NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

March 10, 2022

Specialist's Report

AIR TRAFFIC CONTROL

DCA22MA009

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A. ACCIDENT

Location: Brookshire, TX
Date: October 19, 2021
Time: 1000 central daylight time (CDT)[1]
1500 coordinated universal time (UTC)
Airplane: McDonnell Douglas DC-9-87, N987AK

B. AIR TRAFFIC CONTROL SPECIALIST

Betty Koschig
Operational Factors Division (AS-30)
National Transportation Safety Board

C. SUMMARY

On October 19, 2021, at about 1000 , a McDonnell Douglas DC-9-87, N987AK, operated by 987 Investments LLC, overran the departure end of runway 36 at Houston Executive Airport (TME), Brookshire, Texas, after the crew executed a rejected takeoff. Of the 23 passengers and crew onboard the airplane, two passengers received serious injuries and one received minor injuries. A post-crash fire ensued, and the airplane was destroyed. The airplane was operating as a Title 14 *Code of Federal Regulation* Part 91 flight from TME to Laurence G. Hanscom Field Airport (BED), Bedford, Massachusetts.

D. DETAILS OF THE INVESTIGATION

On Wednesday, October 20, 2021, the air traffic control (ATC) investigator convened at the command post, located at the Hilton Garden Inn hotel in Katy, TX, for the organizational meeting. Following the meeting, the ATC Investigator and NTSB team drove to the accident scene to conduct an initial site walkthrough.

The ATC investigator reconvened at the command post for the group chairpersons' meeting. On completion of the meeting, the investigator went to the TME Airport and was provided an in brief by the TME air traffic manager (ATM). The investigator reviewed available ATC data, and interviewed the ATM, who had been the controller assigned to the tower at the time of the accident. Following the interview, The ATM provided the investigator a tour of the airfield and the airport traffic control tower (ATCT). Upon completing review of additional data, the investigator reconvened at the command post for the progress meeting.

On Thursday, October 21, 2021, the ATC investigator reconvened at the command post for the group chairpersons' meeting, and progress meeting. After the

[1] All times are central daylight time (CDT) unless otherwise noted.

meeting, the investigator traveled to the TME airport to obtain and review the requested ATC data. The investigator then went to the command post and completed the ATC field notes and attended the daily progress meeting. Following the meeting, the ATC investigator provided the investigator in charge (IIC) a copy of the ATC field notes. After being released from the on-site portion of the investigation, the ATC investigator departed the command post.

E. FACTUAL INFORMATION

1.0 History of Flight

ATC services were provided by TME ATCT. The history of flight was compiled using data obtained from the TME ATC audio recording, Houston terminal radar approach control (I90) ATC audio recording, Advanced ATC, Inc.[2] aircraft accident package, and Federal Aviation Administration (FAA) automatic dependent surveillance - broadcast (ADS-B) data.

About 0919, the pilot[3] of N987AK contacted TME tower controller[4] requesting clearance to BED Airport.

About 0924, the controller asked the pilot to say the destination and proposed departure time. The pilot stated that the proposed departure was 1500 [UTC] and the destination was Bedford (BED).

About 0926, the controller informed the pilot that the flight's clearance was available. The pilot responded that he was ready for the clearance, and the controller relayed the departure clearance to the pilot. The pilot readback the clearance.

About 0953, the pilot requested taxi instructions. The controller issued the pilot taxi instructions from the terminal ramp area to runway 36. The pilot readback the instructions correctly.

Figure 1 is the TME Airport diagram illustrating the locations of the runways, taxiways and building locations on the airport. Figure 2 is a screenshot of N987AK's ADS-B ground track overlaid on Google Earth.

About 0957, the pilot contacted the controller and stated they were ready for departure. The controller instructed the pilot to hold short [of runway 36].

