Vol. 30 No. 2

Vol. 30 No. 3

For Everyone Concerned with the Safety of Flight

March-April 1995 May-June 1995

SPECIAL DOUBLE ISSUE

Sudden Impact — A Flight Attendant's Story of Courage and Survival

Passengers and flight attendants on USAir Flight 1016 were buckled in their seats for a landing when a routine flight turned to tragedy. Flight attendant Richard DeMary survived the terrifying crash and went on to risk his life to save fellow crew members and passengers.

Editorial Staff with Richard DeMary USAir Flight Attendant

On July 2, 1994, about 1843 Eastern Daylight Time during instrument meteorological conditions, a Douglas DC-9-31, operated by USAir Inc. as Flight 1016, collided with trees and a private residence near the Charlotte/Douglas International Airport, Charlotte, North Carolina, U.S., shortly after the flight crew executed a missed approach from the instrument landing system approach to Runway 18R. The captain and one flight attendant received minor injuries. The first officer, two flight attendants and 15 passengers sustained serious injuries. The remaining 37 passengers received fatal injuries. The airplane was destroyed by impact forces and a postcrash fire.

The U.S. National Transportation Safety Board (NTSB) determined that the probable causes of the accident were the flight crew's decision to continue an approach into severe convective activity that was conducive to a microburst; the flight crew's failure to recognize a wind shear situation in a timely manner; the flight crew's failure to establish and maintain the proper airplane altitude and thrust setting necessary to escape the wind shear; and the lack of real-time adverse weather and wind-shear hazard information dissemination from air traffic control, all of which led to an encounter with and failure to escape from a microburst-induced

wind shear that was produced by a rapidly developing thunderstorm located at the approach end of Runway 18R. ¹

Contributing to the accident were the lack of air traffic control procedures that would have required the controller to display and issue radar weather information to the pilots; the Charlotte tower supervisor's failure to properly advise and ensure that all controllers were aware of and reporting the reduction in visibility and the runway visual range (RVR) value information, and the low-level wind-shear alerts that had occurred in multiple quadrants; the inadequate remedial actions by USAir to ensure adherence to standard operating procedures; and the inadequate software logic in the airplane's wind-shear warning system that did not provide an alert upon entry into the wind shear.

Richard DeMary, the 32-year-old lead flight attendant aboard Flight 1016, discussed his recollection of the accident and its aftermath during a 28,000 word interview with Flight Safety Foundation's editorial staff. DeMary was the 1994 recipient of the Flight Safety Foundation's Heroism Award, 1994 Aviation Week & Space Technology's Laurel and other recognitions of his actions.

Excerpts from the FSF interview with DeMary follow.

I had a 9:30 [a.m.] check-in on Saturday and our first departure was [from Pittsburgh, Pennsylvania, U.S.,] at 10:30 [a.m.]. We went to LaGuardia, [New York.] It was a DC-9 trip and we were going to be home the third day around noon. I was flying the lead position, so I held a briefing with the other flight attendants.

I asked questions and we talked about the emergency exits that we were each responsible for as flight attendants. We have what's called a 30-second review. Just prior to landing or taking off, we think about, "What is my emergency exit? What do I do if my exit is blocked? Which way does the handle rotate? What are my actions at the usable exits? What is my command or what is my brace signal? What is the brace position?" We went over those and simple things like service flow — who's going to be responsible for what aspects of the service. Designating duty, that's basically what my briefing was about.

The captain came out and he had a standard briefing with the flight attendants and we just basically talked about his requirements for entering the cockpit — if there were any problems we could go up to the cockpit.

First of all, he emphasized that we are a team. There's no separation between cockpit and the cabin. He emphasized that our problems are his problems, so to speak, that if there's anything that we need never hesitate to come up and speak with him about it, and by him doing that, it kind of set the tone for the [cabin] crew and the cockpit [crew], the entire crew. It started everything positively.

I had never flown with him before. By coming out and initiating the briefing and

giving his feelings on things, he gave us confidence. It was a starting point as far as our relationship with the captain. It was good. I think he was very professional and was looking out for his crew as well as the passengers.

Pittsburgh was the first leg of the day. Pittsburgh to LaGuardia. We boarded the airplane. It was a full flight and it was just business as usual. We got to LaGuardia and we grabbed something to eat.

Then we flew to Charlotte where we had a couple of hours on the ground. We went to the crew room and we all checked things on the computer, the things that normal crews do when they have a break [between flights] like that. Some people may have put their bids in for the following month, maybe checking their hours, what this trip was worth, things like that.

Then we flew to Columbia, [South Carolina,] and it was just a normal flight. We had maybe 50 or 60 people. Everything was normal. It was a good day. We got into Columbia and we cleaned the airplane, helped the customer service agents pick up newspapers and fold seatbelts, those things that we do as flight attendants, and the cockpit crew helped and I think they

also went out and got something to eat real quick. I think they were a little bit hungry.

We had two more legs to do. We were going to Charlotte, then on to Memphis, [Tennessee,] and that [would be] the end of our first day.

[En route to Charlotte] we had cleared the cabin, meaning that we had picked up the trash, did the arrival announcements. Probably the first hint of trouble was when the crew initiated the go-around. There was a lot of rain and we could not only see the rain, but hear the rain. That wasn't a sign of trouble, but it was something that caught my attention and then the go-around. I had been in go-arounds before but this one just didn't seem normal. We weren't going anywhere. We didn't feel like we were climbing. I remember the sinking sensation of falling and knowing we were in a go-around.

As you enter the airplane through the forward passenger entry door, the jump seat is immediately to your left and I'm sitting by the door and Shelley Markwith [another flight attendant] is

When we started feeling

that sinking feeling,

I had taken my seatbelt

and given it just a little

extra tug just to be

sure it was as tight as

it could be.

sitting to my left. We're both facing toward the back of the airplane. [The flight attendants' seats are against the cockpit wall.]

