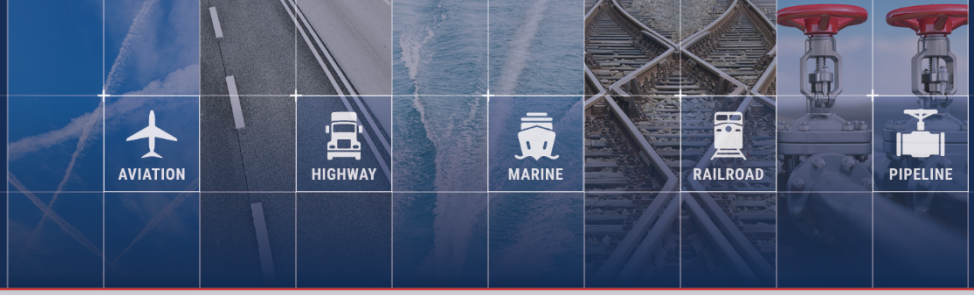

Aviation Investigation Final Report

Location:	BABB, Montana	**Accident Number:**	SEA00FA074
Date & Time:	April 16, 2000, 16:30 Local	**Registration:**	N284X
Aircraft:	Maule M-5-210C	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

During a personal flight, the aircraft collided with mountainous terrain. The pilot made several telephone calls to the Flight Service Station earlier that day for weather briefings. The specialist reported that VFR flight was not recommended at the time the pilot had originally planned for, but that it was improving later in the day. The pilot had also indicated a flight course that was different from the accident flight course, which took him into high mountainous terrain. During the pilot's last conversation with the FSS, the specialist informed the pilot of the thick cloud cover over the mountains and that he may have difficulty getting over the mountains. Radar data indicates that the aircraft was maneuvering in a possible course reversal when the aircraft dropped from radar coverage. The wreckage at the accident site indicates that the aircraft collided with mountainous terrain about 900 feet below a 9,200-foot ridgeline. The area was snow covered, and an avalanche buried a majority of the wreckage that was scattered down the 40-degree slope for about half a mile. Due to adverse conditions, the recovery of the wreckage was not attempted until late summer. When recovery was attempted, a majority of the wreckage to include the cockpit, fuselage and engine had slid down the 40-degree slope and into the lake directly below. Those items have not been recovered.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Terrain clearance was not maintained. High mountains, mountain obscuration, and the pilot's inadequate preflight planning/preparation were factors.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: MANEUVERING

Findings
1. (F) TERRAIN CONDITION - MOUNTAINOUS/HILLY
2. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
3. (F) WEATHER CONDITION - OBSCURATION
4. (F) PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND

Factual Information

HISTORY OF FLIGHT

On April 16, 2000, approximately 1630 mountain daylight time, a Maule M-5-210C, N284X, registered to and operated by the pilot as a 14 CFR Part 91 personal flight, was reported missing after it did not arrive at its destination in Three Hills, Alberta, Canada. On April 19, 2000, at 1130, the wreckage was located by search personnel in a canyon surrounded by mountainous terrain approximately 10 nautical miles west of Babb, Montana. Visual meteorological conditions prevailed at Glacier Park International Airport, 30 nautical miles southwest; however, the conditions at the accident site at the time are unknown. The aircraft was destroyed and the private pilot, the sole occupant, was fatally injured. The flight departed from Polson, Montana, approximately one hour prior to the accident. There was no report of emergency locator transmitter activation.

Radar data provided by Langley AFB, indicated that the aircraft was initially identified on radar at Flathead Lake, near Lakeside, Montana, about the time the pilot activated the VFR flight plan. The flight path proceeded on a northeasterly heading at the highest altitude of about 10,500 feet, and then descended to 9,200 feet when the target was lost near Mount Henkel in the Glacier National Park. The end of the data targets indicates that the flight turned to an easterly direction, before turning to a northwesterly direction when the target was lost. The Great Falls Sectional indicates that the highest obstacle in that area is 10,800 feet (See attached RADAR tracking data and maps).

The wreckage was sighted by search personnel on the southwest corner at the end of a canyon that surrounds Kennedy Lake. Kennedy Lake is on the northwest side of Mount Henkel.

