

**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: WATIES ISLAND State: SC
ZIP: 29582 Country: USA
Latitude: 33.8488°N Longitude: 78.5747°W
(Enter in decimal degrees or degrees/minutes/seconds)

Accident/Incident Date/Time

Date: 10/07/2020 Local Time: 5:30/1730
mm/dd/yyyy Time Zone: E

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

AIRCRAFT INFORMATION

Registration Number: 40380
Manufacturer: GREEN BROS AVIATION
Model: SPARROWHAWK II
Serial Number: 11A
Year of Manufacture: 2007
Amateur-Built: ☒ Yes ☐ No If Yes: ☒ Kit/Plans ☐ Original Design Make: SPARROWHAWK II

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

Maximum Gross Weight: 1499 lbs
Weight at Time of Accident/Incident: 1150 lbs
Number of Seats: _____ 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
☐ 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)	Inspection (hours)	Time Since: Overhaul (hours)
Eng. 1	<u>SUBARU</u>	<u>2.5 LITER</u>	<u>60732AZ</u>		<u>165</u>	<u>566</u>	<u>8</u>	
Eng. 2								
Eng. 3								
Eng. 4								

Last Inspection Type

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

Date Last Inspection: 04/20/2020
mm/dd/yyyy

Airframe Total Time: 546.8 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: WARP DRIVE
Model: 3 BLADE

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

Propeller 2

☐ Fixed Pitch
☐ Controllable Pitch
☐ Ground Adjustable

Manufacturer: _____
Model: _____

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: <u>DOUGLAS CASSEL</u>		City: <u>MYRTLE BEACH</u> State: <u>SC</u> ZIP: <u>29579</u> Country: <u>USA</u>	
Fractional Ownership Aircraft: ☐ Yes ☒ No		☐ Same Address as Registered Owner	
Operator of Aircraft ☒ Same As Registered Owner Name: _____ Doing Business As: _____ Air Carrier/Operator Designator (4 Character Code): _____		City: _____ State: _____ ZIP: _____ Country: _____	
Operating Certificates Held <i>(Check all that apply)</i> ☒ 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 103 ☐ FAR 121 ☐ FAR 125 ☐ FAR 129 ☐ FAR 133 ☐ FAR 135 ☐ FAR 137 ☐ FAR 415 ☐ FAR 431 ☐ FAR 435 ☐ FAR 437 ☐ FAR 91 Special Flight ☐ Non-US, Commercial ☐ Non-US, Non-commercial ☐ Public Aircraft <i>(Select one)</i> ☐ Armed Forces ☐ Federal ☐ State ☐ Local ☐ Unknown	Revenue Operation for FAR 121, 125, 129, 135 <i>(Select one for each group)</i> ☐ Scheduled or Commuter ☐ Non-Scheduled or Air Taxi ☐ Domestic ☐ International ☐ Passenger ☐ Cargo ☐ Mail Contract Only	
Revenue Sightseeing Flight ☐ Yes ☒ No		Air Medical Flight ☐ Yes ☒ No	
AIRPORT INFORMATION <i>(Fill in if accident/incident occurred on approach, landing, takeoff, departure, or within 3 miles of an airport)</i>			
Airport Name: _____ Airport Identifier: _____ Proximity 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 Information Runway ID: _____ (L/R/C) Length: _____ ft Width: _____ ft		Condition of Runway/Landing Surface <i>(Check all that apply)</i> ☐ Dry ☐ Holes ☐ Ice Covered ☐ Rough ☐ Rubber Deposits ☐ Slush-Covered ☐ Snow-Compacted ☐ Snow-Crusted ☐ Snow-Dry ☐ Snow-Wet ☐ Soft ☐ Vegetation ☐ Water-Calm ☐ Water-Choppy ☐ Water-Glassy ☐ Wet ☐ Unknown	
Runway/Landing Surface <i>(Check all that apply)</i> ☐ Asphalt ☐ Concrete ☐ Dirt ☐ Grass/Turf ☐ Gravel ☐ Ice ☐ Macadam ☐ Metal/Wood ☐ Snow ☐ Water ☐ Unknown		Approach/Departure Segment <i>(Select one)</i> ☐ Taxi ☐ Takeoff ☐ Initial Climb ☐ VFR Departure ☐ IFR Departure Procedure/Clearance ☐ On Instrument Approach ☐ Landing ☐ Downwind ☐ Base ☐ Final ☐ Crosswind ☐ Low Approach ☐ Go Around ☐ Aborted Landing (after touchdown) ☐ Unknown	
IFR Approach <i>(Check all that apply)</i> ☐ None ☐ ADF/NDB ☐ SDF ☐ VOR/TVOR ☐ VOR/DME ☐ TACAN ☐ PAR ☐ Sidestep ☐ ILS ☐ Localizer Only ☐ LOC-back course ☐ RNAV ☐ MLS ☐ LDA ☐ ASR ☐ Visual ☐ Contact ☐ Circling ☐ Practice ☐ GPS ☐ Unknown		VFR Approach <i>(Check all that apply)</i> ☐ None ☐ Traffic Pattern ☐ Straight-In ☐ Valley/Terrain Following ☐ Go Around ☐ Full Stop ☐ Stop and Go ☐ Touch and Go ☐ Simulated Forced Landing ☐ Forced Landing ☐ 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: DOUGLAS

