



National Transportation Safety Board Aviation Accident Final Report

Location:	Skwentna, AK	Accident Number:	ANC06FA131
Date & Time:	09/15/2006, 1620 AKD	Registration:	N836KA
Aircraft:	de Havilland DHC-2	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The private pilot and the sole passenger were in the first of two airplanes of a flight of two, operating as a personal flight under Title 14, CFR part 91. The pilot of the second airplane reported that both airplanes were in radio contact, and the accident airplane was about one mile ahead as they entered a mountain pass along the intended flight route. As the flight progressed, both airplanes descended due to deteriorating weather conditions as they neared the narrowest part of the pass. The second pilot said that visibility deteriorated to a point that it was difficult to discern topographical features, and he told the accident pilot that he was uncomfortable with the lack of visibility and was turning around. The second pilot stated that the accident pilot responded by saying, in part: "Turn around if you can... I am not able to." The second pilot indicated that the last time he saw the accident airplane was as it entered a cloudbank. During the accident pilot's final radio transmission, prompted by the second pilot's inquiry about how he was doing, he responded that he was just trying to get through the pass. No further radio communications were received from the accident airplane. There was no ELT signal, and the search for the airplane was unsuccessful until three days later. The wreckage was located at the 3,100-foot level of the mountain pass, in an area of steep terrain. Impact forces and a postcrash fire had destroyed the airplane. During the IIC's on-site examination of the wreckage, no preaccident mechanical anomalies were discovered.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's continued VFR flight into instrument meteorological conditions, which resulted in

an in-flight collision with mountainous terrain. A factor associated with the accident was a low cloud ceiling.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER

Phase of Operation: CRUISE

Findings

1. (F) WEATHER CONDITION - LOW CEILING
2. (C) VFR FLIGHT INTO IMC - CONTINUED - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: CRUISE

Findings

3. TERRAIN CONDITION - MOUNTAINOUS/HILLY

Factual Information

On September 15, 2006, about 1620 Alaska daylight time, a float-equipped de Havilland DHC-2 (Beaver) airplane, N836KA, was destroyed when it impacted terrain in a mountain pass approximately 54 miles northwest of Skwentna, 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 airplane was owned by 20 Whiskey Mike, LLC., of Anchorage, Alaska. The private pilot and the sole passenger sustained fatal injuries. Instrument meteorological conditions were reported in the area at the time of the accident, and no flight plan was in effect. The flight departed Galena, Alaska, about 1400, and was en route to the Lake Hood seaplane base in Anchorage.

According to search and rescue personnel, on September 16, about 0417, a friend of the accident pilot contacted the Alaska Rescue Coordination Center to report that the accident airplane had not arrived in Anchorage, and that efforts to locate the airplane were unsuccessful. The friend said the accident airplane was the first of two airplanes returning to Anchorage, traveling as a flight of two. He indicated he had received a telephone call from the pilot of the second airplane, stating the two airplanes had become separated while flying through Mystic Pass due to deteriorating weather conditions. The pilot of the second airplane was able to turn around, and landed at Farewell Lake to wait for improved weather conditions.

Members of the Alaska Wing of the Civil Air Patrol (CAP) and the Alaska Air National Guard initiated a search on September 16. The search centered around the area of Mystic Pass, but low ceilings limited airborne search efforts. On September 17, about 1500, the airplane wreckage was located at the 3,100-foot level of Mystic Pass, in an area of steep, mountainous terrain. Rescue personnel from the Alaska Air National Guard's 212th Rescue Squadron reached the accident site about 1700, and confirmed that the two occupants sustained fatal injuries.

During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC) on September 19, the pilot of the second airplane stated that both airplanes entered Mystic Pass between 4,000 or 5,000 feet msl, but subsequently descended due to deteriorating weather conditions as the flight progressed towards the narrowest part of the pass. He said that both airplanes were in constant radio contact, and the accident airplane was about one mile ahead of his airplane. He said that visibility deteriorated to a point that it was difficult to discern topographical features while in the pass. He told the accident pilot that he was uncomfortable with the lack of visibility, and that he was turning around. The second pilot stated that the accident pilot responded by saying, in part: "Turn around if you can... I am not able to." The second pilot reported that the last time he saw the accident airplane was just before it entered a cloudbank, as the flight neared the narrowest part of the pass. The second pilot then contacted the accident pilot to let him know that he had successfully turned his airplane around, and also asked how he was doing. During the accident pilot's final radio transmission, he told the pilot of the second airplane that he was just trying to get through the pass. No further radio communications were received from the accident airplane.

