

NATIONAL TRANSPORTATION SAFETY BOARD PILOT/OPERATOR AIRCRAFT ACCIDENT/INCIDENT REPORT

This form to be used for reporting civil and public use aircraft accidents and incidents

BASIC INFORMATION

Accident/Incident Location Nearest City/Place: <u>San Manuel</u> State: <u>AZ</u> ZIP: <u>85631</u> Country: <u>USA</u> Latitude: <u>32-38.37 N</u> (dd:mm:ss N/S) Longitude: <u>110-39.17 W</u> (ddd:mm:ss E/W)		Date/Time Date: <u>05/21/2018</u> Local Time: <u>8:40am</u> mm/dd/yyyy Time Zone: <u>MST</u>	
Phase of Operation ☐ Standing ☒ Takeoff (incl. initial climb) ☐ Cruise ☐ Hover ☐ Taxi ☐ Climb ☐ Maneuvering ☐ Other ☐ Descent ☐ Landing ☐ Approach ☐ Unknown		Collision with Other Aircraft ☐ Midair ☐ On-ground ☒ None	
		Altitude of In-Flight Occurrence <u>3,664</u> ft MSL	

AIRCRAFT INFORMATION

Manufacturer: <u>Rhoads</u> Model: <u>Auto Gyro MTO Sport</u> Serial Number: <u>M01223</u> Registration Number: <u>N574BR</u> Amateur-built: ☒ Yes ☐ No		Max Gross Weight: <u>1232</u> lbs Weight at Time of Accident/Incident: <u>1037</u> lbs Location of Center of Gravity at Time of Accident/Incident: <u>see attached</u> inches from ☐ nose or ☐ datum -or- Percent Mean Aerodynamic Cord (% MAC)	
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Category of Aircraft ☐ Airplane ☐ Balloon ☐ Blimp/Dirigible ☐ Glider ☒ Gyrocraft ☐ Helicopter ☐ Powered lift ☐ Ultralight ☐ Unknown	Type of Airworthiness Certificate <i>(Check all that apply)</i> Standard ☐ Normal ☐ Utility ☐ Aerobatic ☐ Transport Special ☐ Restricted ☐ Limited ☐ Provisional ☒ Experimental ☐ Special Flight ☐ Light Sport	Number of Seats: <u>2</u> If Large Aircraft, how many seats for: Flight Crew: _____ Cabin Crew: _____ Passengers: _____	Landing Gear ☐ Retractable Check any additional landing gear configuration that applies: ☒ Tricycle ☐ Tailwheel ☐ Amphibian ☐ High Skid ☐ Emergency Float ☐ Skid ☐ Float ☐ Ski ☐ Hull ☐ Ski/Wheel ☐ Unknown
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Type of Maintenance Program ☐ Annual ☒ Conditional (Amateur-built only) ☐ Manufacturer's Inspection Program ☐ Other Approved Inspection Program (AAIP) ☐ Continuous Airworthiness ☐ Other, specify: _____	Last Inspection Type ☒ 100 Hour ☐ Continuous Airworthiness ☐ AAIP ☐ Conditional Inspection ☐ Annual ☐ Unknown	Date Last Inspection: <u>05/15/2018</u> mm/dd/yyyy Airframe Total Time: <u>605.77</u> hrs hours measured at (check one) ☐ Last Inspection ☒ Time of Accident/Incident
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IFR Equipped ☐ Yes ☒ No ☐ Unknown	Stall Warning System Installed ☐ Yes ☒ No ☐ Unknown	Type of Fire Extinguishing System ☒ None ☐ Specify _____
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ELT Installed ☐ Yes ☒ No ELT Activated ☐ Yes ☐ No	ELT Manufacturer: _____ Model/Series: _____ Serial Number: _____ Battery Type: _____ Battery Exp. Date: _____	
ELT Aided in Locating Accident/Incident ☐ Yes ☐ No		

