



Aviation Investigation Final Report

Location:	BOLINAS, California	Accident Number:	LAX89LA169
Date & Time:	April 14, 1989, 11:55 Local	Registration:	N14490
Aircraft:	HILLER UH-12D	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 133: Rotorcraft ext. load		

Analysis

DURING AN EXTERNAL LOAD OPERATION, THE ENGINE LOST POWER. THE PILOT AUTOROTATED INTO A SURF TIDAL POOL RESULTING IN A HARD LANDING. THE PILOT REPORTED THAT THE HELICOPTER RAN OUT OF FUEL. THE PILOT STATED THAT HE NORMALLY 'STAKED' THE FUEL TANKS BEFORE APPROXIMATELY 95% OF HIS FLIGHTS BUT INDICATED THAT HE DID NOT CHECK THE FUEL LEVEL BEFORE THIS FLIGHT. HE ALSO INDICATED THAT BOTH THE FUEL GAUGE AND THE CLOCK IN THE AIRCRAFT WERE NOT WORKING PROPERLY PRIOR TO THE FLIGHT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S POOR PREFLIGHT PLANNING IN THAT HE DID NOT ACCURATELY ACCOUNT FOR THE FUEL ON BOARD THE AIRCRAFT AS A BASIS FOR FUEL CONSUMPTION CALCULATIONS THEREBY CAUSING THE ENGINE TO STOP PRODUCING POWER BECAUSE OF A LACK OF FUEL. CONTRIBUTING TO THE ACCIDENT WAS THE INACCURATE FUEL GAUGE AND CLOCK IN THE AIRCRAFT THAT THE PILOT WAS AWARE OF BEFORE THE FLIGHT.

Findings

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

Findings

1. FLUID,FUEL - EXHAUSTION
 2. (C) PREFLIGHT PLANNING/PREPARATION - POOR - PILOT IN COMMAND
 3. (C) FUEL CONSUMPTION CALCULATIONS - INACCURATE - PILOT IN COMMAND
 4. (F) OPERATION WITH KNOWN DEFICIENCIES IN EQUIPMENT - ATTEMPTED - PILOT IN COMMAND
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Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Findings

5. AUTOROTATION - PERFORMED
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Occurrence #3: HARD LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

6. TERRAIN CONDITION - WATER

Factual Information

Pilot Information

Certificate:	Commercial	Age:	40, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Helicopter	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	May 17, 1988
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	4164 hours (Total, all aircraft), 215 hours (Total, this make and model), 3917 hours (Pilot In Command, all aircraft), 32 hours (Last 90 days, all aircraft), 32 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	HILLER	Registration:	N14490
Model/Series:	UH-12D UH-12D	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	1003
Landing Gear Type:	Skid	Seats:	3
Date/Type of Last Inspection:	March 17, 1989 Unknown	Certified Max Gross Wt.:	2750 lbs
Time Since Last Inspection:	33 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2098 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	VO-540-C2A
Registered Owner:	CARSON LEASING & EQUITY INC	Rated Power:	305 Horsepower
Operator:	MOUNTAIN AIR HELICOPTER	Operating Certificate(s) Held:	
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	20 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	14 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	315°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	24°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	10:55 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	Water
Airport Elevation:	0 ft msl	Runway Surface Condition:	Water-calm
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:	37.940231,-122.729255(est)

Administrative Information

Investigator In Charge (IIC):	Eckrote, Debra
Additional Participating Persons:	RAY MURPHEY; OAKLAND , CA
Original Publish Date:	May 22, 1990
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=26387

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