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)

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.ntsb.gov/Docket?ProjectID=96434