

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: Coldwater State: MI

ZIP: 49036 Country: United States

Latitude: 41.9334889 Longitude: 85.0523083

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

Accident/Incident Date/Time

Date: 02/22/2020 Local Time: 1:47 p.m.

mm/dd/yyyy

Time Zone: EST

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

AIRCRAFT INFORMATION

Registration Number: N374JW

Manufacturer: Commander

Model: 114B

Serial Number: 14595

Year of Manufacture: 1993

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

☒ IFR-Equipped and Certified

☐ Commercial Space Flight

☐ Unmanned Aircraft

Maximum Gross Weight: 3,250 lbs

Weight at Time of Accident/Incident: 3,107 lbs

Number of Seats: 4 Flight Crew Seats: 1

Cabin Crew Seats: _____ Passenger Seats: 3

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
- ☐ Amphibian
- ☐ Emergency Float
- ☐ Float
- ☐ Hull
- ☐ Tailwheel
- ☐ High Skid
- ☐ Skid
- ☐ Ski
- ☐ Ski/Wheel

☐ Other Launch/Recovery System

☒ None

☐ Unknown

Engine Type (Select one)

- ☒ Reciprocating
- ☐ Turbo Shaft
- ☐ Turbo Prop
- ☐ Turbo Jet
- ☐ Turbo Fan
- ☐ Electric
- ☐ Liquid Rocket
- ☐ Solid Rocket
- ☐ Hybrid Rocket
- ☐ None
- ☐ Unknown

Fuel System Type (Reciprocating)

☐ Carburetor ☒ Fuel-Injected

Engine	Engine Manufacturer	Engine Model/Series	Manufacturer's Serial Number	Date of Mfg. mm/dd/yyyy	Rated Power <input checked="" type="radio"/> Horsepower or <input type="radio"/> lbs of Thrust	Total Time (hours)	Time Since: Inspection (hours)	Overhaul (hours)
Eng. 1	<u>Lycoming</u>	<u>IO-540-T4B5</u>	<u>L25069-48A</u>	<u>08/11/1993</u>	<u>260</u>	<u>1,889</u>	<u>7</u>	<u>-</u>
Eng. 2								
Eng. 3								
Eng. 4								

Last Inspection Type

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

Date Last Inspection: 05/01/2019
mm/dd/yyyy

Airframe Total Time: 1,882 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: Hand Held Halon

Propeller 1

- ☐ Fixed Pitch
- ☒ Controllable Pitch
- ☐ Ground Adjustable

Manufacturer: McCauley

Model: B3D32C419-C

Propeller 2

- ☐ Fixed Pitch
- ☐ Controllable Pitch
- ☐ Ground Adjustable

Manufacturer: _____

Model: _____

ELT Installed: ☒ Yes ☐ No

If Yes:

ELT Manufacturer: Emerging Lifesaving T

Model or Part No.: ELT 406 GPS

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: Patrick M. MurphyCity: White PigeonFractional Ownership Aircraft: ☐ Yes ☒ NoState: MI ZIP: 49099Country: 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: Branch County Memorial Airport

Distance From Airport Center: _____ sm

Airport Identifier: KOEB

Direction From Airport: _____ degrees true

Proximity to Airport: ☐ Off Airport/Airstrip ☒ On Airport/Airstrip ☐ N/AAirport Elevation: 958 ft. msl**Runway Information**Runway ID: 22 (L/R/C) Length: 3,500 ft Width: 75 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: Patrick

City of Residence: White Pigeon

Middle Initial: M

State: MI ZIP: 49099

Last Name: Murphy

Country: United States

Age at time of Accident/Incident: 70 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

03/02/2018
 mm/dd/yyyy

Medical Certificate Limitations

Must wear corrective lenses for near and distant vision

Medical Certificate Special Issuance

N/A

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

01/26/2018
 mm/dd/yyyy

Flight Review Aircraft

Make: Commander

Model: 114B

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

N/A

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	1783	1,682	1,783		114	34	79			
Pilot in Command (PIC)	1,702	1,682	1,702		114	34	79			
Time as Instructor										
This Make/Model										
Last 90 Days	8	8	8		0	0	0			
Last 30 Days	3	3	3		0	0	0			
Last 24 Hours										

