



Aviation Investigation Final Report

Location:	MACKAY, Idaho	Accident Number:	SEA00LA010
Date & Time:	October 27, 1999, 18:00 Local	Registration:	N12376
Aircraft:	Cessna 172M	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

While making a precautionary landing at a remote grass airstrip, the aircraft did not touch down until after it had floated at least one-quarter of the way down the 5,000 foot long grass runway. After touchdown, and prior to the pilot applying brakes, a gust of wind lifted the aircraft back into the air. After touching down a second time, the pilot applied maximum braking, but he was unable to stop the aircraft before it departed the end of the runway and went over a 20 foot drop-off. At the bottom of the drop-off, the aircraft encountered rough/uneven terrain where it experienced a collapse of the nose gear and one main gear leg.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to land at the proper touchdown point. Factors include a wind gust, a grass runway, and a drop-off into rough terrain at the end of the runway.

Findings

Occurrence #1: OVERRUN
Phase of Operation: LANDING - ROLL

Findings

1. (C) PROPER TOUCHDOWN POINT - NOT ATTAINED - PILOT IN COMMAND
2. (F) WEATHER CONDITION - GUSTS
3. (F) AIRPORT FACILITIES, RUNWAY/LANDING AREA CONDITION - GRASS

Occurrence #2: GEAR COLLAPSED

Phase of Operation: LANDING - ROLL

Findings

4. (F) AIRPORT FACILITIES, RUNWAY/LANDING AREA CONDITION - DROP-OFF/DESCENDING EMBANKMENT

5. (F) TERRAIN CONDITION - ROUGH/UNEVEN

6. (F) TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

On October 27, 1999, approximately 1800 mountain daylight time, a Cessna 172M, N12376, experienced a gear collapse after running off the end of the runway during a precautionary landing at Star "S" Ranch, Mackay, Idaho. The private pilot and his passenger were not injured, but the aircraft, which was owned and operated by Sandpoint Aviation Services, sustained substantial damage. The 14 CFR Part 91 personal pleasure flight, which departed Sandpoint about three hours and 15 minutes prior to the accident, was being operated in visual meteorological conditions. The aircraft had been on a VFR flight plan, and there was no report of an ELT activation.

According to the pilot, while en route, he deviated to avoid mountain obscuration due to smoke and haze. Upon resuming his original course, he encountered a headwind that was greater than he had flight planned for. Because of the deviation and the wind conditions, it appeared to the pilot that he did not have enough fuel to make it to his intended destination. He therefore decided to make a precautionary landing at the Star "S" Ranch airstrip. As he approached the Star "S" strip, he kept his altitude higher than normal because of the rapidly rising terrain surrounding the landing area. He then descended steeper than normal on base and final, and crossed the threshold at about 75 knots indicated airspeed. He reported that the aircraft floated before touching down at least one-quarter way down the 5,000 foot long grass airstrip. After touchdown and before he had applied the brakes, a wind gust lifted the aircraft back into the air. After touching down a second time, the pilot applied maximum braking, but was unable to stop the aircraft before it ran off the end of the runway and dropped over a 20 foot high embankment onto rough/uneven terrain. During the rollout on the terrain at the bottom of the embankment, the nose wheel and the right main gear collapsed, resulting in substantial damage to the aircraft.

According to the pilot, there was no evidence of engine, control system, or brake system malfunction.

Pilot Information

Certificate:	Private	Age:	51,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	November 17, 1998
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	482 hours (Total, all aircraft), 116 hours (Total, this make and model), 447 hours (Pilot In Command, all aircraft), 28 hours (Last 90 days, all aircraft), 16 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N12376
Model/Series:	172M 172M	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal; Utility	Serial Number:	17261955
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	September 7, 1999 Annual	Certified Max Gross Wt.:	2300 lbs
Time Since Last Inspection:	83 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	4886 Hrs	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O-360-A4M
Registered Owner:	SANDPOINT AVIATION SERVICES	Rated Power:	180 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Unknown	Visibility	30 miles
Lowest Ceiling:	Broken / 6000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	7°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	SANDPOINT (SZT)	Type of Flight Plan Filed:	VFR
Destination:	HAILEY (SUN)	Type of Clearance:	VFR
Departure Time:	13:45 Local	Type of Airspace:	Class G

Airport Information

Airport:	STAR S RANCH	Runway Surface Type:	Grass/turf
Airport Elevation:	6660 ft msl	Runway Surface Condition:	Dry
Runway Used:	3	IFR Approach:	None
Runway Length/Width:	5000 ft / 50 ft	VFR Approach/Landing:	Full stop

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:	43.949352,-113.840766(est)

Administrative Information

Investigator In Charge (IIC):	Anderson, Orrin
Additional Participating Persons:	BOB ROUNTREE; BOISE , ID
Original Publish Date:	June 23, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=47704

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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](#).