

NATIONAL TRANSPORTATION SAFETY BOARD PILOT/OPERATOR AIRCRAFT ACCIDENT/INCIDENT REPORT

This form to be used for reporting civil and public aircraft accidents and incidents

BASIC INFORMATION

Accident/Incident Location Nearest City/Place: <u>MIDLAND</u> State: <u>VA</u> ZIP: <u>22728</u> Country: <u>USA</u> Latitude: <u>38-35-10.6 N</u> Longitude: <u>077-42-38.3 W</u> <i>(Enter in decimal degrees or degrees:minutes:seconds)</i>	Accident/Incident Date/Time Date: <u>12/02/2016</u> Local Time: <u>4:30pm</u> <i>mm/dd/yyyy</i> Time Zone: <u>Eastern</u>
Collision with Other Aircraft: ☐ Midair ☐ On-ground ☒ None	

AIRCRAFT INFORMATION

Registration Number: <u>N4149R</u> Manufacturer: <u>PIPER</u> Model: <u>PA 46-350P (MIRAGE/JETPROP TURBINE CONVERSION)</u> Serial Number: <u>4636226</u> Year of Manufacture: <u>1999</u> Amateur-Built: ☐ Yes ☒ No <i>If Yes:</i> ☐ Kit/Plans ☐ Original Design Make: _____	☒ IFR-Equipped and Certified ☐ Commercial Space Flight ☐ Unmanned Aircraft Maximum Gross Weight: <u>4318</u> lbs Weight at Time of Accident/Incident: <u>4080</u> lbs Number of Seats: <u>6</u> Flight Crew Seats: <u>2</u> Cabin Crew Seats: _____ Passenger Seats: <u>4</u> Number of Engines: <u>1</u>
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Category of Aircraft ☒ Airplane ☐ Balloon ☐ Blimp/Dirigible ☐ Glider ☐ Gyroplane ☐ Helicopter ☐ Powered Lift ☐ Rocket ☐ Ultralight ☐ Unknown	Type of Airworthiness Certificate <i>(Check all that apply)</i> <table style="width: 100%;"> <tr> <th style="text-align: left;">Standard</th> <th style="text-align: left;">Special</th> </tr> <tr> <td>☒ Normal</td> <td>☐ Restricted</td> </tr> <tr> <td>☐ Aerobatic</td> <td>☐ Limited</td> </tr> <tr> <td>☐ Balloon</td> <td>☐ Provisional</td> </tr> <tr> <td>☐ Commuter</td> <td>☐ Special Flight</td> </tr> <tr> <td>☐ Transport</td> <td>☐ Experimental</td> </tr> <tr> <td>☐ Utility</td> <td>☐ Special Light-Sport</td> </tr> <tr> <td></td> <td>☐ Experimental Light-Sport</td> </tr> </table> ☐ Certificate of Authorization or Waiver (COA) ☐ None ☐ Unknown	Standard	Special	☒ Normal	☐ Restricted	☐ Aerobatic	☐ Limited	☐ Balloon	☐ Provisional	☐ Commuter	☐ Special Flight	☐ Transport	☐ Experimental	☐ Utility	☐ Special Light-Sport		☐ Experimental Light-Sport	Landing Gear <i>(Check all that apply)</i> ☒ Retractable ☒ Tricycle ☐ Tailwheel ☐ Amphibian ☐ High Skid ☐ Emergency Float ☐ Skid ☐ Float ☐ Ski ☐ Hull ☐ Ski/Wheel ☐ Other Launch/Recovery System ☐ None ☐ Unknown	Engine Type (Select one) ☐ Reciprocating ☐ Liquid Rocket ☐ Turbo Shaft ☐ Solid Rocket ☒ Turbo Prop ☐ Hybrid Rocket ☐ Turbo Jet ☐ None ☐ Turbo Fan ☐ Unknown ☐ Electric Fuel System Type (Reciprocating) ☐ Carburetor ☐ Fuel-Injected
Standard	Special																		
☒ Normal	☐ Restricted																		
☐ Aerobatic	☐ Limited																		
☐ Balloon	☐ Provisional																		
☐ Commuter	☐ Special Flight																		
☐ Transport	☐ Experimental																		
☐ Utility	☐ Special Light-Sport																		
	☐ Experimental Light-Sport																		

