



## **NATIONAL TRANSPORTATION SAFETY BOARD**

Office of Aviation Safety  
Washington, D.C. 20594

May 8, 2017

### **Group Chairman's Factual Report**

# **AIR TRAFFIC CONTROL**

ERA16FA035

## Table Of Contents

|     |                                    |    |
|-----|------------------------------------|----|
| A.  | AIRCRAFT ACCIDENT .....            | 3  |
| B.  | AIR TRAFFIC CONTROL GROUP.....     | 3  |
| C.  | SUMMARY .....                      | 3  |
| D.  | DETAILS OF THE INVESTIGATION ..... | 3  |
| E.  | FACTUAL INFORMATION .....          | 5  |
| 1.0 | History of Flight.....             | 5  |
| 2.0 | Radar Data .....                   | 9  |
| 3.0 | Weather Information .....          | 9  |
| F.  | LIST OF ATTACHMENTS .....          | 10 |

## **A. AIRCRAFT ACCIDENT**

Location: Climax, Georgia  
Date: November 9, 2015  
Time: 1017 eastern standard time (EST)  
1517 coordinated universal time (UTC)<sup>1</sup>  
Airplane: Cessna 441, N164GP

## **B. AIR TRAFFIC CONTROL GROUP**

Brian Soper  
Group Chairman  
Operational Factors Division (AS-30)  
National Transportation Safety Board

Paul Suffern  
Senior Meteorologist  
Operational Factors Division (AS-30)  
National Transportation Safety Board

Jack Clark  
Air Traffic Control Specialist  
New York TRACON (N90)  
Federal Aviation Administration

Eric Stormfels  
Air Safety Investigator  
Pittsburgh ATCT (PIT)  
National Air Traffic Controllers Assn.

## **C. SUMMARY**

On November 9, 2015, at 1017 eastern standard time, a Cessna 441, N164GP, was destroyed by collision with trees, terrain and a post-crash fire following a loss of control while maneuvering near Climax, Georgia. The commercial pilot/owner and the commercial pilot-rated passenger were fatally injured. Instrument meteorological conditions (IMC) prevailed, and an instrument flight rules (IFR) flight plan was filed for the personal flight, which departed Lakeland Linder Regional Airport (LAL), Lakeland, Florida, at 0906, and was destined for the Cairo-Grady County Airport (70J), in Cairo, Georgia. The flight was conducted under the provisions of *Title 14 Code of Federal Regulations Part 91*.

## **D. DETAILS OF THE INVESTIGATION**

The air traffic control group was formed on November 10, 2015. The group consisted of the group chairman from operational factors, senior meteorologist from operational factors, an air traffic control specialist from the Federal Aviation Administration (FAA), and an air safety investigator from the National Air Traffic Controllers Association (NATCA). All interview summaries are contained in attachment 1 of this report.

Via the FAA compliance services group, the group requested Tallahassee Air Traffic Control Tower and Terminal Radar Approach Control Facility (TLH ATCT) radar source data, voice recordings, Camtasia<sup>2</sup> playback, copy of all PIREP<sup>3</sup> data, copy of TLH ATCT standard

---

<sup>1</sup> All times are eastern standard time (EST) unless otherwise noted.

<sup>2</sup> Camtasia – A commercial software suite for creating video tutorials and presentations directly via screencast, or via a direct recording plug-in to other computer presentation programs.

<sup>3</sup> PIREP – Pilot Weather Report – A report made by a pilot of meteorological phenomena encountered by an aircraft in flight

operating procedures (SOP), daily facility log, position logs, controller work schedules, and other documentation pertaining to this accident. Voice recordings, radar data, and controller schedules were all marked as “urgent” when requested.

On November 10, the group chairman coordinated travel with the NTSB investigator in-charge (IIC) and all party members of the ATC group. Once travel was arranged, approximately four hours prior to the groups planned departure, a representative from FAA compliance services sent an email to the group chairman stating they would not conduct the investigation until November 14 or 15. Upon calling to inquire about this, a representative from compliance services stated it was the best they could do and that the controllers were either off, or on leave until then. The representative from compliance services further stated that it did not matter if the NTSB investigative team arrived at the facility before then, that the group would not be granted access to the facility or any controllers until compliance services was on-site. Travel plans were cancelled and the IIC and chain of command were notified. After engagement from the chain of command and FAA office of accident prevention (AVP), we were informed that compliance services should be able to get their team there sooner, and that the group would be able to access the facility. The group made new travel plans to leave the following day. Additionally, compliance services stated they would provide the group with an ATC audio/video playback later that evening, however it was not provided.

