

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: Blaine State: MN

ZIP: 55014 Country: Anoka

Latitude: N45.08.69 Longitude: W93.12.61

(Enter in decimal degrees or degrees:minutes:seconds)

Accident/Incident Date/Time

Date: 07/15/2024 Local Time: 21:25
mm/dd/yyyy

Time Zone: CDT

Collision with Other Aircraft: ☐ Midair ☐ On-ground ☒ None

AIRCRAFT INFORMATION

Registration Number: N220CE

Manufacturer: Piper Aircraft, Inc.

Model: PA-28-181

Serial Number: 2881530

Year of Manufacture: 2022

Amateur-Built: ☐ Yes ☒ No If Yes: ☐ Kit/Plans ☐ Original Design Make: _____

☒ IFR-Equipped and Certified

☐ Commercial Space Flight

☐ Unmanned Aircraft

Maximum Gross Weight: 2550 lbs

Weight at Time of Accident/Incident: 2227.2 lbs

Number of Seats: 4 Flight Crew Seats: 2

Cabin Crew Seats: _____ Passenger Seats: 2

Number of Engines: 1

Category of Aircraft

- ☒ Airplane
☐ Balloon
☐ Blimp/Dirigible
☐ Glider
☐ Gyroplane
☐ Helicopter
☐ Powered Lift
☐ Rocket
☐ Ultralight
☐ Unknown

Type of Airworthiness Certificate

(Check all that apply)

Standard

- ☒ Normal
☐ Aerobatic
☐ Balloon
☐ Commuter
☐ Transport
☒ Utility

Special

- ☐ Restricted
☐ Limited
☐ Provisional
☐ Special Flight
☐ Experimental
☐ Special Light-Sport
☐ Experimental Light-Sport

☐ Certificate of Authorization or Waiver (COA)

☒ None

☐ Unknown

Landing Gear

(Check all that apply)

☐ 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

Engine	Engine Manufacturer	Engine Model/Serial	Manufacturer's Serial Number	Date of Mfg. mm/dd/yyyy	Rated Power ☒ Horsepower or ☐ lbs of Thrust	Total Time (hours)	Time Since: Inspection (hours)	Overhaul (hours)
Eng. 1	<u>Lycoming</u>	<u>IO-360-B4A</u>	<u>L-39056-51E</u>		<u>180hp</u>	<u>2158.5</u>	<u>37.4</u>	
Eng. 2								
Eng. 3								
Eng. 4								

Last Inspection Type

- ☒ 100-Hour ☐ Continuous Airworthiness
☐ AAIP ☐ Conditional Inspection
☐ Annual ☐ Unknown

Date Last Inspection: 07/02/2024
mm/dd/yyyy

Airframe Total Time: 2194.9 hrs

hours measured at (Select one)

☐ Last Inspection ☒ Time of Accident/Incident

Type of Maintenance Program (Select one)

- ☒ Annual
☐ Conditional (Amateur-built only)
☐ Manufacturer's Inspection Program
☐ Other Approved Inspection Program (AAIP)
☐ Continuous Airworthiness
☐ Other, specify: _____

Description of Fire Extinguishing System

- ☐ None
☒ Specify: Fire Extinguisher

Propeller 1

- ☒ Fixed Pitch
☐ Controllable Pitch
☐ Ground Adjustable

Manufacturer: Sensenich

Model: 76EM8S14-0-62

Propeller 2

- ☐ Fixed Pitch
☐ Controllable Pitch
☐ Ground Adjustable

Manufacturer: _____

Model: _____

ELT Installed: ☒ Yes ☐ No

If Yes:

ELT Manufacturer: Artex

Model or Part No.: ADC6499964DBB01

TSO No.: ☐ C91 (121.5 MHz) ☐ C91a (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

If activated:

Did ELT Aid in Locating Aircraft? ☐ Yes ☒ No

If not activated:

- Indicate Reason: ☐ Impact Damage
☐ Fire Damage
☐ Battery Expired/Damaged
☒ Unknown

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: Meridian Aircraft, LLCCity: WilmingtonState: DEZIP: 19808Fractional Ownership Aircraft: ☐ Yes ☒ NoCountry: United States of America**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: Anoka County/Blaine Airport (Janes Field)Distance From Airport Center: >1 smAirport Identifier: KANE

Direction From Airport: _____ degrees true

Proximity to Airport: ☐ Off Airport/Airstrip ☒ On Airport/Airstrip ☐ N/AAirport Elevation: 912 ft. msl**Runway Information**Runway ID: 36 (L/R/C) Length: 4855 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: Nathan City of Residence: St. Paul
 Middle Initial: W State: MN ZIP: 55101
 Last Name: Bauer Country: United States of America
 Age at time of Accident/Incident: 31 Date of Birth: mm/dd/yyyy
 Certificate Number: mm/dd/yyyy

