

Interview with Tom Stanton
March 14, 2006

Goldberg: This is an interview with Tom Stanton at the OSD Historical Office in Rosslyn, Virginia, on March 14, 21006. Mr. Stanton, how would you describe your professional experience with relation to what happened at the Pentagon on 9/11?

Stanton: I was the fire protection life safety design engineer of record for the Wedge 1 renovation, and had been working there since the end of 1993. So I was familiar with the systems designs and renovation of Wedge 1, and also familiar with the existing conditions in Wedge 2.

Goldberg: For whom were you working?

Stanton: I had been working for a firm called Hay See. Mattern, and Mattern, HSMM, as a sub-consultant doing fire protection life saving, that's what I do as a fire protection engineer. My professional stature at the time of the event was that I had familiarity and knowledge of the building and the systems and the exiting configurations, fire wall assemblies and all the things that dealt with fire protection and life safety. So going in, I was responding as part of the Maryland Task Force One, the FEMA collapse rescue team from Maryland as a structure specialist.

Goldberg: Are you a civil engineer?

Stanton: I am a fire protection engineer by discipline, out of the University of Maryland. As a structural specialist I have knowledge of structures and buildings, as most engineers understand the fundamentals. Having knowledge of the building, the Maryland Task Force deployed me with the Reconnaissance Team.

Goldberg: When you say the Maryland Task Force you are talking about search and rescue?

Stanton: The urban search and rescue team. FEMA has 25 to 28 teams across the United States. Some states have two or three, Maryland has one, Virginia has two, this is just the task force from Maryland that is pulled together--

Goldberg: You were on 6-hour recall notice for that, presumably? I think that's a standard for those units. What time did you get the notice?

Stanton: Approximately 11:00 a.m.

Goldberg: Did you know what had happened before that?

Stanton: I had some knowledge, because I had heard on the news that something had happened in New York. I was listening to the radio and heard some bad things. I had a fire engineering office on Main Street in Laurel and we were doing our regular routine like everyone else. Hearing the reports it was very disturbing. The first plane I thought was a mistake. Then they talked about all the different things that were going on, so I went next door looking for a TV, because we don't have one in our office. The insurance office next door did not have a TV. I went upstairs to the newspaper, the *Laurel Leader*. They had a TV hanging from the ceiling. In the process of looking at the one tower that was struck and talking to those I knew there at the newspaper, we watched the second plane hit the second tower, and I only remember being in utter shock.

Goldberg: Did you receive the call in your office?

Stanton: I was still upstairs, in shock, when the call came to my office. I went back downstairs and when I walked in the door to my office one of my junior engineers said, "FEMA has called; you have been deployed to the Pentagon." Things started moving fast through my head, what to do and how to do it, all the different things that go on in an emergency response. I told them to take care of these projects and other things and that I didn't know how long I would be gone,

several days or several weeks. I said I would be in contact with them and thanked them for taking care of things and I took off. Driving home I was shaking. Honestly, when I saw two planes in New York and one at the Pentagon--my question for a long period of time was "what's next? What's going to happen next and where?"

Goldberg: What was your position in the unit?

Stanton: I was a structure specialist. There are 6 or 7 of us on the team now, at that time there were 6.

Goldberg: At what time did you report and get to the Pentagon?

Stanton: I would say we got there about 12:00 noon.

Goldberg: Where did you get by noon?

Stanton: I got to the public safety training academy in western Rockville. That's our standard procedure for the task forces. We come to the public service training academy on Darnestown Road. It's a Montgomery County fire and rescue training academy, and also a police training academy. Everyone checks in, signs in, drops their keys, wallets, and all that into bags.

Goldberg: What time did you leave?

Stanton: After discussions, we did our medical evaluation and within 45 minutes to an hour were on the road with a Maryland State police escort.

Goldberg: Were you a full complement?

Stanton: No. I was on the reconnaissance team on a small bus with about 20 or so of a team.

Goldberg: You were the first echelon.

Stanton: We were the first group to come to the Pentagon under escort from the state police all the way down to the South Parking Lot, 27-395 interchange, and we got there around 2:00. Part of the Virginia task force had gotten there 20 to 30 minutes before we did and had started

mobilizing to investigate the extent of damage, quick rescues, obvious rescues, and whatever else we needed to do.

Goldberg: What did you all do when you got there?

Stanton: I remember being stopped by the Virginia State Police, who were helping the military develop the perimeter and stop any entries and allow people to leave the building. We sat there for 15 to 20 minutes while they determined that we were legitimate, we were from FEMA, and got us all badged in. Then they let us proceed down into the South Parking area; actually, the field right off of the Heliport is where we pulled all our stuff in, and our team came in shortly after that.

Goldberg: Was it South Parking, or next to the Heliport?

Stanton: It was up on the grass near the Heliport, near the ramp going on to 27 from South Parking. There is a road ramp heading on to 27. We mobilized in that area where the memorial is going to be now.

Goldberg: Down towards South Parking.

Stanton: Correct, south of the Heliport area. That's where we initially positioned ourselves and proceeded from there. We teamed up to develop a plan of action and proceed from there in coordination with the fire department, the Pen Ren people, and other OSD personnel. The FBI was just getting there and mobilizing; obviously the military was a presence.

Goldberg: Did anybody in your group report to the incident commander?

Stanton: Somebody went to the command post that Arlington County had set up right in front of the building. I wasn't one of those who did that. Someone went there and reported. We mobilized in front of the building to determine what we had to get done.

