



Aviation Investigation Final Report

Location:	Hollywood, Florida	Accident Number:	ANC05LA026
Date & Time:	February 8, 2005, 10:30 Local	Registration:	N258JM
Aircraft:	Cessna 411A	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot/mechanic re-rigged the airplane's retractable landing gear, and after performing retraction tests on the ground, he took the airplane for a test flight. Upon returning to the airport the right main gear would not indicate down and locked, even after an additional manual retraction and extension. The pilot flew by the air traffic control tower, where a controller observed that the gear was down but could not confirm it was locked in place. During the landing roll, the right main landing gear collapsed, damaging the right aileron. An inspection of the landing gear revealed a fractured locking link end fitting in the retraction/extension system.

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 locking mechanism during the landing roll, which resulted in the collapse of the right main landing gear.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: LANDING - ROLL

Findings

1. (C) LANDING GEAR, GEAR LOCKING MECHANISM - FAILURE, TOTAL

Occurrence #2: MAIN GEAR COLLAPSED
Phase of Operation: LANDING - ROLL

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: LANDING - ROLL

Findings

2. TERRAIN CONDITION - RUNWAY

Factual Information

On February 8, 2005, about 1030 eastern standard time, a Cessna 411A airplane, N258JM, sustained substantial damage damaged following the collapse of the right main landing gear during landing at the North Perry Airport, Hollywood, Florida. The airplane was being operated by the pilot as a visual flight rules (VFR) maintenance test flight under Title 14, CFR Part 91 when the accident occurred. The commercial pilot/mechanic and sole passenger were not injured. The flight departed the North Perry Airport about 0930, visual meteorological conditions prevailed, and no flight plan was filed.

During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC) on February 9, the pilot, who is a certified aircraft mechanic, said the airplane had previous landing gear synchronization problems. He said he re-rigged the gear, and conducted retraction tests on the ground. He said the test flight was uneventful until returning to land, when he did not get a green gear down and locked indicator light for the right main landing gear. He said he flew by the airport control tower twice, and the tower operator said the gear was down, but could not confirm it was locked. The pilot said he returned to a training area where he performed a manual retraction and extension of the landing gear. He said he flew by the tower again, and was told the landing gear was down. He said during the landing roll the right main landing gear collapsed. He said the right main gear and gear doors were damaged, and that the right aileron would have to be replaced. During an examination of the landing gear system by the pilot/mechanic, a fractured locking link end fitting was found.

Pilot Information

Certificate:	Commercial	Age:	57,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:	
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	May 1, 2004
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	1438 hours (Total, all aircraft), 200 hours (Total, this make and model), 1389 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N258JM
Model/Series:	411A	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	411A258
Landing Gear Type:	Retractable - Tricycle	Seats:	2
Date/Type of Last Inspection:	October 1, 2001 100 hour	Certified Max Gross Wt.:	6500 lbs
Time Since Last Inspection:	3 Hrs	Engines:	2 Reciprocating
Airframe Total Time:	3570 Hrs at time of accident	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	GTSIO-520C
Registered Owner:	Carlo Marzon	Rated Power:	345 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:	HWO	Distance from Accident Site:	
Observation Time:	09:00 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	340°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.15 inches Hg	Temperature/Dew Point:	21°C / 13°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Hollywood, FL (HWO)	Type of Flight Plan Filed:	None
Destination:	Hollywood, FL (HWO)	Type of Clearance:	None
Departure Time:	09:30 Local	Type of Airspace:	

Airport Information

Airport:	Hollywood North Perry HWO	Runway Surface Type:	Asphalt
Airport Elevation:	9 ft msl	Runway Surface Condition:	Dry
Runway Used:	36L	IFR Approach:	None
Runway Length/Width:	3000 ft / 100 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:	26.008611,-80.237777

Administrative Information

Investigator In Charge (IIC):	Lewis, Lawrence
Additional Participating Persons:	Richard Araujo; Ft. Lauderdale, FSDO-17; Ft. Lauderdale, FL
Original Publish Date:	December 20, 2005
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=60980

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