Engine Type ☒ Reciprocating ☐ Turbo Jet ☐ Turbo Shaft ☐ Turbo Fan ☐ Turbo Prop ☐ Unknown	Reciprocating Fuel System Type ☒ Carburetor ☐ Fuel Injected	Propeller ☒ Fixed Pitch ☐ Controllable Pitch Manufacturer: <u>HTC</u> Model: <u>HTC CCW-3B-172-CG</u>
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Engine	Engine Manufacturer	Engine Model/Series	Manufacturer's Serial Number	Date of Mfg. mm/dd/yyyy	Engine Rated Power Measured as (check one) ☒ Horsepower or ☐ lbs of Thrust	Total Time (hours)	Time Since Inspection (hours)	Time Since Overhaul (hours)
Eng. 1	Rotax	912 ULS	6783821	06/10/2014	100	605.77	6.77	NA
Eng. 2								
Eng. 3								
Eng. 4								

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Category of Aircraft ☐ Airplane ☐ Balloon ☐ Blimp/Dirigible ☐ Glider ☒ Gyrocraft ☐ Helicopter ☐ Powered lift ☐ Ultralight ☐ Unknown	Type of Airworthiness Certificate <i>(Check all that apply)</i> Standard ☐ Normal ☐ Utility ☐ Aerobatic ☐ Transport Special ☐ Restricted ☐ Limited ☐ Provisional ☒ Experimental ☐ Special Flight ☐ Light Sport	Number of Seats: <u>2</u> If Large Aircraft, how many seats for: Flight Crew: _____ Cabin Crew: _____ Passengers: _____	Landing Gear ☐ Retractable Check any additional landing gear configuration that applies: ☒ Tricycle ☐ Tailwheel ☐ Amphibian ☐ High Skid ☐ Emergency Float ☐ Skid ☐ Float ☐ Ski ☐ Hull ☐ Ski/Wheel ☐ Unknown
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IFR Equipped ☐ Yes ☒ No ☐ Unknown	Stall Warning System Installed ☐ Yes ☒ No ☐ Unknown	Type of Fire Extinguishing System ☒ None ☐ Specify _____
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ELT Installed ☐ Yes ☒ No ELT Activated ☐ Yes ☐ No	ELT Manufacturer: _____ Model/Series: _____ Serial Number: _____ Battery Type: _____ Battery Exp. Date: _____
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Engine Type ☒ Reciprocating ☐ Turbo Jet ☐ Turbo Shaft ☐ Turbo Fan ☐ Turbo Prop ☐ Unknown	Reciprocating Fuel System Type ☒ Carburetor ☐ Fuel Injected	Propeller ☒ Fixed Pitch ☐ Controllable Pitch Manufacturer: <u>HTC</u> Model: <u>HTC CCW-3B-172-CG</u>
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Eng. 1	Rotax	912 ULS	6783821	06/10/2014	100	605.77	6.77	NA
Eng. 2								
Eng. 3								
Eng. 4								

