



# Aviation Investigation Final Report

<b>Location:</b>	WAHOO, Nebraska	<b>Accident Number:</b>	CHI99LA236
<b>Date &amp; Time:</b>	July 18, 1999, 14:00 Local	<b>Registration:</b>	N3859H
<b>Aircraft:</b>	Ercoupe (Eng & Research Corp.) 415-CD	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The airplane sat idle for a two months prior to the accident. The pilot reported the battery had enough power to rotate the propeller through only one rotation when he attempted to start the engine. He exited the airplane to turn the propeller in an attempt to '...get the engine at the top of its compression stroke.' The pilot reported he turned off the master switch, but failed to turn off the ignition switch prior to moving the propeller. He moved the propeller one-half of a turn and the engine started. The airplane traveled down a taxiway where it contacted a hangar becoming imbedded in the hangar.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper starting technique which resulted in the inadvertent starting of the engine, with no one in the airplane.

### Findings

Occurrence #1: ON GROUND/WATER COLLISION WITH OBJECT  
Phase of Operation: STANDING - STARTING ENGINE(S)

#### Findings

1. IGNITION SYSTEM,MAGNETO - ACTIVATED
2. (C) STARTING PROCEDURE - IMPROPER - PILOT IN COMMAND

3. (C) AIRCRAFT UNATTENDED/ENGINE(S) RUNNING
4. (F) OBJECT - HANGAR/AIRPORT BUILDING

## Factual Information

On July 18, 1999, at 1400 central daylight time, an Engineering & Research 415-CD, N3895H, collided with a hangar when it inadvertently started as the pilot was pulling the propeller through, at the Wahoo Municipal Airport, Wahoo, Nebraska. The pilot was not injured. The airplane was substantially damaged. Visual meteorological conditions existed at the time of the accident. The flight was to have originated shortly after the accident.

The pilot stated he was picking up his airplane after having had maintenance performed on it two months prior to this accident. He reported when he attempted to start the airplane, the battery only had enough power to rotate the propeller through one rotation. He reported he exited the airplane and was going to turn the propeller to "...get the engine at the top of its compression stroke." He reported he had done this in the past and upon using the starter again, "...the prop would have enough momentum to swing into a second rotation which was usually enough to start the engine." The pilot reported he turned off the master switch, but failed to turn off the ignition switch prior to moving the propeller. He reported he moved the propeller one-half of a turn and the engine started. The airplane traveled down a taxiway where it contacted a hangar. He reported that the impact left the airplane imbedded in the hangar door up to the wing spar.

The pilot reported the accident could have been prevented had he "...[been] absolutely sure all switches [were in] the 'off' position prior to any attempt to hand-turn the prop. Better still, don't attempt to hand turn the prop without someone at the controls."

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	56, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Unknown
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<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 3 Valid Medical--w/ waivers/lim	<b>Last FAA Medical Exam:</b>	November 13, 1997
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	194 hours (Total, all aircraft), 103 hours (Total, this make and model), 11 hours (Last 90 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Ercoupe (Eng & Research Corp.)	<b>Registration:</b>	N3859H
<b>Model/Series:</b>	415-CD 415-CD	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	4580
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	Annual	<b>Certified Max Gross Wt.:</b>	1260 lbs
<b>Time Since Last Inspection:</b>	10 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1250 Hrs	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	C-75-12F
<b>Registered Owner:</b>	ROBERT M. BARBER	<b>Rated Power:</b>	75 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	OMA ,984 ft msl	<b>Distance from Accident Site:</b>	34 Nautical Miles
<b>Observation Time:</b>	13:52 Local	<b>Direction from Accident Site:</b>	80°
<b>Lowest Cloud Condition:</b>	Scattered / 4000 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 9000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	9 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	200°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	30°C / 21°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	(AHQ)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	00:00 Local	<b>Type of Airspace:</b>	Class E

## Airport Information

<b>Airport:</b>	WAHOO MUNICIPAL AHQ	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<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 None	<b>Latitude, Longitude:</b>	41.209274,-96.620292(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Sullivan, Pamela
<b>Additional Participating Persons:</b>	BOB FULLER; LINCOLN , NE
<b>Original Publish Date:</b>	June 22, 2000
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=46820">https://data.ntsb.gov/Docket?ProjectID=46820</a>

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