

Aviation Investigation Final Report

Location: Ephrata, Washington **Accident Number:** SEA08CA122

Date & Time: May 4, 2008, 14:22 Local Registration: N747JN

Aircraft: Schempp-Hirth Nimbus-4M Aircraft Damage: Substantial

Defining Event: Loss of control in flight **Injuries:** 1 Serious

Flight Conducted Under: Part 91: General aviation - Personal

Analysis

This was the first flight after removal of the glider from storage and its reassembly. The pilot reported that during takeoff initial climb, the glider started to roll to the left despite his control inputs. He decided to abort the takeoff and land straight ahead while attempting to maintain control of the powered glider. Subsequently, the left wing struck the ground, and the glider began to cartwheel. Examination of the airframe revealed that the left and right wings were structurally damaged and the empennage was partially separated. Examination of the flight control system revealed that the left aileron connecting rod was disconnected at the fuselage/wing quick connection point and was undamaged. The pilot stated that during assembly of the glider prior to the flight, the left aileron control tube was inadvertently not attached, and that he did not verify that all flight controls moved free and correct prior to takeoff.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate preflight inspection and his failure to connect the left aileron control rod during assembly.

Findings

Aircraft Aileron control system - Not inspected

Personnel issues Preflight inspection - Pilot

Personnel issues Aircraft control - Pilot

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Factual Information

History of Flight

| Initial climb | Loss of control in flight (Defining event) |
|---------------|--|
| Takeoff | Collision with terr/obj (non-CFIT) |

Pilot Information

| Certificate: | Commercial | Age: | 69,Male |
|---------------------------|--|---------------------------------------|-----------------------|
| Airplane Rating(s): | Single-engine land | Seat Occupied: | Center |
| Other Aircraft Rating(s): | Glider | Restraint Used: | |
| Instrument Rating(s): | None | Second Pilot Present: | No |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 3 | Last FAA Medical Exam: | May 1, 2006 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | |
| Flight Time: | 5000 hours (Total, all aircraft), 1500 all aircraft) | hours (Total, this make and model), 1 | hours (Last 24 hours, |

Aircraft and Owner/Operator Information

| hempp-Hirth | Dogiotrotion: | N747JN |
|----------------------|-----------------------------------|--|
| - rr | Registration: | N/4/JN |
| mbus-4M | Aircraft Category: | Glider |
| | Amateur Built: | |
| perimental (Special) | Serial Number: | 14 |
| ilwheel | Seats: | 1 |
| | Certified Max Gross Wt.: | |
| | Engines: | 1 Reciprocating |
| | Engine Manufacturer: | Solo |
| | Engine Model/Series: | 2625-02 |
| elson Edward Funston | Rated Power: | |
| | Operating Certificate(s) Held: | None |
| rp | perimental (Special) Iwheel | Amateur Built: Derimental (Special) Serial Number: Wheel Seats: Certified Max Gross Wt.: Engines: Engine Manufacturer: Engine Model/Series: Ison Edward Funston Rated Power: Operating Certificate(s) |

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Meteorological Information and Flight Plan

| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
|----------------------------------|----------------------------------|--------------------------------------|------------------|
| Observation Facility, Elevation: | KEPH,1275 ft msl | Distance from Accident Site: | 0 Nautical Miles |
| Observation Time: | 13:53 Local | Direction from Accident Site: | 0° |
| Lowest Cloud Condition: | Clear | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 4 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30.05 inches Hg | Temperature/Dew Point: | 21°C / 3°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | Ephrata, WA (KEPH) | Type of Flight Plan Filed: | None |
| Destination: | | Type of Clearance: | None |
| Departure Time: | 14:22 Local | Type of Airspace: | |

Airport Information

| Airport: | Ephrata Municipal Airport KEPH | Runway Surface Type: | Asphalt |
|----------------------|--------------------------------|----------------------------------|---------|
| Airport Elevation: | | Runway Surface Condition: | Dry |
| Runway Used: | 21 | IFR Approach: | None |
| Runway Length/Width: | 3467 ft / 150 ft | VFR Approach/Landing: | None |

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: | 47.308055,-119.51667 |

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Administrative Information

| Investigator In Charge (IIC): | Cawthra, Joshua |
|-----------------------------------|---|
| Additional Participating Persons: | Steve Dunn; Federal Aviation Administration; Spokane, WA |
| Original Publish Date: | June 30, 2008 |
| 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=67945 |
| | |

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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