Goldberg: So you left your bus and went up to the west side of the building, then, where the incident was.

Stanton: Correct.

Goldberg: What did you do then?

Stanton: The first assignment I was given, simultaneously with all the other people mobilizing on site, was to get into rescue crews. I was one of four structure specialists that came ultimately, there were three others.

Goldberg: Who was directing these rescue crews?

Stanton: Our task force leader was Mike McCarty.

Goldberg: And he was taking directions from whom?

Stanton: From the FEMA IST team, the incident support team, which is like an incident management team.

Goldberg: They had arrived?

Stanton: I don't believe that all of them had arrived at the time. There may have been one or two people there from FEMA. Actually, the first several hours, like any emergency incident, was organized chaos. There were a lot of things moving, a lot of people going back and forth. We had ultimately around 1,200 people involved in this operation, we had a lot of things moving. I remember that we pulled in, started putting in our equipment, and tried to position into rescue crews, putting in rescue specialists. I was moved from the Maryland task force to the FEMA IST with the incident management team that would be overseeing ultimately the MD task force, VA 1 and 2, Tennessee, and the Fort Belvoir collapse rescue team. There were five teams that ultimately were here. The incident management team of the IST for FEMA is what I was moved to within that first hour, so I was basically separated from their crews and what they were

doing, and met with their plans, communications, and other people they had there at the time.

There were only one or two people there to initiate the process of operations.

Goldberg: What were you doing?

Stanton: Once we had gone through that initial plan of action, I was asked to go into the building

and I was asked to do what we call in the fire service a 360--give a quick assessment of the site.

We scour the perimeter around the actual damaged area and give an assessment of what we have and where to go from there.

Goldberg: Outside?

Stanton: 360 degrees around the damaged area, which meant I went across the front face of the building, across the Heliport, into the Corridor 5, in the door, into the E Ring area.

Goldberg: What time was this?

Stanton: Probably about 2:30 p.m.

Goldberg: Within 30 minutes of arrival?

Stanton: It may have been more like 2:45 or 3:00, because it took time to get down there and we met up with the Virginia Task Force 1 engineers briefly. We met with our team for a briefing; then I was pulled off and put on the IST and met with them briefly. So it was probably 5 or 10 minutes.

Goldberg: So 3:00 is more likely.

Stanton: I went in the 5th Corridor. I could see the power as out, it was smoky and still burning. I went in as far as I could and still breathe, and went toward the actual impact site.

Goldberg: You turned right at the E Ring and went down?

Stanton: Correct, heading toward the 4th Corridor. The mistake I made as a firefighter was not to have a self-contained breathing apparatus on. But the trauma of a situation like this, the

motivation, adrenalin, and focus is to get in and rescue is the first primal drive. You get down to the first primal levels of the firefighter--you want to do what you can to rescue somebody.

Goldberg: How far down E Ring did you go?

Stanton: I didn't quite to the barrier wall, because the smoke was too bad.

Goldberg: That's almost half way.

Stanton: I was hollering and couldn't hear anybody. The ceilings were down, there were a lot of things burning, past the fifth Corridor, past the apex, it was all burned, there was a lot of heavy smoke and heat in there. I held my breath and went in as far as I could, hollered and looked, came back out, went down the fifth Corridor further to the D Ring. The 5th Corridor was smoky but not too terribly bad. I went down to the C Ring.

Goldberg: You went down D?

Stanton: I went down the D Ring.

Goldberg: And came back?

Stanton: Went down in the same basic fashion, there was a lot of damage. The 4" standpipe line we had designed to come down the D Ring was broken, leaning down, and dumping a 4" dump of water into the building. There was a lot of noise, lines breaking and spraying, a lot was burned, the stairwell doors were smashed in or bent in. These were 50" or 54" doors that were bent, forced in, and burnt black. I noticed that the terra cotta walls just past the D Ring were listing about 15 to 20 percent. As an engineer, you know that once you get past 10 percent of listing of a structure, it is coming down. The only things holding it were conduit runs, a couple of pieces of conduit that were separating from the boxes attached to the walls in this area. I was thinking whether to pass that or not, for any minute that terra wall could come down, and it was 10 or 11 feet tall and would go most of the way across the corridor. I actually looked, thought,

and quickly ran past it, past the listing wall, and communicated back that there was an unsafe condition in the 5th Corridor, and someone needs to knock it down. It was a safety issue.

Goldberg: Did that wall come down?

Stanton: Yes, it took a while because it was a low priority at the time, but it had to be at least roped or taped off so personnel don't get hit with it.

Goldberg: You went on down to the C Ring?

Stanton: Yes, down further, as far as I could. I found out later that it was a DIA space and people were still in there. I didn't hear anybody. It was still smoking badly and rather warm. I didn't quite get to the barrier wall there.

Goldberg: The barrier had been breached.

Stanton: Absolutely, it went through near the D Ring and came in through the C Ring. I could only get maybe 100 or 150 feet or so. I came back out and went into A-E Drive. I may have glanced into the B Ring and saw no smoke or fire, and looking to the right down A-E Drive I saw two blowouts.

Goldberg: There was one to the right and one to the left.

Stanton: I have excellent color pictures of them.

Goldberg: The third one was the blown doors of the electrical wall.

Stanton: That's correct. On the other side of the A-E Drive where the MinPop (?) space I was astonished at the amount of force. The brick wall was about 14 inches deep in between the concrete columns with steel doors in the brick walls and the metal doors were bent in on the other side in the B Ring. It was incredible. There was a blowout in the Navy Ops Center opposite that, and the transformer, and the C-4 vault. The blowout was out of DIA, which is over the line.

