



National Transportation Safety Board Aviation Accident Final Report

Location:	ENGLEWOOD, CO	Accident Number:	DEN91LA066
Date & Time:	05/01/1991, 0600 MDT	Registration:	N18DF
Aircraft:	CESSNA 421	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor, 4 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

DURING INITIAL CLIMB AFTER TAKEOFF FROM A HIGH ALTITUDE AIRPORT AND AT A GROSS WEIGHT 70 POUNDS BELOW MAXIMUM, BOTH ENGINE LOST INPUT TO THEIR TURBOCHARGERS DUE TO EXHAUST SYSTEM FAILURE. AT THE REDUCED POWER AVAILABLE, THE PILOT WAS UNABLE TO RETURN TO THE AIRPORT AND CONDUCTED AN EMERGENCY LANDING IN A FIELD. THE TERRAIN WAS ROLLING, SOFT, AND THE LANDING GEAR COLLAPSED DURING LANDING ROLL. THE ENGINE NACELLES AND UNDERSIDE OF THE AIRCRAFT WERE DAMAGED AS THE AIRCRAFT SLID DURING THE FINAL PHASE OF DECELERATION.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: POWER LOSS ON BOTH ENGINES AS A RESULT OF EXHAUST SYSTEM FAILURE.

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) EXHAUST SYSTEM,MANIFOLD/PIPE - FRACTURED
2. (C) EXHAUST SYSTEM,MANIFOLD/PIPE - CRACKED

Occurrence #2: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

Findings

3. (F) TERRAIN CONDITION - ROUGH/UNEVEN
4. (F) TERRAIN CONDITION - SOFT

Factual Information

Pilot Information

Certificate:	Airline Transport; Commercial	Age:	39, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	03/19/1991
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	9600 hours (Total, all aircraft), 300 hours (Total, this make and model), 6200 hours (Pilot In Command, all aircraft), 220 hours (Last 90 days, all aircraft), 80 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N18DF
Model/Series:	421 421	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:		Serial Number:	421-126
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	6840 lbs
Time Since Last Inspection:	0 Hours	Engines:	2 Reciprocating
Airframe Total Time:		Engine Manufacturer:	CONTINENTAL
ELT:	Installed, not activated	Engine Model/Series:	GTSIO-5200
Registered Owner:	EXECUTIVE AIRMOTIVE	Rated Power:	375 hp
Operator:	EXECUTIVE AIRMOTIVE	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	APA, 5883 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	0545 MDT	Direction from Accident Site:	220°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	50 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	190°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	-18°C / -18°C
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	None
Destination:	BELOTT, KS (K61)	Type of Clearance:	None
Departure Time:	0600 MDT	Type of Airspace:	

Airport Information

Airport:	CENTENNIAL (APA)	Runway Surface Type:	
Airport Elevation:	0 ft	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced Landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor, 3 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor, 4 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	NORMAN F WIEMEYER	Report Date:	05/05/1993
Additional Participating Persons:	RANDY HOLDER; DENVER, CO		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).