

**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: Jeffersonville State: IN
 ZIP: 47130 Country: USA
 Latitude: 38.31859 N Longitude: 85.68662 W
(Enter in decimal degrees or degrees:minutes:seconds)

Accident/Incident Date/Time

Date: 07/06/2023 Local Time: 8:15am
mm/dd/yyyy
 Time Zone: Eastern

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

AIRCRAFT INFORMATION

Registration Number: N988CT

Manufacturer: Diamond

Model: DA-20

Serial Number: C0088

Year of Manufacture: 1999

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

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

Maximum Gross Weight: 1770 lbs

Weight at Time of Accident/Incident: _____ lbs

Number of Seats: 2 Flight Crew Seats: 1

Cabin Crew Seats: _____ Passenger Seats: 1

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 | Special |
| ☒ Normal | ☐ Restricted |
| ☐ Aerobatic | ☐ Limited |
| ☐ Balloon | ☐ Provisional |
| ☐ Commuter | ☐ Special Flight |
| ☐ Transport | ☐ Experimental |
| ☐ Utility | ☐ 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 (hours)	Time Since: Inspection (hours)	Overhaul (hours)
Eng. 1	Continental	IO-240-B	824525-R		125	***	***	***
Eng. 2								
Eng. 3								
Eng. 4								

Last Inspection Type

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

Date Last Inspection: 06/01/2023

mm/dd/yyyy

Airframe Total Time: 9949.1 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: _____

Propeller 1

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

Manufacturer: Sensinich

Model: W69EK7-63G

Propeller 2

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

Manufacturer: _____

Model: _____

ELT Installed: ☒ Yes ☐ No

If Yes:

ELT Manufacturer: _____

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: _____

OWNER/OPERATOR INFORMATION**Registered Aircraft Owner**Name: Flight Club 502 INCCity: LouisvilleState: KY ZIP: 40205Fractional Ownership Aircraft: ☐ Yes ☐ NoCountry: USA**Operator of Aircraft**☒ Same As Registered Owner☐ Same Address as Registered Owner

Name: _____

City: _____

Doing Business As: _____

State: _____ ZIP: _____

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

Country: _____

Operating Certificates Held

(Check all that apply)

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

Regulation Flight Conducted Under

- ☒ FAR 91 ☐ FAR 129 ☐ FAR 415
☐ FAR 103 ☐ FAR 133 ☐ FAR 431
☐ FAR 121 ☐ FAR 135 ☐ FAR 435
☐ FAR 125 ☐ FAR 137 ☐ FAR 437

- ☐ FAR 91 Special Flight
☐ Non-US, Commercial
☐ Non-US, Non-commercial

☐ Public Aircraft (Select one)

- ☐ Armed Forces
☐ Federal
☐ State
☐ Local

☐ Unknown**Revenue Operation for FAR 121, 125, 129, 135**

(Select one for each group)

- ☐ Scheduled or Commuter ☐ Domestic
☐ Non-Scheduled or Air Taxi ☐ International

- ☐ Passenger
☐ Cargo
☐ Mail Contract Only

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

(Select one)

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

Revenue Sightseeing Flight☐ Yes ☒ No**Air Medical Flight**☐ Yes ☒ No**AIRPORT INFORMATION (Fill in if accident/incident occurred on approach, landing, takeoff, departure, or within 3 miles of an airport)**

