



Aviation Investigation Final Report

Location:	USAF ACADEMY, Colorado	Accident Number:	FTW94GA076
Date & Time:	January 28, 1994, 15:50 Local	Registration:	N7634S
Aircraft:	BELLANCA 8GCBC	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Public aircraft		

Analysis

WHILE RETURNING FROM A GLIDER TOW MISSION, AFTER THE GLIDER HAD BEEN RELEASED, THE AIRCRAFT WAS OBSERVED FLYING AT LOW ALTITUDE. ONE WITNESS SAID THE ENGINE SOUNDED AS THOUGH IT WAS CUTTING OUT. OTHER WITNESSES DESCRIBED THE AIRCRAFT AS FLYING ERRATICALLY AT LOW ALTITUDE. IT THEN ENTERED A DIVE AND CRASHED IN A WOODED AREA. NO AIRCRAFT SYSTEM FAILURE OR MALFUNCTION WAS FOUND DURING AN INVESTIGATION. AN AUTOPSY REVEALED EVIDENCE OF CORONARY ARTERY HEART DISEASE. THE EL PASO COUNTY CORONER'S OFFICE INDICATED THE ACCIDENT COULD HAVE RESULTED FROM CARDIAC ARRHYTHMIA DUE TO CORONARY INSUFFICIENCY. AN AIR FORCE ACADEMY CADET WAS ALSO ABOARD THE AIRCRAFT, BUT THE AIRCRAFT WAS NOT EQUIPPED WITH DUAL CONTROLS.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: LOSS OF CONTROL IN FLIGHT FOR AN UNDETERMINED REASON.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: MANEUVERING

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: DESCENT - UNCONTROLLED

Findings

2. OBJECT - TREE(S)

Factual Information

HISTORY OF FLIGHT

On January 28, 1994, at 1550 mountain standard time, a Bellanca 8GCBC, N7634S, impacted into trees while returning to the United States Air Force Academy Airport from a local glider tow operation. The civilian contract pilot and Air Force Academy cadet passenger received fatal injuries, and the aircraft was destroyed. No flight plan was filed for this public use flight which originated at the Air Force Academy approximately 30 minutes prior to the accident. Visual meteorological conditions prevailed.

At the time of the accident, the glider tow had been completed and the aircraft was en route back to the Academy airport. According to witnesses, the tow plane was observed to be flying erratically and at a lower altitude than normal. Several witnesses observed the aircraft dive into a wooded area approximately 2 miles northwest of the Academy airport. The aircraft was equipped with a communications radio; however, no transmissions were heard by the Academy tower or other aircraft operating in the area.

PERSONNEL INFORMATION

The pilot received his last physical on June 24, 1993. The physical was a first class and included an electrocardiogram. A review of the pilot's medical history from FAA files shows annual first class physicals with electrocardiograms. The records provide no evidence of coronary abnormalities.

WRECKAGE AND IMPACT INFORMATION

The accident site was oriented on a base track of 130 degrees. The first item was the glider tow rope followed by fractured trees and the right wing of the aircraft. The main wreckage was nose down in the trees with the nose oriented opposite the direction of travel. The left wing remained attached as did the empennage and engine.

The propeller was detached from the engine and found along the track between the right wing and main wreckage. One propeller blade was twisted towards low pitch at mid span and bent forward with the tip bent forward 90 degrees. The other blade was twisted towards low pitch along its span and the outer 6 inches was bent in an 'S' curve. The spinner was deformed opposite the direction of rotation.

Examination of the flight control system provided no evidence of preaccident failure or malfunction and flight control continuity was established.

The cockpit area remained intact and both seats remained attached to the seat rails. The front restraint system was intact and, according to available information, was removed during the removal of the pilot. The rear restraint system separated from the right sidewall and the shoulder harness was found in the unfastened position. A diagram of wreckage distribution is attached.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot by the El Paso County Coroner's office located in Colorado Springs, Colorado. Results of the autopsy listed the manner of death as follows:

"The aircraft accident appears to have resulted from cardiac arrhythmia due to coronary insufficiency."

One of the areas listed in the final diagnosis is quoted.

"Coronary artery heart disease with: a. Occlusion, left anterior descending branch of coronary artery, arteriosclerotic, old. b. Stenosis, right coronary artery, atherosclerotic, moderate. c. Hypertrophy, heart, predominantly left ventricular (460 gm)."

TESTS AND RESEARCH

The engine was examined under the guidance of the investigator in charge (IIC) at the facilities of the Air Force Academy. No evidence was found which would have prevented the engine from operating in a normal fashion prior to the accident.

Fuel and oil samples were taken and analyzed by the Air Force fluids laboratory. Both samples met specified standards.

ADDITIONAL INFORMATION

The wreckage was released to the owner's representative on February 4, 1994. No parts were retained.

Pilot Information

Certificate:	Airline transport; Commercial	Age:	60, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 1 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	June 24, 1993
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	17200 hours (Total, all aircraft), 6250 hours (Total, this make and model), 14200 hours (Pilot In Command, all aircraft), 107 hours (Last 90 days, all aircraft), 48 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BELLANCA	Registration:	N7634S
Model/Series:	8GCBC 8GCBC	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Utility	Serial Number:	210-76
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	December 23, 1993 100 hour	Certified Max Gross Wt.:	2150 lbs
Time Since Last Inspection:	83 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	7370 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	O-360-C2E
Registered Owner:	FISCHER AGENCY, INC.	Rated Power:	180 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:	Day
Observation Facility, Elevation:	AFF ,6553 ft msl	Distance from Accident Site:	2 Nautical Miles
Observation Time:	15:50 Local	Direction from Accident Site:	120°
Lowest Cloud Condition:	Scattered / 3000 ft AGL	Visibility	15 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	160°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	-2°C / -8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	, CO (AFF)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	15:30 Local	Type of Airspace:	Military operation area

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Fatal	Latitude, Longitude:	38.989532,-104.849304(est)

Administrative Information

Investigator In Charge (IIC):	Wiemeyer, Norman
Additional Participating Persons:	JANNA GOWTHROP; DENVER , CO RANDAL M NIERSTHEIMER; USAFA , CO
Original Publish Date:	January 11, 1995
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=18930

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).