When we started feeling that sinking feeling, I had taken my seatbelt and given it just a little extra tug just to be sure it was as tight as it could be. When I gave it that little bit of extra tug, it moved the buckle from the center position to my left hip.

Fortunately, we were both in the jump-seat position — the proper jump-seat position is feet flat on the floor, hands under our

legs, sitting straight up with the backs of our heads against the padding on the backs of the jump seats.

I had a partition right in front of me — a bulkhead. It restricted my vision to the cabin, but I think in Shelley's position you could actually see towards the back of the airplane. Karen Forcht [the remaining flight attendant of the three cabin crew] was in the very back of the airplane on the aft jump seat, facing forward.

'Sinking Sensation' Precedes Crash

Probably the first real sign of trouble then was this sinking sensation, knowing that this is just not right, and then hearing — knowing we were off the airport and hearing "terrain! terrain!" [A warning from a system in the cockpit.]

Hearing that, and then [followed] almost immediately [by] the impact, and fortunately or unfortunately, you know, being conscious through the whole thing, the whole crashing process began.



The tail section of Flight 1016 lodged in the carport of a house. The nose section is in the lower left. A third section of the fuselage is not visible. (Source: Pamela Wehner/U.S. National Transportation Safety Board.)

It happened so fast. Initially it was disbelief and then just the terrifying feeling that we're crashing.

Aircraft Breaks Apart After Impact with Trees

My recollection was that there were two impacts. You know, some people say there were three, but I remember two. The first impact with the ground, the sound of trees breaking, at that point knowing we were crashing — just the force of the impact was extremely violent, almost takes your breath away when you're crashing like that. Then immediately after the first impact, the second [and] most violent impact, to me, is when I think we hit a tree. The airplane hit a tree, basically peeled back the airplane, one side of the airplane — broke the airplane apart into three sections. The nose section, with a few passenger seats, went off to the left.

I was in that section. The nose section. One part of the airplane, and I believe it was the center part of the airplane, from the first class seats back to just past the emergency exit rows, I believe — I don't know if this is proper to say — but it basically

wrapped around a tree because that's what happened. We hit a tree and it broke off and then the tail section proceeded to go into [the carport area of a house].

I remember just after we hit the tree, the feeling of the rain hitting us, the wind, the noise, because we were in a darkened, enclosed cabin as we were coming in to land and then all of a sudden we were opened up to all of the elements and I remember feeling the rain hit me and the noise — screeching of metal, hearing the rain hitting the airplane, feeling it hit me — and it happened so fast that I guess I've never really had the opportunity to sit down and think about all the different sounds, but just noise. Probably the loudness came from the scratching of the airplane on the ground and on the pavement because the section I was in actually slid down a street.

I don't remember hearing people. I don't remember that now, whether or not I ever will, I don't know.

I don't remember the wind, but I do remember the rain and I remember having jet fuel on me. Where it came from, I don't know, from maybe puddles of jet fuel around or a spray of jet



The nose of Flight 1016 sheared off on impact with trees and skidded down a residential street. Another section of the fuselage is behind the nose section. (Source: Allan M. Pollock/U.S. National Transportation Safety Board.)

fuel or something. I'm not sure. But really, nothing came to mind immediately other than I couldn't open my door and there was no reason to open my door. I was in the open.

There was no cabin there. There were a few rows of seats on the nose section of the airplane that I was in, but the airplane had actually broken apart and bent.

I remember not seeing anything, sitting in my jump seat, not seeing anything once the airplane came to a stop, and at that point knowing we were in a crash, knowing that it's time to get out, it's time to evacuate and I immediately went for my seatbelt, [and] started yelling, "Release seatbelts and get out! Release seatbelts and get out!" which is the first command that we would yell upon coming to a [stop], and at that point Shelley was trying — was yelling her commands, "Release seatbelts and get out," and trying to get her seatbelt [unbuckled]. I had to actually just look down to find my seatbelt. Instead of it being instinctively just right there in the center where it always is, it was on the side of my left hip.

[The nose section] is sitting nose-low, right-hand nose-low, so it's sitting at quite an angle. I was sitting probably at a 15-or 20-degree angle because it was like I was actually leaning on Shelley. I stood up and I had to kick my feet free from debris. As I stood up, I believe I saw the captain crawl out of the cockpit, through the cockpit door.

Because of Shelley's injury she couldn't do anything. She had shattered her knee cap and I think she had a cut to her bone on her thigh, and she had some burns and she — she couldn't even crawl.

Injured Flight Attendant Carried to Safety

I had no conversation with Shelley. The only thing that she said was, "I can't get out!" And I believe that's what she said, or that she needed assistance. Shelley was having some difficulty getting herself unbuckled, so I unbuckled her seatbelt, bear-hugged her, grabbed her and picked her up. She couldn't stand because her leg was severely injured and she really couldn't do anything to evacuate herself. So I grabbed her and just carried her and stepped off to the street — five feet away from the airplane she fell again, and then I grabbed her wrists and just dragged her away, just trying to get her to a safe distance away from the airplane.

My duty was to help the first person who couldn't help [himself] and so I helped Shelley away from the airplane and that was my focus at that point, just getting her away, just getting her away from the airplane. I knew if the captain was out he would have helped the first officer. I didn't see the first officer, but I guess [the captain] did help him out

and helped him away. The first officer broke his leg and had some head injuries.

Then, the awareness of being in the accident, that now, I have survived, that I have to do something became full force. It became very important for me to help anybody that I could help, not only to help but to search, to find people, and I couldn't wait for them to come to me. I had to go find somebody. I was completely disoriented as far as where the rest of the airplane was. At that point, the thought crossed my mind that we were the only ones who survived.

