

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>Renton</u> State: <u>Wa</u> ZIP: <u>98056</u> Country: <u>USA</u> Latitude: _____ (dd:mm:ss N/S) Longitude: _____ (ddd:mm:ss E/W)		Date/Time Date: <u>12/27/2012</u> Local Time: <u>1015</u> mm/dd/yyyy Time Zone: <u>Pacific</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 _____ ft MSL

AIRCRAFT INFORMATION

Manufacturer: <u>Bell</u> Model: <u>407</u> Serial Number: <u>53812</u> Registration Number: <u>407KS</u> Amateur-built: ☐ Yes ☒ No		Max Gross Weight: <u>5,250</u> lbs Weight at Time of Accident/Incident: <u>4,300</u> lbs Location of Center of Gravity at Time of Accident/Incident: _____ 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 ☐ Acrobatic ☐ Transport Special ☐ Restricted ☐ Limited ☐ Provisional ☐ Experimental ☐ Special Flight ☐ Light Sport	Number of Seats: <u>7</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: _____ mm/dd/yyyy Airframe Total Time: _____ 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 <u>hand held fire extinguisher</u>
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ELT Installed ELT Activated ☒ Yes ☐ No ☐ 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: _____ Model: _____
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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								
Eng. 2								
Eng. 3								
Eng. 4								

OWNER/OPERATOR INFORMATION			
Registered Aircraft Owner Name: <u>King County Sheriff's Office</u> Fractional Ownership Aircraft: ☐ Yes ☒ No		Owner Address City: <u>Seattle</u> State: <u>Wa</u> ZIP: <u>98108</u> Country: <u>USA</u>	
Operator of Aircraft ☒ Same As Registered Owner Name: _____ Doing Business As: _____ 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 ☐ FAR 103 ☐ FAR 133 ☐ Non-US, Commercial ☐ FAR 121 ☐ FAR 135 ☐ Non-US, Non-commercial ☐ FAR 125 ☐ FAR 137 ☐ Armed Forces ☒ Public Use (select type) ☐ Federal ☐ State ☐ Local ☐ Unknown		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 ☐ 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 <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
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)

AIRPORT INFORMATION (If the accident/incident occurred on approach, takeoff or within 3 miles of an airport, complete this section)

Airport Identifier: KRNT

Distance From Airport Center: _____ SM

Airport Name: Renton Municipal

Direction From Airport: _____ degrees MAG

Proximity to Airport ☐ Off Airport/Airstrip ☒ On Airport ☐ On Airstrip

Airport Elevation: _____ 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/TWOR ☐ 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 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 ☐ 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: _____

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

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)

115 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 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

Aircraft was shutdown and pilot exited pilot door normally.

WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE**Weather Observation Facility**

Facility ID: _____

Observation Time: _____

Time Zone: _____

Distance from Accident Site: _____ NM

Direction from Accident Site: _____ degrees MAG

Source of Weather Information

(Check all that apply)

☐ National Weather Service

☐ Flight Service Station

☐ TV/Radio

☐ Automated Report

☐ Commercial Weather Service (DUATS)

☐ Company

☐ Military

☐ Internet

☐ Unknown

Method of Briefing

(Check all that apply)

☐ In Person

☐ Teletype

☐ Telephone/Computer

☐ Aircraft Radio

☐ TV/Radio

☐ Unknown

Briefing Type/Completeness

☐ Full

☐ Partial / Limited By Pilot

☐ Partial / Limited By Briefer

☐ Abbreviated

☐ Unknown

☐ Not Pertinent

Light Condition

☐ Dawn

☐ Day

☐ Dusk

☐ Night

☐ Dark Night

☐ Bright Night

☐ Not Reported

Visibility

_____ miles

Sky/Lowest Cloud Condition

☐ Clear

☐ Few

☐ Partial Obscuration

☐ Scattered

☐ Thin Broken

☐ Thin Overcast

☐ Unknown

Ceiling

☐ None (clear)

☐ Broken

☐ Overcast

☐ Obscured

☐ Indefinite

☒ Unknown

Restriction to Visibility (Check all that apply)

