

**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**

<b>Accident/Incident Location</b> Nearest City/Place: <u>Loveland</u> State: <u>Ohio</u> ZIP: <u>45140</u> Country: <u>United States</u> Latitude: <u>-84.259410</u> Longitude: <u>39.242894</u> <i>(Enter in decimal degrees or degrees:minutes:seconds)</i>	<b>Accident/Incident Date/Time</b> Date: <u>07/18/2020</u> Local Time: <u>17:30</u> <i>mm/dd/yyyy</i> Time Zone: <u>Eastern</u>
<b>Collision with Other Aircraft:</b> <input type="radio"/> Midair <input type="radio"/> On-ground <input checked="" type="radio"/> None	

**AIRCRAFT INFORMATION**

<b>Registration Number:</b> <u>4816A</u> <b>Manufacturer:</b> <u>Piper</u> <b>Model:</b> <u>Pa 20/22</u> <b>Serial Number:</b> <u>22-3969</u> <b>Year of Manufacture:</b> <u>1956</u> <b>Amateur-Built:</b> <input type="radio"/> Yes <input checked="" type="radio"/> No <i>If Yes:</i> <input type="radio"/> Kit/Plans <input type="radio"/> Original Design <i>Make:</i> _____	<input type="checkbox"/> IFR-Equipped and Certified <input type="checkbox"/> Commercial Space Flight <input type="checkbox"/> Unmanned Aircraft <b>Maximum Gross Weight:</b> <u>1800</u> lbs <b>Weight at Time of Accident/Incident:</b> <u>Unknown</u> lbs <b>Number of Seats:</b> <u>4</u> Flight Crew Seats: <u>2</u> Cabin Crew Seats: <u>2</u> Passenger Seats: <u>2</u> <b>Number of Engines:</b> <u>1</u>
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<b>Category of Aircraft</b> <input checked="" type="radio"/> Airplane <input type="radio"/> Balloon <input type="radio"/> Blimp/Dirigible <input type="radio"/> Glider <input type="radio"/> Gyroplane <input type="radio"/> Helicopter <input type="radio"/> Powered Lift <input type="radio"/> Rocket <input type="radio"/> Ultralight <input type="radio"/> Unknown	<b>Type of Airworthiness Certificate</b> <i>(Check all that apply)</i> <table border="0" style="width:100%;"> <tr> <td style="width:50%;"><b>Standard</b></td> <td style="width:50%;"><b>Special</b></td> </tr> <tr> <td><input checked="" type="checkbox"/> Normal</td> <td><input type="checkbox"/> Restricted</td> </tr> <tr> <td><input type="checkbox"/> Aerobatic</td> <td><input type="checkbox"/> Limited</td> </tr> <tr> <td><input type="checkbox"/> Balloon</td> <td><input type="checkbox"/> Provisional</td> </tr> <tr> <td><input type="checkbox"/> Commuter</td> <td><input type="checkbox"/> Special Flight</td> </tr> <tr> <td><input type="checkbox"/> Transport</td> <td><input type="checkbox"/> Experimental</td> </tr> <tr> <td><input type="checkbox"/> Utility</td> <td><input type="checkbox"/> Special Light-Sport</td> </tr> <tr> <td></td> <td><input type="checkbox"/> Experimental Light-Sport</td> </tr> </table> <input type="checkbox"/> Certificate of Authorization or Waiver (COA) <input checked="" type="checkbox"/> None <input type="checkbox"/> Unknown	<b>Standard</b>	<b>Special</b>	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Restricted	<input type="checkbox"/> Aerobatic	<input type="checkbox"/> Limited	<input type="checkbox"/> Balloon	<input type="checkbox"/> Provisional	<input type="checkbox"/> Commuter	<input type="checkbox"/> Special Flight	<input type="checkbox"/> Transport	<input type="checkbox"/> Experimental	<input type="checkbox"/> Utility	<input type="checkbox"/> Special Light-Sport		<input type="checkbox"/> Experimental Light-Sport	<b>Landing Gear</b> <i>(Check all that apply)</i> <input type="checkbox"/> Retractable <input type="checkbox"/> Tricycle <input checked="" type="checkbox"/> Tailwheel <input type="checkbox"/> Amphibian <input type="checkbox"/> High Skid <input type="checkbox"/> Emergency Float <input type="checkbox"/> Skid <input type="checkbox"/> Float <input type="checkbox"/> Ski <input type="checkbox"/> Hull <input type="checkbox"/> Ski/Wheel <input type="checkbox"/> Other Launch/Recovery System <input type="checkbox"/> None <input type="checkbox"/> Unknown	<b>Engine Type (Select one)</b> <input checked="" type="radio"/> Reciprocating <input type="radio"/> Liquid Rocket <input type="radio"/> Turbo Shaft <input type="radio"/> Solid Rocket <input type="radio"/> Turbo Prop <input type="radio"/> Hybrid Rocket <input type="radio"/> Turbo Jet <input type="radio"/> None <input type="radio"/> Turbo Fan <input type="radio"/> Unknown <input type="radio"/> Electric <b>Fuel System Type (Reciprocating)</b> <input checked="" type="radio"/> Carburetor <input type="radio"/> Fuel-Injected
<b>Standard</b>	<b>Special</b>																		
<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Restricted																		
<input type="checkbox"/> Aerobatic	<input type="checkbox"/> Limited																		
<input type="checkbox"/> Balloon	<input type="checkbox"/> Provisional																		
<input type="checkbox"/> Commuter	<input type="checkbox"/> Special Flight																		
<input type="checkbox"/> Transport	<input type="checkbox"/> Experimental																		
<input type="checkbox"/> Utility	<input type="checkbox"/> Special Light-Sport																		
	<input type="checkbox"/> Experimental Light-Sport																		