Engine	Engine Manufacturer	Engine Model/Series	Manufacturer's Serial Number	Date of Mfg. <i>mm/dd/yyyy</i>	Rated Power ☒ Horsepower or ☐ lbs of Thrust	Total Time (hours)	Time Since: Inspection (hours)	Overhaul (hours)
Eng. 1	Pratt & Whitney	PT6A-35	PCE-RR 0238	08/21/2014	560	315	315	315
Eng. 2								
Eng. 3								
Eng. 4								

Last Inspection Type ☐ 100-Hour ☐ Continuous Airworthiness ☐ AAIP ☐ Conditional Inspection ☒ Annual ☐ Unknown Date Last Inspection: <u>12/17/2015</u> <i>mm/dd/yyyy</i> Airframe Total Time: <u>2165</u> hrs hours measured at <i>(Select one)</i> ☐ Last Inspection ☒ Time of Accident/Incident	Propeller 1 ☐ Fixed Pitch ☒ Controllable Pitch ☐ Ground Adjustable Manufacturer: <u>MT Propeller</u> Model: <u>MTV-16-1-E-C-F-R (P)</u>	Propeller 2 ☐ Fixed Pitch ☒ Controllable Pitch ☐ Ground Adjustable Manufacturer: _____ Model: _____
Type of Maintenance Program (Select one) ☒ Annual ☐ Conditional (Amateur-built only) ☐ Manufacturer's Inspection Program ☐ Other Approved Inspection Program (AAIP) ☐ Continuous Airworthiness ☐ Other, specify: _____	ELT Installed: ☒ Yes ☐ No <i>If Yes:</i> ELT Manufacturer: <u>ACR ARTEX</u> Model or Part No.: <u>ME406ELT</u> TSO No.: ☐ OC91 (121.5 MHz) ☐ OC91a (121.5 MHz) ☒ C126 (406 MHz) Was ELT still mounted in aircraft? ☒ Yes ☐ No Was ELT still connected to antenna? ☒ Yes ☐ No Did ELT Activate? ☐ Yes ☒ No <i>If activated:</i> Did ELT Aid in Locating Aircraft: ☐ Yes ☐ No <i>If not activated:</i> Indicate Reason: ☐ Impact Damage ☐ Fire Damage ☐ Battery Expired/Damaged ☒ Unknown	
Description of Fire Extinguishing System ☒ None ☐ Specify: _____	Additional Equipment (Check all that apply) ☒ ADS-B ☐ Airframe Parachute ☐ Angle of Attack Indicator ☒ Autopilot ☐ Data Recorder ☒ Electronic Flight Bag or Handheld Device ☒ Electronic Multifunction Display ☒ Electronic Primary Flight Display ☐ Handheld GPS ☐ Heads Up Display ☒ Onboard Weather ☐ Satellite Tracking Device ☐ Stall Warning System ☐ Video Recording Device ☐ Other, Specify: _____	

OWNER/OPERATOR INFORMATION**Registered Aircraft Owner**Name: ELMWOOD AVIATION, LLCCity: CATLETTState: VAZIP: 20119Fractional Ownership Aircraft: ☐ Yes ☒ NoCountry: USA**Operator of Aircraft**☒ Same As Registered Owner☒ Same Address as Registered Owner

Name: _____

City: _____

Doing Business As: _____

State: _____ ZIP: _____

Air Carrier/Operator Designator (4 Character Code): _____

Country: _____

Operating Certificates Held

(Check all that apply)

- ☒ None
☐ Flag Carrier Operating Certificate (FAR 121)
☐ Supplemental
☐ Air Cargo
☐ Foreign Air Carriers (FAR 129)
☐ Rotorcraft External Load (FAR 133)
☐ Commuter Air Carrier (FAR 135)
☐ On-Demand Air Taxi (FAR 135)
☐ Commercial Air Tour (FAR 136)
☐ Agricultural Aircraft (FAR 137)
☐ Pilot School (FAR 141)
☐ Certificate of Authorization or Waiver (COA)
☐ Commercial Space Transportation
Experimental Permit
☐ Commercial Space Transportation License
☐ Other Operator of Large Aircraft

