



Aviation Investigation Final Report

Location:	BRIGHAM CITY, Utah	Accident Number:	DEN87LA120
Date & Time:	May 8, 1987, 10:30 Local	Registration:	N58131
Aircraft:	BELL 47G3B2A	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Ferry		

Analysis

AN AG PLT WAS FERRYING A HELICOPTER TO ANOTHER JOB IN HIS LOCAL AREA. THE PLT, AN ATP, HAD ESTIMATED THAT THE HELICOPTER HAD ENOUGH FUEL FOR THE FLT. THE HELICOPTER'S ENGINE QUIT AND AN AUTOROTATION WAS PERFORMED, RESULTING IN A HARD LANDING. LESS THAN ONE GALLON OF FUEL WAS FOUND IN THE TANKS FOLLOWING THE ACCIDENT, AND NO EVIDENCE OF ANY FUEL SPILL WAS FOUND. POST ACCIDENT INVESTIGATION FOUND FOREIGN OBJECTS IN THE FUEL SYSTEM. EVIDENCE INDICATED THAT THE OBJECTS KEPT THE FUEL DRAIN PETCOCK OPEN DURING FLT, RESULTING IN FUEL EXHAUSTION. THE PLT STATED THAT HE HAD USED THE FUEL DRAIN PETCOCK TO RINSE CHEMICALS OFF HIS HANDS JUST PRIOR TO THE FLT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: CRUISE - NORMAL

Findings

1. (C) FLUID,FUEL - EXHAUSTION
2. (C) PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - UNCONTROLLED

Findings
3. AUTOROTATION - PERFORMED - PILOT IN COMMAND

Occurrence #3: HARD LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings
4. (F) TERRAIN CONDITION - ROUGH/UNEVEN
5. (F) TERRAIN CONDITION - NONE SUITABLE

Factual Information

Pilot Information

Certificate:	Airline transport	Age:	46, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	None Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	April 27, 1987
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	7400 hours (Total, all aircraft), 2200 hours (Total, this make and model), 7000 hours (Pilot In Command, all aircraft), 125 hours (Last 90 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BELL	Registration:	N58131
Model/Series:	47G3B2A 47G3B2A	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	6865
Landing Gear Type:	Skid	Seats:	3
Date/Type of Last Inspection:	November 1, 1986 Annual	Certified Max Gross Wt.:	2450 lbs
Time Since Last Inspection:	71 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	7122 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	TVO-435-FIA
Registered Owner:	HELO-WOOD HELICOPTERS INCORP.	Rated Power:	280 Horsepower
Operator:		Operating Certificate(s) Held:	On-demand air taxi (135)
Operator Does Business As:		Operator Designator Code:	

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	60 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:	21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	PARADISE , UT	Type of Flight Plan Filed:	None
Destination:	TREMONTON , UT (U27)	Type of Clearance:	None
Departure Time:	10:25 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	Grass/turf
Airport Elevation:	0 ft msl	Runway Surface Condition:	Dry
Runway Used:	0	IFR Approach:	None
Runway Length/Width:	0 ft / 0 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	41.510375,-112.040168(est)

Administrative Information

Investigator In Charge (IIC):	Collins, Robert
Additional Participating Persons:	JON BERRY; SALT LAKE CITY , UT
Original Publish Date:	August 31, 1988
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=17221

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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](#).