



# Aviation Investigation Final Report

<b>Location:</b>	Tucson, Arizona	<b>Accident Number:</b>	WPR22LA018
<b>Date &amp; Time:</b>	October 16, 2021, 13:00 Local	<b>Registration:</b>	N544AM
<b>Aircraft:</b>	Airbus A350	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Ground collision	<b>Injuries:</b>	4 None
<b>Flight Conducted Under:</b>	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

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

## Factual Information

### History of Flight

<b>Landing</b>	Ground collision (Defining event)
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### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	48, Male
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>	Helicopter	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Instrument helicopter	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	Class 1 With waivers/limitations	<b>Last FAA Medical Exam:</b>	February 12, 2021
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	February 18, 2021
<b>Flight Time:</b>	(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

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

## Cabin crew Information

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

## Passenger Information

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

## Aircraft and Owner/Operator Information

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

## Meteorological Information and Flight Plan

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

## Airport Information

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

## Wreckage and Impact Information

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

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Swick, Andrew
<b>Additional Participating Persons:</b>	Mike Moyer; Scottsdale FSDO; Scottsdale, AZ
<b>Original Publish Date:</b>	April 29, 2022
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 4</a>
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=104137">https://data.ntsb.gov/Docket?ProjectID=104137</a>

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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](#).