NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

February 6, 2014

Group Chairman's Factual Report

SURVIVAL FACTORS

ERA13MA139

A. ACCIDENT

Accident	:	ERA13MA139
Location	:	Thomson, Georgia
Date	:	February 20, 2013
Time	:	2006 EST[1]
Airplane	:	Beechcraft 390 Premier 1A, N777VG

B. SURVIVAL FACTORS GROUP

Chairman	:	Peter Wentz National Transportation Safety Board Washington, DC
Member	:	Mark George National Transportation Safety Board Washington, DC
Member	:	Jim Price Federal Aviation Administration Atlanta, GA

C. SUMMARY

On February 20, 2013, at 2006 eastern standard time (EST), a Beechcraft 390 Premier 1A, registration N777VG, crashed after a go-around from Runway 10 at Thomson-McDuffie Regional Airport, Thomson, Georgia. The airplane was operated under the provisions of 14 CFR Part 91 on an instrument flight rules flight plan. The flight originated at the John C. Tune Airport, Nashville, Tennessee. The airplane struck a utility pole about 1/4 mile east of the departure end of the runway, separating the left wing. The remainder of the airplane impacted trees and came to rest in a wooded area about 1/2 mile east of the departure end of the runway. The airplane was destroyed by impact forces and fire. The two crew members were seriously injured, and the five passengers were fatally injured.

[1] All times are in eastern standard time (EST) unless otherwise noted.

D. FACTUAL INFORMATION

1.0 Airplane Configuration

The airplane was configured with 6 passenger seats and 2 pilot seats (figure 1). There was a floor-level exit with integral stairs on the forward left fuselage and an overwing emergency exit located on the right mid-cabin wall.

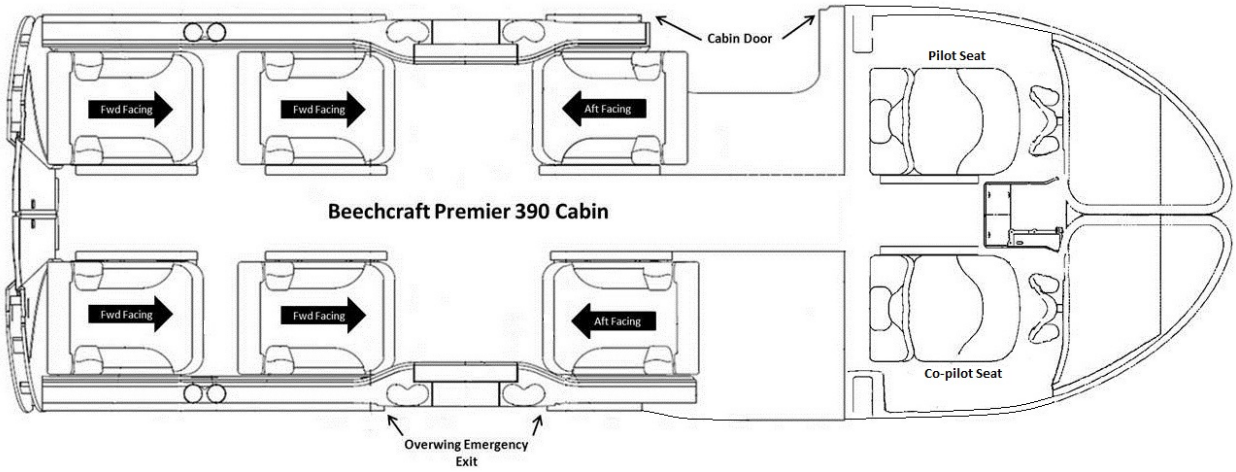


Figure 1 - Beechcraft 390 Premier 1A cabin configuration.

2.0 Airplane Seating

Documentation of the airplane seats was conducted on February 22, 2013 at the accident site, Thomson-McDuffie Regional Airport, Thomson, Georgia.

2.1 Pilot Seat

The pilot seat was manufactured by 4 Flight Industries, model 41001001, part number 41001001-103 (figure 2).

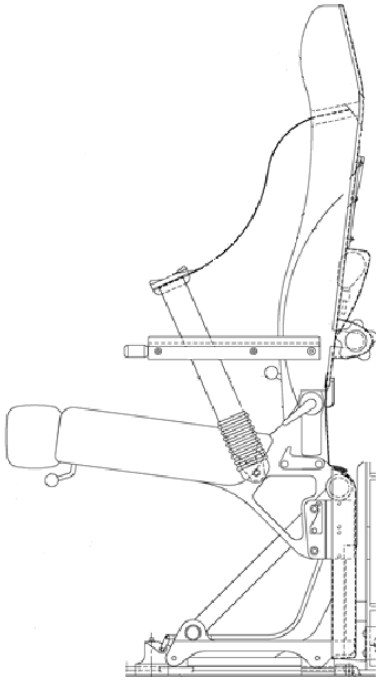


Figure 2 – Side view of the pilot seat.

