



Aviation Investigation Final Report

Location:	Hermiston, Oregon	Accident Number:	SEA05LA024
Date & Time:	December 4, 2004, 15:00 Local	Registration:	N420CD
Aircraft:	Maule MX-7-235	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that after flying around the local area for about one hour, he decided to land in an open field. The pilot reported that he set-up a normal approach to land over a 30 to 40 foot obstacle. After clearing the obstacle, he lowered the nose of the aircraft, then flared for the landing. The flare did not adequately arrest the descent rate and the aircraft touched down hard subsequently collapsing both main landing gear. The aircraft slid on its belly for about 100 to 150 feet before coming to rest.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: An improper flare and descent rate during landing resulting in a hard landing.

Findings

Occurrence #1: HARD LANDING
Phase of Operation: LANDING

Findings

1. TERRAIN CONDITION - OPEN FIELD
2. (C) PROPER DESCENT RATE - NOT ATTAINED - PILOT IN COMMAND
3. (C) FLARE - IMPROPER - PILOT IN COMMAND

Occurrence #2: GEAR COLLAPSED
Phase of Operation: LANDING

Findings

4. LANDING GEAR,MAIN GEAR - OVERLOAD

Factual Information

On December 4, 2004, about 1500 Pacific standard time, a Maule MX-7-235, N420CD, registered to and flown by the pilot as a 14 CFR Part 91 personal flight, landed hard in an open field about 8 miles south of Hermiston, Oregon, and collapsed the landing gear. Visual meteorological conditions prevailed at the time and no flight plan was filed. The aircraft was substantially damaged and the private pilot, the sole occupant, was not injured. The flight departed from Hermiston, about one hour prior to the accident.

In a written statement, the pilot reported that after flying around the local area for about one hour, he decided to land in an open field on his parents property. The pilot reported that he set-up a normal approach to land over a 30 to 40 foot obstacle. After clearing the obstacle, he lowered the nose of the aircraft, then flared for the landing. The flare did not adequately arrest the descent rate and the aircraft touched down hard subsequently collapsing both main landing gear. The aircraft slid on its belly for about 100 to 150 feet before coming to rest.

The pilot reported that the landing surface was an open cow pasture approximately 1,200 feet in length. The surface was smooth and firm. The wind was light and variable with an unrestricted visibility.

Pilot Information

Certificate:	Private	Age:	46,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	February 25, 2004
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	February 19, 2004
Flight Time:	1150 hours (Total, all aircraft), 89 hours (Total, this make and model), 1058 hours (Pilot In Command, all aircraft), 14 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Maule	Registration:	N420CD
Model/Series:	MX-7-235	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	10064C
Landing Gear Type:	Tailwheel	Seats:	4
Date/Type of Last Inspection:	December 20, 2003 Annual	Certified Max Gross Wt.:	2500 lbs
Time Since Last Inspection:	170 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2150 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-540-J1A5D
Registered Owner:	Edward A. Pedro	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:	HRI,644 ft msl	Distance from Accident Site:	8 Nautical Miles
Observation Time:	14:53 Local	Direction from Accident Site:	360°
Lowest Cloud Condition:	Clear	Visibility	5 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	40°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.63 inches Hg	Temperature/Dew Point:	5°C / 1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Hermiston, OR (HRI)	Type of Flight Plan Filed:	None
Destination:	Hermiston, OR (HRI)	Type of Clearance:	None
Departure Time:	14:00 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	45.566665,-119.415275

Administrative Information

Investigator In Charge (IIC): Eckrote, Debra

Additional Participating Persons: Steve Albert; FAA-FSDO; Hillsboro, OR

Original Publish Date: April 28, 2005

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=60705>

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](#).