

NATIONAL TRANSPORTATION SAFETY BOARD

NTSB Form 6120.1

PILOT/OPERATOR AIRCRAFT ACCIDENT/INCIDENT REPORT

Email the pilot/operator aircraft accident/incident report to the investigator-in-charge of your accident/incident. If email is not available, mail the report per the instructions below.

If your accident/incident occurred in Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Maryland, Delaware, Virginia, West Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Mississippi, Alabama, Georgia, Florida, the District of Columbia, Puerto Rico, or the US Virgin Islands, send the form to: NTSB, ERA, 45065 Riverside Parkway, Ashburn, VA 20147.

If your accident/incident occurred in Ohio, Michigan, Indiana, Wisconsin, Illinois, Minnesota, Iowa, Missouri, Arkansas, Louisiana, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Texas, Colorado, or New Mexico, send the form to: NTSB, CEN, 4760 Oakland Street, Suite 500, Denver, CO 80239.

If your accident/incident occurred in Montana, Wyoming, Idaho, Utah, Arizona, Nevada, Washington, Oregon, California, Hawaii, or the territories of Guam or American Samoa, send the form to: NTSB, WPR, 505 South 336th Street, Suite 540, Federal Way, WA 98003.

If your accident/incident occurred in Alaska, send the form to: NTSB, ANC, 222 West 7th Avenue, Room 216, Box 11, Anchorage, AK 99513.

Rules pertaining to notification of aircraft accidents and incidents, as well as overdue aircraft are found in 49 *Code of Federal Regulations* (CFR) Part 830 http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&tpl=/ecfrbrowse/Title49/49cfr830_main_02.tpl. These rules state the authority of the NTSB, define accidents, incidents, injuries, and other terms, and provide procedures for initial and immediate notification of accidents and incidents by aircraft pilots/operators.

A. APPLICABILITY

The pilot/operator of an aircraft shall send a report to the office listed above, based on accident/incident location; immediate notification is required by 49 CFR 830.5(a). **The report shall be filed within 10 days after an accident for which notification is required by Section 830.5, or after 7 days if an overdue aircraft is still missing.**

An aircraft accident, as defined in 49 CFR 830.2, is determined as an occurrence that involves a fatality or serious injury, or substantial damage to the aircraft. For occurrences that do not involve a fatality, the determination that the occurrence is an accident can be appealed by writing to the Director, Office of Aviation Safety, NTSB, 490 L'Enfant Plaza, S.W., Washington, D.C. 20594.

INSTRUCTIONS TO PILOTS/OPERATORS FOR COMPLETING THIS FORM

It is necessary that ALL questions on this report be answered completely and accurately.

If more space is needed, continue on a blank sheet of paper.

Nearest City/Place: Use the name of the nearest community in the state where the accident/incident occurred.

Date/Time: Indicate the date and local time of the event. Be sure to indicate the time zone.

Phase of Operation: Indicate the phase of operation during which the accident/incident occurred.

Aircraft Information: Enter aircraft make and model information as indicated on the aircraft registration certificate, including series. If the involved aircraft is certified as "amateur-built," include the name of the producer of the kit or plans, unless an NTSB employee instructs otherwise.

Maximum Gross Weight: Enter the certificated maximum gross weight for the aircraft involved in the occurrence. This should be the same as the maximum gross weight indicated on the aircraft weight and balance documents.

Engine: Enter engine make and model information as indicated on the engine data plate.

The NTSB uses this form for aircraft accident prevention activities and for statistical purposes. NTSB regulations (49 CFR Part 830) require that **ALL** questions be answered completely and accurately. Completion of this form will take approximately 60 minutes. The NTSB does not guarantee the privacy of any information provided in this form. You need not complete this form unless it displays a valid OMB control number, in accordance with 5 C.F.R. § 1320.5(b), which applies to this collection of information.

B. DEFINITIONS

1. "Aircraft Accident" means an occurrence associated with the operation of an aircraft that takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death, or serious injury, or in which the aircraft receives substantial damage. For purposes of this form, the definition of "aircraft accident" includes "unmanned aircraft accident," as defined at 49 CFR 830.2.

