



# Aviation Investigation Final Report

<b>Location:</b>	Stanwood, Iowa	<b>Accident Number:</b>	CEN23LA009
<b>Date &amp; Time:</b>	October 9, 2022, 11:20 Local	<b>Registration:</b>	N181MY
<b>Aircraft:</b>	YATES MIKE E ROARING EAGLE	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of engine power (partial)	<b>Injuries:</b>	1 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported that he was performing a test flight in the experimental airplane after completing a modification to the pitch control system. While on downwind to land at the private airstrip, the engine lost partial power. During the base to final turn, about 300 ft above ground level, the airplane exceeded its critical angle of attack, which resulted in an aerodynamic stall and loss of airplane control at an altitude too low to allow for recovery. The airplane impacted a cornfield short of the private airstrip and sustained substantial damage to the fuselage and both wings. The pilot reported that there were no preimpact mechanical malfunctions or failures that would have precluded normal operation. The pilot stated that the partial loss of engine power was due to an excessive fuel pressure to the carburetor because he forgot to open a valve that bypassed fuel around the fuel pump that is used for engine priming and starting.

## Probable Cause and Findings

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

The pilot's exceedance of the airplane's critical angle of attack in the traffic pattern, which resulted in an aerodynamic stall and loss of airplane control at too low of an altitude to recover. Contributing to the accident was the partial loss of engine power due to improper management of the fuel system.

## Findings

<b>Aircraft</b>	Fuel pressure - Incorrect use/operation
<b>Personnel issues</b>	Lack of action - Pilot
<b>Personnel issues</b>	Aircraft control - Pilot
<b>Aircraft</b>	Angle of attack - Capability exceeded
<b>Aircraft</b>	Airspeed - Not attained/maintained

## Factual Information

### History of Flight

<b>Maneuvering</b>	Loss of engine power (partial) (Defining event)
<b>Uncontrolled descent</b>	Collision with terr/obj (non-CFIT)

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	67,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>	Lap only
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	Class 3 With waivers/limitations	<b>Last FAA Medical Exam:</b>	October 13, 2020
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	August 22, 2022
<b>Flight Time:</b>	515 hours (Total, all aircraft), 11 hours (Total, this make and model), 450 hours (Pilot In Command, all aircraft), 1 hours (Last 90 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	YATES MIKE E	<b>Registration:</b>	N181MY
<b>Model/Series:</b>	ROARING EAGLE	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	2020	<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	MB5137
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	May 20, 2022 Condition	<b>Certified Max Gross Wt.:</b>	1490 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	11.5 Hrs at time of accident	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	C91A installed, not activated	<b>Engine Model/Series:</b>	O-320-E2D
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	150 Horsepower
<b>Operator:</b>	On file	<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>	KCID,840 ft msl	<b>Distance from Accident Site:</b>	26 Nautical Miles
<b>Observation Time:</b>	11:52 Local	<b>Direction from Accident Site:</b>	269°
<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>	7 knots / None	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	230°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.12 inches Hg	<b>Temperature/Dew Point:</b>	19°C / 3°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Stanwood, IA	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Stanwood, IA	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>		<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	PVT PVT	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>	0 ft msl	<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>		<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Traffic pattern

## 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>		<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Minor	<b>Latitude, Longitude:</b>	41.888757,-91.152133(est)

## Administrative Information

Investigator In Charge (IIC):	Sauer, Aaron
Additional Participating Persons:	Michael D Massell; FAA; Des Moines, IA
Original Publish Date:	June 6, 2023
Last Revision Date:	
Investigation Class:	<a href="#">Class 4</a>
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	<a href="https://data.nts.gov/Docket?ProjectID=106093">https://data.nts.gov/Docket?ProjectID=106093</a>

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