



Aviation Investigation Final Report

Location:	Santa Rosa, Arizona	Accident Number:	GAA18CA070
Date & Time:	December 6, 2017, 09:00 Local	Registration:	N790AM
Aircraft:	Eurocopter AS 350	Aircraft Damage:	Substantial
Defining Event:	Hard landing	Injuries:	2 None
Flight Conducted Under:	Public aircraft		

Analysis

The pilot reported that, while landing off airport, the helicopter landed slightly harder than normal. The pilot flew the helicopter back to the airport without further incident.

A postaccident examination revealed that the helicopter had sustained substantial damage to the tailboom.

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 landing flare, which resulted in a hard landing.

Findings

Aircraft	Landing flare - Not attained/maintained
Personnel issues	Aircraft control - Pilot

Factual Information

History of Flight

Landing	Hard landing (Defining event)
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Pilot Information

Certificate:	Commercial	Age:	45, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Unknown
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Without waivers/limitations	Last FAA Medical Exam:	December 1, 2016
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 6000 hours (Total, all aircraft), 1500 hours (Total, this make and model), 3000 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Eurocopter	Registration:	N790AM
Model/Series:	AS 350	Aircraft Category:	Helicopter
Year of Manufacture:	2007	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	4298
Landing Gear Type:	High skid	Seats:	6
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	5225 lbs
Time Since Last Inspection:		Engines:	1 Turbo shaft
Airframe Total Time:		Engine Manufacturer:	
ELT:		Engine Model/Series:	
Registered Owner:	US DEPARTMENT OF HOMELAND SECURITY	Rated Power:	
Operator:	US DEPARTMENT OF HOMELAND SECURITY	Operating Certificate(s) Held:	None

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:	66 Nautical Miles
Observation Time:	15:58 Local	Direction from Accident Site:	93°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Overcast / 8500 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	30.13 inches Hg	Temperature/Dew Point:	12°C / 3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	TUCSON, AZ (DMA)	Type of Flight Plan Filed:	VFR/IFR
Destination:	TUCSON, AZ (DMA)	Type of Clearance:	VFR
Departure Time:	07:15 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	32.233612,-112.183609(est)

Administrative Information

Investigator In Charge (IIC):	Swenson, Eric
Additional Participating Persons:	Joe Remington; FAA; Scottsdale, AZ
Original Publish Date:	March 14, 2018
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=96434

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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](#).