National Transportation Safety Board
Aviation Accident Final Report

Location:	Union Mills, IN	**Accident Number:**	CEN09CA148
Date & Time:	02/01/2009, 1230 EST	**Registration:**	N53576
Aircraft:	CESSNA 172	**Aircraft Damage:**	Substantial
Defining Event:	Collision with terr/obj (non-CFIT)	**Injuries:**	2 None
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Analysis

The certificated flight instructor (CFI) and student pilot departed on an introductory instructional flight towards a training area where they performed basic flight maneuvers. They then flew to an airport where the CFI demonstrated a simulated forced landing which was to be followed by a go-around to a runway that was reportedly covered with about 12-14 inches of snow. During the demonstration, the CFI reduced engine power to idle from an altitude of 2,000 feet mean sea level and executed a descent to an altitude of about 5 - 6 feet above ground level at 60 knots indicated airspeed. The CFI did not increase engine throttle during this descent to clear the engine. The CFI applied full throttle during the go-around, but the engine hesitated and the airplane continued to descend. The main landing gear wheels followed by the airplane's nose contacted the snow. The left wing contacted the ground followed by the right wing.. Both wings buckled, resulting in substantial damage to the airplane. The Federal Aviation Administration Flight Training Handbook states in the section under 'Descents (Maximum Distance Glides)' that during power-off descents, the engine should be cleared periodically to prevent excessive cooling and fouling.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The certificated flight instructor's failure to follow correct engine clearing procedures. A factor was the unsuitable landing area.

Findings

Aircraft	Powerplant parameters - Not specified (Factor)
Personnel issues	Planning/preparation - Instructor/check pilot (Cause) Delayed action - Pilot (Cause)
Environmental issues	Snow/slush/ice covered surface - Effect on equipment (Factor)

Factual Information

History of Flight

Approach-IFR final approach	Simulated/training event
Approach-VFR go-around	Attempted remediation/recovery Collision with terr/obj (non-CFIT) (Defining event)

Pilot Information

Certificate:	Flight Instructor; Commercial	**Age:**	67, Male
Airplane Rating(s):	Single-engine Land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	Airplane Single-engine	**Toxicology Performed:**	No
Medical Certification:	Class 3 Without Waivers/Limitations	**Last Medical Exam:**	11/01/2007
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	10/10/2008
Flight Time:	3204 hours (Total, all aircraft), 1568 hours (Total, this make and model), 2991 hours (Pilot In Command, all aircraft), 59 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft)		

Student Pilot Information

Certificate:	None	**Age:**	52
Airplane Rating(s):	None	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	Seatbelt, Shoulder harness
Instrument Rating(s):	None	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Unknown	**Last Medical Exam:**	
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	CESSNA	**Registration:**	N53576
Model/Series:	172 S	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	No
Airworthiness Certificate:	Normal; Utility	**Serial Number:**	172S9398
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	10/24/2008, 100 Hour	**Certified Max Gross Wt.:**	2550 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	3136 Hours	**Engine Manufacturer:**	LYCOMING
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	IO360
Registered Owner:	Aerogramm LLC	**Rated Power:**	180 hp
Operator:	J.S. Aviation Inc.	**Air Carrier Operating Certificate:**	On-demand Air Taxi (135)
Operator Does Business As:	Eagle Aircraft	**Operator Designator Code:**	

Meteorological Information and Flight Plan

Observation Facility, Elevation:	VPZ	**Observation Time:**	1153 CST
Distance from Accident Site:		**Condition of Light:**	Day
Direction from Accident Site:		**Conditions at Accident Site:**	Visual Conditions
Lowest Cloud Condition:	Clear	**Temperature/Dew Point:**	2°C / -4°C
Lowest Ceiling:	Broken / 10000 ft agl	**Visibility**	10 Miles
Wind Speed/Gusts, Direction:	9 knots, 220°	**Visibility (RVR):**	
Altimeter Setting:	29.92 inches Hg	**Visibility (RVV):**	
Precipitation and Obscuration:			
Departure Point:	Valparaso, IN (VPZ)	**Type of Flight Plan Filed:**	Unknown
Destination:	Valparaso, IN (VPZ)	**Type of Clearance:**	None
Departure Time:	1050 CST	**Type of Airspace:**	

Airport Information

Airport:	Flying U Ranch (4C1)	**Runway Surface Type:**	Grass/turf; Snow
Airport Elevation:	740 ft	**Runway Surface Condition:**	Snow
Runway Used:	18	**IFR Approach:**	None
Runway Length/Width:	2745 ft / 100 ft	**VFR Approach/Landing:**	Go Around; Simulated Forced Landing; Straight-in

Wreckage and Impact Information

Crew Injuries:	2 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	N/A	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 None		

Administrative Information

Investigator In Charge (IIC):	Mitchell F Gallo	**Adopted Date:**	04/28/2011
Additional Participating Persons:	Samuel Heiter; Federal Aviation Administration; South Bend, IN		
Publish Date:	04/28/2011		
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
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.ntsb.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.