



Aviation Investigation Final Report

Location:	Pendleton, Oregon	Accident Number:	WPR25LA064
Date & Time:	December 16, 2024, 09:58 Local	Registration:	N223PA
Aircraft:	AMAZON.COM SERVICES LLC MK30	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (total)	Injuries:	N/A
Flight Conducted Under:	Part 91: General aviation - Flight test		

Analysis

The operator of the unmanned aircraft system (UAS) reported that, during a test flight with a new software upgrade, the UAS completed the delivery mission and was transitioning to land, when all six motors suddenly stopped. The UAS fell to the ground and impacted the asphalt taxiway, resulting in substantial damage to the fuselage.

Examination of the UAS by the operator revealed that the newly installed software caused an incorrect altitude reading in the UAS during landing, causing the motors to shut down.

The operator reported that there were no preaccident mechanical failures or malfunctions with the UAS 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 incorrect altitude indication by test software during landing.

Findings

Aircraft

Automatic data - Malfunction

Factual Information

History of Flight

Landing	Loss of engine power (total) (Defining event)
---------	---

Pilot Information

Certificate:	Private; Remote	Age:	30,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	None
Other Aircraft Rating(s):	Unmanned (sUAS)	Restraint Used:	None
Instrument Rating(s):	Airplane	Second Pilot Present:	
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	January 2, 2024
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	August 30, 2024
Flight Time:	(Estimated) 255 hours (Total, all aircraft), 250 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	AMAZON.COM SERVICES LLC	Registration:	N223PA
Model/Series:	MK30	Aircraft Category:	Helicopter
Year of Manufacture:	2024	Amateur Built:	
Airworthiness Certificate:	Experimental (Special)	Serial Number:	178650100M
Landing Gear Type:	None	Seats:	0
Date/Type of Last Inspection:	November 26, 2024 Continuous airworthiness	Certified Max Gross Wt.:	83 lbs
Time Since Last Inspection:		Engines:	6 Electric
Airframe Total Time:	52.51 Hrs at time of accident	Engine Manufacturer:	AMA/EXPR
ELT:	Not installed	Engine Model/Series:	UNKNOWN ENG
Registered Owner:	AMAZON.COM SERVICES LLC	Rated Power:	
Operator:	AMAZON.COM SERVICES LLC	Operating Certificate(s) Held:	Certificate of authorization or waiver (COA)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KPDT,1514 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	09:53 Local	Direction from Accident Site:	66°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Broken / 5000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	4 knots / None	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	320°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.96 inches Hg	Temperature/Dew Point:	4°C / 3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Pendleton, OR	Type of Flight Plan Filed:	None
Destination:	Pendleton, OR	Type of Clearance:	VFR
Departure Time:		Type of Airspace:	Class D

Airport Information

Airport:	EASTERN OREGON RGNL AT PENDLETON PDT	Runway Surface Type:	
Airport Elevation:	1494 ft msl	Runway Surface Condition:	Wet
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	N/A	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	On-ground
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	N/A	Latitude, Longitude:	45.695096,-118.84336

Administrative Information

Investigator In Charge (IIC): Gutierrez, Eric

Additional Participating Persons: Chris Pinter; FAA; Portland, OR

Original Publish Date: April 22, 2025

Last Revision Date:

Investigation Class: [Class 4](#)

Note: The NTSB did not travel to the scene of this accident.

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=199434>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).