OWNER/OPERATOR INFORMATION			
Registered Aircraft Owner Name: <u>Roadrunner Gyroplanes, LLC</u> Fractional Ownership Aircraft: ☐ Yes ☒ No		Owner Address City: <u>Oracle</u> State: <u>AZ</u> ZIP: <u>85623</u> Country: <u>USA</u>	
Operator of Aircraft ☐ Same As Registered Owner Name: <u>Blue Sky Gyros, LLC</u> Doing Business As: <u>Blue Sky Gyros, LLC</u> Air Carrier/Operator Designator (4 Character Code): _____		Operator Address ☒ Same As Registered Owner City: _____ State: _____ ZIP: _____ Country: _____	
Regulation Flight Conducted Under ☒ FAR 91 ☐ FAR 129 ☐ FAR 91 Special Flight ☐ Public Use (select type) ☐ FAR 103 ☐ FAR 133 ☐ Non-US, Commercial ☐ Federal ☐ State ☐ Local ☐ FAR 121 ☐ FAR 135 ☐ Non-US, Non-commercial ☐ Unknown ☐ FAR 125 ☐ FAR 137 ☐ Armed Forces		Revenue Sightseeing Flight ☐ Yes ☒ No Air Medical Flight ☐ Yes ☒ No	
Purpose of Flight for FAR 91, 103, 133, 137 (Select one) ☐ Personal ☐ Business ☐ Executive/Corporate ☐ Other Work Use ☒ Instructional / <u>Demo</u> ☐ Ferry ☐ Positioning ☐ Aerial Application ☐ Aerial Observation ☐ Air Drop ☐ Air Race / Show ☐ Flight Test ☐ Public Use ☐ Unknown	Revenue Operation for FAR 121, 125, 129, 135 (Select one) ☐ Scheduled or Commuter ☐ Non-Scheduled or Air Taxi Domestic or International ☐ Domestic ☐ International Cargo Operation ☐ Passenger/Cargo ☐ Passenger _____ How many? ☐ Cargo _____ lbs ☐ Mail	Type of Commercial Operating Certificate Held (Select all that apply) ☐ None ☐ Flag Carrier Operating Certificate (121) ☐ Supplemental ☐ Air Cargo ☐ Foreign Air Carriers (129) ☐ Commuter Air Carrier (135) ☐ On-Demand Air Taxi (135) ☐ Large Helicopter (127) ☐ Rotorcraft External Load (133) - or - ☐ Agricultural Aircraft (137) ☐ Other Operator of Large Aircraft	
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 First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____			
Pilot of Other Aircraft First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____			
MECHANICAL MALFUNCTION/FAILURE (If more space is needed, continue on separate sheet)			
Was there Mechanical Malfunction/Failure? ☒ Yes ☐ No ☐ Unknown (If yes, list the name of the part, manufacturer, part no., serial no., and describe the failure.) <u>Propeller Hub, HTC, BG2724, HTC CCW-3B-172-CG. Propeller hub broke during flight, releasing a section of the hub along with one propeller blade from the base. Total time on propeller 483.77</u> <u>Damage to aircraft Substantial</u>			Total Time/Cycles On Part <u>483.77</u> Hours _____ Cycles Time Since This Part Inspected/Overhauled <u>6.77</u> Hours _____
DAMAGE TO AIRCRAFT AND OTHER PROPERTY			
Aircraft Damage ☐ None ☐ Substantial ☐ Minor ☐ Destroyed	Aircraft Fire ☐ None ☐ Both Ground and In-Flight ☒ In-Flight ☐ Unknown Origin ☐ On-Ground	Aircraft Explosion ☐ None ☐ Both Ground and In-Flight ☐ In-Flight ☐ Unknown Origin ☐ On-Ground	

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

Propeller blade hit and damaged rotor (wing). Vibration from loss of a propeller blade caused a fuel line to open, engine to catch on fire, stoppage of engine, broken motor mount, bent airframe, bent and broken muffler and after muffler, coolant line separated causing loss of coolant, damage to structure of horizontal tail surface, broken upper rudder bracket, both carburetors shaken loose. Damage to wiring and painted surfaces from fire extinguisher chemicals.

AIRPORT INFORMATION (If the accident/incident occurred on approach, takeoff or within 3 miles of an airport, complete this section)Airport Identifier: E77Distance From Airport Center: Departure end 11 SMAirport Name: San Manuel Airport

Direction From Airport: _____ degrees MAG

Proximity to Airport ☐ Off Airport/Airstrip ☒ On Airport ☐ On AirstripAirport Elevation: 3272 ft. MSL**Approach Segment** (Select one)

☐ On Instrument Approach ☐ Landing ☐ Base leg ☐ Final ☐ Go Around
☐ Crosswind ☒ Downwind ☐ Low Approach ☐ Aborted Landing (after touchdown)

IFR Approach (Check all that apply)

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

VFR Approach (Check all that apply)

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

Runway InformationRunway ID: 11/29 (L/R/C) Length: 4200 ft Width: 75 ft**Runway/Landing Surface** (Check all that apply)

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

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 ☐ Unknown
☐ Slush Covered ☐ Vegetation

FLIGHT ITINERARY INFORMATION**Last Departure Point**

Airport ID: E77
City: San Manuel
State: AZ
Country: USA

Time of Departure

Time: 8:37
Time Zone: MST

Destination

Airport ID: E77
City: San Manuel
State: AZ
Country: USA

Type Flight Plan Filed

☒ None ☐ VFR/IFR
☐ Company VFR ☐ IFR
☐ Military VFR ☐ Unknown
☐ VFR
Activated? ☐ Yes ☐ No