The pilot seat was found with the seatback and seat pan cushions attached to the frame. The frame was severely damaged with broken tubes in the seatback and seat bottom. The upper shoulder area of the seat was crushed forward and to the right. The seat appeared to be forcefully detached from the cockpit floor track rails with small floor track pieces attached to the seat post and was located near the remains of the cockpit (photograph 1).

Photograph 1 – Pilot seat as found at the accident site.

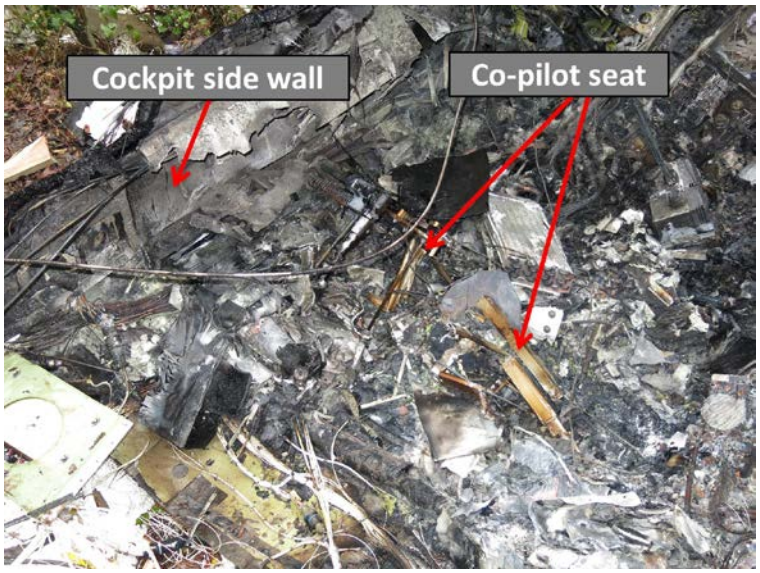
2.1.1 Pilot Seat Restraint System

The pilot seat restraint system was manufactured by AmSafe, Inc, model 4015-1, part number 4015-1-03A. The FAA TSO number was C114. The pilot seat restraint system was a 4-point buckle system. All 4 belts were cleanly separated in a manner consistent with extrication by rescue personnel (photograph 2).

Photograph 2 – Pilot seat 4-point restraint.

2.2 Co-pilot Seat

The co-pilot seat was manufactured by 4 Flight Industries, model 41001001, part number 41001001-104. The co-pilot seat was found in its original position in the cockpit. The seatback and seat pan cushions were consumed by fire. The seat frame was severely damaged with broken tubes in the seatback and seat bottom (photograph 3).



Photograph 3 – Co-pilot seat at the accident site.

2.2.1 Co-pilot Restraint System

The co-pilot seat restraint system was manufactured by AmSafe, Inc, model 4015-1, part number 4015-1-04A. The FAA TSO number was C114. The co-pilot seat restraint system was a 4-point buckle system. The entire restraint system was consumed by fire.

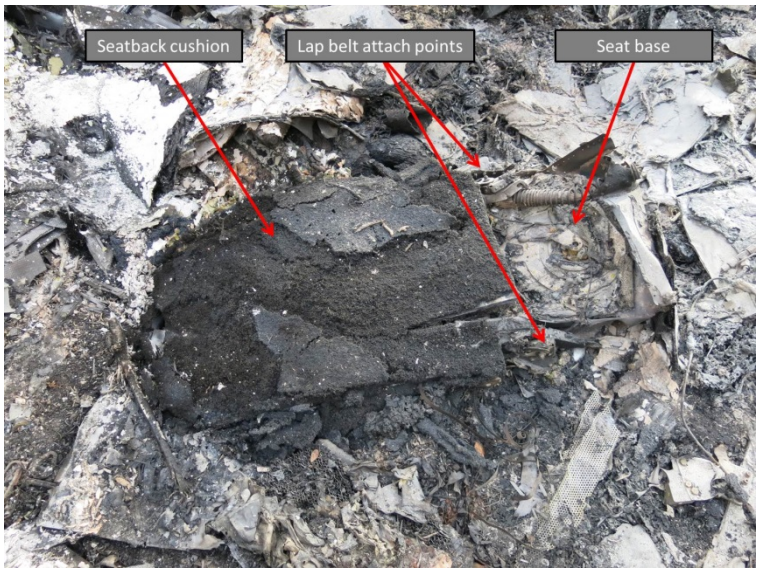
2.3 Passenger Cabin Seats

The passenger cabin seats were manufactured by DeCrane Aircraft Seating Company (ERDA, Inc.), model 4015(A) part numbers 403062-19, 403062-20, 403062-21, 403062-22, 403062-23 and 403062-24.

