

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: EAGLE NEST State: NM
 ZIP: 87718 Country: UNITED STATES
 Latitude: 36 33.439 (dd:mm:ss N/S) Longitude: 105 15.315 (ddd:mm:ss E/W)

Date/Time

Date: 03/14/2013 Local Time: 1445
 mm/dd/yyyy Time Zone: MOUNTAIN

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

9,000 ft MSL

AIRCRAFT INFORMATION

Manufacturer: ROBINSON

Model: R-44 RAVEN II

Serial Number: 11238

Registration Number: N392GP

Amateur-built: ☐ Yes ☒ No

Max Gross Weight: 2,500 lbs

Weight at Time of Accident/Incident: 2,249 lbs

Location of Center of Gravity at Time of Accident/Incident:

95.1AFT .03LA inches from ☒ nose or ☐ datum
 -or- _____ Percent Mean Aerodynamic Cord (% MAC)

Category of Aircraft

☐ Airplane
☐ Balloon
☐ Blimp/Dirigible
☐ Glider
☐ Gyrocraft
☒ Helicopter
☐ Powered lift
☐ Ultralight
☐ Unknown

Type of Airworthiness Certificate (Check all that apply)

Standard

☒ Normal
☐ Utility
☐ Acrobatic
☐ Transport

Special

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

Number of Seats: 4

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

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: 02/13/2013

mm/dd/yyyy

Airframe Total Time: 2,167 hrs

hours measured at (check one)

☐ Last Inspection ☒ Time of Accident/Incident

IFR Equipped

☐ Yes ☒ No ☐ Unknown

Stall Warning System Installed

☒ Yes ☐ No ☐ Unknown

Type of Fire Extinguishing System

☒ None
☐ Specify _____

ELT Installed

☐ Yes ☒ No

ELT Activated

☐ Yes ☐ No

ELT Manufacturer: _____

Model/Series: _____

Serial Number: _____

Battery Type: _____

Battery Exp. Date: _____

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: _____

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	LYCOMING	IO-540	L-31205-48A	12/13/2006	205MCP/245 TOP	2,167	63	2,167
Eng. 2								
Eng. 3								
Eng. 4								

OWNER/OPERATOR INFORMATION		
Registered Aircraft Owner Name: <u>GLOBAL POSITIONING SERVICES INC</u> Fractional Ownership Aircraft: ☐ Yes ☐ No		Owner Address City: <u>ANCHORAGE</u> State: <u>AK</u> ZIP: <u>99503-2673</u> Country: <u>USA</u>
Operator of Aircraft ☐ Same As Registered Owner Name: <u>LEADING EDGE AVIATION</u> Doing Business As: _____ Air Carrier/Operator Designator (4 Character Code): _____		Operator Address ☐ Same As Registered Owner City: <u>BEND</u> State: <u>OR</u> ZIP: <u>97701</u> Country: <u>USA</u>
Regulation Flight Conducted Under ☒ FAR 91 ☐ FAR 129 ☐ FAR 91 Special Flight ☐ Public Use (select type) ☐ FAR 103 ☐ FAR 133 ☐ Non-US, Commercial ☐ Federal ☐ State ☐ Local ☐ FAR 121 ☐ FAR 135 ☐ Non-US, Non-commercial ☐ Unknown ☐ FAR 125 ☐ FAR 137 ☐ Armed Forces		Revenue Sightseeing Flight ☐ Yes ☒ No Air Medical Flight ☐ Yes ☒ No
Purpose of Flight for FAR 91, 103, 133, 137 (Select one) ☐ Personal ☐ Business ☐ Executive/Corporate ☒ Other Work Use ☒ Instructional ☐ 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 (Check all that apply) ☒ None ☐ Flag Carrier Operating Certificate (121) ☐ Supplemental ☐ Air Cargo ☐ Foreign Air Carriers (129) ☐ Commuter Air Carrier (135) ☐ On-Demand Air Taxi (135) ☐ Large Helicopter (127) ☐ Rotorcraft External Load (133) - or - ☐ Agricultural Aircraft (137) ☐ Other Operator of Large Aircraft
OTHER AIRCRAFT – COLLISION (If air or ground collision occurred, complete this section for other aircraft)		
Aircraft Registration Number _____	Manufacturer: _____ Model: _____	Damage to Other Aircraft ☐ Destroyed ☐ Minor ☐ Substantial ☐ None
Registered Owner of Other Aircraft First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____		
Pilot of Other Aircraft First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____		
MECHANICAL MALFUNCTION/FAILURE (If more space is needed, continue on separate sheet)		
Was there Mechanical Malfunction/Failure? ☒ Yes ☐ No ☐ Unknown (If yes, list the name of the part, manufacturer, part no., serial no., and describe the failure.) CURRENT INFORMATION AT THIS TIME INCLUDES THE PROBABLE "BANG" COMING FROM THE RELEASE OF THE MAGNET THAT ATTACHES TO THE FORWARD SIDE OF THE FLEX PLATE ASSEMBLY THAT INDICATES THE RPM AS IT PASSES BY THE SENSOR OPPOSITE AND FORWARD OF ITS LOCATION. THE RPM WOULD HAVE BEEN IMMEDIATELY AFFECTED, AS WELL AS ACTIVATION OF LOW ROTOR RPM HORN AND LIGHT SYSTEM.		Total Time/Cycles On Part <u>2,167</u> Hours ____ Cycles Time Since This Part Inspected/Overhauled <u>63</u> Hours
DAMAGE TO AIRCRAFT AND OTHER PROPERTY		
Aircraft Damage ☐ None ☒ Substantial ☐ Minor ☐ Destroyed	Aircraft Fire ☒ None ☐ Both Ground and In-Flight ☐ In-Flight ☐ Unknown Origin ☐ On-Ground	Aircraft Explosion ☒ None ☐ Both Ground and In-Flight ☐ In-Flight ☐ Unknown Origin ☐ On-Ground

