

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: Marquette State: MI

ZIP: 49855 Country: USA

Latitude: 46.49 N Longitude: 87.32 W

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

Accident/Incident Date/Time

Date: 03/28/15 Local Time: 2:00PM

mm/dd/yyyy

Time Zone: Eastern

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

AIRCRAFT INFORMATION

Registration Number: N556DG

Manufacturer: Giackino Rotorway - Homebuilt

Model: Rotorway Exec 162F

Serial Number: 6612

Year of Manufacture: 2003

Amateur-Built: ☒ Yes ☐ No If Yes: ☒ Kit/Plans ☐ Original Design Make: Rotorway 162F

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

Maximum Gross Weight: 1500 lbs

Weight at Time of Accident/Incident: 1180 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

- ☐ Normal
☐ Aerobatic
☐ Balloon
☐ Commuter
☐ Transport
☐ Utility

Special

- ☐ Restricted
☐ Limited
☐ Provisional
☐ Special Flight
☒ Experimental
☐ Special Light-Sport
☐ Experimental Light-Sport

- ☐ Certificate of Authorization or Waiver (COA)
☒ None ☐ Unknown

Landing Gear

(Check all that apply)

- ☐ Retractable

☐ Tricycle

☐ 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. <i>mm/dd/yyyy</i>	Rated Power ☒ Horsepower or ☐ lbs of Thrust	Total Time (hours)	Time Since: Inspection (hours)	Overhaul (hours)
Eng. 1	Rotorway	162F		2003	150	27.5	2.5	
Eng. 2								
Eng. 3								
Eng. 4								

Last Inspection Type

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

Date Last Inspection: 03/28/15

mm/dd/yyyy

Airframe Total Time: 27.5 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:

Propeller 2

- ☐ Fixed Pitch
☐ Controllable Pitch
☐ Ground Adjustable

Manufacturer:

Model:

ELT Installed: ☐ Yes ☒ No

If Yes:

ELT Manufacturer:

Model or Part No.:

TSO No.: ☐ C91 (121.5 MHz) ☐ C91a (121.5 MHz)
☐ C126 (406 MHz)

Was ELT still mounted in aircraft? ☐ Yes ☐ No

Was ELT still connected to antenna? ☐ Yes ☐ No

Did ELT Activate? ☐ Yes ☐ No

If activated:

Did ELT Aid in Locating Aircraft? ☐ Yes ☐ No

If not activated:

- Indicate Reason: ☐ Impact Damage
☐ Fire Damage
☐ Battery Expired/Damaged
☐ Unknown

Additional Equipment (Check all that apply)

- ☐ ADS-B
☐ Airframe Parachute
☐ Angle of Attack Indicator
☐ Autopilot
☐ Data Recorder
☐ Electronic Flight Bag or Handheld Device
☒ Electronic Multifunction Display
☐ Electronic Primary Flight Display
☐ Handheld GPS
☐ Heads Up Display
☐ Onboard Weather
☒ Satellite Tracking Device
☐ Stall Warning System
☐ Video Recording Device
☐ Other, Specify:

OWNER/OPERATOR INFORMATION**Registered Aircraft Owner**Name: Donald W. GiackinoCity: MarquetteFractional Ownership Aircraft: ☐ Yes ☒ NoState: MI ZIP: 49855Country: 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: _____