Airport Name: _____

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 ☐ Final ☐ 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: <u>Paul</u> Middle Initial: _____ Last Name: <u>Cobb</u> City of Residence: <u>Louisville</u> State: <u>KY</u> ZIP: <u>40222</u> Country: <u>USA</u> Age at time of Accident/Incident: <u>51</u> Date of Birth: [REDACTED] <i>mm/dd/yyyy</i> 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) <i>(Check all that apply)</i> ☐ None ☐ Private ☐ Student ☒ Flight Instructor ☐ Recreational ☐ Sport ☒ Commercial ☐ Airline Transport ☐ Flight Engineer ☐ US Military ☐ Foreign				Medical Certificate ☐ None ☐ Class 3 ☒ Class 1 ☐ Driver's License (Sport Pilot only) ☐ Class 2 ☐ Unknown			Medical Certificate Validity ☐ Without limitations/waivers ☐ Unknown ☒ With limitations/waivers ☐ N/A ☐ Special Issuance		Date of Last Medical <u>9/26/2022</u> <i>mm/dd/yyyy</i>																																																																																											
Principal Occupation ☐ Pilot ☒ Other ☐ Unknown																																																																																																				
Medical Certificate Limitations Reading glasses must be available																																																																																																				
Medical Certificate Special Issuance																																																																																																				
Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks: <u>01/10/2023</u> <i>mm/dd/yyyy</i>				Flight Review Aircraft Make: <u>Cessna</u> Model: <u>172P</u>																																																																																																
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> ☐ None ☒ Airplane Single-Engine ☐ Airplane Multi-Engine ☐ Gyroplane ☐ Powered Lift ☐ Instrument Airplane ☐ Instrument Helicopter ☐ Helicopter ☐ Glider ☐ Sport																																																																																														
Type Ratings None						Student Endorsements <i>(Include dates)</i>																																																																																														
<table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2" style="text-align: left; padding: 5px;">Flight Time <i>(Enter appropriate number of hours in each box)</i></th> <th rowspan="2" style="padding: 5px;">All Aircraft</th> <th rowspan="2" style="padding: 5px;">This Make & Model</th> <th rowspan="2" style="padding: 5px;">Airplane Single Engine</th> <th rowspan="2" style="padding: 5px;">Airplane Multiengine</th> <th rowspan="2" style="padding: 5px;">Night</th> <th colspan="2" style="padding: 5px;">Instrument</th> <th rowspan="2" style="padding: 5px;">Rotorcraft</th> <th rowspan="2" style="padding: 5px;">Glider</th> <th rowspan="2" style="padding: 5px;">Lighter Than Air</th> </tr> <tr> <th style="padding: 5px;">Actual</th> <th style="padding: 5px;">Simulated</th> </tr> </thead> <tbody> <tr> <td style="text-align: left; padding: 5px;">Total Time</td> <td>940</td> <td>101</td> <td>940</td> <td>0</td> <td>52</td> <td>18</td> <td>11</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td style="text-align: left; padding: 5px;">Pilot in Command (PIC)</td> <td>869</td> <td>101</td> <td>869</td> <td>0</td> <td>45</td> <td>18</td> <td>11</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td style="text-align: left; padding: 5px;">Time as Instructor</td> <td>435</td> <td>101</td> <td>435</td> <td>0</td> <td>23</td> <td>3</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr style="background-color: #cccccc;"> <td style="text-align: left; padding: 5px;">This Make/Model</td> <td></td> <td></td> <td></td> <td></td> <td>2</td> <td>0</td> <td>0</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: left; padding: 5px;">Last 90 Days</td> <td>167</td> <td>68</td> <td>167</td> <td>0</td> <td>5</td> <td>2</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td style="text-align: left; padding: 5px;">Last 30 Days</td> <td>69</td> <td>41</td> <td>69</td> <td>0</td> <td>2</td> <td>2</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td style="text-align: left; padding: 5px;">Last 24 Hours</td> <td>2</td> <td>2</td> <td>2</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table>											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	940	101	940	0	52	18	11	0	0	0	Pilot in Command (PIC)	869	101	869	0	45	18	11	0	0	0	Time as Instructor	435	101	435	0	23	3	0	0	0	0	This Make/Model					2	0	0				Last 90 Days	167	68	167	0	5	2	0	0	0	0	Last 30 Days	69	41	69	0	2	2	0	0	0	0	Last 24 Hours	2	2	2	0	0	0	0	0	0	0
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																																																																																										
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Last 24 Hours	2	2	2	0	0	0	0	0	0	0																																																																																										

"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: Iris

City of Residence: Louisville

Middle Initial: _____

State: KY ZIP: 40245

Last Name: Charles

Country: USA

Age at time of Accident/Incident: 17 Date of Birth: mm/dd/yyyy

Certificate Number:

Degree of Injury

☒ None ☐ Fatal
☐ Minor ☐ Unknown
☐ Serious

Seat Occupied

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

Restraint Type**Available**

☐ 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

Pending
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)
(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)

None

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

All
Aircraft

This Make
& Model

Airplane
Single
Engine

Airplane
Multiengine

Night

Instrument

Actual

Simulated

Rotorcraft

Glider

Lighter
Than Air

Total Time

16

16

16

Pilot in Command (PIC)

