



National Transportation Safety Board Aviation Accident Preliminary Report

Location:	Advance, NC	Accident Number:	ERA21LA042
Date & Time:	November 16, 2020, 08:10 Local	Registration:	N451E
Aircraft:	Republic RC3	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

On November 16, 2020, about 0810 eastern standard time, a Republic RC3, N451E, was substantially damaged when it was involved in an accident near Advance, North Carolina. The airline transport pilot was seriously injured. The airplane was operated as a Title 14 Code of Federal Regulations Part 91 personal flight.

According to a mechanic who test flew the airplane the day prior to the accident, he “dipped” the fuel tanks and the airplane had about 18 gallons of fuel on board prior to the pilot departing on a 30-45 minute flight that evening. On the day of the accident the pilot departed on an approximate 30-minute flight from his home airport with an intended destination of Twin Lakes Airport (8A7), Mocksville, North Carolina.

According to the mechanic, that make and model of airplane can burn between 13.5 and 20 gallons of fuel per hour. He also reported that they had not calibrated the fuel flow gauge for the airplane prior to the accident flight. Lastly, the mechanic asked the pilot the night before and the morning of the accident if there was enough fuel in the airplane, to which the pilot stated, “it was fine.”

The airplane came to rest in a field less than 2 miles from the destination airport. A Federal Aviation Administration inspector responded to the accident site and examined the airplane. The examination revealed that the airplane incurred substantial damage to the wing spar during the accident. The propeller was rotated by hand and crankshaft continuity was confirmed. In addition, he noted that there was no fuel in the fuel tanks and about 4 drops of fuel in the fuel filter. Furthermore, there was no evidence of fuel spillage at the accident site.

The airframe and engine were recovered and will be examined.

Aircraft and Owner/Operator Information

Aircraft Make:	Republic	Registration:	N451E
Model/Series:	RC3	Aircraft Category:	Airplane
Amateur Built:	No		
Operator:		Operating Certificate(s) Held:	None

Operator Designator Code:

Meteorological Information and Flight Plan

Conditions at Accident Site:	VMC	Condition of Light:	Day
Observation Facility, Elevation:	EXX,732 ft msl	Observation Time:	08:15 Local
Distance from Accident Site:	11 Nautical Miles	Temperature/Dew Point:	9°C / 1°C
Lowest Cloud Condition:	Clear	Wind Speed/Gusts, Direction:	/ ,
Lowest Ceiling:	None	Visibility:	
Altimeter Setting:	30.17 inches Hg	Type of Flight Plan Filed:	None
Departure Point:	Catawba, NC (NC26)	Destination:	Mocksville, NC (8A7)

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	35.903235,-80.471142 (est)

Administrative Information

Investigator In Charge (IIC):	Kemner, Heidi
Additional Participating Persons:	David Laycock; FAA/FSDO; Greensboro, NC
Note:	The NTSB did not travel to the scene of this accident.