



Aviation Investigation Final Report

Location:	Harbor Creek, Pennsylvania	Accident Number:	NYC03LA110
Date & Time:	May 15, 2003, 08:15 Local	Registration:	N7YL
Aircraft:	Agusta A109E	Aircraft Damage:	Substantial
Defining Event:		Injuries:	3 None
Flight Conducted Under:	Part 91: General aviation - Positioning		

Analysis

During his preflight inspection of the helicopter, the pilot placed a flashlight on the tailboom strake. The pilot's attention was diverted by a mechanic and he failed to remove the flashlight prior to departure. After takeoff, the helicopter experienced a vibration and the pilot performed a precautionary landing to a field. A subsequent inspection of the helicopter revealed the flashlight had damaged the main rotor and tail rotor blades.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper preflight inspection, during which he failed to remove a flashlight from the tailboom strake. A factor was the pilot's attention be diverted by a mechanic during the preflight inspection.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. OBJECT - OTHER
2. (C) AIRCRAFT PREFLIGHT - IMPROPER - PILOT IN COMMAND
3. (F) DIVERTED ATTENTION - PILOT IN COMMAND

Factual Information

On May 15, 2003, at 0815 eastern daylight time, an Agusta A109E helicopter, N7YL, operated by Tri-State Emergency Systems, was substantially damaged after takeoff from the Harbor Creek Heliport, Harbor Creek, Pennsylvania. The certificated airline transport pilot and 2 passengers were not injured. Visual meteorological conditions prevailed and no flight plan was filed for the air medical positioning flight conducted under 14 CFR Part 91.

In a written statement provided by the pilot, he stated that while checking the tailrotor driveshaft during a preflight inspection, he was called by the mechanic to look at another item on the helicopter. He placed the flashlight he was using on the V-shaped "strake" on the tailboom, and when he finished with the mechanic, he prepared for departure.

The pilot then departed for a local flight and while leveling off at 700 feet, the rotor system experienced a vibration. The pilot executed a precautionary landing to a field, after which he noticed damage to the main rotor and tail rotor blades. He then attempted to locate the flashlight he had used during the preflight to further inspect the helicopter. When he was unable to locate the flashlight, the pilot realized he had left it on the "strake" during the preflight, which damaged the blades during takeoff.

Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	Age:	33, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	June 4, 2003
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	May 14, 2003
Flight Time:	3183 hours (Total, all aircraft), 62 hours (Total, this make and model), 2218 hours (Pilot In Command, all aircraft), 57 hours (Last 90 days, all aircraft), 33 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Agusta	Registration:	N7YL
Model/Series:	A109E	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	11502
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	AAIP	Certified Max Gross Wt.:	6283 lbs
Time Since Last Inspection:		Engines:	2 Turbo shaft
Airframe Total Time:		Engine Manufacturer:	Turbomeca
ELT:	Not installed	Engine Model/Series:	Arrius 2KI
Registered Owner:	Tri-State Emergency Systems Inc	Rated Power:	750 Horsepower
Operator:	CJ Systems	Operating Certificate(s) Held:	On-demand air taxi (135)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	ERI, 733 ft msl	Distance from Accident Site:	13 Nautical Miles
Observation Time:	07:51 Local	Direction from Accident Site:	250°
Lowest Cloud Condition:	Scattered / 8000 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	13 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	150°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.94 inches Hg	Temperature/Dew Point:	12°C / 6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Harbor Creek, PA (NONE)	Type of Flight Plan Filed:	None
Destination:	Erie, PA (ERI)	Type of Clearance:	VFR flight following
Departure Time:	08:10 Local	Type of Airspace:	Class E

Airport Information

Airport:	None	Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	Unknown
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Precautionary landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	42.081943,-80.176109

Administrative Information

Investigator In Charge (IIC): Andrews, Jill

Additional Participating Persons: Bill Koshar; FAA/FSDO; Pittsburgh, PA

Original Publish Date: March 30, 2004

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=57019>

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