



Aviation Investigation Final Report

Location:	MARIPOSA, California	Accident Number:	LAX92LA237
Date & Time:	June 7, 1992, 07:19 Local	Registration:	N5007L
Aircraft:	BELL 222	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Ferry		

Analysis

THE PILOT STARTED THE HELICOPTER'S ENGINES ON AN INTENDED FLIGHT PRIOR TO THE ACCIDENT FLIGHT. A FIREMAN SAW SPARKS COMING FROM THE RIGHT ENGINE AND NOTIFIED THE PILOT. IN HIS WRITTEN STATEMENT THE PILOT SAID HE SHUT THE ENGINES DOWN AND CANCELLED THE FLIGHT. A MEDICAL CREW MEMBER ABOARD THE HELICOPTER SAID HE SAW SPARKS COMING FROM THE ENGINE EXHAUST AND NOTICED THE ENGINE TEMPERATURE 'READING WELL ABOVE NORMAL.' HE ALSO SAID HE SAW THE ENGINE'S CHIP DETECTOR LIGHT ILLUMINATE. HE SAID THE PILOT 'PLAYED WITH THE THROTTLES A LITTLE BIT TO TRY TO GET THE TEMPERATURE UNDER CONTROL.' THE PILOT SHUT THE ENGINES DOWN AND THE NON-FLYING CREW MEMBERS RETURNED TO THEIR HOME BASE VIA GROUND TRANSPORTATION. THE NEXT MORNING THE PILOT ATTEMPTED TO FERRY THE AIRCRAFT WITH ONE ENGINE. THE PILOT STARTED THE RIGHT ENGINE AND PERFORMED A TAKEOFF WITH BOTH ENGINES RUNNING. AFTER TAKEOFF, THE RIGHT ENGINE'S TEMPERATURE ROSE AND THE PILOT SHUT THE ENGINE DOWN. THE HELICOPTER COULD NOT FLY ADEQUATELY WITH THE POWER FROM THE LEFT ENGINE AND ALTITUDE COULD NOT BE MAINTAINED. THE HELICOPTER COLLIDED WITH A TREE AND THEN THE GROUND. EXAMINATION OF THE RIGHT ENGINE REVEALED EXTENSIVE HEAT DAMAGE TO THE GAS PRODUCER TURBINE WHEEL WITH 20-30% DETERIORATION OF ALL BLADES.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT DECISION TO TAKEOFF AND FLY WITH A KNOWN DEFICIENCY IN ONE OF THE HELICOPTER'S ENGINES.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF

Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. 1 ENGINE
2. TURBINE ASSEMBLY, TURBINE WHEEL - OVERTEMPERATURE
3. TURBINE ASSEMBLY, TURBINE WHEEL - ERODED
4. (C) OPERATION WITH KNOWN DEFICIENCIES IN EQUIPMENT - INTENTIONAL - PILOT IN COMMAND

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Findings

5. AIRCRAFT PERFORMANCE, ENGINE OUT CAPABILITY - EXCEEDED

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: DESCENT - EMERGENCY

Findings

6. OBJECT - TREE(S)

Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

7. TERRAIN CONDITION - GROUND

Factual Information

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	45, Male
Airplane Rating(s):	Single-engine land; Multi-engine sea	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Helicopter	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	October 9, 1991
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	15000 hours (Total, all aircraft), 400 hours (Total, this make and model), 15000 hours (Pilot In Command, all aircraft), 158 hours (Last 90 days, all aircraft), 28 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BELL	Registration:	N5007L
Model/Series:	222 222	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	47008
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	May 25, 1992 Annual	Certified Max Gross Wt.:	7579 lbs
Time Since Last Inspection:	21 Hrs	Engines:	2 Turbo shaft
Airframe Total Time:	6453 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	LTS 101-650C3
Registered Owner:	ROGERS HELICOPTERS, INC.	Rated Power:	615 Horsepower
Operator:	ROGERS HELICOPTERS, INC.	Operating Certificate(s) Held:	On-demand air taxi (135)
Operator Does Business As:		Operator Designator Code:	CUCA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	5 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	13°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(NONE)	Type of Flight Plan Filed:	None
Destination:	FRESNO , CA (FAT)	Type of Clearance:	None
Departure Time:	07:15 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	37.490547,-120.000579(est)

Administrative Information

Investigator In Charge (IIC):	Childress, Richard
Additional Participating Persons:	JIM MURRAY; FRESNO , CA
Original Publish Date:	September 14, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=27641

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](#).