Regulation Flight Conducted Under

- ☒ FAR 91 ☐ FAR 129 ☐ FAR 415
☐ FAR 103 ☐ FAR 133 ☐ FAR 431
☐ FAR 121 ☐ FAR 135 ☐ FAR 435
☐ FAR 125 ☐ FAR 137 ☐ FAR 437
- ☐ FAR 91 Special Flight
☐ Non-US, Commercial
☐ Non-US, Non-commercial
- ☐ Public Aircraft (Select one)
☐ Armed Forces
☐ Federal
☐ State
☐ Local
☐ Unknown

Revenue Operation for FAR 121, 125, 129, 135

(Select one for each group)

- ☐ Scheduled or Commuter ☐ Domestic
☐ Non-Scheduled or Air Taxi ☐ International
- ☐ Passenger
☐ Cargo
☐ Mail Contract Only

Purpose of Flight for FAR 91, 103, 133, 137

(Select one)

- ☐ Aerial Application ☐ Firefighting ☐ Unknown
☐ Aerial Observation ☐ Flight Test
☐ Air Drop ☐ Glider Tow
☐ Air Race/Show ☐ Instructional
☐ Banner Tow ☐ Other Work Use
☐ Business ☒ Personal
☐ Executive/Corporate ☐ Positioning
☐ External Load ☐ Skydiving
☐ Ferry

Revenue Sightseeing Flight☐ Yes ☒ No**Air Medical Flight**☐ Yes ☒ No**AIRPORT INFORMATION (Fill in if accident/incident occurred on approach, landing, takeoff, departure, or within 3 miles of an airport)**Airport Name: WARRENTON-FAUQUIER AIRPORTDistance From Airport Center: 0.5 smAirport Identifier: KHWYDirection From Airport: 150 degrees trueProximity to Airport: ☐ Off Airport/Airstrip ☒ On Airport/Airstrip ☐ N/AAirport Elevation: 336 ft. msl**Runway Information**Runway ID: 33 (L/R/C) Length: 5000 ft Width: 100 ft**Runway/Landing Surface (Check all that apply)**

- ☒ Asphalt ☐ Grass/Turf ☐ Macadam ☐ Water
☐ Concrete ☐ Gravel ☐ Metal/Wood
☐ Dirt ☐ Ice ☐ Snow ☐ Unknown

Condition of Runway/Landing Surface (Check all that apply)

- ☒ Dry ☐ Snow-Compacted ☐ Water-Calm
☐ Holes ☐ Snow-Crusted ☐ Water-Choppy
☐ Ice Covered ☐ Snow-Dry ☐ Water-Glassy
☐ Rough ☐ Snow-Wet ☐ Wet
☐ Rubber Deposits ☐ Soft
☐ Slush-Covered ☐ Vegetation ☐ Unknown

Approach/Departure Segment (Select one)

- ☐ Taxi ☐ VFR Departure ☐ On Instrument Approach ☐ Downwind ☐ Low Approach
☐ Takeoff ☐ IFR Departure Procedure/Clearance ☒ Landing ☐ Base ☐ Go Around
☐ Initial Climb ☐ Aborted Landing (after touchdown)
☐ Crosswind ☐ Unknown

IFR Approach (Check all that apply)

- ☒ None
- ☐ ADF/NDB ☐ PAR ☐ MLS ☐ Practice
☐ SDF ☐ Sidestep ☐ LDA ☐ GPS
☐ VOR/TVOR ☐ ILS ☐ ASR
☐ VOR/DME ☐ Localizer Only ☐ Visual
☐ TACAN ☐ LOC-back course ☐ Contact
☐ RNAV ☐ Circling
☐ Unknown

VFR Approach (Check all that apply)

- ☐ None
- ☐ Traffic Pattern ☐ Stop and Go
☒ Straight-In ☐ Touch and Go
☐ Valley/Terrain Following ☐ Simulated Forced Landing
☐ Go Around ☐ Forced Landing
☒ Full Stop ☐ Precautionary Landing
☐ Unknown