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

THE AIRCRAFT SUSTAINED SUBSTANTIAL DAMAGE TO THE TAIL ROTOR MONOCOQUE DESIGN BOOM, DRIVESHAFT, ANTI-COLLISION LIGHT, ANTI-TORQUE TAIL ROTOR PUSH/PULL TUBE, FLEX PLATES AND YOKE ASSEMBLIES. MAIN ROTOR BLADES WERE DAMAGED ALONG THE OUTBOARD THREE FEET, SPANWISE. FUSELAGE, SKID SYSTEM, AND REMAINDER OF HELICOPTER REMAINED INTACT AND UNDAMAGED.

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

Airport Identifier: _____

Distance From Airport Center: _____ SM

Airport Name: _____

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/TVOR ☐ Localizer Only ☐ Visual ☐ Unknown
☐ VOR/DME ☐ LOC-back course ☐ Contact
☐ TACAN ☐ RNAV ☐ Circling

VFR Approach (Check all that apply)

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

Runway 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: KDHTCity: DALHARTState: TEXASCountry: USA**Time of Departure**Time: 1315Time Zone: MTN**Destination**Airport ID: KMVICity: MONTE VISTAState: COLORADOCountry: USE**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)

48 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

ADDED ONE QUART OIL, 15 W 50.

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

BOTH PILOT AND STUDENT STEPPED UNINJURED FROM THE HELICOPTER.

WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE**Weather Observation Facility**Facility ID: KAXXObservation Time: 1440Time Zone: MTNDistance from Accident Site: 13 NMDirection from Accident Site: 200 degrees MAG**Source of Weather Information**

(Check all that apply)

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

Method of Briefing

(Check all that apply)

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

Briefing Type/Completeness

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

Light Condition

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

Visibility10 miles**Sky/Lowest Cloud Condition**

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

Ceiling

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

Restriction to Visibility (Check all that apply)

- | | |
|--|-------------------------------------|
| ☒ None | ☐ Fog |
| ☐ Blowing Dust | ☐ Ground Fog |
| ☐ Blowing Sand | ☐ Haze |
| ☐ Blowing Snow | ☐ Ice Fog |
| ☐ Blowing Spray | ☐ Smoke |
| ☐ Dust | ☐ Unknown |

Lowest Cloud Condition Height ft AGL**Ceiling Height** ft AGL**Wind Direction**☒ Indicated:
180 degrees MAG☐ Variable**Wind Speed**Velocity: 7 KTS

-or-

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

Wind GustsVelocity: KTS

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

Type of Turbulence (Check all that apply)

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

Severity of Turbulence

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

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

NONE KNOWN

Temperature: 13 (C)
or (F)Altimeter Setting: 30.41 in. HG
or MBDensity Altitude: 9,288 ftDew Point: -6 (C)
or (F)**Icing Forecast****Amount**

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

Type

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

Icing Actual**Amount**

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

Type

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

Type of Precipitation (Check all that apply)

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

Intensity of Precipitation

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

PILOT "A" INFORMATION

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

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

Pilot "A" Identification

First Name: AARON City: BEND
 Middle Initial: K State: OR ZIP: 97702
 Last Name: VANE Country: USA
 Age at time of Accident/Incident: 33 Date of Birth: mm/dd/yyyy Certificate Number: CFI-I 

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

04/03/2012
 mm/dd/yyyy

Medical Certificate Limitations

Medical Certificate Waivers

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks:

