# Aviation Investigation Final Report

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| **Location:** | Nunda, New York | **Accident Number:** | ERA16LA210 |
| **Date & Time:** | June 10, 2016, 20:30 Local | **Registration:** | N69515 |
| **Aircraft:** | Cameron A-225 | **Aircraft Damage:** | None |
| **Defining Event:** | Loss of control on ground | **Injuries:** | 1 Fatal, 1 None |
| **Flight Conducted Under:** | Part 91: General aviation - Aerial observation | | |

## Analysis

At the end of a 45-minute sightseeing flight, the commercial pilot landed the balloon in a field, and the 10 passengers got out of the basket. The pilot remained in the basket and left the balloon envelope inflated while the ground crewmembers began to walk the balloon over to the cart for deflation and disassembly. Although the balloon was being weighed down and stabilized by four ground crewmembers, it started to ascend quickly. Two additional passengers joined in and attempted to hold down the basket, but it kept ascending. Three of the four ground crewmembers let go of the basket as they had been taught to do; however, one ground crewmember did not let go and was carried aloft. As the balloon rose, the pilot, who had bent down to unclasp the vent lines from the basket, looked up and became aware that the balloon was ascending and moving toward nearby trees and a powerline. He operated the burner to increase his rate of ascent so that he could climb over the obstacles. When the balloon was about 150 to 200 ft above the ground, the pilot became aware that the ground crewmember was hanging from the rope handles on the bottom of the basket. He began to vent the balloon to land, but the crewmember lost his grip and fell about 100 ft, resulting in a fatal injury. The balloon landed about 1/2 mile from the original landing site and 800 ft from the location where the crewmember fell.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The ground crewmember's failure to let go of the balloon's basket when the balloon began to ascend. Contributing to the accident was the pilot's failure to maintain control of the balloon after landing, which resulted in an inadvertent takeoff.

## Findings

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| **Personnel issues** | Incorrect action selection - Ground crew |
| **Personnel issues** | Aircraft control - Pilot |

# Factual Information

## History of Flight

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| **Standing** | Loss of control on ground (Defining event) |

On June 10, 2016, about 2030 eastern daylight time, a Cameron Balloons US A-225, N69515, unintentionally lifted off after landing in a field in Nunda, New York. A ground crewmember was fatally injured in a fall after he attempted to secure the basket, and the commercial pilot was uninjured. The balloon was not damaged. The balloon was owned and operated by the pilot, who was doing business as Balloons Over Letchworth. Visual meteorological conditions prevailed, and no flight plan was filed for the sightseeing flight that was operating under Title 14 *Code of Federal Regulations* Part 91. The flight originated from Letchworth State Park, Castile, New York, about 1930.

The pilot reported that the flight with 10 passengers lasted about 45 minutes with wind from the northwest between 3 and 5 mph. During the descent, the pilot contacted the ground crew and determined a suitable location for landing, which was a cut hay field. Immediately after landing, the passengers disembarked one at a time as the balloon remained inflated but weighed down by four ground crew employees. After the passengers got out of the basket, the ground crew began to "walk" the inflated balloon over to the cart where the deflation and disassembly would take place. The pilot remained in the basket during this process.

The pilot reported that as the balloon was being ground handled, he bent over and began unclasping the vent lines. As he looked up, he saw that the balloon was ascending and drifting toward a nearby hedgerow. The pilot operated the burners to get over the trees and a transmission line. During the ascent, about 150 to 200 ft above ground level (agl), he heard his name being called but thought it was his radio. When he heard his name called again, he realized that one of the ground crewmembers was hanging from ground handling ropes attached to the bottom sides of the basket. The pilot reported that he could not see the crewmember because he was in the middle of the basket near the controls and that the basket was padded, which made it hard for him to hear the crewmember. As the pilot was venting the balloon, he told the crewmember to hold on and that he would get him down safely, and the crewmember acknowledged. Several moments later, about 100 to 150 ft agl, the crewmember fell from the basket. The pilot radioed the rest of the crewmembers to call 911 and landed the balloon about 1/2 mile southwest of the original landing location and 800 ft from where the crewmember fell.

One of the uninjured crewmembers reported that, after the passengers egressed, they were moving the basket toward the cart for about 10 seconds when the balloon lifted off suddenly. When the balloon became too high to hold, all of the crew, excluding one ground crewmember, let go. Another uninjured ground crewmember stated that, "we are taught to let go of the basket if it starts going back up again, which I did. I noticed [a ground crewmember] was still holding onto the bottom rope." He watched as the ground crewmember ascended with the basket.

Additional witnesses reported that they saw several ground crew members, including two additional passengers attempt to get control of the basket after the passengers had disembarked. When it lifted off

the ground, everyone let go except for one person. According to one of the witnesses, as the basket rose to chest level, one person grabbed onto the loops at the bottom of the basket and was carried into the air quickly before he fell.

## Pilot Information

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| **Certificate:** | Commercial | **Age:** | 63,Male |
| **Airplane Rating(s):** | None | **Seat Occupied:** | None |
| **Other Aircraft Rating(s):** | Balloon | **Restraint Used:** | None |
| **Instrument Rating(s):** | None | **Second Pilot Present:** | No |
| **Instructor Rating(s):** | None | **Toxicology Performed:** | No |
| **Medical Certification:** | None | **Last FAA Medical Exam:** | |
| **Occupational Pilot:** | Yes | **Last Flight Review or Equivalent:** | March 19, 2015 |
| **Flight Time:** | 2569 hours (Total, all aircraft), 8 hours (Total, this make and model), 2569 hours (Pilot In Command, all aircraft), 14 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft) | | |

According to Federal Aviation Administration (FAA) records, the pilot, age 63, held a commercial pilot certificate with a rating for lighter than air. He did not possess nor was he required to possess an FAA medical certificate. The pilot reported that he had accrued 2,569 total hours of flight experience with 8 hours in the accident balloon make and model. In the previous 90 days and 30 days, he had accumulated 14 hours and 10 hours flight experience, respectively. His most recent flight review was conducted on March 3, 2015.