The Beechcraft Model 390 had 6 passenger cabin seats; 4 were adjustable club-style seats and 2 were manual club-style seats (photograph 4). All 6 seats were located at the accident site and had been forcefully detached from the floor track rails.

Photograph 4 – Exemplar passenger cabin seat.

Three of the passenger cabin seats were consumed by fire with only the seat frame and partial seat cushions remaining (photograph 5). All six passenger cabin seats were severely damaged with broken tubes in the seatback and seat bottom



Photograph 5 – Passenger cabin seat consumed by fire.

2.3.1 Passenger Cabin Seats Restraint system

The passenger lap belt/harness were manufactured by AmSafe Inc, Model 504548-401. They were placard with FAA TSO number TSO-C114.

All 6 passenger seat restraint systems were found attached to their respective seat frames. For each of the 6 lap belts, the female portion of the buckle was found unattached to the male portion of the buckle. Three of the seats had belt webbing uncut. The other three seat restraints were consumed by fire. One of the 6 shoulder harness was found attached to the lap portion of the female buckle (photograph 6). The other 5 shoulder harnesses were found retracted in the seatback frame. None of the passenger seat buckles showed damage to the female or male portions.

Photograph 6 – Shoulder harness attach point.

3.0 Accident Site Description

Refer to the Airworthiness Group Chairman's Factual Report for a description of the accident site.

4.0 Medical and Pathological Information

4.1 Injury Table

Injuries	Pilots	Passengers	Other	Total
Fatal	0	5	0	5
Serious	2	0	0	2
Minor	0	0	0	0
None	0	0	0	0
Total	2	5	0	7

Figure 3 – Injury table.

4.2 Pilot Injuries

Pilot injuries were obtained from a discharge summary provided by Georgia Regents Medical Center, Augusta, GA and are reported *verbatim*.

a. Head injury
b. Open wound of scalp without complication
c. Aircraft accident injury occupant
d. Closed femur fracture X2
e. Fracture of unspecified bone
f. Intracranial injury following injury with loss of consciousness
g. Vitreous hemorrhage of left eye
h. Corneal abrasion of left eye
i. Fracture of orbital floor
j. Cerebral contusion
k. Subconjunctival hemorrhage, traumatic
l. Subarachnoid hemorrhage following injury
m. Fracture of ribs, closed
n. Closed head injury with brief loss of consciousness

4.2.1 Pilot Forensic Toxicology

Refer to the Human Performance Specialist Factual report for a description of the pilot's toxicology results.

4.3 Co-pilot Injuries

Co-pilot injuries were obtained from a discharge summary provided by Georgia Regents Medical Center, Augusta, GA and are reported *verbatim*.

a. Laceration of occipital region of the scalp
b. Laceration of multiple sites of the scalp and neck

c. Laceration of the left elbow, forehead, and left cheek
d. Fracture of the left inferior orbital wall
e. Traumatic hematoma of the groin
f. Chest wall contusion
g. Closed head injury with brief loss of consciousness

4.3.1 Co-pilot Forensic Toxicology

Refer to the Human Performance Specialist Factual report for a description of the co-pilot's toxicology results.

4.4 Passenger Fatalities and Forensic Toxicology

The Georgia Bureau of Investigation (GBI) Division of Forensic Science provided final autopsy reports. The FAA Civil Aerospace Medical Institute provided toxicological data to this report.

4.4.1 Passenger 1

Passenger 1 was a 43 year old female. Final diagnosis was blunt impact of the head, torso, and extremities with thermal injuries of the face and arms. The airway was free of soot deposition and the carboxyhemoglobin analysis reported negative. Forensic toxicology tested for carbon monoxide in the blood resulting in negative findings.

4.4.2 Passenger 2

Passenger 2 was a 28 year old female. Final diagnosis was blunt impact of the head, torso, and extremities with thermal injuries of the head, torso and extremities. The airway was free of soot deposition. Forensic toxicology tested for carbon monoxide in the blood resulting in negative findings.

4.4.3 Passenger 3

Passenger 3 was a 28 year old female. Final diagnosis was blunt impact of the head, torso, and extremities with thermal injuries of the face, torso and extremities. The airway was free of soot deposition.

