Aviation Investigation Final Report

Location:	PEDRO BAY, Alaska	**Accident Number:**	ANC99LA060
Date & Time:	May 7, 1999, 18:25 Local	**Registration:**	N1315H
Aircraft:	Aeronca 15AC	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The certificated commercial pilot reported that while climbing through 7,000 feet msl, he smelled smoke in the airplane, followed by a rough running engine. During an emergency descent, he saw smoke and flames coming from underneath the floor boards adjacent to the rudder pedals. The pilot elected to ditch the airplane in shallow ocean water, just short of the beach. Upon touchdown, the airplane nosed over. The pilot said, in part: 'My legs were on fire and I just wanted to put the fire out, and get the airplane on the ground.' An FAA airworthiness inspector traveled to the accident scene, and examined the airplane wreckage. He said that upon closer inspection of the engine, it was discovered that the top portion of the number three cylinder was separated between the cylinder barrel, and the cylinder head. He added that the main fuel supply line was burned through, and disconnected from the carburetor inlet fitting. In his written statement the FAA inspector wrote, in part: '...the vibration shook loose the left engine exhaust pipe which then directed the exhaust onto the fuel line to the carburetor which caused the fire.'

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A separation of the number 3 engine cylinder head assembly, and a burned through fuel line.

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation: CLIMB - TO CRUISE

Findings
1. (C) ENGINE ASSEMBLY,CYLINDER - SEPARATION

Occurrence #2: FIRE
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings
2. (C) FUEL SYSTEM,LINE - BURNED

Occurrence #3: DITCHING
Phase of Operation: EMERGENCY LANDING

Findings
3. TERRAIN CONDITION - WATER

Factual Information

On May 7, 1999, about 1825 Alaska daylight time, a wheel equipped Aeronca 15AC airplane, N1315H, sustained substantial damage during an emergency landing and ditching, about 35 miles east of Pedro Bay, Alaska. The airplane was being operated as a visual flight rules (VFR) personal flight under Title 14, CFR Part 91, when the accident occurred. The solo commercial pilot sustained serious injuries. Visual meteorological conditions prevailed, and a VFR flight plan was filed. The flight originated at the Pedro Bay Airport, about 1800, and was en route to Soldotna, Alaska.

During a telephone conversation with the National Transportation Safety Board investigator-in-charge on May 8, the pilot reported that while climbing through 7,000 feet msl, approaching the coast of Chinitna Bay, he smelled smoke in the airplane, followed by a rough running engine. He made a 180 degree turn to return to Pedro Bay, and then saw smoke and flames coming from underneath the floor boards adjacent to the rudder pedals. He then advised the Kenai Flight Service Station (FSS) that he was making an emergency descent, and that he would be attempting to land on a tidal beach within Chinitna Bay. During the emergency descent, the airplane cabin filled with smoke, hindering his vision. The pilot said that the top portion of the clamshell door was torn off when he attempted to clear the smoke from the cockpit area by opening the door during the emergency decent. The pilot said, in part: "My legs were on fire and I just wanted to put the fire out, and get the airplane on the ground." The pilot landed in the water, just short of the beach, and the airplane nosed over upon touchdown. After ditching, the fire was self-extinguished by ocean water, and the pilot waded ashore.

The airplane sustained substantial damage to the wings, and fuselage.

A Federal Aviation Administration (FAA) airworthiness inspector from the Anchorage Flight Standards District Office, traveled to the accident scene on June 23, 1999, and examined the airplane wreckage. The inspector reported that the engine compartment, firewall, instrument panel, and floor boards exhibited heavy fire damage. He said that upon closer inspection of the engine, it was discovered that the top portion of the number three cylinder was separated between the cylinder barrel and the cylinder head. He added that the main fuel supply line was burned through, and disconnected from the carburetor attach point. In a written statement the FAA inspector wrote, in part: "...the vibration shook loose the left engine exhaust pipe which then directed the exhaust onto the fuel line to the carburetor which caused the fire."

Pilot Information

Certificate:	Commercial	**Age:**	51,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Unknown Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	February 17, 1998
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	1500 hours (Total, all aircraft), 50 hours (Total, this make and model), 20 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Aeronca	**Registration:**	N1315H
Model/Series:	15AC 15AC	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	15AC-345
Landing Gear Type:	Tailwheel	**Seats:**	4
Date/Type of Last Inspection:	February 1, 1999 Annual	**Certified Max Gross Wt.:**	2050 lbs
Time Since Last Inspection:	20 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Franklin
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	6A-4165
Registered Owner:	VINCENT L. SPADY	**Rated Power:**	165 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
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:	Unknown	**Visibility**	100 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	12 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	270°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	7°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	, AK (AK04)	**Type of Flight Plan Filed:**	VFR
Destination:	SOLDOTNA , AK (SXQ)	**Type of Clearance:**	None
Departure Time:	18:00 Local	**Type of Airspace:**	Class E

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 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	In-flight
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Serious	**Latitude, Longitude:**	59.860496,-154.029083(est)

Administrative Information

Investigator In Charge (IIC):	Johnson, Clinton
Additional Participating Persons:	JACK DEVLIN (FAA); ANCHORAGE , AK
Original Publish Date:	June 22, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=46274