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)	Time Since Overhaul (hours)
Eng. 1	Lycoming	O-320 A2B	L-5254-27	1/07/1965	150	2864.83		1600
Eng. 2								
Eng. 3								
Eng. 4								

<b>Last Inspection Type</b> <input type="radio"/> 100-Hour <input type="radio"/> Continuous Airworthiness <input type="radio"/> AAIP <input type="radio"/> Conditional Inspection <input checked="" type="radio"/> Annual <input type="radio"/> Unknown <b>Date Last Inspection:</b> <u>03/04/2020</u> <i>mm/dd/yyyy</i> <b>Airframe Total Time:</b> _____ hrs hours measured at <i>(Select one)</i> <input type="radio"/> Last Inspection <input type="radio"/> Time of Accident/Incident	<b>Propeller 1</b> <input checked="" type="radio"/> Fixed Pitch <input type="radio"/> Controllable Pitch <input type="radio"/> Ground Adjustable Manufacturer: <u>Mccauley</u> Model: _____ <b>Propeller 2</b> <input type="radio"/> Fixed Pitch <input type="radio"/> Controllable Pitch <input type="radio"/> Ground Adjustable Manufacturer: _____ Model: _____	<b>ELT Installed:</b> <input checked="" type="radio"/> Yes <input type="radio"/> No If Yes: <b>ELT Manufacturer:</b> _____ <b>Model or Part No.:</b> _____ <b>TSO No.:</b> <input checked="" type="radio"/> C91 (121.5 MHz) <input type="radio"/> C91a (121.5 MHz) <input type="radio"/> C126 (406 MHz) <b>Was ELT still mounted in aircraft?</b> <input checked="" type="radio"/> Yes <input type="radio"/> No <b>Was ELT still connected to antenna?</b> <input checked="" type="radio"/> Yes <input type="radio"/> No <b>Did ELT Activate?</b> <input checked="" type="radio"/> Yes <input type="radio"/> No If activated: <b>Did ELT Aid in Locating Aircraft:</b> <input type="radio"/> Yes <input checked="" type="radio"/> No If not activated: <b>Indicate Reason:</b> <input type="checkbox"/> Impact Damage <input type="checkbox"/> Fire Damage <input type="checkbox"/> Battery Expired/Damaged <input type="checkbox"/> Unknown
<b>Type of Maintenance Program (Select one)</b> <input checked="" type="radio"/> Annual <input type="radio"/> Conditional (Amateur-built only) <input type="radio"/> Manufacturer's Inspection Program <input type="radio"/> Other Approved Inspection Program (AAIP) <input type="radio"/> Continuous Airworthiness <input type="radio"/> Other, specify: _____	<b>Additional Equipment (Check all that apply)</b> <input checked="" type="checkbox"/> ADS-B <input type="checkbox"/> Airframe Parachute <input type="checkbox"/> Angle of Attack Indicator <input type="checkbox"/> Autopilot <input type="checkbox"/> Data Recorder <input type="checkbox"/> Electronic Flight Bag or Handheld Device <input type="checkbox"/> Electronic Multifunction Display <input type="checkbox"/> Electronic Primary Flight Display <input checked="" type="checkbox"/> Handheld GPS <input type="checkbox"/> Heads Up Display <input type="checkbox"/> Onboard Weather <input type="checkbox"/> Satellite Tracking Device <input type="checkbox"/> Stall Warning System <input type="checkbox"/> Video Recording Device <input type="checkbox"/> Other, Specify: _____	
<b>Description of Fire Extinguishing System</b> <input checked="" type="radio"/> None <input type="radio"/> Specify: _____		



