

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



ERA24FA050

AIR TRAFFIC CONTROL

ATC Services Review

October 27, 2025



National Transportation Safety Board

Office of Aviation Safety / Operational Factors Division (AS-30)

ATC Services Review Worksheet

Date of Event (UTC)

Nov 27, 2023

Review Date

Mar 4, 2025

Time of Event (UTC)

2348 UTC

Time of Event (LCL)

1748 CST

Investigation Number

ERA24FA050

Keys Number

193432



CHART



AIRFIELD



SIAP/SID/STAR

A review of the ATC services provided in the above incident/accident was conducted by an ATC Investigator. Investigative work was limited to a review of the factual data collected over the course of the investigation and consideration of the current rules, regulations, and procedural guidance current at the time. The ATC investigator did not travel to the scene, nor to any ATC facilities in support of this investigation. Additionally, the ATC investigator did not conduct any personnel interviews, and all investigative work was conducted from their assigned office.

ATC Investigator: Sarah Lewis, ATC Accident Investigator



SRT RELEASE APPROVED

Involved ATC Facilities: Facility 1: BHM ATCT

Facility 2: N/A

Facility 3: N/A

Facility 4: N/A

Involved Aircraft: Aircraft 1: N4187Q

Aircraft 2: N/A

Aircraft 3: N/A

Aircraft 4: N/A

☒ Data Requested

☒ NOTAM Issues

Surveillance Data Source

FAA ADS-B Data

Audio Data Source

FAA Certified Audio

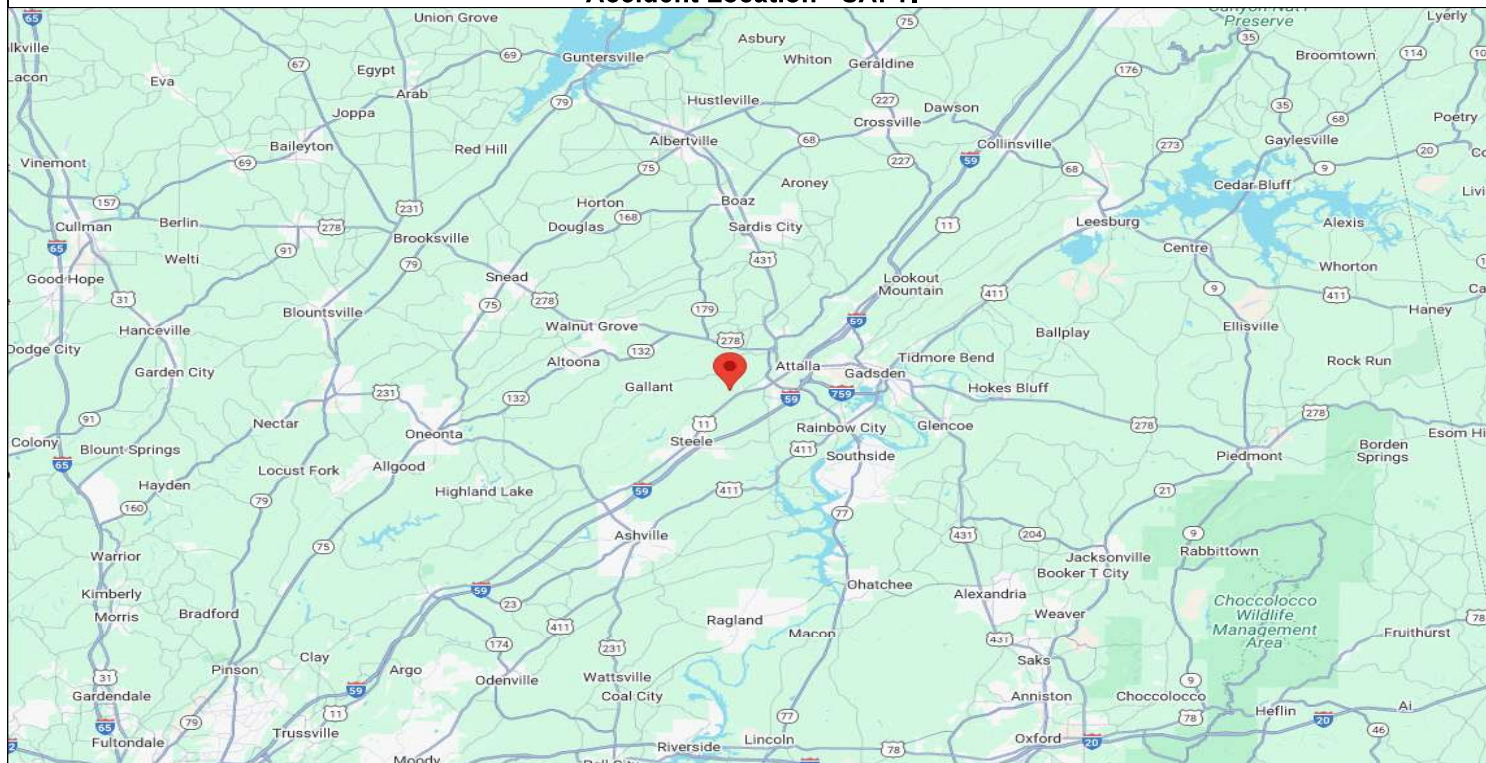
☒ ATC Procedures

☐ Safety Improvements

PRELIM Summary Information - SAFTI

On November 27, 2023, about 1748 central standard time, a Piper PA-32R-301T, N4187Q, was destroyed when it was involved in an accident near Attalla, Alabama. The private pilot was fatally injured. The airplane was operated as a Title 14 Code of Federal Regulations Part 91 personal flight.

Accident Location - SAFTI



ATC Service Review Summary

Air Traffic Control (ATC) services were provided by Birmingham Airport Traffic Control Tower (BHM ATCT). Certified audio and surveillance data, and Aircraft Accident Package were provided by the FAA and were used to conduct this ATC Services Review. This ATC Services Review was conducted at the request of the IIC. The BHM ATCT South Radar (SR) provided the required approach information to the pilot of N4178Q as outlined in FAA Order JO 7110.65AA, Air Traffic Control.

Supporting data and documentation provided by the FAA as listed in the section below "ATC Supporting Data" was used to conduct this review.

Upon initial check-in, the SR controller provided the current altimeter setting.

