Aviation Investigation Final Report

Location:	Christmas Valley, Oregon	**Accident Number:**	WPR22LA182
Date & Time:	May 18, 2022, 17:33 Local	**Registration:**	N851AL
Aircraft:	Airbus Helicopters AS 350B3	**Aircraft Damage:**	Substantial
Defining Event:	Loss of control in flight	**Injuries:**	4 Serious
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled - Air Medical (Unspecified)		

Analysis

According to the accident pilot, after transferring a patient from Klamath Falls, Oregon to Bend, Oregon, he received a request from his dispatch to collect a patient in Christmas Valley, Oregon. He reviewed weather information from stations surrounding the destination as there was no local weather reporting facility at the destination. The pilot recalled that the expected winds were from the northwest at 15-20 kts sustained, and gusting to 30 kts, but were acceptable for the flight. After a preflight inspection he departed on the accident flight with three flight crewmembers. They did not experience any significant weather while enroute to their destination and the helicopter was operating within its normal limitations. The pilot approached the airport by entering the airport traffic pattern from the north for a landing to the west as the winds were from the west/northwest. He recalled that the windspeeds at the time of arrival were approximately 15-20 kts and gusting between 25-30 kts.

After he became established on final approach he sidestepped and approached a parallel taxiway. He slowly taxied while looking for the air ambulance they were scheduled to meet. The pilot reported that he was monitoring the windsock during this time, but observed the helicopter handling well with no indication of winds that would exceed the helicopter's limitations at the time. Once he identified the landing site he lined the helicopter with the landing pad and began a descent while noting several structures nearby that were providing protection from the wind. At this point he performed a right pedal turn from about 3 ft above ground level to position the left door towards the ambulance for the pickup, consistent with the operator's protocol. The pedal turn went smoothly; however, as the helicopter touched down it was forced forward rapidly. The pilot reacted by increasing collective and applying aft cyclic to climb the helicopter and avoid surrounding hazards. He lowered collective when the helicopter was about 30 ft above ground level and held aft cyclic, but the helicopter began to spin to the left and he was unable to control the helicopter. The pilot then reduced power to IDLE using the throttle twist grip and could not recount anything further.

The pilot reported no preimpact mechanical anomalies or malfunctions with the helicopter that would have precluded normal operation. He opined that he encountered a hard wind from the rear.

A witness estimated that the wind was about 50 mph (43 kts) at the time of the accident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's inability to maintain control in high wind conditions while repositioning during a landing attempt, which resulted in a loss of control and collision with terrain.

Findings

Aircraft	(general) - Attain/maintain not possible
Personnel issues	Aircraft control - Pilot

Factual Information

History of Flight

Landing	Loss of control in flight (Defining event)

Pilot Information

Certificate:	Commercial	**Age:**	40,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	4-point
Instrument Rating(s):	Airplane; Helicopter	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	Class 2 Without waivers/limitations	**Last FAA Medical Exam:**	August 23, 2021
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	April 28, 2022
Flight Time:	2083 hours (Total, all aircraft), 15 hours (Total, this make and model), 1806 hours (Pilot In Command, all aircraft), 15 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Airbus Helicopters	**Registration:**	N851AL
Model/Series:	AS 350B3	**Aircraft Category:**	Helicopter
Year of Manufacture:	2019	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	8647
Landing Gear Type:	None; High skid	**Seats:**	4
Date/Type of Last Inspection:	May 17, 2022 AAIP	**Certified Max Gross Wt.:**	5225 lbs
Time Since Last Inspection:	411 Hrs	**Engines:**	1 Turbo shaft
Airframe Total Time:	1074 Hrs as of last inspection	**Engine Manufacturer:**	Safran
ELT:	C126 installed, activated, did not aid in locating accident	**Engine Model/Series:**	Arriel 2D
Registered Owner:	TVPX AIRCRAFT SOLUTIONS INC TRUSTEE	**Rated Power:**	728 Horsepower
Operator:	Med-Trans	**Operating Certificate(s) Held:**	On-demand air taxi (135)
Operator Does Business As:	Airlink critical care transport	**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KBDN,3462 ft msl	**Distance from Accident Site:**	57 Nautical Miles
Observation Time:	17:29 Local	**Direction from Accident Site:**	336°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	18 knots / 25 knots	**Turbulence Type Forecast/Actual:**	None / None
Wind Direction:	220°	**Turbulence Severity Forecast/Actual:**	N/A / N/A
Altimeter Setting:	30.11 inches Hg	**Temperature/Dew Point:**	17°C / -1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bend, OR (54OR)	**Type of Flight Plan Filed:**	Company VFR
Destination:	Christmas Valley, OR	**Type of Clearance:**	None
Departure Time:	16:53 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	Christmas Valley Airport 62S	**Runway Surface Type:**	Asphalt
Airport Elevation:	4320 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	07/25	**IFR Approach:**	None
Runway Length/Width:	5200 ft / 60 ft	**VFR Approach/Landing:**	Full stop

Wreckage and Impact Information

Crew Injuries:	4 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	4 Serious	**Latitude, Longitude:**	43.23625,-120.66469(est)

Administrative Information

Investigator In Charge (IIC):	Stein, Stephen
Additional Participating Persons:	Erik Ramseyer; Federal Aviation Administration; Portland, OR
Original Publish Date:	August 16, 2022
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=105103