Aviation Investigation Final Report

Location:	LaGrange, Georgia	**Accident Number:**	ERA10LA107
Date & Time:	December 6, 2009, 12:15 Local	**Registration:**	N51620
Aircraft:	Maule M5	**Aircraft Damage:**	Substantial
Defining Event:	Aircraft structural failure	**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

A Federal Aviation Administration (FAA) inspector was conducting a ramp check when he noticed a damaged airplane with substantial damage to the right wing and right main landing gear. According to the pilot, after landing he turned left off of the runway onto the first taxiway. He stated that, as he began the turn, the right landing gear collapsed and the right wing tip and propeller struck the ground.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the right main landing gear for undetermined reasons.

Findings

Aircraft	Main landing gear - Not specified

Factual Information

History of Flight

Landing-landing roll	Aircraft structural failure (Defining event)
Landing-landing roll	Landing gear collapse

On December 6, 2009, about 1215 eastern standard time, a Maule M-5-220C, N51620, was substantially damaged following a collapse of the right main landing gear, at LaGrange-Callaway Airport (LGC), LaGrange, Georgia. The certificated private pilot/owner and his passenger were not injured. The personal flight was operated under the provisions of Title 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed, and no flight plan was filed.

An inspector from the Federal Aviation Administration (FAA) Flight Standards District Office in Atlanta, Georgia, was conducting a ramp check at LGC several weeks after the accident when he noticed the damaged airplane, which was tied down in its usual location. The inspector determined that the pilot had not reported the damage, or the event that caused it, either to the FAA or to the National Transportation Safety Board (NTSB).

Follow-up activity by the inspector revealed that the right wing and right main landing gear were substantially damaged. Each main landing gear consisted of two upper struts and one lower strut. The upper ends of the three struts attached to the fuselage, and the lower ends attached to the respective main wheel fitting. The lower strut of the right main gear was buckled, which permitted the right main landing gear to collapse, and the right wing to contact the ground.

According to the pilot, after landing on runway 13, he turned left onto the first taxiway. He stated that as he began the turn, "the right landing gear collapsed" and the "right wing tip and propeller struck the ground."

FAA records indicated that the airplane was manufactured in 1974, and that it was equipped with a Franklin 6A-350 series piston engine. The airplane was first registered to the pilot in 1981. Further information regarding the airplane's condition and maintenance history were never provided to the NTSB, despite several requests to both the FAA and the airplane's owner. Review of FAA Airworthiness Directives and Maule Service Bulletins revealed that no additional mandatory or recommended maintenance or inspection procedures regarding the M-5 main landing gear were issued.

FAA records indicated that the pilot held a private pilot certificate with ratings for airplane single-engine land and instrument airplane. His most recent FAA third-class medical certificate was issued in July, 2008. He reported a total flight time of 723 hours, with 479 hours in the

accident airplane.

FAA records indicated that LGC was equipped with a single asphalt runway, designated 13-31, that measured 5,599 feet by 150 feet. Airport elevation was listed as 693 feet above mean sea level. The airport was not equipped with a control tower. The first taxiway that intersected runway 13 was located approximately 1,500 feet from the threshold, and was oriented perpendicular to the runway centerline.

The 1215 recorded weather observation at LGC included winds from 130 degrees at 7 knots, 10 miles visibility, temperature 5 degrees C, dew point 2 degrees C, and an altimeter setting of 30.27 inches of mercury.

Pilot Information

Certificate:	Private	**Age:**	52,Male
Airplane Rating(s):	Single-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 With waivers/limitations	**Last FAA Medical Exam:**	July 15, 2008
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	July 26, 2009
Flight Time:	(Estimated) 723 hours (Total, all aircraft), 479 hours (Total, this make and model), 5 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Maule	**Registration:**	N51620
Model/Series:	M5 220C	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	5012C
Landing Gear Type:	Tailwheel	**Seats:**	4
Date/Type of Last Inspection:	Unknown	**Certified Max Gross Wt.:**	2500 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	922 Hrs at time of accident	**Engine Manufacturer:**	FRANKLIN
ELT:		**Engine Model/Series:**	6A350
Registered Owner:	On file	**Rated Power:**	220 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:	LGC,693 ft msl	**Distance from Accident Site:**	0 Nautical Miles
Observation Time:	12:15 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	130°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.27 inches Hg	**Temperature/Dew Point:**	5°C / 2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Lagrange, GA (LGC)	**Type of Flight Plan Filed:**	Unknown
Destination:	Lagrange, GA (LGC)	**Type of Clearance:**	None
Departure Time:		**Type of Airspace:**	

Airport Information

Airport:	LaGrange-callaway Airport LGC	**Runway Surface Type:**	Asphalt
Airport Elevation:	693 ft msl	**Runway Surface Condition:**	Unknown
Runway Used:	13	**IFR Approach:**	Unknown
Runway Length/Width:	5600 ft / 150 ft	**VFR Approach/Landing:**	Unknown

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:**	33.009514,-85.070078(est)

Administrative Information

Investigator In Charge (IIC):	Huhn, Michael
Additional Participating Persons:	William Hougenhout; FAA/FSDO; Atlanta, GA
Original Publish Date:	November 29, 2011
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=75223