

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: Livingston State: Mt

ZIP: 59047 Country: usa

Latitude: 45.43n Longitude: 110.66w

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

Accident/Incident Date/Time

Date: 07/23/2022 Local Time: 10:14
mm/dd/yyyy

Time Zone: mdt

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

AIRCRAFT INFORMATION

Registration Number: 2482W

Manufacturer: Schweizer

Model: 2-33

Serial Number: 36

Year of Manufacture: 1967

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

☐ IFR-Equipped and Certified

☐ Commercial Space Flight

☐ Unmanned Aircraft

Maximum Gross Weight: 1040 lbs

Weight at Time of Accident/Incident: 1000 lbs

Number of Seats: 2 Flight Crew Seats: 2

Cabin Crew Seats: 0 Passenger Seats: 0

Number of Engines: 0

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
☐ 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. mm/dd/yyyy	Rated Power ☐ Horsepower or ☐ lbs of Thrust	Total Time (hours)	Time Since: Inspection (hours)	Overhaul (hours)
Eng. 1								
Eng. 2								
Eng. 3								
Eng. 4								

Last Inspection Type

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

Date Last Inspection: 05/17/2022
mm/dd/yyyy

Airframe Total Time: 4209 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: na

Model: _____

Propeller 2

- ☐ Fixed Pitch
☐ Controllable Pitch
☐ Ground Adjustable

Manufacturer: na

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: BIG SKY JET, INCCity: BozemanFractional Ownership Aircraft: ☐ Yes ☒ NoState: MT ZIP: 59718Country: 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: Flying Y RanchDistance From Airport Center: 1/2 smAirport Identifier: MT48Direction From Airport: 210 degrees trueProximity to Airport: ☐ Off Airport/Airstrip ☒ On Airport/Airstrip ☐ N/AAirport Elevation: 4850 ft. msl**Runway Information**Runway ID: 03 (L/R/C) Length: 5,500 ft Width: 175 ft**Runway/Landing Surface** (Check all that apply)

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

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

- ☒ Dry ☐ Snow-Compacted ☐ Water-Calm
☐ Holes ☐ Snow-Crusted ☐ Water-Choppy
☐ Ice Covered ☐ Snow-Dry ☐ Water-Glassy
☐ Rough ☐ Snow-Wet ☐ Wet
☐ Rubber Deposits ☐ Soft
☐ Slush-Covered ☒ Vegetation ☐ Unknown

Approach/Departure Segment (Select one)

- ☐ Taxi ☐ VFR Departure ☐ On Instrument Approach ☐ Downwind ☐ Low Approach
☐ Takeoff ☐ IFR Departure Procedure/Clearance ☒ Landing ☐ Base ☐ Go Around
☐ Initial Climb ☐ Aborted Landing (after touchdown)
☐ Crosswind ☐ Unknown

IFR Approach (Check all that apply)

- ☒ None
☐ ADF/NDB ☐ PAR ☐ MLS ☐ Practice
☐ SDF ☐ Sidestep ☐ LDA ☐ GPS
☐ VOR/TVOR ☐ ILS ☐ ASR
☐ VOR/DME ☐ Localizer Only ☐ Visual
☐ TACAN ☐ LOC-back course ☐ Contact
☐ RNAV ☐ Circling

☐ Unknown

VFR Approach (Check all that apply)

- ☐ None
☐ Traffic Pattern ☐ Stop and Go
☐ Straight-In ☐ Touch and Go
☐ Valley/Terrain Following ☐ Simulated Forced Landing
☐ Go Around ☐ Forced Landing
☒ Full Stop ☐ Precautionary Landing

☐ Unknown

"FLIGHT CREWMEMBER 1" INFORMATION

"Flight Crewmember 1" Responsibilities at the Time of Accident/Incident

☐ Pilot
 ☐ Co-Pilot
 ☐ Student Pilot
 ☒ Flight Instructor
 ☐ Check Pilot
 ☐ Flight Engineer
 ☐ Other Flight Crew

"Flight Crewmember 1" was pilot flying ☐ Yes ☐ No

"Flight Crewmember 1" Identification

First Name: James City of Residence: Bozeman
 Middle Initial: S State: Mt ZIP: 59715
 Last Name: Norem Country: usa
 Age at time of Accident/Incident: 70 Date of Birth: 1951 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	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

