NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety Washington, D.C. 20594

March 5, 1997

Factual Report

WITNESS GROUP

DCA97MA017

A. ACCIDENT

Operator:

COMAIR, Inc.

Location:

Monroe, Michigan

Date:

January 9, 1997

Time:

1554 Eastern Standard Time (EST)¹

Airplane:

EMB-120RT, N265CA Serial Number 257

B. WITNESS GROUP

W. Mitch Robbins

Group Chairman

NTSB NCR-A

Jerry King

Group Member

Airline Pilots Association

Brian J. Schimp

Group Member

Comair Airlines Inc.

1.0.

¹ All times are Eastern Standard Time based on a 24-hour clock, unless otherwise noted. Actual time of accident is approximate, determined by the Flight Data Recorder (FDR) and Air Traffic Control (ATC) transcript.

C. SUMMARY

On January 9, 1997, COMAIR flight 3272, an Embraer EMB-120RT, N265CA, crashed while being vectored for approach to runway 3R at Detroit Metro Wayne County Airport (DTW). The flight was operated under 14 Code of Federal Regulations (CFR) Part 135 and carried 26 passengers and 3 crew members. The airplane was destroyed by impact forces and a post crash fire. There were no survivors. Instrument meteorological conditions prevailed at the time of the accident.

D. DETAILS OF THE INVESTIGATION

The witness group convened the morning of January 10, 1997, following the NTSB organizational meeting. During a preliminary interview, detectives from the Monroe County Sheriff's Office, Detective Bureau, reported that they had canvassed the neighborhoods surrounding the accident site the evening of the accident. The detectives located, and conducted audio taped interviews with eight witnesses. Copies of the audio tapes were reviewed by the witness group. Six of these eight witnesses were interviewed again by the witness group.

Throughout the on-scene investigation 21 potential witnesses were contacted and interviewed by telephone. Three witnesses reported that they viewed an airplane some distance from the vicinity of the accident site and described airplane characteristics that were not similar to the accident airplane. Seven witnesses were interviewed in person by the witness group at the locations where they reported they had viewed the accident. During each of the personal interviews, an airplane model was used as a visual aide to facilitate the description of flight dynamics.

Seven witnesses reported they were in the vicinity of the accident site and viewed the accident airplane prior to the impact with the terrain. Among these seven, three witnesses reported that they viewed the flight of the airplane for an extended period of time prior to impact and watched it descend to the terrain. Of the other four eyewitnesses, three reported that they had viewed a "flash" or a "glimpse" of the airplane and could not describe exact details regarding the flight path of the airplane. One of the eyewitnesses reported that he viewed the airplane as it descended out of the clouds but did not see it descend to impact.

Several witnesses provided estimates of the altitude of the airplane. The altitudes varied between 300 to 2,000 feet.

The three witnesses who reported that they viewed the accident airplane for an extended period of time were located at unique locations due west, east, and south of the accident site. Two of the witnesses reported that the airplane was initially in a near level flight path. The other reported that the airplane was initially descending at about a 30 degree angle. One reported that it was on an east to northeasterly heading. One reported it over flew the east side of a residence which was located on a course of about 040 degrees with respect to the accident site. Another reported it was on a northerly heading.

Two witnesses reported that the airplane rolled back and forth around the longitudinal axis for several oscillations. One reported that the airplane was rolling to the right around the longitudinal axis for approximately three revolutions. All three reported that the airplane stabilized momentarily in a "normal" flight attitude. Two reported that it appeared to "stop." All three reported that it rapidly pitched down to a near vertical pitch attitude and descended to impact. None of them could describe the final descent in detail.

Among all witnesses, most reported that light snow, blowing snow, low overcast skies, and limited visibility prevailed near the accident site at the time of the accident. One witness reported that "very wet heavy snow" was falling and another witness reported that the sun was "just starting to break through the clouds."

