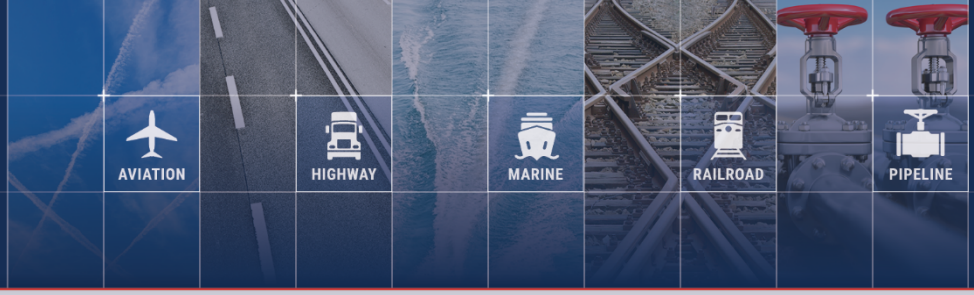

Aviation Investigation Final Report

Location:	San Diego, California	**Accident Number:**	WPR23LA200
Date & Time:	May 23, 2023, 22:10 Local	**Registration:**	N791AM
Aircraft:	Eurocopter AS 350 B3	**Aircraft Damage:**	Unknown
Defining Event:	Collision with terr/obj (non-CFIT)	**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Public aircraft - federal		

Analysis

The pilot of the helicopter reported that he had completed an operational mission, during which he was wearing Night Vision Goggles (NVGs), and returned to the airport. While hover taxiing to parking using the NVGs, an aircraft approaching the airport to land triggered the Traffic Collision Avoidance System (TCAS), causing the helicopter's strobing "wig-wag" lights to activate and impact the pilot's visibility. The pilot looked down to locate the light switch and removed his hand from the collective to deactivate the lights. The helicopter descended and contacted the ground before the pilot could stop the descent. The helicopter subsequently became airborne again and the pilot was able to regain control and continue hover taxiing to parking. Substantial damage to the tail boom was discovered after the flight. 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 altitude during a hover taxi due to distraction resulting from the unanticipated activation of strobing lights while using night vision googles.

Findings

Personnel issues	Aircraft control - Pilot
Environmental issues	Bright light - Response/compensation
Aircraft	Altitude - Not attained/maintained
Personnel issues	Attention - Pilot

Factual Information

History of Flight

Taxi-from runway	Loss of visual reference
Taxi-from runway	Altitude deviation
Taxi-from runway	Collision with terr/obj (non-CFIT) (Defining event)

Pilot Information

Certificate:	Commercial; Military	**Age:**	42,Male
Airplane Rating(s):	None	**Seat Occupied:**	Right
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	4-point
Instrument Rating(s):	Helicopter	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	Class 2 Without waivers/limitations	**Last FAA Medical Exam:**	May 4, 2023
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	March 20, 2023
Flight Time:	1900 hours (Total, all aircraft), 200 hours (Total, this make and model), 560 hours (Pilot In Command, all aircraft), 23 hours (Last 30 days, all aircraft)		

Co-pilot Information

Certificate:	Airline transport; Commercial	**Age:**	44,Male
Airplane Rating(s):	Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	4-point
Instrument Rating(s):	Airplane; Helicopter	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	Class 1 Without waivers/limitations	**Last FAA Medical Exam:**	May 24, 2023
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	March 30, 2023
Flight Time:	1388 hours (Total, all aircraft), 190 hours (Total, this make and model), 914 hours (Pilot In Command, all aircraft), 56 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Eurocopter	**Registration:**	N791AM
Model/Series:	AS 350 B3	**Aircraft Category:**	Helicopter
Year of Manufacture:	2007	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	4335
Landing Gear Type:	High skid; Skid	**Seats:**	6
Date/Type of Last Inspection:	April 28, 2023	**Certified Max Gross Wt.:**	5225 lbs
Time Since Last Inspection:	69 Hrs	**Engines:**	1 Turbo shaft
Airframe Total Time:	11500 Hrs as of last inspection	**Engine Manufacturer:**	TURBOMECA
ELT:	Installed, not activated	**Engine Model/Series:**	ARRIEL 2B1
Registered Owner:	US DEPARTMENT OF HOMELAND SECURITY	**Rated Power:**	747 Horsepower
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:**	Night
Observation Facility, Elevation:	KSDM,525 ft msl	**Distance from Accident Site:**	1 Nautical Miles
Observation Time:	21:53 Local	**Direction from Accident Site:**	306°
Lowest Cloud Condition:		**Visibility**	10 miles
Lowest Ceiling:	Overcast / 1400 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	6 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	260°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.95 inches Hg	**Temperature/Dew Point:**	14°C / 12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	San Diego, CA	**Type of Flight Plan Filed:**	Company VFR
Destination:	San Diego, CA	**Type of Clearance:**	None
Departure Time:		**Type of Airspace:**	Class D

Airport Information

Airport:	BROWN FLD MUNI SDM	**Runway Surface Type:**	Asphalt;Concrete
Airport Elevation:	526 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	26R	**IFR Approach:**	None
Runway Length/Width:	7972 ft / 150 ft	**VFR Approach/Landing:**	Full stop

Wreckage and Impact Information

Crew Injuries:	2 None	**Aircraft Damage:**	Unknown
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	32.570396,-116.98481(est)

Administrative Information

Investigator In Charge (IIC):	Rho, Paul
Additional Participating Persons:	Jacques Beaver; FAA; San Diego, CA Don Baker; CBP; San Diego, CA
Original Publish Date:	October 20, 2023
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=192242