☒ None

☐ Blowing Dust

☐ Blowing Sand

☐ Blowing Snow

☐ Blowing Spray

☐ Dust

☐ Fog

☐ Ground Fog

☐ Haze

☐ Ice Fog

☐ Smoke

☐ Unknown

Lowest Cloud Condition Height

_____ ft AGL

Ceiling Height

_____ ft AGL

Wind Direction

☐ Indicated:

_____ degrees MAG

☐ Variable

Wind Speed

Velocity: _____ KTS

-or-

☐ Calm

☐ Light and Variable

Wind Gusts

Velocity: _____ KTS

☐ Gusting

☐ Not Gusting

Type of Turbulence (Check all that apply)

☐ None

☐ Clear Air

☐ In Clouds

☐ Vicinity of Thunderstorm

Severity of Turbulence

☐ Extreme

☐ Severe

☐ Moderate

☐ Moderate Chop

☐ Light

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

Temperature: _____ (C)
or _____ (F)

Altimeter Setting: _____ in. HG
or _____ MB

Density Altitude: _____ ft

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

Icing Forecast

Amount

☐ None

☐ Trace

☐ Light

☐ Moderate

☐ Severe

Type

☐ Rime

☐ Clear

☐ Mixed

Icing Actual

Amount

☐ None

☐ Trace

☐ Light

☐ Moderate

☐ Severe

Type

☐ Rime

☐ Clear

☐ Mixed

Type of Precipitation (Check all that apply)

☐ None

☐ Rain

☐ Snow

☐ Hail

☐ Rain Showers

☐ Freezing Rain

☐ Snow Shower

☐ Drizzle

☐ Ice Pellets

☐ Snow Pellets

☐ Snow Grains

☐ Ice Crystals

☐ Ice Pellets 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: Jason City: Seattle
 Middle Initial: M State: Wa ZIP: 98108
 Last Name: Houck Country: USA

Age at time of Accident/Incident: 35 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

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

06/12/2012
mm/dd/yyyy

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

12/10/2010
mm/dd/yyyy

Flight Review Aircraft

Make: Bell
 Model: 206

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
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	431	184						431		
Pilot in Command (PIC)	384							384		
Time as Instructor										
This Make/Model										
Last 90 Days	45							45		
Last 30 Days	20							20		
Last 24 Hours	0							0		

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****Actual****Simulated****Rotorcraft****Glider****Lighter
Than Air**

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										
First Name: _____			City: _____			☐ None		☐ Fatal								
Middle Initial: _____			State: _____			☐ Minor		☐ Unknown								
Last Name: _____			Country: _____			☐ Serious										
Pilot Certificate(s) (Check all that apply)						Seat Occupied										
☐ None		☐ Student		☐ Recreational		☐ Commercial		☐ Flight Engineer								
☐ Private		☐ Flight Instructor		☐ Sport		☐ Airline Transport		☐ U.S. Military								
☐ Foreign																
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										
First Name: _____			City: _____			☐ None		☐ Fatal								
Middle Initial: _____			State: _____			☐ Minor		☐ Unknown								
Last Name: _____			Country: _____			☐ Serious										
Pilot Certificate(s) (Check all that apply)						Seat Occupied										
☐ None		☐ Student		☐ Recreational		☐ Commercial		☐ Flight Engineer								
☐ Private		☐ Flight Instructor		☐ Sport		☐ Airline Transport		☐ U.S. Military								
☐ Foreign																
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										
First Name: _____			City: _____			☐ None		☐ Fatal								
Middle Initial: _____			State: _____			☐ Minor		☐ Unknown								
Last Name: _____			Country: _____			☐ Serious										
Pilot Certificate(s) (Check all that apply)						Seat Occupied										
☐ None		☐ Student		☐ Recreational		☐ Commercial		☐ Flight Engineer								
☐ Private		☐ Flight Instructor		☐ Sport		☐ Airline Transport		☐ U.S. Military								
☐ Foreign																
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: _____						_____	□	□	□	□	□	□	□	□	□	□
Middle Initial: _____																
Last Name: _____																
City: _____						_____	□	□	□	□	□	□	□	□	□	
State: _____																
ZIP: _____																
Country: _____						_____	□	□	□	□	□	□	□	□	□	
First Name: _____																
Middle Initial: _____																
Last Name: _____						_____	□	□	□	□	□	□	□	□	□	
City: _____																
State: _____																
ZIP: _____						_____	□	□	□	□	□	□	□	□	□	
Country: _____																
First Name: _____																
Middle Initial: _____						_____	□	□	□	□	□	□	□	□	□	
Last Name: _____																
City: _____																
State: _____						_____	□	□	□	□	□	□	□	□	□	
ZIP: _____																
Country: _____																
First Name: _____						_____	□	□	□	□	□	□	□	□	□	
Middle Initial: _____																
Last Name: _____																
City: _____						_____	□	□	□	□	□	□	□	□	□	
State: _____																
ZIP: _____																
Country: _____						_____	□	□	□	□	□	□	□	□	□	
First Name: _____																
Middle Initial: _____																
Last Name: _____						_____	□	□	□	□	□	□	□	□	□	
City: _____																
State: _____																
ZIP: _____						_____	□	□	□	□	□	□	□	□	□	
Country: _____																
First Name: _____																
Middle Initial: _____						_____	□	□	□	□	□	□	□	□	□	
Last Name: _____																
City: _____																
State: _____						_____	□	□	□	□	□	□	□	□	□	
ZIP: _____																
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.

