



# National Transportation Safety Board Aviation Accident Final Report

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|                                |                                      |                         |             |
|--------------------------------|--------------------------------------|-------------------------|-------------|
| <b>Location:</b>               | Everett, WA                          | <b>Accident Number:</b> | GAA18CA078  |
| <b>Date &amp; Time:</b>        | 12/08/2017, 1500 PST                 | <b>Registration:</b>    | N4801D      |
| <b>Aircraft:</b>               | CESSNA 172                           | <b>Aircraft Damage:</b> | Substantial |
| <b>Defining Event:</b>         | Runway excursion                     | <b>Injuries:</b>        | 2 None      |
| <b>Flight Conducted Under:</b> | Part 91: General Aviation - Personal |                         |             |

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## Analysis

The pilot reported that, during takeoff following a touch-and-go landing, the engine gauge readings appeared normal, the airplane lifted off the ground about 65 knots, and he applied nose-down pressure to stay in ground effect. The pilot reported that the airplane was not climbing nor was the airspeed increasing, so he lowered the nose further. He then attempted to climb by pulling back on the yoke and alternately building airspeed by lowering the nose multiple times with negative results. The pilot then reduced power to abort the takeoff. The airplane landed on the remaining runway, overran the end of the runway, and impacted a fence.

The airplane sustained substantial damage to the fuselage and both wings.

The pilot reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

The passenger in the right seat provided a video showing the touch-and-go landing from the right seat looking forward through the windscreen. The instrument panel cannot be seen. During the landing, the airplane touched down about 200 ft beyond the approach end of the 3,004 ft-long runway. The pilot applied takeoff power, the airplane lifted off the runway, and continued in level flight in ground effect. The pitch attitude did not appear excessive, the stall warning horn was not audible, and there were no abnormal sounds from the engine. The pilot then reduced power to abort the takeoff. The airplane touched down near the departure end of the runway, and the camera panned downward for the remainder of the video.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's decision to abort the takeoff following a touch-and-go landing with too little runway remaining, which resulted in a runway overrun.

## Findings

|                             |  |
|-----------------------------|--|
| <b>Aircraft</b>             | Takeoff distance - Capability exceeded (Cause) |
| <b>Personnel issues</b>     | Decision making/judgment - Pilot (Cause)       |
| <b>Environmental issues</b> | Fence/fence post - Contributed to outcome      |

## Factual Information

### History of Flight

|                          |   |
|--------------------------|---|
| Takeoff                  | Miscellaneous/other   |
| Takeoff-rejected takeoff | Runway excursion (Defining event)<br>Collision with terr/obj (non-CFIT) |

### Pilot Information

|                           |  |                                   |            |
|---------------------------|--|-----------------------------------|------------|
| Certificate:              | Private  | Age:                              | 23, Male   |
| Airplane Rating(s):       | Single-engine Land   | Seat Occupied:                    | Left       |
| Other Aircraft Rating(s): | None   | Restraint Used:                   | 4-point    |
| Instrument Rating(s):     | None   | Second Pilot Present:             | No         |
| Instructor Rating(s):     | None   | Toxicology Performed:             | No         |
| Medical Certification:    | Class 1 Without<br>Waivers/Limitations   | Last FAA Medical Exam:            | 12/27/2013 |
| Occupational Pilot:       | No   | Last Flight Review or Equivalent: | 10/06/2017 |
| Flight Time:              | (Estimated) 72 hours (Total, all aircraft), 10 hours (Total, this make and model), 13 hours (Pilot In Command, all aircraft), 7 hours (Last 90 days, all aircraft) |                                   |            |