City of Residence: MYRTLE BEACH

Middle Initial: A

State: SC ZIP: 29579

Last Name: CASSELL

Country: USA

Age at time of Accident/Incident: 76 Date of Birth: 1944 mm/dd/yyyy

Certificate Number: _____

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				Medical Certificate Validity ☒ Without limitations/waivers ☐ Unknown ☐ With limitations/waivers ☐ N/A ☐ Special Issuance																	
Principal Occupation ☒ Pilot ☐ Other ☐ Unknown		Medical Certificate ☐ None ☐ Class 3 ☐ Class 1 ☐ Driver's License (Sport Pilot only) ☐ Class 2 ☐ Unknown		Date of Last Medical <u>01/20/20</u> mm/dd/yyyy																	

Medical Certificate Limitations

BASICMED

Medical Certificate Special Issuance

NONE

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks: 10/18/2019
mm/dd/yyyy

Flight Review Aircraft

Make: SPARROWHAWK II

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 ☐ Glider ☐ Sport
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Type Ratings

PRIVATE PILOT II
MECHANIC II
GROUND INST. II

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	1500	575	0	0	0	0	0	575	0	0
Pilot in Command (PIC)	1500	566	0	0	0	0	0	0	0	0
Time as Instructor	0	0	0	0	0	0	0	0	0	0
This Make/Model										
Last 90 Days	23	23	0	0	0	0	0	23	0	0
Last 30 Days	8	8	0	0	0	0	0	8	0	0
Last 24 Hours	0	0	0	0	0	0	0	0	0	0

