



Aviation Investigation Final Report

Location: Kenly, North Carolina Accident Number: ATL06CA064

Date & Time: April 12, 2006, 19:00 Local Registration: N711WN

Aircraft: Cessna L-19 Aircraft Damage: Substantial

Defining Event: 1 Minor

Flight Conducted Under: Part 91: General aviation - Personal

Analysis

The pilot stated that during his initial takeoff roll he applied full right rudder and gradually advanced the throttle to full power. The pilot stated as full power was attained the aircraft veered to the left, and before he could regain control of the airplane it ground looped. The airplane bounced sideways causing the right main landing gear to separate from the airframe resulting in a propeller strike and the buckling of the right wing. The pilot reported that during the last annual inspection the tail wheel steering springs and chains were replaced. The pilot conducted four flights after the annual inspection and noticed that the airplane steered left, but he did not return the airplane for correction of the problem.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's continued operation of the airplane with known deficiencies (tail wheel steering) which resulted in loss of directional control during the takeoff roll, and a ground loop.

Findings

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

Phase of Operation: TAKEOFF - ROLL/RUN

Findings

1. LANDING GEAR, STEERING SYSTEM - LOOSE

2. (C) OPERATION WITH KNOWN DEFICIENCIES IN EQUIPMENT - CONTINUED - PILOT IN COMMAND

- 3. DIRECTIONAL CONTROL NOT POSSIBLE PILOT IN COMMAND 4. GROUND LOOP/SWERVE INADVERTENT

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Factual Information

On April 12, 2006, at 1900 eastern daylight time, a Cessna L-19, N771WN, registered to and operated by a private owner as a 14 CFR Part 91 personal flight, experienced an on-ground loss of directional control during takeoff roll at a private airstrip near Kenly, North Carolina. The airplane received substantial damage. Visual meteorological conditions prevailed and no flight plan was filed. The commercial pilot reported minor injuries. The flight was originating from the private airstrip at the time of the accident.

The pilot stated that during his initial take off roll he applied full right rudder and gradually advanced the throttle to full power. The pilot stated as full power was attained the aircraft veered to the left, and before he could regain control of the airplane it ground looped. The airplane bounced sideways causing the right main landing gear to separate from the airframe resulting in a propeller strike, and the buckling of the right wing. The pilot reported that during the last annual inspection the tail wheel steering springs and chains were replaced. The pilot conducted four flights after the annual inspection, and noticed that the airplane steered left. The pilot noted the difficulty on each departure but did not return the airplane for an inspection of the tail wheel steering chains. During the inspection of the airplane by an FAA inspector, and a review of the US Army maintenance manual revealed all maintenance procedures were accomplished in accordance with the Cessna T.O. 1L-19A-2 paragraph 2-254 to 2-257.

Pilot Information

| Certificate: | Commercial | Age: | 58,Male |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------|
| Airplane Rating(s): | Single-engine land; Single-engine sea; Multi-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: | October 1, 2004 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | May 1, 2005 |
| Flight Time: | 2376 hours (Total, all aircraft), 65 hours (Total, this make and model), 2249 hours (Pilot In Command, all aircraft), 65 hours (Last 90 days, all aircraft), 23 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft) | | |

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Aircraft and Owner/Operator Information

| Aircraft Make: | Cessna | Registration: | N711WN |
|-------------------------------|--------------------------------|-----------------------------------|-----------------|
| Model/Series: | L-19 | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | 24501 |
| Landing Gear Type: | Tailwheel | Seats: | 2 |
| Date/Type of Last Inspection: | March 1, 2006 Annual | Certified Max Gross Wt.: | 1990 lbs |
| Time Since Last Inspection: | 22 Hrs | Engines: | 1 Reciprocating |
| Airframe Total Time: | 6491 Hrs as of last inspection | Engine Manufacturer: | Continental |
| ELT: | Installed, not activated | Engine Model/Series: | 0-470-11A |
| Registered Owner: | Wallace R Nelms | Rated Power: | 213 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: | KRDU,436 ft msl | Distance from Accident Site: | 42 Nautical Miles |
| Observation Time: | 18:51 Local | Direction from Accident Site: | 300° |
| Lowest Cloud Condition: | | Visibility | 10 miles |
| Lowest Ceiling: | Broken / 15000 ft AGL | Visibility (RVR): | |
| Wind Speed/Gusts: | 9 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 180° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30.26 inches Hg | Temperature/Dew Point: | 22°C / 7°C |
| Precipitation and Obscuration: | No Obscuration; No Precipit | ation | |
| Departure Point: | Kenly, NC | Type of Flight Plan Filed: | None |
| Destination: | | Type of Clearance: | None |
| Departure Time: | 19:00 Local | Type of Airspace: | |

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Airport Information

| Airport: | Kenly Airport PVT | Runway Surface Type: | Grass/turf |
|----------------------|-------------------|---------------------------|------------|
| Airport Elevation: | | Runway Surface Condition: | Dry |
| Runway Used: | 27 | IFR Approach: | None |
| Runway Length/Width: | 3000 ft / 100 ft | VFR Approach/Landing: | None |

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: | 35.594722,-78.095275 |

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Administrative Information

| Alleyne, Eric | |
|--------------------------------------------------------------------------------------------|--|
| Richard M Litka; Greensboro FSDO-05; Greensboro, NC | |
| July 31, 2006 | |
| | |
| <u>s</u> | |
| accident report documents the factual circumstances of this accident as described ne NTSB. | |
| s://data.ntsb.gov/Docket?ProjectID=63533 | |
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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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