[Fires were] bad enough that I could feel the heat, so that I knew that we had to get away or the people that were too injured to do anything [to escape] had to get away from [the heat]. It was — it was hot. A lot of fires were spotted around the area, a lot of small fires, and then I remember the smoke and feeling the flames and seeing the flames over quite a large area which turned out later to be by the tail cone, the back of the airplane. There was a lot of fire. [The nose section] broke off and came to a stop in the street, just to the left of a house — in front of the house.

I helped Shelley away into a grassy little area of yard [in front of the house that the aircraft tail section struck] and I was confident that she was safe at that point. But after helping Shelley and feeling so disoriented — you can't train for every possible scenario — I had no airplane. There was just nothing there. Then, I immediately started going to where I thought the back of the airplane should be.

I [suddenly realized] that, "Oh, my God, this is a residential neighborhood!" Because I saw the houses, I saw the trees, I saw the street, the sidewalk, and I think I immediately thought, "What are we doing here? This is not right!" Because I always thought, "Well, it's reality that we might crash sometime," but I never thought it would be into a house or into a residential neighborhood. I mean, we were in somebody's yard.

At that point I took off my tie. I don't have [a] memory of little bits of what I did. It's my understanding there was a lot of fire and possibly a lot of bodies, you know, my mind just doesn't want me to have it right now. But I remember ending up by the tail section and it was very quiet. I didn't hear anybody, didn't see anybody. There was a break in the airplane,



A view from the rear of the destroyed nose section and of the area where flight attendants DeMary and Markwith were seated (marked by the arrow) at the time of the crash. (Source: Alan M. Pollack/U.S. National Transportation Safety Board.)

a break in the fuselage, and at that point, I thought, "Well, I have to do something!" and I started yelling my commands. I thought, "Well, it's a starting point. If [people are] in shock, if they hear, 'Release seatbelts and get out!' it's going to give them the starting point!" so I started yelling, "Release seatbelts and get out! Release seatbelts and get out!" I'm continuously yelling it, as I'm walking, as I'm looking for somebody, looking.

I didn't actually go in [the aircraft. I was] right beside it, right next to the engine. There was just a small break in the right side of the fuselage. That side [of the fuselage] was fairly intact.

I had really given up at one point. I thought, "Well, there's probably nobody that survived — that survived the impact," but I remained. I continued to have faith that somebody might have survived — you know, somebody might be in there. I remember how hot it was. The fire was tremendously hot.

Woman and Infant Pulled from Smoke-filled Cabin

Then a woman appeared at that break with a baby. She was able to get out of her seatbelt and this was probably some time after the accident. It wasn't immediately that she got out. It was — you know, during [the] accident it seemed like an eternity but she came toward my voice.

She didn't say that [she came toward my voice], but it's my understanding the cabin was dark. It was filled with smoke. I can't speak for her, but maybe following my

voice contributed to her being able to find a way out. So anyway, she appeared at that small opening and I reached in and I grabbed the baby.

[She was aware that I was grabbing the baby and we had eye contact.] Oh, yeah, very much so, yeah. Well, I grabbed the baby and grabbed her arm and pulled her, I mean, it wasn't like Shelley. I literally dragged Shelley on the ground, but I'm sure I just grabbed her arm and grabbed the baby and — [she was yelling] "Help me! Help me! Help me!" when she was in the airplane.

There was a small shed in the back yard [behind the house carport, which was struck by the aft fuselage] and I just took them back there to safety.

I went back to the airplane again and I remember thinking how hot it was — I mean, I placed my arm on the engine [cowling] and it just burned all the skin off my — not all the skin, but it severely burned my arm and just the heat of it, the heat of the metal and I remember hearing explosions, small explosions, and I thought, "Well, I have to do what I have to do, but I can't stay here forever!" I was concerned

that I would succumb to the smoke or, you know, the fire or something like that.

It wasn't causing enough problems that I had to leave just because of the smoke. It was a combination of smoke, fire, heat and the fear that there was going to be another explosion that might take me with it.

But anyway, I did go back and I continued to yell, "Release seatbelts and get out! Release seatbelts and get out!" and another woman appeared. At the same opening. And that was some time — I mean that was some time after, you know, I had gotten the other — the woman and the small child away because — it was enough time for me to get them away, come back and yell a few more times. She appeared at the opening and she was yelling, "I don't want to die! Help me! I don't want to die!" and "I can't find my baby!" I later learned that she was one of the women who had a child, a lap child [a child not restrained by a seatbelt] with her.

[According to the U.S. National Transportation Safety Board (NTSB) there were two lap children aboard the aircraft. One woman was unable to restrain her 9-month-old child during

the impact. The child was thrown forward over three rows of seats and was killed by massive trauma.]

I helped her out of the airplane and she had had some injuries, I think, because she was basically immobile. It took a lot to get her out. The tail of the airplane was on the ground, but the center section was in the air. It was at quite an angle. So the opening was probably chest-high, mid-waist to chest-high.

I was concerned that

I would succumb to the smoke or, you know, the fire or something

massive trauma.]

I helped her out of the airpl had some injuries, I think, I basically immobile. It took out. The tail of the airpla ground, but the center section

like that.

I had to reach up just a little — from what I recall, and so she's yelling, "I don't want to die! I don't want to die! Help me out! I can't find my baby! I can't find my baby!" I literally had to just bear-hug her and pull her out because she was heavy. Anyway, I got her out and got her back to the same place I took the others, to the back of the yard.

You know, she was yelling, "I can't find my baby!" and I went back then, but at that point I didn't think it was probably the — I didn't think it was the best thing to do. What I'm saying, is — I didn't think it was appropriate that I actually go into the airplane and search because of the fire and the smoke and how long it took them to get out.

