NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

April 7, 2016

AIR TRAFFIC CONTROL SPECIALIST'S REPORT

CEN14FA467

A. AIRCRAFT ACCIDENT

Location: Erie, Colorado
Date: August 31, 2014
Time: 1150 Mountain Daylight Time (MDT)[1]
1750 Coordinated Universal Time (UTC)
Airplane: N228LL, Piper PA-46

B. AIR TRAFFIC CONTROL INVESTIGATOR

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C. SUMMARY

On August 31, 2014 about 1150 mountain daylight time, a Piper Malibu PA-46, N228LL, was substantially damaged when the airplane impacted terrain near Erie Municipal Airport (EIK), Erie. The airplane was owned and operated by The Real Estate School, LLC, Erie, Colorado. The private pilot and four passengers on board were fatally injured. Visual meteorological conditions prevailed and no flight plan had been filed. The personal flight was conducted under the provisions of 14 Code of Federal Regulations Part 91.

D. DETAILS OF THE INVESTIGATION

The National Transportation Safety Board's (NTSB) air traffic control (ATC) investigator was not on scene, and did not travel in support of this investigation. All ATC work was conducted from the investigator's office. The information provided in this report was compiled utilizing the following source data provided by the 84th Radar Evaluation Squadron (RADES) located at Hill Air Force Base in Utah: Radar data recorded from the Denver ASR-9 (DEN).

E. FACTUAL DATA

1.0 History of Flight

There were no audio re-recordings available for this accident. According to radar data and witness statements, moments before the accident N228LL was on approach to runway 33 at EIK and passed in close proximity to N573MS who had departed runway 15 (opposite direction) at EIK. According to witness statements, the pilots of both aircraft were transmitting on the local CTAF[2] frequency which was not recorded (see witness statements in the public docket).

[1] All times are in mountain daylight time (MDT) unless otherwise noted
[2] CTAF – Common Traffic Advisory Frequency – A VHF radio frequency used for air-to-air communication at US, Canadian, and Australian non-towered airports.

Both aircraft were operating under visual flight rules (VFR) in visual meteorological conditions (VMC) and were not, nor did they have any requirement to be, in communication with ATC while operating within class G airspace at an airport without an operating control tower.

2.0 Radar Data

The following was derived from radar data obtained from 84th RADES. Attachment 1 contains three radar plot figures; figure 1 is an overhead view of the accident aircraft's flight track and the flight track of N573MS with arrows provided for directional reference only. Figure 2 is a closer view of the portion of flight where both the aircraft passed in close proximity to one another. Figure 3 is a radar plot illustrating time and proximity as the aircraft passed one another with a Google Earth[3] view of the flight tracks provided in the inset.

Radar data indicated that the accident aircraft was inbound to runway 33 and was flying an approximately straight course to the runway with no observed significant deviations from that inbound heading. Radar data indicated that N573MS departed runway 15 at EIK and shortly after becoming airborne, made an abrupt deviation to the west (to the pilot's right).

Radar data indicated the closest proximity between N228LL and N573MS occurred at approximately 1148:51 when the aircraft were separated by approximately .12 nautical miles (729 feet) laterally, and 200 feet vertically (and increasing). The flight track of N228LL indicated nothing out of the ordinary after passing N573MS, and continued to approach EIK on course for runway 33 at a normal rate of descent. Witness statements indicated that N228LL appeared to be going around, however the aircraft never reached an altitude high enough for radar coverage and therefore any attempt at a go around was unable to be corroborated via recorded radar data.

3.0 Weather Information

Local weather was obtained from the KEIK AWOS[4], which was a non-federal but FAA approved AWOS. KEIK AWOS was owned and operated by the Erie Municipal Airport. The prevailing winds leading up to and during the time of the accident favored runway 15 operations and indicated an almost direct tailwind for aircraft operating to or from runway 33. According to witness statements, the wind was also gusty around the time of the accident.

[1115 MDT] METAR KEIK 311715Z AUTO 14007KT 10SM CLR 21/10 A2996 RMK AO2 LTG DSNT W AND NW T02120102

Weather at 1115 MDT, wind from 140 degrees at 7 knots, 10 miles visibility, clear skies, temperature 21 degrees Celsius (C), dew point temperature 10 degrees C, altimeter 29.96 inHg,

[3] Google Earth – A web based virtual globe, map and geographical information program that maps the Earth by the superimposition of images obtained from satellite imagery, aerial photography and geographic information system 3D globe.

[4] AWOS – Automated Weather Observation Station - A computerized system that automatically measures one or more weather parameters, analyzes the data, prepares a weather observation that consists of the parameter(s) measured, provides dissemination of the observations and broadcasts the observation to the pilot in the vicinity of the airport.

Remarks, station with a precipitation discriminator, lightning distant west and northwest, temperature 21.2 degrees C, dew point temperature 10.2 degrees C.

[1135 MDT] METAR KEIK 311735Z AUTO 16006KT 10SM CLR 21/10 A2995 RMK AO2 LTG DSNT NW T02100103

Weather at 1135 MDT, wind from 160 degrees at 6 knots, 10 miles visibility, clear skies, temperature 21 degrees Celsius (C), dew point temperature 10 degrees C, altimeter 29.95 inHg, Remarks, station with a precipitation discriminator, lightning distant northwest, temperature 21.0 degrees C, dew point temperature 10.3 degrees C.