"FLIGHT CREWMEMBER 1" INFORMATION

"Flight Crewmember 1" Responsibilities at the Time of Accident/Incident

☒ Pilot
 ☐ Co-Pilot
 ☐ Student Pilot
 ☐ Flight Instructor
 ☐ Check Pilot
 ☐ Flight Engineer
 ☐ Other Flight Crew

"Flight Crewmember 1" was pilot flying ☒ Yes ☐ No

"Flight Crewmember 1" Identification

First Name: GLENN City of Residence: NOKESVILLE
 Middle Initial: R. State: VA ZIP: 20181
 Last Name: SANDERS Country: USA
 Age at time of Accident/Incident: 48 Date of Birth: mm/dd/yyyy
 Certificate Number:

Degree of Injury

☒ None
 ☐ Fatal
☐ Minor
 ☐ Unknown
☐ Serious

Seat Occupied

☒ Left
 ☐ Front
 ☐ Unknown
☐ Right
 ☐ Rear
☐ Center
 ☐ Single

Restraint Type

Available	Used
☐ None	☐ None
☐ Lap only	☐ Lap only
☒ 3-point	☒ 3-point
☐ 4-point	☐ 4-point
☐ 5-point	☐ 5-point
☐ Unknown	☐ Unknown

Inflatable Restraints

☒ Not Installed
☐ Installed
☐ Not Deployed
☐ Deployed
☐ Unknown

Pilot Certificate(s) (Check all that apply)

☐ None
 ☒ Flight Instructor
 ☒ Commercial
 ☐ US Military
☐ Private
 ☐ Recreational
 ☐ Airline Transport
 ☐ Foreign
☐ Student
 ☐ Sport
 ☐ Flight Engineer

Principal Occupation

☐ Pilot
☒ Other
☐ Unknown

Medical Certificate

☐ None
 ☐ Class 3
☐ Class 1
 ☐ Driver's License (Sport Pilot only)
☒ Class 2
 ☐ Unknown

Medical Certificate Validity

☐ Without limitations/waivers
 ☐ Unknown
☒ With limitations/waivers
 ☐ N/A
☐ Special Issuance

Date of Last Medical

11/02/2016
 mm/dd/yyyy

Medical Certificate Limitations

MUST WEAR CORRECTIVE LENSES.

Medical Certificate Special Issuance

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks:

11/15/2015
 mm/dd/yyyy

Flight Review Aircraft

Make: PIPER
 Model: PA 46-350P

Airplane Rating(s) (Check all that apply)

☐ None
☒ Single-Engine Land
☐ Single-Engine Sea
☒ Multiengine Land
☐ Multiengine Sea

Other Aircraft Rating(s) (Check all that apply)

☐ None
☐ Airship
☐ Balloon
☐ Glider
☐ Gyroplane
☒ Helicopter
☐ Powered Lift

Instrument Rating(s) (Check all that apply)

☐ None
☒ Airplane
☒ Helicopter
☐ Powered Lift

Instructor Rating(s) (Check all that apply)

☐ None
 ☒ Instrument Airplane
☒ Airplane Single-Engine
 ☐ Instrument Helicopter
☒ Airplane Multi-Engine
 ☐ Helicopter
☐ Gyroplane
 ☐ Glider
☐ Powered Lift
 ☐ Sport

Type Ratings

Student Endorsements (Include dates)

Flight Time (Enter appropriate number of hours in each box)	All Aircraft	This Make & Model	Airplane Single Engine	Airplane Multiengine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time	2430	263	1210	1148	496	388	137	94		
Pilot in Command (PIC)	2346	263	1160	1112	470	388	130	74		
Time as Instructor	296		280	16						
This Make/Model					60	200	25			
Last 90 Days	22	6	22		4	10	1.3			
Last 30 Days	6	4	6			1	1.3			
Last 24 Hours	3	3	3				1.3			

"Flight Crewmember 2" Responsibilities at the Time of Accident/Incident

Pilot Co-Pilot Student Pilot Flight Instructor Check Pilot Flight Engineer Other Flight Crew

