



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

June 23, 2020

Specialist's Report

AIR TRAFFIC CONTROL

CEN20MA044

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A. ACCIDENT

Location: Lafayette, Louisiana
Date: December 28, 2019
Time: 0921 central standard time (CST)¹
1521 coordinated universal time (UTC)
Airplane: Piper PA-31T, N42CV

B. AIR TRAFFIC CONTROL INVESTIGATOR

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C. SUMMARY

On December 28, 2019, about 0921 central standard time, a Piper PA 31T airplane, N42CV, impacted terrain shortly after takeoff from the Lafayette Regional Airport/Paul Fournet Field (LFT), Lafayette, Louisiana. The commercial pilot and four passengers were fatally injured; one passenger sustained serious injuries. Two individuals inside a nearby building sustained minor injuries and one individual in a car sustained serious injuries. The airplane was destroyed by impact forces and a postimpact fire. The airplane was owned by Cheyenne Partners LLC and was piloted by an employee of Global Data Systems. The personal flight was conducted under the provisions of Title 14 *Code of Federal Regulations* Part 91. Instrument meteorological conditions prevailed, and a Federal Aviation Administration (FAA) instrument flight rules (IFR) flight plan was filed for the flight. The flight was originating at the time of the accident and was en route to the Dekalb-Peachtree Airport (PDK), Atlanta, Georgia.

D. DETAILS OF THE INVESTIGATION

Air traffic control (ATC) services were provided by LFT Airport Traffic Control Tower (ATCT). The ATC investigator did not travel or conduct interviews in support of this accident investigation. All data used to produce this report were provided by the Federal Aviation Administration (FAA).

E. FACTUAL INFORMATION

1.0 History of Flight

The following timeline was produced using certified audio re-recordings² and accident package³ provided by the FAA. Times were rounded to the nearest minute, and altitudes were indicated in feet above mean sea level (msl).

¹ All times are in central standard time (CST) unless otherwise noted.

² A partial transcript was produced by the NTSB and is included in Attachment 1: ATC Communications Partial Transcript.

³ The FAA Aircraft Accident Package (19-002-LFT) is included in Attachment 2: Aircraft Accident Package

- 0913 The pilot of N42CV first contacted LFT ATCT clearance delivery (CD) and requested his clearance to PDK. The CD controller provided the clearance to PDK and the pilot acknowledged with a correct readback.
- 0914 The pilot of N42CV contacted ground control (GC) and requested taxi for departure. The GC controller instructed the pilot of N42CV to taxi to runway 22 left (RWY 22L) via taxiway echo (TWY E), RWY 11, and authorized him to cross RWY 22 right (22R) en route. The pilot acknowledged with a correct readback.
- 0918 The pilot of N42CV contacted local control (LC) and advised he was ready for departure from RWY 22L. The LC controller cleared N42CV for takeoff and instructed him to turn right heading 240 after departure. The pilot acknowledged with a correct readback.
- 0920 The tower controller instructed the pilot of N42CV to contact departure. The pilot acknowledged.

The pilot contacted LFT ATCT departure control (R2) and reported leaving 700 feet for 2,000 feet and was turning right to 240.

- 0921 The R2 controller advised the pilot of N42CV that he was "radar contact"⁴ and instructed him to climb and maintain 10,000 feet and to turn right heading 330. The pilot acknowledged.

The R2 controller issued a low altitude alert to N42CV and instructed the pilot to check his altitude immediately, and that he appeared to be at 300 feet. The pilot did not respond.

There were no further responses from the accident pilot. Controllers in the tower notified first responders at 0922, and search and rescue operations were initiated.

2.0 Automatic Dependent Surveillance-Broadcast Information

The Automatic Dependent Surveillance-Broadcast (ADS-B) is a surveillance technology through which an aircraft determines its position via satellite navigation and periodically broadcasts it, enabling it to be tracked. This information can be received by ATC ground stations as a replacement for secondary surveillance radar, as no interrogation signal is needed from the ground. It can also be received by other aircraft to provide situational awareness and allow self-separation. ADS-B is "automatic" as it requires no pilot or external input, however it is also "dependent" as it depends on data from the aircraft's navigation system.

ADS-B is different from surveillance radar. Surveillance radars are pulse-type radars that continually transmit high power radio frequency (RF) pulses. Primary surveillance radar does not require any cooperation from the aircraft and bearing is measured by the position of the rotating radar antenna when it receives the RF pulses that are reflected from the aircraft skin. Range is

⁴ Radar Contact – Used by ATC to inform an aircraft that it is identified on the radar display and radar flight following will be provided until radar identification is terminated. Radar service may also be provided within the limits of necessity and capability. When a pilot is informed of "radar contact," he/she automatically discontinues reporting over compulsory reporting points.

measured by measuring the time it takes for the RF energy to travel to and from the aircraft. Secondary surveillance radar depends on active replies from the aircraft transponder and will provide a position along with “Mode C” altitude information as well. ADS-B data are also produced at a higher temporal resolution than radar data, providing returns about every second as opposed to surveillance radars that provide returns of between 4–6 seconds from Airport Search Radars, and between 10–12 seconds from Air Route Surveillance Radars.

ADS-B data for the accident flight were provided by the FAA, were of good quality and were used to produce the flight track graphics⁵ for this report. For more detailed weather information please see the Meteorologist’s Weather Study in the public docket for this investigation.

3.0 Weather Information

3.1 Automated Surface Observing System

An Automated Surface Observing System (ASOS⁶) was located at LFT in Lafayette, Louisiana, which was located about 2 miles north-northeast of the accident location at an elevation of about 40 feet and had a magnetic variation of about 1° east. The automated longline⁷ report from KLFT nearest the time of the accident time is presented here.

[0853 CST] METAR KLFT 281453Z 12005KT 3/4SM BR VV002 19/19 A2997 RMK
AO2 SLP146 T01940189 53011=

At 0853 CST, the LFT ASOS reported a wind from 120° at 5 knots, visibility 3/4 of a statute mile, mist, vertical visibility of 200 feet above ground level (agl), temperature of 19° Celsius (C) and a dew point temperature of 19°C, altimeter setting of 29.97 inches of mercury; remarks: station with a precipitation discriminator, sea level pressure of 1014.6 hectopascals (hPa), temperature of 19.4°C and a dew point temperature of 18.9°C, pressure increase of 1.1 hPa over the previous three hours.

F. LIST OF ATTACHMENTS

Attachment 1: ATC Communications Partial Transcript

Attachment 2: FAA Accident Package

Attachment 3: ADS-B Data

Attachment 4: Flight Track Graphics

⁵ Graphics produced for this report are located in Attachment 4: Flight Track Graphics

⁶ ASOS – Automated Surface Observing System – Automated sensor suites equipped with meteorological instruments to observe and report wind, visibility, ceiling, temperature, dewpoint, altimeter, and barometric pressure. These systems generally report at hourly intervals, but also report special observations if weather conditions change rapidly and cross aviation operation thresholds.

⁷ “Longline” refers to the dissemination of weather observations with the intent that they are available in near-real time to national databases (effectively, the whole world) and accessible to the general global public from a large number of vendors. This does not include public accessibility to observations from a reporting station’s Very High Frequency (VHF; line-of-site) or telephone broadcast, where applicable. Longline-dissemination of weather observations is the primary vehicle through which the general global public has access to surface weather observations, particularly outside of the aviation community.

Submitted by:

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