

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



WPR24FA105

ACCIDENT SITE EXAMINATION

March 11, 2024

TABLE OF CONTENTS

A. ACCIDENT	3
B. ACCIDENT SITE EXAMINATION	3
C. SUMMARY	3
D. DETAILS OF THE EXAMINATION	4
1.0 ACCIDENT SITE	4
2.0 AIRFRAME EXAMINATION	5
2.1 Fuselage	5
2.2 Empennage	6
2.3 Wings	6
2.4 Cockpit	8
3.0 ENGINE AND PROPELLER	8
4.0 ITEMS RETAINED	9
5.0 METEOROLOGICAL INFORMATION	9

A. ACCIDENT

Location: Madras, Oregon
Date: March 10, 2024
Time: 15:03 PDT
2203 UTC
Airplane: Piper PA -32-260 (N3264W)

B. ACCIDENT SITE EXAMINATION

IIC	Scott Johnson National Transportation Safety Board Federal Way, Washington
FAA Inspector	Roy Toavs Federal Aviation Administration Portland, Oregon
Party Coordinator	Jon Hirsch Piper Aircraft Company Vero Beach, Florida

C. SUMMARY

On March 10, 2024, at 15:03 Pacific Daylight Time, a Standard-Normal Category Piper PA 32-260, N3264W, was destroyed when it was involved in an accident near Madras, Oregon. The pilot and passenger were fatally injured. The airplane was operated as a Title 14 Code of Federal Regulations Part 91 personal flight.

At 1503, a power utility company experienced a powerline surge, and dispatched a crew to investigate. At 1940, the crew discovered wreckage of an airplane and alerted local authorities.

Two witnesses located about 3 miles northwest of the accident site, reported they observed the airplane descending in a spiraling motion towards the ground. One of the witnesses noted that the airplane was intact at the time. Another witness reported there were rain showers in the area when they heard the loud engine noise of the airplane.

