



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	ENGLEWOOD, CO	<b>Accident Number:</b>	DEN88LA116
<b>Date &amp; Time:</b>	06/01/1988, 0915 MDT	<b>Registration:</b>	N999HP
<b>Aircraft:</b>	CESSNA TR-182RG	<b>Aircraft Damage:</b>	None
<b>Defining Event:</b>		<b>Injuries:</b>	1 Serious, 2 None

**Flight Conducted Under:** Part 91: General Aviation - Instructional

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## Analysis

THE CFI, A PRIVATE RATED DUAL STUDENT, AND ONE PASSENGER WERE PREPARING TO DEPART ON A TRAINING FLIGHT. THE CFI ATTEMPTED TO HAND PROP THE AIRPLANE WHEN THE BATTERY WAS FOUND TO BE INOPERATIVE. DURING THE ATTEMPT, THE CFI WAS STRUCK IN THE BACK OF THE HEAD.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

## Findings

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Occurrence #1: PROPELLER/ROTOR CONTACT TO PERSON  
Phase of Operation: STANDING - STARTING ENGINE(S)

### Findings

1. (F) ELECTRICAL SYSTEM, BATTERY - OUTPUT LOW
2. (C) STARTING PROCEDURE - IMPROPER - PILOT IN COMMAND (CFI)

## Factual Information

### Pilot Information

<b>Certificate:</b>	Flight Instructor; Commercial	<b>Age:</b>	26, Male
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Seat Occupied:</b>	Unknown
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane Single-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	04/26/1988
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	519 hours (Total, all aircraft), 22 hours (Total, this make and model), 457 hours (Pilot In Command, all aircraft), 171 hours (Last 90 days, all aircraft), 72 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CESSNA	<b>Registration:</b>	N999HP
<b>Model/Series:</b>	TR-182RG TR-182RG	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	R182-01576
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	04/26/1988, 100 Hour	<b>Certified Max Gross Wt.:</b>	3100 lbs
<b>Time Since Last Inspection:</b>	42 Hours	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1795 Hours	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-540-L3C5D
<b>Registered Owner:</b>	JACOBS, JON S.	<b>Rated Power:</b>	235 hp
<b>Operator:</b>	WINGS OF DENVER FLYING CLUB	<b>Operating Certificate(s) Held:</b>	On-demand Air Taxi (135)

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	15 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	24° C
Precipitation and Obscuration:			
Departure Point:	ENGLEWOOD, CO	Type of Flight Plan Filed:	IFR
Destination:		Type of Clearance:	None
Departure Time:	0000	Type of Airspace:	

## Airport Information

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

## Wreckage and Impact Information

Crew Injuries:	1 Serious, 1 None	Aircraft Damage:	None
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 2 None	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	ROBERT B COLLINS	Report Date:	06/09/1989
Additional Participating Persons:	H O ABBOT; AURORA, 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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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](#).