



Aviation Investigation Final Report

Location:	Fort Carson, Colorado	Accident Number:	DEN08GA076
Date & Time:	April 15, 2008, 18:15 Local	Registration:	N602AA
Aircraft:	Air Tractor AT-602	Aircraft Damage:	Destroyed
Defining Event:	Loss of control in flight	Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Public aircraft		

Analysis

A state forest service representative contacted the operator, who had two single-engine air tanker (SEAT) airplanes, and requested aerial support to a wildfire, which was identified by local authorities as the TA25 wildfire. The interagency dispatch system coordinated flight following of the two SEATs from the operator's airfield directly to the wildfire. Prior to the flight, the accident pilot checked the weather for the area and declined support to the TA25 wildfire, due to high winds, but accepted a mission to another wildfire, approximately 55 nautical miles east, because of its location relative to wind activity and terrain. While en route, the dispatch system informed the accident pilot that the airplanes were not needed for the other wildfire, but inquired whether they could support the TA25 wildfire. Being halfway into their flight, the pilots decided they would at least check out the flight conditions at the TA25 wildfire rather than cancel the mission. After arriving to the TA25 wildfire, the accident pilot coordinated the drop area with a ground contact, and the second pilot maintained aerial observation support. The accident pilot performed a dry run over the area and then told the ground contact that the winds and turbulence were too strong to do a drop. The drop zone was then moved to another location at the TA25 wildfire. Gusty winds and power line hazards were reported to the accident pilot by the ground contact. Witnesses observed the airplane drop the load, then enter a vertical climb, stall, and impact terrain. The last calculated groundspeed of the airplane was 81 miles per hour (mph), and estimated winds at the time of the accident were at least 30 knots and gusting from the southwest. Examination of the airframe and engine revealed no pre-impact anomalies. The flaps were found in the full-extended position, and the airplane flight manual for fire control operations recommended a flap setting of 10 degrees. Representatives of the land management agencies reported to the NTSB that due to the local procurement arrangement for this flight, several levels of personnel typically involved in the decision making and dispatch processes for wildfires, were not involved, and the airplane was not properly configured for aerial fire support.

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 aircraft control following the jettison of the load during an aerial fire fighting mission, which resulted in an inadvertent stall and impact with terrain. Contributing to the accident were the improperly configured aircraft for the flight, the gusty wind conditions, and the pressure to complete the mission.

Findings

Environmental issues	Gusts - Effect on operation
Aircraft	Configuration - Incorrect use/operation
Aircraft	(general) - Not attained/maintained
Personnel issues	Motivation/respond to pressure - Pilot

Factual Information

History of Flight

Maneuvering-low-alt flying	Loss of control in flight (Defining event)
Uncontrolled descent	Collision with terr/obj (non-CFIT)

HISTORY OF FLIGHT

On April 15, 2008, approximately 1815 mountain daylight time, an Air Tractor AT-602 single-engine air tanker (SEAT) airplane, N602AA, was destroyed when it impacted terrain while maneuvering near Fort Carson, Colorado. The commercial pilot, who was the sole occupant, sustained fatal injuries. The airplane was operated by the Department of Defense (DOD), Fort Carson, Colorado, for public use firefighting missions, and registered to Aero-Applicators, Inc., Sterling, Colorado. Visual meteorological conditions prevailed, and a company flight plan was filed. The flight originated from Mertens Airport (3C02), a private airstrip, in Sterling, Colorado, at 1639.

On April 14, 2008, a 9,800-acre wildfire, known as the Training Area 25 (TA25) wildfire, originated on the Fort Carson military reservation. In order to coordinate the fire suppression and rescue efforts, a unified command was in place with DOD, United States Forest Service (USFS), El Paso County, and the City of Colorado Springs, Colorado, personnel. On April 15th, two Aero-Applicators, Inc., aircraft were ordered by the DOD, Fort Carson, to support the TA25 wildfire. The aircraft were contracted directly to the DOD by the use of a local procurement agreement that the Colorado State Forest Service had with the vendor, Aero-Applicators, Inc. The interagency dispatch system provided contact information between the vendor and DOD, and coordinated flight following of the aircraft from the vendor's airfield directly to the fire.

