



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	BUTTE, MT	<b>Accident Number:</b>	SEA95FA043
<b>Date &amp; Time:</b>	01/26/1995, 2230 MST	<b>Registration:</b>	N250RP
<b>Aircraft:</b>	BEECH E18S	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Fatal

**Flight Conducted Under:** Part 135: Air Taxi & Commuter - Non-scheduled

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## Analysis

WHILE PERFORMING AN ILS APPROACH AT NIGHT AND IN IMC, THE AIRPLANE COLLIDED WITH TREES IN MOUNTAINOUS TERRAIN PRIOR TO THE IAF. THE MDA PRIOR TO THE IAF IS 10,600 FEET. THE DESCENT ALTITUDE AT THE OM IS 7,713 FEET. THE WRECKAGE WAS LOCATED UNDER THE LOCALIZER PATH AT AN ELEVATION OF 7,600 FEET. DAMAGE TO TREE TOPS ALONG THE WRECKAGE DISTRIBUTION PATH INDICATES THAT THE AIRPLANE TRAVELLED THROUGH THE TREES ON A LEVEL PLANE UNTIL CONTACT WITH THE GROUND APPROXIMATELY 300 FEET INTO THE PATH. LIGHT SNOW WAS FALLING AT THE TIME OF THE ACCIDENT AND VISIBILITY WAS DETERIORATING DUE TO FOG. DURING THE POST CRASH INVESTIGATION, THERE WAS NO EVIDENCE FOUND TO INDICATE A MECHANICAL FAILURE OR MALFUNCTION.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S FAILURE TO FOLLOW THE IFR PROCEDURE BY NOT MAINTAINING THE PROPER ALTITUDE PRIOR TO THE INITIAL APPROACH FIX. FACTORS TO THE ACCIDENT WERE DARK NIGHT CONDITIONS AND A LOW CEILING.

## Findings

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Occurrence #1: IN FLIGHT COLLISION WITH OBJECT  
Phase of Operation: APPROACH

### Findings

1. (F) LIGHT CONDITION - DARK NIGHT
2. (F) WEATHER CONDITION - LOW CEILING
3. OBJECT - TREE(S)
4. (C) IFR PROCEDURE - NOT FOLLOWED - PILOT IN COMMAND
5. (C) PROPER ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: DESCENT - UNCONTROLLED

## Factual Information

### HISTORY OF FLIGHT

On January 26, 1995, approximately 2230 mountain standard time, a Beech E18S, N250RP, operating as Methow 35, collided with trees in mountainous terrain while on approach to the Bert Mooney Airport, Butte, Montana. Instrument meteorological conditions prevailed at the time and an instrument flight rules flight plan was filed for the flight that was conducted under 14CFR135. The airplane was substantially damaged and the airline transport pilot, the sole occupant, was fatally injured. The flight had departed from Seattle, Washington, on January 26, 1995, at 1830 Pacific standard time.

Personnel at Methow Aviation, the owner/operator, reported that the airplane was loaded with 1,850 pounds of newspapers that were to be delivered to Missoula, Montana. Butte was the alternate airport if a landing at Missoula was not possible.

### PERSONNEL INFORMATION

The pilot held certificates for commercial and airline transport operations. At the time of the accident, the pilot had accumulated a total flight time of approximately 14,575 hours with over 2,806 hours in the Beech 18. The pilot's current flight logbook was made available for review and began on January 1978. Several columns in this logbook listed the flight time per day, however, the columns were not totaled, therefore, total flight times were estimated. Some entries were logged as a total time over a period of time, usually a month, and did not indicate the points of departure or destination. A review of this logbook did not indicate any flights into or out of Butte.

The owner/operator of the airplane stated that the pilot had flown with the company several years ago and was rehired on March 18, 1989. The pilot was in semi-retirement and flew for the company when he was needed. Over the past month prior to the accident, the pilot had flown 52 hours in the Beech 18. Company personnel reported that the pilot was familiar with the route of flight to Missoula, but couldn't remember the last time the pilot had flown into Butte.

