NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

June 1, 2018

Specialist's Report

AIR TRAFFIC CONTROL

CEN18FA053

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A. ACCIDENT

Location: Oldenburg, Indiana
Date: December 16, 2017
Time: 2058 eastern standard time (EST)
0158 coordinated universal time (UTC) / December 17, 2017
Airplane: Cessna T210M; N761YZ

B. AIR TRAFFIC CONTROL INVESTIGATOR

Brian Soper
Senior Air Traffic Investigator
Operational Factors Division (AS-30)
National Transportation Safety Board

C. SUMMARY

On December 16, 2017, about 2058 eastern standard time, a Cessna T210M airplane, N761YZ, impacted trees and terrain following a reported loss of engine power near Oldenburg, Indiana. A postimpact fire ensued and the airplane was destroyed. The pilot, pilot-rated passenger, and passenger were fatally injured. The airplane was registered to N761YZ LLC and operated by the pilot as a 14 *Code of Federal Regulations* Part 91 personal flight. Night visual meteorological conditions prevailed. The flight was operated on an instrument flight rules flight plan and originated from the Columbus Municipal Airport (BAK), Columbus, Indiana, about 2039. The intended destination was the Frederick Municipal Airport (FDK), Frederick, Maryland.

D. DETAILS OF THE INVESTIGATION

The National Transportation Safety Board's (NTSB) Senior Air Traffic Investigator was not on scene for this investigation and conducted the air traffic control (ATC) phase of the investigation from the home office, collecting data from official FAA sources through the FAA's Compliance Services Group (AJI-13).

E. FACTUAL INFORMATION

1.0 History of Flight

The following is a partial transcript and timeline constructed using certified transcripts, radar data, and voice recordings provided by the FAA. All times are in EST and rounded to the nearest minute, and altitudes are in feet above mean sea level (msl) unless otherwise noted. For more detailed information on this timeline and detailed transcripts, see the FAA Aircraft Accident Package (CVG-ACT-0074) located in the public docket.

2045 The pilot of N761YZ contacted Cincinnati/Northern Kentucky International Airport air traffic control tower (CVG ATCT) radar approach controller and reported passing through 4,400 feet for 11,000 feet. The radar controller issued the pilot the CVG altimeter of 30.10, which the pilot acknowledged.

2052 The pilot of N761YZ declared he was having an emergency and subsequently broadcasted a "MAYDAY, MAYDAY, MAYDAY" transmission. The pilot informed the controller that his airplane was experiencing a partial engine failure and needed to descend immediately. Additionally, the pilot stated that he saw KHLB (Hillenbrand Airport [Officially Batesville Airport]) 3.6 miles (nautical miles(nm)) away and asked the radar controller to confirm that [was correct.] The controller confirmed that HLB was off to the pilot's left and was the closest airport but that it was listed as closed [in a Notice to Airmen (NOTAM)] (Attachment 2).

2053 The pilot of N761YZ asked the controller how to turn the runway lights on and if he knew anything about the airport. The controller responded that it was a private airport and he would try to find the frequency for the pilot-controlled lighting, but that he was not sure if the lights were working because the airport was listed as closed. The pilot then stated, "we're not going to make it, we're not going to make it…two point three [2.3] miles that's all we have, that's all we have."

2054 The radar controller advised the pilot of N761YZ that HLB was ahead and to his left and 3 miles, and the airport had a 18/36 runway configuration. The controller then advised the pilot that if he turned to the north he would be lined up for runway 36, but he was still a little high. The pilot responded that it did not matter, he could circle, then advised he was turning to a 360 heading.

2054 The controller informed the pilot of N761YZ that he was about one mile south of the HLB airport, and the pilot responded by to reiterating that he needed the lights on, that he needed to be able to see [the runway.] The controller advised the pilot he was trying to find the frequency for the lights. The pilot asked if there was anything else the controller could do to help him, and then asked the controller to direct him.

2055 The radar controller advised the pilot of N761YZ that he was directly over the HLB airport, and that the common traffic advisory frequency (CTAF) was 122.72, and that he should use that frequency to try turning the lights on.

2056 The radar controller advised the pilot of N761YZ that he had passed, and was north of the HLB airport, and suggested that he turn back to the south. The pilot responded "we're gonna need something we're gonna need something right now." The radar controller instructed the pilot to turn southbound and advised the pilot that he was about three miles north of the airport, and that the only frequency he could find was 122.72. The controller reiterated to the pilot that the airport was closed, and that it had a 18/36 runway that was 5,950 feet long.

2057 The controller advised the pilot of N761YZ that he was two miles northeast of HLB airport, and the pilot responded, "I am southwest now sir, I do not…,"and that was the last recorded transmission received from the pilot of N761YZ.

2058 The pilot of N777LB, who was operating near N761YZ when radar and radio contact was lost, advised the radar controller that they had observed a "ball of fire on the ground." Over

the next couple of minutes, the pilot of N777LB continued to assist the radar controller in confirming the location of the accident.

2.0 Radar Information

Radar data for this accident was provided by the FAA, and the source radar used in the development of the figures in Attachment 1 was the Covington (CVG) ASR-9, located at the Cincinnati-Kentucky International Airport, about 34 nautical miles southeast of the accident site, at an elevation of 909 feet msl, and had a magnetic variation of 2° west.

Radar data indicated that after checking in with CVG ATCT, the pilot N761YZ continued to climb as assigned until reaching about 7,600 feet, and then between 2052:07 and 2052:11 he began to descend. At 2052:14 the pilot of N761YZ declared an emergency followed by a "MAYDAY MAYDAY MAYDAY" call, and at 2052:35 advised ATC that he was having a partial engine failure and needed to get down. At this time, radar data indicated N761YZ was traveling eastbound about 3.9 nm southwest of HLB and descending through 6,700 feet.