PERSONNEL INFORMATION

The pilot held a private pilot certificate with airplane single-engine land, and airplane single-

engine sea ratings. His most recent second-class medical certificate was issued May 19, 2006, and contained no limitations.

No personal flight records were located for the pilot, and the aeronautical experience listed on page 3 of this report was obtained from a review of the airman's FAA records on file in the Airman and Medical Records Center in Oklahoma City. On the pilot's last application for medical certificate, dated May 19, 2006, the pilot indicated that his total aeronautical experience consisted of about 2,700 hours, of which 150 were accrued in the previous 6 months.

AIRCRAFT INFORMATION

The airplane was a float-equipped, de Havilland DHC-2, equipped with a Pratt & Whitney R-985 engine, rated at 450 horsepower. According to the last entry in the airplane's airframe and engine logbooks dated August 28, 2006, the airframe total time was 34,896.9 hours, and the engine time since overhaul was 327.6 hours.

The airplane and engine had an annual inspection on February 23, 2006. At that time, the airplane had accumulated a total time in service of 34,849.1 hours. The engine had accrued a total time in service of 279.8 hours since being overhauled by Kenmore Air Harbor, on May 10, 2001.

METEOROLOGICAL INFORMATION

The closest official weather observation station is Talkeetna, Alaska, which is located about 70 nautical miles east-southeast of the accident site. On September 15, at 1553, an Aviation Routine Weather Report (METAR) was reporting in part: Wind, 170 degrees at 3 knots; visibility, 10 statute miles with light rain showers; clouds, 8,000 feet broken; temperature, 54 degrees F; dew point, 51 degrees F; altimeter, 29.75 inHg.

The pilot of the airplane that was about one mile behind the accident airplane, reported weather conditions prior to entering Mystic Pass to be about 6,000 feet overcast, with greater than 10 miles visibility. He added that as the flight progressed towards the narrowest portion of Mystic Pass, weather conditions worsened significantly. In his written statement to the NTSB, he wrote, in part: "...the cloud level began to come down the faces of the mountains."

WRECKAGE AND IMPACT INFORMATION

The NTSB IIC, along with a Denali National Park Service rescue-climbing ranger, reached the accident site on September 18, and conducted an assessment of the accident site. The accident site was reached by the Denali National Park contract helicopter. The helicopter with the investigation team landed about 1,000 feet below the wreckage site, and the team climbed to the accident site.

The main wreckage was located in mountainous terrain, within a steep scree-covered slide chute. The elevation of the main wreckage was approximately 3,100 feet msl. The initial impact point was located about 600 feet upslope from the main wreckage site, and approximately 300 feet below the ridgeline. A path of wreckage debris was observed between the initial impact point and the main wreckage site.

The initial impact site was about 3,700 feet msl, which was marked by an area of gouged rock, burned oil, and scorched rock. Interior and exterior fragments of the forward portion of the

airplane, including engine parts, windshield Plexiglas, rudder pedal fragments, and various radio components.

All of the airplane's major components were found at the main wreckage area.

A postcrash fire incinerated most of the cabin and cockpit area from the empennage forward. The fuselage had extensive aft crushing and fragmentation. Due to impact and postimpact fire damage, the flight controls could not be moved by their respective control mechanisms, but flight control cables were attached from the empennage to the cockpit.

The airplane's floats were sheered off at the fuselage attach points. Both of the horizontal spreader bars remained attached to the each float. The toes of each float were crushed aft about three feet. The floats were located down slope, about 100 feet below the main wreckage site.

The three-bladed propeller hub assembly remained attached to the engine crankshaft. All of the blades had extensive leading edge gouging, chordwise scratching, "S" bending, and torsional twisting.

The wings remained attached to the fuselage, but both inboard portions of the wings were extensively burned and incinerated. The outboard portions of each wing were crushed aft. Each wing retained their respective aileron and flap assemblies.

The empennage was upright and sustained extensive impact damage. The leading edge of the left horizontal stabilizer had aft crushing, and the outboard end of the right stabilizer was bent downward. The elevators and horizontal stabilizer assembly were torn aft of their respective attach points.

