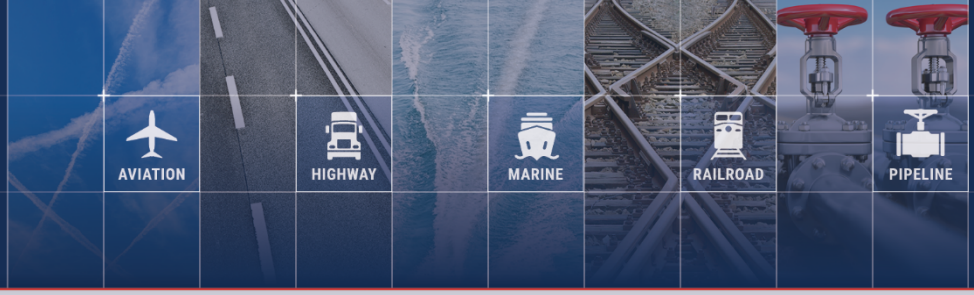

Aviation Investigation Final Report

Location:	COLUMBUS, Ohio	**Accident Number:**	NYC95LA098
Date & Time:	May 2, 1995, 04:25 Local	**Registration:**	N4575S
Aircraft:	BEECH 58	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 Serious
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled		

Analysis

THE 14 CFR PART 135 CARGO FLIGHT WAS PLANNED FOR 1 HOUR DURATION. THE PILOT-IN-COMMAND (PIC) AND SECOND-IN-COMMAND (SIC) HAD FLOWN FIVE LEGS PRIOR TO THE ACCIDENT LEG. THE PIC DID A WALK AROUND AND VISUAL INSPECTION OF THE AIRPLANE, WHILE THE SIC LOADED THE CARGO. THE CREW STATED THE FUEL GAUGES INDICATED ABOUT HALF FULL. ABOUT 45 MINUTES INTO THE NIGHT IMC FLIGHT, THE LEFT ENGINE 'SPUTTERED.' THE PIC ATTEMPTED VARIOUS FUEL TANK AND CROSS FEED SELECTIONS FOR THE LEFT AND RIGHT ENGINES. DURING THESE SELECTIONS, THE RIGHT AND LEFT ENGINES COMPLETELY LOST POWER. THE PIC DECLARED AN EMERGENCY AND WAS PROVIDED A RADAR VECTOR TO THE AIRPORT. THE AIRPLANE DESCENDED CLEAR OF THE CLOUDS ABOUT 3 MILES FROM THE AIRPORT. UNABLE TO GLIDE TO THE AIRPORT, THE PIC PERFORMED A GEAR-UP LANDING IN AN OPEN FIELD. EXAMINATION REVEALED THE RIGHT WING FUEL DRAIN HAD BROKEN OFF DURING IMPACT. NO USEABLE FUEL WAS DRAINED FROM THE LEFT OR RIGHT FUEL TANKS. ABOUT 1 OUNCE OF FUEL WAS DRAINED FROM EACH ENGINE FUEL SYSTEM.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's inadequate preflight of the airplane's fuel quantity, resulting in a complete loss of engine power due to fuel exhaustion, and the subsequent night forced landing and collision with the terrain.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: CRUISE

Findings
1. LIGHT CONDITION - DARK NIGHT
2. WEATHER CONDITION - RAIN
3. ALL ENGINES
4. (C) FLUID,FUEL - EXHAUSTION
5. (C) PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: EMERGENCY LANDING

Findings
6. TERRAIN CONDITION - OPEN FIELD

Factual Information

On May 2, 1995, at 0425 eastern daylight time, a Beech 58, N4575S, operated by U.S. Check, Columbus, Ohio, was substantially damaged during a forced landing to an open field near the Port Columbus International Airport (CMH), Columbus, Ohio. The airline transport rated pilot-in-command (PIC) and the commercial rated second-in-command (SIC) received serious injuries. Visual meteorological conditions prevailed for the flight that originated at the Allegheny County Airport, Pittsburgh, Pennsylvania. An IFR flight plan had been filed for the cargo flight conducted under 14 CFR Part 135.

The flight crew had flown five legs that evening, prior to the accident leg to CMH. The planned flight time to CMH was about 1 hour.