"Flight Crewmember 2" was pilot flying Yes No

"Flight Crewmember 2" Identification

First Name: ARTHUR City of Residence: FAIRFAX STATION

Middle Initial: L State: VA ZIP: 22039

Last Name: FRITZSON Country: USA

Age at time of Accident/Incident: 62 Date of Birth: mm/dd/yyyy Certificate Number:

Degree of Injury Seat Occupied Restraint Type Inflatable Restraints

None Fatal Left Front Unknown Right Rear Single None Lap only 3-point Not Installed Installed Not Deployed Deployed Unknown Serious Minor Unknown Center Single Used None Lap only 3-point 4-point 5-point Unknown

Pilot Certificate(s) Principal Occupation Medical Certificate Medical Certificate Validity Date of Last Medical

Commercial US Military Foreign Recreational Sport Flight Engineer Private Student None Class 3 Driver's License (Sport Pilot only) Class 2 Unknown Without limitations/waivers With limitations/waivers Special Issuance Unknown N/A

09/28/2015 mm/dd/yyyy

Medical Certificate Limitations

GLASSES FOR NEAR VISION

Medical Certificate Special Issuance

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks: 06/28/2015 mm/dd/yyyy

Flight Review Aircraft Make: PIPER Model: PA 46-350P

Airplane Rating(s)

(Check all that apply)

Single-Engine Land Multiengine Sea

Other Aircraft Rating(s)

(Check all that apply)

Balloon Glider Gyroplane Helicopter Powered Lift

Instrument Rating(s)

(Check all that apply)

Airplane Helicopter Powered Lift

Instructor Rating(s)

(Check all that apply)

Airplane Single-Engine Airplane Multi-Engine Gyroplane Powered Lift Instrument Airplane Instrument Helicopter Helicopter Glider Sport

Type Ratings C/CE-525S

Student Endorsements (Include dates)

Flight Time (Enter appropriate number of hours in each box)

All Aircraft This Make & Model Airplane Single Engine Airplane Multiengine Night Instrument Actual Simulated Rotorcraft Glider Lighter Than Air

Total Time 2240 PLEASE SEE SECTION "ADDITIONAL INFORMATION"

Pilot in Command (PIC)

This Make/Model 21

Last 90 Days 21

Last 30 Days

Last 24 Hours

ADDITIONAL FLIGHT CREWMEMBERS (Exclusive of cabin crew, complete the following information)									
Crew Name and Address					Seat Occupied		Injury		
First Name: _____ City of Residence: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____					☐ Left ☐ Front ☐ Center ☐ Rear ☐ Right ☐ Single ☐ Unknown		☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown		
Pilot Certificate(s) (Check all that apply) ☐ None ☐ Private ☐ Student ☐ Flight Instructor ☐ Recreational ☐ Sport ☐ Commercial ☐ Airline Transport ☐ Flight Engineer ☐ US Military ☐ Foreign					Restraint Type: Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown		Inflatable Restraints ☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown		
Type Rating/Endorsement for Accident/Incident Aircraft? ☐ Yes ☐ No			Total Flight Time at the Time of this Accident/Incident: _____ hrs						
Crew Name and Address					Seat Occupied		Injury		
First Name: _____ City of Residence: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____					☐ Left ☐ Front ☐ Center ☐ Rear ☐ Right ☐ Single ☐ Unknown		☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown		
Pilot Certificate(s) (Check all that apply) ☐ None ☐ Private ☐ Student ☐ Flight Instructor ☐ Recreational ☐ Sport ☐ Commercial ☐ Airline Transport ☐ Flight Engineer ☐ US Military ☐ Foreign					Restraint Type: Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown		Inflatable Restraints ☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown		
Type Rating/Endorsement for Accident/Incident Aircraft? ☐ Yes ☐ No			Total Flight Time at the Time of this Accident/Incident: _____ hrs						
PASSENGER(S) / OTHER PERSONNEL (Include cabin crew; continue on separate sheet if necessary)									
Name and Address			Seat	Injury	Restraint Type		Inflatable Restraints	Age	
First Name: _____ City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other			☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown		☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years <i>If Under 5,</i> ☐ Child Restraint ☐ Lap-Held ☐ Unknown	
First Name: _____ City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other			☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown		☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years <i>If Under 5,</i> ☐ Child Restraint ☐ Lap-Held ☐ Unknown	
First Name: _____ City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other			☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown		☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years <i>If Under 5,</i> ☐ Child Restraint ☐ Lap-Held ☐ Unknown	
First Name: _____ City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other			☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown		☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years <i>If Under 5,</i> ☐ Child Restraint ☐ Lap-Held ☐ Unknown	

