

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: Ryan Airfield, Tucson, State: AZ
 ZIP: 85735 Country: U.S.A.
 Latitude: _____ Longitude: _____
(Enter in decimal degrees or degrees:minutes:seconds)

Accident/Incident Date/Time

Date: 07/27/2021 Local Time: 0730
mm/dd/yyyy
 Time Zone: Mountain

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

AIRCRAFT INFORMATION

Registration Number: N 966EZ
 Manufacturer: Marcus P. Borom
 Model: Long EZE
 Serial Number: 966
 Year of Manufacture: 1986
 Amateur-Built: ☒ Yes ☐ No If Yes: ☒ Kit/Plans ☐ Original Design Make: Rutan

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

Maximum Gross Weight: 1425 lbs
 Weight at Time of Accident/Incident: 1350 est. 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/Serial	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	Lycoming	O-320			150			
Eng. 2								
Eng. 3								
Eng. 4								

Last Inspection Type

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

Date Last Inspection: _____
mm/dd/yyyy

Airframe Total Time: 1200 est. 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: _____

Model: Silver Bullet

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: Marcus P. BoromCity: TucsonState: AZ.ZIP: 85735 ?Fractional Ownership Aircraft: ☐ Yes ☒ NoCountry: U. S. A.**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: Ryan AirfieldAirport Identifier: KRYNProximity to Airport: ☐ Off Airport/Airstrip ☒ On Airport/Airstrip ☐ N/A

Distance From Airport Center: _____ sm

Direction From Airport: _____ degrees true

Airport Elevation: _____ ft. msl

Runway InformationRunway ID: 6R (L/R/C) Length: 5500 ft Width: 75 ft**Runway/Landing Surface** (Check all that apply)

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

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

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

Approach/Departure Segment (Select one)

- ☐ Taxi ☐ VFR Departure ☐ On Instrument Approach ☐ Downwind ☐ Low Approach
☐ Takeoff ☐ IFR Departure Procedure/Clearance ☒ Landing ☐ Base ☐ Go Around
☐ Initial Climb ☐ 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: Marcus

City of Residence: Tucson

Middle Initial: P.

State: AZ. ZIP: 85735 ?

Last Name: Borom

Country: U.S.A.

Age at time of Accident/Incident: 87 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

____ mm/dd/yyyy

Medical Certificate Limitations

Pilot was on Basic Med.

Medical Certificate Special Issuance**Date of Last Flight Review
or Equivalent, Including
FAR 121/135 Checks:**

08/ ?/19
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**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		1,200								
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: John

City of Residence: Tucson

Middle Initial: A.

State: AZ ZIP: 85750

Last Name: Dale

Country: U. S. A.

Age at time of Accident/Incident: 88 Date of Birth: 1933 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

06/15/2021
 mm/dd/yyyy

Medical Certificate Limitations

Basic Med. Last medical examination was by Dr. Dennis Thrasher, a certified AME.

Medical Certificate Special Issuance

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

06/27/2020
 mm/dd/yyyy

Flight Review Aircraft

Make: Bellanca

Model: 1413-2 (Cruisair Senior)

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

B-707, B-720, CV-240, CV-340, CV-440, FA-C119, FA-C123, L-382, N-B25, T-33.

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		521								
Pilot in Command (PIC)		521								
Time as Instructor										
This Make/Model										
Last 90 Days										
Last 30 Days										
Last 24 Hours										

FLIGHT ITINERARY INFORMATION

Last Departure Point Airport ID: <u>KRYN</u> City: <u>Tucson</u> State: <u>AZ</u> Country: <u>U.S.A.</u>	Time of Departure Time: <u>0656</u> Time Zone: <u>MTN.</u>	Destination Airport ID: <u>KRYN</u> City: <u>Tucson</u> State: <u>AZ</u> Country: <u>U.S.A.</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 G	☐ Military Operations Area (MOA)	☐ Special	Altitude of In-Flight Occurrence: _____ ft msl
☐ 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		

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: _____
 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

_____ ft agl

Ceiling

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

Ceiling Height

_____ ft agl

Temperature: _____ (C) or _____ (F)

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

Altimeter Setting: _____ 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 20+ miles

RVR: _____ feet

RVV: _____ miles

Density Altitude: _____ 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:

Only pertinent one was ATIS out of service.