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

none
 mm/dd/yyyy

Medical Certificate Limitations

na

Medical Certificate Special Issuance

na

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

05/16/2021
 mm/dd/yyyy

Flight Review Aircraft

Make: Schweizer
 Model: 2-33

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

A/CE-500

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	4,061	51	1,789	2,092	632	258	57		180	
Pilot in Command (PIC)	2,646	49								
Time as Instructor	9	49	60	0					78	
This Make/Model										
Last 90 Days	27	24	0	0					27	
Last 30 Days	14	11	0	0					14	
Last 24 Hours	0	0	0	0					0	

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 ☐ Private ☐ Recreational ☐ Student ☐ Sport ☐ Commercial ☐ US Military ☐ Airline Transport ☐ Foreign ☐ 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 ☐ Private ☐ Recreational ☐ Student ☐ Sport ☐ Commercial ☐ US Military ☐ Airline Transport ☐ Foreign ☐ 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>MT 48</u> City: <u>Livingston</u> State: <u>MT</u> Country: <u>usa</u>	Time of Departure Time: <u>1000</u> Time Zone: <u>MDT</u>	Destination Airport ID: <u>MT 48</u> City: <u>Livingston</u> State: <u>MT</u> Country: <u>USA</u>	Type Flight Plan Filed ☒ None ☐ VFR/IFR ☐ Company VFR ☐ IFR ☐ Military VFR ☐ Unknown ☐ VFR Activated? ☐ Yes ☐ No ☐ Unknown
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Type of ATC Clearance/Service (Check all that apply)

☒ None	☐ Special VFR	☐ Special IFR	☐ VFR Flight Following	☐ Cruise
☐ VFR	☐ IFR	☐ VFR On Top	☐ Traffic Advisory	☐ Unknown / NA

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

☐ Class A ☐ Class 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: _____ ft msl
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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: not available but weather was clear

Observation Time: _____

Time Zone: _____

Distance from Accident Site: _____ nm

Direction from Accident Site: _____ degrees true

Basic Conditions

☒ VMC
☐ IMC
☐ Unknown

Light Condition

☐ Dawn ☐ Dusk ☐ Dark Night ☐ Unknown
☒ Day ☐ Night ☐ Bright Night

Sky/Lowest Cloud Condition

☒ Clear ☐ Thin Broken
☐ Few ☐ Thin Overcast
☐ Partial Obscuration ☐ Unknown
☐ Scattered

Lowest Cloud Condition Height

none ft agl

Ceiling

☒ None (Clear) ☐ Obscured
☐ Broken ☐ Indefinite
☐ Overcast ☐ Unknown

Ceiling Height

none ft agl

Temperature: _____ (C) or 70 (F)

Dew Point: unknown (C) or _____ (F)

Altimeter Setting: unknown in. Hg
or _____ MB

Wind Direction

☒ Variable

-or-
Direction: _____ degrees true

Wind Speed

☒ Calm
☐ Light and Variable

-or-
Speed: _____ kts

Wind Gusts

☒ Not Gusting

-or-
Speed: _____ kts

Visibility 100 miles

RVR: _____ feet

RVV: _____ miles

Density Altitude: 5,500 ft

Intensity of Precipitation

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

Type of Precipitation (Check all that apply)

☒ None	☐ Drizzle	☐ Freezing Rain
☐ Rain	☐ Ice Pellets	☐ Snow Shower
☐ Snow	☐ Snow Pellets	☐ Ice Pellets Shower
☐ Hail	☐ Snow Grains	☐ Freezing Drizzle
☐ Rain Showers	☐ Ice Crystals	

Restriction to Visibility (Check all that apply)

☒ None	☐ Fog
☐ Blowing Dust	☐ Ground Fog
☐ Blowing Sand	☐ Haze
☐ Blowing Snow	☐ Ice Fog
☐ Blowing Spray	☐ Smoke
☐ Dust	☐ Unknown

Icing Forecast

Amount	Type
☒ None	☐ N/A
☐ Trace	☐ Rime
☐ Light	☐ Clear
☐ Moderate	☐ Mixed
☐ Severe	☐ Unknown
☐ Unknown	