05/11/2012
 mm/dd/yyyy

Flight Review Aircraft

Make: ROBINSON
 Model: R-44 RAVEN II

Airplane Rating(s)

(Check all that apply)
☐ None
☐ Single-Engine Land
☐ Single-Engine Sea
☐ Multiengine Land
☐ Multiengine Sea

Other Aircraft Rating(s)

(Check all that apply)
☐ None
☐ Airship
☐ Free Balloon
☐ Glider
☐ Gyroplane
☒ Helicopter
☐ Powered Lift

Instrument Rating(s)

(Check all that apply)
☐ None
☐ Airplane
☒ Helicopter
☐ Powered Lift

Instructor Rating(s)

(Check all that apply)
☐ None
 ☐ Instrument Airplane
☐ Airplane Single-Engine
 ☒ Instrument Helicopter
☐ Airplane Multi-Engine
 ☐ Helicopter
☐ Gyroplane
 ☐ Glider
☐ Powered Lift
 ☐ Sport

Type Ratings

Student Endorsements (Include dates)

Flight Time (enter appropriate number of hours in each box)	All Aircraft	This Make & Model	Airplane Single Engine	Airplane Multiengine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time	797	282			39		188	797		
Pilot in Command (PIC)	735	277			37		188	735		
Time as Instructor	530	242			32		151	530		
This Make/Model					22		188			
Last 90 Days	144	108			9		42	144		
Last 30 Days	73	63			5		19	73		
Last 24 Hours	7	7			0		0	7		

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: ERICK City: BEND
 Middle Initial: S State: OR ZIP: 97701
 Last Name: HICKS Country: USA
 Age at time of Accident/Incident: 31 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

01/10/2011
 mm/dd/yyyy

Medical Certificate Limitations

Medical Certificate Waivers

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks:

10/26/2012
 mm/dd/yyyy

Flight Review Aircraft

Make: ROBINSON

Model: R-22 BETA II

Airplane Rating(s)

(Check all that apply)
☐ None
☐ Single-Engine Land
☐ Single-Engine Sea
☐ Multiengine Land
☐ Multiengine Sea

Other Aircraft Rating(s)

(Check all that apply)
☐ None
☐ Airship
☐ Free Balloon
☐ Glider
☐ Gyroplane
☐ Helicopter
☐ Powered Lift

Instrument Rating(s)

(Check all that apply)
☐ None
☐ Airplane
☐ Helicopter
☐ Powered Lift

Instructor Rating(s)

(Check all that apply)
☐ None
 ☐ Instrument Airplane
☐ Airplane Single-Engine
 ☐ Instrument Helicopter
☐ Airplane Multi-Engine
 ☐ Helicopter
☐ Gyroplane
 ☐ Glider
☐ Powered Lift
 ☐ Sport

Type Ratings

Student Endorsements (Include dates)

Flight Time (enter appropriate number of hours in each box)	All Aircraft	This Make & Model	Airplane Single Engine	Airplane Multiengine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time	202	73			9		41	202		
Pilot in Command (PIC)	79	68			6		33	79		
Time as Instructor										
This Make/Model					6		33			
Last 90 Days	68	68			5		32	68		
Last 30 Days	38	38			2		10	38		
Last 24 Hours	7	7						7		

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: _____ ZIP: _____			☐ 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											
						☐ Left ☐ Front ☐ Right ☐ Rear ☐ Center ☐ Single ☐ Unknown											
Pilot Name and Address						Degree of Injury											
First Name: _____			City: _____			☐ None		☐ Fatal									
Middle Initial: _____			State: _____ ZIP: _____			☐ 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											
						☐ Left ☐ Front ☐ Right ☐ Rear ☐ Center ☐ Single ☐ Unknown											
Pilot Name and Address						Degree of Injury											
First Name: _____			City: _____			☐ None		☐ Fatal									
Middle Initial: _____			State: _____ ZIP: _____			☐ 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											
						☐ Left ☐ Front ☐ Right ☐ Rear ☐ Center ☐ Single ☐ Unknown											
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: _____																	
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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.

*THE DAY STARTED IN FORT SMITH, ARKANSAS, AT SUNRISE. WE FLEW WEST STOPPING FIRST IN HINTON, OKLAHOMA FOR FUEL AND A REST. SECOND LEG WE FLEW TO DALHART, TEXAS WITH A SIMILAR REFUEL AND SHORT REST. THIRD LEG ENDED WITH THE ACCIDENT.