The front portion of the engine sustained extensive impact and fire damage. One exhaust extension tube was crushed and folded nearly flat, producing sharp creases that were not cracked or broken along the creases.

During the on-site examination of the wreckage, no preaccident mechanical anomalies were revealed.

MEDICAL AND PATHOLOGICAL INFORMATION

A postmortem examination was performed on the pilot by the State of Alaska, Office of the State Medical Examiner, 4500 Boniface Parkway, Anchorage, on September 19, 2006. The cause of death was attributed to multiple traumatic injuries. Toxicological samples were forwarded to the FAA's Civil Aeromedical Institute for testing. The results were negative for drugs or alcohol.

SEARCH AND RESCUE

Members of the Alaska Wing of the Civil Air Patrol (CAP), the Alaska Air National Guard, along with friends of the missing airplane's occupants, began an extensive search in the early morning hours of September 16. There was no emergency locator transmitter (ELT) signal. Search crews were unable to search the upper levels of the mountainous areas due to low ceilings and poor visibility. The CAP ultimately located the airplane wreckage on September 17, about 1500. A rescue HH-60 helicopter assigned to the 210th Rescue Squadron of Kulis Air National Guard Base, Anchorage, was dispatched to the accident scene. Once on-scene, two Pararescue team members assigned to the Alaska Air National Guard's 212th Rescue Squadron were hoisted from the HH-60 helicopter down to the accident site. The Pararescue team

reached the accident site about 1700, and confirmed that the airplane's two occupants had sustained fatal injuries.

FIRE

A postcrash fire consumed the airplane fuselage and cabin area forward of the empennage, and the inboard portions of both wings.

ADDITIONAL INFORMATION

According to friends and acquaintances of the accident pilot, he had recently purchased a new hand-held global positioning system (GPS), which he intended to use during the accident flight.

The owner of a local avionics supply business in Anchorage reported that the accident pilot purchased a Garmin 496, hand-held GPS unit on September 7, eight days before the accident flight. The avionics supply business owner added that before purchasing the new Garmin 496 hand-held GPS, the accident pilot owned and used a Garmin 295 hand-held GPS. Both the Garmin 295 and 496 hand-held GPS models have moving map displays, intended to provide a pilot with updated situational awareness, and are not intended to be used while operating in instrument flight rules (IFR) conditions.

One acquaintance reported that the accident pilot routinely commented about the use of his previously owned Garmin 295 GPS, most notably while flying in reduced visibility conditions.

The pilot's Garmin 496 GPS was not located at the accident site.

WRECKAGE RELEASE

The Safety Board released the wreckage to the owner's representatives on September 18, 2006, and retained no parts or components.

Pilot Information

Certificate:	Private	Age:	38, Male
Airplane Rating(s):	Single-engine Land; Single-engine Sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 Without Waivers/Limitations	Last FAA Medical Exam:	05/01/2006
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	2700 hours (Total, all aircraft), 150 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	de Havilland	Registration:	N836KA
Model/Series:	DHC-2	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	604
Landing Gear Type:	Float	Seats:	6
Date/Type of Last Inspection:	02/01/2006, Annual	Certified Max Gross Wt.:	5370 lbs
Time Since Last Inspection:	47.8 Hours	Engines:	1 Reciprocating
Airframe Total Time:	34896.9 Hours at time of accident	Engine Manufacturer:	Pratt & Whitney
ELT:	Installed, not activated	Engine Model/Series:	R-985-14-B
Registered Owner:	20 Whiskey Mike LLC	Rated Power:	450 hp
Operator:	Alex T. Stack	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Unknown	Visibility	0 Miles
Lowest Ceiling:	Obscured / 0 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:	Moderate - N/A		
Departure Point:	GALENA, AK (GAL)	Type of Flight Plan Filed:	None
Destination:	ANCHORAGE, AK (LHD)	Type of Clearance:	None
Departure Time:	1400 ADT	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Fatal	Latitude, Longitude:	62.580556, -152.583333

Administrative Information

Investigator In Charge (IIC):	Clinton O Johnson	Report Date:	06/27/2007
Additional Participating Persons:	Michael Yorke; Federal Aviation Administration; Anchorage, 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 pubinq@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](#).