Goldberg: You went down the A-E Drive?

Stanton: Correct. I saw that there didn't appear to be any fire in the B Ring heading into that area of the building so I turned and came down the smoky area of A-E Drive. Smoke was pouring out of the two holes and coming out of the 2nd Floor. The windows and steel frames bowed out. I looked at that and marveled at the amount of force it took to do that. I later found out they were not the breakable type, but more like the windows in a car. I stopped there and went into the small utility corridor adjacent to the Navy Ops Center. That was a short corridor going up to the D Ring, where it stopped. It was a way to go up that corridor and into the 4th Corridor, which also went into Navy Ops in the C Ring. It was adjacent to the C-4 vault and the bathrooms. There were some UPS (?) rooms off of that corridor. As I climbed, there was a tremendous amount of damage. We had 8" CMU block walls that had collapsed. There was equipment, things sparking, and the air was extremely dense. I couldn't get into the Navy Ops. The 4th Corridor was to my left and I was going into the utility corridor, and tried to climb up and over debris 2 to 3 feet tall. There was water, cinderblocks, wires, ceiling grid, arcs and sparks. The UPS rooms, battery cases, and cabinets, were tipped over, and I was thinking of the acid in the water from broken and burned batteries and that I was breathing this plus the lead paint, asbestos, and everything else. But I had to carry on to see if anyone was in there. I could see through the holes of the blowouts that there was clearly no one alive in there. It was all burned and piled 4 to 5 feet tall in each opening, totally trashed.

Goldberg: Did you get down to the C 4th Corridor?

Stanton: I went down past the C Ring and a little further. I came back out and went into the C Ring. There were others people moving in that area.

Goldberg: Did you find bodies or remains there during the whole course of your trip?

Stanton: The initial movement, no.

Goldberg: But you weren't getting into offices along the way, you were just in the corridor.

Stanton: There was a time early on when I saw body parts in the A-E Drive. I have some pictures of that area.

Goldberg: They were blown out?

Stanton: They were blown through the walls. There were boots with legs in them; arms, hands, parts like that.

Goldberg: There were people that were blown out, I remember. One was still in his chair.

Stanton: I remember that a seaman or an ensign actually saw body parts in the A-E Drive. But, remember, the 360 reconnaissance in emergency response in the fire service is to move quick make an assessment, and get back to the command post. Then move to the next phase.

Goldberg: You fell short of the 360, didn't you?

Stanton: I went all the way out Corridor 4 and worked my way out.

Goldberg: You didn't go down Corridor E to finally complete the 360.

Stanton: I came out the outside of the building on that side. I may have gone out to the E Ring and turned left, down to the apex, and out that door near the outside apex and back to the command post. In the 4th Corridor there was a collapsed area in that entranceway and they had not cleared it. Ultimately, after a couple of days we could get through there, or the outer door away from the actual crash site. I'll show you the pictures. This is one area, you can see the yellow flags, those are some of the body parts.

Welch: Do you have any of these that we could get copies of?

Stanton: I've got CDs that I was given.

Welch: Do you have stuff we could get on CDs?

Stanton: Sure. I mobilized right in this area. This is where the Maryland task force is and the IST was. The Maryland task forces and their tractor trailers, Virginia Task Force 1, Tennessee, Virginia 2, the command post for Arlington, and the morgues on Route 27, the air conditioned tents. This is FBI and TSB in here, the Army was here, and the FBI had tents over here for badging. I went in across here in Corridor 5, went down E, D, and C, and across here and looked into these openings. One was in the Navy OPs, with blown out doors and transformer vaults. The transformers are huge, probably 12 feet, 8 or 9 feet tall; blown right off their slab foundations. They were 4 feet deep, and all shifted off their concrete slabs. It was incredible, the amount of force that went through this building. I came back out and went in this sub corridor, came back out, went up the 4th Corridor, and came out that door, back to the command post. Initially we were collecting up in here, the forward FEMA operations stuff.

Goldberg: How much fire did you encounter?

Stanton: I didn't see a whole lot of actual flames. There were spots. It would burn, they would put it out, and it would catch again. A lot of smoldering was going on.

Goldberg: A lot of small fires.

Stanton: They smoldered for about two days or more.

Goldberg: The big fire was pretty much put out?

Stanton: The bulk of the big fire was knocked down, they did a really good job considering how much fire there was. Again, Wedge 1 was from 4.5 to 2.5, which was renovated; we had a temporary sheetrock two-hour fire rated separation assembly all five floors A to E 1st to 5th, and the same thing over here. The plane went through it over here; that's how the fire got into the C, D, and E Rings and went all the way around. The fire went past the 5th Corridor in toward the apex and the smoke damage went past the 6th Corridor, there was damage all the way around.

Of course, water and smoke were over here from the 4th Corridor around to the apex here, so we ended up with almost a million square feet of damage from smoke, water, and fire. It was primarily in the C, D, and E Rings.

Goldberg: The damage extended as far as Corridor 7, from water and smoke?

Stanton: No, it went as far as Corridor 6. There was a little bit of smoke that went past Corridor 6.

Goldberg: How about water?

Stanton: No, I didn't see any water past that area there.\

Goldberg: Could it have been there later on?