**OWNER/OPERATOR INFORMATION****Registered Aircraft Owner**Name: Phillip SullivanCity: LouisvilleState: Ky ZIP: 40222Fractional Ownership Aircraft:  Yes  NoCountry: 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

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

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

- 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 ITINERARY INFORMATION

<b>Last Departure Point</b> Airport ID: <u>3g3</u> City: <u>Wadsworth</u> State: <u>Ohio</u> Country: <u>United States</u>	<b>Time of Departure</b> Time: <u>14:50</u> Time Zone: <u>Eastern</u>	<b>Destination</b> Airport ID: <u>Kluk</u> City: <u>Cincinnati</u> State: <u>Ohio</u> Country: <u>United States</u>	<b>Type Flight Plan Filed</b> <input 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 type="checkbox"/> None	<input type="checkbox"/> Special VFR	<input type="checkbox"/> Special IFR	<input type="checkbox"/> VFR Flight Following	<input type="checkbox"/> Cruise
<input 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 G	<input type="checkbox"/> Military Operations Area (MOA)	<input type="checkbox"/> Special	<b>Altitude of In-Flight Occurrence:</b> _____ ft msl
<input type="checkbox"/> Class B	<input type="checkbox"/> Demo Area	<input type="checkbox"/> Airport Advisory Area	<input type="checkbox"/> Air Traffic Control Area	
<input type="checkbox"/> Class C	<input type="checkbox"/> Warning Area	<input type="checkbox"/> Jet Training Area	<input type="checkbox"/> Unknown	
<input type="checkbox"/> Class D	<input type="checkbox"/> Prohibited Area	<input type="checkbox"/> TRSA		
<input checked="" type="checkbox"/> Class E	<input type="checkbox"/> Restricted Area	<input type="checkbox"/> FAR 93		

## WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE

<b>Source of Pilot Weather Information</b> (Check all that apply) <table style="width: 100%;"> <tr> <td><input checked="" type="checkbox"/> National Weather Service</td> <td><input type="checkbox"/> Company</td> </tr> <tr> <td><input type="checkbox"/> Flight Service Station</td> <td><input type="checkbox"/> Military</td> </tr> <tr> <td><input checked="" type="checkbox"/> TV/Radio</td> <td><input checked="" type="checkbox"/> Internet</td> </tr> <tr> <td><input checked="" type="checkbox"/> Automated Report</td> <td><input type="checkbox"/> None</td> </tr> <tr> <td><input type="checkbox"/> Commercial Weather Service (DUATS)</td> <td><input type="checkbox"/> Unknown</td> </tr> <tr> <td><input type="checkbox"/> On-Board Weather</td> <td></td> </tr> </table>	<input checked="" type="checkbox"/> National Weather Service	<input type="checkbox"/> Company	<input type="checkbox"/> Flight Service Station	<input type="checkbox"/> Military	<input checked="" type="checkbox"/> TV/Radio	<input checked="" 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		<b>Weather Observation Facility</b> Facility ID: <u>Kluk</u> Observation Time: _____ Time Zone: _____ Distance from Accident Site: <u>10</u> nm Direction from Accident Site: <u>N</u> degrees true
<input checked="" type="checkbox"/> National Weather Service	<input type="checkbox"/> Company												
<input type="checkbox"/> Flight Service Station	<input type="checkbox"/> Military												
<input checked="" type="checkbox"/> TV/Radio	<input checked="" 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													