4.4.4 Passenger 4

Passenger 4 was a 46 year old female. Final diagnosis was blunt impact of the head, torso and extremities with thermal injuries of the face and right leg. The airway was free of soot deposition and the carboxyhemoglobin analysis reported negative.

4.4.5 Passenger 5

Passenger 5 was a 48 year old male. Final diagnosis was blunt impact of the head, torso and extremities with thermal injuries of the head, torso and extremities. The airway was free of soot deposition.

5.0 Airport Information

5.1 General

Thomson-McDuffie regional Airport was owned and operated by the City of Thomson and McDuffie County, and was located 4 miles north of Thomson, Georgia. It was a general aviation airport with one asphalt runway (runway 10-28) measuring 100 by 5,503 feet, with precision instrument markings on both ends (figure 4). The runway had high-intensity runway edge light (HIRL) that changed from white to amber for the last 2,000 feet, in both directions. Both ends had red threshold lights and green approach lights. Adjacent to the touchdown zone for both ends of the runway was a two-unit (L-881) precision approach path indicator (PAPI) system set at 3 degrees.

The airport had pilot-activated lighting which included the HIRLs, the medium intensity taxiway edge lights, and the PAPIs. The runway and taxiway lights were pilot-adjustable to low, medium, and high settings, and would remain on for a period of 15 minutes after activation. The PAPIs were configured such that they would not activate when the runway lights were set to the low setting. The intensity of the PAPI lights was not pilot-adjustable; however, the PAPIs contained a photocell-activated switch that automatically dimmed the intensity to 5% during hours of darkness when the PAPIs were on. The taxiway lights were wired to a timer that would automatically cause the lights to illuminate around dusk, and then go off again after several hours. Neither the airport manager nor the lighting contractor for the airport knew why the PAPIs or the taxiway lights had been wired as they were.

The airport was managed by a City of Thomson administrator, with the help of an on-site airport manager who also managed a local fixed base operation (FBO), Spirit Aviation. The airport manager did not prepare or keep any logs pertaining to airport self-inspections, regular maintenance, wildlife strikes, lighting activation, or periodic inspection/calibration of the PAPI units. According to the airport manager, all preventative and repair work on the airport's lights and NAVAIDs was accomplished by a local electrical contractor, on an as-needed basis. The city administrator noted that after the accident, the airport began keeping weekly logs of lighting outages, maintenance, and general field conditions.

On February 21, 2013, at the airport manager's request, the lighting contractor for the airport (Precision Approach, LLC) performed functional tests of the airport lighting systems (attachment 1). The tests included the HIRLs, taxiway lights, and PAPIs, and also, the pilot-controlled switching systems. A summary of the tests and results were:

- The pilot controller was tested manually and with a handheld radio. It functioned through all three steps with 3, 5, and 7 microphone clicks.
- The runway regulator output was 2.8, 4.1, and 6.6 amps on the three pilot controlled steps and the lights visually changed intensity as expected when cycled through the steps. FBO personnel reported that one runway light was inoperable.
- The taxiway regulator output was 4.8, 5.5, and 6.6 amps on the three pilot controlled steps and the lights visually changed intensity as expected when cycled through the steps.

- The runway 10 PAPI illuminated on the 5-click and 7-click pilot controller settings and was off on the 3-click setting. When the photocell on the PAPI was intentionally covered during operation, the PAPI lights automatically dimmed to the low (night) intensity mode.
- The runway 28 PAPI had 2 non-functional bulbs in the outboard light housing assembly; the 2 bulbs in the inboard light housing assembly illuminated normally.

The contractor summarized the tests, stating that he observed the HIRL, taxiway lights, and runway 10 PAPI functioning properly at the time of the tests.

On Feb 21, 2013, at about 2000, NTSB investigators also performed a functional test of the airport lighting system. The team used a hand held radio to control the three different lighting scenarios (low, medium and high). The team observed that the lighting system operated normally, and also noted that the runway 10 PAPI was operational only when the HIRLs were activated and set to the medium or high settings; the PAPI was not illuminated when the HIRLs were switched to the low setting.

The PAPI systems at both ends of the runway were Crouse-Hinds L-881 (two-unit) systems, and were installed in 1998. The PAPI systems belonged to the airport, and were maintained by Precision Approach, LLC. According to the PAPI manufacturer's instruction manual, a regular maintenance schedule was recommended for the systems, however, according to the airport manager, no scheduled maintenance was done on the PAPIs; Precision Approach, LLC was contacted whenever maintenance was needed due to observed malfunctions.

