

# **Aviation Investigation Final Report**

Location: Ragley, Louisiana Accident Number: FTW01LA082

Date & Time: March 17, 2001, 08:45 Local Registration: N9017L

Aircraft: Champion 7KCAB Aircraft Damage: Substantial

**Defining Event:** 1 Serious

Flight Conducted Under: Part 91: General aviation - Personal

### **Analysis**

According to the pilot, after about 15 minutes of flight, the airplane was in a turn and descending slightly, when "the stick suddenly snapped back with no pressure on it." The nose immediately "ducked down" and the pilot "pulled" the trim back to raise the nose while leveling the wings. After leveling off, the pilot started back to his airstrip. On short final, he noticed that he did not have enough time and distance to achieve a steady descent with only trim tabs to control the pitch. After a "go-around", the pilot attempted to set up for a shallow approach. About 75 to 100 feet above the ground on final, the pilot felt "turbulence" and the airplane began descending quickly. The airplane then impacted the ground "pretty hard" breaking the left landing gear, skidding about 40 feet, and coming to rest in an upright position. Examination of the airplane after the accident revealed that the elevator control cable was found liberated from its "Nicopress" fitting. The elevator cable had been replaced with a new cable by the pilot, under the supervision of a A&P mechanic on February 8, 2001. According to the pilot, the new elevator cable was fabricated for him by an aircraft maintenance facility. The airplane was given an annual inspection on March 6, 2001 by the same A&P mechanic who assisted with the elevator cable installation. The last time the airplane flew prior to the accident was on March 8, 2001, when the pilot flew the airplane for about 35 minutes with no anomalies.

## **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the loose clamp (Nicopress fitting) on the elevator control cable due to inadequate quality control during the cable's manufacturing, which allowed the cable to disconnect and restricted the pilot's control of the airplane during landing.

#### **Findings**

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION

Phase of Operation: MANEUVERING

#### **Findings**

1. (C) FLT CONTROL SYST, ELEVATOR CONTROL CABLE/ROD - LOOSE PART/BOLT/NUT/CLAMP/ETC

2. (C) FLT CONTROL SYST, ELEVATOR CONTROL CABLE/ROD - DISCONNECTED

3. (C) INADEQUATE QUALITY CONTROL - OTHER PERSON

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Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

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Occurrence #3: HARD LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

#### **Findings**

4. (C) AIRCRAFT CONTROL - RESTRICTED - PILOT IN COMMAND

Page 2 of 6 FTW01LA082

#### **Factual Information**

On March 17, 2001, approximately 0845 central standard time, a Champion 7KCAB airplane, N9017L, registered to and operated by the pilot, was substantially damaged during a forced landing following an elevator flight control malfunction while maneuvering in the vicinity of Ragley, Louisiana. The commercial pilot, who was the sole occupant, sustained serious injuries. Visual meteorological conditions prevailed and a flight plan was not filed for the 14 Code of Federal Regulations Part 91 personal flight. The flight originated at 0830 from a private grass airstrip located in Ragley.

The pilot reported that he was flying locally, near his home looking at some fields and reforested pine trees. After about 15 minutes of flight, he was in a turn and descending slightly, when "the stick suddenly snapped back with no pressure on it." The nose immediately "ducked down" and the pilot "pulled" the trim back to raise the nose while leveling the wings. After leveling off, the pilot started back to his airstrip. On short final, he noticed that he did not have enough time and distance to achieve a steady descent with only trim tabs to control the pitch. After a "go-around", the pilot attempted to set up for a shallow descent approach.

At about 75 to 100 feet above the ground on final, the pilot felt "turbulence" and the airplane began descending quickly. The airplane then impacted the ground "pretty hard" breaking the left main landing gear, skidding about 40 feet, and coming to rest in an upright position. The fuselage sustained structural damage during the impact.

Family members of the pilot and an FAA inspector examined the airplane after the accident. The elevator control cable was found liberated from its "Nicopress" fitting.

The elevator cable had been replaced with a new cable by the pilot, under the supervision of a A&P mechanic on February 8, 2001. According to the pilot, the new elevator cable was fabricated for him by an aircraft maintenance facility. The airplane was given an annual inspection on March 6, 2001, by the same A&P mechanic who assisted with the elevator cable installation. The last time the airplane flew prior to the accident was on March 8, 2001, when the pilot flew the airplane for about 35 minutes with no anomalies. He stated that the airplane "performed great."

Page 3 of 6 FTW01LA082

### **Pilot Information**

Certificate:	Private	Age:	62,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Front
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 Valid Medicalw/ waivers/lim	Last FAA Medical Exam:	January 31, 2000
Occupational Pilot:	No	Last Flight Review or Equivalent:	January 17, 2000
Flight Time:	2918 hours (Total, all aircraft), 2348 hours (Total, this make and model), 9 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

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

Aircraft Make:	Champion	Registration:	N9017L
Model/Series:	7KCAB	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	246-70
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	March 1, 2001 Annual	Certified Max Gross Wt.:	1650 lbs
Time Since Last Inspection:	1 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2983 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	IO-320-E2A
Registered Owner:	On file	Rated Power:	150 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Page 4 of 6 FTW01LA082

## 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:	
<b>Lowest Cloud Condition:</b>	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	70°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.22 inches Hg	Temperature/Dew Point:	10°C / 4°C
Precipitation and Obscuration:			
Departure Point:	Ragley, LA (7LA3)	Type of Flight Plan Filed:	None
Destination:	(7LA3)	Type of Clearance:	None
Departure Time:	08:30 Local	Type of Airspace:	Class E

## 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:	30.509109,-93.230018(est)

Page 5 of 6 FTW01LA082

#### **Administrative Information**

Investigator In Charge (IIC):	Lemishko, Alexander
Additional Participating Persons:	Lil Bruce; FAA; Baton Rouge, LA
Original Publish Date:	July 30, 2001
Last Revision Date:	
Investigation Class:	<u>Class</u>
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=51966

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.

Page 6 of 6 FTW01LA082