Distance From Airport Center: _____ sm

Airport Identifier: _____

Direction From Airport: _____ degrees true

Proximity to Airport: ☐ Off Airport/Airstrip ☐ On Airport/Airstrip ☐ N/A

Airport Elevation: _____ ft. msl

Runway Information

Runway ID: _____ (L/R/C) Length: _____ ft Width: _____ 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” 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: Donald					City of Residence: Marquette						
Middle Initial: W					State: Michigan		ZIP: 49855				
Last Name: Giackino					Country: USA						
Age at time of Accident/Incident: 59					Date of Birth: 06/11/1957 mm/dd/yyyy						
Certificate Number: [REDACTED]											
Degree of Injury		Seat Occupied			Restraint Type			Inflatable Restraints			
☒ None ☐ Fatal ☐ Minor ☐ Unknown ☐ Serious		☒ Left ☐ Front ☐ Unknown ☐ Right ☐ Rear ☐ Center ☐ Single			Available ☐ None ☐ Lap only ☐ 3-point ☒ 4-point ☐ 5-point ☐ Unknown			Used ☐ None ☐ Lap only ☐ 3-point ☒ 4-point ☐ 5-point ☐ Unknown			
Pilot Certificate(s) (Check all that apply)								☒ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown			
☐ None ☐ Flight Instructor ☒ Commercial ☐ US Military ☐ Private ☐ Recreational ☐ Airline Transport ☐ Foreign ☐ Student ☐ Sport ☐ Flight Engineer											
Principal Occupation		Medical Certificate			Medical Certificate Validity			Date of Last Medical			
☐ Pilot ☒ Other ☐ Unknown		☐ None ☐ Class 3 ☐ Class 1 ☐ Driver's License (Sport Pilot only) ☒ Class 2 ☐ Unknown			☐ Without limitations/waivers ☐ Unknown ☒ With limitations/waivers ☐ N/A ☐ Special Issuance			12/2014 mm/dd/yyyy			
Medical Certificate Limitations											
Corrective Lens for reading											
Medical Certificate Special Issuance											
Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks:					Flight Review Aircraft						
01/10/2015 mm/dd/yyyy					Make: Schweizer Model: 269C						
Airplane Rating(s) (Check all that apply)		Other Aircraft Rating(s) (Check all that apply)		Instrument Rating(s) (Check all that apply)		Instructor Rating(s) (Check all that apply)					
☐ None ☒ Single-Engine Land ☐ Single-Engine Sea ☐ Multiengine Land ☐ Multiengine Sea		☐ None ☐ Airship ☐ Balloon ☐ Glider ☐ Gyroplane ☒ Helicopter ☐ Powered Lift		☐ None ☒ Airplane ☐ Helicopter ☐ Powered Lift		☐ 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	917	165	390	0	66	22	44	527	0	0	
Pilot in Command (PIC)	798	135	330	0	66	22	44	468	0	0	
Time as Instructor	0	0	0	0	0	0	0	0	0	0	
This Make/Model											
Last 90 Days	7	0	0	0	0	0	0	7	0	0	
Last 30 Days	2	0	0	0	0	0	0	2	0	0	
Last 24 Hours	1	1	0	0	0	0	0	1	0	0	

"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: _____ City of Residence: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ Age at time of Accident/Incident: _____ 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 <table style="width:100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> Available ☐ None ☐ Lap only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown </td> <td style="width: 50%; vertical-align: top;"> Used ☐ None ☐ Lap only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown </td> </tr> </table>			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																																																																																											
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ADDITIONAL FLIGHT CREWMEMBERS (Exclusive of cabin crew, complete the following information)												
Crew Name and Address First Name: _____ City of Residence: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____					Seat Occupied ☐ Left ☐ Center ☐ Right ☐ Front ☐ Rear ☐ Single ☐ Unknown		Injury ☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown					
Pilot Certificate(s) (Check all that apply) ☐ None ☐ Flight Instructor ☐ Commercial ☐ US Military ☐ Private ☐ Recreational ☐ Airline Transport ☐ Foreign ☐ Student ☐ Sport ☐ Flight Engineer					Restraint Type: Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown		Inflatable Restraints ☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown					
Type Rating/Endorsement for Accident/Incident Aircraft? ☐ Yes ☐ No					Total Flight Time at the Time of this Accident/Incident: _____ hrs							
Crew Name and Address First Name: _____ City of Residence: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____					Seat Occupied ☐ Left ☐ Center ☐ Right ☐ Front ☐ Rear ☐ Single ☐ Unknown		Injury ☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown					
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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 First Name: _____ City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other			Seat ☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	Injury ☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	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		Age ☐ 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: _____ City: _____ State: _____ Country: _____	Time of Departure Time: _____ Time Zone: _____	Destination Airport ID: _____ City: _____ State: _____ Country: _____	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 ☒ VFR	☐ Special VFR ☐ IFR	☐ Special IFR ☐ VFR On Top	☐ VFR Flight Following ☐ Traffic Advisory	☐ Cruise ☐ Unknown / NA

