



# **Aviation Investigation Final Report**

Location: COLORADO SPGS, Colorado Accident Number: DEN89LA120

Date & Time: May 17, 1989, 12:40 Local Registration: N624H

Aircraft: ENSTROM 280C Aircraft Damage: Substantial

**Defining Event:** 1 Minor, 1 None

Flight Conducted Under: Part 91: General aviation - Other work use

#### **Analysis**

AFTER RETURNING FROM A LOCAL PHOTO FLT, THE PLT MADE AN APCH TO A HOVER LANDING NEAR THE APCH END OF RWY 17. HE WAS THEN CLEARED TO CROSS THE RWY & PROCEED (SOUTH-SOUTHEAST) TO THE INTENDED PARKING AREA. AS HE STARTED FORWARD & BEGAN A CLIMB, HE NOTICED WHAT HE BELIEVED WAS A PARTIAL POWER LOSS & HE INITIATED A HOVERING AUTOROTATION. THE HELICOPTER TOUCHED DOWN WITH FORWARD SPEED & SLID TO A STOP, THEN ROCKED BACKWARD & TO THE LEFT, DAMAGING THE MAIN & TAIL ROTOR BLADES. A POST ACDNT ENG RUN WAS MADE, BUT NO REASON WAS FOUND FOR THE RPRTD POWER LOSS. THE PREVAILING WIND WAS FROM 340 DEG AT 10 KTS. THE PLT RPRTD THE WIND WAS GUSTING TO 20 KTS. DENSITY ALTITUDE WAS CALCULATED TO BE 7300 FT.

#### **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: INADEQUATE COMPENSATION FOR THE WIND CONDITIONS BY THE PILOT. THE HIGH DENSITY ALTITUDE AND WIND CONDITIONS WERE CONTRIBUTING FACTORS.

#### **Findings**

Occurrence #1: MISCELLANEOUS/OTHER Phase of Operation: TAXI - AERIAL

**Findings** 

1. (F) WEATHER CONDITION - HIGH DENSITY ALTITUDE

2. (F) WEATHER CONDITION - CROSSWIND

3. (F) WEATHER CONDITION - TAILWIND

4. (F) WEATHER CONDITION - GUSTS

5. (C) COMPENSATION FOR WIND CONDITIONS - INADEQUATE - PILOT IN COMMAND

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: TAXI - AERIAL

**Findings** 

6. AUTOROTATION - ATTEMPTED

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Occurrence #3: ROLL OVER

Phase of Operation: TAXI - AERIAL

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## **Factual Information**

#### **Pilot Information**

Certificate:	Airline transport; Flight instructor	Age:	46,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land; Multi- engine sea	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Helicopter; Instrument airplane; Instrument helicopter	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medicalno waivers/lim.	Last FAA Medical Exam:	February 23, 1989
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	4300 hours (Total, all aircraft), 150 hours (Total, this make and model), 4000 hours (Pilot In Command, all aircraft), 188 hours (Last 90 days, all aircraft)		

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### **Aircraft and Owner/Operator Information**

Aircraft Make:	ENSTROM	Registration:	N624H
Model/Series:	280C 280C	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	1078
Landing Gear Type:	Skid	Seats:	3
Date/Type of Last Inspection:	100 hour	Certified Max Gross Wt.:	2150 lbs
Time Since Last Inspection:	5 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	4300 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	HIO-360-E1AD
Registered Owner:	MIKE GONSALES	Rated Power:	205 Horsepower
Operator:	FALCON HELICOPTERS	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:	COS ,6172 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	12:40 Local	Direction from Accident Site:	170°
<b>Lowest Cloud Condition:</b>	Unknown	Visibility	60 miles
Lowest Ceiling:	Broken / 4800 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	340°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	16°C / 3°C
Precipitation and Obscuration:	No Obscuration; No Precipit	ation	
Departure Point:	(COS)	Type of Flight Plan Filed:	None
Destination:	(COS)	Type of Clearance:	None
Departure Time:	10:32 Local	Type of Airspace:	Class D;TRSA

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### **Airport Information**

Airport:	COLORADO SPRINGS COS	Runway Surface Type:	Asphalt
Airport Elevation:	6172 ft msl	<b>Runway Surface Condition:</b>	Dry
Runway Used:	17	IFR Approach:	None
Runway Length/Width:	11021 ft / 150 ft	VFR Approach/Landing:	Straight-in

### Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor, 1 None	Latitude, Longitude:	38.809226,-104.769401(est)

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#### **Administrative Information**

Investigator In Charge (IIC):	Collins, Robert	
Additional Participating Persons:	CARROLL DYESS; AURORA , CO	
Original Publish Date:	June 18, 1990	
Last Revision Date:		
Investigation Class:	<u>Class</u>	
Note:		
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=17709	

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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.

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