D. DETAILS OF THE EXAMINATION

1.0 Accident Site

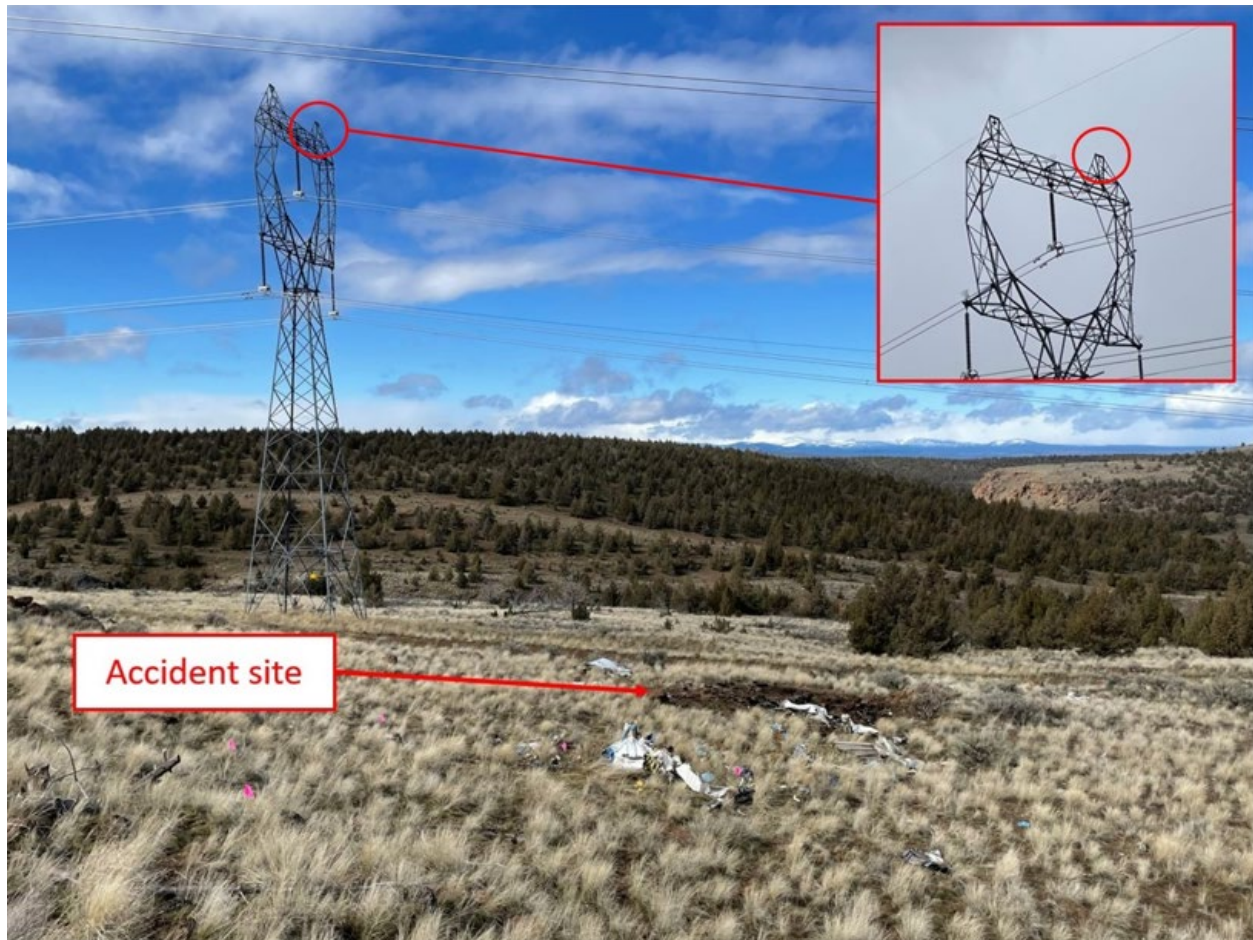


Figure 1: Wreckage site with static wire strike

GPS Location: 44.597379 / -121.03049

Elevation: 2884 ft mean sea level (MSL)

Observed on scene, the airplane struck and cut one of the high-tension static lines off the top of nearby north-south powerline towers. The first identified point of contact (FIPC) with sloping terrain was a ground scar/impression approximately 5 feet deep, 12 feet wide and 20 feet long into terrain at a heading of 130 °magnetic and spread out 300 ft debris path. A small post-crash fire ensued but extinguished itself quickly due to recent rains.

2.0 Airframe Examination

N3264W - Piper PA-32-260

SR# 32-88

Hobbs: Not observed

Tach: Not observed



Figure 2: Northwest view of impact site with ground fire marks

Examination of the wreckage area revealed heavy fragmentation of the airplane structure. All four corners on the airplane were accounted for. Primary and secondary flight surfaces, both sides of the stabilator and the vertical stabilizer with rudder attached were found. Both rudder cables were attached to the rudder.

2.1 Fuselage

The fuselage was destroyed by impact forces. The firewall was separated from the cabin and from the engine mount. The instrument panel and avionics were fragmented and distributed throughout the debris field. The lower fuselage and tailcone were separated from the upper fuselage. All the cabin seats were separated from their mounts and scattered throughout the debris field.

The aft baggage door was separated from its hinge and located in the debris field. Remnants of both the forward and aft cabin doors were also located in the debris field.

All the flight control cables exhibited separations with "broomstraw" characteristics consistent with separation due to impact forces. Remnants of the stabilator cables remained attached to the lower tee-bar. Remnants of the rudder cables remained attached to the rudder pedal torque tube arms, although both arms were separated from the torque tubes. Fragments of the aileron cables remained attached to pieces of the forward aileron chain segment which connects the control columns in the cockpit. The chain segment was displaced from the control column sprockets and further separated into multiple pieces.

The fuel selector valve and forward baggage door were not located. Fragments of the ELT housing and multiple "D-cell" batteries were observed in the impact crater.

2.2 Empennage

The vertical stabilizer, with the rudder attached, remained attached to the aft tailcone bulkhead. Both rudder cables remained attached to the rudder horn and were continuous for approximately 15ft and 18ft.

The stabilator was separated at the aircraft centerline and both sides were located in the debris field. The trim tab remained attached to each side of the stabilator by its hinge. The stabilator balance tube, with counterweight attached, was separated from the stabilator and located near the beginning of the main impact crater. Both tabs for attaching the stabilator cables to the balance tube were fractured, separated, and remained attached to the stabilator cables. The stabilator cables were continuous for 15' and 18' from the balance tube attach fittings.

