



# Aviation Investigation Final Report

|                                |  |                         |             |
|--------------------------------|--|-------------------------|-------------|
| <b>Location:</b>               | Wyndmere, North Dakota                     | <b>Accident Number:</b> | GAA19CA158  |
| <b>Date &amp; Time:</b>        | March 7, 2019, 08:35 Local                 | <b>Registration:</b>    | N726        |
| <b>Aircraft:</b>               | Piper PA18                                 | <b>Aircraft Damage:</b> | Substantial |
| <b>Defining Event:</b>         | Loss of control in flight                  | <b>Injuries:</b>        | 2 None      |
| <b>Flight Conducted Under:</b> | Part 91: General aviation - Other work use |                         |             |

## Analysis

The pilot reported that he was hired to conduct a predator control flight. He added that, after completing a right turn to the west, he initiated a climbing left turn to the east, and about 75 ft above ground level, the airplane "banked violently to the right and back to the left about two-three times," descended, and then impacted snow-covered ground.

The airplane sustained substantial damage to the right wing.

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

The hiring agency check pilot reported that, during a postaccident flight review with the accident pilot, the pilot did not apply rudder inputs during turns, which resulted in uncoordinated turns, similar to what occurred in this accident.

## Probable Cause and Findings

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

The pilot's exceedance of the airplane's critical angle of attack during an uncoordinated turn while maneuvering at low altitude, which resulted in an aerodynamic stall.

## Findings

|                         |                                       |
|-------------------------|---------------------------------------|
| <b>Personnel issues</b> | Aircraft control - Pilot              |
| <b>Aircraft</b>         | Angle of attack - Capability exceeded |
| <b>Personnel issues</b> | Attention - Pilot                     |

## Factual Information

### History of Flight

|                            |  |
|----------------------------|--|
| Maneuvering-low-alt flying | Aerodynamic stall/spin                     |
| Maneuvering-low-alt flying | Loss of control in flight (Defining event) |
| Maneuvering-low-alt flying | Collision with terr/obj (non-CFIT)         |

### Pilot Information

|                           |   |                                   |                  |
|---------------------------|---|-----------------------------------|------------------|
| Certificate:              | Commercial; Flight instructor   | Age:                              | 66,Male          |
| Airplane Rating(s):       | Single-engine land; Single-engine sea   | Seat Occupied:                    | Front            |
| Other Aircraft Rating(s): | None  | Restraint Used:                   | 3-point          |
| Instrument Rating(s):     | Airplane  | Second Pilot Present:             | No               |
| Instructor Rating(s):     | Airplane single-engine  | Toxicology Performed:             | No               |
| Medical Certification:    | Class 2 With waivers/limitations  | Last FAA Medical Exam:            | February 1, 2019 |
| Occupational Pilot:       | Yes   | Last Flight Review or Equivalent: | October 19, 2018 |
| Flight Time:              | (Estimated) 19850 hours (Total, all aircraft), 14500 hours (Total, this make and model) |                                   |                  |

### Aircraft and Owner/Operator Information

|                               |  |                                |                 |
|-------------------------------|--|--------------------------------|-----------------|
| Aircraft Make:                | Piper  | Registration:                  | N726            |
| Model/Series:                 | PA18 150   | Aircraft Category:             | Airplane        |
| Year of Manufacture:          | 1982   | Amateur Built:                 |                 |
| Airworthiness Certificate:    | Restricted (Special)                                       | Serial Number:                 | 18-8309021      |
| Landing Gear Type:            | Tailwheel  | Seats:                         | 2               |
| Date/Type of Last Inspection: | February 1, 2019 Annual                                    | Certified Max Gross Wt.:       | 1750 lbs        |
| Time Since Last Inspection:   |  | Engines:                       | 1 Reciprocating |
| Airframe Total Time:          | 14208.6 Hrs  | Engine Manufacturer:           | Lycoming        |
| ELT:                          | C91 installed, activated, did not aid in locating accident | Engine Model/Series:           | O-320           |
| Registered Owner:             |  | Rated Power:                   | 180             |
| Operator:                     |  | Operating Certificate(s) Held: | None            |

## Meteorological Information and Flight Plan

|                                  |                                  |                                      |                   |
|----------------------------------|----------------------------------|--------------------------------------|-------------------|
| Conditions at Accident Site:     | Visual (VMC)                     | Condition of Light:                  | Day               |
| Observation Facility, Elevation: | KGWR, 1267 ft msl                | Distance from Accident Site:         | 24 Nautical Miles |
| Observation Time:                | 14:35 Local                      | Direction from Accident Site:        | 232°              |
| Lowest Cloud Condition:          |                                  | Visibility                           | 10 miles          |
| Lowest Ceiling:                  |                                  | Visibility (RVR):                    |                   |
| Wind Speed/Gusts:                | /                                | Turbulence Type Forecast/Actual:     | None / None       |
| Wind Direction:                  |                                  | Turbulence Severity Forecast/Actual: | N/A / N/A         |
| Altimeter Setting:               | 30.29 inches Hg                  | Temperature/Dew Point:               | -21°C / -23°C     |
| Precipitation and Obscuration:   | No Obscuration; No Precipitation |                                      |                   |
| Departure Point:                 | Oaks, ND                         | Type of Flight Plan Filed:           | VFR               |
| Destination:                     |                                  | Type of Clearance:                   | None              |
| Departure Time:                  | 06:30 Local                      | Type of Airspace:                    | Class G           |

## Wreckage and Impact Information

|                     |        |                      |                           |
|---------------------|--------|----------------------|---------------------------|
| Crew Injuries:      | 2 None | Aircraft Damage:     | Substantial               |
| Passenger Injuries: |        | Aircraft Fire:       | None                      |
| Ground Injuries:    | N/A    | Aircraft Explosion:  | None                      |
| Total Injuries:     | 2 None | Latitude, Longitude: | 46.459167,-97.185279(est) |

## Administrative Information

|                                   |   |
|-----------------------------------|---|
| Investigator In Charge (IIC):     | Nepomuceno, Eleazar   |
| Additional Participating Persons: | David Winjum ; FAA; Fargo, ND   |
| Original Publish Date:            | November 6, 2019  |
| Note:                             | This accident report documents the factual circumstances of this accident as described to the NTSB.   |
| Investigation Docket:             | <a href="https://data.nts.gov/Docket?ProjectID=99089">https://data.nts.gov/Docket?ProjectID=99089</a> |

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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](#).