FLIGHT ITINERARY INFORMATION

Last Departure Point Airport ID: <u>KOKV</u> City: <u>WINCHESTER</u> State: <u>VA</u> Country: <u>USA</u>	Time of Departure Time: <u>4:00PM</u> Time Zone: <u>EST</u>	Destination Airport ID: <u>KHWY</u> City: <u>MIDLAND</u> State: <u>VA</u> Country: <u>USA</u>	Type Flight Plan Filed ☒ None ☐ Company VFR ☐ Military VFR ☐ VFR ☐ VFR/IFR ☐ IFR ☐ Unknown Activated? ☐ Yes ☐ No ☐ Unknown
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Type of ATC Clearance/Service (Check all that apply) ☒ None ☐ Special VFR ☐ Special IFR ☐ VFR Flight Following ☐ Cruise ☐ VFR ☐ IFR ☐ VFR On Top ☐ Traffic Advisory ☐ Unknown / NA			
Airspace where the accident/incident occurred (Check all that apply) ☐ Class A ☒ Class G ☐ Military Operations Area (MOA) ☐ Special ☐ Class B ☐ Demo Area ☐ Airport Advisory Area ☐ Air Traffic Control Area ☐ Class C ☐ Warning Area ☐ Jet Training Area ☐ Unknown ☐ Class D ☐ Prohibited Area ☐ TRSA ☐ Class E ☐ Restricted Area ☐ FAR 93			Altitude of In-Flight Occurrence: <u>0</u> ft msl

WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE

Source of Pilot Weather Information (Check all that apply) ☐ National Weather Service ☐ Company ☐ Flight Service Station ☐ Military ☐ TV/Radio ☐ Internet ☒ Automated Report ☐ None ☐ Commercial Weather Service (DUATS) ☐ Unknown ☐ On-Board Weather	Weather Observation Facility Facility ID: <u>KHWY</u> Observation Time: <u>1635</u> Time Zone: <u>Eastern</u> Distance from Accident Site: <u>0</u> nm Direction from Accident Site: _____ degrees true
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Basic Conditions ☒ VMC ☐ IMC ☐ Unknown	Light Condition ☐ Dawn ☐ Dusk ☐ Dark Night ☐ Unknown ☒ Day ☐ Night ☐ Bright Night
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Sky/Lowest Cloud Condition ☒ Clear ☐ Thin Broken ☐ Few ☐ Thin Overcast ☐ Partial Obscuration ☐ Unknown ☐ Scattered Lowest Cloud Condition Height _____ ft agl	Ceiling ☒ None (Clear) ☐ Obscured ☐ Broken ☐ Indefinite ☐ Overcast ☐ Unknown Ceiling Height _____ ft agl	Temperature: <u>8</u> (C) or _____ (F) Dew Point: <u>-3</u> (C) or _____ (F) Altimeter Setting: <u>30.04</u> in. Hg or _____ MB
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Wind Direction ☐ Variable -or- Direction: <u>340</u> degrees true	Wind Speed ☐ Calm ☐ Light and Variable -or- Speed: <u>6</u> kts	Wind Gusts ☒ Not Gusting -or- Speed: _____ kts	Visibility <u>10+</u> miles RVR: _____ feet RVV: _____ miles Density Altitude: <u>-469</u> ft
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Intensity of Precipitation ☐ Light ☐ Moderate ☐ Heavy ☐ N/A ☐ Unknown	Type of Precipitation (Check all that apply) ☒ None ☐ Drizzle ☐ Freezing Rain ☐ Rain ☐ Ice Pellets ☐ Snow Shower ☐ Snow ☐ Snow Pellets ☐ Ice Pellets Shower ☐ Hail ☐ Snow Grains ☐ Freezing Drizzle ☐ Rain Showers ☐ Ice Crystals	Restriction to Visibility (Check all that apply) ☒ None ☐ Fog ☐ Blowing Dust ☐ Ground Fog ☐ Blowing Sand ☐ Haze ☐ Blowing Snow ☐ Ice Fog ☐ Blowing Spray ☐ Smoke ☐ Dust ☐ Unknown
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Icing Forecast Amount ☒ None ☐ Trace ☐ Light ☐ Moderate ☐ Severe ☐ Unknown Type ☒ N/A ☐ Rime ☐ Clear ☐ Mixed ☐ Unknown	Icing Actual Amount ☒ None ☐ Trace ☐ Light ☐ Moderate ☐ Severe ☐ Unknown Type ☒ N/A ☐ Rime ☐ Clear ☐ Mixed ☐ Unknown	Turbulence Type (Check all that apply) ☒ None ☐ Clear Air ☐ Terrain-Induced ☐ Convective Turbulence Severity ☐ Light ☐ Moderate ☐ Severe ☐ Extreme
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NOTAMs (D and FDC), AIRMETs, SIGMETs, PIREPs in effect at the time of the accident/incident:
 We were not aware of any relevant to the operation; there was some surface construction activity around the airport but no obstacles or closures.