2. "Substantial Damage" means damage or failure that adversely affects the structural strength, performance or flight characteristics of the aircraft, and that would normally require major repair or replacement of the affected component. NOTE: Engine failure or damage limited to an engine if only one engine fails or is damaged, bent fairing or cowlings, dented skin, small puncture holes in the skin or fabric, ground damage to rotor or propeller blades, and damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wing tips are not considered "substantial damage" for purposes of this report.

3. "Operator" means any person who causes or authorizes the operation of an aircraft, such as the owner, lessee, or bailee of an aircraft.

4. "Fatal Injury" means any injury that results in death within thirty (30) days of the accident.

5. "Serious Injury" means any injury that (1) requires hospitalization for more than 48 hours, commencing within 7 days from the date the injury was received; (2) results in a fracture of any bone (except simple fracture of fingers, toes, or nose); (3) causes severe hemorrhages, nerve, muscle, or tendon damage; (4) involves injury to any internal organ; or (5) involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.

Type of Fire Extinguishing System: If a fire extinguishing system was used to fight an aircraft fire, specify the type(s) of extinguishing system(s) used. Examples include handheld extinguisher, engine fire bottle, cargo/baggage compartment fire suppression system, or airport emergency ground equipment.

Owner/Operator Information: Enter the owner information as shown on the registration certificate. Commercial operators, enter the operator information, including "doing business as" when applicable, as shown on the operator certificate.

Revenue Sightseeing Flight: Indicate whether the accident aircraft was conducting revenue sightseeing operations under 14 CFR Part 91 at the time of the accident.

Air Medical Flight: Indicate whether the accident flight was being conducted for the purpose of carrying medical personnel, patient(s), or organs.

Public Aircraft: Federal, state or local government flight operations such as official travel, law-enforcement, low-level observation, aerial application, firefighting, search and rescue, biological or geological resource management, or aeronautical research. Indicate whether the flight was conducted by the armed forces, federal, state, or local government.

Purpose of Flight: 14 CFR Parts 91, 103, 133, 136, and 137: Indicate the type of operation that was being conducted at the time of the occurrence using the following definitions:

AERIAL APPLICATION--Operations using an aircraft to perform aerial application or dispersion of any substance. Examples include agricultural, health, forestry, cloud seeding, firefighting, insect control, etc.

AERIAL OBSERVATION--These flights include aerial mapping/photography, patrol, search and rescue, hunting, highway traffic advisory, ranching, surveillance, oil and mineral exploration, criminal pursuit, fish spotting, etc.

AIR DROP--Aerial operations, other than aerial application, that are intended to release items in flight.

AIR RACE/SHOW--Includes any flight operations conducted as part of an organized air race or public demonstration.

BUSINESS--Includes all personal flying without a paid professional crew for reasons associated with furthering a business, including transportation to and from business meetings or work. This does not include corporate/executive operations, air taxi, or commuter operations.

EXECUTIVE/CORPORATE--Company flying with a paid, professional crew.

FERRY--Non-revenue flight under a special flight or "ferry" permit. Refer to 14 CFR 21.197 for details of special flight permit issuance.

FLIGHT TEST--Flight for the purpose of investigating the flight characteristics of an aircraft/aircraft component or evaluating an applicant for a pilot certificate or rating.

INSTRUCTIONAL--Flying while under the supervision of a flight instructor or receiving air carrier training. Personal proficiency flight operations and personal flight reviews, as required by federal air regulations, are excluded.

OTHER WORK USE--Miscellaneous flight operations conducted for compensation or hire such as construction work (not 14 CFR Part 135 operation), parachuting, aerial advertising, towing gliders, etc.

PERSONAL--Flying for personal reasons (excludes business transportation) including pleasure or personal transportation. This also includes practice or proficiency flights performed under flight instructor supervision and not part of an approved flight training program.

POSITIONING--Non-revenue flight conducted for the primary purpose of relocating the aircraft. Examples include moving the aircraft to a maintenance facility or to load passengers or cargo etc.

UNKNOWN--Use only if the primary purpose of flight is not known.

Other Aircraft--Collision: For all accidents involving a collision with another aircraft, including parked aircraft, check "Collision with other aircraft" under Basic Information and complete this section indicating details about the OTHER aircraft involved in the collision.

Airport Information: Complete this section if the accident/incident occurred on approach, landing, takeoff, departure, or within 3 statute miles of an airport. Please refer to the FAA Airport/Facility Directory or other official source for airport information.