Time as Instructor

This Make/Model

Last 90 Days

16

16

16

Last 30 Days

8

8

8

Last 24 Hours

0

0

0

ADDITIONAL FLIGHT CREWMEMBERS (Exclusive of cabin crew, complete the following information)							
Crew Name and Address First Name: _____ City of Residence: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____			Seat Occupied ☐ Left ☐ Center ☐ Right ☐ Front ☐ Rear ☐ Single ☐ Unknown		Injury ☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown		
Pilot Certificate(s) (Check all that apply) ☐ None ☐ Flight Instructor ☐ Commercial ☐ US Military ☐ Private ☐ Recreational ☐ Airline Transport ☐ Foreign ☐ Student ☐ Sport ☐ Flight Engineer			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 First Name: _____ City of Residence: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____			Seat Occupied ☐ Left ☐ Center ☐ Right ☐ Front ☐ Rear ☐ Single ☐ Unknown		Injury ☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown		
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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 First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other		Seat ☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	Injury ☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	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	Age ☐ Under 5 years If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown	
First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other		☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown
First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other		☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown
First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other		☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown

FLIGHT ITINERARY INFORMATION						
Last Departure Point Airport ID: <u>KIMS</u> City: <u>Madison</u> State: <u>IN</u> Country: <u>USA</u>		Time of Departure Time: <u>8:00am</u> Time Zone: <u>Eastern</u>		Destination Airport ID: <u>KLOU</u> City: <u>Louisville</u> State: <u>KY</u> Country: <u>USA</u>		Type Flight Plan Filed ☒ None ☐ VFR/IFR ☐ Company VFR ☐ IFR ☐ Military VFR ☐ Unknown ☐ VFR Activated? ☐ Yes ☐ No ☐ Unknown
Type of ATC Clearance/Service (Check all that apply) ☒ None ☐ Special VFR ☐ Special IFR ☐ VFR Flight Following ☐ Cruise ☐ VFR ☐ IFR ☐ VFR On Top ☐ Traffic Advisory ☐ Unknown / NA						
Airspace where the accident/incident occurred (Check all that apply) ☐ Class A ☒ Class G ☐ Military Operations Area (MOA) ☐ Special ☐ Class B ☐ Demo Area ☐ Airport Advisory Area ☐ Air Traffic Control Area ☐ Class C ☐ Warning Area ☐ Jet Training Area ☐ Unknown ☐ Class D ☐ Prohibited Area ☐ TRSA ☐ Class E ☐ Restricted Area ☐ FAR 93 Altitude of In-Flight Occurrence: <u> </u> ft msl						
WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE						
Source of Pilot Weather Information (Check all that apply) ☐ National Weather Service ☐ Company ☐ Flight Service Station ☐ Military ☐ TV/Radio ☐ Internet ☒ Automated Report ☐ None ☐ Commercial Weather Service (DUATS) ☐ Unknown ☐ On-Board Weather			Weather Observation Facility Facility ID: <u>KLOU ATIS</u> Observation Time: <u>7:55am</u> Time Zone: <u>Eastern</u> Distance from Accident Site: <u>6</u> nm Direction from Accident Site: <u>354</u> 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 <u>2,000</u> ft agl		Ceiling ☐ None (Clear) ☐ Obscured ☒ Broken ☐ Indefinite ☐ Overcast ☐ Unknown Ceiling Height <u>8,000</u> ft agl		Temperature: <u>24</u> (C) or <u> </u> (F) Dew Point: <u>21</u> (C) or <u> </u> (F) Altimeter Setting: <u>29.94</u> in. Hg or <u>1800</u> MB		
Wind Direction ☐ Variable -or- Direction: <u>170</u> degrees true	Wind Speed ☐ Calm ☐ Light and Variable -or- Speed: <u>5</u> kts	Wind Gusts ☒ Not Gusting -or- Speed: <u> </u> kts	Visibility <u>10</u> miles RVR: <u> </u> feet RVV: <u> </u> miles Density Altitude: <u> </u> 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 ☒ None ☐ Trace ☐ Light ☐ Moderate ☐ Severe ☐ Unknown Type ☐ N/A ☐ Rime ☐ Clear ☐ Mixed ☐ Unknown		Icing Actual Amount ☒ None ☐ Trace ☐ Light ☐ Moderate ☐ Severe ☐ Unknown Type ☐ N/A ☐ Rime ☐ Clear ☐ Mixed ☐ Unknown		Turbulence Type (Check all that apply) ☒ None ☐ Clear Air ☐ Terrain-Induced ☐ Convective Turbulence Severity ☐ Light ☐ Moderate ☐ Severe ☐ Extreme		
NOTAMs (D and FDC), AIRMETs, SIGMETs, PIREPs in effect at the time of the accident/incident: KLOU R33 VASI OOS Runway 6/24 Closed						

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)*

Tail broke off
Left main gear/whhel twisted off
Nose gear broke away

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.