Airspace where the accident/incident occurred (Check all that apply)				Altitude of In-Flight Occurrence: 610 ft msl
☐ 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	

WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE

Source of Pilot Weather Information (Check all that apply)	Weather Observation Facility
☒ National Weather Service ☐ Flight Service Station ☒ TV/Radio ☐ Automated Report ☐ Commercial Weather Service (DUATS) ☐ On-Board Weather	☐ Company ☐ Military ☐ Internet ☐ None ☐ Unknown
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
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Sky/Lowest Cloud Condition ☒ Clear ☐ Thin Broken ☐ Few ☐ Thin Overcast ☐ Partial Obscuration ☐ Unknown ☐ Scattered	Ceiling ☒ None (Clear) ☐ Obscured ☐ Broken ☐ Indefinite ☐ Overcast ☐ Unknown	Temperature: _____ (C) or 34 (F) Dew Point: _____ (C) or 3 (F) Altimeter Setting: 30.16 in. Hg or _____ MB
Lowest Cloud Condition Height _____ ft agl	Ceiling Height _____ ft agl	

Wind Direction ☐ Variable - or - Direction: 200 degrees true	Wind Speed ☐ Calm ☐ Light and Variable - or - Speed: 3 to 5 kts	Wind Gusts ☒ Not Gusting - or - Speed: _____ kts	Visibility 10 miles RVR: _____ feet RVV: _____ miles Density Altitude: _____ ft
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Intensity of Precipitation ☐ Light ☐ Moderate ☐ Heavy ☒ N/A ☐ Unknown	Type of Precipitation (Check all that apply)	Restriction to Visibility (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	☒ None ☐ Fog ☐ Blowing Dust ☐ Ground Fog ☐ Blowing Sand ☐ Haze ☐ Blowing Snow ☐ Ice Fog ☐ Blowing Spray ☐ Smoke ☐ Dust ☐ Unknown

Icing Forecast	Icing Actual	Turbulence
Amount ☒ None ☐ Trace ☐ Light ☐ Moderate ☐ Severe ☐ Unknown	Amount ☒ None ☐ Trace ☐ Light ☐ Moderate ☐ Severe ☐ Unknown	Type (Check all that apply) ☒ None ☐ Clear Air ☐ Terrain-Induced ☐ Convective Turbulence
Type ☐ N/A ☐ Rime ☐ Clear ☐ Mixed ☐ Unknown	Type ☐ N/A ☐ Rime ☐ Clear ☐ Mixed ☐ Unknown	Severity ☐ Light ☐ Moderate ☐ Severe ☐ Extreme

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

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

- ☐ None ☒ Substantial
☐ Minor ☐ Destroyed
 ☐ Unknown

Aircraft Fire

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

Aircraft Explosion

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

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

The aircraft sustained heavy damage to the tail section and tail rotor upon striking the maple tree branch. The right skid broke upon impact of ground. The main blades were damaged as they struck the branch of the maple tree. Other damage included cracking of some fiberglass body parts and the top part of the windscreen was cracked. There was no damage to the cabin section nor the engine or other parts of the drive train. However, I assume the main shaft would be out of order due to the main blade strike.

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.