Airport Identifier: Provide the official 3 or 4 character airport identifier number.

Runway: Indicate the number of the runway used, including L, R, or C if applicable.

Runway/Landing Surface: Indicate the type of intended runway/landing surface (do not indicate surface conditions). If the surface type was mixed, check all that apply.

Condition of Runway/Landing Surface: Indicate the condition of the intended runway/landing surface. If multiple conditions existed at the time of the accident, check all that apply.

Weather Information at the Accident/Incident Site: Indicate the weather conditions reported at the accident/incident site at the time of occurrence. If no weather reporting was available for the accident/incident site, indicate the reported conditions at the nearest reporting site. Specify the weather reporting site identifier, the observation time, and distance from the accident/incident.

Sky/Lowest Cloud Condition: Indicate the height above ground level of the lowest cloud condition present at the time of the accident/incident and whether coverage was reported as few, scattered, broken or overcast. Also indicate the height above ground level and coverage of the lowest cloud ceiling present at the time of the accident/incident (reported as broken or overcast).

NOTAMs (D and FDC), AIRMETs, SIGMETs, PIREPs: Describe all NOTAMs (distant (D) or Flight Data Center (FDC), if known), AIRMETs, SIGMETs, and PIREPs in effect near the accident/incident.

Flight Crewmember Information: Indicate the category that best describes the capacity served by this flight crewmember at the time of the accident. The designators "Flight Crewmember 1" and "Flight Crewmember 2" do not refer to a specific pilot position or responsibility. If more than one pilot is aboard, they may be entered in any order and their capacity entered as appropriate.

Degree of Injury: See Definitions on the top half of Page 1 of the instructions. Minor injury is not defined. If an injury does not meet the criteria for another injury category, select Minor.

Date of Last Flight Review or Equivalent: Enter the date of the most recent flight review, or equivalent, completed by this pilot. Refer to 14 CFR 61.56 for accepted equivalents.

Type Ratings: List all type ratings on the pilot certificate. If the pilot holds no type ratings indicate "none." If the pilot holds a pilot certificate other than student and was flying an aircraft requiring an endorsement, enter the type and date of any logbook endorsement(s) for that aircraft. See 14 CFR 61 for examples of required endorsements.

Student Endorsements: If the pilot holds a student pilot certificate, enter all solo endorsements and dates on the student pilot certificate.

Flight Time: Complete the flight time matrix. Solo flight time should be included as "Pilot-in-Command (PIC)" and all dual flight instruction given should be included as "Time as Instructor."

Additional Flight Crewmembers: Complete this section if there were more than two required flight crewmembers on the aircraft. This also includes a check airman performing official duties but does not include cabin crew. State the capacity served by each included crewmember at the time of the accident.

Passenger(s)/Other Personnel: Enter identification and injury severity information for all passengers, cabin crew, and other personnel involved in the accident. See Page 1 of the instructions for the official definition of injury levels.

Several questions throughout the form allow for multiple responses; when appropriate, choose all responses that apply.

These instructions only pertain to major issue areas covered by NTSB Form 6120.1 Pilot/Operator Aircraft Accident/Incident Report. For additional definitions of questions and responses, please refer to www.nts.gov.

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: Cold Spring State: TX
 ZIP: 77331 Country: USA
 Latitude: N 30.5781 Longitude: W 95.2394
 (Enter in decimal degrees or degrees:minutes:seconds)

Accident/Incident Date/Time

Date: May 05/07/2023 Local Time: 12:30
 mm/dd/yyyy Time Zone: Central

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

AIRCRAFT INFORMATION

Registration Number: N28HE

Manufacturer: Piper

Model: Seneca

Serial Number: 34-7350278

Year of Manufacture: _____

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

☒ IFR-Equipped and Certified

☐ Commercial Space Flight

☐ Unmanned Aircraft

Maximum Gross Weight: 4200 lbs

Weight at Time of Accident/Incident: _____ lbs

Number of Seats: 3 Flight Crew Seats: 2

Cabin Crew Seats: _____ Passenger Seats: 1

Number of Engines: 2

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

☐ Other Launch/Recovery System

☐ None

☐ Tailwheel

☐ High Skid

☐ Skid

☐ Ski

☐ Ski/Wheel

☐ 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 ☒ Horsepower or ☐ lbs of Thrust	Total Time (hours)	Time Since: Inspection (hours) Overhaul (hours)
Eng. 1	<u>Lycoming</u>	<u>P-360</u>			<u>200</u>		
Eng. 2	<u>Lycoming</u>	<u>P-360</u>			<u>200</u>		
Eng. 3							
Eng. 4							