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 E ☐ Prohibited Area ☐ Jet Training Area ☐ Special
☐ Class B ☒ Class G ☐ Restricted Area ☐ TRSA ☐ Air Traffic Control Area
☐ Class C ☐ Demo Area ☐ Military Operations Area (MOA) ☐ FAR 93 ☐ Unknown
☐ Class D ☐ Warning Area ☐ Airport Advisory Area

Aircraft Load Description (Check all that apply)

☐ None ☐ Towing Glider ☐ Parachutists ☐ Livestock
☒ Passengers ☐ Towing Banner ☐ Water ☐ Unknown
☐ Cargo ☐ Other External ☐ Chemical/Fertilizer/Seeds

FUEL & SERVICES INFORMATION**Fuel on Board at Last Takeoff**

(convert from pounds, as necessary)

11 Gallons**Fuel Type**

☐ 80/87 ☐ 115/145 ☐ JP3 ☐ Other, specify _____
☐ 100 Low Lead ☐ Jet A ☐ JP4
☐ 100/130 ☒ Automotive ☐ JP5

Other Services, if Any, Prior to Departure

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

The open air gyroplane was stopped in a normal fashion in an upright position. An emergency egress with rotor blades spinning was commenced due to fire in the engine area. Both occupants exited their seats to the right side. The front seat occupant approached the outside left of the nose/front cabin, then cleared out the front and went to the southwest side of the runway. After exiting the rear seat, I went to the outside of the front cabin to install the rotor brake pressure and then exited out the front and joined the front seat occupant on the southwest side of the runway away from the aircraft.

WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE**Weather Observation Facility**Facility ID: E77Observation Time: 8:25Time Zone: MSTDistance from Accident Site: 1/4 NMDirection from Accident Site: 270 degrees MAG**Source of Weather Information**

(Check all that apply)

- | | |
|---|--|
| ☐ National Weather Service | ☐ Company |
| ☐ Flight Service Station | ☐ Military |
| ☐ TV/Radio | ☒ Internet |
| ☒ Automated Report | ☐ Unknown |
| ☐ Commercial Weather Service (DUATS) | |

Method of Briefing

(Check all that apply)

- | |
|--|
| ☐ In Person |
| ☐ Teletype |
| ☒ Telephone/Computer |
| ☒ Aircraft Radio |
| ☐ TV/Radio |
| ☐ Unknown |

Briefing Type/Completeness

- | | |
|---|--|
| ☐ Full | ☐ Abbreviated |
| ☐ Partial / Limited By Pilot | ☐ Unknown |
| ☐ Partial / Limited By Briefer | ☐ Not Pertinent |

Light Condition

- | | | |
|---|--------------------------------|---------------------------------------|
| ☐ Dawn | ☐ Dusk | ☐ Dark Night |
| ☒ Day | ☐ Night | ☐ Bright Night |
| | | ☐ Not Reported |

Visibility10 miles**Sky/Lowest Cloud Condition**

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

Ceiling

- | | |
|--|-------------------------------------|
| ☒ None (clear) | ☐ Obscured |
| ☐ Broken | ☐ Indefinite |
| ☐ Overcast | ☐ Unknown |

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 |

Lowest Cloud Condition HeightClear ft AGL**Ceiling Height**

_____ ft AGL

Wind Direction☐ Indicated: 110 degrees MAG☐ Variable**Wind Speed**Velocity: 11 KTS

-or-

- | |
|---|
| ☐ Calm |
| ☐ Light and Variable |

Wind GustsVelocity: 22 KTS

- | |
|--------------------------------------|
| ☐ Gusting |
| ☐ Not Gusting |

Type of Turbulence (Check all that apply)

- | | |
|--|---|
| ☒ None | ☐ In Clouds |
| ☐ Clear Air | ☐ Vicinity of Thunderstorm |

Severity of Turbulence

- | | | |
|----------------------------------|--|--------------------------------|
| ☐ Extreme | ☐ Moderate | ☐ Light |
| ☐ Severe | ☐ Moderate Chop | |

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

Notam: UAS 3 miles SE, 400 AGL and below, operating to 0600 -1800 Daily

Temperature: 23 (C)
or _____ (F)Altimeter Setting: 29.86 in. HG
or _____ MBDensity Altitude: 5000 ftDew Point: -2 (C)
or _____ (F)**Icing Forecast****Amount**