Degree of Injury ☒ None ☐ Fatal ☐ Minor ☐ Unknown ☐ Serious	Seat Occupied ☐ Left ☐ Front ☐ Unknown ☒ Right ☐ Rear ☐ Center ☐ Single	Restraint Type <table style="width: 100%;"> <tr> <th style="text-align: left;">Available</th> <th style="text-align: left;">Used</th> </tr> <tr> <td>☐ None</td> <td>☐ None</td> </tr> <tr> <td>☐ Lap only</td> <td>☐ Lap only</td> </tr> <tr> <td>☒ 3-point</td> <td>☒ 3-point</td> </tr> <tr> <td>☐ 4-point</td> <td>☐ 4-point</td> </tr> <tr> <td>☐ 5-point</td> <td>☐ 5-point</td> </tr> <tr> <td>☐ Unknown</td> <td>☐ Unknown</td> </tr> </table>	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
Available	Used																
☐ None	☐ None																
☐ Lap only	☐ Lap only																
☒ 3-point	☒ 3-point																
☐ 4-point	☐ 4-point																
☐ 5-point	☐ 5-point																
☐ Unknown	☐ Unknown																
Pilot Certificate(s) (Check all that apply) <table style="width: 100%;"> <tr> <td>☐ None</td> <td>☒ Flight Instructor</td> <td>☒ Commercial</td> <td>☐ US Military</td> </tr> <tr> <td>☐ Private</td> <td>☐ Recreational</td> <td>☐ Airline Transport</td> <td>☐ Foreign</td> </tr> <tr> <td>☐ Student</td> <td>☐ Sport</td> <td>☐ Flight Engineer</td> <td></td> </tr> </table>				☐ None	☒ Flight Instructor	☒ Commercial	☐ US Military	☐ Private	☐ Recreational	☐ Airline Transport	☐ Foreign	☐ Student	☐ Sport	☐ Flight Engineer			
☐ 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 <u>05/18/2022</u> mm/dd/yyyy
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Medical Certificate Limitations

None

Medical Certificate Special Issuance

None

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

06/27/2023
mm/dd/yyyy

Flight Review Aircraft

Make: Piper Aircraft, Inc.
 Model: PA-44

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 ☒ Airplane Single-Engine ☒ Airplane Multi-Engine ☐ Gyroplane ☐ Powered Lift ☒ Instrument Airplane ☐ Instrument Helicopter ☐ Helicopter ☐ Glider ☐ Sport
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Type Ratings

Student Endorsements (Include dates)

Colton Berg 10/20/2023 - Pass
 Aliyah Jelle 10/22/2023 - Pass
 Aliyah Jelle 12/01/2023 - Pass
 Aliyah Jelle 12/15/2023 - Pass
 Kaiden Wetzstein 12/12/2023 - Pass
 Cody Benson 03/06/2023 - Pass

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	612	560	587	25	29	16	71			
Pilot in Command (PIC)	545	494	520	17						
Time as Instructor	340	340	340							
This Make/Model										
Last 90 Days	187	187	187							
Last 30 Days	94	94	94							
Last 24 Hours	5									

"FLIGHT CREWMEMBER 2" INFORMATION**"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: Aaron

City of Residence: Woodbury

Middle Initial: T

State: MN ZIP: 55129

Last Name: Brown

Country: _____

Age at time of Accident/Incident: 19 Date of Birth: _____ mm/dd/yyyy

Certificate Number: N/A

Degree of Injury

☒ None ☐ Fatal
☐ Minor ☐ Unknown
☐ Serious

Seat Occupied

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

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

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

02/22/2024
mm/dd/yyyy

Medical Certificate Limitations

None

Medical Certificate Special Issuance

None

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

N/A

mm/dd/yyyy

Flight Review Aircraft

Make: _____

Model: _____

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	33	33	33				3			
Pilot in Command (PIC)										
Time as Instructor										
This Make/Model										
Last 90 Days	32									
Last 30 Days	33									
Last 24 Hours	0									

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 ☐ 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 ☐ 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 If Under 5, ☐ 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 If Under 5, ☐ 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 If Under 5, ☐ 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 If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown

FLIGHT ITINERARY INFORMATION

Last Departure Point Airport ID: <u>KANE</u> City: <u>Blaine</u> State: <u>MN</u> Country: <u>USA</u>	Time of Departure Time: <u>20:30</u> Time Zone: <u>CDT</u>	Destination Airport ID: <u>KANE</u> City: <u>Blaine</u> State: <u>MN</u> Country: <u>USA</u>	Type Flight Plan Filed ☒ None ☐ VFR/IFR ☐ Company VFR ☐ IFR ☐ Military VFR ☐ Unknown ☐ VFR 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 B ☐ Class C ☒ Class D ☐ Class E	☐ Class G ☐ Demo Area ☐ Warning Area ☐ Prohibited Area ☐ Restricted Area	☐ Military Operations Area (MOA) ☐ Airport Advisory Area ☐ Jet Training Area ☐ TRSA ☐ FAR 93	☐ Special ☐ Air Traffic Control Area ☐ Unknown	Altitude of In-Flight Occurrence: <u>914</u> ft msl
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WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE

Source of Pilot Weather Information

(Check all that apply)

☐ National Weather Service ☐ Flight Service Station ☐ TV/Radio ☐ Automated Report ☐ Commercial Weather Service (DUATS) ☐ On-Board Weather	☐ Company ☐ Military ☒ Internet ☐ None ☐ Unknown
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Weather Observation Facility

Facility ID: _____
 Observation Time: _____
 Time Zone: _____
 Distance from Accident Site: _____ nm
 Direction from Accident Site: _____ degrees true

Basic Conditions

☒ VMC
☐ IMC
☐ Unknown

Light Condition

☐ Dawn ☒ Dusk ☐ Dark Night ☐ Unknown
☐ Day ☐ Night ☐ Bright Night

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: _____ (C) or _____ (F)

Dew Point: _____ (C) or _____ (F)

Altimeter Setting: _____ in. Hg
or _____ MB

Wind Direction

☐ Variable

-or-
Direction: 330 degrees true

Wind Speed

☐ Calm
☐ Light and Variable

-or-
Speed: 10 kts

Wind Gusts

☐ Not Gusting

-or-
Speed: 18 kts

Visibility

_____ miles

RVR: _____ feet

RVV: _____ miles

Density Altitude: _____ ft

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

Icing Forecast

Amount	Type
☒ None	☐ N/A
☐ Trace	☐ Rime
☐ Light	☐ Clear
☐ Moderate	☐ Mixed
☐ Severe	☐ Unknown
☐ Unknown	

Icing Actual

Amount	Type
☒ None	☐ N/A
☐ Trace	☐ Rime
☐ Light	☐ Clear
☐ Moderate	☐ Mixed
☐ Severe	☐ Unknown
☐ Unknown	

Turbulence

Type (Check all that apply)	Severity
☒ None	☐ Light
☐ Clear Air	☐ Moderate
☐ Terrain-Induced	☐ Severe
☐ Convective Turbulence	☐ Extreme

NOTAMs (D and FDC), AIRMETs, SIGMETs, PIREPs in effect at the time of the accident/incident:

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)*

Approx. 12in of the right wing skin was dented

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.