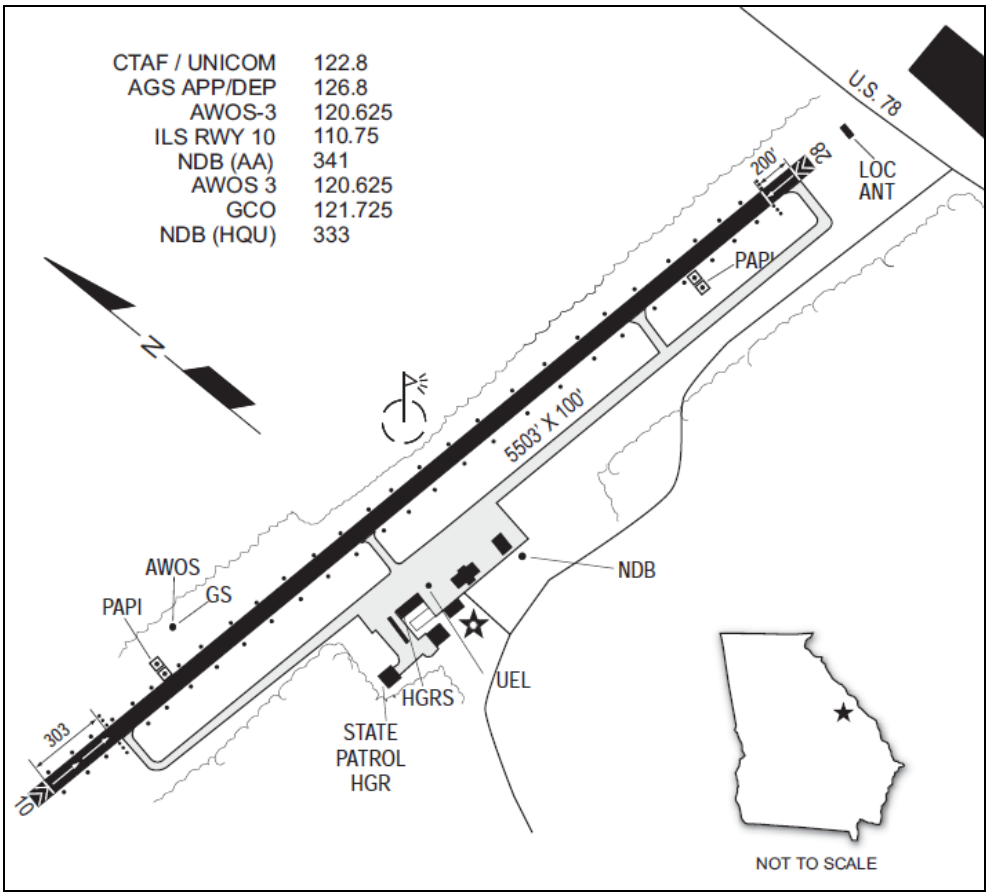


Figure 4: HQU airport diagram

On February 25, 2013, the FAA performed an after-accident flight inspection of the runway 10 PAPI system. The flight inspection report (attachment 2) that was generated from the flight stated:

The report evaluated the PAPI path lateral coverage and obstacle clearance. The flight inspection recorded a satisfactory evaluation of the PAPI system for runway 10 HQU. Average reportable angle: 2.95 degrees.

At the time of the accident, NOTAM 4/409 was current, and specified that the runway 10 PAPI at HQU was out of service.[2] The airport manager was not aware of the NOTAM, and did not know why it had been issued. However, after the FAA flight inspection, the airport manager cancelled NOTAM 4/409, at the request of the FAA.

HQU airport was inspected biennially by the Georgia Department of Transportation (GDOT) to ensure compliance with the requirements set out in Georgia Department of Transportation's Rules and Regulations for Licensing of Certain Open-to-the-Public Airports. Additionally, based on contractual requirements, the GDOT inspections also include an airport

[2] According to an invoice from Precision Approach, LLC, dated December 28, 2012, the runway 10 PAPI had been repaired and was operating normally.

inspection for the FAA's Airport Safety Data Program. The two most recent inspection reports 2010 (attachment 3) and 2012 (attachment 4) determined that HQU met the minimum state licensing requirements, but failed to meet federal requirements for precision and visual approaches. Specifically, runway 10 failed to meet FAA Part 77 reporting requirements for a 50:1 obstruction-free, precision instrument approach to 200 feet from the runway end. Similarly, runway 28 failed to meet the FAA Part 77 reporting requirements for a 34:1 obstruction-free, non-precision instrument approach to 200 feet from the runway end. The obstructions listed for both approaches were trees, left and right of centerline. However, the 2012 inspection report for the runway 28 approach included an obstruction characterized as: a power line, 66 feet high, and 2,200 feet from the displaced threshold, extending from the centerline to 400 feet right of centerline, which provided a 27:1 approach to 200 feet from the runway end, and a 33:1 approach to the displaced threshold.