Stanton: It could have, but the heaviest was from the apex to the 6th Corridor. Most of the fire damage stopped when it got past the 5th Corridor, it began to decline. Smoke is very forceful and very buoyant, and moves very quickly, and it went through all these floors.

Putney: Was the fire damage equal on all floors?

Stanton: No. On the unrenovated side, it went all five floors, all three rings, and it went that direction. The irony we were blessed with was that the sprinkler systems and the fire alarm systems in Wedge 1 literally stopped the fire in its tracks in the 4th Corridor. You didn't have fire damage past the 4th Corridor. It was all to the right heading toward the barrier wall in the 5th Corridor, Wedge 2 area. All the fire was stopped at the 4th Corridor and when you got up into the upper floors it was isolated to the E Ring. You had just smoke damage where it migrated through the building. The building is basically windowless, the windows don't operate. They are not made to operate because of security measures. So really, when you got up above the second floor, the E Ring was really the damage over here in the renovated area. It was a testament to the renovation that the Pentagon did, that stopped it there. The C Ring and the D

Ring weren't damaged much at all., We were wondering why we saw beautiful wood desks, computers, and all the other expenses that could be cleaned up. I think they ended up with a lot of mold from the moisture in the air because the building was not conditioned for months and they ended up ripping a lot of stuff out.

Goldberg: On the 2nd Floor, the chief damage was structural, aside from the smoke.

Stanton: That's correct. They found out later, as we were getting into the assessment as part of Georgine Glass's Pentagon Assessment Team from right afterwards until January there was a lot of damage in here because of the heat. They ended up realizing that in the majority of the floor structure on the 1st and 2nd Floor from the 4th Corridor to the 5th Corridor there was a lot of heat damage. The heat was so high on the concrete that you could see it had actually turned the aggregate in the concrete pink. The structural engineer that was working with KCE and Allyn Kilsheimer, said that that damage, though marginal, would take the Pentagon much longer to cut and piece, that's why they did all three Rings from corridor to corridor, just dropping and building it back up. It's a lot faster and cheaper than to go through and try to piece it.

Goldberg: When you came out of the building, what happened?

Stanton: I remember coming back to the command post. Mike McCarty ended up being elevated as well to the IST along with me. He ended up being the safety officer, I was the structural specialist on IST, and then they had operational officers.

Goldberg: McCarty was from Virginia Beach?

Stanton: He was from Montgomery County, Maryland Task Force One. He had been moved up to safety officer and I was moved up to structural specialist as part of the IST. We ended up working together on the same shift for nine days and then coming back and debriefing. We ended up reporting to the FEMA IST team, people that came in from out of town. One came

from Nebraska, one from the Miami Dade area, and others from California and other parts of the country. At that time they had three incident support teams or incident management teams, red, white, and blue. This was the red IST, I believe, and the other people took a day to get there.

We ended up working directly with their operation.

Goldberg: You reported after you left the building.

Stanton: I went back to them and sat down and went through what I saw, and at that time I was requesting copies of the plans of the building so I could further illustrate what was where, the extent of the damage, and where we needed to go with the work, so we could make it clear.

There were not a lot of people that I knew of that were familiar with the building. There were only one or two others out of all those people coming in from FEMA, the cross rescue teams, and so forth, that had any clue about this building, let alone trying to assess what was where and how to deal with this thing.

Goldberg: The Arlington County fire people were supposed to have that kind of knowledge.

Stanton: Again, that's correct. They had some pre-plans, very limited, and were intimidated with the size of the building. They did not have confidence in the systems at that time. They were working on fire suppression primarily, we were not working minute by minute side by side with them. They were dealing with fire suppression, we were head of the liaison and coordination, just like we did with the FBI, the NTSB, the Army--we had liaisons--it was the first National Incident Command incident that I can think of--that helped us work. We did a lot of face-to-face work. In the morning from 6:00 to 7:00 we had a debriefing with all of those different agencies in our IST tent. At the end of the day we had the same thing.

Goldberg: Were there others who did the same kind of reconnaissance that you did?

Stanton: I don't recall whether they did or not.

Goldberg: Was it just your thing to have done a 360?

Stanton: I think the fire department probably did a 360.

Welch: One account was that there was an original team that went in from the Army Corps of Engineers that went in before you all did.

Stanton: I'm not aware of that. I do remember that the Army Corps came in three or four days after we had been there.

Goldberg: There was an engineer company from Fort Belvoir.

Stanton: They have a collapse rescue team, there were roughly 30-36 personnel. I thought that rather interesting, considering our team was 72 to 80 people.

Goldberg: They had 68-70 people. They did reconnaissance also. I don't know whether they did a 360, but they were there before you.

Stanton: I do recall running into them later that afternoon, because we all worked until midnight and then a couple of teams continued through the night. We agreed to come back in the morning at 6:00 and break the teams into halves so we could go 24-7.

Goldberg: What happened as a result of your recon?

Stanton: I went back to the command post, asked for plans to further illustrate where we were and what we needed to do. Then we sat and discussed what we had to get done from there on. I brought copies of my daily logs to go over what we actually did. I'm paraphrasing because it was very brief. I brought copies for you.

Welch: This 360 reconnaissance that you did, that was you alone, not any of your team?

Stanton: That was me alone.

Welch: And you didn't have your air mask.

Stanton: No, I didn't. I don't like that, but the fact of the matter is that it was a one-time satiation for me in 32 years of being in the fire service. In hindsight, of course, it would have been the smart thing to do.

Goldberg: You were directed to go in?