But I [started] back again after helping that lady out and [I saw a man and woman] from the neighborhood. I asked them just to stay with the passengers [in the backyard] and I went back to the airplane and continued to yell, and there was nobody. There was nobody. And at that point, well, I thought, "I need to get away because it's very hot and I don't want to survive the impact to die in the fire of the secondary explosions!" something like that. And I thought I could be of help somewhere else, possibly.

And one of the things that bothered me, too, is that I did have jet fuel on me. My clothing was flammable and probably more so with jet fuel on me. So I went back around the back side of the house, toward the front, and I saw the [aircraft] captain, and at that point Fire and Rescue still hadn't arrived. I remember hearing the captain say, "She's okay! She's okay!"

I thought he was talking about Shelley, but in reality he was talking about Karen, and then I did see Karen and she had severe burns. She had lost her shoes in the impact and she had severe burns on her arms, hands, face, legs. I believe three people had followed Karen out when she got out.

And at that point, a few other passengers were coming out of the wreckage. Usually, when you think about an accident, you think everybody's going to be going through the same thing. Karen's events of the accident were a little bit different because she was in the back of the airplane that broke apart. She had the impact. She had the debris flying through the cabin. She had the fireball. She had the smoke. So she had a lot of different

elements to contend with. And then probably most importantly, Karen had the element of not having a usable exit. She was able with the assistance, I think, of a couple of passengers to get that back [emergency] door [equipped with only an inflatable slide] open [to] access the tail cone and found it unusable, immediately closed [the door]. That's where the fire was. There was smoke in there.

There were no rear doors in the [sides of the] airplane, just that tail-cone exit through that rear door in the back of the airplane. And at that point, she had to make a decision to go to her secondary exit which in that position on that airplane are the window exits or first available way out through a crack in the fuselage, a hole, whatever.

There was a triage area forming, basically, to the left of the house. So there was no sense in me staying with the people that were, I guess, okay. I went back towards the front of the house and I remember seeing a kid from the neighborhood, this 13- or 14-year-old kid, and I said, "Is anybody at home? Is anybody in the house?" And he said he didn't know, so I thought, "Okay, the next thing to do is to go into the house because the airplane was too hot, there was too much fire and I wasn't going to go inside the airplane."

I'm talking to that young kid in front of the house and I thought, "Well, if anybody's home, we need to see about them!" So I went to the front door and just as I was running to the front door, a passenger crawled out of the wreckage who said, "Somebody's in the garage!"

I thought, well, you know, "There are people home! There is somebody there who needs some help!" There were cars within the wreckage, from the driveway, so I went to open up the front

door and I thought, because it was locked, there's probably nobody home. So I kicked in the front door and just looked to the left a little bit and the [aircraft] captain followed me in and I think the young boy from the neighborhood followed me in. There didn't appear to be any damage to the left inside of the house.

Then I looked right and I saw the living room area or the dining room area with a set table. I remember seeing the mats on the table and then I looked and I saw the door that entered into the garage. It was actually just a carport, and it opened to the inside and then there was a [storm] door and it opened to the outside. I couldn't open up that [storm] door because of the debris within the garage area and — so then I just busted out the glass of the [storm] door.

Passenger Found Trapped Amid Aircraft and House Debris

And then I heard a voice [in the carport], and then I started

just speaking with the guy, yelling to him. He was yelling, "Help me! I can't breathe!" And I was yelling back to him, "Cover your mouth if you have anything to cover your mouth with and breathe through that!" And he was yelling back, "I don't have anything to cover my mouth with!" I couldn't see him because the smoke was very heavy.

It was kind of — it was a grayish smell of, like, plastic burning, just very heavy. I couldn't even breathe it in, and I was getting good air [from inside the house] with that bad air [in the carport] and I found it difficult to breathe.

There was so much debris and I remember one of the main-wheel tires was standing right there next to the house, just within

the debris, and I couldn't see the guy, I couldn't really make out anything in that area, and I yelled for him to cover his mouth if he had anything to cover his mouth with and he said he didn't, and then I shouted for him to stay calm, try to relax, breathe slowly, just to stay calm, that help was on its way. At that point I heard the fire trucks arriving. I said [to the man in the carport], "Somebody's here to help!"

I ran back out to tell [rescuers] that somebody was in that carport area. The fire trucks couldn't get in because we did crash in a residential neighborhood [and the aircraft] sheared some telephone poles. Myself and another guy moved the telephone poles so that [the fire trucks] could get out, or get back in to a closer area, and I told them that there was somebody in [the carport]. The gentleman did survive. He was a passenger.

It turned out that [the residents weren't home]. They had left for the holiday [Fourth of July] weekend.



Investigators sift through the wreckage of Flight 1016's tail section, which lodged in the carport of a house. (Source: Pamela Wehner/ U.S. National Transportation Safety Board.)

So fire and rescue trucks were arriving. [I] helped [the firefighters] pull out some hose [from a fire truck] and then was asked to get away. I was told, well, you know, "Your job's done. Just get away." And, also, you know, I didn't have my tie on and this — this is one thing that may have been of some importance, but — because I had a white shirt on, my white work shirt and my blue pants, my uniform basically — taking off my tie there was no way to identify me as a crew member, and I remember one guy yelling to me, "Well, who the hell are you?" And you know, I'm just somebody trying to help. Anyway, at that point, my job was done.

A little bit later Karen [and I] started going back to the wreckage to see if there was anything we could do and [we were] told to "get away." We went back to the triage area because fire and rescue [personnel] were arriving and, you know, certainly they're the professionals.