The Thomson city administrator stated that, prior to 2012, no GDOT inspection report had identified the power line east of the airport as a potential obstruction. In order to determine whether the power line was, in fact, an obstruction, and to provide data in support of an official airport layout plan (ALP), the city administrator authorized a formal survey of the airport. The survey had not been completed at the time of the accident, and had not been completed at the time of this report.

Thomson-McDuffie County entered into an "aviation easement" agreement with Deering Milliken in September of 1973. The provisions of the easement were designed to protect the approach surface east of the airport. The text of the easement stated:

Now, therefore, the Grantor (Deering Milliken) for itself and its successors and assigns, hereby covenants and agrees with the Grantees (Thomson-McDuffie County) thereof that for the benefit of the public and its use of said airport, it will not hereafter erect or permit the erection or growth of any structure, trees, or other object within or upon said parcel, which lies within the approach area of the 9-27[3] runway to a height above the approach surface. Said approach surface being an inclined plane with a slope of 34:1, i.e. one foot of elevation for each 34 feet of horizontal distance, located directly over the center of said parcel.

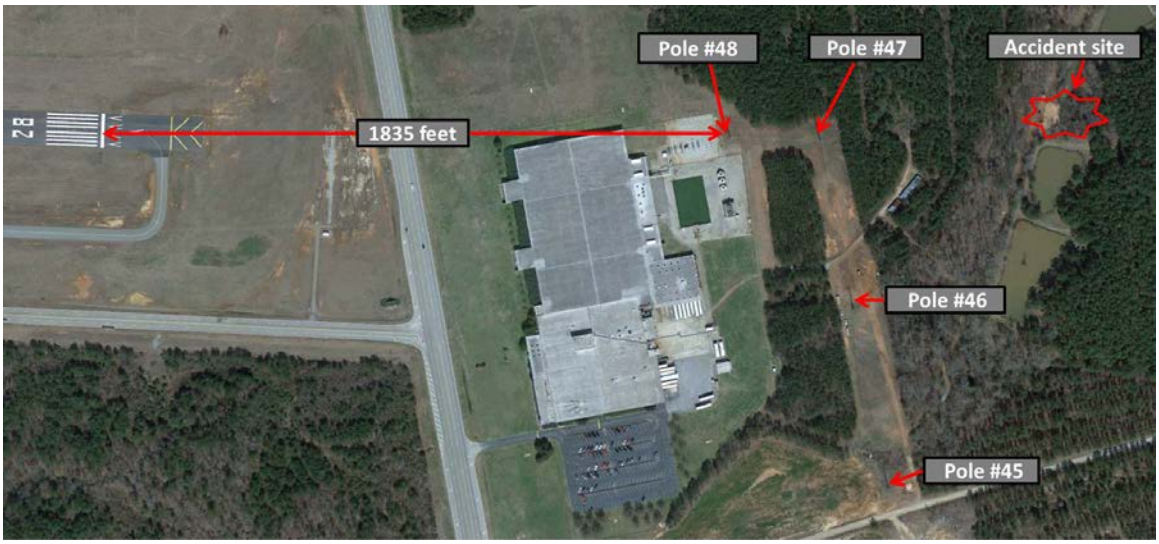
Milliken and Company entered into easement agreements with Georgia Power in May of 1977 and again in August of 1989 in order to grant the right to construct, erect, install, operate, and maintain "poles, wires, transformers, service pedestals, and other necessary apparatus" to supply electrical power to the Milliken Kingsley textile plant.

5.2 Airport Obstructions

During the accident sequence, the airplane struck a concrete electrical transmission pole that was approximately 1835 feet from the runway 28 threshold, and 50 feet left of the extended runway centerline (pole 48, photograph 7). The pole was 72 feet above ground level, and the airplane struck the pole about 58 feet above the ground. The pole was owned and maintained by Georgia Power, a regional utility that supplied electric power to local businesses and residents. Pole 48 was erected on this location in 1989, along with similar poles and electrical transmission

[3] Currently designated as runway 10-28.

lines, to provide electrical power to the Milliken and Company Kingsley textile plant, adjacent to HQU airport.