About six minutes after check-in, the pilot of N4187Q declared an emergency due to loss of engine RPM. The controller provided the direction and distance to the two closest airports which were Albertville Regional Airport (8A0), and Robbins Field (20A). The pilot requested GAD, but the controller advised that although GAD was off to the left, GAD runway 06/24 was closed and runway 18/36 was unlit (according to NOTAMS current at that time, both runways were closed). Therefore, the pilot selected the next closest airport, which was 20A. The SR controller advised they remain on their present heading which would put them straight in for 20A. The pilot asked for help, and the controller advised the runway configuration was 06/24 at 20A and that they had lost radar contact. The pilot responded that they were at 3,000 feet and heading 253°. The SR controller advised the pilot that he would likely be unable to keep radar contact with them due to their altitude but to remain on frequency as long as he needed.

The SR controller then provided the frequency used to activate the pilot controlled lighting at 20A, which the pilot attempted and reported he was unable to activate them. The controller then advised the pilot that there was a major highway (highway 59) that was off their left side when they lost radar contact with them. The controller then attempted to activate the pilot controlled lighting with their emergency radios. The pilot then reported receiving a terrain warning, and was 1,100 feet and was still "no joy." No further transmissions were received from the pilot of N4178Q.

Pertinent information:

- The controller provided the pilot with the three closest airports once emergency was declared.
- Initial airport selected by pilot - both runways were NOTAM'd closed and unlit.
- The pilot elected to take the next closest offered airport, which was 20A.
- The controller lost radar contact with N4178Q, but continued to attempt to assist the pilot.
- Neither the pilot nor controller were able to activate the pilot controlled lighting at 20A.
- The controller cannot issue a landing clearance to a closed runway unless emergency exists AND pilot states they intend landing on the closed runway.

The controller did not issue the pilot of N4187Q the weather at 20A. However, the weather was visual flight rules (VFR), with clear night conditions, light winds, and no precipitation. There was no evidence or concern that weather was a factor in the sequence of events. Although considered deficient, would not have contributed to the accident.

The controllers failure to obtain the number of persons on board and fuel remaining was considered deficient, but would not have contributed to the accident.

The controllers incorrect phraseology in advising the pilot that radar contact was lost was considered deficient, but would not have contributed to the accident.

Air traffic services in this event were considered unremarkable, and though there were minor deficiencies, services were generally consistent with current FAA procedural guidance, and did not rise to the level of causation.

ATC Supporting Data

The following data and documentation was provided by the FAA under KSN request 24-093. These data and documentation were used to conduct this review, and are included in sections of this review, or as attachments to this review as indicated in the section titled "Docket Attachments" at the end of this report.