- | | |
|--|-----------------------------------|
| ☒ None | ☐ Moderate |
| ☐ Trace | ☐ Severe |
| ☐ Light | |

Type

- | |
|--------------------------------|
| ☐ Rime |
| ☐ Clear |
| ☐ Mixed |

Icing Actual**Amount**

- | | |
|--|-----------------------------------|
| ☒ None | ☐ Moderate |
| ☐ Trace | ☐ Severe |
| ☐ Light | |

Type

- | |
|--------------------------------|
| ☐ Rime |
| ☐ Clear |
| ☐ Mixed |

Type of Precipitation (Check all that apply)

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

Intensity of Precipitation

- | | | |
|--------------------------------|-----------------------------------|--------------------------------|
| ☐ Light | ☐ Moderate | ☐ Heavy |
|--------------------------------|-----------------------------------|--------------------------------|

PILOT "A" INFORMATION

Pilot "A" Responsibilities at the Time of Accident/Incident

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

Pilot "A" Identification

First Name: Brittania City: Oracle
 Middle Initial: J State: AZ ZIP: 85623
 Last Name: Perca Country: USA
 Age at time of Accident/Incident: 52 Date of Birth: mm/dd/yyyy Certificate Number: mm/dd/yyyy

Degree of Injury ☒ None ☐ Fatal ☐ Minor ☐ Unknown ☐ Serious	Seat Occupied ☐ Left ☐ Front ☐ Unknown ☐ Right ☒ Rear ☐ Center ☐ Single	Seat Belt Used ☒ Yes ☐ No Available ☐ Yes ☐ No	Shoulder Harness Used ☒ Yes ☐ No Available ☐ Yes ☐ No
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Pilot Certificate(s) (Check all that apply)

☐ None ☐ Student ☐ Recreational ☐ Commercial ☐ Flight Engineer ☐ Foreign
☐ Private ☒ Flight Instructor ☐ Sport ☐ Airline Transport ☐ U.S. Military

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 ☒ With limitations/waivers ☐ Unknown	Date of Last Medical <u>07/24/2017</u> mm/dd/yyyy
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Medical Certificate Limitations

Must have available glasses for near vision.

Medical Certificate Waivers

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks: 03/01/2017
 mm/dd/yyyy

Flight Review Aircraft

Make: Cessna
 Model: 172

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 ☐ Free 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

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	1530	610	58					1472		
Pilot in Command (PIC)	1404	600	10					1206		
Time as Instructor	881	475						881		
This Make/Model										
Last 90 Days	50	36						50		
Last 30 Days	29	15						29		
Last 24 Hours	.3	.3						.3		

PILOT "B" INFORMATION**Pilot "B" Responsibilities at the Time of Accident/Incident**

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

Pilot "B" Identification

First Name: _____ City: _____
Middle Initial: _____ State: _____ ZIP: _____
Last Name: _____ Country: _____
Age at time of Accident/Incident: _____ Date of Birth: _____ Certificate Number: _____
mm/dd/yyyy

Degree of Injury

☐ None ☐ Fatal
☐ Minor ☐ Unknown
☐ Serious

Seat Occupied

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

Seat Belt

Used ☐ Yes ☐ No
Available ☐ Yes ☐ No

Shoulder Harness

Used ☐ Yes ☐ No
Available ☐ Yes ☐ No

Pilot Certificate(s) (Check all that apply)

☐ None ☐ Student ☐ Recreational ☐ Commercial ☐ Flight Engineer ☐ Foreign
☐ Private ☐ Flight Instructor ☐ Sport ☐ Airline Transport ☐ U.S. Military

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
☐ With limitations/waivers
☐ Unknown

Date of Last Medical

mm/dd/yyyy

Medical Certificate Limitations**Medical Certificate Waivers****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
☐ Free 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**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 CREW MEMBERS (Exclusive of cabin attendants, complete the following information)

