



National Transportation Safety Board Aviation Accident Final Report

Location:	VENETIE, AK	Accident Number:	ANC97LA093
Date & Time:	06/28/1997, 1618 AKD	Registration:	N103
Aircraft:	Douglas DC-4	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	3 None

Flight Conducted Under: Part 91: General Aviation - Positioning

Analysis

The air cargo flight had just off loaded its cargo at a remote site. Shortly after takeoff, the number two engine begin to run rough. The engine was shut down, and the propeller feathered. During the shutdown process, a fire warning light illuminated, and fire became visible near the number 2 engine. The crew activated both banks of engine fire extinguishers, but were unable to extinguish the fire. While on approach to an off-airport emergency landing site, the number two engine fell off and ignited a brush fire. The crew made a successful landing and ran away from the airplane. The airplane continued to burn and was destroyed by fire. The number 2 engine was not recovered or located.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A fire associated with the number 2 engine for undetermined reasons.

Findings

Occurrence #1: FIRE
Phase of Operation: CLIMB

Findings

1. (C) POWERPLANT - UNDETERMINED
2. POWERPLANT - FIRE

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

Occurrence #3: ENGINE TEARAWAY
Phase of Operation: EMERGENCY DESCENT/LANDING

Factual Information

On June 28, 1997, about 1618 Alaska daylight time, a Douglas DC-4 airplane, N103, was destroyed by in-flight and postcrash fire shortly after departing Venetie, Alaska. The two airline transport pilots and one cargo handler aboard were not injured. The 14 CFR Part 91 positioning flight was operating in visual meteorological conditions, and a VFR flight plan was in effect. The flight was en route to Fairbanks, Alaska. The accident site was a sand and gravel bar in the Chandalar River, located about two miles west-northwest of Venetie. The flight departed Venetie about 1613.

During an interview with the NTSB investigator-in-charge on June 30, the Captain of the flight related they had just departed the Venetie airstrip after delivering a load of building materials. He said they had been airborne for a minute or so, and were still climbing, when the number two engine on the left wing began to run rough. The engine was shutdown, the propeller feathered, and the propeller rotation stopped. During the shutdown process, the engine fire warning light illuminated. Fire was observed in the vicinity of the number 2 engine, and the right bank of engine fire extinguishers were activated. The fire warning light momentarily went out, but came on again about 5 seconds later. The second, or left bank, of fire extinguishers were activated, but had no effect on the visible fire or warning light. The fire continued to burn, and the number two engine fell off the wing. The captain said it was apparent that the airplane could not continue back to Venetie, and he found a sand and gravel bar in the Chandalar River to land on. A successful landing was made, and the crew left the still burning airplane and ran to safety.

The captain stated the total elapsed time from the onset of the fire to landing was about 5 minutes. He was unable to provide an explanation for why the engine caught fire, or why the fire would not extinguish. He also said that the engine continued to burn after it fell to the ground, and started a small fire that was later extinguished by U.S. Bureau of Land Management Smoke Jumpers.

The accident site is in a remote location, and the left engine has not been recovered or located.

Pilot Information

Certificate:	Airline Transport; Flight Instructor; Flight Engineer	Age:	52, Male
Airplane Rating(s):	Multi-engine Land; Multi-engine Sea; Single-engine Land; Single-engine Sea	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	09/03/1996
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	20000 hours (Total, all aircraft), 3000 hours (Total, this make and model), 20000 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Douglas	Registration:	N103
Model/Series:	DC-4 DC-4	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	10273
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	07/07/1996, Continuous Airworthiness	Certified Max Gross Wt.:	72900 lbs
Time Since Last Inspection:	95 Hours	Engines:	4 Reciprocating
Airframe Total Time:	7145 Hours	Engine Manufacturer:	P&W
ELT:	Installed	Engine Model/Series:	R-2000-7M2
Registered Owner:	YESTERDAY'S WINGS, INC.	Rated Power:	1200 hp
Operator:	HONDU CARIB CARGO	Operating Certificate(s) Held:	
Operator Does Business As:	GREAT ARCTIC AIRWAYS	Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Scattered / 10000 ft agl	Visibility	50 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	21 °C
Precipitation and Obscuration:			
Departure Point:	(VEE)	Type of Flight Plan Filed:	VFR
Destination:	FAIRBANKS, AK (FAI)	Type of Clearance:	None
Departure Time:	1612 ADT	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	3 None	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	In-Flight
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	JAMES D LABELLE	Report Date:	11/10/1998
Additional Participating Persons:	JAMES PORTER (FAA); FAIRBANKS, AK		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).