

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: Cuba State: NM
 ZIP: 87013 Country: United States
 Latitude: 35.89 Longitude: 107.16
(Enter in decimal degrees or degrees:minutes:seconds)

Accident/Incident Date/Time

Date: 09/04/2016 Local Time: 4:35a
mm/dd/yyyy Time Zone: MST

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

AIRCRAFT INFORMATION

Registration Number: N9241J

Manufacturer: Piper

Model: Cherokee (PA-28-180)

Serial Number: 28-3315

Year of Manufacture: 1966

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

- ☐ IFR-Equipped and Certified
☐ Commercial Space Flight
☐ Unmanned Aircraft

Maximum Gross Weight: 2400 lbs

Weight at Time of Accident/Incident: 2100 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/Series	Manufacturer's Serial Number	Date of Mfg. <i>mm/dd/yyyy</i>	Rated Power ☒ Horsepower or ☐ lbs of Thrust	Total Time <i>(hours)</i>	Time Since: Inspection <i>(hours)</i>	Overhaul <i>(hours)</i>
Eng. 1	<u>Lycoming</u>	<u>0-360-A3A</u>	<u>L-974236A</u>	<u>03/17/1966</u>	<u>180</u>	<u>3975.28</u>	<u>320.08</u>	<u>1182.08</u>
Eng. 2								
Eng. 3								
Eng. 4								

Last Inspection Type

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

Date Last Inspection: 09/01/2015
mm/dd/yyyy

Airframe Total Time: 3975.28 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: Portable

Propeller 1

- ☐ Fixed Pitch
☐ Controllable Pitch
☐ Ground Adjustable

Manufacturer: Sensenich

Model: 40980K

Propeller 2

- ☐ Fixed Pitch
☐ Controllable Pitch
☐ Ground Adjustable

Manufacturer: _____

Model: _____

ELT Installed: ☒ Yes ☐ No

If Yes:

ELT Manufacturer: Ameri-King

Model or Part No.: _____

TSO No.: ☐ OC91 (121.5 MHz) ☐ OC91a (121.5 MHz)
☐ OC126 (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: Foreflight

OWNER/OPERATOR INFORMATION**Registered Aircraft Owner**Name: David MozingoCity: AustinFractional Ownership Aircraft: ☐ Yes ☒ NoState: TX ZIP: 78748Country: United States**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: _____

Distance From Airport Center: _____ sm

Airport Identifier: _____

Direction From Airport: _____ degrees true

Proximity to Airport: ☐ Off Airport/Airstrip ☐ On Airport/Airstrip ☐ N/A

Airport Elevation: _____ ft. msl

Runway Information

Runway ID: _____ (L/R/C) Length: _____ ft Width: _____ 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: Steven

City of Residence: Austin

Middle Initial: M

State: TX ZIP: 78749

Last Name: Shields

Country: United States

Age at time of Accident/Incident: 29 Date of Birth: [REDACTED] mm/dd/yyyy

Certificate Number: [REDACTED]

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

08/18/2015
 mm/dd/yyyy

Medical Certificate Limitations

none

Medical Certificate Special Issuance

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

12/16/2015
 mm/dd/yyyy

Flight Review Aircraft

Make: Piper

Model: Tomahawk (PA-38-112)

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

none

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	338	261	338		53		4			
Pilot in Command (PIC)	285	261	285		48					
Time as Instructor										
This Make/Model										
Last 90 Days	107	107	107		24					
Last 30 Days	38	38	38		11					
Last 24 Hours	6	6	6		6					

"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: _____ City of Residence: _____
 Middle Initial: _____ State: _____ ZIP: _____
 Last Name: _____ Country: _____
 Age at time of Accident/Incident: _____ 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 <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) <i>(Check all that apply)</i> <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		Medical Certificate <table style="width: 100%;"> <tr> <td>☐ None</td> <td>☐ Class 3</td> </tr> <tr> <td>☐ Class 1</td> <td>☐ Driver's License (Sport Pilot only)</td> </tr> <tr> <td>☐ Class 2</td> <td>☐ Unknown</td> </tr> </table>		☐ None	☐ Class 3	☐ Class 1	☐ Driver's License (Sport Pilot only)	☐ Class 2	☐ Unknown
☐ None	☐ Flight Instructor	☐ Commercial	☐ US Military																		
☐ Private	☐ Recreational	☐ Airline Transport	☐ Foreign																		
☐ Student	☐ Sport	☐ Flight Engineer																			
☐ None	☐ Class 3																				
☐ Class 1	☐ Driver's License (Sport Pilot only)																				
☐ Class 2	☐ Unknown																				
Principal Occupation ☐ Pilot ☐ Other ☐ Unknown		Medical Certificate Validity <table style="width: 100%;"> <tr> <td>☐ Without limitations/waivers</td> <td>☐ Unknown</td> </tr> <tr> <td>☐ With limitations/waivers</td> <td>☐ N/A</td> </tr> <tr> <td>☐ Special Issuance</td> <td></td> </tr> </table>		☐ Without limitations/waivers	☐ Unknown	☐ With limitations/waivers	☐ N/A	☐ Special Issuance													
☐ Without limitations/waivers	☐ Unknown																				
☐ With limitations/waivers	☐ N/A																				
☐ Special Issuance																					
Date of Last Medical _____ mm/dd/yyyy																					