<b>Basic Conditions</b> <input checked="" type="radio"/> VMC <input type="radio"/> IMC <input type="radio"/> Unknown	<b>Light Condition</b> <input type="radio"/> Dawn <input type="radio"/> Dusk <input type="radio"/> Dark Night <input type="radio"/> Unknown <input checked="" type="radio"/> Day <input type="radio"/> Night <input type="radio"/> Bright Night
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<b>Sky/Lowest Cloud Condition</b> <input checked="" type="radio"/> Clear <input type="radio"/> Thin Broken <input type="radio"/> Few <input type="radio"/> Thin Overcast <input type="radio"/> Partial Obscuration <input type="radio"/> Unknown <input type="radio"/> Scattered <b>Lowest Cloud Condition Height</b> _____ ft agl	<b>Ceiling</b> <input type="radio"/> None (Clear) <input type="radio"/> Obscured <input type="radio"/> Broken <input type="radio"/> Indefinite <input type="radio"/> Overcast <input type="radio"/> Unknown <b>Ceiling Height</b> _____ ft agl	<b>Temperature:</b> _____ (C) or _____ (F) <b>Dew Point:</b> _____ (C) or _____ (F) <b>Altimeter Setting:</b> _____ in. Hg or _____ MB
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<b>Wind Direction</b> <input type="checkbox"/> Variable -or- Direction: _____ degrees true	<b>Wind Speed</b> <input type="checkbox"/> Calm <input type="checkbox"/> Light and Variable -or- Speed: _____ kts	<b>Wind Gusts</b> <input type="checkbox"/> Not Gusting -or- Speed: _____ kts	<b>Visibility</b> <u>10</u> miles RVR: _____ feet RVV: _____ miles <b>Density Altitude:</b> _____ ft
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<b>Intensity of Precipitation</b> <input type="radio"/> Light <input type="radio"/> Moderate <input type="radio"/> Heavy <input type="radio"/> N/A <input type="radio"/> Unknown	<b>Type of Precipitation</b> (Check all that apply) <table style="width: 100%;"> <tr> <td><input checked="" type="checkbox"/> None</td> <td><input type="checkbox"/> Drizzle</td> <td><input type="checkbox"/> Freezing Rain</td> </tr> <tr> <td><input type="checkbox"/> Rain</td> <td><input type="checkbox"/> Ice Pellets</td> <td><input type="checkbox"/> Snow Shower</td> </tr> <tr> <td><input type="checkbox"/> Snow</td> <td><input type="checkbox"/> Snow Pellets</td> <td><input type="checkbox"/> Ice Pellets Shower</td> </tr> <tr> <td><input type="checkbox"/> Hail</td> <td><input type="checkbox"/> Snow Grains</td> <td><input type="checkbox"/> Freezing Drizzle</td> </tr> <tr> <td><input type="checkbox"/> Rain Showers</td> <td><input type="checkbox"/> Ice Crystals</td> <td></td> </tr> </table>	<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		<b>Restriction to Visibility</b> (Check all that apply) <table style="width: 100%;"> <tr> <td><input type="checkbox"/> None</td> <td><input type="checkbox"/> Fog</td> </tr> <tr> <td><input type="checkbox"/> Blowing Dust</td> <td><input type="checkbox"/> Ground Fog</td> </tr> <tr> <td><input type="checkbox"/> Blowing Sand</td> <td><input type="checkbox"/> Haze</td> </tr> <tr> <td><input type="checkbox"/> Blowing Snow</td> <td><input type="checkbox"/> Ice Fog</td> </tr> <tr> <td><input type="checkbox"/> Blowing Spray</td> <td><input type="checkbox"/> Smoke</td> </tr> <tr> <td><input type="checkbox"/> Dust</td> <td><input type="checkbox"/> Unknown</td> </tr> </table>	<input 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
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<input type="checkbox"/> Dust	<input type="checkbox"/> Unknown																												