Stanton: I was directed to go in and give a 360. I'm not going to pass that responsibility off to anyone. Again, understand, those first several hours, the adrenalin, the emergency, the effort, the focus, the drive; the utter energy that the fire and rescue services have that you don't understand if you are on the outside, is on a different level. It's not any of the "holier than thou" arrogance, it's a true adrenalin rush to rescue, to do good, to try to find somebody, to get them out of the building, and you sacrifice your own safety to do so. That's what I was under at that point. I could have easily stopped and thought about it. I had the gear, and I could walk around and try to find a SCBA, self-contained breathing apparatus. But quite frankly, I was thinking that if I went into the 5th Corridor, I'm looking at this plane, it's several hundred feet away, and I didn't see flame. It was still smoking, but it was isolated to that one area. I wasn't sure that it was going to go that far. So I just went to do a quick assessment around the perimeter, being at a distance. In my experience as a fire instructor at the University of Maryland for 15 years, having been in the fire service, having been in burning buildings, I had a pretty good handle of what was going on.

Goldberg: Have you any notion of how long it took you to do that?

Stanton: It was about 20 or 25 minutes.

Goldberg: You are moving pretty fast.

Stanton: Yes. It's a quick, assessment, a quick memory of what's going on, the visual, to go out and educate the FEMA command people.

Welch: You also went in before Kilsheimer went in.

Stanton: Absolutely. Allyn was not in the building.

Goldberg: He wasn't there yet.

Stanton: He wasn't even there until 4 days later.

Goldberg: He arrived there the same day.

Stanton: He was not up front where we were pulling him out of the building on a repeated basis. Allyn is a very good friend of mine. We worked very proudly together to rebuild that building. We did good work; he's a very dedicated patriot and very dedicated to this task, but he was not part of the incident command, not part of the rescue structure; not an authorized person to enter the building; he did not go through the command post. When he went near the building the FBI escorted him off the site, even though the Pen Ren had said he was under contract to help them out, he took that as a green light to go into the building. At first it was like "watch out for that guy with the beard, he is going to try to sneak into the building." He actually tried to commandeer one of our cranes out front that we were using to observe the structure and the rescue operation. We found a 14-year-old girl on the roof, missing one leg and part of another. She was on the plane, the group of girls going on their first vacation together.

Goldberg: How did she get up on the roof?

Stanton: We're not sure. She was under debris. She was found about 7:30 by one of the FBI guys. They came over to me. It still hurts today.

Goldberg: They don't show anybody found on the roof. They don't show anybody found above the second floor.

Stanton: The second floor was the top of the continuous area from E to C. I can tell you, I was at the IST tent at 7:30 or 7:40 after our briefing. We were going through some stuff, transferring

information on columns that needed replacing, structural stuff; we were doing this on a daily basis after the first day. The FBI came to me and said they found a girl on the roof. They didn't want to make it big news, because they didn't want people going up there, and could they use the crane to take a quick look. It was between the E and D Ring on the roof, near one of the Corridors, I believe the 4th, under some debris. It hit me like a ton of bricks, because I thought of my kids. I stopped and tried to gather myself and then I saw the night shift operations manager for FEMA from Miami Dade. The sun was going down, visibility is also an issue when you are dealing with emergency operations. By the time we mobilized to get the crane set and the crane operator and all the routine it would be dark, so we did it by first light. Ultimately we ended up taking her out. The FBI and the Army were doing that physical retrieval of the bodies and body parts. They would go in, take pictures; it was all a crime scene, obviously, so the FBI and the Army worked together, and we would stabilize the sites as FEMA.

Welch: The urban search and rescue team that you were on was not doing the same thing as when the FBI and Army teams went in there? You were not part of that collective team?

Stanton: We were working shoulder to shoulder. They had different functions than we did.

Welch: You did not actually take bodies out.

Stanton: We physically did not. The Army people and the FBI worked together on that. They tried to define what was the smallest body part they would put in a bag and take out of there. I can't remember the size it was, but it was small. They came in with the red bio bags like you see in the hospitals. There were some body parts that the FBI brought out, but the other bigger stuff the Army troops came in to do. Our personnel were focused on shoring the structure.

Goldberg: Your people did spend most of the time shoring up, that's what the engineer people from Belvoir did also?

Stanton: Correct. The engineers from the Virginia Two Task Force; the Tennessee, and the New Mexico were there, too, there were a total of six.

Goldberg: When did the shoring up start?

Stanton: The first day. Within the first two to four hours. We shored up the front of the building. I have pictures of the front face of the building, right at the edge of column 11, at the edge of the collapse, there was a control joint there, an expansion joint. That's where the clean collapse was. Everybody was wondering why they did that, the bottom line was that it was a control joint that was an easy collapse. Those first three columns were shored up at that point. The Virginia Task Force did those, because they were the first ones there.

Goldberg: You had a half dozen different organizations close to it doing shoring up.

Stanton: We had all the task forces. Our primary focus was to shore and assist with some removal and access. The FBI worked right along behind us. As we found a body or body part it was "Stop. Time out. Back off. Move over here." The FBI people came in, took pictures, took measurements, document (we went in and spray painted all the columns in an alpha numeric system that the Pentagon used for tracking). The first three columns were 10, 9, and 8, at the outer face. That's where the control joint was and where the collapse came down. They did those first three because they weren't sure where to enter the building and do whatever they had to do. They developed what we call a "box shore" and I have pictures of it. They were done by Virginia, and then from there we worked our way in. You work in from a safe zone, or a reasonably safe zone. We realized after the fact that there were a lot of areas that were cantilevered 40 or 50 feet without a column. It was incredible, five stories of structure just hanging there. The duplication of the way they built this building is what saved us. Here's a picture of the recon team, I was briefing them on the way down the street from the escort.

