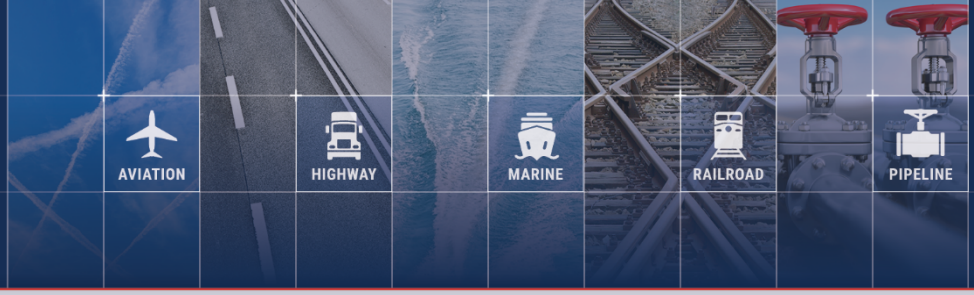

Aviation Investigation Final Report

Location:	Coeur d'Alene, Idaho	**Accident Number:**	WPR20FA206
Date & Time:	July 5, 2020, 14:22 Local	**Registration:**	N6373U (A1); N2106K (A2)
Aircraft:	Cessna TU206 (A1); De Havilland DHC-2 (A2)	**Aircraft Damage:**	Destroyed (A1); Destroyed (A2)
Defining Event:	Midair collision	**Injuries:**	2 Fatal (A1); 6 Fatal (A2)
Flight Conducted Under:	Part 91: General aviation - Personal (A1); Part 91: General aviation - Aerial observation (A2)		

Analysis

The float-equipped De Havilland DHC-2 was on a tour flight, and the Cessna 206 was on a personal flight. The airplanes collided in midair over a lake during day visual meteorological conditions. No radar or automatic dependent surveillance-broadcast data were available for either airplane. Witnesses reported that the airplanes were flying directly toward each other before they collided about 700 to 800 ft above the water. Other witnesses reported that the Cessna was at a lower altitude and had initiated a climb before the collision. Review of 2 seconds of video captured as part of a witness' "live" photo showed that both airplanes appeared to be in level flight before the collision.

No evidence of any preexisting mechanical malfunction was observed with either airplane. Recovered wreckage and impact signatures were consistent with the upper fuselage of the Cessna colliding with the floats and the lower fuselage of the De Havilland. The impact angle could not be determined due to the lack of available evidence, including unrecovered wreckage. The available evidence was consistent with both pilots' failure to see and avoid the other airplane.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The failure of the pilots of both airplanes to see and avoid the other airplane.

Findings

Personnel issues (A1)	Monitoring other aircraft - Pilot
Personnel issues (A2)	Monitoring other aircraft - Pilot

Factual Information

History of Flight

Enroute (A1)	Midair collision (Defining event)
Enroute (A2)	Midair collision

On July 5, 2020, about 1422 Pacific daylight time, a Cessna TU206G, N6373U, and a De Havilland DHC-2 MK1 (L20A), N2106K, were destroyed when they were involved in an accident near Coeur d'Alene, Idaho. The Cessna pilot and passenger and the De Havilland pilot and five passengers were fatally injured. The Cessna was operated as a Title 14 *Code of Federal Regulations* (*CFR*) Part 91 personal flight. The De Havilland was operated as a Title 14 *CFR* Part 91 air tour flight.

Friends of the Cessna pilot reported that the flight departed from Coeur d'Alene Airport with an intended destination of Lewiston-Nez Perce County Airport, Lewiston, Idaho. The operator of the float-equipped De Havilland reported that the 20-minute local air tour flight originated from the seaplane base located on the northern part of Lake Coeur d'Alene.

Witnesses located near the accident site reported that they observed the De Havilland flying on a northerly heading and the Cessna on a southerly heading, as shown in figure 1. The witnesses reported that both airplanes appeared to be about 700 to 800 ft above the water surface when they collided over the lake. Two witnesses located along the western side of the lake reported that the Cessna was at a lower altitude and that it had begun to climb before the collision. After the collision, witnesses observed a fireball as both airplanes descended into the water.

No radar or automatic dependent surveillance-broadcast data were available for either airplane.