FLIGHT ITINERARY INFORMATION			
Last Departure Point Airport ID: <u>SC21</u> City: <u>LOUIS</u> State: <u>SC</u> Country: <u>USA</u>	Time of Departure Time: <u>1600</u> Time Zone: <u>E</u>	Destination Airport ID: <u>SC21</u> City: <u>LOUIS</u> State: <u>SC</u> Country: <u>USA</u>	Type Flight Plan Filed ☒ None ☐ VFR/IFR ☐ Company VFR ☐ IFR ☐ Military VFR ☐ Unknown ☐ VFR Activated? ☐ Yes ☐ No ☐ Unknown
Type of ATC Clearance/Service (Check all that apply) ☒ None ☐ Special VFR ☐ Special IFR ☐ VFR Flight Following ☐ Cruise ☐ VFR ☐ IFR ☐ VFR On Top ☐ Traffic Advisory ☐ Unknown / NA			
Airspace where the accident/incident occurred (Check all that apply) ☐ Class A ☐ Class G ☐ Military Operations Area (MOA) ☐ Special ☐ Class B ☐ Demo Area ☐ Airport Advisory Area ☐ Air Traffic Control Area ☐ Class C ☐ Warning Area ☐ Jet Training Area ☐ Unknown ☐ Class D ☐ Prohibited Area ☐ TRSA ☐ Class E ☐ Restricted Area ☐ FAR 93 Altitude of In-Flight Occurrence: _____ ft msl			
WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE			
Source of Pilot Weather Information (Check all that apply) ☐ National Weather Service ☐ Company ☐ Flight Service Station ☐ Military ☐ TV/Radio ☒ Internet ☐ Automated Report ☐ None ☐ Commercial Weather Service (DUATS) ☐ Unknown ☐ On-Board Weather		Weather Observation Facility Facility ID: _____ Observation Time: _____ Time Zone: _____ Distance from Accident Site: _____ nm Direction from Accident Site: _____ degrees true	
Basic Conditions ☒ VMC ☐ IMC ☐ Unknown	Light Condition ☒ Day ☐ Dawn ☐ Dusk ☐ Dark Night ☐ Unknown ☐ 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 <u>85</u> (F) Dew Point: _____ (C) or _____ (F) Altimeter Setting: _____ in. Hg or _____ MB	
Wind Direction ☐ Variable -or- Direction: <u>220</u> degrees true	Wind Speed ☐ Calm ☐ Light and Variable -or- Speed: <u>14</u> kts	Wind Gusts ☐ Not Gusting -or- Speed: <u>18</u> kts	Visibility <u>1/4</u> 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		
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		
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			
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: <u>NONE</u>			

DAMAGE TO AIRCRAFT AND OTHER PROPERTY

Aircraft Damage

- ☐ None
☐ Minor
☒ Substantial
☐ Destroyed
☐ Unknown

Aircraft Fire

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

Aircraft Explosion

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

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

NOSE wheel bent
 Tail assembly broke off
 Vertical & Horizontal Stab damaged
 Prop damage from moving gyro
 ROTOR Blade Trashed

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.

On Oct. 7, 2020 around 3:30pm preflight gyro. Top off fuel tanks 26 gals. Normal fuel burn is 6.5 gph

Flew from SC21 to another private grass strip, Cox Field, about 10 min. flight.

AFTER a brief visit departed there headed to H. Myrtle Beach, about 20 min. flight, for a round robin flight back to SC21.

Lost engine power over Waties Island and landed on an uninhabitated beach.

Upon lowering the nose wheel it dug into the soft sand and flipped me over. Wreckage was contained in a 50' radius

I was OK, no injuries.

Fire rescue assisted in removing gyro and cleaning up beach. No fuel or oil leaked on to the beach.

Gyro was moved to Haulie Airpark SC21

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

Operator/Owner Safety Recommendation

REPLACE RUBBER FUEL LINES ANNUALLY

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.)

FUEL LINE RUPTURE

Total Time/Cycles
On Part

_____ Hours

_____ Cycles

Time Since This Part
Inspected/Overhauled1 Hours**FUEL & SERVICES INFORMATION**Fuel on Board at Last Takeoff
(Convert from pounds, as necessary)26

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

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

PILOT HANGING UPSIDE DOWN, RELEASED SEAT BELT & CRAWLED OUT

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

Aircraft Registration Number

Manufacturer:

Model:

Registered Owner of Other Aircraft

Name:

City:

State:

Country:

ZIP:

Pilot of Other Aircraft

Name:

City:

State:

Country:

Damage to Other Aircraft

☐ Destroyed☐ Substantial☐ Minor☐ None

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: 11/19/2020 Name of Pilot/Operator: DOUGLAS, CASSIDY
Signature: [REDACTED]
- 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.	Reviewed by NTSB Regional Office	Name of Investigator	Date Report Received
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