



# **Aviation Investigation Final Report**

Location: DECATUR, Michigan Accident Number: CHI00LA205

Date & Time: July 17, 2000, 21:00 Local Registration: N5080M

Aircraft: Taylorcraft BC12-D Aircraft Damage: Substantial

**Defining Event:** 1 Minor

Flight Conducted Under: Part 91: General aviation - Personal

### **Analysis**

The airplane nosed over on landing at a private, grass airstrip. The pilot reported that just after touchdown, the airplane suddenly nosed over. He reported that after the accident, he noted a long skid mark in the grass from the left main gear that lead up to the point where the airplane nosed over. Investigation revealed the grass airstrip contained bare areas where the grass had died. The tire marks in the grass showed the airplane was sliding during the landing roll and it nosed over when it contacted one of the bare areas. The left main wheel brake was found locked up after the accident.

### **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the left main landing gear brake was locked during landing. A factor associated with the accident was the uneven terrain on which the landing was made.

### **Findings**

Occurrence #1: NOSE OVER

Phase of Operation: LANDING - ROLL

#### **Findings**

1. (C) LANDING GEAR, NORMAL BRAKE SYSTEM - LOCKED

2. (F) AIRPORT FACILITIES, RUNWAY/LANDING AREA CONDITION - ROUGH/UNEVEN

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### **Factual Information**

On July 17, 2000, at 2100 eastern daylight time, a Taylorcraft BC12-D, N5080M, piloted by a private pilot, sustained substantial damage when it nosed over following a landing at a private airstrip near Decatur, Michigan. The flight was operating under the provisions of 14 CFR Part 91, and was not on a flight plan. Visual meteorological conditions prevailed at the time of the accident. The pilot reported minor injuries. The flight departed the private airstrip at 2000 edt, for the local flight.

The pilot reported that he was returning to his private airstrip following a local flight. He reported that he flew over the field to check the winds, which were indicating calm. The pilot stated he landed to the south and after he touched down the airplane suddenly nosed over. He reported that after the accident, he noted a long skid mark in the grass from the left main gear that lead up to the point where the airplane nosed over.

An inspector from the Federal Aviation Administration Grand Rapids, Michigan, Flight Standards District Office, examined the airplane and accident site. The inspector reported that the grass airstrip contained bare areas where the grass had died. He reported that tire marks in the grass showed the airplane was sliding during the landing roll and it nosed over when it contacted one of the bare areas. The inspector also stated that the left main wheel brake was locked up when he inspected the airplane.

#### **Pilot Information**

| Certificate:              | Private   | Age:                              | 41,Male          |
|---------------------------|---|-----------------------------------|------------------|
| Airplane Rating(s):       | Single-engine land  | Seat Occupied:                    | Left             |
| 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 Medicalno waivers/lim.  | Last FAA Medical Exam:            | December 1, 1997 |
| Occupational Pilot:       | UNK   | Last Flight Review or Equivalent: |                  |
| Flight Time:              | 322 hours (Total, all aircraft), 312 hours (Total, this make and model), 322 hours (Pilot In Command, all aircraft), 12 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft) |                                   |                  |

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

| Aircraft Make:                   | Taylorcraft              | Registration:                     | N5080M          |
|----------------------------------|--------------------------|-----------------------------------|-----------------|
| Model/Series:                    | BC12-D BC12-D            | Aircraft Category:                | Airplane        |
| Year of Manufacture:             |                          | Amateur Built:                    |                 |
| Airworthiness Certificate:       | Normal                   | Serial Number:                    | 10380           |
| Landing Gear Type:               | Tailwheel                | Seats:                            | 2               |
| Date/Type of Last<br>Inspection: | March 2, 2000 Annual     | Certified Max Gross Wt.:          | 1200 lbs        |
| Time Since Last Inspection:      | 8 Hrs                    | Engines:                          | 1 Reciprocating |
| Airframe Total Time:             | 1748 Hrs                 | Engine Manufacturer:              | Continental     |
| ELT:                             | Installed, not activated | Engine Model/Series:              | C85-12F         |
| Registered Owner:                | ERIC O RICHARDSON        | Rated Power:                      | 85 Horsepower   |
| Operator:                        |                          | Operating Certificate(s)<br>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:        |          |
| <b>Lowest Cloud Condition:</b>   | Clear                        | Visibility                           | 10 miles |
| Lowest Ceiling:                  | None                         | Visibility (RVR):                    |          |
| Wind Speed/Gusts:                | /                            | Turbulence Type<br>Forecast/Actual:  | /        |
| Wind Direction:                  | 0°                           | Turbulence Severity Forecast/Actual: | /        |
| Altimeter Setting:               |                              | Temperature/Dew Point:               | 21°C     |
| Precipitation and Obscuration:   | No Obscuration; No Precipita | ation                                |          |
| Departure Point:                 | (PVT)                        | Type of Flight Plan Filed:           | None     |
| Destination:                     |                              | Type of Clearance:                   | None     |
| Departure Time:                  | 20:00 Local                  | Type of Airspace:                    | Class G  |

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## **Airport Information**

| Airport:             | PRIVATE PVT      | Runway Surface Type:             | Grass/turf |
|----------------------|------------------|----------------------------------|------------|
| Airport Elevation:   | 800 ft msl       | <b>Runway Surface Condition:</b> | Dry        |
| Runway Used:         | 18               | IFR Approach:                    |            |
| Runway Length/Width: | 1300 ft / 140 ft | VFR Approach/Landing:            | Full stop  |

## Wreckage and Impact Information

| Crew Injuries:         | 1 Minor | Aircraft Damage:        | Substantial               |
|------------------------|---------|-------------------------|---------------------------|
| Passenger<br>Injuries: |         | Aircraft Fire:          | None                      |
| Ground Injuries:       | N/A     | Aircraft Explosion:     | None                      |
| Total Injuries:        | 1 Minor | Latitude,<br>Longitude: | 42.099529,-85.970024(est) |

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#### **Administrative Information**

| Investigator In Charge (IIC):        | Sullivan, Pamela                                 |  |
|--------------------------------------|--|--|
| Additional Participating<br>Persons: | RALPH PAYNE; GRAND RAPIDS , MI                   |  |
| Original Publish Date:               | May 18, 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=49744     |  |

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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