



Aviation Investigation Final Report

Location:	REGINA, New Mexico	Accident Number:	DEN89LA118
Date & Time:	May 9, 1989, 14:30 Local	Registration:	N88RA
Aircraft:	ENSTROM F-28C	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation		

Analysis

WHILE CONDUCTING A TEST FLT FOLLOWING REPAIRS TO THE TAIL ROTOR DUE TO AN EARLIER ACCIDENT THE PLT STRUCK THE TAIL ROTOR ON THE GROUND WHILE TRANSITIONING FROM FORWARD FLT TO A HOVER. THE GROUND CONTACT CAUSED THE TAIL ROTOR DRIVE SHAFT TO FAIL AND THE HELICOPTER SUSTAINED SUBSTANTIAL DAMAGE IN THE ENSUING CRASH. THE DENSITY ALTITUDE AT THE TIME OF THE ACCIDENT WAS CALCULATED TO BE 10,400 FT. THE ENSTROM F-28C OPERATORS HANDBOOK NOTES THAT THE GROUND EFFECT HOVER CEILING IS 8,800 FT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S POORLY PLANNED APPROACH AND DISREGARD OF THE HELICOPTERS PERFORMANCE DATA. CONTRIBUTING TO THE ACCIDENT WAS THE HIGH DENSITY ALTITUDE CONDITIONS WHICH EXISTED AT THE TIME OF THE ACCIDENT.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. TERRAIN CONDITION - GRASS
2. (C) PLANNED APPROACH - POOR - PILOT IN COMMAND

3. (F) WEATHER CONDITION - HIGH DENSITY ALTITUDE
4. (C) PERFORMANCE DATA - DISREGARDED - PILOT IN COMMAND

Factual Information

Pilot Information

Certificate:	Commercial	Age:	52, 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:	January 6, 1988
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	10000 hours (Total, all aircraft), 60 hours (Total, this make and model), 100 hours (Last 90 days, all aircraft), 35 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	ENSTROM	Registration:	N88RA
Model/Series:	F-28C F-28C	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	344
Landing Gear Type:	Skid	Seats:	3
Date/Type of Last Inspection:	February 1, 1989 Annual	Certified Max Gross Wt.:	2350 lbs
Time Since Last Inspection:	11 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	688 Hrs	Engine Manufacturer:	LYCOMING
ELT:		Engine Model/Series:	H10-360-E1AD
Registered Owner:	RUSMAR, INC.	Rated Power:	205 Horsepower
Operator:	FAIR, FRED	Operating Certificate(s) Held:	
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:	ALS, 7535 ft msl	Distance from Accident Site:	100 Nautical Miles
Observation Time:	14:50 Local	Direction from Accident Site:	20°
Lowest Cloud Condition:	Unknown / 5000 ft AGL	Visibility	30 miles
Lowest Ceiling:	Broken / 5000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	15 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	80°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	24°C / -2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	14:30 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:	0 ft msl	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:	0 ft / 0 ft	VFR Approach/Landing:	None

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:	36.180118,-106.950325(est)

Administrative Information

Investigator In Charge (IIC):	Wiemeyer, Norman
Additional Participating Persons:	AL STEINKE; ALBUQUERQUE , NM
Original Publish Date:	August 2, 1990
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=17707

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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](#).