



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	Palm Coast, FL	<b>Accident Number:</b>	ERA20CA143
<b>Date &amp; Time:</b>	04/01/2020, 0900 EDT	<b>Registration:</b>	N311ER
<b>Aircraft:</b>	Diamond DA42	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control in flight	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Instructional		

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## Analysis

The flight instructor reported that the pilot receiving instruction was practicing a simulated single-engine failure to a landing in the multiengine airplane. The left engine was set to about 12% power, simulating a feathered propeller engine failure. While on final approach to land, the airplane started to drift right of the runway, and the pilot receiving instruction reported that he was having difficulty controlling the airplane due to strong prevailing winds. The instructor reported that he told the pilot receiving instruction to use more left rudder, but the airplane continued to drift right. The pilot receiving instruction decided to abort the landing and initiated a go-around by advancing both engines to full power. During the go-around, the airplane drifted left and then the instructor took the flight controls and applied full right rudder. The airplane continued drifting left, descended, and impacted vegetation, and the landing gear collapsed. The airplane sustained substantial damage to the rudder and empennage. The instructor reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation. A crosswind component of between 6 and 10 knots existed.

## Probable Cause and Findings

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

The pilot receiving instruction's failure to maintain airplane control during a simulated engine failure landing and subsequent attempted go-around in gusting crosswind conditions and the flight instructor's delayed remedial action.

## Findings

<b>Aircraft</b>	Performance/control parameters - Not attained/maintained (Cause)
<b>Personnel issues</b>	Aircraft control - Student pilot (Cause) Delayed action - Instructor/check pilot (Cause)
<b>Environmental issues</b>	Crosswind - Effect on operation (Cause) Gusts - Effect on operation (Cause) Tree(s) - Contributed to outcome

## Factual Information

### History of Flight

Approach	Other weather encounter Loss of control in flight (Defining event)
Approach-VFR go-around	Attempted remediation/recovery Collision with terr/obj (non-CFIT)
After landing	Landing gear collapse

### Flight Instructor Information

Certificate:	Flight Instructor; Commercial	Age:	26, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 1 With Waivers/Limitations	Last FAA Medical Exam:	04/24/2019
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	02/20/2019
Flight Time:	(Estimated) 1439 hours (Total, all aircraft), 584 hours (Total, this make and model), 1311 hours (Pilot In Command, all aircraft), 199 hours (Last 90 days, all aircraft), 69 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

### Student Pilot Information

Certificate:	Commercial	Age:	20, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 With Waivers/Limitations	Last FAA Medical Exam:	08/22/2019
Occupational Pilot:	No	Last Flight Review or Equivalent:	10/04/2019
Flight Time:	(Estimated) 235 hours (Total, all aircraft), 16 hours (Total, this make and model), 162 hours (Pilot In Command, all aircraft), 16 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

Aircraft Make:	Diamond	Registration:	N311ER
Model/Series:	DA42 NG	Aircraft Category:	Airplane
Year of Manufacture:	2016	Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	42.N212
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	03/05/2020, 100 Hour	Certified Max Gross Wt.:	4407 lbs
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:	2271.1 Hours at time of accident	Engine Manufacturer:	Austro Engine
ELT:	C126 installed, not activated	Engine Model/Series:	e4-c-00-000-0
Registered Owner:	Embry-Riddle Aeronautical University Inc	Rated Power:	165 hp
Operator:	Embry-Riddle Aeronautical University Inc	Operating Certificate(s) Held:	Pilot School (141)

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	FIN, 33 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0850 EDT	Direction from Accident Site:	42°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	10 knots / 15 knots	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	330°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.85 inches Hg	Temperature/Dew Point:	14° C / 9° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Daytona Beach, FL (DAB)	Type of Flight Plan Filed:	None
Destination:	Palm Coast, FL (FIN)	Type of Clearance:	VFR
Departure Time:	0830 EDT	Type of Airspace:	Class D

## Airport Information

Airport:	Flagler Executive (FIN)	Runway Surface Type:	Asphalt
Airport Elevation:	33 ft	Runway Surface Condition:	Dry
Runway Used:	29	IFR Approach:	None
Runway Length/Width:	5500 ft / 100 ft	VFR Approach/Landing:	Full Stop; Traffic Pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	29.465278, -81.207778 (est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Eric M Gutierrez	<b>Report Date:</b>	06/29/2020
<b>Additional Participating Persons:</b>	Maitely Santiago; FAA / FSDO; Orlando, FL		
<b>Publish Date:</b>	06/29/2020		
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.		
<b>Investigation Docket:</b>	<a href="http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=101139">http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=101139</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](#).