Aero-Applicators Inc. Pilot's Statement

According to the pilot of the other Aero-Applicators, Inc. airplane, the company received a phone call from the Colorado State Forest Service, Fort Collins, Colorado, dispatch facility, inquiring whether they could assist in fire fighting efforts at the TA25 wildfire near Fort Carson (approximately 130 nautical miles (nm) southwest of Sterling). The company administrative assistant passed the phone call to the accident pilot, who was at another location at the time of the original call (the accident pilot was the one who was to make the decision because he was the lead air tanker pilot for Aero-Applicators, Inc.). Approximately 15 minutes after the original call was received, the accident pilot arrived at the company location.

The accident pilot informed the second pilot that Fort Collins dispatch contacted him regarding the request, and he was going to check the weather because they were aware of high winds in the Fort Carson area. The accident pilot stated that "anything over 20 knots, they

were not going." After checking the weather via the internet, he decided that support to Fort Carson was not an option due to the high winds. The accident pilot called back to Fort Collins dispatch and told them they could not go to Fort Carson. Fort Collins then asked them if they could go assist in fire fighting efforts at a wildfire that was near Ordway, Colorado (approximately 140 nm south of Sterling, approximately 55 nm southeast of Fort Carson). The accident pilot decided that they would give that location a try because it was in the plains/flat area, and the winds were probably not as high.

Approximately 1645, the two airplanes (both AT-602s) were loaded full of fuel and 500 gallons of water and Class A foam, and they departed 3CO2 for Ordway. While en route, they still had not received the latitude/longitude coordinates for the Ordway fire from Fort Collins dispatch, so the accident pilot contacted them via radio. Fort Collins dispatch then told them to change their plans and go to the TA25 wildfire instead. The two pilots decided that since they were already halfway to Fort Carson or Ordway, and they would at least check out the flight conditions at the TA25 wildfire before they cancelled the mission. Fort Collins dispatch gave the pilots the coordinates for the TA25 wildfire, and the two airplanes diverted to that location.

When the two airplanes arrived, the "incident commander (IC)" gave them instructions on what they wanted them to do. The IC asked the accident pilot to plan a drop at the head of the fire. The accident pilot performed a dry run over the area and then told the IC that the winds and turbulence were too strong to do a drop. During the dry run, the second pilot tried to stay above and behind the accident pilot in order to provide observation support. The IC then requested a different drop location along the road, which was an east/west road located north of one end of the wildfire and adjacent to Highway 115. Prior to the drop, the IC informed the accident pilot about gusty winds and power line hazards.

The accident pilot made his drop, east to west, approximately 50 feet agl, where the IC told him to drop. The second pilot thought the drop looked good. After checking his position, the second pilot looked down at the accident pilot's airplane and observed the accident airplane in a "180-degree vertical going down...the airplane impacted the terrain at a 45-degree nose-down angle, and then the airplane's tail came down." The second pilot immediately turned his airplane and flew to the southwest, and "milked out his load" over sections of the fire. The second pilot called the IC and asked about the accident pilot's condition. After hearing about the accident pilot, he then turned the east/northeast and headed back to Sterling. The second airplane landed at Sterling approximately 1900.

The second pilot estimated the winds at the time of the accident to be at least 30 knots and gusting. He stated it was difficult to hold altitude and airspeed while maneuvering during the accident airplane's drop, and he "rolled" in flaps at various times because his airspeed was getting slow once in awhile.

Fort Carson Fire and Emergency Services Chief's Statement

According to the Department of Defense Fort Carson Fire and Emergency Services Chief,

ground crews were working the TA25 wildfire near Highway 115. An Army CH-47 type 1 helicopter was being used for fire suppression until approximately 1100 when they were removed from the location due to winds. The wildfire was rapidly spreading to the north with various structures in the path. At 1354, the Chief requested Fort Carson dispatch to check with Pueblo fire desk for the availability of a heavy air tanker. At 1358, the Fort Carson IC requested the launch of a heavy air tanker. At 1411, Fort Carson dispatch advised the Chief that the tanker had been ordered and confirmed the ground contact frequency. At 1510, Fort Carson dispatch advised the Chief that the heavy air tanker would have an arrival time between 1700-1800, and they could possibly get a SEAT if the pilot would fly. Dispatch then confirmed that they were requesting two heavy air tankers and also advised that the SEAT would not fly due to winds.