### METEOROLOGICAL INFORMATION

The pilot had contacted the Butte Flight Service Station at 2223 hours and received the 2220 special weather report. The specialist reported a partially obscured sky with a ceiling at 1,400 feet. The visibility was four miles with light snow and fog. The wind was from 350 degrees at four knots.

At 2237 hours, the weather was reported as a partially obscured sky with a ceiling at 1,200 feet. The visibility was two miles with light snow and fog. The temperature and dew point were at 30 degrees. The wind was from 360 degrees at five knots. The altimeter setting was 29.86" Hg.

### COMMUNICATIONS

At 2127 hours, the pilot contacted Salt Lake Center and reported at 11,000 feet. The controller gave the pilot the current Missoula altimeter setting and asked the pilot if he had the 2050 hour weather report for Missoula. The pilot responded by asking if it was still showing 400 feet broken and three-quarters of a mile visibility. The controller responded "affirmative." The

pilot then asked the controller for the Butte weather. The controller responded that the Butte weather at 2048 hours was 1,200 feet scattered with an estimated ceiling at 2,100 feet broken, and 3,000 feet overcast. Visibility was eight miles and the temperature was 33 degrees. The dew point was 32 degrees. The wind was from 360 degrees at five knots. The altimeter setting was 29.83" Hg.

At 2205 hours, the pilot reported to Salt Lake Center that he was over Drummond VOR. The controller responded that the pilot was to report when over Glues Intersection.

At 2211 hours, the pilot was given the 2148 hour record special weather at Butte. The controller reported the sky was partially obscured with an estimated ceiling at 1,600 feet broken and overcast at 2,700 feet. Visibility was six miles with light snow and fog. The temperature was 33 degrees with a dew point at 31 degrees. The wind was calm and the altimeter setting was 29.84" Hg. The snow had begun to fall at 2139 hours.

At 2212 hours, the pilot was cleared for the ILS approach to Butte.

At 2213 hours, the pilot reported over Glues intersection. The controller instructed the pilot to contact Butte radio.

At 2214 hours, the pilot contacted Butte Flight Service Station (FSS) and reported that he was established on the ILS approach. The specialist gave the pilot the 2148 hour weather.

At 2223 hours, the pilot reported to Butte FSS that he was established on the localizer. The specialist gave the pilot the 2220 hour special weather report.

There were no further communications received by the pilot.

At 2233 hours, Skywest flight 966, that was also operating in the area, reported picking up an ELT signal. Skywest flight 966, opted to divert to an alternate destination due to the deteriorating weather at Butte.

#### WRECKAGE AND IMPACT INFORMATION

The wreckage was located in a valley with surrounding mountainous terrain. The elevation at the accident site was approximately 7,600 feet. The area was covered with dense trees measuring in height to approximately 75 feet. The ground was covered with three to four feet of snow.

The beginning of the wreckage distribution path measurements began where the left and right wing tips were located. The trees immediately above the two six foot sections of wing tips were broken off approximately 50 feet up from the base. Both wing tips were at the zero point and approximately 100 feet apart. A magnetic bearing was taken from this point to the resting point of the fuselage. This bearing was 140 degrees. Along this path all of the tree tops were broken off. From the zero point to approximately 300 feet, fuselage and wing skin and structure were littered on the ground among the broken limbs. At 300 feet, evidence of the first ground impact was noted. In this ground disturbance and buried, the left propeller blades attached to the hub were found. The blades exhibited "S" bending and leading edge nicks and gouges. The blade face displayed cordwise scratches and gouges. The hub had separated from the crankshaft at the flange. The right engine with the propellers attached were located approximately 10 feet to the left of the ground disturbance. The engine was entangled in broken tree limbs. The propeller blades were bent rearward and displayed "S" bending. The tips were gouged and one blade tip was bent and folded back onto itself. Wood was imbedded

into the cooling fins on some of the cylinders. Some cylinders were broken off from the crankcase and the case was partially split. In this general area around the engine, sections of cylinders, pistons, a carburetor and other engine parts were located. Approximately 330 feet into the path, a section of a wing was located in the snow.