Here's an edge of the collapse and that's the first box shore. This first group of box shores at the edge of the collapse at column 9-11. During the daytime we had the Maryland Task Force, Belvoir, and Tennessee; at nighttime, the Virginia Task Force One, Task Force Two, and New Mexico. I believe they had some Belvoir people there as well. We built these things, box shores, out of 6X6s, bracing where we'd do the column. That's a girder that's two feet deep, 14'14" wide. All you see is steel. The force shook the concrete right off the girth. That's a column, there is a spiraling of steel reinforced 14 X 14" column, with box shoring on both sides. On the first floor, with 14 feet 6 or 14 feet 5 slab to slab, it takes a long time to build a box shore of 6 by 6s, because they've got to be directly on top of each other. This is what we were dealing with.

Goldberg: How long did the shoring go on?

Stanton: It went on for five or six days, around the clock. We did roughly 63 box shores on the first and second floors and seven vertical shores, which is basically supporting. You can see some of our guys and the work we were doing.

Goldberg: Would it be fair to say that because these teams arrived after most of the rescue work had occurred, and there weren't any more survivors, that your time was spent primarily in shoring up?

Stanton: Sure. At the same time, with the Army and the FBI we were digging through the debris. Understand, the debris was anywhere from a foot deep to five or six feet deep. There were places where the desks and lateral files were packed in there, on top of each other; with the ceiling, the H/AC duct work, the plumbing, and everything else on top of it, with some of it on the first floor pushed and ploughed through as the plane went through, the debris piled up to 3 to 7 feet. So there was a lot of digging.

Goldberg: A lot of the initial digging was by hand.

Stanton: We would dig, then shore, dig, then shore; it went on around the clock for 5 or 6 days.

There was also a lot of other-cleaning.

Goldberg: There were several hundred people involved in the shoring.

: In retrospect, with 20-20 hindsight, we know the rescues were completed, but at the time we didn't know that. We didn't know if we had someone down under a slab in a void or a hallway.

Stanton: Your thing is also body recovery.

Goldberg: You didn't go in again and again with the intention of effecting rescues, because you knew that there wasn't much to be done any more.

Stanton: We realized that the first three days.

Goldberg: Your main job was going to be shoring up, and if you encountered remains or people to be rescued, fine, but your basic mission for most of the way was shoring up.

_____: I wasn't there with the search components, the teams do carry

Goldberg: I know, but it depends on when you get there.

Stanton: There was searching going on the first couple of days, but there was a point where we realized, having been through all the areas we could actually physically assess, and looking at the areas we couldn't, internally team-wise we knew we were not going to find anybody else alive.

There were some gray areas in the front collapse area.

Goldberg: The firemen knew that after a couple of hours.

Stanton: This is one of the vertical shores where the supporter beam is compromised substantially. We had seven of these assemblies. They also looked like this.

Putney: You call them vertical shores?

Stanton: A vertical shore, where you are supporting an actual girder. There was one gray area that we were not 100 percent sure on, because the collapse area that went from the 4th Corridor toward column 11 was an area with voids in it. We were not sure, but we could not get close to it. Here is an example of where the fire would flare up periodically. This is the area we weren't sure about, a partial collapse. There were voids in there but we couldn't get into that because the slabs on each floor were unstable on this side, and we didn't want to bring people in here and have it collapse more. We couldn't come in from here, because it was blocked with very heavy debris, and you couldn't come in to the back because it was not stable. So for several days we were worried that in fact there might be somebody in there. We sent cameras in there and ultimately, once we started pulling some of the roof off that was burning and the concrete structure underneath, a light-weight concrete roof about 7 inches thick, we were able to send in cameras and dogs to see if they could smell anything. There were some scares when we thought we heard voices and movement, and I can't tell you how much adrenalin and apprehension there was as to how we could get to them. Those things hanging down are called "widow-makers" because chunks of steel and concrete are hanging down and if we go in and it falls, we become victims. We couldn't send people in there, but if we saw or heard something and pulled more off, we started seeing bodies and body parts. So we realized at one point that rescue was slowly dropping off to where we would find nobody. Especially after two or three days of getting into the collapsed area, we realized we were not going to find somebody alive. This was the last area, the unstable area, that we couldn't get into for several days.

Welch: When was it that you thought there might be a chance?

Stanton: We still had hope after three days. But we were getting more and more pessimistic, because three days is a long time to lie in a pile of rubble, and because of the unknown. All five

floors were all crushed in at an angle. With lightweight concrete, 7 inches of roof, and all the other debris; how long could anyone live in there? We steadily worked around the clock, because besides rescue we were there to shore the building and find and retrieve body parts. The NTSB, FBI, and Army, were cataloging, picturing, measuring, documenting, and then removing, so it was stop and go, for 6 or 7 days.

Goldberg: In a conversation we had, we talked about finding two bodies in a stairwell. Do you remember that?

Stanton: I did not see bodies in those stairwells, and I never said I did. What I found out in the process of working in Georgine Glass's committee, which was a makeup of architects, structural, mechanical, electrical, and fire engineers (me), and chief Ralph Darns from the fire department here in Arlington, and some others. There were statements made in those meetings based on the plans, that showed a document not for anyone's eyes until the investigations were through, about where the bodies were. That's when we found out that 27 bodies were in the Navy's Op Center, the biggest loss in the building.