We talked to the captain just a little bit because we — he tried to assemble everybody and tried to have Karen and I sit down and stuff — to relax, to remain calm. We asked him what happened. He really didn't know. We all agreed, though, it was just like a feeling of the rug being pulled out from under us.

But we knew that we were being taken care of because there were enough people there to take care of the passengers — qualified experts. So [our] worries [about our] passengers — Are they being taken care of? — [were] eliminated by having the Fire and Rescue there. So that was a burden off us. I think as crew members, we carry a certain amount of responsibility and a certain amount of burden to care for our passengers. And I think all crew members from our flight did. We took that upon ourselves to carry the weight until Fire and Rescue arrived.

I can't say enough about the people from the neighborhood. They all went into action like they were trained for it. They were just good-hearted, caring, and they just wanted to help and they were wonderful. Like, for instance, the woman with baby had somebody [from the neighborhood] with the baby and somebody [from the neighborhood] with the woman. They were trying to keep people conscious and just trying to help where they could. But anyway, at that point we really didn't do much except give people water if they needed water. Fire and Rescue brought [the water]. [We] helped pour some solution over people's burns to cool them, to help to cleanse them.

So we're sitting there and they're starting to take people away in helicopters and in ambulances, and we knew that we were going to be taken care of, that we were thankful that we survived. I think we all thank God that we survived. You know, we all said a prayer for the people that passed away. I know that I did. And for the people that survived, and for us.

It was very sad. I can say that — because we knew that there were people who had died because we did see bodies — people that didn't survive the impact. A feeling of sadness. A feeling of disbelief that we were actually in an accident like that. But at that point, you know, the reality had set in. [I remember] thinking, "What are we gonna do next?" You know, there were so many things. I thought about my family. I thanked God that he allowed me to survive. I was thinking, "Why did I survive when so many others didn't?" I think probably the greatest feeling, though, was of sadness for the people who lost their lives.

I remember Karen and I were probably the last ones to leave as far as passengers and crew members. Karen — I can't say enough about her. She kept refusing medical attention saying, "Well, there are people here that need you worse than I do!" And, of course, Shelley's injuries were quite severe. And she needed medical attention. So they took her and the captain [and] the first officer immediately — not immediately — [rescue personnel] assigned importance to

[rescue personnel] assigned importance to the injuries. They left fairly soon because of broken bones and open wounds.

I believe whatever impacted Shelley's knee and leg hit the top of my foot and it didn't break my skin because [my shoe] prevented it from penetrating and cutting my skin, but the impact was great enough that it severed

the nerves in my foot. So my leg was swelling up and of course I had burns on my arm.

I still have some deadness to my foot that they say should — the nerves should grow back fully and [I] shouldn't have much problem with it in the future. I still have some problems with it but it's okay. It's all right.

It seemed [that I was at the accident site] for quite a while. I don't know but I would say at least 45 minutes, an hour possibly. It was a long time. It was quite a while.

[Karen and I] were transported by land in ambulances. They were going to separate us [but] Karen and I were adamant that we remain together. We did end up in separate hospitals from the captain, the first officer and Shelley. Karen's injuries were bad enough that she didn't want to be left alone which is, I think, completely understandable. We were transported with a young boy. He was an unaccompanied minor who was traveling by himself. I think he was 10 or 11, something like that.

We went to the hospital and I had some x-rays and got my burns cleaned up. And I was actually released from the hospital that night. Because of Karen's injuries and I guess because of the trauma of the accident, I elected to stay at the hospital. And rather than sitting alone, I figured if I was needed, if I needed something in the hospital, that it would be there. I called my mom while I was waiting and I called Karen's mom because I know her. And I just wanted them to hear from me that we're okay. There's always a possibility of hearing the wrong information or incomplete information.

My parents were upset. It's — when I called them, they had already known about the accident when I called them.

A girl by the name of Kathy Foster, a flight attendant from the Charlotte EAP [USAir Employee Assistance Plan] was there and sat with me, gave me the reassurance that if there was anything I needed or if I needed to talk she would be there for me. And I think that was important. So I stayed up a little and talked to her.

Difficult, Troubled Night Follows Crash

It was a — it was a very long night that first night. It was very long.

It was a — it was a very

long night that first

night. It was very long.

And I felt because of my personality I just wanted to be left alone, you know, I just — I wanted to think, to contemplate and to think about the events and, you know, there were certainly other things.

We were drug tested that night. I had no problem [with taking the test]. It's part of our job [to be tested], part of our

responsibilities and our commitment to being crew members.

I think I stayed up until five in the morning and was able to get a couple hours sleep through medication. I mean, you know, they gave me something just to help me fall asleep and just to relax and rest.

The first day following the accident — because I was the lead flight attendant — I knew that I was going to have to be responsible for certain things or certain questions. So I grabbed a pen and a pad and wrote down everything that I remembered — all the events as they happened so that they would remain fresh in my mind.

As far the official questioning, all the things that become part of the official process after an accident, you know there was no training [for this kind of experience]. It's been somewhat of a joke with me since the accident that during [flight attendant] training [we were told], "If you're asked a question, especially by the press, you always say, 'No comment." I would have liked to have said "no comment" throughout the whole process.

At that point, I knew that I was going to be questioned by the NTSB. They were giving me the time that I needed to gather



Firefighters examine the tail section of Flight 1016. Flight attendant DeMary rescued three persons from this section, which was engulfed by fire. (Source: Alan M. Pollack/U.S. National Transportation Safety Board.)

my thoughts and to heal and if I would have said, "I can't do this for three or four days," they would have respected that. But the accident occurred on Saturday and I believe I was interviewed on Monday — Monday or Tuesday.

