



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Tucson, Arizona	Accident Number:	WPR22LA018
Date & Time:	October 16, 2021, 13:00 Local	Registration:	N544AM
Aircraft:	Airbus A350	Aircraft Damage:	Substantial
Defining Event:	Ground collision	Injuries:	4 None
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled - Air Medical (Medical emergency)		

Analysis

The operator reported that, during the landing for the air medical helicopter flight, the tail rotor blades collided with a large fire extinguisher that was located on the approach path and abeam a perimeter fence. The helicopter subsequently landed without further incident. The tailboom and horizontal stabilizer were substantially damaged. The pilot reported that there were no preaccident mechanical malfunctions or failures 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 failure to maintain clearance from ground equipment during landing.

Findings

Personnel issues	Monitoring environment - Pilot
Aircraft	Altitude - Not attained/maintained
Environmental issues	Ground equipment - Effect on operation

Factual Information

History of Flight

Landing	Ground collision (Defining event)
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Pilot Information

Certificate:	Commercial	Age:	48,Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	4-point
Instrument Rating(s):	Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Instrument helicopter	Toxicology Performed:	
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	February 12, 2021
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	February 18, 2021
Flight Time:	(Estimated) 3188 hours (Total, all aircraft), 161 hours (Total, this make and model), 2336 hours (Pilot In Command, all aircraft), 30 hours (Last 90 days, all aircraft), 16 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Cabin crew Information

Certificate:		Age:	
Airplane Rating(s):		Seat Occupied:	Right
Other Aircraft Rating(s):		Restraint Used:	4-point
Instrument Rating(s):		Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

Cabin crew Information

Certificate:	Age:
Airplane Rating(s):	Seat Occupied: Left
Other Aircraft Rating(s):	Restraint Used: 4-point
Instrument Rating(s):	Second Pilot Present: No
Instructor Rating(s):	Toxicology Performed:
Medical Certification:	Last FAA Medical Exam:
Occupational Pilot: UNK	Last Flight Review or Equivalent:
Flight Time:	

Passenger Information

Certificate:	Age:
Airplane Rating(s):	Seat Occupied: Center
Other Aircraft Rating(s):	Restraint Used: 5-point
Instrument Rating(s):	Second Pilot Present: No
Instructor Rating(s):	Toxicology Performed:
Medical Certification:	Last FAA Medical Exam:
Occupational Pilot: UNK	Last Flight Review or Equivalent:
Flight Time:	

Aircraft and Owner/Operator Information

Aircraft Make:	Airbus	Registration:	N544AM
Model/Series:	A350 B3	Aircraft Category:	Helicopter
Year of Manufacture:	2007	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	4206
Landing Gear Type:	Skid	Seats:	6
Date/Type of Last Inspection:	October 12, 2021 AAIP	Certified Max Gross Wt.:	4961 lbs
Time Since Last Inspection:	0.5 Hrs	Engines:	1 Turbo shaft
Airframe Total Time:	7571 Hrs as of last inspection	Engine Manufacturer:	TURBOMECA
ELT:	C126 installed, not activated	Engine Model/Series:	ARRIEL 2B1
Registered Owner:	AIR MEATHODS CORP	Rated Power:	747 Horsepower
Operator:	AIR MEATHODS CORP	Operating Certificate(s) Held:	On-demand air taxi (135)
Operator Does Business As:		Operator Designator Code:	QMLA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KDMA,2704 ft msl	Distance from Accident Site:	5 Nautical Miles
Observation Time:	12:58 Local	Direction from Accident Site:	182°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	16 knots / None	Turbulence Type Forecast/Actual:	Unknown / Unknown
Wind Direction:	130°	Turbulence Severity Forecast/Actual:	Unknown / Unknown
Altimeter Setting:	30.04 inches Hg	Temperature/Dew Point:	30°C / -1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Nogales, AZ (N/A)	Type of Flight Plan Filed:	Company VFR
Destination:	Tucson, AZ	Type of Clearance:	None
Departure Time:	12:37 Local	Type of Airspace:	Class G

Airport Information

Airport:	TUCSON MEDICAL CENTER AZ37	Runway Surface Type:	Asphalt
Airport Elevation:	2485 ft msl	Runway Surface Condition:	Dry
Runway Used:	H1	IFR Approach:	None
Runway Length/Width:	100 ft / 100 ft	VFR Approach/Landing:	Full stop

Wreckage and Impact Information

Crew Injuries:	3 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	4 None	Latitude, Longitude:	32.251697,-110.87932(est)

Administrative Information

Investigator In Charge (IIC):	Swick, Andrew
Additional Participating Persons:	Mike Moyer; Scottsdale FSDO; Scottsdale, AZ
Original Publish Date:	April 29, 2022
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=104137

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](#).