Medical Certificate Limitations

Medical Certificate Special Issuance

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

Flight Review Aircraft

Make: _____
Model: _____

Airplane Rating(s) <i>(Check all that apply)</i> ☐ None ☐ Single-Engine Land ☐ Single-Engine Sea ☐ Multiengine Land ☐ Multiengine Sea	Other Aircraft Rating(s) <i>(Check all that apply)</i> ☐ None ☐ Airship ☐ Balloon ☐ Glider ☐ Gyroplane ☐ Helicopter ☐ Powered Lift	Instrument Rating(s) <i>(Check all that apply)</i> ☐ None ☐ Airplane ☐ Helicopter ☐ Powered Lift	Instructor Rating(s) <i>(Check all that apply)</i> <table style="width: 100%;"> <tr> <td> ☐ None ☐ Airplane Single-Engine ☐ Airplane Multi-Engine ☐ Gyroplane ☐ Powered Lift </td> <td> ☐ Instrument Airplane ☐ Instrument Helicopter ☐ Helicopter ☐ Glider ☐ Sport </td> </tr> </table>	☐ None ☐ Airplane Single-Engine ☐ Airplane Multi-Engine ☐ Gyroplane ☐ Powered Lift	☐ Instrument Airplane ☐ Instrument Helicopter ☐ Helicopter ☐ Glider ☐ Sport
☐ None ☐ Airplane Single-Engine ☐ Airplane Multi-Engine ☐ Gyroplane ☐ Powered Lift	☐ Instrument Airplane ☐ Instrument Helicopter ☐ Helicopter ☐ Glider ☐ Sport				

Type Ratings

Student Endorsements *(Include dates)*

Flight Time <i>(Enter appropriate number of hours in each box)</i>	All Aircraft	This Make & Model	Airplane Single Engine	Airplane Multiengine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time										
Pilot in Command (PIC)										
Time as Instructor										
This Make/Model										
Last 90 Days										
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
First Name: <u>Stephen</u> City : <u>Austin</u> Middle Initial: <u>B</u> State: <u>TX</u> ZIP: <u>78759</u> Last Name: <u>Kahlke</u> Country: <u>United States</u> ☐ 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>KLLN</u> City: <u>Levelland</u> State: <u>TX</u> Country: <u>United States</u>	Time of Departure Time: <u>2:35am</u> Time Zone: <u>CST</u>	Destination Airport ID: <u>KFMN</u> City: <u>Farmington</u> State: <u>NM</u> Country: <u>United States</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 G | ☐ Military Operations Area (MOA) | ☐ Special | Altitude of In-Flight Occurrence:
<u>10,500</u> ft msl |
| ☐ 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 | | |

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: _____
 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: _____ degrees true

Wind Speed

- ☐ Calm
☐ Light and Variable

-or-
 Speed: _____ kts

Wind Gusts

- ☐ Not Gusting

-or-
 Speed: _____ kts

Visibility 10+ 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)*

cabin: front glass caved in slightly, visors shattered, ceiling damage, possible avionics/electronics damage

rt wing: a few feet from wing tip cut off, aileron damage

nose: prop bent, hole in cowling, front glass caved in some, landing light smashed

lft wing: heavily dented, possible broken aileron/flaps

fuselage: top damage, antenna damage. Empennage: unknown

other: 2 road signs & possible damage to gaurdrail endcap.

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 and location, services obtained, and intended destination. Provide as much detail as possible.