Icing Actual

Amount	Type
☒ None	☐ N/A
☐ Trace	☐ Rime
☐ Light	☐ Clear
☐ Moderate	☐ Mixed
☐ Severe	☐ Unknown
☐ Unknown	

Turbulence

Type (Check all that apply)	Severity
☒ None	☐ Light
☐ Clear Air	☐ Moderate
☐ Terrain-Induced	☐ Severe
☐ Convective Turbulence	☐ Extreme

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

none

DAMAGE TO AIRCRAFT AND OTHER PROPERTY**Aircraft Damage**

- ☐ None ☐ Substantial
☒ Minor ☐ Destroyed
 ☐ Unknown

Aircraft Fire

- ☒ None ☐ Both Ground and In-Flight
☐ In-Flight ☐ Fire at Unknown Time
☐ On-Ground ☐ Unknown

Aircraft Explosion

- ☒ None ☐ Both Ground and In-Flight
☐ In-Flight ☐ Explosion at Unknown Time
☐ On-Ground ☐ Unknown

Description of Damage to Aircraft and Other Property *(Use additional sheet if necessary)*

Tail wheel was ripped off . 2 longerons, one vertical post, and one stringer were broken or bent at tailwheel attach point. Fabric forward of landing gear was ripped open about 12 inches. See attached photos.

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.

Departure time, location, destination and take off times are all listed above. It was intended to be a short training flight. Glider entered a downwind leg for runway 03 at Flying Y airport. From student statement:

"Flying Y 07.23.22

Ric Roche Student Pilot

Jim Norem Instructor

Ursula Howland Tow pilot

IMSAFE

Pre flight with no abnormalities, battery 12.9 v

Tow rope checked

Emergency plan verbalized

Jim Jonas did a first flight test of the day release check and ran the wing

Takeoff runway 3 with still winds, Smooth takeoff

Stayed low until tow plane was airborne then moved to high tow

200 feet verbalized

Air was relatively stable, tow went fine

Released 2,000 ' AGL, turned 30 ° right

Cleared tow plane

After a pause, executed and verbalized FUSTALL

Landing speed 50 MPH, runway 3

Moved east of the runway and circled left 270 to line up for downwind.

Glider Student statement

Radioed Flying Y traffic, "Flying Y traffic glider 2482 whiskey landing runway 3 right, Flying Y"

Used air breaks to get abeam the focus point, Point A, at 800'

Held speed @50 with slight dive breaks

Turning onto base it was difficult to see Point A with runway treatment

With no wind, I passed point B a little before turning onto base. I glanced at right wing to verify I was perpendicular to the runway. (Advice from Jim Norem on pre flight briefing).

I turned onto final a little early because I felt I was low. Being low I reduced dive breaks, slightly, but applied them before landing.

I lined up with the western grass edge of the runway, as instructed.

Touch down was not smooth, and slightly angled right, glider bounced and turned sharper right and I was unable to correct it before we went over the right side at approximately a 45 degree angle. At the bottom of the hill the right wing wheel hit the ground spinning us approximately 90 degrees clockwise, to the right.

Neither of us were injured.

Instructor statement: •After 32 flights with Ric I was, and had been, working with him to make decisions by himself. To work through problems and take corrective actions. On this flight, I should have been more proactive when he delayed turning base due to his confusion with the runway appearance. At that point I, wrongly, thought he could handle things himself.

•Up to this point Saturday's flight was problem free. I, wrongly, assumed the rest of it would be repeating what he had been doing in previous flights. I should have been expecting him to make a mistake and been surprised if he hadn't, rather than the reverse.

•Turning final, we were a little low at 300' agl and the airspeed was at 50 mph. Things were still manageable. Ric was expressing confusion with the runway and I was telling him to "just pick a reference point and use it" I should have taken control at this point but



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

Operator/Owner Safety Recommendation

I am the owner of both the accident aircraft and the airport. I am a glider DPE. I have approximately 5,000 hours in gliders and over 1,000 flights with students in 2-33s and other training gliders. I believe this accident was completely preventable. The landing Glider had adequate speed for aircraft control prior to runway excursion and the excursion could have been prevented.

