



National Transportation Safety Board Aviation Accident Final Report

Location:	Nuiqsut, AK	Accident Number:	GAA19CA531
Date & Time:	09/06/2019, 1350 AKD	Registration:	N447PA
Aircraft:	Robinson R44	Aircraft Damage:	Substantial
Defining Event:	Prop/jet/rotor blast/suction	Injuries:	1 None
Flight Conducted Under:	Part 133: Rotorcraft Ext. Load		

Analysis

The pilot reported that he landed the helicopter facing south and about 90 ft from where ground personnel were unhooking super sacks filled with gravel. When the skids touched down, the pilot reduced the collective and then saw an empty super sack about 15 ft away, which subsequently struck the main rotor toward the outboard portion of the blade. The super sack was ingested by the advancing side of the main rotor disk. The pilot rolled off the throttle and shut down the engine. The helicopter sustained substantial damage to the main rotor blades. The pilot reported that there were no preaccident mechanical failures or malfunctions with the helicopter that would have precluded normal operation.

Probable Cause and Findings

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

The pilot's improper decision to land downwind from unsecured debris, which resulted in the helicopter's main rotor disk ingesting foreign objects.

Findings

Personnel issues	Decision making/judgment - Pilot (Cause)
Environmental issues	Debris/dirt/foreign object - Effect on operation (Cause)

Factual Information

History of Flight

After landing Prop/jet/rotor blast/suction (Defining event)

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	32, Male
Airplane Rating(s):	None	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Helicopter	Toxicology Performed:	No
Medical Certification:	Class 2 Without Waivers/Limitations	Last FAA Medical Exam:	04/05/2019
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	05/14/2019
Flight Time:	(Estimated) 2215 hours (Total, all aircraft), 1780 hours (Total, this make and model), 2149 hours (Pilot In Command, all aircraft), 102 hours (Last 90 days, all aircraft), 68 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Robinson	Registration:	N447PA
Model/Series:	R44 II	Aircraft Category:	Helicopter
Year of Manufacture:	2006	Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	11197
Landing Gear Type:	Skid;	Seats:	4
Date/Type of Last Inspection:	08/30/2019, 100 Hour	Certified Max Gross Wt.:	2500 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	4038.8 Hours at time of accident	Engine Manufacturer:	Lycoming
ELT:	C126 installed, not activated	Engine Model/Series:	IO-540-AE1A5
Registered Owner:	Pollux Aviation Ltd	Rated Power:	260 hp
Operator:	Pollux Aviation Ltd	Operating Certificate(s) Held:	Agricultural Aircraft (137); Commuter Air Carrier (135); Rotorcraft External Load (133)
Operator Does Business As:		Operator Designator Code:	UPXL

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	PAUN, 20 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	2155 UTC	Direction from Accident Site:	184°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	220°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.09 inches Hg	Temperature/Dew Point:	32° C / 6° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Deadhorse, AK (PASC)	Type of Flight Plan Filed:	None
Destination:	Deadhorse, AK (PASC)	Type of Clearance:	None
Departure Time:	0900 AKD	Type of Airspace:	Class G

Airport Information

Airport:	Nuiqsut (AQT)	Runway Surface Type:	Grass/turf; Gravel
Airport Elevation:	45 ft	Runway Surface Condition:	Dry; Soft; Vegetation
Runway Used:	N/A	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Full Stop

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	63.888611, -160.799167 (est)

Administrative Information

Investigator In Charge (IIC):	Michael A Hicks	Report Date:	03/17/2020
Additional Participating Persons:			
Publish Date:	03/17/2020		
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=100220		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).