[1150 MDT] APPROXIMATE TIME OF ACCIDENT

[1155 MDT] METAR KEIK 311755Z AUTO 13008KT 10SM CLR 22/10 A2994 RMK AO2 LTG DSNT W AND NW T02240103 10224 20106

Weather at 1155 MDT, wind from 130 degrees at 8 knots, 10 miles visibility, clear skies, temperature 22 degrees Celsius (C), dew point temperature 10 degrees C, altimeter 29.94 inHg, Remarks, station with a precipitation discriminator, lightning distant west and northwest, temperature 22.4 degrees C, dew point temperature 10.3 degrees C, 6-hourly maximum temperature of 22.4 degrees C, 6-hourly minimum temperature of 10.6 degrees C.

4.0 Reference Information

14 CFR Part 91.113 (Right-of-way rules: Except water operations) stated in part:

> (b) General. When weather conditions permit, regardless of whether an operation is conducted under instrument flight rules or visual flight rules, vigilance shall be maintained by each person operating an aircraft so as to see and avoid other aircraft. When a rule of this section gives another aircraft the right-of-way, the pilot shall give way to that aircraft and may not pass over, under, or ahead of it unless well clear
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> (e) Approaching head-on. When aircraft are approaching head-on, or nearly so, each pilot of each aircraft shall alter course to the right.

The Airman's Information Manual (AIM) stated in part:

> 3−3−2. VFR REQUIREMENTS
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> Rules governing VFR flight have been adopted to assist the pilot in meeting the responsibility to see and avoid other aircraft. Minimum flight visibility and distance from clouds required for VFR flight are contained in 14 CFR Section 91.155.
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> 4−1−9. TRAFFIC ADVISORY PRACTICES AT AIRPORTS WITHOUT OPERATING CONTROL TOWERS
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> a. Airport operations without an operating control tower

1. There is no substitute for alertness while in the vicinity of an airport. It is essential that pilots be alert and look for other traffic and exchange traffic information when approaching or departing an airport without an operating control tower. This is of particular importance since other aircraft may not have communication capability or, in some cases, pilots may not communicate their presence or intentions when operating into or out of such airports. To achieve the greatest degree of safety, it is essential that all radio-equipped aircraft transmit/receive on a common frequency identified for the purpose of airport advisories.

2. An airport may have a full or part-time tower or FSS located on the airport, a full or part-time UNICOM[5] station or no aeronautical station at all. There are three ways for pilots to communicate their intention and obtain airport/traffic information when operating at an airport that does not have an operating tower: by communicating with an FSS, a UNICOM operator, or by making a self-announce broadcast.

3. Many airports are now providing completely automated weather, radio check capability and airport advisory information on an automated UNICOM system. These systems offer a variety of features, typically selectable by microphone clicks, on the UNICOM frequency. Availability of the automated UNICOM will be published in the Airport/Facility Directory and approach charts.

b. Communicating on a Common Frequency

1. The key to communicating at an airport without an operating control tower is selection of the correct common frequency. The acronym CTAF which stands for Common Traffic Advisory Frequency is synonymous with this program. A CTAF is a frequency designated for the purpose of carrying out airport advisory practices while operating to or from an airport without an operating control tower. The CTAF may be a UNICOM, MULTICOM, FSS, or tower frequency and is identified in appropriate aeronautical publications.

5−5−8. See and Avoid

a. Pilot. When meteorological conditions permit, regardless of type of flight plan or whether or not under control of a radar facility, the pilot is responsible to see and avoid other traffic, terrain, or obstacles.

FAA Advisory Circular 90-66A (Recommended Standard Traffic Patterns and Practices for Aeronautical Operations at Airports Without Operating Control Towers) stated in part:

7. GENERAL OPERATING PRACTICES

[5] UNICOM – Universal Communications – A station is an air-ground communication facility operated by a non - air traffic control private agency to provide advisory service at uncontrolled aerodromes and airports and to provide various non-flight services, such as requesting a taxi, even at towered airports.

b. The use of any traffic pattern procedure does not alter the responsibility of each pilot to see and avoid other aircraft. Pilots are encouraged to participate in "Operation Lights On," which is a voluntary pilot safety program described in the AIM designed to enhance the "see-and-avoid" requirement.

e. The FAA encourages pilots to use the standard traffic pattern. However, for those pilots who choose to execute a straight-in approach, maneuvering for and execution of the approach should be completed so as not to disrupt the flow of arriving and departing traffic. Therefore, pilots operating in the traffic pattern should be alert at all times to aircraft executing straight-in approaches.

8. RECOMMENDED STANDARD TRAFFIC PATTERN

f. Landing and takeoff should be accomplished on the operating runway most nearly aligned into the wind. However, if a secondary runway is used, pilots using the second runway should avoid the flow of traffic to the runway most nearly aligned with the wind.

FAA Advisory Circular 90-42F (Traffic Advisory Practices at Airports Without Operating Control Towers) stated in part:

18. MISCELLANEOUS

Operations at airports without operating control towers require the highest degree of vigilance on the part of pilots to see and avoid aircraft while operating to or from such airports. Pilots should stay alert at all times, anticipate the unexpected, use the published CTAF frequency, and follow recommended airport advisory practices.

F. LIST OF ATTACHMENTS

Attachment 1: Radar Plots – (3) Figures

Submitted by:

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Brian Soper