One. Re instructor statement that he got his left foot caught. The instructor should have been prepared to assume control of the glider as soon as the glider entered the pattern. The 2-33 has foot wells in the rear seat into which the instructor would normally rest his feet. It is possible to rest your feet as instructor in the foot wells but remain clear of the pedals so as to not interfere with the front seat application of rudder pedals. (I do this routinely at this stage of flight no matter who I am flying with). Unfortunately the instructor was resting his feet behind the foot wells on a bar located slightly aft of the footwells and by his own admission, was not prepared to use rudder pedals prior to landing. I recommend any instructor in any glider be prepared to take control of aircraft, especially in critical phases of flight by resting the feet in the rudder pedal footwells but clear of the pedals. Further, I recommend instructor wear shoes that will not interfere with rudder pedal use.

Two. It is obvious the instructor did not recognize the deteriorating situation when the aircraft was on final. Instructor apparently did not recognize that student had raised the nose prematurely resulting in a loss of critical airspeed too high above the runway. Further, the instructor did not correct alignment of glider before it touched down the first time either verbally or by assisting on rudders. The instructor should have been more situationally aware and taken control of the glider much earlier in the approach prior to touch down. With airbrakes closed, the instructor could have corrected alignment, flown further down the runway in ground effect and landed the aircraft normally. I recommend any glider instructor be prepared to take over from student before the situation becomes critical and unrecoverable. +

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)

_____ Gallons

Fuel Type

☐ 80/87

☐ 100 Low Lead

☐ 100/130

☐ 115/145

☐ Jet A

☐ Jet A-1

☐ Jet B

☐ JP8

☐ Automotive

☒ Other, specify it's a glider. no fuel

Other Services, if Any, Prior to Departure

na

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

☐ Substantial

☐ Minor

☐ 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, Greg Mecklenburg, met with the student pilot, Ric Roche, at 10:00 this morning, 08-02-2022. Ursula Howland, the tow pilot was also present. Ursula was also a witness to the entire event and her statement is above. We asked the following questions and were given the following answers:

1. Did the instructor give any verbal direction during the final approach, landing or roll out? Answer-"No"
2. Did the instructor ever take control of the glider at any time. Answer "No"
3. Did instructor ever take control during landing or roll out? Answer -"No"
4. Did instructor ever say or announce "I have the controls"?- Answer "No"
5. Were you aware the rudder was causing glider to drift right? Answer "No. It all happened too fast."
6. Did instructor ever assist or offer to assist on the controls during the entire approach landing or roll out? Answer "No"
7. Even slightly before the excursion, did instructor make any attempt-either verbally or on controls-to take command of glider? Answer "No"
8. Did you as pilot ever apply right rudder or full right rudder during landing or roll out? Answer "No. Why would I? I didn't have difficulty with directional control on landing, take offs or tow recently." (In fact that is true. I have witnessed many of the student's landings. His problem has not been directional control but timing of round out and flare.)
9. Was there any verbal communication at all from your instructor from short final to the stopping of the glider? Answer "No"
10. So you as student had the controls the entire time. Correct Answer "Yes"

The question remains, Why did the glider drift hard to the right and eventually exit the runway at high speed. We know the rudder was applied hard to the right and kept there during the landing and roll-out. The only plausible explanation is that the instructor applied right rudder, perhaps unknowingly, while he was trying to free the left foot which was caught.

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE**Date of this Report**08-02-2022*mm/dd/yyyy***Name of Pilot/Operator:** Greg Mecklenburg**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.**WPR22LA270**Reviewed by NTSB Regional Office**OAS WPR**Name of Investigator**S. B. Johnson**Date Report Received**8/02/2022

Departure time, location, destination and take off times are all listed above. It was intended to be a short training flight. Glider entered a downwind leg for runway 03 at Flying y airport. From student statement:

"Flying Y 07.23.22

Ric Roche Student Pilot

Jim Norem Instructor

Ursula Howland Tow pilot

IMSAFE

Pre flight with no abnormalities, battery 12.9 v

Tow rope checked

Emergency plan verbalized

Jim Jonas did a first flight test of the day release check and ran the wing

Takeoff runway 3 with still winds, Smooth takeoff

Stayed low until tow plane was airborne then moved to high tow

200 feet verbalized

Air was relatively stable, tow went fine

Released 2,000 ' AGL, turned 30 ° right

Cleared tow plane

After a pause, executed and verbalized FUSTALL

Landing speed 50 MPH, runway 3

Moved east of the runway and circled left 270 to line up for downwind.