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 landed flat very hard, dug in the nose and flipped inverted. I assume major damage. Ground impact occurred approx 500 feet ? before runway. No other property damage known.

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.

Previous to this flight I attempted to give the pilot a flight review in this aircraft but his actions on taxiing caused me to cancel the flight and recommend study of the AIM and FAR 91. I told him I hadn't given up on him and he asked me to fly with him to be sure he would pass a flight review. This would be great for me as I had not flown with him before and his abilities on taxiing did not impress me favorably. I told him to plan for at least an hour and that we would cover what would normally be required in a flight review. He adjusted the fuel load to accommodate my 180 lb. weight. The aircraft showed he knew his way around his aircraft, placement of various switches and the work accomplished. What I hadn't liked was the complete lack of instrumentation, power control, or complete flight control in the back seat and the very low "seating" arrangement caused by the placement and size of the installed cushions. Many Long EZE's are equipped in this manner but it really hampers your ability to be useful in any way should the need arise. Since I had no instrumentation and couldn't see his ASI I used a suction mount to attach a Dynon D 3 to the left side of the canopy. It didn't want to stay attached all the time due to the canopy curvature and of course it only provided ground speed but the winds were calm so it would have to do for my needs. Runup and comms were good and we took off on runway 33 at 06:56. I was startled by his rapid pitch up and left climbing turn continuing from the lift off as it is normal (for me at least) to raise the nose and hold the canard on the horizon until it flies off at around 80 kt. and accelerate to a cruise climb. He had told me he climbed at 85 kt. except on hot days when the oil temp. would get too hot unless he climbed at 120. My Dynon read 85 so I realized we were at his normal climb speed. He said he would head southwest and would level at 6500 where we could do some air work. I told him we'd try some stalls first as I wanted to see where my Dynon would read when the canard "bobbed". It bobbed at 60 and he said it's always around 60 so I said let's try some steep turns next. He was accelerating to his normal cruise speed of 150 kt. and I said let's try left first. He banked to around 60 deg. and then put in a huge pitch change as his altitude had started to drop just a bit. Of course the altitude rapidly increased and he put in forward stick to stop that which caused a near zero "G" feeling. He did this several times and he was not jerky or abnormally abrupt but the pitch inputs, both positive and negative greatly exceeded what I thought would be normal for the flight conditions. I asked him to ease up on his pitch inputs as they were uncomfortable in the back seat. He said OK, and thinking the flight controls or trim might be giving him a problem asked if I could try one. He said "sure, you have it". When I grasped the stick I found the trim was not taking care of the pressures for our speed but did not know where he had the trim set. I found the bird flew very nicely and was steady as a rock during my steep turn at what I assume was close to 60 degrees. I gave it back to him (still out of trim) and told him to try one to the right. He complied with much better pitch inputs than before and we hit our own turbulence. I asked him where he would put down if his engine quit and asked him to place the throttle in idle to simulate a failed engine. Use carb heat if you have it. He looked around and said "I can make Ryan from here". I saw Ryan off a ways on our right and said "It's try it". He called the tower and told them he was 16.5 southwest and requested a simulated engine out approach and landing. He was cleared to land 6R, call 2 miles. He had headed toward Ryan and was holding 140 kt. on my Dynon so I asked him what he was going to use as his best glide speed. He answered "85 kt." and hauled back on the pitch giving us a climb angle of I'd guess 20 or more deg. and when he reached 85 he pitched over to near zero "G" again. I then asked what he was going to use as a final approach speed and he said "80 to 85". Several times he got a little high on speed but got it back to 85 and he remarked "we're going to be high!". From my "hole in the back seat" I could tell only that we were heading for Ryan and asked him what he was going to do about it. "Use my air brake" and I felt him put it out. I asked him what else he could do to help descend and he said "use my rudders". Good answer. There was some chatter on the radio indicating other aircraft at Ryan and I could only tell we were probably lined up for 6R as I could see 6L on our left and some of the airfield on the right. I couldn't tell how high we were but noticed my Dynon had decreased to 76 kt. and said "your airspeed is getting low, use power if you need to be sure you make the runway" which I couldn't see, of course. I heard the power come up easy and hold for a few seconds then go full blast. I could see the left canard and the trailing edge was slightly down and then could see we were very near the ground. We "fell" I would guess about 20 feet and we hit flat extremely hard. I was moved off the cushions enough that I remember being able to look over the pilot and seeing the nose dig in and felt we were flipping. I can't remember anything of that flight after that.