Goldberg: The Army had the biggest loss.

Stanton: I'm going by what I was told. The Navy had 27. They showed us a plan like this, from each floor, showing body locations. They showed stairwell 3 Delta, or 43 Echo, and at one of these two stairs showed two individuals found. The reason why it was brought up is that when we did this the temporary part of the separation to gut and renovate this side, occupy the side and protect it; the building code wanted them to separate the renovation areas from non-renovation areas, to protect them. They wanted to have security so people didn't wander into the construction areas and the construction workers didn't wander into the other areas of the Pentagon. Legitimate calls, when you are doing renovation work. They are still doing it today.

The purpose was that if you went into the stairwell on an upper floor, you were not able to get out of that stairwell once the door closed behind you until you got to the first floor and then out you went. There was a corridor at the bottom to allow you to do that. Apparently what we surmised in Georgine's meeting, during the impact some people took those stairs and couldn't get out, and went down right into hell's kitchen. When I went into the E, D, and C Rings, that area was trashed because the plane went through, and all of it was burned terribly and pushed in because of the forces. They evidently tried to go in and couldn't get back out. I was told that people had died in there because they couldn't get back in on any floor. I remember that the doors were blown off the hinges, lying in the stairwells. They were big steel doors, 44-inch doors. Or 3 1/2 feet doors, with big glass panels typically built in 1942-43, and they were on the floor and bent. I've got pictures of the stairwells on the 5th Floor where things were melted. So if they were melted on the 5th Floor, I can assure you it was pretty damn hot on the 1st, 2nd, and 3rd.

Goldberg: How about the roof, did you get up there?

Stanton: Yes, I was up on the roof and the roof burned.

Goldberg: At what point did you get up there?

Stanton: I can't remember the day, it wasn't the first two days. I was so busy on the 1st and 2nd and 3rd Floor areas; I would imagine it was probably three or four days in, and we wanted to take a look. They couldn't get the fires out up there. It burned down the 4th Corridor rooms, burned on the E Ring; It burned a fork all the way down to the A Ring and went across the A Ring at the apex and burned some of the 5th Floor. It was sleepers, wood sleepers that were originally built. That's why the firefighters were afraid to go up there, they thought that a wood roof would collapse. They didn't go in, so until they realized that in fact it was actually a

concrete gabled roofs with sleepers and slate on top of the sleepers, like a wood 2 by 3 or whatever on top of the sleepers, and another piece of board with slate on top of that. That's what was burning, it burned all the way down the roof, they couldn't stop it. I've got some pictures.

Berlage: Do you know how they finally stopped it?

Stanton: This is the A-E Drive, you can see the blowouts. This is one of the stairwells, the door is blown right off the hinges. Here is the inside of the stairwell, you can see how it baked the pain right off and baked the signs. Here's one I took when I was working with Georgine on the investigation, you can see the plaster ceiling--the force went up the steps and pushed the ceiling up and then dropped it. You see the plaster on metal lathe that went up like this, and it melted everything, the signs, and the walls. Here's the steel fire standpipe we had put in those same stairwells, it melted the gage.

Goldberg: How long were you on site?

Stanton: I was on site as part of the collapse rescue team from the 11th to the 19th (?) What kinds of pictures do you want?

Welch: We'll take as much as you will give us, and we can sort them at our leisure.

Stanton: You were talking about the stairwells. I was told about the bodies, but I never saw them.

Goldberg: Did you take these pictures?

Stanton: I don't know whether Georgine took them, I think I took some of these.

Goldberg: They are good.

Stanton: I've got negatives.

Goldberg: Can we get copies?

Putney: Graphics can do it for us.

Berlage: I just want to clarify; you said you did not see any fire on the 3rd to the 5th Floors?

Stanton: The fire was out; most of the fire damage was from that collapsed area towards Wedge 2.

Goldberg: You didn't get up to the upper floors, did you?

Stanton: Later on I did end up going up.

Goldberg: On 9/11 you didn't.

Stanton: I don't recall going upstairs on the 11th. I did on the 12th, I went through all the building, and on the 13th. It took me a full 24 hours to work with Junior Hamm and Bill from the Facilities, the RAT team, to get the water shut off for sprinkler and standpipe; to get the chilled water shut off. If you remember, they lost a million gallons of water the first day, in that building. In the mezzanine we were up to here in water, walking through, shutting off valves.

Goldberg: How about the basement?

Stanton: There was no basement over there, there is only mezzanine over in Wedge 1 and Wedge 2. I did go over in the Corridor 10 area, which is the basement area, with Bill. He was shutting power off in the E and B Rings off of the 5th Corridor. He took me all the way over to the 7th Corridor to shut power off. I was thinking "this is really odd, what am I doing over here on the other side of the building, shutting power off to Wedge 2. This is how they rob Peter to pay Paul, it is crazy. I wanted all power off because we had hundreds of rescuers and firefighters in this area and I did not want a situation where someone got electrocuted while they were doing shoring or whatever else they had to do. Water, electricity, all that, when we were all climbing around for 7 to 9 days, we didn't want that. We needed to see if we could get those batteries out as well, and it took us three or four days to do that. It took me a full two shifts to get all the electric and water shut off. With that many gallons of water lost, the pressure dropped to about

15 psi for a short period of time. That's coming from a 30-inch water main from the Washington Aquaduct up in Georgetown that feeds the Pentagon, that dropped from 85 pounds at grade to 15. With a 30-inch main of water, a column of water like that, it boggles my mind, and I'm a fire engineer.