Last Inspection Type

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

Date Last Inspection: 02/07/2023
 mm/dd/yyyy

Airframe Total Time: _____ 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: Hach Hartzel

Model: _____

Propeller 2

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

Manufacturer: Hartzel

Model: _____

ELT Installed: ☒ Yes ☐ No

If Yes:

ELT Manufacturer: _____

Model or Part No.: _____

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: _____

"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: John City of Residence: Montgomery
 Middle Initial: J State: TX ZIP: 77316
 Last Name: Bluma Country: USA
 Age at time of Accident/Incident: 69 Date of Birth: 1/9/53 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 <table border="0"> <tr> <th>Available</th> <th>Used</th> </tr> <tr> <td>☐ None</td> <td>☐ None</td> </tr> <tr> <td>☐ Lap only</td> <td>☐ Lap only</td> </tr> <tr> <td>☒ 3-point</td> <td>☒ 3-point</td> </tr> <tr> <td>☐ 4-point</td> <td>☐ 4-point</td> </tr> <tr> <td>☐ 5-point</td> <td>☐ 5-point</td> </tr> <tr> <td>☐ Unknown</td> <td>☐ Unknown</td> </tr> </table>		Available	Used	☐ None	☐ None	☐ Lap only	☐ Lap only	☒ 3-point	☒ 3-point	☐ 4-point	☐ 4-point	☐ 5-point	☐ 5-point	☐ Unknown	☐ Unknown	Inflatable Restraints ☒ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown
Available	Used																			
☐ None	☐ None																			
☐ Lap only	☐ Lap only																			
☒ 3-point	☒ 3-point																			
☐ 4-point	☐ 4-point																			
☐ 5-point	☐ 5-point																			
☐ Unknown	☐ Unknown																			
Pilot Certificate(s) (Check all that apply) ☐ None ☒ Flight Instructor ☐ Commercial ☐ US Military ☐ Private ☐ Recreational ☒ Airline Transport ☐ Foreign ☐ Student ☐ Sport ☐ Flight Engineer																				
Principal Occupation ☒ Pilot ☐ Other ☐ Unknown		Medical Certificate ☐ None ☐ Class 3 ☐ Class 1 ☐ Driver's License (Sport Pilot only) ☒ Class 2 ☐ Unknown		Medical Certificate Validity ☐ Without limitations/waivers ☒ Unknown ☐ With limitations/waivers ☐ N/A ☐ Special Issuance		Date of Last Medical <u>08/19/2022</u> mm/dd/yyyy														

Medical Certificate Limitations

must wear corrective lenses, possess glasses for near/intermediate vision. Not valid for any class after 8/31/2023

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 ☒ Airplane Single-Engine ☒ Airplane Multi-Engine ☐ Gyroplane ☐ Powered Lift ☒ Instrument Airplane ☐ Instrument Helicopter ☐ Helicopter ☐ Glider ☐ Sport
Type Ratings <u>B-727, B-737, B-757, B-767 + B-777</u>			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										
Pilot in Command (PIC)										
Time as Instructor										
This Make/Model										
Last 90 Days										
Last 30 Days										
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: Darlene Woodfel ^{CR}