I store my aircraft in my 1 car garage on my 3/4 acre property. I had been fine tuning the vibration in the main rotors for some time during last fall with a vibration computer. I had completed what I could do last fall and stored the aircraft for the winter months. The main rotors were tuned to where it would be acceptable, but I was still able to "tweak" it ever better. I performed the preflight inspection, added 5 gallons of fuel to have a total onboard of 10 gallons. In the preflight check, all indications were that the aircraft was good to go. My intention was to do some computer readings while in a hover, go back into the shop and check the chart to see what corrective measures were needed. After starting and warming up the engine, all gauges were in the "green" and all flight controls moved freely.

I increased the throttle and got the engine and rotor RPM in the top green on the tach as I always do. I went light on the skids and all felt fine at this time. I then lifted to get into a hover to hover taxi away from the garage and towards the more open area to do the hover balance testing. Just as the aircraft left the ground, it began an extreme yaw to the left. I applied full right pedal to counter act the yaw, but there was no response. The yaw continued and I had elected to pull up on the collective and apply left cyclic to avoid the rotating tail from striking the side of the garage and a trailer that was parked next to it. If I would have tried to set it down on the ground and lower the throttle to slow the yaw, I would not have been able to avoid striking the garage and/or trailer. This sequence of events took no more than a second or two. The action got me away from the garage, and I was about 25 to 30 feet above the ground trying to get control, but the yaw of the aircraft to the left continued. I had continued to apply full right pedal, but the aircraft would not respond.

I am not sure how many times I rotated, but I'm sure it was at least 6 to 8 times. The aircraft was also doing a pendulum type swinging as I was maneuvering in an attempted to avoid the fixed objects. I was not able to get the aircraft towards the more clear area with my maneuvers and I was spinning between the garage, the maple tree and the feed overhead wires to the garage. Do to not having any control of the aircraft nor a choice place to set it on the ground, I was not able to reduce the throttle to stop the spinning. I got down to about 5 or 6 feet from the ground, when the tail rotor and the main rotor struck the lower branches of the maple tree. I then dropped to the ground into a small bank of snow by the tree and came to a rest leaning to the right due to the right skid breaking.

I was able to get out of the aircraft through the left side door. Neighbors who heard the crash came over to check if I was OK. After assessing what had happened, they assisted me in getting the aircraft the 50 or so feet to the garage and into the stall. We removed the damaged main rotor blades and the tail boom was unbolted, but still remained attached so we could drag it into the garage. I took a picture of the aircraft with my cell phone as it sat shortly after the crash, prior to moving it into the garage.

There was a slight breeze of approximately 3 to 5 mph in my 1 to 2 o'clock position. No gusts of wind nor any other weather condition contributed to this accident that I am aware of. As to why I lost LTE, I do not know. I started to do some checking of the drive belts to the tail rotor and removed some fiberglass panels to see if I could determine what had happened. I was able to determine that at least 2 of the 3 tail drive belts were not damaged. I decided not to go any further on the inspection prior to notifying the proper authorities.

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

It may have been prevented if I was operating in a totally open area or airport where I might have been able to regain enough control to get it on the ground. I was operating in a confined area, but there is ample room for a typical confined area take off and landing. As far as any other preflight procedures that I could have performed, I can't think of anything further I could have done that was not already done as prescribed in the preflight checklist.

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.)*

Without further inspection, I am not able to determine if there was a mechanical failure of sorts in the tail rotor or any other part of the aircraft.

**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)*10 Gallons**Fuel Type**☐ 80/87☐ 100 Low Lead☐ 100/130☐ 115/145☐ Jet A☐ Jet A-1☐ Jet B☐ JP8☐ Automotive☒ Other, specify 93 Auto**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

Normal exit through doorway

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 HEREBY CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE.**Date of this Report**03/30/2015

mm/dd/yyyy

Name of Pilot/Operator: Donald W. Giackino**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.**