Please See Attached

RECOMMENDATION (How could this accident/incident have been prevented?)**Operator/Owner Safety Recommendation**

Even though it was daylight, I would have benefitted from using a white light during the fuel stick check. Regardless of lighting, time of day, etc... this error can't be made.

This was the first flight of the day. I could have checked to see the aircraft's last reservation and determined what the likely fuel level could have been if the aircraft had not been refueled.

Having a personal minimum concerning available fuel (gauge indicated) prior to departing an airport would be prudent. I routinely gas up away from KLOU and simply get reimbursed. If the gauge was at or below a 1/4 tank, refueling would have been warranted.

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)

Estimated 8.3 _____ 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

Released the canopy release handles, pushed up the canopy, and both occupants exited the left side and evacuated to the rear of the plane.

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 have prepared a presentation for the Instructors at Flight Club 502. This will be presented at the next Instructor breakfast on August 5th. I have received help from several mentor instructors. I hope to improve on the presentation and will present it at the next EAA Chapter 110 Meeting that I can get a slot to present. Ultimately, I would like to make a presentation at the next Louisville FSDO CFI/DPE Seminar this Winter. I made a serious error. I hope by sharing it, it will make others realize that we don't hide experiences like these from each other. Since the investigation is being conducted through Indianapolis, I'd be willing to travel and present anywhere the FSDO would find it beneficial.

Please contact me if any further information is necessary or I can be of help in any way.

Sincerely,

Paul Cobb

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

Date of this Report <u>07/15/2023</u> mm/dd/yyyy	Name of Pilot/Operator: <u>Paul D. Cobb</u> Signature: _____ -- or -- ☒ Check here to electronically sign this document
--	--

If a Person Other than Pilot/Operator is Filing Report

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

FOR NTSB USE ONLY

NTSB Accident/Incident No. CEN23LA281	Reviewed by NTSB Regional Office CEN	Name of Investigator BRANNEN	Date Report Received 7/17/2023
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Supplement to 6120.1

N988CT

7/6/2023

Paul Cobb [REDACTED]

On July 6th, 2023, I had a scheduled flight lesson at 6:30 am with a 17-year-old female member-student of Flight Club 502 at Bowman Field in Louisville, Ky. I have provided Certified Flight instructor services to flight students and informal mentoring to other CFIs in the non-profit organization since September of 2022.

On the way to the airport, I contacted my student to explain that due to the weather we would most likely be conducting a simulator lesson. When I arrived, the weather was notably improved and moving to the east. It was cloudy, but dry with radar showing all the precipitation well east of the airport. Our lesson called for a short flight to the north to KIMS in Indiana to conduct pattern work in advance of her pre-solo stage check. I watched the student conduct the cabin pre-flight of the Diamond DA-20 (N988CT) utilizing a club-provided checklist. I walked around to her side of the plane as she checked the fuel. The external fuel check is completed by dropping a wooden stick with notches cut in it that indicate $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, and full. I asked what the fuel level was, and she answered "16". We normally start with 18 gallons which is the $\frac{3}{4}$ mark on the stick. I asked for the stick in order to check the level. I inserted the stick, retrieved it, and noted a mark one inch below the $\frac{3}{4}$ cut. I put it back in and withdrew it, showed it to the student and asked her where she saw the level. She pointed to 1 inch below the $\frac{3}{4}$ cut indicating 16 gallons. I repeated the process again and noted the same mark. I secured the stick and she continued the external inspection of the airplane, including sumping the fuel in front of me.