Goldberg: It penetrated pretty far into the building.

Stanton: It went all over the place, it went everywhere.

Goldberg: Of the things that you brought, what can you leave with us?

Stanton: This is a layout of our team; the shoring table of all the shores that we did, I believe there were 63 box shores around columns. There were 7 vertical shores, like I showed you.

Goldberg: Does that include the engineer company from Belvoir?

Stanton: They worked with us.

Goldberg: Does that include what they did?

Stanton: Yes, that's the total shoring for everybody. These are my unit logs, my handwritten notes. Understand, you are not sitting around writing, drawing pictures, or walking through the structure, you are climbing in there doing things. I was trying to log things. This is the formal FEMA log, and this is some notes I transcribed. This is the actual log that one of our engineers on the Maryland team typed up a week or two afterward. He didn't put my name on here because I was moved up to the highest team. These are the three other engineers on the team I'm on now with Dave. There are 7 of us now, or so. They stayed on the teams and they split up to work with each of the rescue teams. I went to IST so I had a separate report, which I couldn't find. These are my daily handwritten log and this is the written log that they took for the day shift. The personal protective equipment decontamination procedures--we are working in an area with lead paint, asbestos, smoke and other hazardous conditions. The urban search and

rescue plan; this is part of my after action report notes; I will have to find that for you, the one I actually typed up. I went back on the 22nd and spent 10 hours locked up in a room in a hotel. They brought lunch in, and we worked from 7:00 to 5:00. The IST team got in there and spent time talking through this so we could have an after action report for FEMA headquarters. I found these daily reports, from the 15th, 16th, 17th, and a basic sketch of the command structure. The emergency response team builds out. This does not include the PenRen, the building manager's group, the Army, the NTSB, FBI, and all the other government agencies that were involved in this. This is just the fire and rescue operations and FEMA and how we fit into the scenario. We do not take command, we are a support function, we come in with 9 specialties to augment the local forces. We happen to have 6 teams, all listed right here. I had MDW, the Fort Belvoir folks, they were split half and half. I will give you all this, I have made copies. This describes what happened on each of these days. I will be glad to come back and bring copies of CDs and pictures of our team as well as afterward. I'm sure you have seen Georgine's report. We were the engineers that generated these plans, myself and my counterpart on the night shift, Dennis Barnes from Virginia Task Force Two out of Virginia Beach. We created these things that you see and all the different Corps of Engineer reports, the Pentagon report that we did with Georgine as well as the reports given by NIST up in Gaithersburg. We created all those. I didn't get a copy of the casualty report where they found hundreds of bodies and body parts. That was FUOU and we couldn't look any further.

Putney: We are building an archive. We anticipate people calling in over the years with questions or commemoratives. Dr. Goldberg is the one whose office produced it. We get the questions on the building.

Stanton: I'll be glad to give you all the pictures, hundreds and hundreds of them.

Goldberg: We appreciate it, because a book on this subject will have to be very well illustrated so people can understand. We expect to have a lot of illustrations and graphics.

Stanton: The story is important to be told and the biggest thing of all is to never forget. This was our Pearl Harbor. I wasn't there, but my dad and my great grandparents remember that.

Berlage: What point in time would you say this is accurate for?

Stanton: New Mexico came in right here, they came in three days later. Tennessee came in two days later.

Goldberg: No, the next morning. New Mexico drove all the way across country, they demobed people on the 17th, 18th, and 19th. I stayed on until the 19th afternoon and came back on the 22nd to Crystal City where the IST got together, with the FEMA headquarters people.

Goldberg: I want to thank you, we appreciate it.

Stanton: I can come back.

Putney: I need an explanation of the alarm systems you had installed. How would people have known anything had happened if they weren't that close? In Wedge Two, part of the older section, what were the alarms, fire and smoke?

Stanton: What was in the impact area of Wedge One was an addressable system with node panels in each area on each floor. They were in the D Ring and the B Ring on each floor of Corridor Three and Corridor Four. There was a total of 20 panels, an addressable system, there were 420 or 430 alarms that instantaneously went off on the alarm system and other types of alarms. On the Wedge C side we had a temporary system that went from the barrier wall to Corridor 5. That was pretty well trashed, but they had a basic hard-wired system over there that had pull stations and they had some speakers in that area and some strobes. There weren't a lot of alarm systems in the existing area, the Corridor 5, Corridor 6 area; there was no smoke

detection to my knowledge; the sprinkler systems were only in a couple of offices, so there were no flow and tamper switches; there might have been a trouble system. I don't know what kind of alarms they have over there. Steve Carter, the liaison for the renovation program, told me there were something like 430 alarms that came from primarily the Wedge One side. There were notifications and backup power and all that for each of those panels. They individually had backup batteries, and were on the opposite side of the corridor, so they were not impacted. The wiring in the area of impact is where all the 1st Floor C, D, E, 2nd Floor D, and CDE, and just the E Ring on the upper floors.

Putney: The security teams had to go around?

Stanton: On the Wedge Two side they would have had to have pulled the stations over there to activate the alarm systems. Otherwise they would have ended up with a trouble condition when wires ripped and broke.

Goldberg: They didn't have sprinklers in Wedge Two, did they?

Stanton: No.