All witnesses reported that they heard the sound of the airplane engines and all eyewitnesses reported that they heard the airplane before they acquired it visually. All witnesses, except for one, reported that the engine sound was steady, or gradually increasing in frequency or volume prior to the sound of the explosion. Several reported that the airplane sounded "very loud," or "louder than normal," and all reported that the airplane sounded like it was at a low altitude. Several witnesses reported that when they first heard the airplane, it sounded like the sound of a snow plow.

The witness group reviewed a copy of the Monroe County Sheriff's dispatch tape (9-1-1 calls) for the time period following the accident. The tape identified no additional witnesses.

1.0 WITNESS LIST

Witness	Type	Location	DOB	Notes
1	Eye witness			
2	Eye witness			
3	Eye witness			
4	Eye witness			
,5	Eye witness			
6	Eye witness			
7	Heard airplane/accident			
8	Heard airplane/accident			
9	Heard airplane/accident			
10	Heard airplane/accident			School bus driver
11	Heard airplane/accident			
12	Heard airplane/accident			
13	Heard airplane/accident			
14	Heard airplane/accident			
15	Heard airplane/accident			
16	Heard airplane/accident			
17	Misc.			Weather report
18	Heard an airplane			8 miles northeast of accident site
19	Saw an airplane	MI Monroe Shopping		8 miles northeast of accident site
20	Saw an airplane	Center Toledo OH		Viewed an airplane from Toledo,
21	Misc.	Portland, OR		Ohio Flew COMAIR flight from LAN- CVG

2.0 WITNESS STATEMENTS

WITNESS: Number One

Interview Date: January 11, 1997, 1130 local

Witness number one reported he was in his driveway, next to his house at was brushing snow off of his car. He saw the accident airplane through the trees to the south/southwest. He reported the airplane was "at 400 to 500 feet rocking side to side." He ran around his garage and saw the airplane impact the terrain. He reported that the impact and explosion were not simultaneous.

He stated that the airplane was in an approximate 30° descent angle, on an east to northeast heading. The witness group provided the witness with a model airplane. He exhibited the model airplane rolling from wings level to a 90° left wing down bank.

He reported the engine noise was extremely loud, as if at "full power."

Witness number one reported the weather was "clearing, the sun just starting to come out." He had gone outside to remove snow from car, anticipating that sun would begin to melt some of the snow.

WITNESS: Number Two

Interview Date: January 11, 1997, 1400 local

Summary of interview with witness number two who was at mumber two was also interviewed by detectives from the Monroe County Sheriff's Office on January 10, 1997.

Witness number two had just gone to the paper box in the street in front of his house to get his afternoon paper. He was walking back to his house when he heard a loud noise. He looked up and saw the accident airplane. He stated that he saw the airplane doing what he described as a "barrel roll." He described the airplane rolling in a clockwise rotation and stated that he observed two to three rolls. The airplane then momentarily resumed "normal" flight, "stopped," and then pitched down to a nose down attitude.

The witness group provided witness number two with an airplane model and asked him to demonstrate to the group what he observed the airplane doing prior to the accident. In his demonstration, he exhibited the airplane in a level flight trajectory while simultaneously in a clockwise roll around the longitudinal axis of the airplane. He then exhibited the airplane momentarily in a level flight attitude. Then he demonstrated the airplane pitching to a nose down, vertical attitude.

WITNESS: Number Three Interview Date: January 11, 1997, 1600 local

Summary of interview with witness number three who was at three was also interviewed by detectives from the Monroe County Sheriff's Office on January 10, 1997.

Witness number three was outside of his house at the time of the accident, working on the east/southeast side of the house. He reported that he could not specifically recall what noise he heard; however, he did know that something alerted his attention to look up. About the same time, the school bus had just dropped off his daughter in the street in front of his house. The bus continued westbound on Dixon Road.

When he looked to the south/southwest he saw the airplane, in what appeared to be just behind or to the right of a tree. He reported the airplane was in a level flight path, and was banking in a "clockwise rotation." It continued in this trajectory, until it was over the middle of his house, approximately due west. He described the location as where the roof-line of the garage joins the roof line of the main part of the house. At this point, the airplane "abruptly stopped" flying and immediately pitched to an extreme nose down angle. From his vantage point, he observed the airplane in this attitude for a brief period of time, then he lost sight of the airplane behind the house. He immediately ran into his house, called for his wife to call 9-1-1 due to the airplane crash and ran to the site to see if he could assist.