"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: Edwin City of Residence: Tekonsha
 Middle Initial: C State: MI ZIP: 49092
 Last Name: Shumway Country: USA
 Age at time of Accident/Incident: 72 Date of Birth: [REDACTED] mm/dd/yyyy
 Certificate Number: [REDACTED]

Degree of Injury <input type="radio"/> None <input type="radio"/> Fatal <input checked="" type="radio"/> Minor <input type="radio"/> Unknown <input type="radio"/> Serious	Seat Occupied <input type="radio"/> Left <input type="radio"/> Front <input type="radio"/> Unknown <input checked="" type="radio"/> Right <input type="radio"/> Rear <input type="radio"/> Center <input type="radio"/> 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> <input type="radio"/> None <input type="radio"/> Lap only <input checked="" type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown </td> <td> <input type="radio"/> None <input type="radio"/> Lap only <input checked="" type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown </td> </tr> </table>	Available	Used	<input type="radio"/> None <input type="radio"/> Lap only <input checked="" type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown	<input type="radio"/> None <input type="radio"/> Lap only <input checked="" type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown	Inflatable Restraints <input checked="" type="checkbox"/> Not Installed <input type="checkbox"/> Installed <input type="checkbox"/> Not Deployed <input type="checkbox"/> Deployed <input type="checkbox"/> Unknown								
Available	Used														
<input type="radio"/> None <input type="radio"/> Lap only <input checked="" type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown	<input type="radio"/> None <input type="radio"/> Lap only <input checked="" type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown														
Pilot Certificate(s) (Check all that apply) <table style="width: 100%;"> <tr> <td><input type="checkbox"/> None</td> <td><input checked="" type="checkbox"/> Flight Instructor</td> <td><input checked="" type="checkbox"/> Commercial</td> <td><input type="checkbox"/> US Military</td> </tr> <tr> <td><input type="checkbox"/> Private</td> <td><input type="checkbox"/> Recreational</td> <td><input type="checkbox"/> Airline Transport</td> <td><input type="checkbox"/> Foreign</td> </tr> <tr> <td><input type="checkbox"/> Student</td> <td><input type="checkbox"/> Sport</td> <td><input type="checkbox"/> Flight Engineer</td> <td></td> </tr> </table>		<input type="checkbox"/> None	<input checked="" type="checkbox"/> Flight Instructor	<input checked="" type="checkbox"/> Commercial	<input type="checkbox"/> US Military	<input type="checkbox"/> Private	<input type="checkbox"/> Recreational	<input type="checkbox"/> Airline Transport	<input type="checkbox"/> Foreign	<input type="checkbox"/> Student	<input type="checkbox"/> Sport	<input type="checkbox"/> Flight Engineer		Medical Certificate Validity <input type="radio"/> Without limitations/waivers <input type="radio"/> Unknown <input checked="" type="radio"/> With limitations/waivers <input type="radio"/> N/A <input type="radio"/> Special Issuance	
<input type="checkbox"/> None	<input checked="" type="checkbox"/> Flight Instructor	<input checked="" type="checkbox"/> Commercial	<input type="checkbox"/> US Military												
<input type="checkbox"/> Private	<input type="checkbox"/> Recreational	<input type="checkbox"/> Airline Transport	<input type="checkbox"/> Foreign												
<input type="checkbox"/> Student	<input type="checkbox"/> Sport	<input type="checkbox"/> Flight Engineer													
Principal Occupation <input type="radio"/> Pilot <input checked="" type="radio"/> Other <input type="radio"/> Unknown	Medical Certificate <input type="radio"/> None <input checked="" type="radio"/> Class 3 <input type="radio"/> Class 1 <input type="radio"/> Driver's License (Sport Pilot only) <input type="radio"/> Class 2 <input type="radio"/> Unknown		Date of Last Medical <u>03/05/2019</u> mm/dd/yyyy												