City of Residence: Magnolia

Middle Initial: A

State: TX ZIP: 77355

Last Name: Woodfel

Country: USA

Age at time of Accident/Incident: 21 Date of Birth: 1/2001 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 <table border="0"> <tr> <th>Available</th> <th>Used</th> </tr> <tr> <td>☐ None</td> <td>☐ None</td> </tr> <tr> <td>☐ Lap only</td> <td>☐ Lap only</td> </tr> <tr> <td>☒ 3-point</td> <td>☒ 3-point</td> </tr> <tr> <td>☐ 4-point</td> <td>☐ 4-point</td> </tr> <tr> <td>☐ 5-point</td> <td>☐ 5-point</td> </tr> <tr> <td>☐ Unknown</td> <td>☐ Unknown</td> </tr> </table>		Available	Used	☐ None	☐ None	☐ Lap only	☐ Lap only	☒ 3-point	☒ 3-point	☐ 4-point	☐ 4-point	☐ 5-point	☐ 5-point	☐ Unknown	☐ Unknown	Inflatable Restraints ☒ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	
Available	Used																				
☐ None	☐ None																				
☐ Lap only	☐ Lap only																				
☒ 3-point	☒ 3-point																				
☐ 4-point	☐ 4-point																				
☐ 5-point	☐ 5-point																				
☐ Unknown	☐ Unknown																				
Pilot Certificate(s) (Check all that apply) ☐ None ☐ Flight Instructor ☒ Commercial ☐ US Military ☐ Private ☐ Recreational ☐ Airline Transport ☐ Foreign ☐ Student ☐ Sport ☐ Flight Engineer																					
Principal Occupation ☐ Pilot ☐ Other ☒ Unknown		Medical Certificate ☐ None ☐ Class 3 ☒ Class 1 ☐ Driver's License (Sport Pilot only) ☐ Class 2 ☐ Unknown		Medical Certificate Validity ☐ Without limitations/waivers ☒ Unknown ☐ With limitations/waivers ☐ N/A ☐ Special Issuance		Date of Last Medical <u>05/01/2020</u> mm/dd/yyyy															

Medical Certificate Limitations

None

Medical Certificate Special Issuance

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks: 08/05/2022
mm/dd/yyyy

Flight Review Aircraft

Make: Cessna

Model: 172M

Airplane Rating(s) (Check all that apply) ☐ None ☒ Single-Engine Land ☐ Single-Engine Sea ☐ Multiengine Land ☐ Multiengine Sea		Other Aircraft Rating(s) (Check all that apply) ☐ None ☐ Airship ☐ Balloon ☐ Glider ☐ Gyroplane ☐ Helicopter ☐ Powered Lift		Instrument Rating(s) (Check all that apply) ☐ None ☒ Airplane ☐ Helicopter ☐ Powered Lift		Instructor Rating(s) (Check all that apply) ☐ None ☒ Airplane Single-Engine ☐ Airplane Multi-Engine ☐ Gyroplane ☐ Powered Lift ☐ Instrument Airplane ☐ Instrument Helicopter ☐ Helicopter ☐ Glider ☐ Sport	
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Type Ratings

none

Student Endorsements (Include dates)

Flight Time (Enter appropriate number of hours in each box)	All Aircraft	This Make & Model	Airplane Single Engine	Airplane Multiengine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time										
Pilot in Command (PIC)										
Time as Instructor										
This Make/Model										
Last 90 Days										
Last 30 Days										
Last 24 Hours										

ADDITIONAL FLIGHT CREWMEMBERS (Exclusive of cabin crew, complete the following information)

Crew Name and Address	Seat Occupied	Injury
First Name: _____ City of Residence: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____	☐ Left ☐ Front ☐ Center ☐ Rear ☐ Right ☐ Single ☐ Unknown	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown
Pilot Certificate(s) (Check all that apply) ☐ None ☐ 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	Seat Occupied	Injury
First Name: _____ City of Residence: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____	☐ Left ☐ Front ☐ Center ☐ Rear ☐ Right ☐ Single ☐ Unknown	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown
Pilot Certificate(s) (Check all that apply) ☐ None ☐ 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	

PASSENGER(S) / OTHER PERSONNEL (Include cabin crew, continue on separate sheet if necessary)

Name and Address	Seat	Injury	Restraint Type	Inflatable Restraints	Age
First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other	☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown
First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other	☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown
First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other	☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown
First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other	☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown

FLIGHT ITINERARY INFORMATION				
Last Departure Point Airport ID: <u>KCXO</u> City: <u>Conroe</u> State: <u>Texas</u> Country: <u>USA</u>		Time of Departure Time: <u>1230 PM</u> Time Zone: <u>Central</u>		Destination Airport ID: <u>KCXO</u> City: <u>Conroe</u> State: <u>Texas</u> Country: <u>USA</u>
Type Flight Plan Filed ☒ None ☐ Company VFR ☐ Military VFR ☐ VFR ☐ VFR/IFR ☐ IFR ☐ Unknown ☐ VFR Activated? ☐ Yes ☒ No ☐ Unknown				
Type of ATC Clearance/Service (Check all that apply) ☒ None ☐ VFR ☐ Special VFR ☐ IFR ☐ Special IFR ☐ VFR On Top ☐ VFR Flight Following ☐ Traffic Advisory ☐ Cruise ☒ Unknown / NA				
Airspace where the accident/incident occurred (Check all that apply) ☐ Class A ☐ Class B ☐ Class C ☐ Class D ☐ Class E ☒ Class G ☐ Demo Area ☐ Warning Area ☐ Prohibited Area ☐ Restricted Area ☐ Military Operations Area (MOA) ☐ Airport Advisory Area ☐ Jet Training Area ☐ TRSA ☐ FAR 93 ☐ Special ☐ Air Traffic Control Area ☐ Unknown Altitude of In-Flight Occurrence: <u>3500</u> ft msl				
WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE				
Source of Pilot Weather Information (Check all that apply) ☐ National Weather Service ☐ Flight Service Station ☐ TV/Radio ☐ Automated Report ☐ Commercial Weather Service (DUATS) ☐ On-Board Weather ☐ Company ☐ Military ☐ Internet ☐ None ☒ Unknown			Weather Observation Facility Facility ID: _____ Observation Time: _____ Time Zone: _____ Distance from Accident Site: _____ nm Direction from Accident Site: _____ degrees true	
Basic Conditions ☒ VMC ☐ IMC ☐ Unknown		Light Condition ☐ Dawn ☒ Day ☐ Dusk ☐ Night ☐ Dark Night ☐ Bright Night ☐ Unknown		
Sky/Lowest Cloud Condition ☐ Clear ☐ Few ☐ Partial Obscuration ☐ Scattered ☐ Thin Broken ☐ Thin Overcast ☐ Unknown Lowest Cloud Condition Height _____ ft agl		Ceiling ☐ None (Clear) ☐ Broken ☐ Overcast ☐ Obscured ☐ Indefinite ☐ Unknown Ceiling Height _____ ft agl		
Wind Direction ☐ Variable -or- Direction: _____ degrees true		Wind Speed ☐ Calm ☐ Light and Variable -or- Speed: _____ kts		Wind Gusts ☐ Not Gusting -or- Speed: _____ kts
Intensity of Precipitation ☐ Light ☐ Moderate ☐ Heavy ☒ N/A ☐ Unknown		Type of Precipitation (Check all that apply) ☒ None ☐ Rain ☐ Snow ☐ Hail ☐ Rain Showers ☐ Drizzle ☐ Ice Pellets ☐ Snow Pellets ☐ Snow Grains ☐ Ice Crystals ☐ Freezing Rain ☐ Snow Shower ☐ Ice Pellets Shower ☐ Freezing Drizzle		Restriction to Visibility (Check all that apply) ☒ None ☐ Blowing Dust ☐ Blowing Sand ☐ Blowing Snow ☐ Blowing Spray ☐ Dust ☐ Fog ☐ Ground Fog ☐ Haze ☐ Ice Fog ☐ Smoke ☐ 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: 				

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)

Aircraft is a total loss. Open field has skid + debris field

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.

John Blum's is attached.

Darlene Woelfel - Has not returned any calls. Multiple Attempts

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

Operator/Owner Safety Recommendation

Replacing all bolts, castle nut + cotter pins on the Anti-servo tab for all Senecas in the fleet. Inspecting all removed for any anomalies.

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 INFORMATIONFuel on Board at Last Takeoff
(Convert from pounds, as necessary)

_____ 98 Gallons

Fuel Type

☐ 80/87☒ 100 Low Lead☐ 100/130☐ 115/145☐ Jet A☐ Jet A-1☐ Jet B☐ JP8☐ Automotive☐ Other, specify _____

Other Services, if Any, Prior to Departure

None

EVACUATION OF AIRCRAFTWas an emergency evacuation of the aircraft performed? ☐ Yes ☐ No

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

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

05/17/2023
mm/dd/yyyy

Name of Pilot/Operator: _____

Signature: _____

-- or -- ☐ Check here to electronically sign this document

If a Person Other than Pilot/Operator is Filing Report

Name: Christopher Ramey

Signature: _____

-- or -- ☐ Check here to electronically sign this documentTitle: V.P. + Chief Flight Instructor**FOR NTSB USE ONLY**NTSB Accident/Incident No.
CEN23LA172Reviewed by NTSB Regional Office
CentralName of Investigator
S. WilliamsDate Report Received
5/18/2023

