



Aviation Investigation Final Report

Location:	Pueblo, Colorado	Accident Number:	DEN03LA095
Date & Time:	May 31, 2003, 17:00 Local	Registration:	N425SG
Aircraft:	Cessna 425	Aircraft Damage:	Substantial
Defining Event:		Injuries:	3 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airplane sustained substantial damage when it encountered hail while in cruise flight. Halfway through the flight, Denver Center advised the pilot "that [his] intersection was closed due to weather" and they changed his route. The flight was at 29,000 feet and was cleared to descend to 27,000 feet. The pilot asked center how long he would be in the rain. The controller replied you should be out of the rain in about 1 or 2 minutes. Shortly thereafter, the aircraft encountered "severe hail, lightning, and turbulence." Weather radar indicated this route of flight passed near an area of moderate thunderstorm activity. The pilot continued to his destination and landed without further incident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's inadvertent flight into adverse weather conditions. Contributing factors include the encounter with severe turbulence and hail.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: CRUISE - NORMAL

Findings

1. (C) FLIGHT INTO ADVERSE WEATHER - INADVERTENT - PILOT IN COMMAND
2. (F) WEATHER CONDITION - TURBULENCE(THUNDERSTORMS)

3. (F) WEATHER CONDITION - HAIL
4. WEATHER CONDITION - LIGHTNING
5. WEATHER CONDITION - RAIN

Factual Information

On May 31, 2003, approximately 1700 mountain daylight time, a Cessna 425, N425SG, was substantially damaged when it encountered hail while in cruise flight, 30 miles northwest of Pueblo, Colorado. The private pilot and his two passengers were not injured. Instrument meteorological conditions prevailed for the cross-country flight being conducted under Title 14 CFR Part 91. The flight departed Page, Arizona, at 1600 and was flying under an IFR flight plan, en-route to Centennial Airport (APA), Englewood, Colorado.

According to the pilot, his original route of flight was from Page, direct to Larks intersection (just west of APA), direct APA. Halfway through the flight, Denver Center advised the pilot "that Larks intersection was closed due to weather." According to the pilot, the flight was then cleared "direct Alamosa, direct Pueblo, direct Black Forest VOR, direct Falcon VOR, direct APA." The pilot stated just east of Alamosa, Denver Center cleared the flight: "direct Fishr intersection, direct Black Forest VOR, direct Falcon VOR, direct APA." The flight was at 29,000 feet and was cleared to descend to 27,000 feet. Approximately 30 miles southwest of Pueblo, the pilot asked Denver Center how long he would be in the rain. The controller replied that the radar information "may or may not be accurate, you'd be out of that in a couple of minutes." According to the pilot, shortly thereafter, the aircraft encountered "severe hail, lightning, and turbulence." Weather radar indicated this route of flight passed near an area of moderate thunderstorm activity.

The pilot continued to his destination and landed without further incident. Postflight examination of the airplane revealed damage to the leading edge of the wings, horizontal and vertical stabilizers, exhaust stacks and radome. The mechanic that evaluated the damage said that the airplane required major repair.

Pilot Information

Certificate:	Private	Age:	60, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	July 13, 2001
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	November 1, 2002
Flight Time:	4201 hours (Total, all aircraft), 426 hours (Total, this make and model), 4201 hours (Pilot In Command, all aircraft), 68 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N425SG
Model/Series:	425	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	425-0166
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	May 14, 2003 Annual	Certified Max Gross Wt.:	7800 lbs
Time Since Last Inspection:	1 Hrs	Engines:	2 Turbo prop
Airframe Total Time:	3854 Hrs	Engine Manufacturer:	Pratt & Whitney
ELT:	Installed, not activated	Engine Model/Series:	PT6A-135A
Registered Owner:	On file	Rated Power:	750 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	Condition of Light:	Day
Observation Facility, Elevation:	PUB	Distance from Accident Site:	
Observation Time:	15:53 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.03 inches Hg	Temperature/Dew Point:	23°C / 14°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	PAGE, AZ (PGA)	Type of Flight Plan Filed:	IFR
Destination:	Englewood, CO (APA)	Type of Clearance:	IFR
Departure Time:	16:00 Local	Type of Airspace:	Class A

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	38.359626,-104.769981(est)

Administrative Information

Investigator In Charge (IIC):	Struhsaker, James
Additional Participating Persons:	Roger O Kenney; Denver FSDO; Denver, CO
Original Publish Date:	March 2, 2004
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=57135

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