



Aviation Investigation Final Report

Location:	Ivins, Utah	Accident Number:	DEN01LA065
Date & Time:	March 9, 2001, 16:45 Local	Registration:	N1121J
Aircraft:	ERCO 415-C	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot said there was an intermittent loss of engine power during cruise flight . He suspected carburetor icing "since the Stromberg carburetor, standard [equipment] on the Ercoupe 415C, is prone to icing," and he immediately applied carburetor heat. The carburetor air temperature gauge indicated 10 degrees C. The engine "continued a pattern of power off/power on/power off in cycles of 4 or 5 seconds." He left the carburetor heat on but soon realized that his rate of descent left insufficient altitude to arrive at the destination airport. He landed on rough desert terrain, extensively damaging both wings and the nose and left main landing gears. According to the Carburetor Icing Graph, a temperature of 12 degrees C. and a dew point of 4 degrees C. [as reported by the nearest weather observation station] could result in serious icing at glide power, and a temperature of 10 degrees C. (as reported by the pilot) could result in serious icing at cruise power.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The unsuitable terrain on which to make a forced landing. A contributing factors was the carburetor icing conditions.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: CRUISE

Findings

1. (F) WEATHER CONDITION - CARBURETOR ICING CONDITIONS
2. (F) CARBURETOR HEAT - USED - PILOT IN COMMAND

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: LANDING - ROLL

Findings

3. (C) TERRAIN CONDITION - NONE SUITABLE
4. (F) TERRAIN CONDITION - ROUGH/UNEVEN
5. (F) TERRAIN CONDITION - DIRT BANK/RISING EMBANKMENT

Factual Information

On March 9, 2001, approximately 1645 mountain standard time, an Erco 415-C Ercoupe, N1121J, owned and operated by the pilot, was substantially damaged when it collided with terrain during a forced landing at Ivins, Utah. The private pilot, the sole occupant aboard, received minor injuries. Visual meteorological conditions prevailed, and no flight plan had been filed for the personal flight being conducted under Title 14 CFR Part 91. The flight originated at Hurricane, Utah, approximately 1600.

According to the pilot's accident report, he departed Hurricane, Utah, and was en route to St. George, Utah, with a "fly-over" at the town of Ivins, where he lived. After circling Ivins and turning towards St. George, there was an "intermittent loss of [engine] power." He suspected carburetor icing "since the Stromberg carburetor, standard [equipment] on the Ercoupe 415C, is prone to icing," and he immediately applied carburetor heat. The engine "continued a pattern of power off/power on/power off in cycles of 4 or 5 seconds." He left the carburetor heat on but soon realized that his rate of descent left insufficient altitude to arrive at St. George. He turned back towards Ivins but was forced to land on rough desert terrain. The nose and left main landing gears struck a dirt berm. The nose gear was bent back and both wings were extensively damaged.

The pilot told an FAA inspector that when the engine lost power, the carburetor air temperature gauge indicated 10 degrees C. According to the Carburetor Icing Graph (see public docket), a temperature of 12 degrees C. and a dew point of 4 degrees C. [as reported by the St. George METAR (aviation routine weather report)] could result in "serious icing at glide power," and a temperature of 10 degrees C. (as reported by the pilot) could result in "serious icing at cruise power."

Pilot Information

Certificate:		Age:	65, Male
Airplane Rating(s):		Seat Occupied:	Left
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):		Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	December 12, 2000
Occupational Pilot:	No	Last Flight Review or Equivalent:	November 12, 1999
Flight Time:	424 hours (Total, all aircraft), 314 hours (Total, this make and model), 375 hours (Pilot In Command, all aircraft), 3 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	ERCO	Registration:	N1121J
Model/Series:	415-C	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	3833
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	February 11, 1981 Annual	Certified Max Gross Wt.:	1400 lbs
Time Since Last Inspection:	33 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	1393 Hrs at time of accident	Engine Manufacturer:	Continental
ELT:	Not installed	Engine Model/Series:	C-85-12
Registered Owner:	Ralph E. Huddleston	Rated Power:	85 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	SGU,2941 ft msl	Distance from Accident Site:	
Observation Time:	16:55 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Scattered / 6500 ft AGL	Visibility	10 miles
Lowest Ceiling:	Broken / 10000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	12 knots / 17 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	90°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.7 inches Hg	Temperature/Dew Point:	12°C / 4°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Hurricane, UT (1L8)	Type of Flight Plan Filed:	None
Destination:	St. George, UT (SGU)	Type of Clearance:	None
Departure Time:	16:15 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	37.180057,-113.710067(est)

Administrative Information

Investigator In Charge (IIC):	Scott, Arnold
Additional Participating Persons:	Les W DeNaughel; FAA Flight Standards District Office; Salt Lake City, UT
Original Publish Date:	July 30, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=51888

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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](#).