Witness number three commented about how he was surprised at how the airplane could change so quickly from a level flight path to the vertical pitch down attitude.

The witness group provided witness number three with an airplane model and asked him to demonstrate what he observed prior to the impact. In his demonstration, he exhibited the airplane in a level trajectory, banking 30° to the right. Using the model, he then exhibited the airplane pitch abruptly nose down, to a vertical attitude.

Witness number three said that he was interested in telling what he saw, in an effort to assist in the investigation.

Summary of interview with witness number four who was at mumber four was also interviewed by detectives from the Monroe County Sheriff's Office on January 10, 1997.

Witness number four was in his back yard, shoveling snow off of his sidewalk. He saw the accident airplane above the pine trees which are located at the rear of his property. He estimated that the airplane was approximately 1,500 to 2,000 feet at the time. He said he did not "know

Witness number four described the airplane as maintaining a level flight trajectory. As the airplane continued, it appeared as though it was going to hit the residence at He repeatedly told the group that he doesn't "know what was wrong...I don't know, but

something wasn't right...he wasn't doing too good."

what was wrong", but he "knew something was wrong" and he described the airplane as "flopping

around."

The witness group provided witness number four with an airplane model and asked him to demonstrate what he observed. He demonstrated the airplane in a level flight trajectory rolling left and right (flopping).

The witness described the weather as light snow. He reported that he was able to see the residence at approximately ½ mile north of his house.

WITNESS: Number Five Interview Date: January 11, 1997, 1600 local

Summary of interview with witness number five who was at Witness number five was also interviewed by detectives from the Monroe County Sheriff's Office on January 10, 1997.

Witness number five had just gotten off of the school bus in the street in front of her house. She was beginning to walk down the driveway toward her house. She heard a noise and looked around to see a "white flash." She described something moving extremely fast, but couldn't really describe what she observed. She said the airplane "appeared to stop" and then subsequently pitched to an extreme nose down attitude.

WITNESS: Number Six

Interview Date: January 11, 1997, 1120 local

Summary of interview with witness number six who was at Witness number six was also interviewed by detectives from the Monroe County Sheriff's Office on January 10, 1997. During the taped interview, she reported that she heard the engines of what she thought was a "low flying aircraft." She said the airplane "nose dived." She said the weather was "pretty bad...snow flurries."

During the interview with the witness group, Ms. Rath said she was standing in her kitchen and was looking out the kitchen window to see if the afternoon paper had arrived. At that time she saw the airplane in a nose down vertical attitude immediately prior to its impact with the terrain. She was not able to differentiate whether she was seeing the top or bottom of the airplane.

The witness group provided witness number six with an airplane model and asked her to demonstrate what she observed. She demonstrated the airplane in a nose down vertical attitude.

WITNESS: Number Seven WITNESS: Number Eight

Witnesses number seven and eight were interviewed by detectives from the Monroe County Sheriff's Office on January 10, 1997. The witnesses reported that they heard the sound of engines and a "big explosion." They did not view the airplane prior to or during the accident.

WITNESS: Number Nine Interview Date: January 11, 1997

A telephone interview was conducted with witness number nine who was at Road. She reported she heard a "tremendous roar." Initially she thought that "it was a road scraper coming down the road, but it was very loud." Very shortly thereafter, she "heard the impact, and an explosion."

WITNESS: Number Ten Interview Date: January 11, 1997

A telephone interview was conducted with witness number ten who was driving a school bus on Dixon Road. She had just dropped off a passenger at and was proceeding westbound. She reported that she did not see the airplane, but she heard a noise that vibrated the bus. She saw a "fireball, which did not last long...followed by black smoke...like tires burning." She was concerned about another explosion, knowing she had children on the bus, she continued westbound on Dixon Road.