Jason Houck narrative:

On 12-28-12, at around 1015 hrs at the Renton Airport preflight hangars, I was starting up Guardian 1 N407KS in preparation for a police mission in Woodinville. At the time, the helicopter was located on a moveable cart that sits approximately 18 inches off the ground. The back wheels of the dolly were chalked so as to prevent movement of the cart. Prior to the flight, I completed a preflight inspection and found no abnormalities. I went through the normal startup process and all went as typical / planned, including testing the foot pedals and felt / heard no abnormalities. I returned the pedals back to a neutral / slightly left strong position for run-up. After turning on the mission equipment, I began to roll the throttle on. As I was rolling the throttle on, I never observed the torque gauge go past 32%. As the rotor rpm was approaching 80%, I felt the cart begin to spin counter clockwise and at the same time the helicopter felt as if it was moving in the clockwise direction. My initial response was to roll the throttle down to prevent any further spin. This did not work and the helicopter and cart continued to spin until I could see the front of both skids off of some side of the cart. After seeing this, I think that I pulled up on the collective to prevent the helicopter from sliding forward off the cart, but the helicopter did not respond I think because the throttle was at idle. I do not remember it becoming airborne at any point. Shortly after that, the right side of the helicopter came off the cart completely, finally stopping the spin. At this point, I rolled the throttle completely off past the detent/lock idle and shutdown all the systems. Everything seemed to happen so quickly. At some point during this entire incident, either the helicopter made a complete 180 deg turn on the cart or the cart ended up spinning 180 in relation to the helicopter from where it had started. (nose of helicopter facing tow hook at start, tail facing tow hook at shutdown. The cart had moved approximately 5 feet to the left from where it had started and had ended up 45deg to the left (counter clockwise), but it is unknown if the cart just turned that amount or made 1 or more full revolutions. During this entire incident several lights and warning horns were going off, but I do not remember which ones they were. After rolling the throttle down the first time I do not remember rolling it back up and other than when I raised the collective as the front of the skids were coming off the cart I do not remember raising it prior to / again.

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

At this time we believe the chocks did not keep the cart from moving. We also now believe the pilot may have had the collective up a little and as he was rolling in more throttle and the aircraft became airborne unintentionally. We will be working on a new chocking systems well as training in aircraft operations.

ADDITIONAL INFORMATION (Please type or print in ink)

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

Internal Investigation results

On 12/27/2013 Deputy Houck pulled the 407 out on the dolly to get ready for a call to assist patrol. Dpty Houck got into the right seat and began the start/run up procedures. By all accounts the start up was normal. Deputy Potter was not in the aircraft yet as Houck was waiting.

Sgt Johnson was in the hangar and heard the helicopter start to power up so he looked outside. Sgt Johnson said he saw the helicopter become airborne. He stated it came off the dolly by about a foot and hover there for a moment. He said it then came down hard on the front of the dolly and that made the cart shift. The rear of the cart went right and the front of the cart went left. The aircraft then spun to the left with the nose going left and tail right. As the helicopter spun the aircraft tipped rearward and the tail rotors hit the ground. At this time Sgt Johnson ran back inside the hangar and warned others.