US Aviation Academy

#920

Ticket Details

Status	Priority	Source	Type
Open	Low	Portal	Flight Operations
Group	Agent	Location	Date of Occurrence
CXO Flight Staff	Unassigned	KCXO	3 May, 2023
Tail Number	Instructor/Employee Name	Student/Customer Name	Risk Assessment
N28HE	John Blum	Darlene Woelfel	4
		Frequency (Likelihood to Occur)	Overall Safety Rating (Risk X Frequency)
		1 (Highly Unlikely)	4
Injury to Personnel Occurred	Physical Damage to Aircraft	Suggested Solutions	Submitted to Insurance?
Injury (Requiring Treatment)	Yes (Attach Photo if Possible)	Without knowing the cause(s) of this event it is difficult to suggest solutions. However, it is apparent that training and experience plays a part in mitigating the severity of an in-flight control problem. Also, following policy and procedures, such as identifying a landing spot before maneuvers, can come in handy and cut down on planning time in the heat of battle. Training in emergency landings should be more than simulating an engine failure, picking a landing spot, and descending to 500 AGL. Part of the training should include considerations of energy management, airplane configuration, fire	If Damage but Not Submitted, Why?
			Work Order # - For Insurance Claims
			Aircraft Insured Value
			Estimated Cost of Incident
			Description of Resolution
			Change in Company Policy
			Description of Change to Company Policy
			Reporting Category

John Blum's
Safety ticket submission.

mitigation, and personal injury. Some consideration should be given getting out and away from the airplane. Pitch and power should be taught in more depth to understand what the airplane wants to do and what to do if it is not being agreeable.

Understanding what generates a phugoid or dutch roll and how to counter them is a useful tool for airmanship. Was this a mechanical failure due to age of the plane? Was it a one-off for this particular plane or possible in the entire fleet? More can be learned after official reports and reviews are submitted.

by **Jennifer Blum** on **Tue, 16 May at 10:43 AM** via **Portal**

Flight Control Failure

On May 3, 2023 I was scheduled to conduct a Multi Engine Add-On EOC flight with Darlene Woelfel in N28HE starting at 1230 CDT. We met in dispatch and reviewed paperwork and discussed the plan for the EOC flight. Darlene was well prepared. We then headed out to the ramp for the preflight. On the way I retrieved the aircraft key from the key keeper. At the airplane I queried Darlene about certain systems and preflight items as we progressed thru the preflight inspection. we then boarded the aircraft and began the EOC. We left the USAA ramp at approximately 1250 CDT. Traffic was moderate at the airport, but we got to the RWY 14 runup area without any delays. Runup was complete at approximately 1305 CDT, and we requested a northeast departure from CXO tower. Takeoff clearance was received, and we departed about 1310 CDT and made a left turn out to a heading of about 045 and climbed to 3500MSL. When clear of the CXO Class D and at 3500 MSL we prepared for the first maneuver, steep turns. SP tuned to the Practice Area frequency and announced our presence then completed the CCMALS (clearing turns). Steep turns were completed within standards. I then asked Darlene to slow to blue line speed and then we configure for some slow flight maneuvering in clean and dirty

configurations. (Note: I included a summary of our flight up to this point to indicate that all systems were working perfectly with no adverse feedback as to aircraft control.)

Upon reaching a speed near Vyse, there was a loud metallic bang from the tail of the airplane and the control wheel abruptly slammed full nose-up. The aircraft pitched rapidly up, and the stall warner went off as we entered an accelerated stall. I told Darlene that "I have the controls" and began an attempt to recover from the stall. I applied full power and tried to control the nose attitude to avoid a spin and recover from the stall. When full power was applied there was another bang from the tail and the nose pitched abruptly straight down. The elevator force was so significant that the elevator could not be manually moved. I pulled power back to idle and there was another bang from the tail and we started to pitch up uncontrollably. But, did not add power and the pitch up went to a pitch down, but not as severe. I was able to use the power to dampen the pitch oscillations and keep us flying, but the banging noises increased in frequency and each time the airplane wanted to abruptly pitch in the opposite direction. It was a similar sensation if we were flying straight and level and inputted full up then full down elevator (stabilator) deflections.

