



Aviation Investigation Final Report

Location:	San Antonio, Texas	Accident Number:	CEN11LA483
Date & Time:	July 18, 2011, 12:15 Local	Registration:	N442PT
Aircraft:	MOONEY AIRCRAFT CORP. M20S	Aircraft Damage:	Substantial
Defining Event:	Hard landing	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

During the pilot’s second landing attempt, the airplane touched down on the runway and began to porpoise. The pilot attempted to execute a go-around by applying full engine power; however, the airplane began to yaw left and descend. When the airplane started to bank “uncontrollably” to the left, the pilot executed a gear-up landing in the grass alongside the runway. An examination of the airplane following the accident did not reveal any preimpact anomalies.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot’s failure to maintain aircraft control during the go-around maneuver.

Findings

Personnel issues	Aircraft control - Pilot
-------------------------	--------------------------

Factual Information

History of Flight

Landing-aborted after touchdown	Collision with terr/obj (non-CFIT)
Landing	Hard landing (Defining event)

On July 18, 2011, about 1215 central daylight time, a Mooney Aircraft Corp., M20S, N442PT, experienced a hard landing following an attempted go-around maneuver at the San Antonio International Airport (SAT), San Antonio, Texas. The commercial pilot, the sole occupant, was seriously injured. The airplane sustained substantial damage to the fuselage. The airplane was registered to and operated by the pilot under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed for the flight, which operated without a flight plan. The cross-country flight was concluding at SAT when the accident occurred.

According to the pilot, during his first attempted landing the airplane began to porpoise on the runway and he performed a go-around. Following the second approach the airplane touched down to the runway and again began to porpoise. The pilot reported that he attempted to execute another go-around by applying full engine power; however, the left landing gear would not retract and the airplane began to yaw left and descend. When the airplane started to bank "uncontrollably" to the left, the pilot elected to land in the grass alongside the runway. The pilot further added that during the landing he fractured a vertebra in his back.

An eyewitness reported observing the airplane struggling to maintain altitude as it appeared to be "pulling out of a landing." The landing gear was retracted as the airplane tried to gain altitude as if the pilot had realized at the last moment that his landing gear was not down. As the airplane attempted to climb, it was tilting from side to side while at an approximately 70 degree nose high angle. The airplane's tail impacted the ground first followed by the fuselage belly. The airplane then bounced about 15 feet into the air before settling back to the ground.

A Federal Aviation Administration (FAA) inspector examined the airplane. The inspector reported that the airplane came to rest upright with the landing gear retracted. The airplane was raised and the gear lowered normally. The inspector was unable to find any preimpact anomalies with the airplane.

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	59, 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):	Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 2 Unknown	Last FAA Medical Exam:	March 30, 2011
Occupational Pilot:	No	Last Flight Review or Equivalent:	May 28, 2011
Flight Time:	1386 hours (Total, all aircraft), 63 hours (Total, this make and model), 1386 hours (Pilot In Command, all aircraft), 21 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	MOONEY AIRCRAFT CORP.	Registration:	N442PT
Model/Series:	M20S	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	30-0018
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	April 11, 2011 Annual	Certified Max Gross Wt.:	3200 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	1170 Hrs as of last inspection	Engine Manufacturer:	CONT MOTOR
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	IO-550 SERIES
Registered Owner:	On file	Rated Power:	260 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

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:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	170°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.97 inches Hg	Temperature/Dew Point:	37°C / 19°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	New Braunfels , TX (BAZ)	Type of Flight Plan Filed:	None
Destination:	San Antonio, TX (SAT)	Type of Clearance:	VFR flight following
Departure Time:	12:00 Local	Type of Airspace:	

Airport Information

Airport:	San Antonio International SAT	Runway Surface Type:	Concrete
Airport Elevation:		Runway Surface Condition:	Dry
Runway Used:	12L	IFR Approach:	None
Runway Length/Width:	5519 ft / 100 ft	VFR Approach/Landing:	Go around;Touch and go

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	29.533611,-98.469718(est)

Administrative Information

Investigator In Charge (IIC):	LeBaron, Timothy
Additional Participating Persons:	David Wagner; Federal Aviation Administration; San Antonio, TX
Original Publish Date:	November 22, 2011
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=81147

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](#).