

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: Riverside Municipal Airport KRAL State: CA
 ZIP: 92504 Country: USA
 Latitude: 33 56' 51"N Longitude: 117 26' 51"W
(Enter in decimal degrees or degrees:minutes:seconds)

Accident/Incident Date/Time

Date: 08/17/2018 Local Time: appx 1050
mm/dd/yyyy
 Time Zone: PDT

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

AIRCRAFT INFORMATION

Registration Number: N105JL
 Manufacturer: Hughes Aircraft
 Model: H369D
 Serial Number: 900807D
 Year of Manufacture: 1980
 Amateur-Built: ☐ Yes ☒ No If Yes: ☐ Kit/Plans ☐ Make: ☐ Original Design

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

Maximum Gross Weight: 3000 lbs
 Weight at Time of Accident/Incident: lbs
 Number of Seats: 4 Flight Crew Seats: 1/2
 Cabin Crew Seats: Passenger Seats:
 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/Series	Manufacturer's Serial Number	Date of Mfg. <i>mm dd yyyy</i>	Rated Power ☒ Horsepower or ☐ lbs of Thrust	Total Time <i>(hours)</i>	Time Since: Inspection <i>(hours)</i>	Overhaul <i>(hours)</i>
Eng. 1	Allison	250-C20B	CAE-831258	unkn	450	6093.7	60	559
Eng. 2								
Eng. 3								
Eng. 4								

Last Inspection Type

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

Date Last Inspection: 05/30/2018
mm/dd/yyyy

Airframe Total Time: 11717.7 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: NA

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		City: <u>La Crescenta</u>	
Name: <u>Helicopters Unlimited LLC</u>		State: <u>CA</u> ZIP: <u>91214</u>	
Fractional Ownership Aircraft: ☐ Yes ☒ No		Country: <u>USA</u>	
Operator of Aircraft ☐ Same As Registered Owner		☐ Same Address as Registered Owner	
Name: <u>Western Helicopters, Inc.</u>		City: <u>Riverside</u>	
Doing Business As: _____		State: <u>CA</u> ZIP: <u>92504</u>	
Air Carrier/Operator Designator (4 Character Code): _____		Country: <u>USA</u>	
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 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 <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 ☐ Domestic ☐ Non-Scheduled or Air Taxi ☐ 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: <u>Riverside Municipal Airport</u>		Distance From Airport Center: _____ sm	
Airport Identifier: <u>KRAL</u>		Direction From Airport: _____ degrees true	
Proximity to Airport: ☐ Off Airport/Airstrip ☒ On Airport/Airstrip ☐ N/A		Airport Elevation: <u>818</u> ft msl	
Runway Information Runway ID: <u>34</u> (L/R/C) Length: <u>2850</u> ft Width: <u>50</u> ft		Condition of Runway/Landing Surface <i>(Check all that apply)</i> ☒ 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	
Runway/Landing Surface <i>(Check all that apply)</i> ☒ Asphalt ☐ Grass/Turf ☐ Macadam ☐ Water ☒ Concrete ☐ Gravel ☐ Metal/Wood ☐ Dirt ☐ Ice ☐ Snow ☐ Unknown			
Approach/Departure Segment <i>(Select one)</i> ☐ 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 <i>(Check all that apply)</i> ☒ None ☐ ADF/NDB ☐ PAR ☐ MLS ☐ Practice ☐ SDF ☐ Sideslip ☐ L.DA ☐ GPS ☐ VOR/TVOR ☐ ILS ☐ ASR ☐ VOR/DME ☐ Localizer Only ☐ Visual ☐ TACAN ☐ LOC-back course ☐ Contact ☐ RNAV ☐ Circling ☐ Unknown		VFR Approach <i>(Check all that apply)</i> ☒ 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: <u>Dan Catalano</u> Middle Initial: <u>A</u> Last Name: <u>Catalano</u> City of Residence: <u>Mission Viejo</u> State: <u>CA</u> ZIP: <u>92692</u> Country: <u>USA</u> Age at time of Accident/Incident: <u>62</u> Date of Birth: [REDACTED] mm/dd/yyyy Certificate Number: [REDACTED]																																																																																																				
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																																																																																											
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Airplane Rating(s) <i>(Check all that apply)</i> ☒ None ☐ Single-Engine Land ☐ Single-Engine Sea ☐ Multiengine Land ☐ Multiengine Sea			Other Aircraft Rating(s) <i>(Check all that apply)</i> ☐ None ☐ Airship ☐ Balloon ☐ Glider ☐ Gyroplane ☒ Helicopter ☐ Powered Lift			Instrument Rating(s) <i>(Check all that apply)</i> ☒ None ☐ Airplane ☐ Helicopter ☐ Powered Lift		Instructor Rating(s) <i>(Check all that apply)</i> ☐ None ☐ Airplane Single-Engine ☐ Airplane Multi-Engine ☐ Gyroplane ☐ Powered Lift ☐ Instrument Airplane ☐ Instrument Helicopter ☒ Helicopter ☐ Glider ☐ Sport																																																																																												
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"Flight Crewmember 2" was pilot flying ☒ Yes ☐ No																																																																																																				
"Flight Crewmember 2" Identification First Name: <u>Tim</u> Middle Initial: <u>J</u> Last Name: <u>Harding</u> City of Residence: <u>Bryan</u> State: <u>TX</u> ZIP: <u>77807</u> Country: <u>USA</u> Age at time of Accident/Incident: <u>64</u> Date of Birth: <u> 1954 </u> mm/dd/yyyy Certificate Number: <u> </u>																																																																																																				
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ADDITIONAL FLIGHT CREWMEMBERS (Exclusive of cabin crew, complete the following information)						
Crew Name and Address			Seat Occupied		Injury	
First Name: _____ City of Residence: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____			☐ Left ☐ Front ☐ Center ☐ Rear ☐ Right ☐ Single ☐ Unknown		☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	
Pilot Certificate(s) (Check all that apply) ☐ None ☐ Flight Instructor ☐ Private ☐ Recreational ☐ Student ☐ Sport ☐ Commercial ☐ US Military ☐ Airline Transport ☐ Foreign ☐ Flight Engineer			Restraint Type: Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown		Inflatable Restraints ☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	
Type Rating/Endorsement for Accident/Incident Aircraft? ☐ Yes ☐ No		Total Flight Time at the Time of this Accident/Incident: _____ hrs				
Crew Name and Address			Seat Occupied		Injury	
First Name: _____ City of Residence: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____			☐ Left ☐ Front ☐ Center ☐ Rear ☐ Right ☐ Single ☐ Unknown		☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	
Pilot Certificate(s) (Check all that apply) ☐ None ☐ Flight Instructor ☐ Private ☐ Recreational ☐ Student ☐ Sport ☐ Commercial ☐ US Military ☐ Airline Transport ☐ Foreign ☐ Flight Engineer			Restraint Type: Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown		Inflatable Restraints ☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	
Type Rating/Endorsement for Accident/Incident Aircraft? ☐ Yes ☐ No		Total Flight Time at the Time of this Accident/Incident: _____ hrs				
PASSENGER(S) / OTHER PERSONNEL (Include cabin crew; continue on separate sheet if necessary)						
Name and Address		Seat	Injury	Restraint Type		Inflatable Restraints
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
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
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
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

