



Aviation Investigation Final Report

Location:	WRAY, Colorado	Accident Number:	DEN93LA087
Date & Time:	July 27, 1993, 09:40 Local	Registration:	N3617X
Aircraft:	AERO COMMANDER 100-180	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

IN HIS FIRST LANDING ATTEMPT TO RUNWAY 32, THE PILOT USED 30 DEGREES OF FLAPS BUT THE AIRPLANE BECAME UNCONTROLLABLE DURING THE FLARE AND THE LANDING WAS ABORTED. A SECOND LANDING ATTEMPT WAS ABANDONED DUE TO DEPARTING TRAFFIC. ON THE THIRD LANDING ATTEMPT, THE PILOT USED 10 DEGREES OF FLAPS AND A SLIGHTLY HIGHER APPROACH SPEED. AGAIN, THE AIRPLANE YAWED TO THE LEFT AND THE PILOT SAID SLIGHT RUDDER APPLICATION RESULTED IN FULL RUDDER DEFLECTION. THE PILOT SAID HE WAS SLOW IN RECOVERING AND ADDING FULL POWER TO GO AROUND. THE AIRPLANE IMPACTED THE RUNWAY, SLID APPROXIMATELY 100 FEET, AND CAUGHT FIRE. A WITNESS SAID THE AIRPLANE LANDED HARD, BOUNCED, ASSUMED A NOSE HIGH ATTITUDE, STALLED, AND IMPACTED THE RUNWAY. POST ACCIDENT EXAMINATION DISCLOSED NO EVIDENCE OF RUDDER OR OTHER FLIGHT CONTROL DISCREPANCIES. PILOT REPORTED WIND WAS FROM 350 DEGREES AT 10 MILES PER HOUR GUSTING TO 25.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S INADEQUATE COMPENSATION FOR THE WIND CONDITIONS AND IMPROPER RECOVERY FROM A BOUNCED LANDING. THE GUSTY CROSSWIND WAS A FACTOR.

Findings

Occurrence #1: HARD LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (F) WEATHER CONDITION - CROSSWIND
2. (F) WEATHER CONDITION - GUSTS
3. (C) COMPENSATION FOR WIND CONDITIONS - INADEQUATE - PILOT IN COMMAND
4. (C) RECOVERY FROM BOUNCED LANDING - IMPROPER - PILOT IN COMMAND

Factual Information

Pilot Information

Certificate:	Private	Age:	59, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	April 16, 1993
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	104 hours (Total, all aircraft), 99 hours (Total, this make and model), 104 hours (Pilot In Command, all aircraft), 5 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	AERO COMMANDER	Registration:	N3617X
Model/Series:	100-180 100-180	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	5093
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	July 23, 1992 Annual	Certified Max Gross Wt.:	2450 lbs
Time Since Last Inspection:	45 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	1300 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-360-A2F
Registered Owner:	CARSON, OMER L.	Rated Power:	180 Horsepower
Operator:	CARSON, OMER L.	Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	30 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	10 knots / 25 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	350°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	17°C / 3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	BOULDER , CO (1V5)	Type of Flight Plan Filed:	None
Destination:	(2V5)	Type of Clearance:	None
Departure Time:	06:00 Local	Type of Airspace:	Class G

Airport Information

Airport:	WRAY MUNICIPAL 2V5	Runway Surface Type:	Asphalt
Airport Elevation:	3662 ft msl	Runway Surface Condition:	Dry
Runway Used:	32	IFR Approach:	
Runway Length/Width:	5000 ft / 75 ft	VFR Approach/Landing:	Full stop

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Destroyed
Passenger Injuries:	1 None	Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	40.070358,-102.220718(est)

Administrative Information

Investigator In Charge (IIC):	Scott, Arnold
Additional Participating Persons:	DON BORDONARO; DENVER , CO
Original Publish Date:	November 19, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=18304

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