At that time, the wildfire was moving north threatening to jump across Highway 115, with a large life and property risk. USFS personnel assigned air operations on proper radio frequencies for the inbound heavy air tankers. Approximately 1600, the Chief was advised by Fort Carson dispatch that the heavy air tankers were diverted to another fire (Ordway fire) in eastern Colorado, and no aircraft would be coming to Fort Carson. At 1715, Fort Carson dispatch advised that two tankers were en route with an estimated time of arrival of 38 minutes. The frequency was confirmed and the air operations officer advised that the aircraft were en route.

The Chief attempted to verify if the aircraft were heavy tankers or SEATs, and Fort Carson dispatch advised they were heavy air tankers; however, they would have a fast turnaround. Approximately 1800, the Chief observed a fixed-wing airplane overhead, and it was not a heavy air tanker. He advised dispatch that the aircraft was a SEAT. At the command post, the Chief overheard air operations in communication with the aircraft, and the priority drops would be the north leading edge of the fire. At 1822, Fort Carson dispatch advised the Chief of a down airplane on Highway 115.

USFS Air-to-Ground Contact's Statement

The USFS air-to-ground contact, who coordinated the intended drop area, stated that he was in radio contact with the two airplanes when they arrived at the TA25 wildfire. He informed the accident pilot the intended drop location and expectations (the intended drop area was a line of pine trees located to the north of a gravel road and the existing wildfire, and the contact wanted the trees protected in case the wildfire crossed the road). Prior to the live drop, the accident pilot performed a dry run, and the second airplane flew approximately 500 feet overhead as a spotter. After completing the dry run, the airplane circled around to the south and east to set up for the live drop, which was an east to west flight pattern. The airplane flew to the west over the top of a tall pine tree (100 feet agl), and the pilot released the load approximately 500 feet west of the intended drop location. The load was dropped onto the ground contact and his vehicle. After a second or two, the ground contact overheard the pilot report a series of maydays and "I'm going down." The contact looked up to the west and observed the airplane's right wing impact the terrain. The contact stated the wind was from

the southwest and gusting to 30 to 40 knots.

The USFS air-to-ground contact was not aware that the SEATs were carrying water and Class A foam, and he assumed the airplanes were carrying retardant. Had the contact known that the airplanes were carrying water and foam, he would not have requested that particular drop zone. The drop zone was intended for a retardant application; water and foam were not the correct application for that area.

Additional Witness Statements

El Paso County Sheriff's Office personnel, who were riding in a vehicle on Highway 115, observed a small airplane coming from the east and flying to the west. The airplane appeared to be dropping water along a tree line. The airplane flew directly in front of them. One witness reported, "It flew straight up, but not completely vertical, and then dipped both its wings slightly...the plane then crashed onto a hill on the west side of Highway 115." Another witness reported, "Once the discharge of slurry ceased, the plane took an almost completely vertical pitch and then dipped its left wing slightly, and then the nose of the aircraft turned north as it somewhat leveled out, and then the plane hit the ground and landed on it's underside..."

Two pilot-rated witnesses, who were located at their residence $\frac{3}{4}$ mile from the accident site, reported they observed two crop dusting type airplanes at 200 to 300 feet agl flying over Highway 115, north to south. "We saw them just in time to see the crash plane drop its slurry load, pull up and then nose over into what appeared to be a vertical, nose down attitude. As the nose pitched down, the plane had clearly rotated so that as it descended, the tops of the wings faced directly towards us and stood out against the smoke behind. We could not see any change in attitude or motion to indicate a pull out, and specifically noted that given the altitude, there would be no time to do so."