The pilot continued his descent and flew an easterly heading until 2053:40, at that time ATC advised the pilot to turn northbound, in an attempt to get the airport in sight. Radar data indicated N761YZ turned northbound, passing the HLB airport less than 1/2 mile east and parallel to runway 36, descending through 4,300 feet. Radar data indicated that N761YZ continued flying northbound until about 2055:53, when the flight track indicated a descending right-hand turn until radar data was lost. The last recorded transmission from the accident pilot was received at 2056:52. The last radar target, recorded at 2057:07, indicated an altitude of 1,600 feet, and was just over 1 nm east-southeast of the accident site.

Figure 1 is a plot of the final segment of the accident flight track overlaid onto a standard geographical road map. Other key features illustrated in this figure for better understanding are the airport of intended emergency landing (HLB), accident site, and arrows placed along the flight track indicating direction of flight.

Figure 2 is a plot of the final segment of the accident flight track overlaid onto satellite imagery from an angled view from above looking from south to north. Also illustrated in this figure for better understanding are the airport of intended emergency landing (HLB), accident site, and arrows placed along the flight track indicating direction of flight.

Figure 3 is a plot of the final segment of the accident flight track overlaid onto a geographical road map with key transmissions illustrated.

3.0 Weather Information

HLB was the closest weather station to the accident site, located about 4 and ½ nm from the accident site, at an elevation of 975 feet msl and a magnetic variation of 5° west. HLB had an Automated Weather Observing System (AWOS) and reported the following conditions:

[2035 EST] METAR KHLB 170135 AUTO VRB05G10KT 10SM OVC075 05/M02 A3009

[2055 EST] METAR KHLB 170155 AUTO VRB05KT 10SM OVC075 05/M02 A3010 RMK A01=

[2058 EST] TIME OF ACCIDENT

[2115 EST] METAR KHLB 170215 AUTO VRB04KT 10SM OVC075 06/M02 A3011 RMK A01=

KHLB weather at 2035 EST, automated, wind variable at 5 knots with gusts to 10 knots, visibility 10 miles or more, ceiling overcast at 7,500 above ground level (agl), temperature 5° Celsius (C), dew point -2° C, altimeter 30.09 inches of mercury.

KHLB weather at 2055 EST, automated, wind variable at 5 knots, visibility 10 miles or more, ceiling overcast at 7,500 agl, temperature 5° C, dew point -2° C, altimeter 30.10 inches of mercury. Remarks: automated observation system without a precipitation discriminator.

KHLB weather at 2115 EST, automated, wind variable at 4 knots, visibility 10 miles or more, ceiling overcast at 7,500 agl, temperature 6° C, dew point -2° C, altimeter 30.11 inches of mercury. Remarks: automated observation system without a precipitation discriminator.

There were no current National Weather Service (NWS) in-flight weather advisories in effect at the time of, or near the accident location. For more detailed weather information, see "Weather Information" in the public docket.

4.0 Notices to Airman (NOTAM) Information

At the time of the accident there were several NOTAMs for HLB in effect. For a complete list of NOTAMs from HLB on the day of the accident, see the FAA Aircraft Accident Package located in the public docket. According to ATC audio recordings, the controller informed the accident pilot of the following NOTAM:

12/089 HLB AD AP CLSD 1712061631-1802222300EST

NOTAM # 12/089 was issued in December of 2018 and was the 89th NOTAM issued for HLB. Batesville Aerodrome, Airport Closed from December 06, 2017 at 1631 EST through February 22, 2018 at 2300 EST.

5.0 ATC Procedures

FAA Order JO 7110.65X, *Air Traffic Control*, outlined procedures for air traffic controllers in handling emergencies. In this case, the air traffic controller that provided services to the accident airplane did so in accordance with these procedures. FAA Order JO 7110.65X stated in part:

> ***10−1−2. OBTAINING INFORMATION***
> *Obtain enough information to handle the emergency intelligently. Base your decision as to what type of assistance is needed on information and requests received from the pilot because he/she is authorized by 14 CFR Part 91 to determine a course of action.*

10−1−3. PROVIDING ASSISTANCE

Provide maximum assistance to aircraft in distress. Enlist the services of available radar facilities operated by the FAA, the military services, and the Federal Communications Commission, as well as their emergency services and facilities, when the pilot requests or when you deem necessary.

FAA Order JO 7930.2R, *Notices to Airmen (NOTAM),* outlined procedures for the format and distribution of NOTAMs across the National Airspace System (NAS). In this case the NOTAM that was published for HLB, available to the air traffic controller, and disseminated to the pilot was "AD AP CLSD" FAA JO Order 7930.2R stated in part:

"AD" is the contraction for Aerodrome
"AP" is the contraction for Airport
"CLSD" is the contraction for Closed

And specifically, in Section 2, Preparing NOTAMs for Dissemination, 4-2-1, NOTAM Composition, it stated in part:

10. *Condition. The changed condition or status being reported, when needed. When the conditions includes a limitation or an exception, follow the condition with "TO" or "EXC"; such as, "CLSD EXC SKI" or "CLSD TO TRANSIENT" or "CLSD EXC TAX BTN APCH END RWY 10 AND TWY C."*

F. LIST OF ATTACHMENTS

Attachment 1: ATC Radar Graphics

Submitted by:

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Senior Air Traffic Investigator

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