My friend and passenger, Stephen Kahlke, and I were headed from Lockhart, TX (50R), to Carson City, NV (KCXP) to visit friends in the Reno/Lake Tahoe area. I planned a VFR flight using victor airways to help avoid high terrain as well as the valuable assistance of VFR flight following throughout the entirety of the trip and decided to depart in the evening of September 3rd, to reach the Sierras early the next day to help avoid more unstable mid-day air near high terrain. I equipped us with two tanks of medical grade oxygen, a pulse oximeter, 2 headlamps, several back-up batteries and a portable back-up power source for navigation/iPad and phones, plenty of extra oil, tools, life jackets, back-up comms, and more than enough water and snacks for the trip, then after a thorough preflight that didn't reveal any problems or areas of concern, we departed Lockhart, TX (50R) for Lubbock, TX (F82) for our first fuel stop - no issues were noticed during this flight. Lubbock Executive airport's self-serve fuel terminal was off so we departed for nearby Levelland Municipal (KLLN) to fuel up - no issues were noticed during this short flight either. After adding full fuel to the brim (50gal) and completing a thorough preflight, we departed KLLN for Farmington, NM (KFMN) at 7:35z with VFR flight following from Lubbock Approach (sqwk 2322) for 10,500ft MSL to stay above the sparatic tall monoliths scattared throughout the dessert. At 7:47z I advised Ft. Worth ARTCC (ZFW) of my specific plans to avoid variable high terrain by going direct to victor airway intersection "RUINS", then to the Albuquerque VOR (ABQ), on to intersection "PEDRA", then over to Farmington (KFMN) for refuel. I was using the Foreflight app on my iPad for navigation and weather and could see prior to departure a small weather system of light to moderate precipitation approximately 40nm long (north/south) and 15nm wide (east/west) that was over Albuquerque moving to the northeast. About an hour later after departing KLLN, Albuquerque Center advised me that there was light to moderate precipitation extending approximately 20nm north of the Albuquerque VOR. I was fully prepared to vector around the mentioned weather but I could also see it on Foreflight still moving to the northeast away from my intended direction of flight, and as expected the weather was a non-factor by the time I reached the Albuquerque VOR.

I continued my VMC flight northwest and had just passed intersection "PEDRA" approximately 10nm into the final 96nm stretch to Farmington at 10,500' MSL when I heard and felt the engine suddenly lose power and shudder slightly. I instantly turned on my headlamp (on medium red) and closely checked my engine gauges which were all still in the green, pitched for between 70 and 75 knots indicated airspeed for best glide and told Albuquerque center I experienced a sudden loss of RPM's and I'm trying to regain power. Albuquerque center then asked if I was declaring an emergency, and I responded that I am giving them a heads up of the situation but to stand by (10:25z per Albuquerque ctr QA data). I knew from training that the most common cause of engine related emergencies is fuel related so throughout the next 3 minutes I checked my fuel systems and first immediately switched fuel tanks then activated the carb heat. While the carb heat was running I started fine tuning the mixture - I already had it fairly lean due to high altitude so I tried slightly enriching it to see how the engine sound and RPM's would respond, it didn't seem to make an immediate difference so kept the new mixture setting for later evaluation and moved on to check the mags. I switched the ignition setting over to the left mag for a few seconds and it seemed to run slightly rougher but was still firing, same thing for the right mag, I then switched it back to both with little improvement from just having one on. I then enriched the mixture slightly more for a few seconds with nuetral results and returned it back to a more slightly leaned setting for the high altitude, then went ahead and deactivated the carb heat. The engine gauges indicated normal and in the green throughout diagnostics and I didn't notice any significant change in RPM or engine roughness so I responded to Albuquerque Center that "I'm not going to be able to maintain altitude, I'm declaring an emergency" (10:28z per Albuquerque ctr QA data). The last thing I heard from Center was "I'm gonna try and alert authorities to get someone to your location" to which I responded "Roger, Trying to stay above a road right now, I can't see anything out here" - referring to the pitch black ground below sparsely sprinkled with what I hoped were street lights or cars indicating a road.

Continued on page 11

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

Operator/Owner Safety Recommendation

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.)

Unknown part malfunctioned.

**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)

50 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**

Preflight inspection; added a quart of oil prior to departure from 50R to KLLN

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

After removing our seatbelts and unsecuring the latch, the wight of the plane upside down pressing against the door caused it to not open easily, so I asked my passanger, Stephen, to try and brace his feet against the door and push it open using his legs. The door gave way and opened, we then crawled out to safety.

