Aviation Investigation Final Report

Location:	Craig, Colorado	**Accident Number:**	CEN20LA160
Date & Time:	April 23, 2020, 21:39 Local	**Registration:**	N601X
Aircraft:	Aerostar 601	**Aircraft Damage:**	Destroyed
Defining Event:	Loss of control in flight	**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The student pilot, who was not qualified to operate the airplane, reportedly flew from California to Pennsylvania on a commercial flight the morning of the accident to pick up and fly the accident airplane, which he purchased, to California. The student pilot departed Pennsylvania at 0719 and made several en route stops before arriving at the departure airport at 1949. A witness stated that the airplane's right engine quit during taxi at the last en route stop and the pilot said he "cut it a little close on fuel." Another witness said that the pilot was "really tired" and planned to fly over the mountains for his return flight.

The student pilot was not in communications with air traffic control while en route from the departure airport and did not receive an instrument flight rules clearance to operate the flight in class A airspace as required by Federal Aviation Regulations. The airplane was not equipped with automatic dependent surveillance-broadcast as required for flight in class A airspace.

Radar track data indicate the airplane last departed from Fort Collins, Colorado, and maneuvered while climbing to 16,000 ft. The airplane proceeded west/southwest for a little over 40 miles before climbing to about 22,000 ft. The airplane then made several large heading changes and altitude changes between 20,000 ft and 23,000 ft before entering a tight looping turn to the left and losing altitude rapidly before track data was lost.

All components of the airplane were distributed along the wreckage path in a manner consistent with a low-angle, high-speed impact with terrain. The airplane was destroyed. A green cylindrical tank consistent in color with an oxygen tank was separated from the airframe and was found along the wreckage path. Portions of pneumatic lines were attached to the tank and exhibited impact damage and separations from impact. Due to accident-related damage, the amount of the tank's contents prior to the accident are unknown, and the functionality, if any, of the oxygen system is unknown.

The reason for the airplane's impact with terrain could not be determined based on available evidence.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The student pilot's flight into terrain for undetermined reasons.

Findings

Personnel issues	(general) - Pilot
Aircraft	(general) - Not specified

Factual Information

History of Flight

Enroute-cruise	Loss of control in flight (Defining event)
Uncontrolled descent	Collision with terr/obj (non-CFIT)

On April 23, 2020, at 2139 mountain daylight time (MDT), an Aerostar 601, N601X, was destroyed when it was involved in an accident near Craig, Colorado. The student pilot sustained fatal injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

Radar track data indicated that the airplane departed Jersey Shore Airport (P96), Jersey Shore, Pennsylvania, about 0719 mountain daylight time (MDT) and arrived Findlay Airport (FDY), Findlay, Ohio, about 851 DT. The airplane departed FDY about 1337 MDT and arrived at Red Oak Municipal Airport (RDK), Red Oak, Iowa, about 1418 (MDT). Track data indicated the airplane likely departed RDK about 1508 MDT, continuing westbound again, climbed to a maximum cruise altitude of about 9,500 ft then descended and landed at Northern Colorado Regional Airport (FNL), Fort Collins/Loveland, Colorado, about 1949 MDT.

A fixed base operator (FBO) line service technician at FNL stated that he saw the airplane taxi from the runway. He said the airplane's right engine was not running, and the student pilot was trying to start it. The engine did not restart, and the airplane continued to taxi to the ramp. He asked the student pilot if everything was "okay," and the student pilot said, "yeah cut it a little close on fuel." The line service technician said the airplane was leaning "quite a bit" toward the right, which he attributed to a fuel imbalance. The technician said the engines sounded fine except for the student pilot running out of fuel during the after-landing taxi.

The technician at FNL said he looked in the airplane and did not see it equipped with automatic dependent surveillance broadcast (ADS-B) equipment and did not know how the student pilot was going to fly the airplane over the mountains. He said the airplane was equipped with a panel mounted Garmin 430 and a transponder and the airplane did not have a pressurization system. He said he saw an oxygen tank in the airplane and did not know the amount of oxygen present in the tank.

An FBO customer service representative at FNL stated the student pilot told her he purchased the airplane in New York and was "going to try to get over the mountains." The student pilot said he flew on a commercial flight from California on the same day he purchased the airplane. He said he had to go over the mountains and through Utah and was destined to California. The representative said the student pilot was "really tired" and did not have cash to buy Red Bull, so she made him coffee. The student pilot told her that he left New York later than he wanted to because he was talking with the former airplane owner. He told the technician the airplane was his fifth airplane that he owned.