The flight was meant to be a pretty typical training flight that I've done at ATP many times before. The student is a private pilot applicant currently preparing to solo for the first time. I briefed the student that we were going to be joining the pattern at our home base airport of KANE, and it would be a relatively short TOL's flight of around 1.3-1.5 hours due to the fact that we started close to sunset at around 2020 local time. The aircraft was preflighted by the student as normal, afterwards we walked out to the plane and I double-checked the student's preflight; we both got in the aircraft, and the student began going through the checklists with my supervision. We obtained the latest ATIS and requested touch and go laps in the pattern on runway 36. KANE ground acknowledged this request and gave us taxi instructions to RW36 which we copied, briefed, and then executed without incident. Once we arrived at the runup area by the runway (A1 in this case) we completed a runup per our checklists and noted no anomalies, we then pulled up to the hold short line and switched to tower, we waited for one aircraft on final to land and taxi off the runway at which point we called tower on frequency and requested takeoff for touch and go pattern work; tower replied with our clearance and we took off normally from runway 36 and began left-hand traffic for the same runway. The flight was a very ordinary TOL's flight with the student flying while I monitored and provided instruction on things the student is working to improve. After the student's 4th touch and go landing, I took flight controls and began explaining more in detail what the student was doing well and what they needed to improve on. I explained to the student that I would demonstrate the next touch and go in order to provide an example of what I was trying to communicate verbally. The student was struggling with wind correction on landing and also the fine tuning of the round out and flare phase, so I flew a normal left hand pattern, got clearance for the touch and go from tower and flew the plane down the runway where I demonstrated the proper techniques. After touchdown and brief rollout on the runway, I executed the touch and go by retracting flaps and applying full takeoff power, I verified engine instruments green range and airspeed alive per SOP's. Once we reached 60 knots (Vr) I rotated and the nose wheel began to lift off the pavement; at this same moment I noticed a streak of brown appear in front of us and myself and the student both felt a "thud" as the aircraft became airborne. Neither myself nor the student were able to get a look at what it was as we were already in a nose high attitude (as I said, the nose wheel had already come off the ground) and by this point the sun had set and it was quite dark on a dimly lit runway. I had intended to hand controls back to the student, but at this point I retained controls and immediately checked the engine instrumentation as well as the flight instruments but noted nothing out of the ordinary, the engine was operating normally and the flight instruments showed a positive rate of climb at normal airspeed. I briefly gave thought to cutting the power and landing the aircraft immediately on runway 36, however as I glanced down I noticed we were already over the runway aiming point markings for runway 18 which would have given us less than 1000' of available runway to land and stop on, which was below calculated landing performance for us. As I said the engine and the airplane were operating normally so I elected to continue climbing to TPA while closely monitoring all the instruments for any signs of abnormality. I informed the student that I believed we hit something, and he confirmed he believed we had as well. Once we got to a safe altitude I radioed the tower to advise them that I believed we had struck something on the runway and I needed to return for a full stop landing to check for any damage. At this point it was quite dark especially at altitude and neither myself nor the student could see any damage to the aircraft from the cockpit, though we initially believed we had ran something over with one of the tires due to the sensation we had from inside the aircraft being similar to what it feels like to hit a pothole in a car. The ATCT cleared us to land on runway 36 and asked if we wanted 27 instead, I replied that we would land 36 due to the strong winds out of the North that prevailed at the time of the incident; I tried to keep the pattern tight and I flew down to land on 36, I elected to land with full flaps (40 degrees, rather than the standard 25 degrees) because I wanted to make sure we would land softly and at the lowest possible airspeed in order to reduce aerodynamic loads. At this time I briefed the student to be prepared to brace in case we had sustained damage to the landing gear. I executed the landing, touching down at about 50 knots indicated airspeed with power idle, just shy of the runway aiming point markings for 36 and the aircraft rolled out normally, I applied minimal toe braking in order to avoid stressing the main gear and instead applied aerodynamic braking with the stabilator and let the plane slowly roll out. I covered the brakes in the event another animal was present on the runway. Around the time we got to the point where runways 18/36 and 09/27 intersect, it became necessary to apply throttle to keep the plane moving down the runway to taxiway A3 where the ATCT cleared us to taxi to the ramp from. As we approached the taxiway, the aircraft's landing lights illuminated a deer that was on the runway, slightly offset of centerline and just south of A3 approximately 100-200'. I slowed the aircraft to a crawl and myself and the student noted that the deer was laying down with it's head up and appeared to be bleeding. At this time I slowly taxied around the animal and turned the aircraft left on to A3; once clear of the runway I informed the tower that we had seen a deer on the runway and reported its approximate position as well as the belief that that was what we had hit. I taxied the aircraft slowly into the Atlantic Aviation

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

Operator/Owner Safety Recommendation

I believe the following factors contributed to the incident:

- Flight took place at dusk, which I have since learned is when deer become more active.
- The runway 18/36 at ANE has only MIRL with runway edge lights only, which limits forward visibility quite a bit even with aircraft landing lights operating as they were in our case.
- The deer ran across the runway at the precise moment our aircraft was on takeoff roll at that point of the runway
- I believe that the airport fencing is insufficient to restrict the deer from entering the airport environment, and the deer are likely attracted to the tall grass and wild plants on the airport.
- The aircraft lighting is also unable to illuminate threats far enough in front of the aircraft to give adequate time for the pilot to respond
- In the future, I would declare an emergency in a situation like this. Even though the aircraft was flying and performing normally, I knew we had hit something on the runway. I did not know the extent of the damage or if there would even be any noticeable damage until we got on the ground and closer to the lights of the FBO. However, I did know there was a chance the aircraft could be damaged, and I should have taken the precautionary step to declare an emergency and get the emergency services rolling in the case that any injuries would be sustained that would need medical attention. If that had happened, the extra couple of minutes could have made a difference.

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)

20 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 AIRCRAFTWas an emergency evacuation of the aircraft performed? ☐ Yes ☒ No

Method of Exit – Describe how the occupants exited and how many occupants evacuated each location

Normal exit from the main door after aircraft shutdown on the ramp

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.

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

Date of this Report

07/20/2024

mm/dd/yyyy

Name of Pilot/Operator: Nathan W Bauer

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.

CEN24LA273

Reviewed by NTSB Regional Office

CENTRAL REGION

Name of Investigator

CORY MAXON

Date Report Received

21 JULY 2024