Global Position System (GPS) Information

A handheld GPS unit was located in the wreckage and the data was downloaded by the NTSB. GPS data recorded track log began on 1611 on the day of the accident, with a latitude/longitude position fix that corresponded to 3CO2. The average GPS altitude during the first 27 minutes 8 seconds of the recorded track log data was 4,204 feet mean sea level (msl). Field elevation (surveyed) for 3CO2 was 4,192 feet msl. The final GPS position location fix was recorded at 1815, 38 degrees 38.766 minutes north latitude, and 104 degrees 51.871 minutes west longitude, and an elevation of 6,845 feet msl. The last calculated velocity and direction of travel was 81 miles per hour (mph) groundspeed with a true course of 296 degrees.

PERSONNEL INFORMATION

The pilot, age 42, held an airline transport pilot certificate with a multi-engine land airplane rating, and commercial pilot certificate with a single-engine land airplane rating. Additionally, the pilot held airframe and powerplant certificates. His most recent second-class medical

certificate was issued on December 7, 2007, with no limitations or restrictions.

Aero-Applicators Inc. hired the pilot in November 2007. Prior to his hire, the pilot flew several years of firefighting missions for companies located in Texas and Montana. From the time the pilot was hired to the day of the accident, the pilot flew various aerial application and firefighting proficiency flights for the company. The accident flight was the pilot's first firefighting mission for Aero-Applicators, Inc.

On July 16, 2007, the pilot received a Level 1, United States Department of Agriculture (USDA) Interagency Single Engine Airtanker Pilot Authorization Card, with an expiration of April 30, 2008.

On the Aviation Management Directorate Interagency Airplane Pilot Qualifications and Approval Record, completed by the pilot November 9, 2007, he listed the following pilot-in-command (PIC) flight times (in hours): Total Pilot Time – 10,200; Airplane – 10,000; Single-Engine Airplane – 5,600; Multi-Engine Airplane – 5,100; Cross-Country – 9,600; Night – 730; Airplane: Last 12 Months – 200; Airplane: Last 60 Days – 10; Fire Surveillance: Opns. – 900; "Low-Level" Opns. (<500' AGL) – 4,800; Aircraft over 12,500# Gr. Wt. – 420; "Typical Terrain" (Over Mtns. Etc.) – 1,100; Airtanker/Dispensing Opns. – 900; Turbo Prop Airplanes – 3,300; Turbine Powered Aircraft – 3,600; Takeoff/Landings Last 90 Days – 10. The pilot listed 140 total PIC flight hours in Air Tractor AT-602 airplanes.

AIRCRAFT INFORMATION

The accident airplane, a 2005-model Air Tractor AT-602, serial number 602-1135, was a low-wing, conventional landing gear airplane. The airplane was powered by a 1,295 horsepower Pratt & Whitney Canada PT6A-65AG turboprop engine, serial number PCE-PN0067. The airplane was equipped with a 5-bladed Hartzell HC-B5MP-3C hydraulically operated, constant speed with feathering and reversing capability propeller. The airplane was equipped with a Transland 10-inch Gatebox, spray booms, and a standard spray system. The hopper and fuel tank capacities were 630 and 292 gallons, respectively.

The airplane was issued a special airworthiness certificate for restricted category operations on June 20, 2005. The airplane was registered to the owner on August 2, 2005.

On January 1, 2008, the airframe and engine underwent its most recent 100-hour/annual inspection, at a total airframe, engine and a HOBBS meter time of 489.1 hours. At the time of the accident, the HOBBS meter time showed 497.6 hours.

METEOROLOGICAL INFORMATION

At 1815, the Fort Carson Butts Army Airfield (FCS), Fort Carson, located approximately 5 miles northeast of the accident site, reported the wind from 220 degrees at 26 knots, gusting to 33 knots.

From 1300 to the time of the accident, FCS had reported winds between 20 and 40 knots. Earlier on the day of the accident, FCS helicopters that were assisting in fire suppression efforts were removed from the location due to high wind activity.

The USFS air-to-ground contact reported that as he exited his vehicle to assist the accident airplane with the drop location, his hard hat blew off his head. He estimated the winds from the southwest approximately 35 knots.

