



Aviation Investigation Final Report

Location:	MOAB, Utah	Accident Number:	DEN00FA136
Date & Time:	July 18, 2000, 14:00 Local	Registration:	N7161L
Aircraft:	Grumman American AA-5	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The 21 year old private pilot received his certificate 16 days before the accident, and had logged about 150 total flight hours, 67 hours in type. His 44 year old pilot rated passenger was a local charter pilot and said to be thoroughly familiar with the surrounding terrain. Both pilots were avid 'BASE jumpers' (parachuting off of Bridges, Antennas, Structures, and Earth). The purpose of the flight was to scout for possible jump sites. The elevation at the airport was 4,553 feet msl, and the temperature was 93.2 degrees F. The computed density altitude was 7,407 feet msl. The airplane wreckage was found 5 days later on a talus slope at a 'Y' between two canyons at an elevation of 4,275 feet msl, or 145 feet above the floor of the canyon. The floor of the canyon was 4,130 feet msl, and the top of the canyon was at 5,243 feet msl. Examination of the accident site indicated the pilot was attempting to reverse course out of the canyon when the airplane impacted terrain. According to BLM personnel, temperatures in the canyons are considerably higher than at the airport.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot in command exercising poor judgment and exceeding the aircraft's turning capability. Contributing factors were the pilots' attention being diverted, flying into a known blind canyon, high temperature, and high density altitude.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: MANEUVERING - TURN TO REVERSE DIRECTION

Findings

1. (F) TERRAIN CONDITION - BLIND/BOX CANYON
2. (C) JUDGMENT - POOR - PILOT IN COMMAND
3. (F) DIVERTED ATTENTION - FLIGHTCREW
4. (F) WEATHER CONDITION - TEMPERATURE,HIGH
5. (F) WEATHER CONDITION - HIGH DENSITY ALTITUDE
6. (C) AIRCRAFT PERFORMANCE,TURN CAPABILITY - EXCEEDED

Factual Information

HISTORY OF FLIGHT

On July 18, 2000, approximately 1400 mountain daylight time, a Grumman American AA-5, N7161L, operated by the pilot, was destroyed when it collided with terrain while maneuvering near Moab, Utah. The private pilot and commercial pilot-rated passenger were fatally injured. Visual meteorological conditions prevailed, and no flight plan had been filed for the personal flight being conducted under Title 14 CFR Part 91. The flight originated at Moab approximately 1330.

The pilot of N7161L and his pilot rated passenger were acquainted and both were avid "BASE jumpers" (parachuting off of Bridges, Antennas, Structures, and Earth). The pilot rated-passenger was a charter pilot employed by Slick Rock Air Guides at Canyonlands Airport, Moab, Utah, and was said to be thoroughly familiar with the surrounding terrain.

The owner of Slick Rock Air Guides said the pilot of N7161L telephoned Canyonlands Airport at 0930, and said he was getting ready to depart Greeley, Colorado. He telephoned again at 1115, and said he was in Rifle, Colorado, and was "running 30 to 45 minutes late." According to Corporate Aircraft Services at Garfield County Airport in Rifle, N7161L was refueled to capacity. The airplane arrived at Canyonlands Airport between 1230 and 1300, and the pilot off loaded some personal items and base jumping equipment. The pilot-rated passenger asked his employer if he could take the rest of the day off. Since there were no more charters scheduled for that day, the request was granted. He said he and the pilot were going to scout possible jump sites. Although no one actually observed the takeoff, airport personnel heard an airplane depart approximately 1330. The next morning, when his employee failed to report for a charter flight, the owner of Slick Rock Air Guides notified authorities and a search was initiated by the Civil Air Patrol, utilizing 16 airplanes.

The wreckage was located by the crew of a Utah State Patrol helicopter on July 23, approximately 1145, in Mineral Canyon, about 25 miles west of Moab, at 38 degrees, 32'56" north latitude, and 109 degrees, 54'18" west longitude.

PERSONNEL INFORMATION

The pilot in command, age 21, held a private pilot certificate, dated July 2, 2000, with an airplane single engine land rating. His third class airman medical certificate, dated July 22, 1997, contained the restriction, "Must Wear Corrective Lenses." His logbook was never located. According to his mother, he soloed on his nineteenth birthday in 1997. His flight training was completed through Aims Community College in Greeley, Colorado. The following flight times were taken from his application for the private pilot practical test with an additional 25 hours

added, which was the time estimated by his mother and corroborated by friends that the pilot had logged since obtaining his pilot's license. The pilot had a total flight time of 150 hours, of which 67 hours were in the same make and model as the accident airplane.