In the NTSB Form 6120.1/2, the PIC stated that while the SIC loaded the cargo, he performed a walk around and visual inspection of the airplane. The PIC then boarded the airplane and verified the fuel quantity by checking the gauges. The SIC stated that both the left and right fuel gauges indicated about half full.

The PIC said that the takeoff and climb were uneventful. After they leveled off at 4,000 feet, he set the fuel flow of both engines to 18 gallons per hour.

During radar vectors for an instrument approach to CMH, while in night IMC conditions, the PIC stated that the left engine "sputtered." He further stated:

I turned the left boost pump on and switched the left fuel selector to X-feed. The right engine at this point lost power. I turned the right boost pump on and moved all of the mixture, propeller and throttle levers to full. I turned the left fuel selector to main tank and the right fuel selector to X-feed. The left engine started to surge, but the right engine still did not produce any power...I switched the right back to main. The fuel gauges were reading: left bouncing above the yellow arc, and the right gauge was reading just below half tanks. I declared a fuel emergency...and requested direct to the field...we were loosing altitude rapidly. We broke out at 2,200 feet MSL and were approximately 3 miles southwest of the field...we did not have sufficient altitude to glide to the airport...We ended up in a field approximately 2 miles southwest of the field [CMH].

According to a Federal Aviation Administration (FAA) Inspector's statement, examination of the wreckage revealed 1 ounce of fuel was present in each of the left and right engine fuel lines. No fuel was removed from the right engine fuel injection system, and about 1 teaspoon of fuel was removed from the left.

The right wing inboard fuel drain was broken, and an undetermined amount of fuel had

leaked out. The left wing inboard fuel drain was intact, and the fuel cell contained approximately 1 cup of fuel. Examination of the left and right wing fuel strainers revealed that they each contained about 1 ounce of fuel, and were absent of water and foreign particulates.

When the batteries were energized, the left fuel gauge indicated between zero and 1/4, and the right gauge indicated zero. The Inspector stated that the left fuel indicator was erratic when the outer wing skin was tapped in the vicinity of the fuel quantity transmitter. The left wing fuel quantity transmitters were removed from the airplane and inspected. Both worked in unison and operated correctly.

Pilot Information

Certificate:	Airline transport; Commercial	**Age:**	26,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Glider	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	April 21, 1995
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	3900 hours (Total, all aircraft), 800 hours (Total, this make and model), 3600 hours (Pilot In Command, all aircraft), 240 hours (Last 90 days, all aircraft), 80 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BEECH	**Registration:**	N4575S
Model/Series:	58 58	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	TH-695
Landing Gear Type:	Retractable - Tricycle	**Seats:**	2
Date/Type of Last Inspection:	April 20, 1995 100 hour	**Certified Max Gross Wt.:**	5400 lbs
Time Since Last Inspection:	24 Hrs	**Engines:**	2 Reciprocating
Airframe Total Time:	4485 Hrs	**Engine Manufacturer:**	CONTINENTAL
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	IO-520-C
Registered Owner:	U.S. CHECK	**Rated Power:**	285 Horsepower
Operator:		**Operating Certificate(s) Held:**	On-demand air taxi (135)
Operator Does Business As:		**Operator Designator Code:**	BSYA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Night/dark
Observation Facility, Elevation:	CMH ,815 ft msl	**Distance from Accident Site:**	2 Nautical Miles
Observation Time:	03:50 Local	**Direction from Accident Site:**	60°
Lowest Cloud Condition:	Unknown	**Visibility**	6 miles
Lowest Ceiling:	Broken / 1700 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	11 knots / 18 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	40°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	8°C / 7°C
Precipitation and Obscuration:	N/A - None - Fog		
Departure Point:	WEST MIFFLIN , PA (AGC)	**Type of Flight Plan Filed:**	IFR
Destination:	(CMH)	**Type of Clearance:**	IFR
Departure Time:	03:30 Local	**Type of Airspace:**	Class C

Airport Information

Airport:	PORT COLUMBUS INTNL CMH	**Runway Surface Type:**	
Airport Elevation:	815 ft msl	**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	2 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Serious	**Latitude, Longitude:**	39.980712,-82.98059(est)

Administrative Information

Investigator In Charge (IIC):	Pearce, Robert
Additional Participating Persons:	LARRY DOMBROWSKI; COLUMBUS , OH JAY C WILKINS; COLUMBUS , OH
Original Publish Date:	November 8, 1995
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=38952

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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.