[2] Advanced ATC, Inc. specializes in the ATC industry providing contracting solutions for the public, private, and international sectors. Retrieved from https://www.advancedatc.net/about.
[3] All references to "pilot" indicate the pilot of N987AK, unless otherwise noted.
[4] All references to "controller" indicate the TME tower controller, unless otherwise noted.

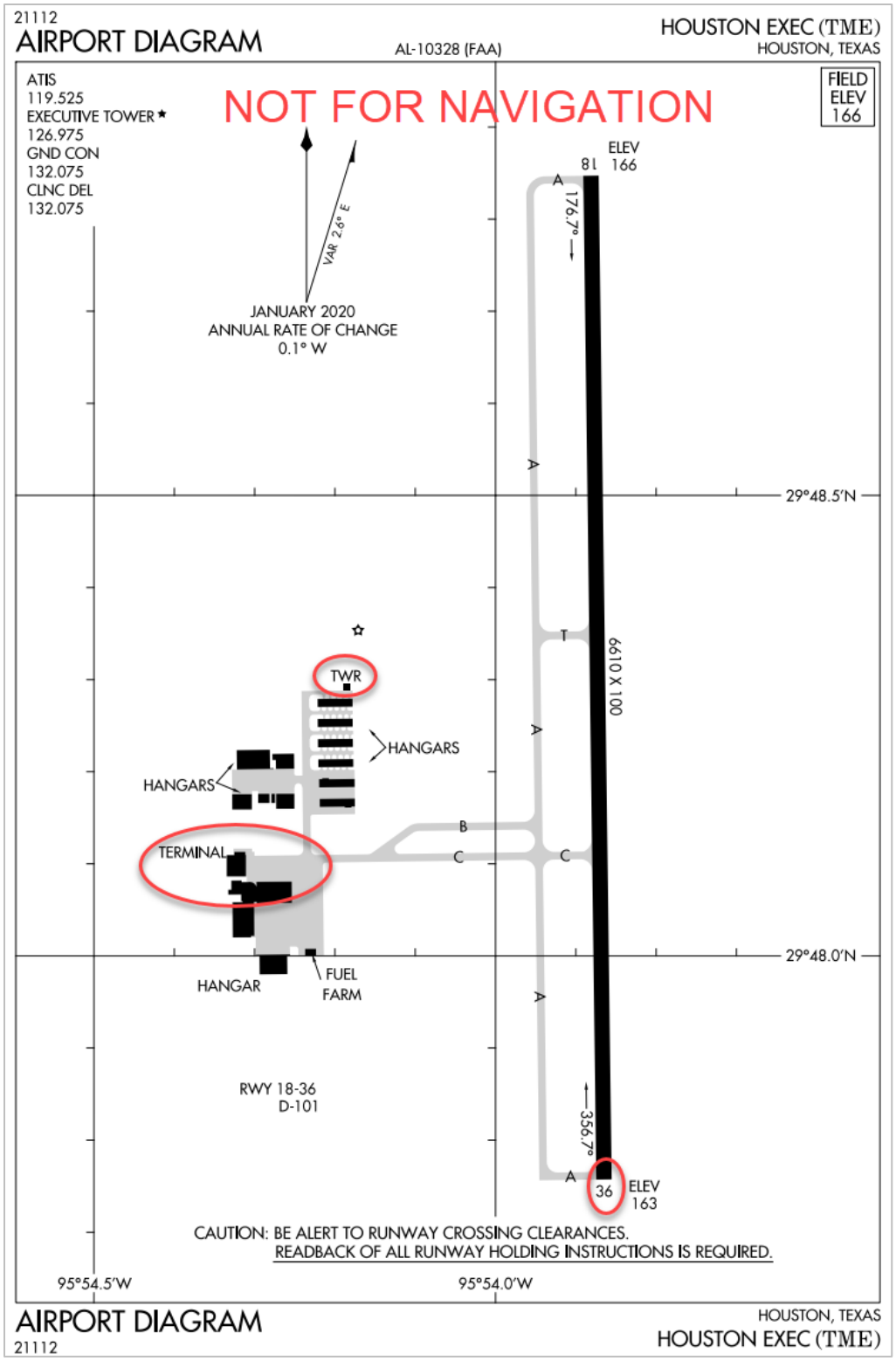

Figure 1. TME Airport diagram depicts the location of runway 36, the terminal ramp area, and the TME ATCT.