But some people from our safety departments, within the union I believe, came and just helped me to understand the process of the NTSB and the FAA [U.S. Federal Aviation Administration]. They weren't acting as adversaries. Their role is just fact finding — and maybe not necessarily to help me but to help others. Their mission was to find out what happened — my views and points — because they had a unique situation [because] everybody in the crew did survive. And certainly if there's something to be learned from that then [they] want to know so they can pass it on. To learn for the future. And with that in mind, the interviewing process became — I don't want to say less tedious, but it became not as frightening for me.

Nora Marshall with the Human Factors Group of the NTSB, [whom] I found to be an extremely compassionate and caring person — which maybe if you think [about] the official

government investigative groups you don't really think about compassion. But she definitely, definitely had it. As a matter of fact, everybody that I've been associated with has been very compassionate and caring. Even the FAA.

Brace Position Key to Survivability

I emphasized [to the investigators] that I find it very important to be in the brace position upon landing and take-off. Because you increase your chances of survivability. And I know that there are people that take a more casual approach to the landing and take-off phases of flight. But I can't [over-] emphasize how important [the brace position] is. So we talked about that and I actually gave a demonstration of what my position was like.

And I think based on my training, I did what I had to do. I did the job that I could do to help others survive. And I can't imagine doing anything differently. After the accident, I can't imagine having any other training that could have prepared me better, could have even prepared me for that situation. My parents came in on Tuesday and it was somewhat emotional. My dad is a fairly emotional person. I had a brother who was killed in a car accident several years ago. So they were hit [with the emotions] of almost losing another child.

You know, maybe deep down inside, they would like for me to find a career that puts me at home every night so that they know I'm safe at home and tucked away in bed. But as far as the element of danger in this job, they don't think that it's any more dangerous than any other job. Every job has its risks. But it's not something that I let rule my life — the fear of dying. I never have.

As flight attendants, we always know that [an accident] could happen. We're trained that it could happen. It's drilled into us that it could happen. It's a reality that it does happen. Sometimes I think flight attendants tend to think, well, it'll never happen to me. It only happens to other people. And although that's frightening — it's a new element for me that it

can happen to me — that's probably one of the best things that I can take from this [accident]. It does happen. It has happened to me but it is survivable. And without that survivability factor it would make this job a little more difficult, especially considering where I'm at now. It has happened to me but [I survived].

[My airline career began when] I was married to a flight attendant, [who was with Piedmont Airlines and who was] based in Syracuse, New York, so I started [work] with Piedmont in 1988. I was a customer service agent, worked the ramp, then I got furloughed out of Syracuse shortly after [Piedmont's] merger with USAir. Then I went to Indianapolis, [Indiana,] to keep my job. I took a position with USAir in Milwaukee, [Wisconsin,] and back in 1992 I got furloughed out of that city and then [that same year] became

a flight attendant based in Pittsburgh, where I live.

I never had a life ambition of being a flight attendant, but once I was exposed to it, I thought, well, this is probably an avenue that I would like.

I was actually going to go down to a [flight training] school in Florida and get all my ratings and pursue [a career as a pilot, but I couldn't afford the program.]

I have a private pilot's license — maybe 120 hours or something like that. I do like flying. I've always enjoyed flying a private airplane. I've always had that love of airplanes. My head was always cocked in the sky and always watching them and listening for them and imagining being up there.

To me, [being a flight attendant] was a way to make more of a difference individually with the passengers — the customers — and I think I make more of a difference as a flight attendant to the company than just loading bags. I enjoy the professionalism of being a flight attendant [rather] than maybe working outside [as a ramp agent]. When I worked in Milwaukee I was an open-time agent, so I filled in for people who were on vacation or had days off on the ramp, [and I filled in for] customer service inside at the gates and air freights, so I had quite a bit of training in many areas. As a flight attendant, I think I utilize some of my skills that I like better about myself.

I think I'm a diplomat. I think I'm able to solve problems rationally with passengers, with our customers, even sometimes when there are conflicts that arise among fellow crew members. I think that's probably one of my better skills. And being a flight attendant, I was able to take advantage of

> being able to pick up and go, the overnights. Also, the days off suited my lifestyle better. It used to work out that [my wife and I could have time off together]. But, we're not together anymore.

> [When I became a flight attendant, I had to undergo] not only the normal process of the training, but I also had to go through all of the processes of being hired as a flight attendant. Just because I worked for [USAir] and because I'm even a good employee didn't automatically mean that I have the qualities to be a good flight attendant. They look, I guess, for specific things that they probably don't look for in the customer service agent or ramp agent.

> I remember my first interview. It was with probably 50 other [USAir] employees who were wanting to [become] flight attendants and I think out of the group of 50 [the

company] only hired three of us. Once I was hired and given the approval to transfer departments, I had to go through the normal training. It was five weeks of training, basically 40 hours a week, and a certain amount of initial orientation, evaluations, testing and so forth.

the things that I liked about working for an airline — the travel,

Emergency Training Saved Lives

The training on emergency drills [is most important]. I've always had a concern, well, you know, if I'm in that situation will [the drills] come to me but I think the way that they're presented, [the drills are] the foundation for our training and I think [flight attendants will] always fall back on that. That through my experience — has probably been the most important element of my training.



Richard DeMary holds FSF Heroism Award plaque presented to him at FSF's 47th annual International Air Safety Seminar (IASS) in Lisbon, Portugal, in November 1994. (Source: Flight Safety Foundation.)

My training was a starting point for taking action [after the crash]. When I think about the events of my accident, [I know that] it all fell into place.

And the reason I say that — [the training] all comes back to you — is because when I started to yell, "Release seatbelts and get out!" I found myself actually releasing my seatbelt and getting out and it became a starting point [for taking action] and I think [that the command does the same thing] for passengers. Each command not only gives directions to the passengers, but it is a starting point for the crew members as well.