Medical Certificate Limitations

Must have available glasses for near vision

Medical Certificate Special Issuance

N/A

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

02/19/2020
mm/dd/yyyy

Flight Review Aircraft

Make: Cessna
 Model: 180

Airplane Rating(s) (Check all that apply) <input type="checkbox"/> None <input checked="" type="checkbox"/> Single-Engine Land <input checked="" type="checkbox"/> Single-Engine Sea <input type="checkbox"/> Multiengine Land <input type="checkbox"/> Multiengine Sea	Other Aircraft Rating(s) (Check all that apply) <input type="checkbox"/> None <input type="checkbox"/> Airship <input type="checkbox"/> Balloon <input type="checkbox"/> Glider <input type="checkbox"/> Gyroplane <input type="checkbox"/> Helicopter <input type="checkbox"/> Powered Lift	Instrument Rating(s) (Check all that apply) <input type="checkbox"/> None <input checked="" type="checkbox"/> Airplane <input type="checkbox"/> Helicopter <input type="checkbox"/> Powered Lift	Instructor Rating(s) (Check all that apply) <input type="checkbox"/> None <input checked="" type="checkbox"/> Airplane Single-Engine <input type="checkbox"/> Airplane Multi-Engine <input type="checkbox"/> Gyroplane <input type="checkbox"/> Powered Lift <div style="margin-top: 10px;"> <input type="checkbox"/> Instrument Airplane <input type="checkbox"/> Instrument Helicopter <input type="checkbox"/> Helicopter <input type="checkbox"/> Glider <input type="checkbox"/> Sport </div>
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Type Ratings

N/A

Student Endorsements (Include dates)

N/A

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	3,610	54	3,610		104					
Pilot in Command (PIC)	3,432	50	3,432							
Time as Instructor			1,386							
This Make/Model										
Last 90 Days										
Last 30 Days	10		10							
Last 24 Hours		2								