WRECKAGE AND IMPACT INFORMATION

The accident site was located on a grass-covered hill adjacent to Highway 115 at an elevation of approximately 6,600 feet msl. The terrain in the area is considered the foothills of the Front Range of the Rocky Mountains. The airplane came to rest in an upright position on a measured magnetic heading of 340 degrees, approximately 30 feet from the initial impact ground scar. The initial impact ground scar was on a measured magnetic heading of approximately 310 degrees. Two sets of power lines, approximately 30 feet in height, were located to the south and west of the main wreckage and undamaged.

The right wing leading edge was crushed aft and bent up, and the outboard wing skins were partially torn from the wing spars. The forward main spar was pushed aft toward the rear spar. The outboard 2 feet of the wing tip and wing tip skins were separated from the right wing. The aileron and flap remained attached. The flap was found in the 30-degree (full) extended position.

The left wing was bent forward and partially attached to the airframe. The outboard 5 feet of the wing was partially separated and came to rest in a tree adjacent to the left wing. The aileron and flap remained attached. The left and right wings were connected at the center splice joint, but were separated from the fuselage.

The forward and mid sections of the fuselage frame were crushed to the right. Several tubular members were fractured and bent. The fiberglass hopper was crushed and destroyed. The main landing gear struts and wheel assemblies were separated. The spray system was separated from the fuselage and wings. The seat was crushed down and to the right. The left seatback support bracket was bent and displaced to the right. The instrument panel was destroyed.

The engine case remained attached to the fuselage mount ring. The propeller reduction gearbox was separated from the engine. The 5-blade propeller assembly was separated from the propeller shaft, and one blade was separated from the hub. The propeller blades displayed leading edge gouging and "s" bending.

The right horizontal stabilizer was crushed, bent aft and up, and remained partially attached to the airframe. The elevator remained partially attached to the horizontal stabilizer. The

elevator trim control surface was separated from the elevator. The left horizontal stabilizer was bent forward, and the aft attach fitting was separated. The elevator remained attached and the elevator trim surface was separated. The vertical stabilizer was intact and the rudder remained attached. The rudder trim control surface was separated.

The aileron control system push/pull rods were bent and fractured. All aileron control system rod end bearings were found attached to their respective cranks and idlers. The flap control torque tube rod ends of the push rods were found installed. The flap jackscrew ball nut was found in the full extended position, consistent with the flaps in full down or extended position (30-degrees).

The elevator system rod end bearings, attach bolts, and idler pivot bolts were found installed. Several of the push/pull rods were bent and fractured. The elevator hinge bolts were found secure. The elevator center hinge brackets and control horns were found bent and fractured. Rudder control cables were found attached to the rudder horn and to the cockpit rudder pedal bracket.

The engine control quadrant was found secure in the cockpit. The power, fuel condition, and propeller control cables were found attached to the respective engine controls.

MEDICAL AND PATHOLOGICAL INFORMATION

On April 16, 2008, an autopsy was performed on the pilot by the El Paso County Coroner, Colorado Springs, Colorado. The manner of death was listed as: Accident. Toxicological specimens were retained and forwarded to the Federal Aviation Administration's Civil Aeromedical Institute in Oklahoma City, Oklahoma.

Toxicological tests on the specimens were negative for carbon monoxide, cyanide, and ethanol. An unspecified amount of the drug chloroquine was present in the blood and urine.

TESTS AND RESEARCH

Aircraft Examination

On April 22, 2008, at the facilities of Beegles Aircraft Services, Greeley, Colorado, the aircraft was further examined. Examination of the hopper dump system revealed that the emergency latch mechanism remained in the latched position. With the latch mechanism in that position, the emergency dump lever was not activated. The hopper hydraulic cylinder that controls the Transland fire gate was found extended and bent. The position was consistent with the gate in the closed position.

The engine reduction gearbox front housing was separated from the rear housing. The propeller assembly was separated from the propeller shaft. The propeller shaft exhibited deformation and 2 propeller flange bolts were elongated. The propeller shaft rotated within

the housing. The exhaust duct exhibited deformation on the upper right side, top left side, and bottom right side of the case. The gas generator, inlet, and accessory gearbox cases were intact. The compressor was rotated by hand, and the accessory gearbox showed continuity with the rotor. The power turbine was found seized. The 2nd stage power turbine blades exhibited bluing around the blade tips, and the power turbine shroud housing displayed metal spray. The accessory gearbox was continuous with the compressor rotor and continuity was established to all accessories.