The pilot's most recent ground training, the Great Eastern Balloon Association's (GEBA) 7-hour continuing education seminar called "Spring Training for Balloonists," was completed on March 5, 2016. The previous year, he participated as an instructor at the 2015 GEBA continuing education seminar.

The ground crewmember, age 34, had several years of experience in hot air balloon operations and was hired by the pilot to train, recruit, schedule, and lead ground crews. His background included prior experience with another hot air balloon operator in a similar capacity. On March 5, 2016, he attended the same GEBA training event as the pilot.

The pilot stated that ground crewmembers were "taught that if the balloon lifts their feet off of the ground, to release the balloon" and that the fatally-injured ground crewmember had "taught other crew members same."

## Aircraft and Owner/Operator Information

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| **Aircraft Make:** | Cameron | **Registration:** | N69515 |
| **Model/Series:** | A-225 AX-11 | **Aircraft Category:** | Balloon |
| **Year of Manufacture:** | 2016 | **Amateur Built:** | |
| **Airworthiness Certificate:** | Balloon | **Serial Number:** | 6778 |
| **Landing Gear Type:** | None | **Seats:** | 0 |
| **Date/Type of Last Inspection:** | April 15, 2016 Condition | **Certified Max Gross Wt.:** | 1929 lbs |
| **Time Since Last Inspection:** | 8 Hrs | **Engines:** | |
| **Airframe Total Time:** | 8 Hrs at time of accident | **Engine Manufacturer:** | |
| **ELT:** | Not installed | **Engine Model/Series:** | |
| **Registered Owner:** | On file | **Rated Power:** | |
| **Operator:** | On file | **Operating Certificate(s) Held:** | None |

According to FAA records and the manufacturer, the balloon was manufactured in 2016 and was issued a standard airworthiness certificate on April 15, 2016. The pilot took possession on April 19, 2016 and conducted his first flight in the balloon on May 11, 2016. The balloon had accumulated 8 hours of time as of the date of the accident. The balloon had a volume of 225,000 cubic ft. The rectangular basket was partitioned and had a passenger capacity of up to 16 passengers and was equipped with dual burners. There were 16 rope handles along the bottom perimeter of the basket, 3 on each short side and 5 on each long side.

## Meteorological Information and Flight Plan

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| **Conditions at Accident Site:** | Visual (VMC) | **Condition of Light:** | Day |
| **Observation Facility, Elevation:** | DSV,660 ft msl | **Distance from Accident Site:** | 12 Nautical Miles |
| **Observation Time:** | 20:54 Local | **Direction from Accident Site:** | 95° |
| **Lowest Cloud Condition:** | Clear | **Visibility** | 10 miles |
| **Lowest Ceiling:** | None | **Visibility (RVR):** | |
| **Wind Speed/Gusts:** | 3 knots / | **Turbulence Type Forecast/Actual:** | / |
| **Wind Direction:** | 180° | **Turbulence Severity Forecast/Actual:** | / |
| **Altimeter Setting:** | 30.04 inches Hg | **Temperature/Dew Point:** | 16°C / 7°C |
| **Precipitation and Obscuration:** | No Obscuration; No Precipitation | | |
| **Departure Point:** | Letchworth, NY | **Type of Flight Plan Filed:** | None |
| **Destination:** | Nunda, NY | **Type of Clearance:** | None |
| **Departure Time:** | 19:30 Local | **Type of Airspace:** | Class G |

At 2054, the reported weather conditions at Dansville Municipal Airport (DSV), Dansville, New York, located 12 statute miles west of the accident site, included wind from 180° at 3 kts, visibility 10 statute miles, and sky clear. The temperature and dew point were 16° and 7° Celsius, respectively, and the altimeter setting was 30.04 inches of mercury.

## Wreckage and Impact Information

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| **Crew Injuries:** | 1 None | **Aircraft Damage:** | None |
| **Passenger Injuries:** | | **Aircraft Fire:** | None |
| **Ground Injuries:** | 1 Fatal | **Aircraft Explosion:** | None |
| **Total Injuries:** | 1 Fatal, 1 None | **Latitude, Longitude:** | 42.587501,-77.948608(est) |

## Medical and Pathological Information

The Office of the Medical Examiner, Monroe County, New York performed an autopsy on the ground crewmember. The autopsy report noted the cause of death as blunt impact injuries of head, torso, and extremities. The FAA Bioaeronautical Science Research Laboratory, Oklahoma City, Oklahoma, performed toxicological testing on the ground crewmember. The results were negative for alcohol and

common drugs of abuse.

## Administrative Information

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| **Investigator In Charge (IIC):** | Mccarter, Lawrence |
| **Additional Participating Persons:** | Amy Malcom; FAA-FSDO; Rochester, NY |
| **Original Publish Date:** | June 12, 2018 |
| **Last Revision Date:** | |
| **Investigation Class:** | Class |
| **Note:** | The NTSB did not travel to the scene of this accident. |
| **Investigation Docket:** | https://data.ntsb.gov/Docket?ProjectID=93361 |