



National Transportation Safety Board Aviation Accident Final Report

Location:	GLENDIVE, MT	Accident Number:	SEA94LA202
Date & Time:	08/01/1994, 1415 MDT	Registration:	N7GJ
Aircraft:	GROCE VANS RV-4	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal

Flight Conducted Under: Part 91: General Aviation - Personal

Analysis

An airline customer service agent observed the aircraft during takeoff, noting that it was airborne at 10 to 15 feet above the ground and 'not really gaining altitude.' She did not witness the crash. The captain of a commuter flight noted that 'after rotation approx 25' or so, his left wing dipped downward, aircraft seemed under powered. It was hot, Density alt(itude) 5200' lite gusty winds.' The commuter captain did not see the aircraft crash. Witnesses noted that the airplane became airborne in the first quarter of the runway. During on-site inspection, FAA inspectors noted that the aft cockpit was loaded with camping gear, including a tent, campstove, six cans of food, a large clothing bag, camera, headset, and five or six jars, as well as an extensive collection of aviation literature. When the wreckage was inspected, no mechanical discrepancies were noted by FAA personnel.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: **AIRSPEED WAS NOT MAINTAINED AFTER TAKEOFF. A FACTOR WAS HIGH DENSITY ALTITUDE.**

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (F) WEATHER CONDITION - HIGH DENSITY ALTITUDE
2. (C) AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND

Factual Information

On August 1, 1994, at 1415 mountain daylight time, an experimental Groce Vans RV-4, N7GJ, was destroyed when it collided with terrain after takeoff from runway 20 at Glendive, Montana. The commercial pilot, the sole occupant, was fatally injured in the crash. There was no flight plan filed for the flight, which was conducted in visual meteorological conditions. The aircraft was destroyed by post-crash fire. No report of an ELT was made.

The pilot had stopped at Glendive to refuel his aircraft after visiting a fly-in in Oshkosh, Wisconsin. The aircraft was fueled with 17.5 gallons of auto gas. Before leaving, the pilot stated that he thought the fuel required to top off the aircraft would have been 16 gallons.

A Big Sky Airlines customer service agent observed the aircraft during takeoff, noting that he was airborne at 10 to 15 feet above the ground and "not really gaining altitude." She did not witness the crash. The captain of the commuter flight noted that "after rotation approx 25' or so, his left wing dipped downward, aircraft seemed under powered. It was hot, Density alt(itude) 5200' lite gusty winds." The commuter captain did not see the aircraft crash.

During on-site inspection, FAA inspectors noted that the aft cockpit was loaded with camping gear, including a tent, campstove, six cans of food, a large clothing bag, camera, headset, and five or six jars, as well as an extensive collection of aviation literature. Witnesses observed the takeoff, but did not see the crash. They noted that the aircraft became airborne in the first quarter of the runway.

When the wreckage was inspected, no mechanical discrepancies were noted by FAA personnel.

Empty weight of the aircraft was noted to be 875 pounds, May 23, 1987. At the time of weighing, the aircraft was unpainted, landing gear leg fairings and wheel pants, metal wing fairings, seat cushions, rear control stick, and avionics were not installed on the aircraft. Maximum gross weight is 1500 pounds, and total fuel capacity is 32 gallons. Density altitude was calculated to be 5332 feet.

An autopsy was performed on the pilot by Pathology Consultants, PC, Billings, Montana, for the Dawson County Coroner. The Pathologist noted that the pilot died from blunt force injuries. No causes predisposing to the accident could be seen on post morem examination. Toxicological testing was done by the FAA with negative results for drugs and ethanol.

Pilot Information

Certificate:	Commercial	Age:	43, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Front
Other Aircraft Rating(s):		Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	Yes
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	01/27/1994
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	1471 hours (Total, all aircraft), 56 hours (Last 90 days, all aircraft), 22 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	GROCE	Registration:	N7GJ
Model/Series:	VANS RV-4 VANS RV-4	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	0427
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	05/01/1988, Annual	Certified Max Gross Wt.:	1500 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:		Engine Model/Series:	O-320-E2D
Registered Owner:	GROCE, JOHN L.	Rated Power:	150 hp
Operator:	GROCE, JOHN L.	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	GDV, 2456 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1416 MDT	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	110°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	34° C / 8° C
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	None
Destination:	UNKNOWN	Type of Clearance:	None
Departure Time:	1410 MDT	Type of Airspace:	Class G

Airport Information

Airport:	DAWSON COMMUNITY AIRPORT (GDV)	Runway Surface Type:	Asphalt
Airport Elevation:	2456 ft	Runway Surface Condition:	Dry
Runway Used:	20	IFR Approach:	None
Runway Length/Width:	3000 ft / 60 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	MICHAEL L STOCKHILL,	Report Date:	10/13/1995
Additional Participating Persons:	ROBERT SPEICHER; HELENA, MT		
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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