


		NTSB ID: SEA03LA189		Aircraft Registration Number: N48020	
		Occurrence Date: 09/12/2003		Most Critical Injury: Serious	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place Diamond	State OR	Zip Code 97722	Local Time 0920	Time Zone PDT	
Airport Proximity: Off Airport/Airstrip		Distance From Landing Facility:			
Aircraft Information Summary					
Aircraft Manufacturer Bell		Model/Series 47G-3B-1		Type of Aircraft Helicopter	
Revenue Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
<p>Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:</p> <p>On September 12, 2003, approximately 0920 Pacific daylight time, a Bell 47G-3B-1, N48020, registered to the pilot, doing business as High Desert Helicopters as a 14 CFR Part 91 flight for the purpose of herding horses into a trap for the Bureau of Land Management, landed hard near Diamond, Oregon. Visual meteorological conditions prevailed at the time and no flight plan was filed for the local flight. The helicopter was substantially damaged and the commercial pilot, the sole occupant, was seriously injured. The flight had been operating in the area for about twenty minutes prior to the accident.</p> <p>In a written statement, the pilot reported that he was in a hover about 80 feet above ground level observing the horses that he was herding into a trap. The pilot stated that as he started to transition from the hover to forward flight, he noticed that the rotor rpm was decaying and the engine rpm increased rapidly. The pilot immediately rolled the throttle off and reduced collective pitch to enter an autorotation. Due to the decreased airspeed, the helicopter descended rapidly. Approximately 20 to 30 feet agl, the pilot added collective pitch control to control the rapid descent, however the helicopter landed hard. The main landing skids collapsed and the main rotor blades contacted and severed the tail boom. The helicopter came to rest with the engine still running on its tail and left side, nearly inverted with the nose high. A ground crew member (wrangler) in the local vicinity aided the pilot and was instructed to turn off the magnetos.</p> <p>Several people involved with the herding of the horses reported that they did not see the crash sequence due to terrain. Several did hear the helicopter's engine noise change to a "high pitch" sound just before the sound of the collision. An individual video taping the herding activity captured the sound of the helicopter engine, however, due to the terrain, did not have the aircraft in sight. The video verifies the engine sound going from a normal sound to a sudden high pitch, followed immediately by the sound of the collision.</p> <p>At the time of the accident, the temperature was reported at 65 degrees F. The wind velocity was about 8 knots, with gusts to 12 knots. The altimeter setting was 29.98" Hg. The accident site elevation is 4,700 feet mean sea level. Density altitude for the reported conditions were calculated as 6,087 feet.</p> <p>The wreckage was removed from the accident site and transported to Fallon, Nevada. An inspector from the Reno, Nevada, Flight Standards District Office inspected the helicopter. The inspector reported that the engine, transmission, clutch and freewheeling systems were inspected. No evidence of a mechanical failure or malfunction was found. The tach indicator was found inoperative and sent out to a facility for inspection. During the inspection it was found the unit was bound from impact damage.</p>					
FACTUAL REPORT - AVIATION					

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: SEA03LA189			
		Occurrence Date: 09/12/2003			
		Occurrence Type: Accident			
Landing Facility/Approach Information					
Airport Name	Airport ID:	Airport Elevation Ft. MSL	Runway Used	Runway Length	Runway Width
Runway Surface Type:					
Runway Surface Condition:					
Approach/Arrival Flown: NONE					
VFR Approach/Landing: None					
Aircraft Information					
Aircraft Manufacturer Bell		Model/Series 47G-3B-1		Serial Number 2812	
Airworthiness Certificate(s): Normal					
Landing Gear Type: Skid					
Amateur Built Acft? No	Number of Seats: 3	Certified Max Gross Wt. 2950 LBS		Number of Engines: 1	
Engine Type: Reciprocating	Engine Manufacturer: Lycoming		Model/Series: TVO 435B1A		Rated Power: 270 HP
- Aircraft Inspection Information					
Type of Last Inspection Annual	Date of Last Inspection 06/2003	Time Since Last Inspection 19 Hours		Airframe Total Time 7481 Hours	
- Emergency Locator Transmitter (ELT) Information					
ELT Installed?/Type Yes /		ELT Operated? Yes	ELT Aided in Locating Accident Site? No		
Owner/Operator Information					
Registered Aircraft Owner Clifford J. Heaverne		Street Address P.O. Box 1769			
		City Fallon	State NV	Zip Code 89407	
Operator of Aircraft Clifford J. Heaverne		Street Address P.O. Box 1769			
		City Fallon	State NV	Zip Code 89407	
Operator Does Business As: High Desert Helicopters			Operator Designator Code:		
- Type of U.S. Certificate(s) Held: None					
Air Carrier Operating Certificate(s):					
Operating Certificate:			Operator Certificate:		
Regulation Flight Conducted Under: Part 91: General Aviation					
Type of Flight Operation Conducted: Business					
<div style="display: flex; justify-content: space-between;"> FACTUAL REPORT - AVIATION Page 2 </div>					