DAMAGE TO AIRCRAFT AND OTHER PROPERTY**Aircraft Damage**

- ☐ None ☐ Substantial
☒ Minor ☐ Destroyed
 ☐ Unknown

Aircraft Fire

- ☒ None ☐ Both Ground and In-Flight
☐ In-Flight ☐ Fire at Unknown Time
☐ On-Ground ☐ Unknown

Aircraft Explosion

- ☒ None ☐ Both Ground and In-Flight
☐ In-Flight ☐ Explosion at Unknown Time
☐ On-Ground ☐ Unknown

Description of Damage to Aircraft and Other Property *(Use additional sheet if necessary)*

At the time of the accident, PIC and Instructor only directly observed damage to the tips of the propeller and that the aileron springs did not return the ailerons to neutral at rest. Damage to landing gear and fuselage was found later after detailed inspection; pilots were not involved in process. Owner advised PIC via email on Jan 6, 2017 that main landing gear was replaced due to bending, and that other damage was possible but not yet determined. Fuselage damage was first communicated to PIC by FAA FSDO staff on Weds, Feb 15, 2017.

There was no other damage to other aircraft or property.

NARRATIVE HISTORY OF FLIGHT *(Please type or print in ink)*

Describe what occurred in chronological order, including circumstances leading to and nature of accident/incident. Describe terrain and include wreckage distribution sketch if pertinent. Attach extra sheets if needed. State departure time and location, services obtained, and intended destination. Provide as much detail as possible.

(Statement of PIC Glenn R. Sanders)

Friday Dec 2, 2016. End of day, about 4:30pm. Clear VFR conditions, light wind. Commercial pilot/CFII Glenn Sanders () flying as student. CFII Art Fritzson acting as instructor performing annual flight review for insurance company purposes in N4149R. Earlier in the day we had done VFR maneuvers and emergency procedures. This flight was focused on IFR procedures and we had completed these at KCHO and KOKV, ending with a full-stop landing at KOKV. We left KOKV about 4pm to return to KHWY. We had been flying about 2 hours upon arrival at KHWY.

Since we had not done a short field landing earlier, it was decided we would make the last landing a short field landing. The instructions given to me were to be 50 feet over numbers at 75 KIAS, then go to flight idle, push the nose down for the runway, and land short. We hit the altitude/speed target. When I reduced power to flight idle, the airplane dropped rapidly and I could feel in the elevator control that we would not have enough energy for a proper flare. I flared best as I could and advanced the power lever to try to flatten out the airplane's attitude and cushion the imminent impact. As expected, engine power was slow to spool up and the first impact was hard and the airplane bounced on the runway. I focused on keeping the plane level and straight. Finally, the airplane settled and came to a stop on the runway. After assessing our status (no warning lights, smells, leaks, structural failure, smoke, etc.), we were able to taxi normally off the runway and to the hangar. When we shut down and got out, we looked around the exterior of the plane and didn't find outwardly obvious signs of leaks, cracks, or deformation other than prop tip damage. We did notice that the aileron centering springs were not returning the ailerons to neutral but rather a slight left roll position. We were not sure at the time if or how that would have been caused by the hard landing.