On November 11, part of the group (NTSB and NATCA) met in Tallahassee and began reviewing the limited data that had been provided up to that point. The group chairman met with the IIC via telephone and was brought up to speed on the status of the on-site accident investigation. The group still had not been provided any radar data (one of the items that were marked urgent in the original request and which the IIC also needed), nor had the group been provided the playback that compliance services had said they would provide the previous evening. All contact with the FAA event investigation manager (EIM) produced no results, who said he was having trouble sending it and that it would not go through. The group was able to put together some of the weather elements as well as schedule telephone discussions with two passengers that had been at the Cairo-Grady Airport (70J) awaiting the arrival of N164GP. Additionally, another FAA source was able to provide a radar replay (without audio) of the event that we could start working with. The chairman spoke with the EIM who said he would not have controllers available to interview until November 14 and that the NTSB would not be allowed access to the ATC facility until November 13, and that he was still working on providing the requested radar data and playback.

On November 12, the group met and again reviewed the radar replay of the event that had been provided from another FAA source, which the group was able to closely sync with the certified audio to allow for a much more informative playback. The group then visited the National Weather Service (NWS) weather forecast office located in Tallahassee, Florida, which was responsible for weather support to TLH ATCT. The final group member from the FAA joined the team at the NWS office. The group then conducted two TELCONs (telephone conversations) with the two passengers that had been waiting for N164GP to arrive at 70J on the day of the accident. The group then met with the EIM who had arrived from FAA HQ in Washington, DC, to discuss the investigation. At 1700, the group finally received the originally requested radar data from the FAA via email.

On November 13, the group met at the ATC facility and was provided an in-brief from the air traffic manager (ATM) and members of his staff. Also present were members from the FAA's eastern service area quality control group (ESA QCG), FAA Southern Skies District, NATCA and FAA legal counsel. Following the in-brief there was lengthy discussion on the event, as well as, a request by the group for additional data, and how the investigation would proceed. The group was then provided operational tours of tower and radar operational areas. The group then spent the afternoon reviewing additional data and prepared for interviews that would be conducted Saturday. The group then returned to the hotel where NTSB members worked further on notes and data to provide to the IIC.

On November 14, the group met at the ATC facility and conducted interviews with the radar east developmental (RE-DEV) controller who was providing services to the accident aircraft at the time of the accident, as well as her on the job training instructor (RE-OJTI). The group also interviewed the radar controller in charge (RCIC) who had also been the radar east (RE) controller that had provided services to the accident pilot prior to the RE-DEV controller. Field notes were completed and the group concluded the on-site portion of the ATC investigation.

## **E. FACTUAL INFORMATION**

### **1.0 History of Flight**

At 0948:38, the pilot of N164GP first contacted TLH ATCT descending out of 5,200 feet<sup>4</sup> for 4,000 feet, flying northwest bound direct to, and approximately 62 miles away from, 70J. The RE controller responded, asking the pilot to state his request for 70J (no altimeter setting was issued to the pilot).

At 0948:54, the pilot of N164GP stated that he was trying to get to visual flight rules (VFR) conditions and if he was not able, that he would request the RNAV<sup>5</sup> approach to runway 31 until he could maintain VFR. The RE controller informed the pilot that she did not have weather for 70J (there was no weather reporting equipment at that airport) but stated that Bainbridge (BGE) and TLH were both IFR, and then instructed the pilot of N164GP to descend and maintain 3,000 feet. The accident pilot said that he would take the RNAV to runway 31 and circle to land if needed.

At 0949:27, the RE controller instructed the pilot of N164GP to maintain 3,200 feet for the minimum vectoring altitude (MVA<sup>6</sup>) in that area. At 0950:00, the RE controller asked the pilot of N164GP if he could proceed direct to Greenville (VORTAC<sup>7</sup>), and the pilot responded and said that he was loading it.