Figure 1. Still image from live capture of the Cessna and De Havilland airplanes before the collision. (Source: Kim Sprenger)

Pilot Information (A1)

Certificate:	Commercial	**Age:**	66,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	3-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 2 With waivers/limitations	**Last FAA Medical Exam:**	October 1, 2019
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	(Estimated) 20000 hours (Total, all aircraft)		

Pilot Information (A2)

Certificate:	Airline transport	**Age:**	58,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	3-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 2 With waivers/limitations	**Last FAA Medical Exam:**	October 2, 2019
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	May 20, 2019
Flight Time:	21173 hours (Total, all aircraft), 217 hours (Total, this make and model), 18493 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information (A1)

Aircraft Make:	Cessna	**Registration:**	N6373U
Model/Series:	TU206	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	U20605457
Landing Gear Type:	Tricycle	**Seats:**	6
Date/Type of Last Inspection:	April 15, 2019 Annual	**Certified Max Gross Wt.:**	3600 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	6540.6 Hrs as of last inspection	**Engine Manufacturer:**	Continental
ELT:	Installed, not activated	**Engine Model/Series:**	TSIO-520-AFCM
Registered Owner:	On file	**Rated Power:**	310 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Aircraft and Owner/Operator Information (A2)

Aircraft Make:	De Havilland	**Registration:**	N2106K
Model/Series:	DHC-2	**Aircraft Category:**	Airplane
Year of Manufacture:	1956	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	1131
Landing Gear Type:	Tricycle; Amphibian	**Seats:**	8
Date/Type of Last Inspection:	May 19, 2020 Annual	**Certified Max Gross Wt.:**	6000 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	6171 Hrs as of last inspection	**Engine Manufacturer:**	Pratt & Whitney
ELT:	C91A installed, not activated	**Engine Model/Series:**	R985 AN14B
Registered Owner:	Brooks Seaplane Service Inc	**Rated Power:**	400 Horsepower
Operator:	Brooks Seaplane Service Inc	**Operating Certificate(s) Held:**	On-demand air taxi (135)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KCOE,2307 ft msl	**Distance from Accident Site:**	15 Nautical Miles
Observation Time:	20:56 Local	**Direction from Accident Site:**	0°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	None / None
Wind Direction:		**Turbulence Severity Forecast/Actual:**	N/A / N/A
Altimeter Setting:	30.09 inches Hg	**Temperature/Dew Point:**	24°C / 6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Coeur d'Alene, ID (A1); Coeur d'Alene, ID (A2)	**Type of Flight Plan Filed:**	None (A1); None (A2)
Destination:	Lewison, ID (KLWS) (A1); Coeur d'Alene, ID (A2)	**Type of Clearance:**	None (A1); None (A2)
Departure Time:		**Type of Airspace:**	Class G (A1); Class G (A2)

Wreckage and Impact Information (A1)

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	1 Fatal	**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	2 Fatal	**Latitude, Longitude:**	47.519165,-116.82638

Wreckage and Impact Information (A2)

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	5 Fatal	**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	6 Fatal	**Latitude, Longitude:**	47.519165,-116.82638

The wreckage of both airplanes was submerged in about 130 ft of water near the center of the lake between Half Round Bay and Black Rock Bay, as indicated in figure 2. The underwater debris path was about 900 ft in length.

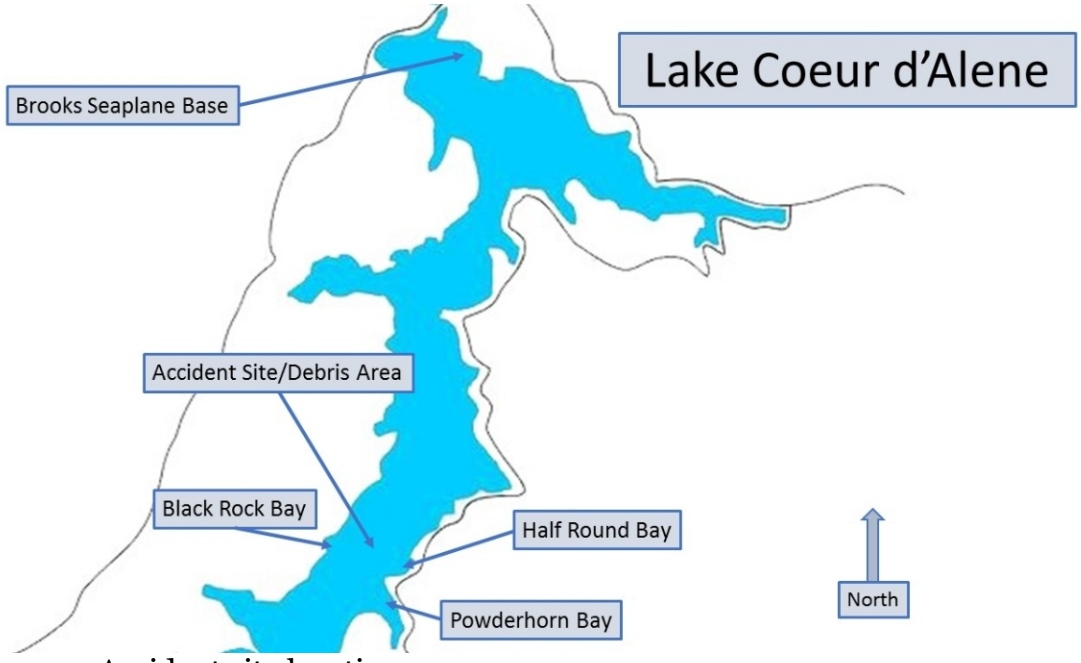

Figure 2. Accident site location.