And I would say [that the command] is [important] for the passengers, [and] for fellow crew members who may be — I don't want to say 'out of it,' but disoriented, shaken, injured.

[Giving the command started] a plan of action, so to speak. It became a process for a complete evacuation of the airplane. It wasn't, "I'll do this. Now what do I do?" It was everything falling into place, one right after another.

I guess for all flight attendants, [an accident] should always be something that's in the back of your mind. It should be there because it does happen. One of my instructors was a flight attendant — Vance Spurgeon — who was in that Los Angeles accident a couple years ago.

[While landing on Feb. 1, 1991, a USAir Boeing 737 collided with a Skywest Fairchild Metroliner which was positioned for

takeoff at the Los Angeles International Airport in California. All 10 passengers and two crew members aboard the Metroliner and 20 passengers and two crew members aboard the B737 were fatally injured. There were 67 survivors.]²

He was on the 737 in the back of it. Having him instructing us added, I think, a great amount of realism to [the training]. He added credibility because sometimes it's hard to completely understand a situation unless you've been through it or can talk to somebody who has been through it, and it always helped with him because he said, "Yes, your training will come back to you. If you have doubts, do your training, follow through on your training. Think about it in flight and go over it when you're preparing to land and it does come back to you."

Actually I have no doubt that [the training] became more real having him in the class. And also [it was good] knowing that I could be in an accident and survive it, that my training does come out instinctively.

The only difference between the other trainers and Vance and Patricia Hodges [another instructor who was a flight attendant with Spurgeon aboard the accident flight] was that Vance and Patricia added the realism to [the training]. They added the dimension of [being able to talk with] somebody [who] actually has been in [an accident].

I would say we held them in awe. I don't want to say Godlike, but you know to have been in something so bad and to survive it, I guess was [an indication of] their survivability, the type of persons they are. That I may be. Also, behind closed doors, we would always have self doubt, just like anybody [who] has never flown as a crew member — [will the training come back?]

"Yes, it will come back to you. It does come back instinctively," probably was the most important aspect of having them [instruct] the class because they add the little bit [of] extra credibility that maybe some of the other instructors didn't have — taking nothing away from the other instructors — but certainly it's — there's more credibility to somebody that's actually been through [an accident].

I've never had any doubt at USAir, [about] the trainers or the training department not providing, let's say, the adequate training. I have never had that doubt and as far as everything in training that they taught us, I thought that all our instructors were extremely credible. I think that they're very, very good.

We had training as far as evacuating every type of airplane that USAir has. All exits, front exits and back exits, actually using like the tail-cone exit and evacuating through a tail cone of an airplane. I would say we had every imaginable emergency training with the exception of an airplane that's completely torn apart. For instance, my airplane, when we finally came to a [stop] in my accident, there was nothing there. There was no airplane. There was nothing. Nothing looked familiar, so it would be hard to train for every situation that arises. It would

be, I think, impossible because it's endless, the situations you can find yourself in.

I recall somebody [saying that] you're given all the training that you need, that we think you need, but the bottom line is use your common sense and do what you have to do to survive because certainly, if you survive, you have the opportunity to help others. If you don't use good judgment you don't survive, then not only do you hurt yourself, but you [lose] the chance of being able to help somebody else.

During my [flight attendant] training, I don't believe anybody voluntarily left [the class]. We were tested and we had scores that we had to reach. I think it was 90 percent or something like that, so if you didn't pass the score, or if you didn't pass the test, you were able to take a retake and if you didn't pass that, then you had to leave the class. I guess some people left after they became line flight attendants because it wasn't the job they thought it was going to be.

I would say of 200 hours of training it seems to me 195 hours were devoted to safety. When I [completed] flight attendant [training] I actually kind of walked away thinking, "Well, the service training was insufficient." But I can see why — they want to devote as much time as possible to the safety aspects of flight attendant training [rather] than the service.

If [you perceive yourself to be an airborne waiter or waitress] then that's what you are. I think it's how you present yourself to others, to fellow crew members, to passengers, because they will only perceive you as you present yourself. It's an element of our job, but to me, pouring a [soda] is so small — it's so irrelevant compared to the duties of a flight attendant.

I think that's why our training emphasized more of the emergency drills and survivability rather than service. You know, as important as it is, service is to the customer — the passenger — I think sometimes the passengers don't realize that in-flight service is really irrelevant. It's a nice added touch. It's something that adds to the flight, but as far as the safety of the flight, it's unimportant.

[Since the accident] USAir, for the most part, has been good [to me]. I think sometimes a large company like this tends to have to not look so much towards the individual but the group, in general, like the flight attendants. To remain fair to everybody, sometimes individuals are overlooked. USAir is treating me very well. I have no problems except with [the loss of] my per diem pay [and other extra pay]. It has created somewhat of a hardship. My wages paid my bills but I [was frugal] when I flew and my per diem provided for my quality of life. And, you know, flight attendants aren't the most highly

compensated employees. I make \$1700 [averaged flight pay] a month. [Since the original interview, DeMary's flight pay has been increased to \$1,900.]

My per diem is from the time that I start a trip 'til the time that I get back from a trip. So if I go on a four-day trip, and I'm gone, 90 hours from home, and I'm paid, two dollars an hour per diem, then I get \$180, which some people spend [rather than save] for that one trip to cover my expenses. Hotel and transportation are provided. I tend to sacrifice so that I can have a little extra [money]. Most people don't [spend the per diem], especially when they are on the lower-end of the pay scale. I've only been a flight attendant for two years [and] I didn't carry over my company seniority [from being a customer service agent]. So I started anew when I became a flight attendant.

I wouldn't eat a steak meal every day on the road. I would eat a cold sandwich on the airplane so I could save that [per diem and extra pay] money. When I went home, I could go to a baseball game or whatever. And [not having the extra money]

has made a difference.