FLIGHT ITINERARY INFORMATION							
Last Departure Point Airport ID: <u>KRAL</u> City: <u>Riverside</u> State: <u>California</u> Country: <u>USA</u>		Time of Departure Time: <u>1030</u> Time Zone: <u>pacific</u>		Destination Airport ID: _____ City: _____ State: _____ Country: _____			
Type of ATC Clearance/Service <i>(Check all that apply)</i> ☐ None ☐ Special VFR ☐ Special IFR ☐ VFR Flight Following ☐ Cruise ☒ VFR ☐ IFR ☐ VFR On Top ☐ Traffic Advisory ☐ Unknown / NA				Type Flight Plan Filed ☒ None ☐ VFR/IFR ☐ Company VFR ☐ IFR ☐ Military VFR ☐ Unknown ☐ VFR Activated? ☐ Yes ☒ No ☐ Unknown			
Airspace where the accident/incident occurred <i>(Check all that apply)</i> ☐ 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: <u>0</u> ft msl	
WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE							
Source of Pilot Weather Information <i>(Check all that apply)</i> ☐ 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: <u>Flight Service</u> Observation Time: <u>0930</u> Time Zone: <u>Pacific</u> Distance from Accident Site: <u>0</u> nm Direction from Accident Site: <u>0</u> 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		Ceiling ☒ None (Clear) ☐ Obscured ☐ Broken ☐ Indefinite ☐ Overcast ☐ Unknown		Temperature: _____ (C) or <u>82</u> (F) Dew Point: _____ (C) or <u>67</u> (F) Altimeter Setting: <u>30.06</u> in. Hg or _____ MB			
Lowest Cloud Condition Height _____ ft agl		Ceiling Height _____ ft agl					
Wind Direction ☐ Variable -or- Direction: _____ degrees true		Wind Speed ☒ Calm ☐ Light and Variable -or- Speed: _____ kts		Wind Gusts ☒ Not Gusting -or- Speed: _____ kts			
Visibility <u>10</u> miles RVR: _____ feet RVV: _____ miles Density Altitude: _____ ft							
Intensity of Precipitation ☐ Light ☐ Moderate ☐ Heavy ☐ N/A ☐ Unknown		Type of Precipitation <i>(Check all that apply)</i> ☒ 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 <i>(Check all that apply)</i> ☒ None ☐ Fog ☐ Blowing Dust ☐ Ground Fog ☐ Blowing Sand ☐ Haze ☐ Blowing Snow ☐ Ice Fog ☐ Blowing Spray ☐ Smoke ☐ Dust ☐ Unknown			
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		Turbulence Type <i>(Check all that apply)</i> ☒ 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: 							

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)

separation of tail boom, M/R blade damage (all) major airframe damage

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 and location, services obtained, and intended destination. Provide as much detail as possible.

