



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Bonaire, Georgia	Accident Number:	ERA23LA279
Date & Time:	June 25, 2023, 09:40 Local	Registration:	N528RE
Aircraft:	EDMISTEN ROBERT EUGENE SR RANS S-14 AIRAILE	Aircraft Damage:	Substantial
Defining Event:	Miscellaneous/other	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot of the experimental amateur-built airplane was flight testing a newly installed propeller. During ground static testing, the pilot found the propeller rpm to be acceptable. After liftoff, the engine rpm increased to a non-acceptable range. The pilot responded by reducing the throttle and retracting the flaps. He also described that the airplane's flight controls felt like a "...mushy precursor to a stall." The pilot then increased the engine power to full and lowered the nose of the airplane to increase airspeed. The airport was surrounded by housing developments, and the pilot turned left in an attempt to return to the airport, but the airplane would not maintain altitude. He then guided the airplane toward trees in order to avoid impacting the houses. During the accident sequence, the airplane sustained substantial damage to the wings, tailboom, and cabin structure. Following the accident, the pilot stated that he had, "inadequately adjusted" the propeller's pitch before the accident flight, which resulted in the airplane's inability to maintain thrust and lift.

Probable Cause and Findings

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

The pilot's failure to properly adjust the propeller's pitch angle, which resulted in a loss of thrust and an inability to maintain altitude.

Findings

Personnel issues

Installation - Pilot

Aircraft

Propeller controlling system - Incorrect service/maintenance

Factual Information

History of Flight

Prior to flight	Aircraft maintenance event
Takeoff	Miscellaneous/other (Defining event)
Emergency descent	Off-field or emergency landing

Pilot Information

Certificate:	Sport Pilot	Age:	74, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Single
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Sport pilot None	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	March 28, 2017
Flight Time:	956 hours (Total, all aircraft), 677 hours (Total, this make and model), 4 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	EDMISTEN ROBERT EUGENE SR	Registration:	N528RE
Model/Series:	RANS S-14 AIRAILE	Aircraft Category:	Airplane
Year of Manufacture:	2004	Amateur Built:	Yes
Airworthiness Certificate:	Experimental light sport (Special)	Serial Number:	0803133
Landing Gear Type:	Tricycle	Seats:	1
Date/Type of Last Inspection:	September 28, 2022 Annual	Certified Max Gross Wt.:	750 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	676 Hrs at time of accident	Engine Manufacturer:	Rotax
ELT:	Not installed	Engine Model/Series:	503
Registered Owner:	EDMISTEN ROBERT E SR	Rated Power:	52 Horsepower
Operator:	EDMISTEN ROBERT E SR	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	WRB,294 ft msl	Distance from Accident Site:	6 Nautical Miles
Observation Time:	09:55 Local	Direction from Accident Site:	5°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	350°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.01 inches Hg	Temperature/Dew Point:	26°C / 21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bonaire, GA	Type of Flight Plan Filed:	None
Destination:	Bonaire, GA	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class G

Airport Information

Airport:	Warner Robbins Air Park RAP	Runway Surface Type:	Grass/turf
Airport Elevation:	400 ft msl	Runway Surface Condition:	Dry
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	2500 ft / 70 ft	VFR Approach/Landing:	Forced landing

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:	32.528649,-83.61003

Administrative Information

Investigator In Charge (IIC):	Boggs, Daniel
Additional Participating Persons:	Steve Davidson; FAA/FSDO; Atlanta, GA
Original Publish Date:	August 10, 2023
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=192492

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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](#).