1. Certified ATC Audio Recordings
2. FAA ADS-B Data
3. FAA BHM Aircraft Accident Package
4. GAD NOTAM Information from 11/27/2023.
5. FAA SRT Findings

ATC Procedural References

FAA Order JO 7110.65AA, Air Traffic Control, stated in part:

4-7-10. APPROACH INFORMATION

- a. Both en route and terminal approach control sectors must provide current approach information to aircraft destined to airports for which they provide approach control services. This information must be provided on initial contact or as soon as possible thereafter. Approach information contained in the ATIS broadcast may be omitted if the pilot states the appropriate ATIS code. For pilots destined to an airport without ATIS, items 3-5 below may be omitted after the pilot advises receipt of the automated weather; otherwise, issue approach information by including the following:
 1. Approach clearance or type approach to be expected if two or more approaches are published and the clearance limit does not indicate which will be used.
 2. Runway if different from that to which the instrument approach is made.
 3. Surface wind.
 4. Ceiling and visibility if the reported ceiling at the airport of intended landing is below 1,000 feet or below the highest circling minimum, whichever is greater, or the visibility is less than 3 miles.
 5. Altimeter setting for the airport of intended landing.

3-3-2. CLOSED/UNSAFE RUNWAY INFORMATION

If an aircraft requests to takeoff, land, or touch-and-go on a closed or unsafe runway, inform the pilot the runway is closed or unsafe, and

- a. If the pilot persists in his/her request, quote him/her the appropriate parts of the NOTAM applying to the runway and inform him/her that a clearance cannot be issued.
- b. Then, if the pilot insists and in your opinion the intended operation would not adversely affect other traffic, inform him/her that the operation will be at his/her own risk.

PHRASEOLOGY -

RUNWAY (runway number) CLOSED/UNSAFE.

If appropriate, (quote NOTAM information),

UNABLE TO ISSUE DEPARTURE/LANDING/TOUCH-AND-GO CLEARANCE.
DEPARTURE/LANDING/TOUCH-AND-GO WILL BE AT YOUR OWN RISK.

3-4-1. EMERGENCY LIGHTING

Whenever you become aware that an emergency has or will occur, take action to provide for the operation of all appropriate airport lighting aids as required.

REFERENCE -

FAA Order JO 7110.65, Para 10-4-2, Lighting Requirements.

10-2-1. INFORMATION REQUIREMENTS

- a. Start assistance as soon as enough information has been obtained upon which to act. Information requirements will vary, depending on the existing situation. Minimum required information for inflight emergencies is:

NOTE -

In the event of an ELT signal see paragraph 10-2-10, Emergency Locator Transmitter (ELT) Signals.

1. Aircraft identification and type.
 2. Nature of the emergency.
 3. Pilot's desires.
- b. After initiating action, obtain the following items or any other pertinent information from the pilot or aircraft operator, as necessary:
 1. Aircraft altitude.
 2. Fuel remaining in time.
 3. Pilot reported weather.

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4. Pilot capability for IFR flight.
5. Time and place of last known position.
6. Heading since last known position.
7. Airspeed.
8. Navigation equipment capability.
9. NAVAID signals received.
10. Visible landmarks.
11. Aircraft color.
12. Number of people on board.
13. Point of departure and destination.
14. Emergency equipment on board.

PILOT/CONTROLLER GLOSSARY

CLOSED RUNWAY - A runway that is unusable for aircraft operations. Only the airport management/military operations office can close a runway.

FAA SRT Findings - Released

A Services Rendered TELCON (SRT) was conducted by the FAA on 11/27/2023 and the main preliminary findings were:

- The ATM described the traffic volume as light with routine complexity. The weather was VFR. There was no weather in the area, and there were no unusual situations that would cause a distraction.
- There were five CPCs, one trainee, and one OS on duty. There were four positions open. Four CPCs were on position. There was one CPC and one trainee available. The South Radar position, which was the involved position, was combined with the North Radar position. A CIC was providing general supervision in the tower, and the OS was providing general supervision in the TRACON. This configuration was normal for the time of day.
- N4187Q was descending through 5,700 feet and approximately four miles north of GAD when they declared an emergency due to low RPMs. The nearest airport was GAD; however, one runway was closed and the other was unlit and unsuitable for landing. The controller provided vectors to 20A which was 11 miles ahead. N4187Q was unable to find 20A. N4187Q was unable to hold their altitude, descended below radar coverage, and was at 1,100 feet when they received a terrain warning. There were no further transmissions by N4187Q.
- The ATM briefed that emergency services were notified immediately. The controller did not use correct phraseology to advise N4187Q when radar contact was lost. The emergency checklist was partially completed during the event; however, number of persons on board and remaining fuel was not obtained.