---

<sup>4</sup> All altitudes are in feet above mean sea level (msl) unless otherwise noted.

<sup>5</sup> RNAV – Area Navigation - A non-precision approach procedure that provides lateral guidance only to an appropriately equipped aircraft approaching and landing on a runway.

<sup>6</sup> MVA – Minimum Vectoring Altitude - The lowest msl altitude at which an IFR aircraft will be vectored by a radar controller, except as otherwise authorized for radar approaches, departures, and missed approaches. Vectors below the MVA were not authorized at CRG for this procedure.

<sup>7</sup> VORTAC – A navigational aid for aircraft pilots consisting of a co-located VHF omnidirectional range (VOR) beacon and a tactical air navigation system (TACAN) beacon.

At 0952:23, the RE controller instructed the pilot of N164GP to report his IFR cancellation in the air on her frequency, on the ground to flight service, or TLH ATCT via telephone. He responded that he would like to stay with her for a few more minutes because he was still IFR. The RE controller acknowledged appropriately.

At 0953:40 the pilot of N164GP reported the airfield in sight (at which time, radar data indicated that N164GP was about 33 nautical miles from the airport at an altitude of 3,300 feet). The RE controller reminded the pilot to cancel his IFR, and at 0953:50 the pilot cancelled his IFR flight plan. The RE controller then informed the pilot that he could remain on her frequency for VFR advisories to 70J; however, the pilot declined, and stated that he was switching to UNICOM<sup>8</sup>.

[The RE controller stated in her interview that she had informed the pilot that he could remain with her for advisories because she was concerned about the distance remaining between him and 70J, and was also concerned about him being able to maintain VFR considering the IFR conditions that prevailed throughout the area.]

At 0954:11 the RE controller coordinated with an adjacent facility and informed them that N164GP had terminated IFR and was continuing VFR to 70J. The RE controller then instructed the pilot of N164GP to squawk<sup>9</sup> VFR, but the pilot did not respond. At 0954:33 the RE controller again instructed the pilot of N164GP to squawk VFR and stated that radar services were terminated, however the pilot of N164GP had already switched to UNICOM and did not respond.

[From approximately 0953:51 until 0959:52 radar data indicated that N164GP remained on a northwesterly heading descending slowly to 1,200 feet. At 1000:10 the pilot turned the airplane left to a west/southwesterly heading, and descended to 900 feet, which inadvertently put the airplane in an area that contained marked obstructions, as high as 2,000 feet. This erratic flight continued until 1006:09, at which time the pilot of N164GP contacted TLH ATCT and stated that he had lost visual contact with the airport.]

[The RE controller who had previously provided services to N164GP had been relieved by a training team which consisted of the RE-OJTI and RE-DEV controllers]

At 1006:09, the pilot of N164GP transmitted on TLH ATCT approach frequency, calling them “Center” vice “approach”, that he was climbing through 3,700 feet on a northwesterly heading. The RE-DEV controller instructed the pilot of N164GP to return to his last assigned frequency because he was up TLH ATCT approach. The pilot responded that he had lost visual contact with the airport and requested the RNAV approach to runway 13 at 70J. There was a several second pause before the RE-DEV controller responded.

[According to the RE-DEV controller, she was looking for the airplane’s closed out flight progress strip, so she could type it back into the system, when the RE-OJTI controller told her that

---

<sup>8</sup> 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.

<sup>9</sup> Squawk –Activate specific modes/codes/functions on the aircraft transponder;

the call sign was N132GP; therefore, she chose to assign the pilot a local IFR beacon code and write up a manual strip.]

At 1006:42, the RE-DEV controller instructed N164GP (using the incorrect call sign of N132GP) to squawk 0264 and ident (the RE-DEV controller did not confirm an altitude or issue the current altimeter setting). The pilot of N164GP responded, “roger zero six two four and I’ll ident golf pop.” The RE-DEV controller immediately corrected the pilot, and restated that it was 0264. At 1006:54, the pilot of N164GP responded, “six golf pop zero two six four thanks golf pop.”