PERSONNEL INFORMATION

At the time of the accident, the pilot held a private pilot certificate for single-engine land aircraft. The pilot's flight logbook was recovered from the accident site and reviewed by the National Transportation Safety Board. The flight logbook indicated that the pilot had accumulated a total flight time of approximately 158 hours in all make/model aircraft, with 108 hours as pilot-in-command. A total of 25 hours had been accumulated in the Maule M5-210C. The remainder of the pilot's flight times had been accumulated in a Stinson 108-1 and 108-3.

The logbook indicated that the pilot began flying in 1992, in Wasilla, Alaska, in a Stinson. The private pilot certificate was issued in 1993. In August 1998, the logbook indicated the first flight in the Maule. A flight review and high performance checkout in the Maule were accomplished on August 10, 1998, in Wasilla. Over the next two months, flights in the Maule

were logged beginning in Wasilla and ending in Plains, Montana, in October 1998. The remaining logged entries were on May 6, 1999, and December 10, 1999, which were 30 minutes in duration local flights. The last logged flight before the accident date was on April 12, 2000, when the pilot and a mechanic from Polson flew a one-hour flight from Plains to Polson for the annual maintenance inspection.

A telephone conversation with the owner of the property where the pilot based the aircraft, reported that he recalled that the pilot had flown the aircraft once in the two years prior to April 12, when the pilot and a mechanic flew the airplane to Polson for the annual inspection. He also stated that he knew that the pilot had been talked out of flying to Canada the day before, because of poor weather.

AIRCRAFT INFORMATION

The maintenance logbooks indicate that the annual inspection performed prior to the pilot's purchase of the aircraft on August 4, 1998, was signed-off on July 31, 1998, at a total time of 1643.5 hours. The most current annual inspection was signed-off on April 14, 2000. The aircraft had accumulated a total of 22.5 hours since the last inspection in July 1998.

The mechanic who signed-off the annual inspection reported that for an aircraft that had been setting for about a year and-a-half, it required only minor maintenance for the inspection, and that the pilot did not report any problems. The mechanic also reported that he spoke with the pilot on April 15, and talked him out of going to Canada that day due to the poor weather. He stated that the pilot was anxious to go in order to attend a graduation.

METEOROLOGICAL INFORMATION

At 1012, the pilot contacted Great Falls, Montana, Automated Flight Service Station (GTF AFSS) and requested a standard VFR weather briefing from Polson to Three Hills, Alberta. The pilot indicated that he wanted to depart at 1300. En route altitude was reported as 7,500 feet for the 2.5-hour flight. The specialist informed the pilot of the Airmet that was current from 0900 to 1100 that indicated VFR flight was not recommended. The specialist recommended that the pilot call back for the noon-updated forecast. The pilot agreed and the conversation was concluded.

At 1309, the pilot contacted GTF AFSS and requested an updated standard VFR weather briefing. The pilot indicated a 1500 departure for a route of flight from Polson to Cut Bank, Montana, Lethbridge, Canada, and a final destination to Three Hills, at a cruising altitude of 7,500 feet for the three-hour flight. The pilot reported a landing at Lethbridge to clear customs. The specialist reported that the Airmets for IFR and icing conditions should be cancelled by 1500. The specialist then informed the pilot of the current weather conditions at Cut Bank, Lethbridge, and Red Deer, Canada. The specialist informed the pilot that from the forecast, he should be able to head into Lethbridge, with no problem. However, from Lethbridge to the final destination the weather looked borderline IFR to marginal conditions. The specialist gave the

pilot the winds aloft information and recommended that he call back for an update, and to check on the Airmets. The conversation was concluded.

At 1337, the pilot contacted GTF AFSS and requested a standard flight briefing from Polson to Three Hills. The specialist took the VFR flight plan information and a VFR flight plan was filed from Polson to Lethbridge. Time en route was reported as three hours. The pilot indicated that he had 60 gallons of fuel on board, or five hours of flight time. The specialist then updated the pilot on the weather for the area indicating that a high-pressure ridge was over the area with moisture into the southwestern part of the state. The Airmets had been cancelled. The surface observations for Kalispell, Glacier Park, Missoula, and the Canadian airports were given. The pilot did not indicate the route of flight before the conversation was concluded. The pilot inquired about what frequency to open the flight plan, and the specialist indicated to open the flight plan off Lakeside. He also reported that the satellite was showing thick cloud cover over the mountains westward, and that he may have difficulty getting over the mountains.

