination of the runway revealed no skid or tire marks that would indicate touchdown on the paved surface. The first indication of touchdown was found in the grass, about ½ way down the 2,105 ft runway and 200 feet left of the runway edge. Several propeller slash marks were found in the ground, 20 ft west of the initial touchdown point. A stand of trees was located south and west of runway 28.

The pilot reported 149 hours of total flight time, including 22 hours in the accident airplane make and model. He reported that there were no mechanical malfunctions or failures with the airplane prior to the accident.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	48,Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	March 22, 2018
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	October 2, 2017
<b>Flight Time:</b>	149 hours (Total, all aircraft), 22 hours (Total, this make and model), 55 hours (Pilot In Command, all aircraft), 31 hours (Last 90 days, all aircraft), 8 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	AIRCRAFT MFG & DEVELOPMENT CO	<b>Registration:</b>	N239AM
<b>Model/Series:</b>	CH 2000 UNDESIGNAT	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	2004	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	20-1039
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	April 5, 2018 Annual	<b>Certified Max Gross Wt.:</b>	1692 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>		<b>Engine Model/Series:</b>	O-235
<b>Registered Owner:</b>		<b>Rated Power:</b>	117 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	BVY,107 ft msl	<b>Distance from Accident Site:</b>	13 Nautical Miles
<b>Observation Time:</b>	12:53 Local	<b>Direction from Accident Site:</b>	180°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	6 knots /	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	29.81 inches Hg	<b>Temperature/Dew Point:</b>	25°C / 12°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Portland, ME (PWM )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Newburyport, MA (2B2 )	<b>Type of Clearance:</b>	VFR flight following
<b>Departure Time:</b>	11:42 Local	<b>Type of Airspace:</b>	Class E

## Airport Information

<b>Airport:</b>	Plum Island 2B2	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	11 ft msl	<b>Runway Surface Condition:</b>	Dry;Rough
<b>Runway Used:</b>	28	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	2105 ft / 50 ft	<b>VFR Approach/Landing:</b>	Go around

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Minor	<b>Latitude, Longitude:</b>	42.79639,-70.839447(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Hicks, Ralph
<b>Additional Participating Persons:</b>	Justin Gierka; FAA/FSDO; Burlington, MA
<b>Original Publish Date:</b>	April 30, 2019
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=97556">https://data.nts.gov/Docket?ProjectID=97556</a>

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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](#).