Photograph 7: HQU runway 10 departure obstructions

14 CFR Part 77 establishes standards for approach surfaces to runways of various types (figure 3), and also, the requirement to provide notice to the FAA of any proposed construction or alteration of existing structures that may affect the National Airspace System (NAS). FAA Advisory Circular (AC) 70-7460-1K *Obstruction Marking and Lighting*, provides guidance on compliance with 14 CFR Part 77, and procedures for notifying FAA of proposed construction or alteration. Specifically, notification is to be accomplished by submission of a Notice of Proposed Construction or Alteration Form (FAA Form 7460-1). Upon receipt of Form 7460-1, the FAA will conduct an aeronautical study to determine the effects of the construction or alteration on navigable airspace. Then, the FAA will make a determination as to whether or not the construction or alteration constitutes a hazard to air navigation.

OBSTRUCTION IDENTIFICATION SURFACES
FEDERAL AVIATION REGULATIONS PART 77

DIM	ITEM	DIMENSIONAL STANDARDS (FEET)					
		VISUAL RUNWAY		NON - PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
		A	B	A	B		
					C	D	
A	WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END	250	500	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000	10,000
		VISUAL APPROACH		NON - PRECISION INSTRUMENT APPROACH			PRECISION INSTRUMENT APPROACH
				A	B		
		A	B		C	D	
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	3,500	4,000	16,000
D	APPROACH SURFACE LENGTH	5,000	5,000	5,000	10,000	10,000	*
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1	*

- A - UTILITY RUNWAYS
- B - RUNWAYS LARGER THAN UTILITY
- C - VISIBILITY MINIMUMS GREATER THAN 3/4 MILE
- D - VISIBILITY MINIMUMS AS LOW AS 3/4 MILE
- * - PRECISION INSTRUMENT APPROACH SLOPE IS 50:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET

Figure 5: FAR Part 77 approach surfaces[4]

Georgia Power did not notify FAA prior to construction of the transmission poles in 1989, therefore FAA had no knowledge of the poles as potential obstructions. Accordingly, there were no depictions or mention of possible obstructions on associated aeronautical charts.

Following the accident, Georgia Power submitted FAA Forms 7460-1 for four transmission poles east of the airport, including the pole that was struck. The FAA conducted aeronautical studies on the poles, and on May 31, 2013, issued initial findings from the studies.[5] The results were:

Aeronautical Study No. 2013-ASO-2387-OE
Transmission Line Structure 45
99 feet AGL (583 feet above mean sea level (AMSL))

** NOTICE OF PRESUMED HAZARD **

Initial findings of this study indicate that the structure as described exceeds obstruction standards and/or would have an adverse physical or electromagnetic interference effect upon navigable airspace or air navigation facilities. Pending

[4] Source: http://www.ngs.noaa.gov/AERO/oisspec.html

[5] Information regarding the status of the aeronautical studies pertaining to these four obstructions can be found at https://oeaaa.faa.gov/. Reference Signature Control No. 186989508-190828616.

resolution of the issues described below, the structure is presumed to be a hazard to air navigation.

If the structure were reduced in height so as not to exceed 71 feet …above ground level, it would not exceed obstruction standards, and a favorable determination could subsequently be issued.

To pursue a favorable determination at the originally submitted height, further study would be necessary… If you would like the FAA to conduct further study, you must make the request within 60 days of the date of this letter.

Aeronautical Study No. 2013-ASO-2386-OE
Transmission Line Structure 46
99 feet AGL (588 feet above mean sea level (AMSL))

** NOTICE OF PRESUMED HAZARD **

Initial findings of this study indicate that the structure as described exceeds obstruction standards and/or would have an adverse physical or electromagnetic interference effect upon navigable airspace or air navigation facilities. Pending resolution of the issues described below, the structure is presumed to be a hazard to air navigation.

If the structure were reduced in height so as not to exceed 62 feet …above ground level, it would not exceed obstruction standards, and a favorable determination could subsequently be issued.

To pursue a favorable determination at the originally submitted height, further study would be necessary… If you would like the FAA to conduct further study, you must make the request within 60 days of the date of this letter.

Aeronautical Study No. 2013-ASO-2385-OE
Transmission Line Structure 47
89 feet AGL (579 feet above mean sea level (AMSL))

** NOTICE OF PRESUMED HAZARD **

Initial findings of this study indicate that the structure as described exceeds obstruction standards and/or would have an adverse physical or electromagnetic interference effect upon navigable airspace or air navigation facilities. Pending resolution of the issues described below, the structure is presumed to be a hazard to air navigation.

If the structure were reduced in height so as not to exceed 58 feet …above ground level, it would not exceed obstruction standards, and a favorable determination could subsequently be issued.

