Aviation Investigation Final Report

Location:	GRAND COULEE, Washington	**Accident Number:**	SEA00LA027
Date & Time:	December 1, 1999, 17:30 Local	**Registration:**	N4617M
Aircraft:	Beech B-19	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	2 Serious
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

During a night cross-country instructional flight, the instructor chose to divert the aircraft to an alternate airport. While maneuvering in the area of the alternate airport, the aircraft collided with high-voltage power lines 3 miles from the airport. The power lines are approximately 250 feet AGL. Both pilots stated they were unable to recall any of the detailed events from the time they diverted to the alternate airport to the time of the accident. The power lines are displayed on the sectional chart.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain clearance from power transmission lines. Factors include dark night conditions.

Findings

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

Findings
1. OBJECT - WIRE,TRANSMISSION
2. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND(CFI)
3. (F) LIGHT CONDITION - DARK NIGHT

Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: DESCENT - UNCONTROLLED

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

On December 1, 1999, approximately 1730 Pacific standard time, a Beechcraft B-19, N4617M, registered to and operated by Big Bend Community College as a 14CFR91 instructional flight, was destroyed after colliding with power lines and terrain approximately three mile northeast of Grand Coulee Dam Airport, Electric City, Washington. The certified flight instructor (CFI) and student pilot both sustained serious injuries. Night visual meteorological conditions prevailed and a flight plan was filed for the cross country flight. The flight originated from the Grant County International Airport (MWH), Moses Lake, Washington, approximately one hour prior to the accident.

In a written statement, the certified flight instructor reported that the intent of the instructional flight was to complete lesson 2-4 in the Training Course Outline (attached). The lesson called for a cross-country flight with a diversion to an alternate airport. After reviewing the weather and the student's flight planning, the two pilots departed MWH at 1625 Pacific standard time, with a planned destination of Anderson Field, Brewster, Washington, (S97). The instructor pilot stated that approximately 20 minutes after departing MWH he instructed the student pilot to divert to Grand Coulee Dam Airport (S97), approximately 25 miles northeast of their location. The instructor pilot and student pilot both remember making a heading change for the new destination airport. However, both pilots were unable to recall any of the detailed events between the time of the heading change and the accident.

The aircraft's initial impact point was a series of tower-mounted, high-voltage transmission lines (that are displayed on the sectional chart), located approximately three nautical miles northeast of the airport. According to Bonneville Power Administration, the height of the power lines are approximately 250 feet above ground level (2,250 feet above mean sea level [MSL]).

According to Douglas County Sheriff's Office, witnesses reported seeing a bright flash, in the vicinity of the power lines, at the approximate time of the accident.

According to a flight navigation log recovered from the accident aircraft, the planned altitude for the cross country flight was 4,500 feet above MSL. The published elevation for Grand Coulee Dam Airport is 1,590 feet MSL.

Post-accident examination of the aircraft revealed no evidence of a pre-impact mechanical failure or malfunction.

Pilot Information

Certificate:	Commercial; Flight instructor	**Age:**	23,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	None	**Restraint Used:**	
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 3 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	September 18, 1997
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	566 hours (Total, all aircraft), 297 hours (Total, this make and model), 497 hours (Pilot In Command, all aircraft), 210 hours (Last 90 days, all aircraft), 54 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	**Registration:**	N4617M
Model/Series:	B-19 B-19	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal; Utility	**Serial Number:**	MB-894
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	November 15, 1999 Annual	**Certified Max Gross Wt.:**	2150 lbs
Time Since Last Inspection:	19 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	3744 Hrs	**Engine Manufacturer:**	Lycoming
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	O-320-E3D
Registered Owner:	BIG BEND COMMUNITY COLLEGE	**Rated Power:**	150 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Night/dark
Observation Facility, Elevation:	EPH ,1276 ft msl	**Distance from Accident Site:**	40 Nautical Miles
Observation Time:	17:50 Local	**Direction from Accident Site:**	190°
Lowest Cloud Condition:	Unknown	**Visibility**	15 miles
Lowest Ceiling:	Overcast / 3000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	11 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	170°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	6°C / 3°C
Precipitation and Obscuration:			
Departure Point:	MOSES LAKE , WA (MWH)	**Type of Flight Plan Filed:**	VFR
Destination:	(MWH)	**Type of Clearance:**	None
Departure Time:	16:25 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	GRAND COULEE DAM 3W7	**Runway Surface Type:**	Asphalt
Airport Elevation:	1590 ft msl	**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:	4200 ft / 75 ft	**VFR Approach/Landing:**	

Wreckage and Impact Information

Crew Injuries:	2 Serious	**Aircraft Damage:**	Destroyed
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Serious	**Latitude, Longitude:**	

Administrative Information

Investigator In Charge (IIC):	Hogenson, Dennis
Additional Participating Persons:	JULIE D LEE; SPOKANE , WA JEFFREY R POSCHWATTA; WILLIAMSPORT , PA BRIAN D CASSIDY; WICHITA , KS
Original Publish Date:	May 22, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=47880