



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

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 goggles.

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.nts.gov/Docket?ProjectID=192242

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](#).