To pursue a favorable determination at the originally submitted height, further study would be necessary… If you would like the FAA to conduct further study, you must make the request within 60 days of the date of this letter.

Any height exceeding 87 feet … above ground level will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

Aeronautical Study No. 2013-ASO-2383-OE
Transmission Line Structure 48
72 feet AGL (567 feet above mean sea level (AMSL))

** NOTICE OF PRESUMED HAZARD **

Initial findings of this study indicate that the structure as described exceeds obstruction standards and/or would have an adverse physical or electromagnetic interference effect upon navigable airspace or air navigation facilities. Pending resolution of the issues described below, the structure is presumed to be a hazard to air navigation.

If the structure were reduced in height so as not to exceed 46 feet …above ground level, it would not exceed obstruction standards, and a favorable determination could subsequently be issued.

To pursue a favorable determination at the originally submitted height, further study would be necessary… If you would like the FAA to conduct further study, you must make the request within 60 days of the date of this letter.

After the preliminary obstruction determinations were issued, Georgia Power requested that the FAA conduct further study on the four obstructions to determine if a favorable determination could be achieved. On August 12, 2013, the FAA published public notices announcing the four aeronautical studies, and invited interested parties to submit relevant comments prior to September 18, 2013.

According to an FAA official, the final determinations for the four obstructions were not completed at the time of this report.

6.0 Emergency Response[6]

Captain Kevin Perry was in the McDuffie County Fire Station #2 at Thomson McDuffie airport when the accident airplane attempted to land. He heard the airplane continue past the station to the east. He moved to the entrance door and witnessed the airplane hit the power pole behind the Milliken textile plant on Washington Road. Captain Perry dispatched himself in an E-One pump truck and radioed the Sheriff's dispatcher as he left the station.

[6] Summary of events taken from firefighter interviews – attachments 5 and 6.

Firefighter Jimmy Williams was driving northbound on Washington Road near the I-20 overpass when he noticed a blue flash north of town followed by the street lights going out. He continued north until he noticed the flashing lights of Deputy Travis Whitaker's patrol car and turned east on Edmonds Road toward the crash site. Firefighter Williams drove his 4X4 truck to the crash site while Deputy Whitaker walked through the woods. While assessing the area they found two survivors, one walking wounded and one strapped in an airplane seat. The walking wounded survivor was ground transported to the hospital while the other survivor was airlifted. Captain Perry staged the E-One pump truck southwest of the crash site and supplied firefighters hand extinguishers to contain the fire at the crash site.

6.1 Response Time Line

McDuffie County Sheriff's Office
911Call Log for Feb 20-21, 2013

Dispatched	Vehicle	Arrival Time	Driver
20:12:30	Deputy - Mobil #19	20:12:32	Deputy Travis Whitaker
20:12:43	Engine #2 Airport	20:22:29	Captain Kevin Perry
20:12:44	Engine #6 Stage Coach	20:22:26	Unknown
20:12:44	Rescue #2 Airport	20:34:17	Unknown
20:25:12	Sheriff Marshall - Mobil	20:40:29	Sheriff Logan Marshall
20:44:15	Deputy Mobil #4	20:44:15	Deputy Ronnie Williamson

LifeNet Air Medical Transport

Dispatched	Vehicle	Arrival Time	Pilot	Dep	Arr
20:27:58	Initial Call				
20:40:13	GA Life Star #2 N350GR	21:24:17	Anas Bashir	Vidalia	HQU
21:36:10	GA Life Star #2 N350GR	21:51:45	Anas Bashir	HQU	Medical Ctr

Figure 6 – Response Times

6.2 Firefighter Interviews

Captain Kevin Perry (attachment 5) and firefighter Jimmy Williams (attachment 6) were interviewed on February 23, 2013 by Mark George, NTSB, and Peter Wentz, NTSB.

6.3 Sherriff's Office Interviews

Deputy Clay Hammond (attachment 7) was interviewed on June 26, 2013 by Mark George, NTSB and Peter Wentz, NTSB.

E. LIST OF ATTACHMENTS

Attachment 1: Precision Approach, LLC Correspondence
Attachment 2: FAA form 8240.5 Flight Inspection
Attachment 3: 2010 GDOT Inspection
Attachment 4: 2012 GDOT Inspection
Attachment 5: Captain Kevin Perry interview summary
Attachment 6: Firefighter Jimmy Williams interview summary
Attachment 7: Deputy Clay Hammond interview summary

Submitted by:

_____ _____

Peter Wentz
Air Safety Investigator
6 February, 2014.