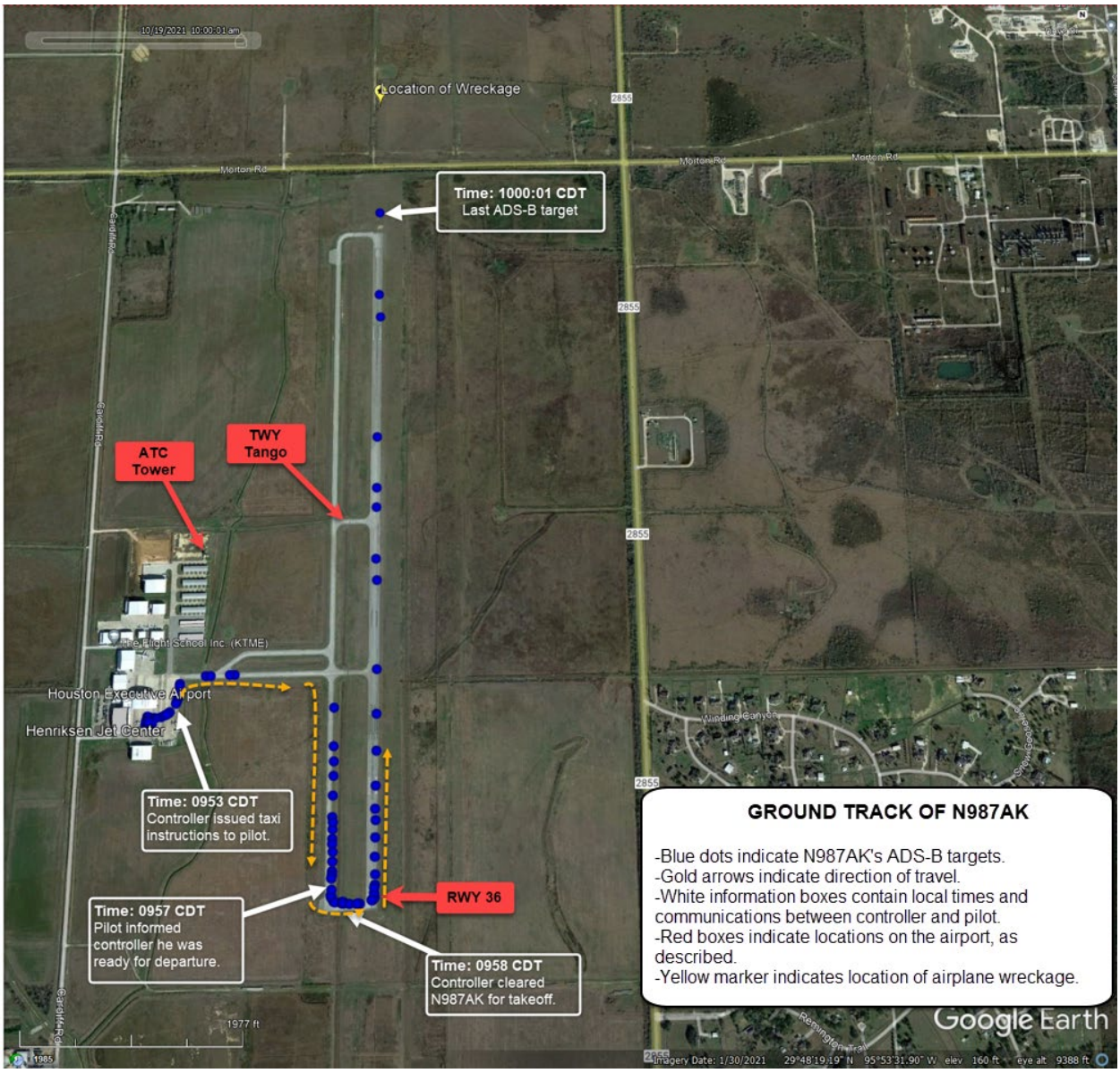

Figure 2. Screenshot of N987AK' s ground track overlaid on Google Earth.

