



Aviation Investigation Final Report

| | | | |
|--------------------------------|--------------------------------------|-------------------------|------------|
| Location: | GALEVILLE, New York | Accident Number: | NYC95LA017 |
| Date & Time: | October 22, 1994, 16:00 Local | Registration: | N7037W |
| Aircraft: | PITTS S-1C | Aircraft Damage: | Destroyed |
| Defining Event: | | Injuries: | 1 Minor |
| Flight Conducted Under: | Part 91: General aviation - Personal | | |

Analysis

THE PILOT WAS PERFORMING ACROBATICS MANEUVERS. HE ENTERED A LEFT SNAP ROLL AT 1800 FEET, AND DURING THE RECOVERY THE RIGHT RUDDER PEDAL DISCONNECTED FROM THE RUDDER CABLE. THE AIRPLANE ENTERED A LEFT SPIN, FROM WHICH THE PILOT WAS UNABLE TO RECOVER. HE ELECTED TO PARACHUTE FROM THE AIRPLANE, WHICH CONTINUED TO SPIN TO THE GROUND. AN FAA INSPECTOR EXAMINED THE WRECKAGE AND FOUND THE CLEVIS PIN FOR THE RIGHT RUDDER WAS MISSING.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Inadequate maintenance inspection which resulted in disengagement of the rudder clevis bolt and the inflight loss of control during aerobatic maneuvers.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: MANEUVERING

Findings

1. (C) MAINTENANCE - INADEQUATE - UNKNOWN
2. (C) FLT CONTROL SYST, RUDDER CONTROL ATTACH POINTS - NOT SECURED

Occurrence #2: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: MANEUVERING

Findings

3. BAIL-OUT/EMERGENCY EJECTION - INTENTIONAL - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

4. (C) TERRAIN CONDITION - GROUND

Factual Information

On Saturday, October 22, 1994, at 1600 eastern daylight time, a Pitts S-1C, N7037W, registered to and piloted by George J. Emer, was destroyed by impact with the terrain in Galeville, New York. The pilot received minor injuries. Visual meteorological conditions prevailed, and no flight plan was filed. The flight was being conducted under 14 CFR Part 91.

The pilot was performing acrobatic maneuvers, when he lost rudder control. He was unable to recover from the maneuver, and he elected to parachute from the airplane. The airplane continued out of control and impacted terrain.

In his report, the pilot stated:

I entered a left snap roll at approximately 1800' AGL. On recovery (full right rudder) the right rudder pedal disconnected from the rudder cable. The aircraft entered a left spin...and did not respond to any control input. I jumped out of the aircraft at approximately 700' and deployed my parachute.

Mr. Ray Darling, an Airworthiness Inspector for the Federal Aviation Administration, examined the wreckage. In a telephone interview, Mr. Darling stated that he found "the clevis pin for the right rudder cable was missing."

Pilot Information

| | | | |
|----------------------------------|---|--|--------------------|
| Certificate: | Commercial; Flight instructor | Age: | Male |
| Airplane Rating(s): | Single-engine land; Multi-engine land | Seat Occupied: | Unknown |
| Other Aircraft Rating(s): | None | Restraint Used: | |
| Instrument Rating(s): | Airplane | Second Pilot Present: | No |
| Instructor Rating(s): | Airplane single-engine | Toxicology Performed: | No |
| Medical Certification: | Class 3 Valid Medical-w/ waivers/lim | Last FAA Medical Exam: | September 24, 1993 |
| Occupational Pilot: | UNK | Last Flight Review or Equivalent: | |
| Flight Time: | 1419 hours (Total, all aircraft), 210 hours (Total, this make and model), 25 hours (Last 90 days, all aircraft), 12 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

| | | | |
|--------------------------------------|--------------------------|---------------------------------------|-----------------|
| Aircraft Make: | PITTS | Registration: | N7037W |
| Model/Series: | S-1C S-1C | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | Yes |
| Airworthiness Certificate: | Experimental (Special) | Serial Number: | 4100 |
| Landing Gear Type: | Tailwheel | Seats: | |
| Date/Type of Last Inspection: | September 3, 1994 Annual | Certified Max Gross Wt.: | |
| Time Since Last Inspection: | 20 Hrs | Engines: | 1 Reciprocating |
| Airframe Total Time: | 210 Hrs | Engine Manufacturer: | LYCOMING |
| ELT: | Not installed | Engine Model/Series: | O-320-E2A |
| Registered Owner: | GEORGE J. EMER | Rated Power: | 150 Horsepower |
| Operator: | | Operating Certificate(s) Held: | None |
| Operator Does Business As: | | Operator Designator Code: | |

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: | |
| Lowest Cloud Condition: | Clear | Visibility | 20 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 0° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | | Temperature/Dew Point: | 21°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | MONTGOMERY , NY (MGJ) | Type of Flight Plan Filed: | None |
| Destination: | | Type of Clearance: | None |
| Departure Time: | 15:40 Local | Type of Airspace: | Class E |

Airport Information

| | | | |
|-----------------------------|---|----------------------------------|------|
| Airport: | | Runway Surface Type: | |
| Airport Elevation: | | Runway Surface Condition: | |
| Runway Used: | 0 | IFR Approach: | |
| Runway Length/Width: | | VFR Approach/Landing: | None |

Wreckage and Impact Information

| | | | |
|----------------------------|---------|-----------------------------|---------------------------|
| Crew Injuries: | 1 Minor | Aircraft Damage: | Destroyed |
| Passenger Injuries: | | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 1 Minor | Latitude, Longitude: | 41.599704,-74.160728(est) |

Administrative Information

| | |
|--|---|
| Investigator In Charge (IIC): | Leonard, Charles |
| Additional Participating Persons: | AL BELCHER; ALBANY , NY |
| Original Publish Date: | August 23, 1995 |
| Last Revision Date: | |
| Investigation Class: | Class |
| Note: | |
| Investigation Docket: | https://data.nts.gov/Docket?ProjectID=38892 |

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](#).