On 8-17-18 at 0830 I completed a preflight inspection of N105JL. No anomalies were noted. The aircraft was moved to the ramp at 0900. Student Tim Harding arrived at 0930 and we began a ground review of the previous 2 days of instruction. One hour of flight time was planned. A decision was made to spend our time conducting power recovery and full touch down auto rotations. After requesting the option for landing on runway 27, we were instructed to hold on the ramp. We were advised it would be an extended period of time. I directed Mr. Harding to hover to the edge of the ramp to conduct hover drills. We hovered for approx. 3-5 minutes prior to being cleared for the option to land on runway 27. We departed west, south of taxi way A and began the climbing base turn above runway 34. After turning downwind we were advised that we were number 4 to land. We slowed to near hover approximately 1800' watching the aircraft we were to follow. We were cleared for the option and completed an uneventful power recovery auto rotation. During the engine run up, I heard the tower advise aircraft requesting to land were being told to call back in a few minutes. Due to the number of aircraft in the pattern, I requested the approach end of runway 34, as the area was not being utilized. We were cleared for left traffic to runway 34. We began our up wind departure climbing to 1800' for the downwind leg. We conducted an uneventful power recovery autorotation. We requested the option to land on runway 34 and were cleared for the option. Again we climbed to 1800' or above and conducted another uneventful power recovery auto rotation. I am not clear on the number of evolutions we conducted prior to a change in personnel in the tower. I requested the option to land on runway 34 and was cleared for the option. As before, we climbed to 1800' on the down wind. On the downwind leg, we were advised to remain at or below 1300'. We descended from 1800' to 1300' and I told Mr. Harding I would fly the Helicopter. Control of the aircraft was exchanged and I conducted an uneventful full touch down 180 degree autorotation. Mr. Harding was given control of the aircraft and conducted a number of uneventful power recovery 180 degree auto rotations from 1300' to runway 34. I advised Mr. Harding the next evolution would be a full touch down 180 degree auto rotation. The auto rotation was entered as the prior evolutions. The aircraft was turning back to the runway slower than I wanted and advised and assisted Mr. Harding to complete the return to the runway. As the sight picture came into view, I saw we were going to be short of our intended landing zone. I stated I was advancing the throttle to make the approach to power recovery. Our decent rate was greater than I anticipated and told Mr. Harding to level the skids. I was on the controls to assist from the time of the return to the runway. I was able to touch down with the skids level. I felt the absorbers on the skids collapsing as anticipated. During the unloading of the absorbers, I felt a large bump then rapid rotation of the airframe. I rolled the throttle to ground idle, then shut the fuel cut off. While reaching for the cut off. I saw that Mr. Harding had departed the aircraft. I located him on the runway. I exited the aircraft and preformed first aid on Mr. Harding until medics responded to relieve me.

Daniel Catalano

RECOMMENDATION (How could this accident/incident have been prevented?)		
Operator/Owner Safety Recommendation		
MECHANICAL MALFUNCTION/FAILURE (If more space is needed, continue on separate sheet)		
Was there Mechanical Malfunction/Failure? ☐ Yes ☒ No <i>(If yes, list the name of the part, manufacturer, part no., serial no., and describe the failure.)</i>		Total Time/Cycles On Part _____ Hours _____ Cycles Time Since This Part Inspected/Overhauled _____ Hours
FUEL & SERVICES INFORMATION		
Fuel on Board at Last Takeoff <i>(Convert from pounds, as necessary)</i> 46 _____ 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 AIRCRAFT		
Was an emergency evacuation of the aircraft performed? ☐ Yes ☒ No		
Method of Exit – Describe how the occupants exited and how many occupants evacuated each location		
OTHER AIRCRAFT – COLLISION (If air or ground collision occurred, complete this section for other aircraft)		
Aircraft Registration Number _____	Manufacturer: _____ Model: _____	Damage to Other Aircraft ☐ Destroyed ☐ 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

08/20/2018

mm/dd/yyyy

Name of Pilot/Operator: Daniel Catalano

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

NTSB Accident/Incident No.

WPR18CA 226

Reviewed by NTSB Regional Office

WPR Federal Way, WA

Name of Investigator

Tom Little

Date Report Received

8.18.2018