I think sometimes the passengers don't realize pid of that in-flight service is really irrelevant. It's a nice added touch. It's something that adds to the flight, but as far as the safety of the flight,

it's unimportant.

It's tough. Workman's comp pays 70 percent [of my flight pay] and then USAir picks up the rest. And that's a great benefit of our [union] contract with USAir. But my average per diem was \$500 per month plus extra pay [for] flying lead flight attendant, plus my night pay, plus international pay when I flew international. Some months, all of those combined made a difference [of] \$800 or \$900 above and beyond my flight pay.

Again, through no fault of my own — I was in an accident — it's created a hardship. You know, I'm surviving, but I feel it's unfortunate that I have to cut back on my lifestyle after being in the accident. It's hard

enough to heal otherwise without having to worry about the added pressures of financial responsibilities.

Recovery Remains a Slow, Painful Process

I'm not flying yet, because there are certain things that I'm still trying to work out in my mind and my heart. [I'm] still coming to terms with the accident. Although I have the confidence to sit in the jump seat and [perform] the duties of a flight attendant, a little bit of that [confidence] was taken away from me — some of the feelings of not wanting to do [the flight attendant duties] again right now, not wanting to put myself in the same situation of having to provide the emergency services.

Don't get me wrong. You know, being out is — it's not a vacation. Being in an accident like that, I spend all my time

thinking about it and healing. My life changed, I function differently. I look at things differently. So I'm just trying to get back to normal, my old self and at the point where I've reached that or become a better person through these things, then I'll go back to flying. But I have every intention of going back to flying.

You know, I see a psychologist every week. I'm fortunate that I think I have a very good psychologist [who] also was the therapist for Vance and Patricia. So she's got a greater understanding of aviation and airline accidents than [most other people]. I immediately had a good rapport with her, and I have confidence in her. And I believe that she doesn't tell me the things that I want to hear, but the things that are going to put me on the road to healing.

One thing I can say [is] that USAir been great about is, that they have applied no pressure for me [or the other flight attendants] to get back to work. And they're allowing us time to go to counseling and to heal.

I think it's a possibility [that I might consider a different position other than being a flight attendant]. Not to run from the job [of being a flight attendant] but, because I have potential to now make a difference someplace else. I think I was an excellent customer service agent. I think I was a good flight attendant and I think now I can learn something new.

Maybe [I could become] a flight attendant supervisor or go into the training department because when I look back at the training I had and especially the influence that Vance had on me as somebody that actually had been through [an accident].

It's also a difficult question because when I think about my future, my future includes a family and, you know, a house and things. I don't know if [flight attendant pay] would be sufficient. And I'm not saying that there's anything wrong with what a flight attendant makes or the job that a flight attendant does, but the way that the economics of the airlines are changing, the way the rules are changing, pay structures are changing. Each time we [the flight attendants] renegotiate a contract, we lose something. I think there are certain jobs that would provide me with a higher-paying job. Maybe a job with more responsibility.

I don't know why I survived. I know that there was a reason I survived. There was a purpose that I was allowed to live. One, it wasn't my time, and secondly, and maybe more importantly, it was so I could help others. I survived so that I could help others. It's probably as simple as that.

References

- U.S. National Transportation Safety Board (NTSB).
 Abstract of Final Report NTSB Public Meeting April 4, 1995: USAir Flight 1016, DC-9-31 Flew Into Windshear Condition and Crashed While Executing a Missed Approach Charlotte/Douglas International Airport, Charlotte, North Carolina, July 2, 1994 Executive Summary. April 4, 1995.
- NTSB. Aircraft Accident Report: Runway Collision of USAir Flight 1493, Boeing 737 and Skywest Flight 5569 Fairchild Metroliner Los Angeles International Airport, Los Angeles, California, February 1, 1991. NTSB/AAR-91/08.





Flight Safety Foundation

presents the

40th annual CASS CORPORATE AVIATION SAFETY SEMINAR

Safely Doing More With Less

April 26–28, 1995 Vancouver, British Columbia, Canada



For more information contact J. Edward Peery, FSF.

CABIN CREW SAFETY Copyright © 1995 FLIGHT SAFETY FOUNDATION INC. ISSN 1057-5553

Suggestions and opinions expressed in FSF publications belong to the author(s) and are not necessarily endorsed by Flight Safety Foundation. Content is not intended to take the place of information in company policy handbooks and equipment manuals, or to supersede government regulations.

Staff: Roger Rozelle, director of publications; Girard Steichen, assistant director of publications; Kate Achelpohl, editorial assistant; Rick Darby, editorial consultant; and Karen K. Bostick, production coordinator.

Subscriptions: US\$60 (U.S.-Canada-Mexico), US\$65 Air Mail (all other countries), six issues yearly. • Include old and new addresses when requesting address change. • Flight Safety Foundation, 2200 Wilson Boulevard, Suite 500, Arlington, VA 22201-3306 U.S. • Telephone: (703) 522-8300 • Fax: (703) 525-6047

We Encourage Reprints

Articles in this publication may be reprinted in whole or in part, but credit must be given to: Flight Safety Foundation, *Cabin Crew Safety*, the specific article and the author. Please send two copies of reprinted material to the director of publications.

What's Your Input?

In keeping with FSF's independent and nonpartisan mission to disseminate objective safety information, Foundation publications solicit credible contributions that foster thought-provoking discussion of aviation safety issues. If you have an article proposal, a completed manuscript or a technical paper that may be appropriate for *Cabin Crew Safety*, please contact the director of publications. Reasonable care will be taken in handling a manuscript, but Flight Safety Foundation assumes no responsibility for material submitted. The publications staff reserves the right to edit all published submissions. Payment is made to author upon publication. Contact the Publications Department for more information.