As he heard the helicopter winding down he went back out and saw that the helicopter was hanging off the cart. Deputy Houck had shutdown the helicopter and was not injured. It had spun 180 degrees on the cart and was now facing the opposite way it had started. The cart itself had also moved. It was turned left about 80 degrees from where it started. The helicopter was wedged into the cart on its rear left skid. It had broken through the support boards in the rear middle of the cart. The aircraft was also resting on the Nitesun which kept the right skid from touching the ground. If the aircraft had not been wedged into the cart as it was it likely would have rolled all the way over destroying the aircraft. Sgt Johnson began the accident investigation check list and made the appropriate calls. Deputy Potter called the FAA and the NTSB.

On 01/11/2013 there was a meeting with Northwest Helicopter, three Bell Helicopter reps, Sgt Johnson, Cpt Mendel, Deputy Potter, Deputy Houck and Deputy Pugh. During the discussion we talked about what the computer recorded during the event. The computer takes a snap shot of the event for about 15 seconds before and after an event. It appears during the investigation that there were two different events. One was unintentional flight and the other was the over torque where the damage to the aircraft happened.

On Monday 01/14/2013 Bell rep Greg Maitten arrived at the hangar to further discuss possible reasons for the event. After observing the cart on the ramp, reviewing pictures, reviewing computer printout and speaking to witness, Greg Maitten and I came up with what we think happened. There are two possibilities. First the pilot made an excessive control input or second the helicopter had a malfunction. The helicopter malfunction was ruled out from a post crash investigation. It appears that while Houck was running up the aircraft from idle to 100 percent it appears the collective was displaced in the up position. So as the throttle was rolling up past 80%, aircraft became airborne. The witness said as it was running up it came up off the cart about a foot. It went forward to the front edge of the cart and landed. Houck said he rolled the throttle back to idle when he got up to the front end of cart. However the computer printout shows that while he reduced throttle he left the collective in the up position at about 80%. As he landed this caused the front of the cart to turn to the left and the rear to shift to the right. As the pilot was on the front edge of the cart he believed he was going to go over the front edge so we believe he pulled aft cyclic. At this point due to the low rotor RPM and aft cyclic this is a possible time one of the blades impacted the right rear stabilizer tip cap. Houck sensing he was going to go over then pulled in collective and began rolling the throttle back up. With the excessive throttle acceleration and the collective pull even more than the 80% that was already there. This caused the aircraft to come off the cart spin to the left and come back down to rest partially on the cart. As the aircraft was spinning to the left the tail stinger impacted the ground as did the Tailrotor blades. This sent tail rotor blade pieces to spread over the ramp area. There was no damage to other aircraft. The left rear skid broke through the center of the cart and the fuselage came to rest on the right sun. The right skids were hanging off the right side of the cart but were not touching the ground. The aircraft had spun 180 degrees on the cart and was now facing the opposite way it started. We believe it spun to the left because Houck had a significant amount of left pedal at the time of the over torque. After the aircraft came to rest Houck performed an emergency shutdown. Houck was not injured and walked away.

It is my opinion that there was several contributing circumstance that created this accident.

1. Pilot inexperience. Houck had the least hours in the unit and due to unit circumstances he had not been able to consistently fly. He did not recognize the possible displacement of the collective on start up. Also while being focused on the instruments inside the aircraft I don't believe he realized he became airborne. Then as a young pilot he over reacted to the situation once on the front of the cart.

2. Cart stability. The landing cart was built using sixteen caster wheels on the bottom. The entire back rows are fixed casters and the front being rotating ones. We had only been chocking the two rear corner wheels. This did not lead to very good stability. Houck may have felt unstable at the time of the incident and took some actions based on his sense of movement.

Recommendations

Based upon this incident the following recommendations should be implemented. Continual pilot training, to include learning when controls are not in the correct positions during certain phases. Also emergency cart procedures. There also needs to be a better chocking system for the cart to make it stable as possible. They should have jacks installed to lift the cart off the ground slightly. New chocks should also be made or purchased and will be used on all four corners.

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE**Date of this Report**01/22/2013
mm/dd/yyyy**Signature and Name of Pilot/Operator**

Signature: _____

Type or Print Name: Keith A Potter

Chief Pilot

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.**

WPR13TA081

Reviewed by NTSB Regional Office

WPR- Aviation

Name of Investigator

Patrick H. Jones

Date Report Received

01/22/2013