The pilot-rated passenger, age 44, held a commercial pilot certificate, dated January 26, 2000, with airplane single/multi-engine land and instrument ratings. He also held a senior parachute rigger certificate, dated April 11, 1991. His second class airman medical certificate, dated November 15, 1999, contained no restrictions or limitations. He successfully completed FAA administered knowledge, competency, and line checks on May 10, 2000, utilizing a Cessna 182. His second of two logbooks was made available for examination by Slick Rock Air Guides. It contained entries from August 30, 1997, to July 13, 2000. The pilot-rated passenger had a total flight time of 1,509 hours.

AIRCRAFT INFORMATION

N7161L was purchased for the pilot by his parents. According to the aircraft's maintenance records, the last annual inspection was on March 31, 2000, at a tachometer time of 2,468:74 hours. At that time, the engine had accrued 487:84 hours since major overhaul. The overhaul was done on April 10, 1992, at a tachometer time of 1980:90 hours.

METEOROLOGICAL INFORMATION

Canyonlands Airport ASOS (Automated Surface Observing System) weather observation, taken at 1353 mdt (1953UTC), was as follows: Wind, 170 degrees at 4 knots, gusts to 14 knots; visibility, 10 statute miles; sky condition, clear; temperature, 34 degrees C. (93.2 degrees F.); dew point, 10 degrees C. (50 degrees F.); altimeter, 30.15 inches of mercury.

Canyonlands Airport is situated at an elevation of 4,553 feet msl (above mean sea level). The computed density altitude at the airport was 7,407 feet msl. Airport and BLM (Bureau of Land Management) personnel said temperatures in the canyons are considerably higher than at the airport.

WRECKAGE AND IMPACT INFORMATION

The wreckage was located on a talus slope at a "Y" between the north and south forks of Mineral Canyon. The top of the canyon was at a GPS (Global Positioning System) elevation of 5,243 feet msl, and the floor was at 4,130 feet msl. The accident site was at 4,275 msl, or 145 feet above the floor of the canyon. The wreckage area was on a 40 degree slope and was confined to an area 50 feet by 20 feet. Examination of the accident site indicated the pilot was attempting to reverse course out of the canyon when the airplane impacted terrain.

Impact heading was measured at 288 degrees. The impact triggered a rock slide that slid down to the wreckage on a heading of 190 degrees.

MEDICAL AND PATHOLOGICAL INFORMATION

Autopsies (R200000873 and R200000872) and toxicological screens were performed by the Utah State Medical Examiner's Office in Salt Lake City, Utah. According to the toxicology reports, tests for carboxyhemoglobin and volatiles in the pilot were not conducted due to unsuitable specimens. Tests for drugs were negative. Similar results were found on the pilot rated passenger.

ADDITIONAL INFORMATION

The Federal Aviation Administration was the only party to the investigation. The wreckage was released to the insurance company on July 26, 2000.

Pilot Information

Certificate:	Private	Age:	22, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
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 22, 1997
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	150 hours (Total, all aircraft), 67 hours (Total, this make and model), 69 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Grumman American	Registration:	N7161L
Model/Series:	AA-5 AA-5	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	AA5-0461
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	March 31, 2000 Annual	Certified Max Gross Wt.:	2200 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	2469 Hrs	Engine Manufacturer:	Lycoming
ELT:	Installed	Engine Model/Series:	O-320-E2G
Registered Owner:	WILLIAM D. FORD	Rated Power:	150 Horsepower
Operator:	CLINTON J. FORD	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:	CNY ,4553 ft msl	Distance from Accident Site:	22 Nautical Miles
Observation Time:	13:53 Local	Direction from Accident Site:	15°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots / 14 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	170°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	34°C / 10°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	MOAB (CNY)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	13:30 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	
Runway Length/Width:		VFR Approach/Landing:	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Fatal	Latitude, Longitude:	38.529903,-109.54972(est)

Administrative Information

Investigator In Charge (IIC):	Scott, Arnold
Additional Participating Persons:	WILLIAM J HUGHES; SALT LAKE CITY , UT RICHARD C STEDNITZ; SALT LAKE CITY , UT
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.nts.gov/Docket?ProjectID=49787

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).