Terrain around the airport is flat, and weather was not a factor in the accident.

RECOMMENDATION (How could this accident/incident have been prevented?)

Operator/Owner Safety Recommendation

Because of the inherent lag in turbine power control, I would modify the setup instructions given for the short field landing task to eliminate the substantial power/drag configuration change near the ground. In our case, reducing power to flight idle at 50' AGL and only 75 KIAS flattened out the prop and created a very unstable situation with no way to recover energy in time.

I do not consider my 260 hours in make/model to be a lot of experience in the Jetprop. Because of that, I have not cared to explore the edges of the low-speed/low-altitude operating envelope, but my approach to teaching the task would be tell a student to reduce the excess energy during final approach (say, fly 80 KIAS instead of 90), but still have energy in place for at least some cushioning flare. I would definitely leave power and flaps set for a stable approach and not reduce power until I'm in the flare and ready to set the plane down. This airplane has sufficient beta thrust and braking ability to operate on a short runway without having to make an extremely slow or steep approach with the engine spooled down.

MECHANICAL MALFUNCTION/FAILURE (If more space is needed, continue on separate sheet)Was there Mechanical Malfunction/Failure? ☐ Yes ☒ No

(If yes, list the name of the part, manufacturer, part no., serial no., and describe the failure.)

**Total Time/Cycles
On Part**

_____ Hours

_____ Cycles

**Time Since This Part
Inspected/Overhauled**

_____ Hours

FUEL & SERVICES INFORMATION**Fuel on Board at Last Takeoff**

(Convert from pounds, as necessary)

98 Gallons**Fuel Type**☐ 80/87☐ 115/145☐ Jet B☐ Other, specify _____☐ 100 Low Lead☒ Jet A☐ JP8☐ 100/130☐ Jet A-1☐ Automotive**Other Services, if Any, Prior to Departure****EVACUATION OF AIRCRAFT**Was an emergency evacuation of the aircraft performed? ☐ Yes ☒ No**Method of Exit** – Describe how the occupants exited and how many occupants evacuated each location**OTHER AIRCRAFT – COLLISION (If air or ground collision occurred, complete this section for other aircraft)****Aircraft Registration Number**

Manufacturer: _____**Model:** _____**Damage to Other Aircraft**☐ Destroyed☐ Minor☐ Substantial☐ None**Registered Owner of Other Aircraft**

Name: _____

City: _____

State: _____ ZIP: _____

Country: _____

Pilot of Other Aircraft

Name: _____

City: _____

State: _____ ZIP: _____

Country: _____

ADDITIONAL INFORMATION (Please type or print in ink)

Use this space if additional space is needed for any answers.

TIMING OF REPORT: This report is filed in response to my being contacted by FAA Washington FSDO staff member Ramon Smeltz on Feb 15, 2017. He advised me (PIC Sanders) that the application for a ferry permit described fuselage damage that qualified as 'substantial damage' requiring a report to NTSB and FAA under their definition of an accident. Although the qualifying damage was not easily observed, I concur with this assessment that a report is required. Up until this time, we the pilots had not been informed by the Owner of details of damage beyond the propeller (which was immediately obvious to us) or the landing gear (which he mentioned in a Jan 6, 2017 email), so we were not aware that the conditions requiring a report were met.

PILOT DATA FOR CFI FRITZSON: At the time this form is being prepared, Art Fritzson is out of the country, returning several weeks hence, and has no access to detailed logbook data. He will be able to provide all requested details upon his return.

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Date of this Report <u>02/16/2017</u> mm/dd/yyyy	Name of Pilot/Operator: <u>GLENN R. SANDERS</u> Signature:  -- or -- ☐ Check here to electronically sign this document
--	---

If a Person Other than Pilot/Operator is Filing Report

Name: _____ **Title:** _____
Signature: _____
-- or -- ☐ Check here to electronically sign this document

FOR NTSB USE ONLY

NTSB Accident/Incident No. GAA17CA139	Reviewed by NTSB Regional Office GAA	Name of Investigator Eric Swenson	Date Report Received 02/22/2017
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