The terrain was nearly level from the zero point to 300 feet where the terrain began to rise approximately 20 degrees. At 300 feet, looking back along the distribution path, the tree tops appeared to be broken off on a level plane.

Approximately 500 feet into the distribution path, the fuselage was located. The nose of the fuselage was pointing to the ground, with the tail propped up against a dense group of trees. The empennage was bent over to one side. The horizontal stabilizer was in place and most of the vertical stabilizer. One main landing gear remained attached to this part of the structure. The cockpit area was not visible and no cockpit documentation was available. The left engine was found at 520 feet into the wreckage path. This engine had wood imbedded in the cooling fins. Cylinders were also broken off. The ground was covered with newspapers that were distributed throughout the wreckage distribution path.

#### MEDICAL AND PATHOLOGICAL INFORMATION

The State Medical Examiner for the State of Montana, Dr. Gary Dale, reported that the pilot's cause of death was due to massive blunt force injuries.

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

#### ADDITIONAL DATA/INFORMATION

The wreckage was retrieved on June 21, 1995, and moved for security to Beegles Aircraft Service, Greeley, Colorado. The wreckage was released to the owner's representative on June 26, 1995.

The current Instrument Landing System (ILS) runway 15 approach plate, indicates that the minimum descent altitude is 10,600 feet from Ketch Intersection, at 29.6 miles Distance Measuring Equipment (DME), to Magic Intersection, at 14 miles DME. The inbound heading is 151 degrees. The profile then descends to 7,713 feet to Myner Intersection, which is also the outer marker, at 7.4 miles DME. From the outer marker to the missed approach point at 3.9 miles DME, the decision height altitude is 6,479 feet. The airport elevation is 5,545 feet.

Radar contact is lost below 12,000 feet due to terrain conditions.

The wreckage was located at 17 miles from the airport at an elevation of 7,600 feet and under the approach path. (See attached Wreckage Location from the Great Falls Sectional and the ILS RWY 15 approach plate).

## Pilot Information

<b>Certificate:</b>	Airline Transport; Commercial	<b>Age:</b>	63, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land; Single-engine Sea	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane Multi-engine; Airplane Single-engine	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 2 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	06/13/1994
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	14575 hours (Total, all aircraft), 2806 hours (Total, this make and model), 420 hours (Last 90 days, all aircraft), 52 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	BEECH	<b>Registration:</b>	N250RP
<b>Model/Series:</b>	E18S E18S	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	BA-47
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	12/19/1994, AAIP	<b>Certified Max Gross Wt.:</b>	9300 lbs
<b>Time Since Last Inspection:</b>	96 Hours	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	15043 Hours	<b>Engine Manufacturer:</b>	P&W
<b>ELT:</b>	Installed, activated, aided in locating accident	<b>Engine Model/Series:</b>	R985-14B
<b>Registered Owner:</b>	METHOW AVIATION INC.	<b>Rated Power:</b>	450 hp
<b>Operator:</b>	METHOW AVIATION INC.	<b>Operating Certificate(s) Held:</b>	On-demand Air Taxi (135)
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	MER

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	BTM, 5545 ft msl	Distance from Accident Site:	17 Nautical Miles
Observation Time:	2237 MST	Direction from Accident Site:	150°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	2 Miles
Lowest Ceiling:	Obscured / 1200 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	-1° C / -1° C
Precipitation and Obscuration:			
Departure Point:	SEATTLE, WA (BFI)	Type of Flight Plan Filed:	IFR
Destination:	, MT (BTM)	Type of Clearance:	IFR
Departure Time:	1830 PST	Type of Airspace:	Class E

## Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	DEBRA J ECKROTE	Report Date:	09/24/1995
Additional Participating Persons:	EARL WEBB; HELENA, MT DON F KNOTSON; WICHITA, KS		
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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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](#).