*PRIOR TO 30 SECONDS BEFORE FINAL RESTING SPOT AFTER AUTOROTATION, THE HELICOPTER HAD FLOWN WITHOUT INCIDENT OR ISSUE ASIDE FROM A STANDARD OIL-BURN RATE OF APPROXIMATELY ONE QUART EVERY 3-4 FLIGHT HOURS. THE LAST 20 MINUTES OF FLYING HAD BEEN EXITING THE HIGH DESERT AREA OF THE KIOWA NATIONAL GRASSLANDS, AND ENTERING THE MOUNTAINOUS TERRAIN NEAR EAGLE NEST, NM.

*AFTER NEGOTIATING THE PASS ABOVE HIGHWAY 64, WE TRANSITED NORTHBOUND WITH EAGLE NEST LAKE BEHIND US AS WE CONTINUED NORTH. SECONDS LATER, AFTER TURNING NORTH, THERE WAS A LOUD "BANG," FOLLOWED IMMEDIATELY BY THE LOW ROTOR RPM HORN AND LIGHT SYSTEM ACTIVATION WITH A RAPID DECREASE OF ROTOR RPM ON THE TACHOMETER. COMBINING THE LOUD BANG AND IMMEDIATE AND RAPID DECREASE OF ROTOR RPM, I ENTERED A STANDARD AUTOROTATION, AND WAS THEN IMMEDIATELY FACED WITH AN ENGINE FAILURE, PRESUMABLY AS A RESULT OF HIGH ALTITUDE AND ENTRY INTO THE AUTOROTATION. WITHOUT ANY INDICATION OF ROTOR RPM, COMBINED WITH A FAILED ENGINE, AND APPROXIMATELY 800 FEET AGL, I DETERMINED THERE WAS NOT ENOUGH TIME TO PERFORM THE ENGINE RESTART PROCEDURE FROM THE LEFT SEAT AND DETERMINED MYSELF TO A FULL DOWN AUTOROTATION TO A VAST OPEN CLEARING NORTH OF THE LAKE. I MADE A SLIGHT RIGHT BANK LOOKING TO SNAKE BETWEEN TWO DWELLINGS AND TOWARD THE MOST APPEALING PART OF THE FIELD.

*AT APPROXIMATELY 100' AGL, I NOTICED A BARBED WIRE FENCE THAT WAS UNNOTICED AT ALTITUDE AND PERFORMED A SLIGHT FLARE TO FLY OVER THE FENCE. ON THE OTHER SIDE OF THE FENCE I MADE ANOTHER SLIGHT RIGHT BANK TO AVERT A SMALL NATURAL DITCH AT THE LAST MOMENT. THE HELICOPTER MADE INITIAL IMPACT LIGHTLY AND WITHOUT DAMAGE. IT THEN CAME TO REST WITH THE FORWARD PART OF THE SKIDS JUST AT THE EDGE OF THE DITCH. WITH THE RESIDUAL MOMENTUM, THE HELICOPTER WENT NOSE DOWN, TAIL UP. I COULD SEE THE MAIN ROTOR SYSTEM TURNING MAYBE 1-2 FEET OFF THE GROUND AND I MADE A SLIGHT AFT CYCLIC ACTION TO PREVENT THE MAIN ROTOR CONTACTING THE TERRAIN. AS THE HELICOPTER CAME TO A REST, I ATTEMPTED TO CORRECT THE AFT CYCLIC KNOWING THAT THE RESULT WOULD OTHERWISE BE MAIN ROTOR CONTACT WITH THE TAIL BOOM. THE RESULT WAS THE SAME REGARDLESS, AND THE TAIL BOOM WAS STRUCK AND MOSTLY SEVERED. UPON COMING TO A REST, I TOLD THE STUDENT TO TURN OFF THE FUEL SHUT OFF VALVE AND I ACTUATED THE MAIN ROTOR BRAKE UNTIL IT CAME TO A STOP. I THEN TURNED OFF ALL POWER AND DETERMINED THE HELICOPTER WAS SAFE TO EXIT WITHOUT ANY KNOWN HAZARDS.

*WE EXITED THE AIRCRAFT WITH NO INJURIES, AND WITH NO DIFFICULTY TO THREE OBSERVERS RUNNING TO THE HELICOPTER. WITHIN 30 MINUTES, THE SHERIFF'S DEPARTMENT, VOLUNTEER FIRE DEPARTMENT AND PARAMEDICS HAD RESPONDED, AS WELL AS A MULTITUDE OF OBSERVERS AND SOME WITNESSES.

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

Operator/Owner Safety Recommendation

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**03/21/2013*mm/dd/yyyy***Signature and Name of Pilot/Operator**

Signature: _____ -

Type or Print Name: _____

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.**CEN13LA194**Reviewed by NTSB Regional Office**DENVER, COLORADO**Name of Investigator**ARNOLD W. SCOTT**Date Report Received**MARCH 21, 2013