Weight and Balance

The weight and balance of the airplane at takeoff, just before the hopper dump, and at the time of the accident, was estimated using the following information: basic empty weight 5,935 pounds (lbs), pilot 269 lbs, fuel 1,968 (40 lbs unusable) lbs, and hopper load 4,998 lbs. The estimated takeoff weight was 13,170 lbs, which was above the maximum gross weight of 12,500 lbs. The center of gravity was estimated to 24.08 inches, which was aft of the 24.0 inches limit at 12,500 lbs. At the time just before the hopper dump, the estimated weight was 12,437 lbs, and the center of gravity was 23.61 inches (24.0 inches limit). This calculation was based on a fuel burn of 108.8 gallons (733 lbs) during the flight to the drop area. At the time of the accident, the estimated aircraft weight was 7,438 lbs, and the center of gravity was 28.63 inches (29.5 inches limit). This weight was based on the assumption that the complete hopper load was jettisoned.

Airplane Flight Manual

According to the AT-602 Airplane Flight Manual, Section 2 – Normal Procedures, Fire Control Operations (Fire Bombing), it is recommended that 10 degrees of flaps be used during the approach and load release phase. This improves control and creates a very stable approach condition. The following are procedures for "On approaching the target area:

1. Slow to 125 mph IAS, lower flaps to 10 degrees, and retrim.
2. Unlock dump handle stop in preparation for dump.
3. Line up the aircraft for the load drop.
4. Be aware that during the load release there will be a sudden pitch-up of the nose of the aircraft.
5. Approximately 18 pounds of forward pressure will be required to offset the pitch-up tendency.
6. Apply forward motion as necessary on the control stick as soon as the dump handle is moved forward.
7. Keep the aircraft attitude relatively level during the drop phase.
8. After the drop is completed, pull back on the dump handle to close and lock the hopper door if possible.
9. Retract flaps and resume normal flight."

ADDITIONAL INFORMATION

Representatives of the land management agencies reported to the NTSB that due to the local procurement arrangement for this flight, several levels of personnel typically involved in the decision making and dispatch processes for wildfires, were not involved. Examples of those individuals would be the state forest service, Bureau of Land Management, USFS Fire Management officer, SEAT manager, and tanker base operations. In addition, the representatives reported that the accident airplane was not the right aircraft for TA25 mission because of its configuration with agricultural equipment installed, the type of load for the size of the wildfire, and the environmental conditions in the wildfire area. Prior to a flight being dispatched to a wildfire, the aircraft and flight crews would have been inspected per the land management guidelines and policies, which would have prohibited the airplane to be configured with agricultural equipment.

Pilot Information

Certificate:	Airline transport; Commercial	Age:	42, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 Without waivers/limitations	Last FAA Medical Exam:	December 7, 2007
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	November 19, 2006
Flight Time:	10200 hours (Total, all aircraft), 140 hours (Total, this make and model), 10000 hours (Pilot In Command, all aircraft), 15 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Air Tractor	Registration:	N602AA
Model/Series:	AT-602	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	6021135
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	January 1, 2008 Annual	Certified Max Gross Wt.:	12500 lbs
Time Since Last Inspection:		Engines:	1 Turbo prop
Airframe Total Time:	489 Hrs as of last inspection	Engine Manufacturer:	Pratt & Whitney Canada
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	PT6A-65AG
Registered Owner:	Aero-Applicators, Inc.	Rated Power:	1295 Horsepower
Operator:	Department of Defense	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:	18:00 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	25 knots / 40 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	210°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:			
Departure Point:	Sterling, CO (3C02)	Type of Flight Plan Filed:	Company VFR
Destination:	Fort Carson, CO	Type of Clearance:	None
Departure Time:	16:39 Local	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	38.635276,-104.863891

Administrative Information

Investigator In Charge (IIC):	Sauer, Aaron
Additional Participating Persons:	Robert P Soluren; Federal Aviation Administration; Denver, CO T.J. Hirsch; Air Tractor, Inc.; Olney, TX
Original Publish Date:	January 29, 2009
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=67831

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](#).