At 1007:43, the RE-DEV controller radar identified N164GP (again utilizing the incorrect call sign of N132GP) and stated the airplanes position was 5 miles south of 70J (radar data indicated N164GP was actually about 10 miles south of 70J at that time), and instructed the pilot to turn left to a heading of 270, vectors for the approach. The pilot responded, “roger two seven zero on the heading golf pop.”

At 1007:55, the RE-DEV controller instructed the pilot of N164GP (again utilizing an incorrect call sign of N2GP) to maintain 3,000 feet. The pilot responded, “down to three thousand for golf pop thanks.”

[The pilot of N164GP had not begun to turn to the assigned heading of 270, when an adjacent facility controller called the RE-OJTI controller, to inquire about N164GP, due to potentially conflicting traffic. It was for this reason the RE-OJTI controller said that he restated the previously assigned heading of 270 to the pilot of N164GP.]

At 1008:51, the RE-OJTI controller instructed the pilot of N164GP (also utilizing an incorrect call sign of N132GP) to turn left heading 270 for traffic. The pilot did not respond, however radar data indicated he did began an immediate turn to the left.

[Radar data indicated that N164GP continued to descend through the assigned altitude of 3,000 feet, prompting the RE-OJTI controller to confirm the altitude with the pilot.]

At 1009:07, the RE-OJTI controller asked the pilot of N164GP (again utilizing an incorrect call sign of 2GP) to say his altitude, and issued the TLH altimeter of 30.01. The pilot responded, “three zero zero one, we’re uh...leveling at three thousand right now golf pop.” The RE-OJTI controller acknowledged with the incorrect call sign saying, “two golf papa roger.”

[When the pilot of N164GP stated that he was leveling at 3,000 feet, radar data indicated the aircraft was at 2,500 feet and descending.]

At 1009:20, the RE-OJTI controller instructed the pilot of N164GP (again utilizing an incorrect call sign of 2GP) to stop altitude squawk<sup>10</sup> because it differed by 500 feet. At 1009:28, the accident pilot responded “roger golf pop.”

---

<sup>10</sup> Stop Altitude Squawk– Used by ATC to inform an aircraft to turn-off the automatic altitude-reporting feature of its transponder.

[Radar data indicated that N164GP continued to squawk altitude, and at no other time before nor after the pilot's last report of leveling at 3,000 feet did his reported altitude differ from his indicated altitude.]

At 1010:34, the pilot of N164GP said, "and center golf pops level at uh three thousand two seven zero assigned." The RE-DEV controller acknowledged and advised the pilot of N164GP (again using an incorrect call sign of 2GP) to expect vectors to the RNAV runway 13 approach. The pilot responded, "roger we'll expect that golf pop."

At 1012:29, the RE-OJTI controller instructed the pilot of N164GP (again using an incorrect call sign of N2GP) to turn right heading 330, and cleared him to the Cairo-Grady airport from his present position, and instructed him to proceed direct to OCAPE (the initial approach fix) and join the approach. The pilot of N164GP responded "roger that's for six golf pop direct OCAPE join the approach, what's the altitude on that uh initial approach fix if ya got it." The RE-OJTI then instructed the pilot to maintain 3,000 feet until OCAPE and advise when he was direct OCAPE. The pilot of N164GP responded, "roger golf pop."

At 1013:13, the pilot of N164GP asked "is that W-O-P-A-X?". The controller did not respond. Then at 1013:24, the pilot asked if he could get a spelling on the initial approach fix. The RE-DEV controller responded (again using an incorrect call sign of N6GP) that it was "Oscar Charlie Alpha Papa Echo – OCAPE". The pilot of N164GP responded, "roger, I'll look for it golf pop."

At 1013:44, the RE-DEV controller (again using an incorrect call sign of N6GP) asked the pilot of N164GP to verify that he had requested the RNAV approach to runway 13 at 70J. The pilot responded that he did not see OCAPE on his approach, but he did see WOPAX. The RE-DEV informed the pilot that WOPAX was for the RNAV approach to runway 31, and OCAPE was for the RNAV to runway 13.

At 1014:34, the pilot of N164GP said, "and for golf pop, still not pullin' it up can you give me the spelling I'll go ahead and load it." The RE-DEV controller (again using an incorrect call sign of N2GP) instructed the pilot to fly heading 310. The pilot responded, "three one oh, if we could just get the vectors then for uh runway one three we'll be fine."

