



National Transportation Safety Board Aviation Accident Final Report

Location:	Skiatook, OK	Accident Number:	FTW03LA235
Date & Time:	08/23/2003, 1413 CDT	Registration:	N113JG
Aircraft:	Velocity RG	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None

Flight Conducted Under: Part 91: General Aviation - Personal

Analysis

The 20,000-hour airline transport pilot stated that the aircraft was slow to accelerate during the takeoff roll, and that it was hot with no wind. The airplane did not become airborne, and the pilot reduced power to abort the takeoff; however, the airplane exited the departure end of Runway 35 (2,900 feet usable) and the nose landing gear collapsed. According to information in the Velocity Owner's Flight Manual, the maximum gross weight for takeoff was 2,250 pounds. According to information provided by the pilot, the estimated weight of the aircraft at the time of takeoff was 1,999 pounds. At the time of the accident, the winds were reported variable at 4 knots, and the temperature at 38 degrees Celsius. The Investigator-In-Charge calculated the density altitude at 3,482 feet.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's delay in aborting the takeoff. A contributing factor was the high density altitude.

Findings

Occurrence #1: OVERRUN
Phase of Operation: TAKEOFF - ABORTED

Findings

1. (F) WEATHER CONDITION - HIGH DENSITY ALTITUDE
2. (C) ABORTED TAKEOFF - DELAYED - PILOT IN COMMAND

Factual Information

On August 23, 2003, at approximately 1413 central daylight time, a Velocity RG single-engine homebuilt aircraft, N113JG, was substantially damaged during a runway overrun at the Skiatook Municipal Airport (2F6), near Skiatook, Oklahoma. The airplane was owned and operated by a private individual. The airline transport pilot and passenger were not injured. Visual meteorological conditions prevailed, and a flight plan was not filed for the 14 Code of Federal Regulations Part 91 cross-country flight. The flight originated at Richard Lloyd Jones Jr. Airport (RVS), near Tulsa, Oklahoma, at approximately 1300.

The 20,000-hour pilot stated in the Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1/2) that during the takeoff roll, the aircraft was slow to accelerate, "there was no wind and it was hot." The airplane did not become airborne, and the pilot reduced power to abort the takeoff; however, the airplane exited the departure end of Runway 35 (2,900 feet usable) and the nose landing gear collapsed before the airplane came to rest.

The FAA inspector, who responded to the accident site, found the nose landing gear strut pushed aft into the support and surrounding structures of the nose landing gear compartment. The left main landing gear strut was found separated from the airframe. The outboard portions of the wooden propeller blades were shattered. Both wing tips sustained damage to the fiberglass.

According to information in the Velocity Owner's Flight Manual, the maximum gross weight for takeoff was 2,250 pounds. According to information provided by the pilot, the estimated weight of the aircraft at the time of takeoff was 1,999 pounds.

On the recommendation block of the NTSB Form 6120.1/2, the pilot stated that "with a fixed pitch propeller, takeoff should not have been started with no wind and the temperature over 100 degrees. The passenger weight and extra fuel was too much."

At the time of the accident, the winds at 2F6 were reported variable at 4 knots, 10 statute miles visibility, sky clear, temperature at 38 degrees Celsius, dewpoint 21 degrees Celsius, and an altimeter setting of 30.00 inches of Mercury. The Investigator-In-Charge calculated the density altitude at 3,482 feet.

Pilot Information

Certificate:	Airline Transport; Flight Engineer	Age:	70, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	None None	Last FAA Medical Exam:	
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	20000 hours (Total, all aircraft), 60 hours (Last 90 days, all aircraft), 40 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Velocity	Registration:	N113JG
Model/Series:	RG	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	DM0113
Landing Gear Type:	Retractable - Tricycle	Seats:	3
Date/Type of Last Inspection:	07/16/2003, Continuous Airworthiness	Certified Max Gross Wt.:	2250 lbs
Time Since Last Inspection:	4 Hours	Engines:	1 Reciprocating
Airframe Total Time:	520 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	IO-369 CIC
Registered Owner:	James H. Green	Rated Power:	200 hp
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	38° C / 21° C
Precipitation and Obscuration:			
Departure Point:	Skiatook, OK (2F6)	Type of Flight Plan Filed:	None
Destination:	Skiatook, OK	Type of Clearance:	None
Departure Time:	1413 CDT	Type of Airspace:	Class E

Airport Information

Airport:	Skiatook Municipal (2F6)	Runway Surface Type:	Asphalt
Airport Elevation:	670 ft	Runway Surface Condition:	Dry
Runway Used:	35	IFR Approach:	None
Runway Length/Width:	2900 ft / 60 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	36.350278, -96.000833

Administrative Information

Investigator In Charge (IIC):	Joyce Roach	Report Date:	03/02/2004
Additional Participating Persons:	Lloyd R Cook; Flight Standards District Office (SW15); Oklahoma City, OK		
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/ .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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](#).