Radar track data indicated the airplane departed FNL about 2037 MDT, turned westbound, and climbed through about 12,000 ft. The airplane made a left, almost 360° turn, and continued to climb throughout the turn before it flew west/southwest and reached about 16,000 ft. The airplane continued west/southwest for a little over 40 miles, climbing again and reaching about 22,000 ft, then turning right about 90° to fly northbound momentarily before turning left and heading west/northwest and descending to about 20,000 ft. The airplane then climbed back to about 22,000 ft, remained there briefly, and then descended to about 20,000 ft. The airplane then turned left to the southwest, then turned southbound, and entered a period of erratic flight climbing to over 23,000 ft., before beginning to a left turning descent. The airplane lost altitude rapidly and was heading in a west/northwest direction before track data was lost at about 2139 MDT.

The student pilot was not in communications with air traffic control while en route from FNL and did not receive an instrument flight rules clearance to operate the flight in class A airspace.

The airplane wreckage was located on April 24, 2020, about 15 miles west of Craig, Colorado.

Pilot Information

Certificate:	Student	**Age:**	40,Male
Airplane Rating(s):	None	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	Unknown
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 3 Without waivers/limitations	**Last FAA Medical Exam:**	June 24, 2019
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	(Estimated) 30 hours (Total, all aircraft)		

No pilot logbook records were recovered during the investigation.

The student pilot did not hold a pilot certificate with an appropriate class rating/endorsement for the make and model of the accident airplane. Operations requiring an instrument clearance, such as flight into class A airspace, would have required an instrument rating.

Aircraft and Owner/Operator Information

Aircraft Make:	Aerostar	**Registration:**	N601X
Model/Series:	601	**Aircraft Category:**	Airplane
Year of Manufacture:	1977	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	61-0393-117
Landing Gear Type:	Retractable - Tricycle	**Seats:**	
Date/Type of Last Inspection:	October 21, 2019 Annual	**Certified Max Gross Wt.:**	
Time Since Last Inspection:		**Engines:**	2 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Lycoming
ELT:		**Engine Model/Series:**	TIO-540
Registered Owner:	Tiadaghton Aviation Inc	**Rated Power:**	
Operator:	Pilot	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Night
Observation Facility, Elevation:	CAG,6198 ft msl	**Distance from Accident Site:**	15 Nautical Miles
Observation Time:	20:53 Local	**Direction from Accident Site:**	90°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	Broken / 6000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	14 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	270°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.02 inches Hg	**Temperature/Dew Point:**	7°C / 2°C
Precipitation and Obscuration:			
Departure Point:	Ft Collins, CO (FNL)	**Type of Flight Plan Filed:**	None
Destination:	Unknown, CA	**Type of Clearance:**	None
Departure Time:	20:37 Local	**Type of Airspace:**	Class A

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	40.951946,-108.340278(est)

The airplane was severely fragmented, and the wreckage path extended an estimated 300 ft. along a north/south heading in sparsely populated mountainous terrain at an elevation of approximately 10,073 ft.

All components of the airplane were distributed along the wreckage path, which was consistent with a low-angle high-speed impact with terrain. The airplane and ground scarring exhibited a black color consistent with soot.

A green cylindrical tank consistent in color with an oxygen tank was separated from the airframe and was resting along the wreckage path. Portions of pneumatic lines were attached to the tank and exhibited impact damage and separations from impact. Due to accident-related damage, the amount of the tank's contents prior to the accident are unknown, and the functionality, if any, of the oxygen system is unknown.

Additional Information

The Aeronautical Information Manual defines Class A airspace as that airspace from 1,8000 ft msl up to and including flight level 600, including the airspace overlying the waters within 12 nautical miles off the coast of the 48 contiguous States and Alaska; and designated international airspace beyond 12 nautical miles off the coast of the 48 contiguous States and Alaska within areas of domestic radio navigational signal or ATC radar coverage, and within which domestic procedures are applied.

Title 14 *Code of Federal Regulations* Section 91.225, Automatic Dependent Surveillance Broadcast (ADS-B) Out Equipment and Use, stated in part:

> (a) After January 1, 2020, unless otherwise authorized by ATC, no person may operate an aircraft in Class A airspace.

Administrative Information

Investigator In Charge (IIC):	Gallo, Mitchell
Additional Participating Persons:	Kent Gibbons; Federal Aviation Administration; FSDO; Salt Lake City, UT
Original Publish Date:	March 11, 2022
Last Revision Date:	
Investigation Class:	Class 3
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=101200