



# Aviation Investigation Final Report

<b>Location:</b>	Anchorage, Alaska	<b>Accident Number:</b>	ANC04LA013
<b>Date &amp; Time:</b>	December 8, 2003, 08:56 Local	<b>Registration:</b>	N44047
<b>Aircraft:</b>	Taylorcraft BC12-D	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The solo private certificated pilot was landing a wheel-equipped airplane during dark night light conditions. The pilot reported that while landing on a lighted, 2,200 foot long by 70 foot wide snow-covered, gravel airstrip, he inadvertently touched down in the overrun area, about 50 feet short of the runway's threshold. As the airplane's main wheels touched down in the deep snow that covered the overrun area, the airplane nosed over. The airplane sustained structural damage to the rudder.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's misjudged altitude during final approach, which resulted in an undershot landing, and subsequent nose over.

### Findings

Occurrence #1: UNDERSHOOT  
Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings  
1. (C) DISTANCE/ALTITUDE - MISJUDGED - PILOT IN COMMAND  
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Occurrence #2: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER  
Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings

2. TERRAIN CONDITION - SNOW COVERED

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Occurrence #3: NOSE OVER

Phase of Operation: LANDING - ROLL

## Factual Information

On December 8, 2003, about 0856 Alaska standard time, a wheel-equipped Taylorcraft BC12-D airplane, N44047, sustained substantial damage when it landed short of the runway, and nosed over in deep snow at the Lake Hood Airstrip, Anchorage, Alaska. The airplane was being operated as a visual flight rules (VFR) local area personal flight under Title 14, CFR Part 91, when the accident occurred. The solo private certificated pilot was not injured. Visual meteorological conditions prevailed, and no flight plan was filed. The flight originated at the accident airstrip about 0840.

During a brief on-scene conversation with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC) on December 8, about 0915, the pilot reported that while landing on runway 31, a lighted, 2,200 foot long by 70 foot wide snow-covered, gravel airstrip, he inadvertently touched down in the overrun area, about 50 feet short of the runway's threshold. He said that as the airplane's main wheels touched down in the deep snow that covered the overrun area, the airplane nosed over. The airplane sustained structural damage to the rudder.

During a follow-up telephone interview with the NTSB IIC on December 9, the pilot noted that there were no preaccident mechanical anomalies with the airplane, but added that the runway overrun area appears to have been elevated and sloped towards the runway threshold. He said that the deep snow covering the overrun area added to its overall height.

The accident occurred during dark night light conditions; civil twilight for Anchorage began at 0858.

According to a Federal Aviation Administration (FAA) Airport Compliance Safety Officer, there were no landing approach obstructions to runway 31 at the time of the accident. A copy of the FAA Safety Officer's report is included in the public docket for this accident.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	41, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	May 4, 2001
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	May 13, 2002
<b>Flight Time:</b>	1027 hours (Total, all aircraft), 123 hours (Total, this make and model), 928 hours (Pilot In Command, all aircraft), 25 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Taylorcraft	<b>Registration:</b>	N44047
<b>Model/Series:</b>	BC12-D	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	9847
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	September 22, 2003 100 hour	<b>Certified Max Gross Wt.:</b>	1500 lbs
<b>Time Since Last Inspection:</b>	29.1 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	6501.1 Hrs at time of accident	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-200-A
<b>Registered Owner:</b>	Hermann & Heddi Ruess	<b>Rated Power:</b>	100 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Night
<b>Observation Facility, Elevation:</b>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Scattered / 7000 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>		<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	4 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	40°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	-5°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Anchorage , AK (Z41 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	(Z41 )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	08:53 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	Lake Hood Airstrip Z41	<b>Runway Surface Type:</b>	Gravel
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	Snow
<b>Runway Used:</b>	31	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	2200 ft / 75 ft	<b>VFR Approach/Landing:</b>	Full stop

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	61.189445,-149.949996

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Johnson, Clinton
<b>Additional Participating Persons:</b>	John Stuernagle ; Federal Aviation Administration; Anchorage , AK Stephen W Powell; Federal Aviation Administration; Anchorage , AK
<b>Original Publish Date:</b>	July 29, 2004
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=58490">https://data.ntsb.gov/Docket?ProjectID=58490</a>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).