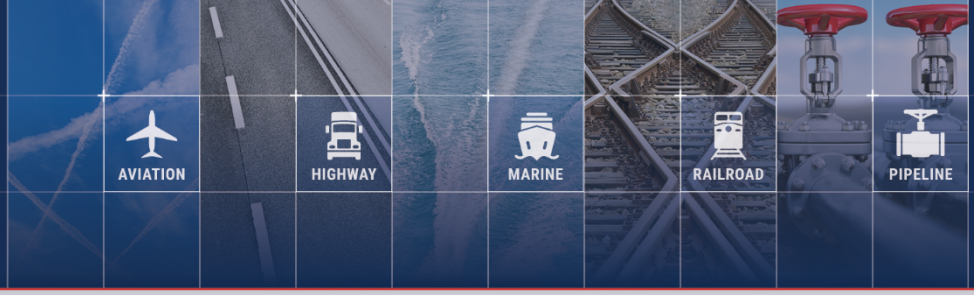

Aviation Investigation Final Report

Location:	VALDEZ, Alaska	**Accident Number:**	ANC94LA045
Date & Time:	April 9, 1994, 13:30 Local	**Registration:**	N87594
Aircraft:	HILLER UH12E	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 None
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled		

Analysis

THE AIRCRAFT EXPERIENCED A TOTAL LOSS OF ENGINE POWER. THE POST ACCIDENT INVESTIGATION FOUND NO PROBLEMS WITH THE ENGINE/FUEL SYSTEM. THE FUEL SHUTOFF LEVER WAS FOUND HALFWAY BETWEEN ITS ON/OFF TRAVEL LIMITS. TESTING REVEALED THAT WITH THE LEVER AT HALF TRAVEL THE FUEL VALVE WAS FULLY CLOSED. THE FUEL LEVER IS LOCATED NEAR THE COCKPIT FLOOR IN THE AREA WHERE THE PILOT AND PASSENGER NORMALLY PLACE THEIR FEET.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE INADVERTENT CLOSURE OF THE FUEL SUPPLY SHUTOFF VALVE.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: MANEUVERING

Findings
1. (C) FUEL SYSTEM,FUEL SHUTOFF - CLOSED
2. (C) FUEL SUPPLY - INADVERTENT DEACTIVATION - UNKNOWN

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

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

On April 09/1994, at 1330 Alaska daylight time, a skid equipped Hiller UH12E helicopter, N87594, registered to and operated by the pilot-in-command, experienced a total loss of engine power and collided with terrain at the 3300 ft. msl. level of Thompson Pass, approximately 20 miles from Valdez, Alaska. The airline transport certificated pilot and his one passenger were not injured and the helicopter sustained substantial damage. The 14 CFR Part 135 on demand charter flight last departed Valdez at about 1000 and the intended destination was the area of the accident site. The pilot reported that at the time of the accident visual meteorological conditions prevailed in the area of the mishap site and there was no flight plan on file for flight.

The pilot-in-command told the NTSB investigator-in-charge during a telephone interview on the morning of April 10, 1994, that he was maneuvering in the area of Thompson Pass with his passenger, a professional photographer, for the purpose of getting some camera shots of the area when the engine, without warning, suddenly stopped. At the time, the helicopter was traversing a ridge at an altitude of approximately 40 feet agl. The helicopter descended/fell to the ridge, and rolled to the right. The pilot reported that his routine scan of the engine instruments took place about once each minute and that the engine performance monitoring gages all indicated normal operation. There was no metal to metal sound or vibration precursor to the engine stoppage. The helicopter was last topped off with 46 gallons of 100LL aviation fuel about 1.1 hours prior to the accident. A check of the engine sump and fuel tank drains after the uplifting of the fuel by the pilot found no contamination.

On the morning of May 10, 1994, the engine and airframe were examined at the Alaska Helicopter facility in Anchorage, Alaska. External physical damage to the engine was limited primarily to the fracture of the carburetor to engine mounting flange. The fuel screens from the carburetor and electric fuel pump were clean. The engine driven fuel pump operated satisfactory. The engine rotated freely with the aid of a hand lever. The cylinder valve covers were removed where it could be determined that there was continuity between the mechanical components comprising the combustion process. The magneto's checked out satisfactory and were within the prescribed tolerance. The cold hand crank cylinder compression readings were between 35 and 40 psi.

An examination of the aircraft structure disclosed that the fuel shutoff lever was out of its normally on detente position and was halfway up its designed travel to the full off position. The lever is located on the right side of the engine control pedestal within an inch of the cockpit floor in an area where both the pilot and/or a passenger would normally place there feet. The lever is connected to the fuel shutoff valve by mechanical linkage. An internal examination of the valve disclosed that with the fuel lever at the middle point in its travel limits the valve was fully closed. This would result in complete blockage of fuel flow to the engine.

Pilot Information

Certificate:	Airline transport; Commercial; Flight engineer	**Age:**	43,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land; Multi-engine sea	**Seat Occupied:**	Center
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	
Instrument Rating(s):	Airplane; Helicopter	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	January 18, 1994
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	18000 hours (Total, all aircraft), 220 hours (Total, this make and model), 12000 hours (Pilot In Command, all aircraft), 200 hours (Last 90 days, all aircraft), 90 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	HILLER	**Registration:**	N87594
Model/Series:	UH12E UH12E	**Aircraft Category:**	Helicopter
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	1729
Landing Gear Type:	Skid	**Seats:**	3
Date/Type of Last Inspection:	May 18, 1993 Annual	**Certified Max Gross Wt.:**	3100 lbs
Time Since Last Inspection:	60 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	2100 Hrs	**Engine Manufacturer:**	Lycoming
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	VO-540-C2A
Registered Owner:	IVERSON, PETER B.	**Rated Power:**	305 Horsepower
Operator:	IVERSON, PETER B.	**Operating Certificate(s) Held:**	On-demand air taxi (135)
Operator Does Business As:	PETE'S AVIATION SERVICES, INC.	**Operator Designator Code:**	VVPC

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	JNU	**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:	Unknown / 5000 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	Overcast / 5000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	10 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	135°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	-4°C
Precipitation and Obscuration:	N/A - Blowing - Snow		
Departure Point:		**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	10:00 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 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	61.14925,-146.80986(est)

Administrative Information

Investigator In Charge (IIC):	Borson, Timothy
Additional Participating Persons:	RALPH J PACK; ANCHORAGE , AK
Original Publish Date:	January 25, 1995
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=2494