While I was trying to find the control/power inputs that would best stabilize our flight, I asked Darlene to send out a Mayday on the CXO Tower frequency. We needed to get our situation broadcast along with our position. It was becoming obvious that we couldn't make it back to any airport. She made an attempt at the radio call, but the g-loads were so abrupt that it was knocking our headsets off. She made a call and I heard the tower respond, but they asked us to repeat. We could not get another call made because of the airframe turbulence, but other aircraft in the pattern heard us and repeated our message I believe. Darlene tried to squawk 7700 but got 7600. I said close enough. I could only use 15" of manifold pressure to keep the pitch oscillations survivable. This was not enough to maintain altitude, so we were slowly descending. If power was added, we would have entered the severe phugoid-type sequence again and the oad factor coupled with the banging was a concern for structural integrity. Thankfully, this all started at a speed less than Va, giving us a better structural survival margin. We wondered what had happened. Did we have a midair collision, did we hit a bird, did a door come open, we had no clue.

It became very obvious that we couldn't make it to a runway and that if we added any power the uncontrolled pitch issues would accelerate and we could lose vertical control. The airframe turbulence continued with the incessant banging coming from the tail and a flight path that resembled a whale swimming.

We were flying over a fairly dense forest area. We had identified a small clearing during the previous CCMALS procedure and headed for it. I told Darlene that we should not extend landing gear or flaps for fear of changing the CG, center of lift, or tail forces that could drive us more vertical into the ground. In addition, the ground in this area is primarily a swamp or bog and after our recent rains we could stick our gear in the mud and flip. Our biggest obstacles to survival would be the angle of impact and any ensuing fire. The chosen landing site was small and surrounded by tall trees. At our current descent angle we were in line to possibly clipping the tops of the trees on the approach. The tops of the trees were not very solid so we accepted that as a way to dissipate some of our energy before touching down. After clipping the tree tops I pulled the mixtures to cutoff, but did not feather the props in order to add drag to our landing. The pitch dropped some, but we were still in a good attitude to touch down on our belly.

I noticed 300-400 fpm down on the VSI when we made initial ground contact. We bounced a few feet back into the air and our left wing hit a stump or a boulder and turned us about 45 degrees to the left. The second touch down was a slider and we came to a stop in soft ground. [REDACTED]

[REDACTED] I could not catch my breath since the control column had slammed into my chest. After about a minute, I tried to revive Darlene telling her we need to get away from the plane. It could catch fire at any moment. I reached over and turned off the Master Switch and the magnetos along with the gas valves.

I told Darlene I would get out on the wing and then pull her out. She was coming to and I noticed some severe lacerations to her head. My pants were covered with her blood. I got my energy together and released my seatbelt and had to knock the door out of the way. I threw the door over the right engine and got out onto the wing. I turned around and helped Darlene get out of her seatbelt and harness. I pulled her out onto the wing and dragged ourselves to a point about 45 degrees aft of the right wing and a distance of about 50 yards. It was a relatively dry spot and I ran out of energy. [REDACTED]

[REDACTED] I laid backwards on the ground and found my cell phone in my pants pocket and called 911. While staying on the line with the 911 Dispatcher, I looked up in the sky and a US Aviation C172 was orbiting our location. The dispatcher advised that our airplane was relaying information to first responders via Conroe tower.

I gave Darlene the phone to keep her in touch with the 911 Dispatcher. She also wanted to call her parents. It was about 30-40 minutes for the police, fire, and medical personnel to arrive. We were prepped and carried about a quarter mile out of the mud bog to the ambulance. It was decided that Darlene would be transported via helicopter and I would go via ambulance. Both of us went to Conroe Regional Hospital.

My injuries consisted of [REDACTED] Darlene's injuries consisted of [REDACTED]

I was interviewed by Mr. Robert McGee of the IAH FSDO the next morning. Mike Sykes was present at the hospital when Mr. McGee arrived, but was visiting Darlene during the interview. My wife did video my interview on her phone and the recording is available. I told the FAA Inspector that I was on pain medication and would try to remember the best I could. [REDACTED]

I was interviewed via phone by Sean Williams of NTSB the afternoon of May 9, 2023. He informed me that a preliminary report should be issued within a week to 10-days.