WITNESS: Number 11 Interview Date: January 11, 1997

A telephone interview was conducted with witness number 11 who was at She reported that she heard the airplane. It sounded "loud". She heard the airplane noise, then silence, then heard the airplane again, "like another airplane... as though they restarted the engine."

WITNESS: Number 12 Interview Date: January 11, 1997

A telephone interview was conducted with witness number 12 who was at She reported that she did not actually see the airplane. She heard the sound and felt the vibration. She reported that the sound was increasing in intensity and she believed that engines had been shut down. Based on the sound, she thought that the airplane was circling. She reported that she was accustomed to airplanes flying overhead inbound to Detroit Metro Airport; however, she believed that this airplane was off-course.

Witness number 12 reported that it had just stopped snowing and that it was windy. She advised that she recalled that it was at approximately 1550 local time.

WITNESS: Number 13 Interview Date: January 13, 1997

WITNESS: Number 14

Summary of interview with witnesses number 13 and 14 who were at

During a telephone interview with witness number 14, she stated that on the day of the accident, they had just finished eating supper. She noted that she had just seen a school bus pass. She and her husband were discussing whether it had stopped snowing, and recalled that it was "more like rain...with bunches of snow in it." She was near the kitchen when she heard the airplane. She reported "he was pouring the coal to it" and that it shook the kitchen. She "thought that it was going to hit the house...wanted to lay on the floor." Her husband opened the dining room door, looked out but was not able to see the airplane "because it was overcast...cloudy with rain and snow was coming down." She said that it was about 1545. She did not know about the accident until the evening news. She spoke with her daughter about what they witnessed and at the urging of her daughter, she decided to call with this information.

The witness group conducted a personal interview with witnesses 13 and 14 at their residence. They reported that it was not unusual to hear airplane noise from their house, but this airplane was "very loud." Witness number 13 went out onto his back deck, but due to the "low ceilings", he did not see the airplane. He described the noise as "like it was overloaded." He described it as "an engine out of control...couldn't shut it down...like an engine was going too fast."

Witness number 13 reported that it sounded like the airplane was proceeding to the northeast and estimated that he could hear the sound for two to three minutes. The residence is located approximately 8 miles to the southwest of the accident site.

WITNESS: Number 15

Witness number 15 was interviewed by detectives from the Monroe County Sheriff's Office on January 10, 1997. The witness reported that he was in his house and he heard "engines revving. It sounded like they were over the house, and it got louder, louder, and louder, and then when it hit the ground it shook the house like a quarry bombing..." He did not view the airplane prior to or during the accident.

WITNESS: Number 16	Interview Date:	January 11,	1997,	1130 local
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Witness number 16 was in the bedroom of her house at She was expecting delivery of a UPS package. She heard a noise that she "thought was the UPS truck with a bad muffler." She heard and felt the sound of the impact and ran to the front window of the house, "thinking that the truck had run into the house." Her husband in turn ran into the house, grabbed his car keys and went to the accident site.

WITNESS: Number 20

Interview Date: January 11, 1997, 1435 local

Witness number 20 called with a report of a low flying airplane. His house is located to the northeast of He reported that an airplane, a twin-engine commuter type, flew over his house from west to east at an extremely low altitude. He described the engine noise as "wide-open." He stated that the airplane then made an extremely hard right hand turn to the south, at what he estimated as 45 degrees of bank. Approximately 20 seconds later, the airplane once again passed over his house on a northerly heading at a high speed.

The witness called back on the evening of 1-12-97 and reported that in addition to his previous account, that the airplane was climbing as it turned to the south.

WITNESS: Number 21 Interview Date: January 11, 1997

A telephone interview was conducted with witness number 21, who resides in Portland, Oregon. In the interview, the witness stated concern involving a previous flight on a COMAIR airplane, from Lansing, Michigan to Cincinnati, Ohio. He was concerned that the airplane was de-iced prior to departure. Expressed concern that "he did not think that these airplanes could fly in icing conditions."

3.0 Plot map of selected witness locations at time of sighting.