Examination of the recovered wreckage of the Cessna revealed mechanical impact damage and a puncture in the forward spar on the left wing between wing stations (WS) 72 and 76. Blue

paint transfer was identified on the structure around the puncture. Linear scratch marks with blue paint transfer were observed on the lower skin between about WS 35 and 70. The scratch marks appeared to slightly curve inboard but were oriented about 30° from the longitudinal axis. The left-wing strut exhibited blue paint transfer from 51 to 72 inches below the upper end of the strut.

The lower fuselage and floor structure from fuselage station (FS) 0 to the tail was mostly intact. The left side of the fuselage from FS 65 to the tail was mostly intact. The left-side pilot door and right-side cargo doors had separated and were not located. The right side of the fuselage was mostly intact from FS 0 to 68.3 and from FS 112 to the tail. The upper portion of the fuselage was present from FS 65 to the tail. The fuselage structure between the instrument panel and aft cargo door was missing along a distinct angular line from left to right and with an angle of about 30°. A linear area of cut damage was observed in the cabin roof structure that exhibited curled fuselage skin and was oriented about 20° from the longitudinal axis. A small area at the end of the cut exhibited saw tooth fractures.

The vertical stabilizer and rudder remained attached to the empennage. A mechanical cut in the vertical stabilizer exhibited curled metal from left to right, consistent with a propeller strike, and extended from the aft spar vertically to the leading edge of the stabilizer. The upper rudder hinge was pulled from the rudder.

The engine, engine mount, propeller assembly, and right wing were not present at the time of the wreckage examination.

Examination of the recovered wreckage of the De Havilland revealed that the cabin area (center section of the fuselage) was fractured into multiple pieces with varying levels of damage. Evidence of a flash fire was found between FS 8 and 76. Two mechanical cuts were identified in the lower fuselage on the right side of the fuselage centerline; the edges of the cuts showed inward deformation. The fuel tank was punctured and exhibited inward deformation and mechanical cut damage to the tank skin. The mechanical cuts of the fuselage and fuel tank were parallel and offset 20° from the longitudinal axis. The floats and most of the float struts were not recovered.

No evidence of any preexisting mechanical malfunction was observed in the recovered wreckage that would have precluded normal operation of either airplane.

Medical and Pathological Information

Autopsies of both pilots were performed by the Spokane County Office of the Medical Examiner, Spokane, Washington. The Cessna pilot's cause of death was blunt impact. The De Havilland pilot's cause of death was multiple blunt injuries. Toxicology testing performed at

the Federal Aviation Administration Forensic Sciences Laboratory found no drugs of abuse in either pilot's specimens.

Additional Information

Title 14 *CFR* 91.113, Right-of-way rules: Except water operations, noted the following:

> *When weather conditions permit, regardless of whether an operation is conducted under instrument flight rules or visual flight rules, vigilance shall be maintained by each person operating an aircraft so as to see and avoid other aircraft….*
>
> *When two or more aircraft are approaching an airport for the purpose of landing, the aircraft at the lower altitude has the right-of-way, but it shall not take advantage of this rule to cut in front of another which is on final approach to land or to overtake that aircraft.*

The Federal Aviation Administration *Airplane Flying Handbook* (FAA-H-8083-3C) noted the following:

> *All pilots should be alert to the potential for midair collision and impending loss of separation. The general operating and flight rules in 14 CFR part 91 set forth the concept of 'see and avoid.' This concept requires that vigilance shall be maintained at all times by each person operating an aircraft regardless of whether the operation is conducted under IFR* [instrument flight rules] *or VFR* [visual flight rules]*…. Most of these accidents/incidents occur within 5 miles of an airport and/or near navigation aids.*

Administrative Information

Investigator In Charge (IIC):	Cawthra, Joshua
Additional Participating Persons:	Kevin Marsac; FAA; Spokane, WA Jennifer Barclay; Textron Aviation; Wichita, KS
Original Publish Date:	August 31, 2022
Last Revision Date:	
Investigation Class:	Class 3
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=101532