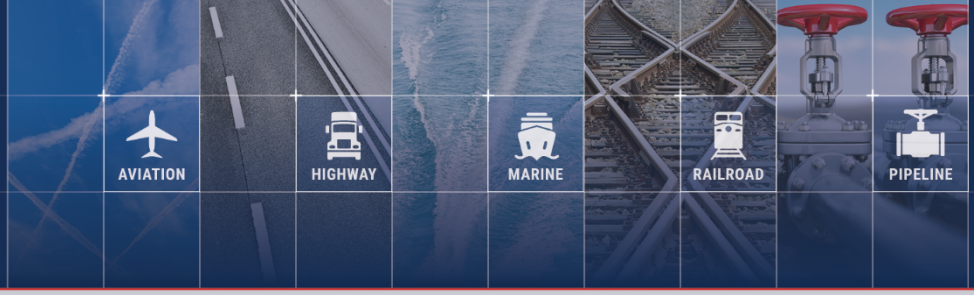

Aviation Investigation Final Report

Location:	White Bear Lake, Minnesota	**Accident Number:**	CHI01LA156
Date & Time:	June 10, 2001, 18:10 Local	**Registration:**	N7579T
Aircraft:	Cessna R182	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	4 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot aborted a takeoff on a soft grass field airstrip approximately 2,000 feet in length after noting that at over 1/2 down the runway the airplane would not rotate. The pilot stated that he did not perform a rolling takeoff and used 10 degrees of flaps. Federal Aviation Administration advisory information states that a rolling takeoff be performed on soft fields. The airplane manufacturer's checklist for short field takeoffs cites a trailing edge flap setting of 20 degrees.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the takeoff checklist not followed and the inadequete soft field takeoff proecedure by the pilot. The short/soft field was a factor.

Findings

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

Findings
1. (F) AIRPORT/FACILITIES - OTHER
2. (C) CHECKLIST - NOT COMPLIED WITH - PILOT IN COMMAND
3. (C) PROCEDURE INADEQUATE - PILOT IN COMMAND

Factual Information

On June 10, 2001, at 1810 central daylight time, a Cessna R182, N7579T, piloted by a private pilot, sustained substantial damage on impact with terrain during an aborted takeoff on runway 30 (2,000 feet by 75 feet, turf) at the Benson Airport, near White Bear Lake, Minnesota. The pilot reported that at over 1/2 down the runway (approximately 2,000 feet, grass) the airplane would not rotate. Visual meteorological conditions prevailed at the time of the accident. The 14 CFR Part 91 personal flight was not operating on a flight plan. The pilot and three passengers reported no injuries. The flight was en route to the Brainerd Municipal Airport, Brainerd, Minnesota.

The pilot reported the following in a written statement: "I was getting ready to fly back to Brainerd. I called for a flight brief and call in my flight plan. We drove to airstrip; I did walk around inspection, checked fuel, drained fuel, checked oil. We then taxied out to runway 31. I then checked all flight controls & engine instruments. I then locked brakes, pushed throttle all the way in, pushed fuel mixture all the way in, pushed propeller all the way in, pushed flaps down to first notch, RPM and manifold pressure was in green, I then let go of brakes and started to roll. I got up to 40 to 45 knots and airspeed leveled off, it did not continue to climb, I tried to rotate but would not. Airspeed still remained the same. I then pulled throttle back applied full brake. I still had over 700' to stop, didn't seem to be a problem. Then it seemed to start to go sideways, I had to fight it to keep it straight and it didn't seem to be slowing down much. We neared the end of runway we were still moving about 10mph. We caught a cable at end of runway, it broke nose gear and dove in to ground and flipped us over. At that time I scrambled to shut fuel off and master switch and get everybody out of aircraft."

Inspection of the airplane by the Federal Aviation Administration revealed that the trailing edge flap selector and trailing edge flaps were in the 10 degree position. A compression check of the engine's cylinders revealed no anomalies.

According to the Flight Training Handbook, "...Stopping on a soft surface, such as mud or snow, might bog the airplane down; therefore, it should be kept in continuous motion with sufficient power while lining up for the takeoff roll... ." Also, "...As the airplane accelerates, enough back-elevator pressure should be applied to establish a positive angle of attack and to reduce weight supported by the nosewheel."

The short field takeoff distances and short field takeoff checklist for the Cessna 182 stipulate a wing flap setting of 20 degrees.

Pilot Information

Certificate:	Private	**Age:**	31,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	January 30, 2001
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	April 13, 2001
Flight Time:	78 hours (Total, all aircraft), 10 hours (Total, this make and model), 24 hours (Pilot In Command, all aircraft), 25 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N7579T
Model/Series:	R182	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	R18200042
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:		**Certified Max Gross Wt.:**	3100 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Lycoming
ELT:		**Engine Model/Series:**	O-540-J3C5D
Registered Owner:	RKO Aviation	**Rated Power:**	235 Horsepower
Operator:		**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	ANE,912 ft msl	**Distance from Accident Site:**	12 Nautical Miles
Observation Time:	17:56 Local	**Direction from Accident Site:**	280°
Lowest Cloud Condition:	Scattered / 4900 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	9 knots / 0 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	280°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.7 inches Hg	**Temperature/Dew Point:**	27°C / 19°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	WHITE BEAR LAKE, MN (76Y)	**Type of Flight Plan Filed:**	VFR
Destination:	BRAINERD, MN (BRD)	**Type of Clearance:**	Unknown
Departure Time:	18:10 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	White Bear 76Y	**Runway Surface Type:**	Grass/turf
Airport Elevation:	980 ft msl	**Runway Surface Condition:**	Rough
Runway Used:	30	**IFR Approach:**	Unknown
Runway Length/Width:	2000 ft / 75 ft	**VFR Approach/Landing:**	Unknown

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	3 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	4 None	**Latitude, Longitude:**	45.090961,-93.010711(est)

Administrative Information

Investigator In Charge (IIC):	Gallo, Mitchell
Additional Participating Persons:	John Mertens; Federal Aviation Administration; Minneapolis, MN
Original Publish Date:	May 28, 2002
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=52473