Pilot Name and Address		Degree of Injury ☐ None ☐ Fatal ☐ Minor ☐ Unknown ☐ Serious
First Name: _____	City: _____	
Middle Initial: _____	State: _____ ZIP: _____	
Last Name: _____	Country: _____	
Pilot Certificate(s) (Check all that apply) ☐ None ☐ Student ☐ Recreational ☐ Commercial ☐ Flight Engineer ☐ Foreign ☐ Private ☐ Flight Instructor ☐ Sport ☐ Airline Transport ☐ U.S. Military		Seat Occupied ☐ Left ☐ Front ☐ Right ☐ Rear ☐ Center ☐ Single ☐ Unknown
Type Rating/Endorsement for Accident/Incident Aircraft? ☐ Yes ☐ No		
Total Flight Time at the Time of this Accident/Incident: _____ hrs		

Pilot Name and Address		Degree of Injury ☐ None ☐ Fatal ☐ Minor ☐ Unknown ☐ Serious
First Name: _____	City: _____	
Middle Initial: _____	State: _____ ZIP: _____	
Last Name: _____	Country: _____	
Pilot Certificate(s) (Check all that apply) ☐ None ☐ Student ☐ Recreational ☐ Commercial ☐ Flight Engineer ☐ Foreign ☐ Private ☐ Flight Instructor ☐ Sport ☐ Airline Transport ☐ U.S. Military		Seat Occupied ☐ Left ☐ Front ☐ Right ☐ Rear ☐ Center ☐ Single ☐ Unknown
Type Rating/Endorsement for Accident/Incident Aircraft? ☐ Yes ☐ No		
Total Flight Time at the Time of this Accident/Incident: _____ hrs		

Pilot Name and Address		Degree of Injury ☐ None ☐ Fatal ☐ Minor ☐ Unknown ☐ Serious
First Name: _____	City: _____	
Middle Initial: _____	State: _____ ZIP: _____	
Last Name: _____	Country: _____	
Pilot Certificate(s) (Check all that apply) ☐ None ☐ Student ☐ Recreational ☐ Commercial ☐ Flight Engineer ☐ Foreign ☐ Private ☐ Flight Instructor ☐ Sport ☐ Airline Transport ☐ U.S. Military		Seat Occupied ☐ Left ☐ Front ☐ Right ☐ Rear ☐ Center ☐ Single ☐ 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 flight attendants; continue on separate sheet if necessary)

Name and Address	Seat	Crew	Non-Revenue	Revenue	Non-Occupant	FAA	Fatal	Serious Injury	Minor Injury	No Injury	Unknown
First Name: <u>David</u> City: <u>Marietta</u> Middle Initial: <u>V</u> State: <u>GA</u> ZIP: <u>30064</u> Last Name: <u>Clarke</u> Country: <u>USA</u>	<u>front</u>	☐	☒	☐	☐	☐	☐	☐	☐	☒	☐
First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____	_____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____	_____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____	_____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____	_____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____	_____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____	_____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____	_____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

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 time and point of departure, intended destination, and services obtained.

During take off/climb out at 60mph off of runway 11 with a head wind, at an altitude between 364-400 AGL there was a loud 'bang', followed by an immediate and extreme vibration, followed by a loss of engine power. I initiated an emergency landing with a right 180 degree turn to runway 29, gained appropriate airspeed for power off landing (70mph), ensured and performed a power off landing on the main wheels at mid-field on the runway. The round out and set down were normal. While arresting forward ground roll with rotor drag and wheel brake, I noticed flames coming from the rear of the aircraft. I informed the front seat occupant that we were on fire and that we needed to get out. We commenced an emergency egress with the rotor blades still spinning. I unfastened my seat belt then while I unplugged his helmet chord and held the stick forward, I told him to leave his helmet on, exit and clear out the front. While he exited his seat to the right I unplugged my own helmet and exited my seat to the right side (away from the brake and throttle controls). I saw people approaching the aircraft with fire extinguishers. While holding the stick forward I moved to the front cabin to install the rotorbrake to ensure everyone's safety and prevent the rotors from striking people or contacting the aircraft which could sent debris flying. The front seat occupant approached the outside front/left of the nose and turned the master off. I pointed to the front and commanded him to duck under the blades and clear, which he did. I turned the master switch back on as it is needed to run the pump for the pneumatic rotor brake, then once the rotor brake was installed I shut the master off and cleared out the front. The fire was extinguished before the rotor brake was fully installed. The person who extinguished the fire repositioned to the front cabin and held the stick forward until rotor brake pressure took effect. Both occupants of the gyroplane were uninjured. No injuries were sustained by anyone. The craft was moved off of the runway and inspected.