The stabilator trim jackscrew exhibited impact damage and was partially separated from its mount. The stabilator trim cable was separated from the main wreckage and loosely wound around the jackscrew. The jackscrew was extended above the drum with approximately 6 threads exposed which correspond to a neutral trim setting. The bottom of the cowl and airframe panels extending all the way to the tail tie-down ring were oil saturated.

2.3 Wings

The left wing was separated from the fuselage at the wing root and located east of the main impact crater. The wing was folded over on itself and destroyed. The flap remained attached to the wing by its hinges and was impact damaged. The aileron remained attached by its inboard hinge and was impact damaged. The aileron and balance cables were continuous to the wing root/fuselage and exhibited broomstraw

separations at the ends. The main left fuel tank was breached, and no fuel was observed. The left main fuel tank filler cap remained intact in the filler neck opening. The auxiliary/tip tank was separated from the wing and destroyed. Fiberglass fragments, consistent with the tip tank were observed throughout the debris field. A fuel filler cap, consistent with the tip tank, was found loose in the debris field near the left wing. The landing gear strut remained partially attached to the wing spar. The wheel and tire assembly were separated and located in the debris field.



Figure 3: Right wing with high-tension static line

The right wing was separated from the fuselage with the main portion located in the debris field south of the main impact crater. The wing was further separated into three sections with a portion of the leading edge, forward of the main spar and inboard of the main fuel tank, located in the debris field north of the main impact crater. A third section, also located north of the main impact crater, consisted of the outboard portion of the wing, less the auxiliary/tip tank.

The main right fuel tank remained attached to the wing and the fuel cap remained intact in the fuel filler neck opening. The tip tank was destroyed and a loose fuel filler cap, consistent with the tip tank, was in the debris field near the main portion of the right wing.

The flap was separated from the wing and further separated chordwise into two pieces, both of which were located beneath the main portion of the wing. The aileron was separated from the wing and located in the debris field. The aileron and balance cables were continuous to the wing root/fuselage and exhibited broomstraw

separations at the ends. The main landing gear remained partially attached to the right wing.

2.4 Cockpit

The cockpit was strung over the entirety of the crash site along with its contents. Very few windscreen fragments were found.

3.0 Engine and Propeller



Figure 4: Engine at top of impact trench

Engine Manufacturer: Lycoming
Engine Model Number: O-540-E4B5
Engine Serial Number: L-9204-40

The engine was separated from the engine mount and located right side up on the ground just beyond the main impact crater and facing the opposite direction of the aircraft's direction of travel. All three cylinders on the right side of the engine were impact damaged and displaced. The right side of the crankcase was broken and fragmented. The cylinders and crankcase on the left side remained largely intact. The engine was rolled over on the ground to facilitate further examination which revealed that the oil sump was fractured and separated from the crankcase. An undetermined quantity of oil was observed in the bottom of the sump. The carburetor was separated from its mount and remained attached by a cable to the cockpit portion of the fuselage. Carburetor bowl exhibited dark/black discoloration on internal throat and a portion of the exterior of the float bowl. The color resembled soot or thermal discoloration. Similar dark color/soot signatures were visible on the carburetor heat airbox assembly which was separated and located in the debris field.

The left magneto remained attached to its mount on the accessory housing. The right magneto and vacuum pump were separated from their mounts and located adjacent to the engine.

The Hartzell three-blade aluminum constant speed propeller remained attached to the crankshaft propeller flange. The first blade, which remained captured in the hub, was intact from the hub to the blade tip and exhibited slight aft bending and some chordwise scratches. The second blade also remained captured in the hub and was separated chordwise about mid span. The outer portion of this blade was not located. The inner portion exhibited significant chordwise scratches and gouging of the leading edge. The third blade remained captured in the hub but was fractured and separated just outboard of the hub. The remainder of this blade was not located.

4.0 Items Retained

- Engine monitor/EGT device was retained for possible data download.
- The connecting rods appeared to be "non-Lycoming" parts.
- Set exhaust aside pending Toxicology results for Carbon Monoxide.

5.0 Meteorological Information

KS33 110235Z AUTO 2009KT 10SM CLR 06/M01 A2985

Submitted by:

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