We completed our pre-start and pre-taxi checklists and announced our intentions to taxi to runway 15 and depart VFR to the northeast. The airport was in Class E operations prior to 7am. As we neared the hold-short line for runway 15 the Tower announced the airport was in Class D operations. We advised the tower of our intentions, and they provided the current weather information and cleared us to depart runway 15 with a left turn on course. We completed our pre-takeoff checklist and our takeoff and emergencies on takeoff briefings. The student performed the takeoff, left turn and then a climb check list. I noted the fuel gauge level between $\frac{1}{2}$ and $\frac{3}{4}$. She leveled off at 1800ft under the Charlie airspace and completed her cruise checklist. I reminded her to lean the mixture. We typically climb to 3,000ft once we clear the Charlie's shelf, however, there were some clouds lower than the reported levels so I advised her to climb to 2,000ft on a north heading. The visibility due north was much better than that to the northeast. Our lesson was covering GPS programming and it can be tempting to spend too much time "in the aircraft." I kept reminding her and myself to check outside for traffic as we checked the traffic page in the GPS' Nav selection. We also linked to my Sentry for ADS-B traffic advisories through ForeFlight. There were no other aircraft operating in our vicinity. The student programmed the radios using GPS switching as we approached KIMS. I helped her with her approach/descent checklist and we only had to lose 200 feet for traffic pattern altitude. Her initial entry into the pattern was at 45 degrees to the left downwind to Runway 21. She completed a touch-and-go, a go-around, followed by four more touch-and-gos including a forward slip to landing. The last time I

checked the fuel gauge was the pre-landing checklist during the downwind on the last pattern. I do not recall exactly what it read. We departed to the south intending to climb to 2000 feet, but there were a few clouds that turned us west and then south towards Bowman Field. We stayed at 1,800ft and checked in with Bowman Tower 10 miles to the northeast. We were directed to fly to "Six Mile Island" and cleared straight-in to land runway 15. We completed our Approach/Descent checklist as we approached Six Mile Island. As we turned towards runway 15 I heard the engine retard, I grabbed the throttle over the student's hand and asked if she had pulled the throttle back. It was my belief she had began to descend by pulling the throttle back from 2300rpm to 2000rpm as we normally do. However, we were already at the altitude we wanted to be at 5 miles from the field – 1,800ft (1300 feet AGL). We train to be at traffic pattern altitude at 3 miles. The student said she did not pull the throttle back. The engine had briefly recovered. When it sputtered again, I ensured the mixture was full-rich, the master was on, the magnetos were on Both, and the fuel pump was on. I advised Bowman Tower that we were experiencing engine difficulties. The tower immediately cleared me to land runway 15 and I acknowledged them. I estimated we were approximately 5 miles away. The engine was cycling through spurts of power and I realized it was a fuel issue; the fuel gauge read empty. The area between our plane and Bowman field offers no opportunities for off-field landings. I turned north with a tailwind and advised Bowman Tower we would be landing on the Indiana side and began looking for possible landing sites with my student. The tower advised they would notify Emergency Services. I located a corn field that I could use my remaining altitude to work to a right downwind and land into the wind. I put in flaps and advised the student we needed to shut everything down. I pulled the mixture, the throttle, the fuel shut-off, and turned off the master and the fuel pump as we began to turn to a base. There were very high wires across the street to the north of the field and I advised my student I would be doing a very aggressive forward slip as we passed the wires. I slipped the plane down to the top of the corn and bled off speed. I could see a break in the tree line at the end of the field and turned towards it. Once I was at 60 kts, I began to let the plane settle. We came to rest after a short roll out. I said "Out", and my student and I released the canopy locks and pushed it open. She went to the rear of the plane. I grabbed my survival radio, exited the plane, and called "any station" - reporting that we were safely on the ground in a corn field about a mile north of the Ohio River and uninjured. Another aircraft relayed the transmission and was vectored to our location where they circled our landing site. I checked the student again for any injuries, and she was not physically hurt. Emergency services arrived about 15 minutes later. We retrieved our belongings from the plane and were escorted to a nearby office. The student's parents arrived soon after.

I am a part-time CFI. I am a full-time Police Sergeant with 24 years of experience – many years spent as a detective. It did not take me long to realize we didn't take off with 16 gallons of fuel. I believe the time of day, weather conditions and lighting combined with an expectation bias contributed to reading a stain/shadow/whatever as a liquid marking on the fuel stick. The DA20 should burn about 5.1 gallons an hour in the settings we used throughout our flight. The 1.6 hour flight would consume 8.2 gallons. I would never have knowingly departed for our lesson below a half tank indication on the fuel stick or the fuel gauge – 12 gallons. My belief was that I was departing with fuel that could allow a 1.5 hour lesson with more than an hour of reserve fuel. I was incorrect in my perception of the fuel level. The result of the error could have been much worse.