Post flight visual inspection, showed that one of the propeller blades had departed the craft along with a portion of the propeller hub itself. That imbalance caused extreme vibration to the aircraft, damaging components. It is clear that the propeller blade then went up and impacted one rotor blade and causing damage to the rotor blade that it hit. The initial vibration appears to have opened a fuel line which immediately caused the in-flight fire and stopped the engine. The in-flight fire was witnessed by Parrish Traweek, the airport manager, who said he heard a noise like a blow torch and saw a "fireball". He reported that the fire continued to burn until extinguished. The propeller blade was retrieved. The aircraft was secured in an empty hangar. This was not a flight for which compensation was made.

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

Operator/Owner Safety Recommendation

We believe that a re-engineered propeller hub that is machined instead of cast would give it greater strength and percision for a safer design.

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**06/04/2018

mm/dd/yyyy

Signature and Name of Pilot/OperatorSignature: [Signature]Type or Print Name: Brittania J Pence**Signature and Name of Person Filing Report if Other than Pilot/Operator**

Signature: _____

Type or Print Name: _____

Title: _____

FOR NTSB USE ONLY**NTSB Accident/Incident No.**

WPR18LA158

Reviewed by NTSB Regional Office

WPR

Name of Investigator

LINK

Date Report Received

6/4/2018

5/21

WEIGHT AND BALANCE WORKSHEET FOR MTO SPORT N574BR

EMPTY WEIGHT : 618 LB

Date Weighed: November 1, 2015

+ NOSE BAGGAGE
(MAX = 22 LB) : 3 LB

+ FRONT SEAT WEIGHT
(MAX = 275 LB - 3 X NOSE
BAGGAGE WEIGHT) : 190 LB
(MIN = 132 LB)

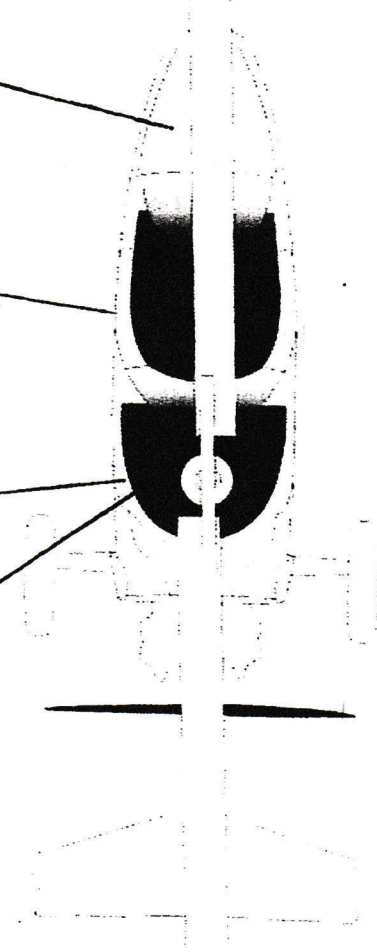
+ AFT SEAT WEIGHT
(MAX = 284 LB, INCLUDING
SADDLE BAGS AND CONTENTS) : 160 LB

+ FUEL @ 6 LB / GAL : 11 GAL X 6 = 66 LB

= TOTAL GROSS WEIGHT : 1,037 LB

MAX GROSS
WEIGHT ALLOWED = 1232 LB

UNDER /-OVER = 195 LB



Registration Number N574BR
Serial Number M01223
Date 10/1/15

< ENTER YOUR N-NUMBER HERE
<ENTER AIRCRAFT SERIAL NUMBER HERE
<ENTER MONTH AND YEAR OF COMPLETION (mm/yyyy)

Left Main Wheel 284
Right Main Wheel 284
Front Wheel 50
Total Weight 618

<LEFT MAIN WEIGHT
<RIGHT MAIN WEIGHT
<FRONT WEIGHT

For HTC propeller driven only (not IVO variable)
Aft Limit -1.77
Fore Limit -0.2

Center of gravity must be between -1.77 in. and -0.2 in.

568	x1	-6.30	-3578.40
50	x2	67.00	3350.00
618	xg	-0.37	-228.40

MTO Passed