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: _____					<input type="radio"/> Left <input type="radio"/> Front <input type="radio"/> Center <input type="radio"/> Rear <input type="radio"/> Right <input type="radio"/> Single <input type="radio"/> Unknown <input type="radio"/> Unknown		<input type="radio"/> None <input type="radio"/> Minor <input type="radio"/> Serious <input type="radio"/> Fatal <input type="radio"/> Unknown		
Pilot Certificate(s) (Check all that apply) <input type="checkbox"/> None <input type="checkbox"/> Flight Instructor <input type="checkbox"/> Commercial <input type="checkbox"/> US Military <input type="checkbox"/> Private <input type="checkbox"/> Recreational <input type="checkbox"/> Airline Transport <input type="checkbox"/> Foreign <input type="checkbox"/> Student <input type="checkbox"/> Sport <input type="checkbox"/> Flight Engineer					Restraint Type: Available <input type="radio"/> None <input type="radio"/> Lap Only <input type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown Used <input type="radio"/> None <input type="radio"/> Lap Only <input type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown		Inflatable Restraints <input type="checkbox"/> Not Installed <input type="checkbox"/> Installed <input type="checkbox"/> Not Deployed <input type="checkbox"/> Deployed <input type="checkbox"/> Unknown		
Type Rating/Endorsement for Accident/Incident Aircraft? <input type="checkbox"/> Yes <input type="checkbox"/> 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: _____					<input type="radio"/> Left <input type="radio"/> Front <input type="radio"/> Center <input type="radio"/> Rear <input type="radio"/> Right <input type="radio"/> Single <input type="radio"/> Unknown <input type="radio"/> Unknown		<input type="radio"/> None <input type="radio"/> Minor <input type="radio"/> Serious <input type="radio"/> Fatal <input type="radio"/> Unknown		
Pilot Certificate(s) (Check all that apply) <input type="checkbox"/> None <input type="checkbox"/> Flight Instructor <input type="checkbox"/> Commercial <input type="checkbox"/> US Military <input type="checkbox"/> Private <input type="checkbox"/> Recreational <input type="checkbox"/> Airline Transport <input type="checkbox"/> Foreign <input type="checkbox"/> Student <input type="checkbox"/> Sport <input type="checkbox"/> Flight Engineer					Restraint Type: Available <input type="radio"/> None <input type="radio"/> Lap Only <input type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown Used <input type="radio"/> None <input type="radio"/> Lap Only <input type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown		Inflatable Restraints <input type="checkbox"/> Not Installed <input type="checkbox"/> Installed <input type="checkbox"/> Not Deployed <input type="checkbox"/> Deployed <input type="checkbox"/> Unknown		
Type Rating/Endorsement for Accident/Incident Aircraft? <input type="checkbox"/> Yes <input type="checkbox"/> 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: <u>Richard</u> City : <u>Kalamazoo</u> Middle Initial: <u>A</u> State: <u>MI</u> ZIP: <u>49009</u> Last Name: <u>Crepas</u> Country: <u>United States</u> <input type="radio"/> Crew <input checked="" type="radio"/> Passenger <input type="radio"/> Other	<input type="radio"/> Left <input type="radio"/> Center <input checked="" type="radio"/> Right <input type="radio"/> Unknown Row: <u>2</u>	<input checked="" type="radio"/> None <input type="radio"/> Minor <input type="radio"/> Serious <input type="radio"/> Fatal <input type="radio"/> Unknown	Available <input type="radio"/> None <input type="radio"/> Lap Only <input checked="" type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown Used <input type="radio"/> None <input type="radio"/> Lap Only <input checked="" type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown	<input checked="" type="checkbox"/> Not Installed <input type="checkbox"/> Installed <input type="checkbox"/> Not Deployed <input type="checkbox"/> Deployed <input type="checkbox"/> Unknown	<input type="checkbox"/> Under 5 years If Under 5, <input type="radio"/> Child Restraint <input type="radio"/> Lap-Held <input type="radio"/> Unknown				
First Name: _____ City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ <input type="radio"/> Crew <input type="radio"/> Passenger <input type="radio"/> Other	<input type="radio"/> Left <input type="radio"/> Center <input type="radio"/> Right <input type="radio"/> Unknown Row: _____	<input type="radio"/> None <input type="radio"/> Minor <input type="radio"/> Serious <input type="radio"/> Fatal <input type="radio"/> Unknown	Available <input type="radio"/> None <input type="radio"/> Lap Only <input type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown Used <input type="radio"/> None <input type="radio"/> Lap Only <input type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown	<input type="checkbox"/> Not Installed <input type="checkbox"/> Installed <input type="checkbox"/> Not Deployed <input type="checkbox"/> Deployed <input type="checkbox"/> Unknown	<input type="checkbox"/> Under 5 years If Under 5, <input type="radio"/> Child Restraint <input type="radio"/> Lap-Held <input type="radio"/> Unknown				
First Name: _____ City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ <input type="radio"/> Crew <input type="radio"/> Passenger <input type="radio"/> Other	<input type="radio"/> Left <input type="radio"/> Center <input type="radio"/> Right <input type="radio"/> Unknown Row: _____	<input type="radio"/> None <input type="radio"/> Minor <input type="radio"/> Serious <input type="radio"/> Fatal <input type="radio"/> Unknown	Available <input type="radio"/> None <input type="radio"/> Lap Only <input type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown Used <input type="radio"/> None <input type="radio"/> Lap Only <input type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown	<input type="checkbox"/> Not Installed <input type="checkbox"/> Installed <input type="checkbox"/> Not Deployed <input type="checkbox"/> Deployed <input type="checkbox"/> Unknown	<input type="checkbox"/> Under 5 years If Under 5, <input type="radio"/> Child Restraint <input type="radio"/> Lap-Held <input type="radio"/> Unknown				
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FLIGHT ITINERARY INFORMATION

Last Departure Point Airport ID: <u>KOEB</u> City: <u>Coldwater</u> State: <u>MI</u> Country: <u>United States</u>	Time of Departure Time: <u>1:45 p.m.</u> Time Zone: <u>EST</u>	Destination Airport ID: <u>KIRS</u> City: <u>Sturgis</u> State: <u>MI</u> Country: <u>United States</u>	Type Flight Plan Filed <input checked="" type="radio"/> None <input type="radio"/> VFR/IFR <input type="radio"/> Company VFR <input type="radio"/> IFR <input type="radio"/> Military VFR <input type="radio"/> Unknown <input type="radio"/> VFR Activated? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown
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Type of ATC Clearance/Service (Check all that apply)