I remember the Fire Dept. asking me as I lay in the ambulance "do you hurt anywhere?" I told them my neck hurt and they put a collar on me. That really hurt! Then they said "we are cutting your clothes off as you are soaked in gasoline!" I guess my Guardian Angel stays current!

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

I can't give recommendations from an owner/operator perspective but as the guy in back I'll say this: I checked with another Long EZE pilot/owner who knew the pilot and he had been to long EZE gatherings and watched him fly in and out and "not the best pilot but seemed safe". I checked with a CFI who had given him a flight review in his Long EZE and said he flew fine. That was some time ago and that CFI will not give flight reviews in any aircraft that does not have full controls available to him. I now know why and I'm doing the same. In my 68 years of flying (30 military) I've been scared, uncomfortable, and perplexed many times before and took actions I felt necessary to complete a flight safely. But... I could always see what was happening and this was not the case in this situation. His logs were current, a friend had seen him at another airfield just weeks before, airplane flew well, good engine, weather was near perfect, no bad comments on his flying ability, FAA certification, 1200 hours in an aircraft he had built, during ground discussions showed solid risk assessment, and demonstrated that by cancelling a flight. Once in the air however things sure changed. I wanted to get back on the ground and that was happening but I never thought he would not keep his airspeed up and land short of the runway. The aircraft was steady on final for the last few minutes with a slight wing down which I thought might be a slight slip to stay on glide slope which would be correct if he had been high as he stated previously. I had never heard or felt the air brake retract and since I couldn't see well enough to determine otherwise, I felt he knew what he was doing. That was until I saw the airspeed drop indicating he had started to slow and I didn't see runway or feel the nose start to rise in a flare. Power came in after my call but was obviously too late to help his situation. Hope my Dynon GPS can shed some light on the reason.

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)

I-20, R-18 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

I was not evacuated but was "extracted" from the wreckage. I was informed (I have no memory of my extraction) that pilots from aircraft in the run up area and close hangars saw the crash and came running. There was a lot of gasoline under the overturned aircraft. Someone saw my hand move and they lifted the wing, put it on a pickup as they could not hold it and get me out. They then dug and dragged me out from under the aircraft as I had been hollering "get me out of here". They Did!! God bless them!!

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

Aircraft Registration Number

Manufacturer: _____

Model: _____

Damage to Other Aircraft

☐ Destroyed ☐ Minor
☐ Substantial ☐ None

Registered Owner of Other Aircraft

Name: _____

City: _____

State: _____ ZIP: _____

Country: _____

Pilot of Other Aircraft

Name: _____

City: _____

State: _____ ZIP: _____

Country: _____

ADDITIONAL INFORMATION (Please type or print in ink)

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

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE**Date of this Report**08/02/2021*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:** John A. Dale**Title:** _____**Signature:** _____-- or -- ☐ Check here to electronically sign this document**FOR NTSB USE ONLY****NTSB Accident/Incident No.**

WPR21FA288

Reviewed by NTSB Regional Office

WPR-AS

Name of Investigator

Albert Nixon

Date Report Received

08/02/2021