

# **Aviation Investigation Final Report**

Location: Binghamton, New York Accident Number: ATL07CA097

Date & Time: June 24, 2007, 20:00 Local Registration: N3124U

Aircraft: Sherman John, H Nieuport II Aircraft Damage: Substantial

**Defining Event:** 1 Minor

Flight Conducted Under: Part 91: General aviation - Personal

## **Analysis**

According to the pilot, he was test flying the airplane after modifying the landing gear suspension. He stated that the takeoff was routine, and that he stayed over the airport for about 30 to 45 minutes. He said he landed, and upon touchdown on the main wheels, the airplane "deliberately" went to the left. He applied right rudder with no response, and the right wing struck the ground and flipped the airplane inverted. According to the pilot, damage to the airplane consisted of the right upper and lower wing, the left upper wing, and the landing gear. He stated that the parts that failed during the accident were the landing gear lateral cable and the spring windings. The pilot's recommendation to prevent this from happening again would be to have the airplane inspected by an FAA Inspector, and to do more taxi testing before flight.

## **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the main gear spring during landing, which resulted in a loss of directional control, and a nose over.

#### **Findings**

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER

Phase of Operation: LANDING - ROLL

### Findings

1. (C) LANDING GEAR, MAIN GEAR SPRING - FAILURE

2. DIRECTIONAL CONTROL - NOT POSSIBLE - PILOT IN COMMAND

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Occurrence #2: NOSE OVER

Phase of Operation: LANDING - ROLL

### Findings

3. TERRAIN CONDITION - RUNWAY

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#### **Factual Information**

According to the pilot, he was test flying the airplane after modifying the landing gear suspension. He stated that the takeoff was routine and that he stayed over the airport for about 30 to 45-minutes. He said he landed to the west and upon touchdown on the main wheels the airplane "deliberately" went to the left. He applied right rudder with no response and the right wing struck the ground and flipped the airplane completely over. He shut the airplane down, released his restraints and exited without injury.

The pilot further stated that he had had two previous landing gear center bar failures and had reinforced the center tube to a larger diameter, and had tightened the lateral landing gear cables and safety wired them. He also reduced the spring tension from 6 to 5-turns which he stated was the wrong thing to do. He said that to fix the landing gear so that this would not happen again he would need to do chrome work on the center bar and replace all the landing gear cables with a larger size.

According to the pilot damage to the airplane consisted of the right upper and lower wing, the left upper wing and the landing gear. In addition he stated that the parts that failed during the accident were the landing gear lateral cable and the spring windings. The pilot's recommendation to prevent this from happening again would be to have the airplane inspected by an FAA Inspector, and to do more taxi testing before flight.

#### **Pilot Information**

Certificate:	Private	Age:	56,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Single
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 Without waivers/limitations	Last FAA Medical Exam:	April 1, 2005
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	96 hours (Total, all aircraft), 4 hours (Total, this make and model), 14 hours (Pilot In Command, all aircraft), 4 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

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## **Aircraft and Owner/Operator Information**

Aircraft Make:	Sherman John, H	Registration:	N3124U
Model/Series:	Nieuport II	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Experimental (Special)	Serial Number:	194
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	740 lbs
Time Since Last Inspection:	8 Hrs	Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Volkswagen
ELT:	Not installed	Engine Model/Series:	1600
Registered Owner:	John H. Sherman	Rated Power:	60 Horsepower
Operator:	John H. Sherman	Operating Certificate(s) Held:	None

### **Meteorological Information and Flight Plan**

meteorological information	<u> </u>		
Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Dusk
Observation Facility, Elevation:	BGM	Distance from Accident Site:	
Observation Time:	19:53 Local	Direction from Accident Site:	
<b>Lowest Cloud Condition:</b>	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	220°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.29 inches Hg	Temperature/Dew Point:	24°C / 10°C
Precipitation and Obscuration:	No Obscuration; No Precipita	ation	
Departure Point:	Binghamton, NY (PVT)	Type of Flight Plan Filed:	None
Destination:	Binghamton, NY (PVT)	Type of Clearance:	None
Departure Time:	19:30 Local	Type of Airspace:	

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## **Airport Information**

Airport:	Chenango Bridge Airport 1NK8	Runway Surface Type:	Grass/turf
Airport Elevation:	940 ft msl	<b>Runway Surface Condition:</b>	Dry
Runway Used:	18	IFR Approach:	None
Runway Length/Width:	1700 ft / 145 ft	VFR Approach/Landing:	Full stop;Traffic pattern

## Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	42.188331,-75.838058

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#### **Administrative Information**

Investigator In Charge (IIC):	Wilson, Ralph
Additional Participating Persons:	Pedro L Munoz; Rodchester FSDO; Rodchester, NY
Original Publish Date:	August 30, 2007
Last Revision Date:	
Investigation Class:	<u>Class</u>
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=66085

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.

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