### Aircraft and Owner/Operator Information

|                               |  |                                   |                 |
|-------------------------------|--|-----------------------------------|-----------------|
| Aircraft Make:                | CESSNA                                     | Registration:                     | N4801D          |
| Model/Series:                 | 172 N                                      | Aircraft Category:                | Airplane        |
| Year of Manufacture:          |  | Amateur Built:                    | No              |
| Airworthiness Certificate:    | Normal                                     | Serial Number:                    | 17272362        |
| Landing Gear Type:            | Tricycle                                   | Seats:                            | 4               |
| Date/Type of Last Inspection: | 12/01/2017, Annual                         | Certified Max Gross Wt.:          | 2300 lbs        |
| Time Since Last Inspection:   |  | Engines:                          | 1 Reciprocating |
| Airframe Total Time:          | 11038.7 Hours as of last<br>inspection     | Engine Manufacturer:              | LYCOMING        |
| ELT:                          | C91 installed                              | Engine Model/Series:              | O-320 SERIES    |
| Registered Owner:             | BOEING EMPLOYEES FLYING<br>ASSOCIATION INC | Rated Power:                      | 160 hp          |
| Operator:                     | On file                                    | Operating Certificate(s)<br>Held: | None            |

## Meteorological Information and Flight Plan

|                                  |                                  |                                      |                  |
|----------------------------------|----------------------------------|--------------------------------------|------------------|
| Conditions at Accident Site:     | Visual Conditions                | Condition of Light:                  | Day              |
| Observation Facility, Elevation: | KPAE, 606 ft msl                 | Distance from Accident Site:         | 0 Nautical Miles |
| Observation Time:                | 2253 UTC                         | Direction from Accident Site:        | 68°              |
| Lowest Cloud Condition:          | Clear                            | Visibility                           | 10 Miles         |
| Lowest Ceiling:                  | None                             | Visibility (RVR):                    |                  |
| Wind Speed/Gusts:                | 4 knots /                        | Turbulence Type Forecast/Actual:     | / None           |
| Wind Direction:                  | 330°                             | Turbulence Severity Forecast/Actual: | / N/A            |
| Altimeter Setting:               | 30.46 inches Hg                  | Temperature/Dew Point:               | 6° C / 0° C      |
| Precipitation and Obscuration:   | No Obscuration; No Precipitation |                                      |                  |
| Departure Point:                 | Everett, WA (PAE)                | Type of Flight Plan Filed:           | None             |
| Destination:                     | Everett, WA (PAE)                | Type of Clearance:                   | VFR              |
| Departure Time:                  | 1400 PST                         | Type of Airspace:                    | Class D          |

## Airport Information

|                      |                                    |                           |                           |
|----------------------|------------------------------------|---------------------------|---------------------------|
| Airport:             | SNOHOMISH COUNTY (PAINE FLD) (PAE) | Runway Surface Type:      | Asphalt                   |
| Airport Elevation:   | 607 ft                             | Runway Surface Condition: | Dry                       |
| Runway Used:         | 16L                                | IFR Approach:             | None                      |
| Runway Length/Width: | 3004 ft / 75 ft                    | VFR Approach/Landing:     | Straight-in; Touch and Go |

## Wreckage and Impact Information

|                     |        |                      |                              |
|---------------------|--------|----------------------|------------------------------|
| Crew Injuries:      | 1 None | Aircraft Damage:     | Substantial                  |
| Passenger Injuries: | 1 None | Aircraft Fire:       | None                         |
| Ground Injuries:    | N/A    | Aircraft Explosion:  | None                         |
| Total Injuries:     | 2 None | Latitude, Longitude: | 47.907778, -122.280833 (est) |

## Administrative Information

|                                   |   |              |            |
|-----------------------------------|---|--------------|------------|
| Investigator In Charge (IIC):     | Kathryn R Benhoff   | Report Date: | 03/14/2018 |
| Additional Participating Persons: | Kevin Marsac; FAA; Seattle, WA  |              |            |
| Publish Date:                     | 10/04/2019  |              |            |
| Note:                             | This accident report documents the factual circumstances of this accident as described to the NTSB.                             |              |            |
| Investigation Docket:             | <a href="http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=96461">http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=96461</a> |              |            |

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).