CEN15LA185

Reviewed by NTSB Regional Office

Denver, CO

Name of Investigator

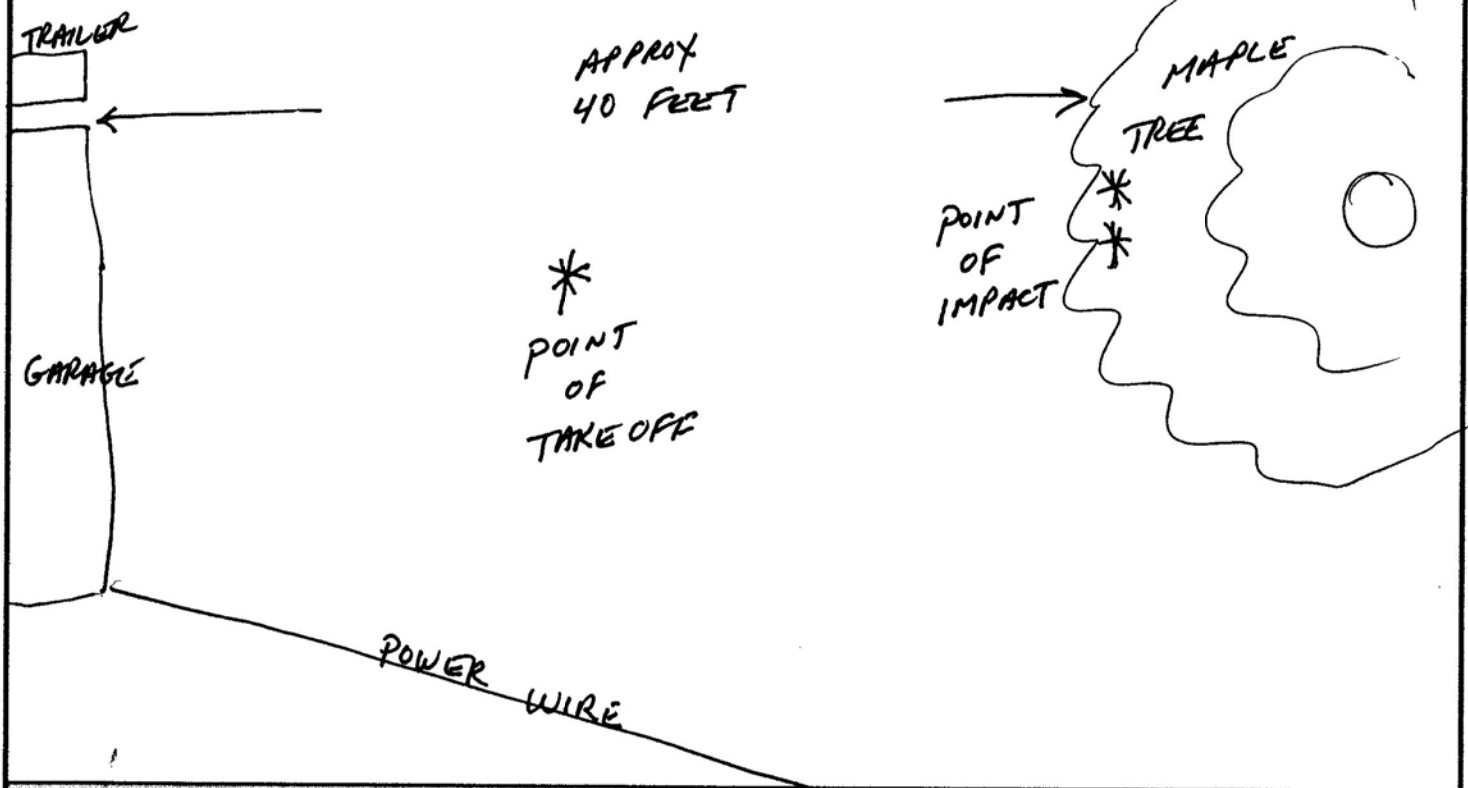
Craig Hatch

Date Report Received

ADDITIONAL INFORMATION (Please type or print in ink)

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

HOVER
TEST
AREA

**I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE**

Date of this Report

03/30/2015

mm/dd/yyyy

Name of Pilot/Operator: Donald W. Giackino

Signature: [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**

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