



Aviation Investigation Final Report

Location:	Cheyenne, Wyoming	Accident Number:	GAA19CA384
Date & Time:	July 1, 2019, 21:00 Local	Registration:	N387G
Aircraft:	American Aviation AA5	Aircraft Damage:	Substantial
Defining Event:	Hard landing	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, while en route, she diverted due to deteriorating weather at the intended destination. She added that, during landing, a second pilot in the right seat reported a right quartering crosswind and that, during the "transition to the roundout," she observed 65 knots on the airspeed gauge, she heard the stall warning horn, and the airplane developed a high sink rate. She attempted to go around, but the airplane landed hard and veered left. The airplane became airborne again, and the pilot attempted to regain the runway centerline, but the fuselage and wing struck objects on the left side of the runway. She decided a go-around was not possible, so she reduced power and landed the airplane in grass left of the runway.

The airplane sustained substantial damage to the right wing.

The pilot reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

An automated weather observation station located about 3 miles west of the airport reported that, about 2 minutes before the accident, the wind was from 020° at 8 knots and that, about 32 minutes after the accident, the wind was from 020° at 9 knots. The pilot landed the airplane on runway 27.

Probable Cause and Findings

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

The pilot's failure to maintain a proper descent rate and landing flare during landing with a tailwind, which resulted in a hard landing and a subsequent loss of directional control, runway excursion, and collision with objects.

Findings

Aircraft	Landing flare - Not attained/maintained
Aircraft	Directional control - Not attained/maintained
Aircraft	Descent rate - Not attained/maintained
Personnel issues	Aircraft control - Pilot
Environmental issues	Tailwind - Effect on operation

Factual Information

History of Flight

Approach-VFR pattern final	Miscellaneous/other
Landing	Hard landing (Defining event)
Landing	Loss of control on ground
Landing	Runway excursion
Landing	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Commercial; Military; Private	Age:	43,Female
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Unknown
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Without waivers/limitations	Last FAA Medical Exam:	February 25, 2019
Occupational Pilot:	No	Last Flight Review or Equivalent:	May 3, 2019
Flight Time:	(Estimated) 965.9 hours (Total, all aircraft), 56.9 hours (Total, this make and model), 486.5 hours (Pilot In Command, all aircraft), 59.5 hours (Last 90 days, all aircraft), 50.2 hours (Last 30 days, all aircraft), 1.6 hours (Last 24 hours, all aircraft)		

Pilot Information

Certificate:	Commercial; Military; Private	Age:	38,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Unknown
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	February 18, 2019
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 1637 hours (Total, all aircraft), 130 hours (Total, this make and model), 1010 hours (Pilot In Command, all aircraft), 195 hours (Last 90 days, all aircraft), 121 hours (Last 30 days, all aircraft), 10 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	American Aviation	Registration:	N387G
Model/Series:	AA5 A	Aircraft Category:	Airplane
Year of Manufacture:	1977	Amateur Built:	
Airworthiness Certificate:	Normal; Utility	Serial Number:	AA5A0387
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	April 9, 2018 100 hour	Certified Max Gross Wt.:	2200 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	4245.6 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	C91 installed, not activated	Engine Model/Series:	O-320-E2G
Registered Owner:	Thunderfighter Llc	Rated Power:	160 Horsepower
Operator:	Western Air Flight Academy	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Dusk
Observation Facility, Elevation:	KFEW,6160 ft msl	Distance from Accident Site:	3 Nautical Miles
Observation Time:	03:58 Local	Direction from Accident Site:	248°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Broken / 7500 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	20°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.23 inches Hg	Temperature/Dew Point:	15°C / 12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Casper, WY (CPR)	Type of Flight Plan Filed:	None
Destination:	Denver, CO (BJC)	Type of Clearance:	VFR
Departure Time:	18:30 Local	Type of Airspace:	Class D

Airport Information

Airport:	CHEYENNE RGNL/JERRY OLSON FIEL CYS	Runway Surface Type:	Concrete
Airport Elevation:	6159 ft msl	Runway Surface Condition:	Wet
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	9270 ft / 150 ft	VFR Approach/Landing:	Full stop

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	41.154998,-104.795555(est)

Administrative Information

Investigator In Charge (IIC):	Benhoff, Kathryn
Additional Participating Persons:	Robert Nance; FAA; Denver, CO
Original Publish Date:	December 2, 2019
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=99764

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