Glider Student statement

Radioed Flying Y traffic, "Flying Y traffic glider 2482 whiskey landing runway 3 right,

Flying Y"

Used air breaks to get abeam the focus point, Point A, at 800'

Held speed @50 with slight dive breaks

Turning onto base it was difficult to see Point A with runway treatment

With no wind, I passed point B a little before turning onto base. I glanced at right

wing to verify I was perpendicular to the runway. (Advice from Jim Norem on pre flight briefing).

I turned onto final a little early because I felt I was low. Being low I reduced dive breaks, slightly, but applied them before landing.

I lined up with the western grass edge of the runway, as instructed.

Touch down was not smooth, and slightly angled right, glider bounced and turned sharper right and I was unable to correct it before we went over the right side at approximately a 45 degree angle. At the bottom of the hill the right wing wheel hit the ground spinning us approximately 90 degrees clockwise, to the right.

Neither of us were injured.

Instructor statement: •After 32 flights with Ric I was, and had been, working with him to make decisions by himself. To work through problems and take corrective actions. On this flight, I should have been more proactive when he delayed turning base due to his confusion with the runway appearance. At that point I, wrongly, thought he could handle things himself.

- Up to this point Saturday's flight was problem free. I, wrongly, assumed the rest of it would be repeating what he had been doing in previous flights. I should have been expecting him to make a mistake and been surprised if he hadn't, rather than the reverse.

- Turning final, we were a little low at 300' agl and the airspeed was at 50 mph. Things were still manageable. Ric was expressing confusion with the runway and I was telling him to "just pick a reference point and use it". I should have taken control at this point, but wrongly believed he could handle it.

- My feet had been placed aft of the rudder pedals to give Ric full movement of them. Wrong, Wrong, Wrong. When we neared the ground I attempted to take over, but my left shoe sole got caught and prevented me from doing so. I will never, again, wear Vibram soled shoes when flying. They work great outside the plane, but are a real hazard inside of it.

- We landed harder than we should have because we were slow and slightly nose high. The left wing dropped as well. After that, Ric mashed the right rudder, the reasoning he did that totally escapes me, and off we went to the right side of the runway and beyond.

Tow pilot statement

I was at taxiway located 1500 feet from south end of runway where towplane is normally parked between flights. Observed glider enter downwind leg. Altitude looked about right. Glider proceeded on downwind with airbrakes deployed as normal. Base leg was also normal but could have been a little low. On the turn to final the glider now looked low and it would not make the normal landing area without

corrective action from pilot, but not a concern because normal landing is about 1300 feet beyond end of runway. At approximately 100 feet AGL the dive brakes got stowed, but now the nose was raised. Glider descent continued but glider was not aligned correctly with runway at touch down. It touched down hard with the wings level, slightly west of centerline but nose was yawed about 10 degrees to the right of flight path. Glider bounced back into the air and rudder was hard right. Rudder remained deflected to the right until Glider touched down second time, about 25 feet later, with nose further offset to the right. The left wing dropped and the wing wheel hit the ground. Glider continued on this right skidding projectile with wings level until it left runway and disappeared over edge on embankment at which time I lost sight of the glider.

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Three. Prior to exiting the runway to the right, the wing was banked to the left (almost dragging on the ground) which should have moved aircraft to the left. However, at the same time that the left wing was down (about 200 to 300 feet of roll), the rudder was hard over to the right. After the accident, while discussing what happened with the instructor, the instructor admitted he had no idea why the student had "mashed" the rudder to the right. It was the right rudder deflection that caused the excursion. In fact there is a question as to which pilot moved and held the rudder to the right. (See below) One of the pilots applied right rudder, possibly full right rudder, early in the landing roll out. It appears that neither pilot was correctly flying (if at all) the aircraft, when it left the runway. I recommend that any glider pilot or Instructor make every possible effort to maintain directional control the glider (in this case full left aileron and full left rudder) through out the roll out, and to NOT give up until the glider comes to a stop.