<b>Icing Forecast</b> <table style="width: 100%;"> <tr> <th>Amount</th> <th>Type</th> </tr> <tr> <td><input checked="" type="radio"/> None</td> <td><input checked="" type="radio"/> N/A</td> </tr> <tr> <td><input type="radio"/> Trace</td> <td><input type="radio"/> Rime</td> </tr> <tr> <td><input type="radio"/> Light</td> <td><input type="radio"/> Clear</td> </tr> <tr> <td><input type="radio"/> Moderate</td> <td><input type="radio"/> Mixed</td> </tr> <tr> <td><input type="radio"/> Severe</td> <td><input type="radio"/> Unknown</td> </tr> <tr> <td><input type="radio"/> Unknown</td> <td></td> </tr> </table>	Amount	Type	<input checked="" type="radio"/> None	<input checked="" 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		<b>Icing Actual</b> <table style="width: 100%;"> <tr> <th>Amount</th> <th>Type</th> </tr> <tr> <td><input checked="" type="radio"/> None</td> <td><input type="radio"/> N/A</td> </tr> <tr> <td><input type="radio"/> Trace</td> <td><input type="radio"/> Rime</td> </tr> <tr> <td><input type="radio"/> Light</td> <td><input type="radio"/> Clear</td> </tr> <tr> <td><input type="radio"/> Moderate</td> <td><input type="radio"/> Mixed</td> </tr> <tr> <td><input type="radio"/> Severe</td> <td><input type="radio"/> Unknown</td> </tr> <tr> <td><input type="radio"/> Unknown</td> <td></td> </tr> </table>	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		<b>Turbulence</b> <b>Type</b> (Check all that apply) <table style="width: 100%;"> <tr> <td><input checked="" type="checkbox"/> None</td> <td><input type="checkbox"/> Light</td> </tr> <tr> <td><input type="checkbox"/> Clear Air</td> <td><input type="checkbox"/> Moderate</td> </tr> <tr> <td><input type="checkbox"/> Terrain-Induced</td> <td><input type="checkbox"/> Severe</td> </tr> <tr> <td><input type="checkbox"/> Convective Turbulence</td> <td><input type="checkbox"/> Extreme</td> </tr> </table>	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Light	<input 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
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<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:**

**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)*

Left wing destroyed. Right wing small tear in fabric. Bottom right cowling smashed. Bent fuselage above pilot seat. Right horizontal stabilizer bent. Tailwheel bent.

**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.

Depart from 3g3. Uneventful until the engine quit close to Lunken field. Terrain was heavily residential. Attempted to land in a golf course but large hills forced me to divert to a secondary landing area - a residential road. Road was sloped downward and a 30ft obstacle at the beginning of the road. destination was Lunken field. Obtained Atis from Lunken shortly before the incident. Obtained Local atis at 3g3 and preflight weather service.

Opinion: I believe the cause of the engine failure was fuel exhaustion. The error occurred when I used 1/4 on the fuel gauge to fuel up the aircraft. I incorrectly assumed 1/4 meant 1/4 of the way full. Instead, as I learned the hard way, 1/4 on the fuel gauge means empty, so when I added 15 gallons of fuel at the start of my flight, I only had 15 - 18 gallons on board instead of the 24 gallons.



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

## Operator/Owner Safety Recommendation

Opinion: I believe the cause of the engine failure was fuel exhaustion. The error occurred when I used 1/4 on the fuel gauge to fuel up the aircraft. I incorrectly assumed 1/4 meant 1/4 of the way full. Instead, as I learned the hard way, 1/4 on the fuel gauge means empty, so when I added 15 gallons of fuel at the start of my flight, I only had 15 - 18 gallons on board instead of the 24 gallons.

This can be avoided by creating a fuel dip stick. Fuel gauges cannot be trusted.

**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)

15-20 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 AIRCRAFT**

Was an emergency evacuation of the aircraft performed?  Yes  No

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

**OTHER AIRCRAFT – COLLISION (If air or ground collision occurred, complete this section for other aircraft)**

Aircraft Registration Number

\_\_\_\_\_

Manufacturer: \_\_\_\_\_

Model: \_\_\_\_\_

Damage to Other Aircraft

Destroyed       Minor  
 Substantial       None

Registered Owner of Other Aircraft

Name: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ ZIP: \_\_\_\_\_

Country: \_\_\_\_\_

Pilot of Other Aircraft

Name: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ ZIP: \_\_\_\_\_

Country: \_\_\_\_\_

**ADDITIONAL INFORMATION** (Please type or print in ink)

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

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

Date of this Report

08/18/2020

mm/dd/yyyy

Name of Pilot/Operator: Phillip Sullivan

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.

CEN20LA290

Reviewed by NTSB Regional Office

Denver, CO

Name of Investigator

Craig Hatch

Date Report Received