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: SEA03LA189																																																																																											
		Occurrence Date: 09/12/2003																																																																																											
		Occurrence Type: Accident																																																																																											
First Pilot Information																																																																																													
Name		City		State	Date of Birth	Age																																																																																							
On File		On File		On File	On File	60																																																																																							
Sex: M	Seat Occupied: Left	Occupational Pilot? Civilian Pilot		Certificate Number: On File																																																																																									
Certificate(s): Commercial																																																																																													
Airplane Rating(s): Multi-engine Land; Single-engine Land																																																																																													
Rotorcraft/Glider/LTA: Helicopter																																																																																													
Instrument Rating(s): Airplane; Helicopter																																																																																													
Instructor Rating(s): None																																																																																													
Current Biennial Flight Review? 06/2003																																																																																													
Medical Cert.: Class 2		Medical Cert. Status: Valid Medical--w/ waivers/lim.		Date of Last Medical Exam: 06/2003																																																																																									
<table border="1"> <tr> <th>- Flight Time Matrix</th> <th>All A/C</th> <th>This Make and Model</th> <th>Airplane Single Engine</th> <th>Airplane Multi-Engine</th> <th>Night</th> <th colspan="2">Instrument Actual Simulated</th> <th>Rotorcraft</th> <th>Glider</th> <th>Lighter Than Air</th> </tr> <tr> <td>Total Time</td> <td>22468</td> <td>11280</td> <td>2710</td> <td>620</td> <td>1729</td> <td></td> <td></td> <td>19030</td> <td></td> <td></td> </tr> <tr> <td>Pilot In Command(PIC)</td> <td>22468</td> <td>11280</td> <td>2710</td> <td>620</td> <td>1729</td> <td></td> <td></td> <td>19030</td> <td></td> <td></td> </tr> <tr> <td>Instructor</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Instruction Received</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Last 90 Days</td> <td>141</td> <td>141</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>141</td> <td></td> <td></td> </tr> <tr> <td>Last 30 Days</td> <td>60</td> <td>60</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>60</td> <td></td> <td></td> </tr> <tr> <td>Last 24 Hours</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night	Instrument Actual Simulated		Rotorcraft	Glider	Lighter Than Air	Total Time	22468	11280	2710	620	1729			19030			Pilot In Command(PIC)	22468	11280	2710	620	1729			19030			Instructor											Instruction Received											Last 90 Days	141	141						141			Last 30 Days	60	60						60			Last 24 Hours										
- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night	Instrument Actual Simulated		Rotorcraft	Glider	Lighter Than Air																																																																																			
Total Time	22468	11280	2710	620	1729			19030																																																																																					
Pilot In Command(PIC)	22468	11280	2710	620	1729			19030																																																																																					
Instructor																																																																																													
Instruction Received																																																																																													
Last 90 Days	141	141						141																																																																																					
Last 30 Days	60	60						60																																																																																					
Last 24 Hours																																																																																													
Seatbelt Used? Yes		Shoulder Harness Used? Yes		Toxicology Performed? No		Second Pilot? No																																																																																							
Flight Plan/Itinerary																																																																																													
Type of Flight Plan Filed: None																																																																																													
Departure Point		State	Airport Identifier	Departure Time	Time Zone																																																																																								
Same as Accident/Incident Location				0900	PDT																																																																																								
Destination		State	Airport Identifier																																																																																										
Local Flight																																																																																													
Type of Clearance: None																																																																																													
Type of Airspace: Class G																																																																																													
Weather Information																																																																																													
Source of Wx Information:																																																																																													
No record of briefing																																																																																													
<div>FACTUAL REPORT - AVIATION</div> <div>Page 3</div>																																																																																													

 National Transportation Safety Board FACTUAL REPORT AVIATION			NTSB ID: SEA03LA189		
			Occurrence Date: 09/12/2003		
			Occurrence Type: Accident		

Weather Information					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
BNO	0953	PDT	4148 Ft. MSL	38 NM	318 Deg. Mag.
Sky/Lowest Cloud Condition: Few			4300 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: None			Ft. AGL	Visibility: 10 SM	Altimeter: 30.31 "Hg
Temperature: 12 °C		Dew Point: 1 °C	Weather Conditions at Accident Site: Visual Conditions		
Wind Direction: 10		Wind Speed: 9		Wind Gusts:	
Visibility (RVR): Ft.		Visibility (RVV) SM			
Precip and/or Obscuration:					

Accident Information					
Aircraft Damage: Substantial		Aircraft Fire: None		Aircraft Explosion: None	

- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL	
First Pilot		1			1	
Second Pilot						
Student Pilot						
Flight Instructor						
Check Pilot						
Flight Engineer						
Cabin Attendants						
Other Crew						
Passengers						
- TOTAL ABOARD -		1			1	
Other Ground						
- GRAND TOTAL -		1			1	

--	--	--	--	--	--

FACTUAL REPORT - AVIATION						Page 4
---------------------------	--	--	--	--	--	--------



National Transportation Safety Board

FACTUAL REPORT
AVIATION

NTSB ID: SEA03LA189

Occurrence Date: 09/12/2003

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

Debra J. Eckrote

Additional Persons Participating in This Accident/Incident Investigation:

Lewis H Sanders
FAA-FSDO
Boise, ID