



# **Aviation Investigation Final Report**

Location: UTICA, Nebraska Accident Number: CHI99LA340

Date & Time: September 9, 1999, 17:36 Local Registration: N4527K

Aircraft: Navion A Aircraft Damage: Substantial

**Defining Event:** 2 None

Flight Conducted Under: Part 91: General aviation - Personal

### **Analysis**

The pilot said, '... at 4,500 feet, the engine died suddenly and completely. I immediately turned on [the] boost pump, which did no good. I then, turned back 180 degrees and headed for NE23 (Utica, NE) which we had just passed. I notified Lincoln App [approach] of our problem and that re-start procedures didn't work.' The pilot then said, 'I thought I was set up to touch down halfway down the runway, let [the] gear down, got three lights, and then pumped down the rest of the flaps.' The pilot said that he touched down approximately 150 feet from the end of the runway and on rollout the landing gear collapsed due to the presence of '...five feet tall fireweeds.' During a post accident examination of the airplane, the engine driven fuel pump drive pin was found to be sheared. No other preexisting anomalies were found with respect to the aircraft or it's systems

### **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the failure of the fuel pump and the misjudged touchdown point by the pilot. A factor was the high vegetation.

### **Findings**

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF

Phase of Operation: CRUISE

**Findings** 

#### 1. (C) FUEL SYSTEM, PUMP - FAILURE, TOTAL

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Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

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Occurrence #3: UNDERSHOOT

Phase of Operation: EMERGENCY LANDING

#### **Findings**

2. (C) PROPER TOUCHDOWN POINT - MISJUDGED - PILOT IN COMMAND

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Occurrence #4: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: EMERGENCY LANDING

#### **Findings**

3. (F) TERRAIN CONDITION - HIGH VEGETATION

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#### **Factual Information**

On September 9, 1999, at 1736 central daylight time, a Navion model A, N4527K, piloted by a private pilot, sustained substantial damage during a forced landing, to runway 35 (3,000 feet by 50 feet, dry/concrete), at the Flying V Airport, Utica, Nebraska, following an engine failure during cruise flight. The aircraft impacted terrain short of the approach end of the runway. The personal flight was conducted 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 no injuries to himself or his one passenger. The flight originated from the Lincoln Municipal Airport, Lincoln, Nebraska, at 1710 and was en route to the Kearney Airport, Kearney, Nebraska.

In a written statement, the pilot said, "... at 4,500 feet, the engine died suddenly and completely. I immediately turned on [the] boost pump, which did no good. I then, turned back 180 degrees and headed for NE23 (Utica, NE) which we had just passed. I notified Lincoln App [approach] of our problem and that re-start procedures didn't work." The pilot then said, "I thought I was set up to touch down halfway down the runway, let [the] gear down, got three lights, and then pumped down the rest of the flaps." The pilot said that he touched down approximately 150 feet from the end of the runway and on rollout the landing gear collapsed due to the presence of "...five feet tall fireweeds."

During a post accident examination of the airplane, the engine driven fuel pump drive pin was found to be sheared. No other preexisting anomalies were found with respect to the aircraft or its systems.

#### **Pilot Information**

| Certificate:              | Private  | Age:                              | 55,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 Medical-w/<br>waivers/lim  | Last FAA Medical Exam:            | March 27, 1998 |
| Occupational Pilot:       | No   | Last Flight Review or Equivalent: |                |
| Flight Time:              | 600 hours (Total, all aircraft), 352 hours (Total, this make and model), 500 hours (Pilot In Command, all aircraft), 1 hours (Last 24 hours, all aircraft) |                                   |                |

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

| Aircraft Make:                | Navion   | Registration:                     | N4527K          |
|-------------------------------|--|-----------------------------------|-----------------|
| Model/Series:                 | AA   | Aircraft Category:                | Airplane        |
| Year of Manufacture:          |  | Amateur Built:                    |                 |
| Airworthiness Certificate:    | Normal; Utility  | Serial Number:                    | NAV-4-1527      |
| Landing Gear Type:            | Retractable - Tricycle                                 | Seats:                            | 4               |
| Date/Type of Last Inspection: | April 9, 1999 Annual                                   | Certified Max Gross Wt.:          | 2750 lbs        |
| Time Since Last Inspection:   | 35 Hrs   | Engines:                          | 1 Reciprocating |
| Airframe Total Time:          | 2638 Hrs   | Engine Manufacturer:              | Continental     |
| ELT:                          | Installed, activated, did not aid in locating accident | Engine Model/Series:              | E-225-A         |
| Registered Owner:             | WHITESEL MANAGEMENT CO.                                | Rated Power:                      | 225 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: | LNK ,1219 ft msl                 | Distance from Accident Site:         | 27 Nautical Miles |
| Observation Time:                | 16:54 Local                      | Direction from Accident Site:        | 92°               |
| <b>Lowest Cloud Condition:</b>   | Clear                            | Visibility                           | 10 miles          |
| Lowest Ceiling:                  | None                             | Visibility (RVR):                    |                   |
| Wind Speed/Gusts:                | 6 knots /                        | Turbulence Type<br>Forecast/Actual:  | /                 |
| Wind Direction:                  | 0°                               | Turbulence Severity Forecast/Actual: | /                 |
| Altimeter Setting:               | 29 inches Hg                     | Temperature/Dew Point:               | 24°C / 9°C        |
| Precipitation and Obscuration:   | No Obscuration; No Precipitation |                                      |                   |
| Departure Point:                 | LINCOLN , NE (LNK )              | Type of Flight Plan Filed:           | None              |
| Destination:                     | KEARNEY , NE (EAR )              | Type of Clearance:                   | None              |
| Departure Time:                  | 17:10 Local                      | Type of Airspace:                    | Class G           |

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## **Airport Information**

| Airport:             |   | Runway Surface Type:             |                |
|----------------------|---|----------------------------------|----------------|
| Airport Elevation:   |   | <b>Runway Surface Condition:</b> | Vegetation     |
| Runway Used:         | 0 | IFR Approach:                    | None           |
| Runway Length/Width: |   | VFR Approach/Landing:            | Forced landing |

## Wreckage and Impact Information

| Crew Injuries:         | 1 None | Aircraft Damage:        | Substantial              |
|------------------------|--------|-------------------------|--------------------------|
| Passenger<br>Injuries: | 1 None | Aircraft Fire:          | None                     |
| Ground Injuries:       | N/A    | Aircraft Explosion:     | None                     |
| Total Injuries:        | 2 None | Latitude,<br>Longitude: | 40.889068,-97.33921(est) |

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#### **Administrative Information**

| Investigator In Charge (IIC):     | Brannen, John                                |  |
|-----------------------------------|--|--|
| Additional Participating Persons: | LARRY BARRY; LINCOLN , NE                    |  |
| Original Publish Date:            | November 30, 2000                            |  |
| Last Revision Date:               |  |  |
| Investigation Class:              | <u>Class</u>                                 |  |
| Note:                             |  |  |
| Investigation Docket:             | https://data.ntsb.gov/Docket?ProjectID=47346 |  |

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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