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 didn't learn until later that Albuquerque Center had tried to ask if I could see any landmarks or even hear them at all (10:30z and 10:31z), but by this time I was already under 9000' MSL looking for the best place to safely land. According to Foreflight the ground elevation in the area was 6750' MSL and I was descending between 400-600 feet per minute so I didn't have much time left before I was on the ground regardless. It was so dark down below that I had to rely mostly on my Foreflight charts/GPS by lining the blue airplane icon up with the closest grey line indicating a road, I told Stephen to go ahead and tighten his seat belt look for cars or anything below that could possibly indicate a street down there in the desert while I kept cross-referencing the map's indicated terrain and elevation on Foreflight with my altimeter. I tried turning on the landing light to see the ground but no joy, instead it just lit up the thick surrounding 4am air so I turned it back off. Stephen then pointed out a couple of cars below that were lighting up the road indicated by Foreflight, I tilted the right wing to confirm, got a visual and tried to stay behind them, but my best glide speed was still outrunning the cars and put me right back in the dark depending on Foreflight again. The elevation in the area still indicated 6750' MSL and my altimeter was dropping below 7000' MSL, I knew we were about to touch down soon so I continued to line up the map's airplane icon with the road as I came in for an approach. I turned on the landing light and could finally see reflectors on what I would estimate to be a no more than 25' wide road, and at this point I stopped using Foreflight to make a visual approach to land. As I got closer about 50' AGL or so I saw a series of guardrail reflections and signs recommending 40mph for a steep right turn up ahead which was accompanied by a sizable rugged embankment. The rest of the surrounding desert terrain was riddled with uneven rock and barren ravines, and the small remote highway road was still my safest choice to land if possible. I knew in order to follow the sudden turn I would need to have sufficient airspeed to complete a sharp turn of my own without stalling, so I pulled back on the yoke and gained about 150 feet while turning slightly out to the left to start a teardrop pattern. At this point I was flying just above the stall speed at only about 60kias, I then started a shallow right turn while pointing the nose down into a steep descent. As I gained airspeed I began to turn sharper and was fortunately able to get back over the road. With only a few feet of altitude left I leveled out and applied back pressure for flare out, then I put in a notch of flaps to slow down and gently touched down at about 55kias near the center of the small 25' wide road. Unsure of how long I had before the road turned again, I firmly applied the brakes while pulling back on the yoke then reached over and pulled the mixture out lean. The right wing made hard impact with a couple of road signs which substantially slowed us down more but had pulled me further to the edge of the road, I tried fighting it with hard left rudder but the right landing gear then scraped against the very end of the guardrail and pulled the plane off the road. The prop then made ground contact and flipped the plane over forward landing it upside down. I turned my headlamp on bright and was excited to see Stephen also hanging by his seatbelt next to me alert and oriented and able to move and I told him we need to get out of the plane. I started to smell 100 octane fuel, then I could see it draining from the cap vents out the window just passed Stephen's hand as he unsecured the door latch and tried to open it without success. We both unbuckled our seatbelts and carefully oriented ourselves right-side-up, I told Stephen to try and brace his feet on the door and push it open with his legs, I too tried to get a foot on the door as well and with one big push we were able to force the door open. Stephen crawled out first, and as I exited I grabbed my flight bag and oxygen tanks and we walked up and onto the road behind and away from the plane. First responders showed up within minutes and fortunately we didn't need medical assistance. I then called Albuquerque Center and advised them that this is Steven Shields, pilot of N9241J, my passenger and I are alive and okay without any injuries. We stayed on scene for about an hour while the fire department helped mitigate the fuel dumping from the wings, we then gathered most of the gear from the plane and the deputy was kind enough to give us a ride to a hotel in nearby Rio Rancho, NM. Later that day I had rented a car then met with one of the firemen who had collected anything else still left in the plane, we talked for about an hour and I went back to take pictures and re-trace my flight on approach. In the daylight I could see on the first approach before the road turned that there were two different sets of small power lines not indicated on the charts and realized how fortunate we were to not only be alive, but to not have any injuries as well - it's simply amazing. I thank my training, my instructors, my passenger and lookout - Stephen Kahlke, Foreflight, and a bit of good luck for the fortunate outcome of that desert night-time emergency landing.

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

Date of this Report

09/14/2016

mm/dd/yyyy

Name of Pilot/Operator: Steven Shields

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.
CEN16LA349

Reviewed by NTSB Regional Office
Denver, CO

Name of Investigator
Edward Malinowski

Date Report Received
9/19/16