FAA Certified ADS-B Data

The below information and included graphics were developed using certified Automatic Dependent Surveillance - Broadcast (ADS-B) data provided by the FAA. These data are direct source data that has extracted and exported by the FAA's Office of Accident Investigation and Prevention (AVP-100) using the SBS Analysis Tool (SAT). A surveillance system in which an aircraft or vehicle to be detected is fitted with cooperative equipment in the form of a data link transmitter. The aircraft or vehicle periodically broadcasts its GPS-derived position and other information such as velocity over the data link, which is received by a ground-based transmitter/receiver (transceiver) for processing and display at an air traffic control facility. ADS-B data is subject to coverage limitations like any other system that relies on line-of-sight signal transmission, so there can be portions of a flight track that are unavailable, or will have to be combined with other source data for the most complete flight track.

Pertinent NOTAM Information

The following were the pertinent NOTAMs that were valid at the time of the accident for Northeast Alabama Regional Airport (GAD).

- !GAD 11/040 GAD RWY 18/36 CLSD 2311271300-231129001
ISSUED: 11-22-2023 @ 1501 UTC
CANCELLED: 11-28-2023 @ 2210 UTC
- !GAD 11/034 GAD RWY 06/24 CLSD 2311181342-2312312359
ISSUED: 11-18-2023 @ 1342 UTC
CANCELLED: 12-15-2023 @ 1654 UTC

Flight Track Information

ADS-B data provided by the FAA was used in conducting this Services Review. The pilot of N4187Q was first observed approximately 0.33 nautical miles (nm) southwest of the departure end of runway 23 at Scott Municipal Airport (SCX). The pilot of N4187Q flew runway heading for approximately 2 nm. The pilot of N4187Q then turned left and flew generally south southwest bound for approximately 159 nm. N4187Q was then observed conducting a turn to the southwest approximately 4 nm north of 20A. N4187Q subsequently entered a shallow right turn, then left turn before surveillance data was lost at about 1747 approximately 3.5 nm northwest of 20A.

LAST ADS-B DATA: 1746:35 CST | LAT = 34° 1'7.45"N | LON = 86° 7'45.15" | Barometric Altitude = 2150

ATC Communications

The IIC produced an ATC communications transcript and is included separately in the public docket. Below history of flight while in communication with BHM ATCT as provided in the BHM Aircraft Accident Package:

(All times are in central standard time and are rounded to the nearest minute)

- 1737 - N4187Q checks on Birmingham South Radar (SR) frequency and is given the altimeter.
- 1743 - N4187Q Calls SR twice and is unanswered. N4187Q calls SR and reports loss of engine RPM and declares an emergency. SR requests pilots intentions and gives airport direction and distance Albertville (8A0), Oneonta (20A). N4187Q requests GAD, SR advises GAD runway 06/24 closed and runway 18/36 unlighted and gives 20A direction and distance.
- 1744 - N4187Q asks again about GAD, SR repeats runway 6/24 closed and runway 18/36 unlighted. N4187Q requests another airport and heading. SR gives 20A, 8A0. N4187Q requests closest one and reports at 4000 feet.
- 1745 - SR tells N4187Q present heading 260 straight to 20A and gives him identifier for 20A, N4187Q acknowledges. N4187Q calls SR requests help. SR responds 20A runway 06/24 and has lost radar contact and requests last altitude.
- 1746 - N4187Q reports altitude 3000 feet and heading 253. SR repeats heading and altitude and advises him probably will not have radar contact on him because of altitude. SR tells N4187Q he can stay on the frequency as long as he needs and advises him to turn right five degrees towards center of airport and it is 11 miles and 12 o'clock. N4187Q repeats direction and distance but does not see the airport. SR tells N4187Q to standby for unicorn frequency to turn on airport controlled lighting. SR tells N4187Q unicorn frequency is 122.8 if he wants to go to that frequency to turn on lights.
- 1747 - N4187Q acknowledges. N4187Q reports no joy on airport. SR acknowledges and asks what he sees out the window and advise interstate off his left side before losing radar and asks if he has it in sight. N4187Q response is unintelligible. SR tells N4187Q about 8A0. N4187Q says he will keep going to 20A. SR advises he will try to get the airport lights on with backup radio.
- 1748 - N4187Q advises he has a terrain warning and is at 1100 and still does not see the airport.
- 1749 - SR calls N4187Q and asks if he was able to dial in 20A in his GPS to navigate better. N4187Q does not respond. SR calls N4187Q again and gets no response.
- 1752 - SR calls N4187Q and gets no response.