<input checked="" type="checkbox"/> None	<input type="checkbox"/> Special VFR	<input type="checkbox"/> Special IFR	<input type="checkbox"/> VFR Flight Following	<input type="checkbox"/> Cruise
<input checked="" type="checkbox"/> VFR	<input type="checkbox"/> IFR	<input type="checkbox"/> VFR On Top	<input type="checkbox"/> Traffic Advisory	<input type="checkbox"/> Unknown / NA

Airspace where the accident/incident occurred (Check all that apply)

<input type="checkbox"/> Class A <input type="checkbox"/> Class B <input type="checkbox"/> Class C <input type="checkbox"/> Class D <input type="checkbox"/> Class E	<input checked="" type="checkbox"/> Class G <input type="checkbox"/> Demo Area <input type="checkbox"/> Warning Area <input type="checkbox"/> Prohibited Area <input type="checkbox"/> Restricted Area	<input type="checkbox"/> Military Operations Area (MOA) <input type="checkbox"/> Airport Advisory Area <input type="checkbox"/> Jet Training Area <input type="checkbox"/> TRSA <input type="checkbox"/> FAR 93	<input type="checkbox"/> Special <input type="checkbox"/> Air Traffic Control Area <input type="checkbox"/> Unknown	Altitude of In-Flight Occurrence: <u>300</u> ft msl
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WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE

Source of Pilot Weather Information

(Check all that apply)

<input type="checkbox"/> National Weather Service	<input type="checkbox"/> Company
<input type="checkbox"/> Flight Service Station	<input type="checkbox"/> Military
<input type="checkbox"/> TV/Radio	<input type="checkbox"/> Internet
<input checked="" type="checkbox"/> Automated Report	<input type="checkbox"/> None
<input type="checkbox"/> Commercial Weather Service (DUATS)	<input type="checkbox"/> Unknown
<input type="checkbox"/> On-Board Weather	

Weather Observation Facility

Facility ID: KOEB
 Observation Time: 1:30 p.m.
 Time Zone: EST
 Distance from Accident Site: On site nm
 Direction from Accident Site: On 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 46 (F)

Dew Point: (C) or 26 (F)

Altimeter Setting: 30.14 in. Hg
or MB

Wind Direction

☐ Variable

-or-
Direction: 250 degrees true

Wind Speed

☐ Calm
☐ Light and Variable

-or-
Speed: 8 kts

Wind Gusts

☒ Not Gusting

-or-
Speed: kts

Visibility 10 miles

RVR: feet

RVV: miles

Density Altitude: 132 ft

Intensity of Precipitation

☐ Light
☐ Moderate
☐ Heavy
☒ N/A
☐ Unknown

Type of Precipitation (Check all that apply)

<input checked="" type="checkbox"/> None	<input type="checkbox"/> Drizzle	<input type="checkbox"/> Freezing Rain
<input type="checkbox"/> Rain	<input type="checkbox"/> Ice Pellets	<input type="checkbox"/> Snow Shower
<input type="checkbox"/> Snow	<input type="checkbox"/> Snow Pellets	<input type="checkbox"/> Ice Pellets Shower
<input type="checkbox"/> Hail	<input type="checkbox"/> Snow Grains	<input type="checkbox"/> Freezing Drizzle
<input type="checkbox"/> Rain Showers	<input type="checkbox"/> Ice Crystals	

Restriction to Visibility (Check all that apply)

<input checked="" type="checkbox"/> None	<input type="checkbox"/> Fog
<input type="checkbox"/> Blowing Dust	<input type="checkbox"/> Ground Fog
<input type="checkbox"/> Blowing Sand	<input type="checkbox"/> Haze
<input type="checkbox"/> Blowing Snow	<input type="checkbox"/> Ice Fog
<input type="checkbox"/> Blowing Spray	<input type="checkbox"/> Smoke
<input type="checkbox"/> Dust	<input type="checkbox"/> Unknown

Icing Forecast

Amount	Type
<input checked="" type="radio"/> None	<input type="radio"/> N/A
<input type="radio"/> Trace	<input type="radio"/> Rime
<input type="radio"/> Light	<input type="radio"/> Clear
<input type="radio"/> Moderate	<input type="radio"/> Mixed
<input type="radio"/> Severe	<input type="radio"/> Unknown
<input type="radio"/> Unknown	