About 0958, the controller cleared N987AK for takeoff runway 36. The pilot read back the instructions.

There were no further communications with the pilot.

The controller stated during the interview that he visually observed N987AK from the time the airplane began taxi until the airplane exited the runway into the trees. The controller stated that nothing was out of the ordinary until the airplane was on the departure roll after passing taxiway tango, around the last 2,000 feet of the runway. He observed the airplane jerk and thought that either the pilot hit his brakes, the airplane was attempting to lift, or something had shifted in the airplane. The

controller observed smoke from the tires before he lost sight of the airplane after it went off the runway end and behind the trees. Subsequently, he observed an explosion in that area, and initiated emergency response procedures.

2.0 Automatic Dependent Surveillance-Broadcast (ADS-B)[5]

ADS-B data for N987AK was provided by the FAA Accident Investigations Office, AVP-100.

3.0 Weather Information[6]

The official weather observation current at the time of the accident was documented using standard aviation routine weather reports (METAR). The following METAR was recorded at 0955:

KTME weather observation at 0955 CDT, automated, wind variable at 7 knots, visibility 8 miles, sky clear below 12,000 feet above ground level, temperature 22° Celsius (C), dew point temperature 16° C, altimeter 30.11 inches of mercury. Remarks: automated station with a precipitation discriminator.

4.0 TME Airport Information

The TME Airport is located 28 nautical miles (52 km) west of Downtown Houston, TX and it is in proximity to Brookshire, TX. The airport was privately owned by WCF, LLC, which is based in Waller County, TX.

4.1 TME Airspace

TME Airport was designated as Class D airspace at the time of the accident. The Class D effective hours were from 0700 to 2300 daily; at other times the airspace was designated as Class E. The Class D airspace extended upward from the surface to and including 2,500 feet mean sea level (msl) bounded by a line beginning at latitude. 29°46'44''N., longitude 95°58'06''W., to latitude. 29°47'35''N., longitude 95°55'49''W., to latitude 29°51'55''N., longitude 95°55'52''W., then clockwise along the 4-mile radius of Houston Executive Airport to the point of beginning.[7]

4.2 TME Airport Traffic Control Tower

TME ATCT is a non-federal control tower (NFCT)[8]. A NFCT does not fall under the jurisdiction of the federal government. These private entities have contracts with state and local governments to provide ATC services at that airport. A NFCT is not associated with the federal contract tower program or funded by the FAA.

[5] ADS-B data is located in Attachment 2 – ADS-B Data.
[6] Detailed weather information is located in the Meteorology Factual Report.
[7] Information retrieved from FAA JO 7400.11F, Airspace Designations and Reporting Points.
[8] Advisory Circular 90-93B recommends publications, administrative, and operational procedures that assist in the management of a NFCT.

The TME ATCT was staffed with one controller at the time of the accident, which was the normal staffing requirement; all positions (local control, ground control, and supervisor) were combined at the local control position. The controller, who was also the ATM, was qualified on all positions in the tower.

F. LIST OF ATTACHMENTS

Attachment 1 — Interview Summary
Attachment 2 – ADS-B Data
Attachment 3 – Aircraft Accident Package
Attachment 4 – TME ATC Audio Recording
Attachment 5 – I90 ATC Audio Recording

Submitted by:

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Betty Koschig
Senior Air Traffic Investigator

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