Included Figures

Figure 1: Overhead view of the entire accident flight track of N4187Q.

Figure 2: Profile view of the final segment of the accident flight track of N4187Q.

Docket Attachments

Attachment 1: ATC Audio Recordings

Attachment 2: ADS-B Data

Attachment 3: FAA Aircraft Accident Package

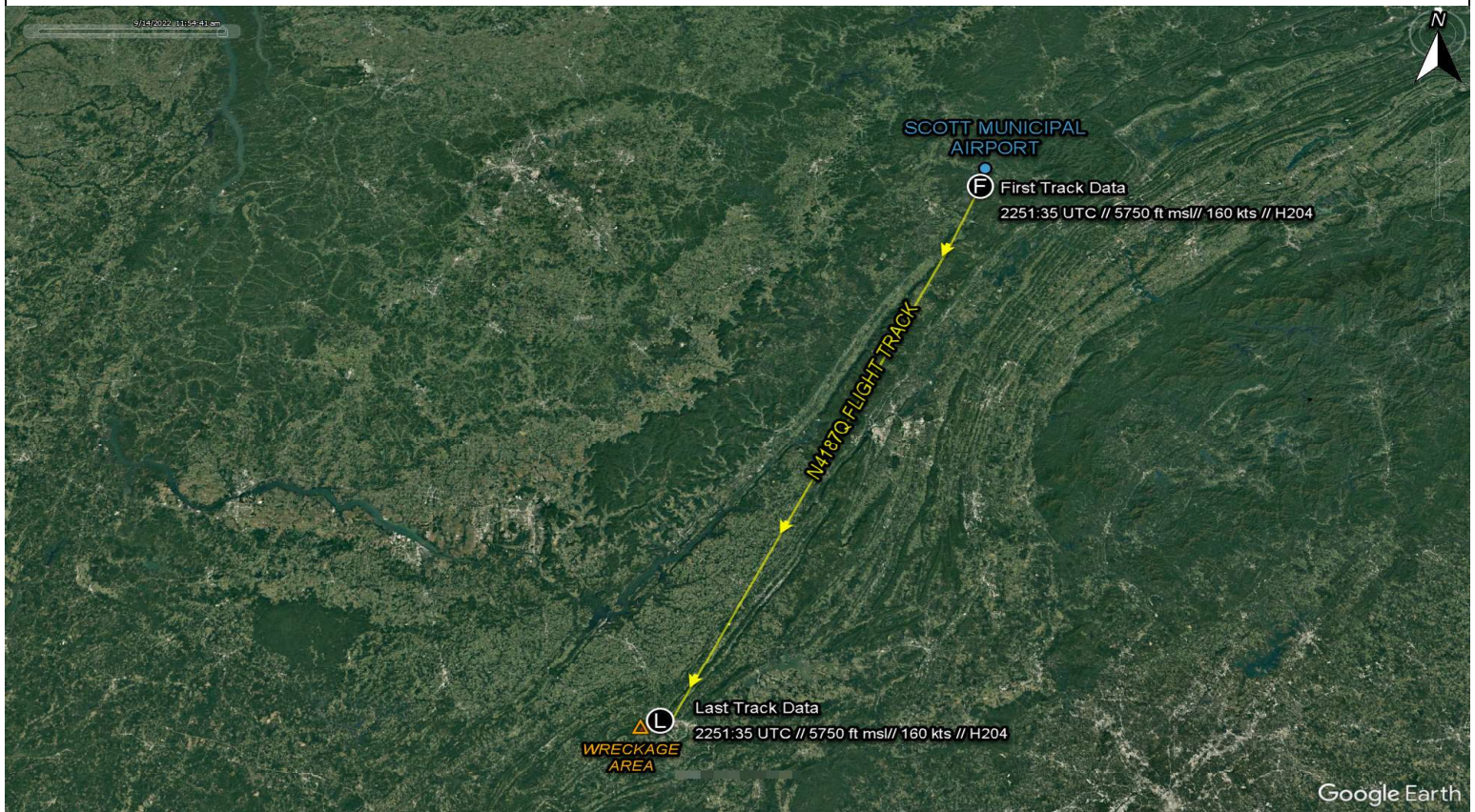
AERONAUTICAL CHART EXCERPT

NOT FOR NAVIGATIONAL USE



NOT FOR NAVIGATIONAL USE

Figure 1



Caption: Overhead view of the entire accident flight track of N4187Q.

ADD

Figure 2



Caption: Profile view of the final segment of the accident flight track of N4187Q.

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