Icing Actual

Amount	Type
<input checked="" type="radio"/> None	<input type="radio"/> N/A
<input type="radio"/> Trace	<input type="radio"/> Rime
<input type="radio"/> Light	<input type="radio"/> Clear
<input type="radio"/> Moderate	<input type="radio"/> Mixed
<input type="radio"/> Severe	<input type="radio"/> Unknown
<input type="radio"/> Unknown	

Turbulence

Type (Check all that apply)	Severity
<input checked="" type="checkbox"/> None	<input type="checkbox"/> Light
<input checked="" type="checkbox"/> Clear Air	<input type="checkbox"/> Moderate
<input type="checkbox"/> Terrain-Induced	<input type="checkbox"/> Severe
<input type="checkbox"/> Convective Turbulence	<input type="checkbox"/> Extreme

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

None

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)*

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.

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

Operator/Owner Safety Recommendation

Not performing simulated power failures at this low an altitude. Edwin Shumway

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)

40 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

1 out the left door

2 out the right door

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

03/07/2020

mm/dd/yyyy

Name of Pilot/Operator: Edwin Shumway

Signature: _____

-- or --



Check here to electronically sign this document

If a Person Other than Pilot/Operator is Filing Report

Name: Patrick M Murphy

Title: Owner

Signature: _____

-- or --



Check here to electronically sign this document

FOR NTSB USE ONLY

NTSB Accident/Incident No.

CEN20CA100

Reviewed by NTSB Regional Office

CENTRAL

Name of Investigator

LINDBERG

Date Report Received

3/9/2020

DAMAGE TO AIRCRAFT OR OTHER PROPERTY

Left and right wings and control surfaces damaged

Tail cone damaged

Belly damaged

Nose and main gear damaged

Engine stoppage, fire - leaking oil

Propeller - destroyed and bent blades

Engine mount bent

Pilot and passenger steps broken and damaged fuselage

NARRATIVE HISTORY OF FLIGHT

Narrative of accident per Patrick Murphy:

The accident of N374JW, Feb. 22. Both Rick Crepas and I were doing our biannual flight review then because of very bad weather conditions the last month. Both of us had our previous review done on Jan. 26, 2018 by Edwin Shumway and therefore the CFI was PIC. After about 1.2 hour of flying and many TOs and landings with Rick in the back seat. I did a cross wind take off, very soon after rotation, approximately 300' AGL, gear and flaps still down, the CFI pulled the throttle to idle and asked, "Your Intentions". I had already lowered the nose and said I would land straight ahead. I expected we would power up, raise the gear and continue our flight. Ed Shumway said, "My Plane" and turned back to runway 25 expecting to land on it without power. I recognized we would not make the runway without power; I went full throttle. We lost altitude in the turn and we were low, we continued to lose altitude, gained a little speed, another slight turn to align with the terrain and the instructor raised the nose for a main gear landing. The plane then shuttered and stalled. It tore the main wheels off and drove the gear through the wings. We got out uninjured and there was an engine fire in the left cowl opening. We used the plane's fire extinguisher and put out the fire.

Although we did not feel a sudden surge of power, Mike Matthews from the FAA stated the engine was producing power when we hit the ground because all the blade tips of the propeller were bent from rotation.

After the plane was moved to a storage hangar at Coldwater, I downloaded the memory from the JPI engine monitor. It showed the engine turning 2625 rpm after the throttle pushed forward. The time on the JPI from the pull to idle until the crash and electric power turned off was 18 seconds.

Narrative of accident per Edwin Shumway:

At the conclusion of Pat Murphy's flight review we departed rwy 22 at KOEB to KIRS with a light right crosswind. At approx. 300 to 400 feet I announced a simulated power failure and slowly retarded the power to a low setting expecting a gentle turn to rwy 25 which was diverging to the right. My intent was to challenge Pat with decision making. I expected a need to go-around and then to have some discussion about turning first toward the runway and emergency decision making. As Pat applied full power I corrected right toward rwy 25. I immediately felt the aircraft begin to shudder as I felt the prop governor surge from the rapid power application. I then pitched forward in an attempt to gain more airspeed fully expecting the aircraft to fly out of the situation. It seemed to me the engine was not producing full power.