Park personnel reported that on the day of the accident, adverse weather was in the area to include mountain obscuration and high winds.

COMMUNICATIONS

At 1539, the pilot contacted GTF AFSS, via the aircraft radio, to open his VFR flight plan to Lethbridge. The specialist reported that the flight plan was activated at this time. Air traffic control facilities reported that there was no further communication with the aircraft after this time.

WRECKAGE AND IMPACT INFORMATION

Search personnel reported that wreckage was found at an elevation of approximately 7,600 feet mean sea level, and about 200 feet above Kennedy Lake. The terrain is approximately 30 to 40 degrees sloping and covered with snow. The top of the canyon rises to approximately 9,200 feet. Evidence of new avalanche was noted.

Personnel from Glacier National Park, who recovered the pilot from the accident site, reported that a majority of the wreckage was buried under the snow. Park personnel reported that due to avalanche potential, adverse weather and terrain conditions, it was recommended that the wreckage recovery be post-poned until late summer when the snow melted. Debris that was visible extended for about one-half mile. The main wreckage of the airplane was located at about the 8,000-foot level and was partially buried in the snow. Directly above this wreckage, to about the 8,300-foot level, more debris was located, but became scarce above this point. Below the 8,000-foot level, the debris that was visible included a gas tank, pieces of seat belt, a tire, a blue jacket, and small aluminum pieces of the fuselage and seat cushions.

In early September, 2000, a wreckage recovery team was dispatched. The team reported that

very little of the wreckage remained at the location. It appeared that the larger pieces (main wreckage to include the cockpit) slid down the mountain and into Kennedy Lake. The engine was located, but rolled down the hill and into Kennedy Lake before it was secured. A small section of one wing and several small miscellaneous pieces were recovered. The propeller was not located.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed by B.D. Patterson, M.D., Northern Plains Pathologists, Great Falls, Montana. The cause of death was reported as "Blunt force trauma to head and chest."

Toxicological samples were sent to the Federal Aviation Administration Civil Aeromedical Institute, Oklahoma City, Oklahoma for analysis. The results of the analysis were reported as negative.

ADDITIONAL INFORMATION

The wreckage was recovered from the accident site early September, 2000, and moved to Bozeman, Montana.

The wreckage was released to the pilot's estate on October 12, 2000.

Park personnel reported that if conditions permitted, the remainder of the wreckage that slid into Kennedy Lake might still be recovered. To this date, that has not been accomplished.

Pilot Information

Certificate:	Private	**Age:**	42,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Unknown
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 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	July 18, 1998
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	158 hours (Total, all aircraft), 25 hours (Total, this make and model), 108 hours (Pilot In Command, all aircraft), 1 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Maule	**Registration:**	N284X
Model/Series:	M-5-210C M-5-210C	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	6103C
Landing Gear Type:	Tailwheel	**Seats:**	4
Date/Type of Last Inspection:	April 15, 2000 Annual	**Certified Max Gross Wt.:**	2300 lbs
Time Since Last Inspection:	1 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	1666 Hrs	**Engine Manufacturer:**	Continental
ELT:	Installed, not activated	**Engine Model/Series:**	IO-360-D33A
Registered Owner:	DALE A. LAIRD	**Rated Power:**	210 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Unknown	**Condition of Light:**	Day
Observation Facility, Elevation:	FCA ,2972 ft msl	**Distance from Accident Site:**	39 Nautical Miles
Observation Time:	15:56 Local	**Direction from Accident Site:**	205°
Lowest Cloud Condition:	Unknown	**Visibility**	10 miles
Lowest Ceiling:	Broken / 8500 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	4 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	120°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	10°C / 4°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	POLSON (8S1)	**Type of Flight Plan Filed:**	VFR
Destination:	LETHBRIDGE (CYQL)	**Type of Clearance:**	None
Departure Time:	15:15 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:**	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	48.77946,-113.369674(est)

Administrative Information

Investigator In Charge (IIC):	Eckrote, Debra
Additional Participating Persons:	KEN CONRAD; HELENA , MT MIKE GRIMES; LANCASTER , CA
Original Publish Date:	May 18, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=49004