At 1015:23, the pilot of N164GP stated, "alright for uh six four golf pop, thank you we have uh OCAPE heading three two three we can turn there now." The RE-DEV controller responded, "November six golf papa roger cleared RNAV runway one three approach cross OCAPE at or above three thousand...correction at or below three thousand." At 1015:40, the pilot of N164GP responded, "roger golf pop." [That was the last recorded transmission from N164GP. Radar data indicated the N164GP was on a west bound heading at 2,800 feet and climbing slowly with an indicated ground speed of 180 knots.]

[Radar data indicated that N164GP continued west bound climbing slowly through 3,000 feet, began a right hand turn and continued to climb to 3,200 feet before abruptly descending to 2,600 feet, and disappearing from radar. The last recorded radar return, at 1016:37, indicated an altitude of 2,600 feet.]

## 2.0 Radar Data

Certified radar data was provided by TLH ATCT, and the radar source data was obtained from the TLH ASR-8 located in Tallahassee, Florida. Figures 1 through 3 (attachment 2) were developed utilizing certified radar and voice data provided by the FAA. Figure 1 is an overview of the entire flight track of the accident aircraft after initial contact with TLH ATCT. Figure 2 is a close-up view of the portion of the accident flight track in which the accident pilot was VFR and not in communication with TLH ATCT. Figure 3 is a close-up view of the final portion of the accident flight after the accident pilot had reestablished communications with TLH ATCT and was once again flying under IFR. The depicted accident location was provided by the IIC and the OCAPE initial approach fix location was obtained from FAA Order JO 7350.9C, Location Identifiers.

## 3.0 Weather Information

The following basic weather information is provided for clarity. For more detailed weather information pertaining to this accident investigation, please see the Meteorological Factual Report in the public docket.

Decatur County Industrial Air Park (BGE) was the closest official weather station to the accident site located 6 miles northwest of Bainbridge, Georgia, and had an Automated Weather Observing System (AWOS) whose reports were not supplemented. BGE was located 11 miles west-northwest of the accident site, at an elevation of 141 feet, and had a 4° westerly magnetic variation. The following observations were taken and disseminated during the times surrounding the accident:

[0955 EST] KBGE 091455Z AUTO 04007KT 5SM BR OVC004 15/15 A3004 RMK AO2=

KBGE weather at 0955 EST was reported as wind from 040° at 7 knots, 5 miles visibility, mist, an overcast ceiling at 400 above ground level (agl), temperature of 15° Celsius (C), dew point temperature of 15° C, and an altimeter setting of 30.04 inches of mercury. Remarks, automated station with precipitation discriminator.

[1015 EST] KBGE 091515Z AUTO 05010KT 3SM BR OVC004 16/15 A3004 RMK AO2=

KBGE weather at 1015 EST was reported as wind from 050° at 10 knots, 3 miles visibility, mist, an overcast ceiling at 400 agl, temperature of 16° C, dew point temperature of 15° C, and an altimeter setting of 30.04 inches of mercury. Remarks, automated station with precipitation discriminator.

[1016 EST] APPROXIMATE ACCIDENT TIME

[1035 EST] KBGE 091535Z AUTO 05008KT 2SM BR OVC004 15/15 A3004 RMK AO2=

KBGE weather at 1035 EST was reported as wind from 050° at 8 knots, 2 miles visibility, mist, an overcast ceiling at 400 agl, temperature of 15° C, dew point temperature of 15° C, and an altimeter setting of 30.04 inches of mercury. Remarks, automated station with precipitation discriminator.

[1055 EST] KBGE 091555Z AUTO 05008KT 1 1/2SM BR OVC004 16/15 A3003 RMK AO2=

KBGE weather at 1055 EST was reported as wind from 050° at 8 knots, 1 and a half miles visibility, mist, an overcast ceiling at 400 agl, temperature of 16° C, dew point temperature of 15° C, and an altimeter setting of 30.03 inches of mercury. Remarks, automated station with precipitation discriminator.

**F. LIST OF ATTACHMENTS**

Attachment 1: Interview Summaries

Attachment 2: Radar Plots / Figures

Submitted by:

---

Brian Soper  
Senior Air Traffic Investigator