

Pentagon Attack

Interview with Allyn Kilsheimer
October 29, 2001

Cameron: This interview with Allyn Kilsheimer is taking place on October 29, 2001, at the OSD Historical Office in Rosslyn, Virginia. The interviewers are Drs. Ronald Landa and Rebecca Cameron.

First, please tell us what your job was and is.

Kilsheimer: I received calls on September 11th at around 10:30, one from the Pentagon Renovation (PenRen) group and one from New York City. I was asked to go to New York City but I told them that I didn't think that I could do anything there because it wasn't going to make any difference. Then I got a phone call from PenRen again about 1:00. They asked if I could come over there.

Landa: What was your job at that time?

Kilsheimer: Nothing. I didn't work for them. I own several companies that are structural engineering companies in Washington that do work all over the world. We have done about \$20 billion worth of buildings. I personally have been called to a lot of the major disasters in the world due to hurricane, earthquake, bombings, fire, building collapses, etc, because, I guess, people think when you get old you know what you are doing. I have been to a lot of those events. So I received the phone calls because people knew of my experience.

Cameron: Had you had any previous dealings with the Department of Defense?

Kilsheimer: Yes. Over the last forty years we have done work, but not very much for any one government agency. We did do some work on the Pentagon

basement addition several years ago. I don't know what else we have done for the Department of Defense.

Cameron: But you knew somebody or somebody certainly knew of you—your reputation.

Kilsheimer: Right. People knew about us.

Cameron: Who called you?

Kilsheimer: The first call I received was from Mack [McGorn] from AMIC. He is the president of AMIC who is the contractor doing the Wedge 1 work at the job prior to September 11th. Apparently, there are some people who work for PenRen that also knew of me from having worked with me before, and apparently when this all happened, one of the questions was who is going to come in and take charge of all of this. My name apparently came up in several different conversations. I arrived there about 5pm.

Cameron: Whom did you meet with initially?

Kilsheimer: I honestly can't tell you. I believe I met with Ron [Vamein] from AMIC and Jack Kelly from PenRen. It was hard to get where they were, because I didn't know my way around. That was the initial, "What do you want me to do?" And the answer was, "Whatever you have to do to make it safe for the people and tell us what has to be done." That was the extent of the meeting. Then I just started doing things that I know how to do.

Cameron: This was while they were clearing debris?

Kilsheimer: No, in the midst of the fire. The fire was still burning. I went in with several generals and some firemen. I donned a fireman's outfit, which is really

hot and heavy. If you ever wear a fireman's uniform you need to get one from someone that doesn't have a waist much bigger than yours, because I spent half of my time pulling my pants up because they kept falling down while I was trying to walk around. The idea was just to walk through. I unfortunately saw a lot of things that I wish I wouldn't have seen. The idea was to figure out what the condition of the building was.

Landa: From a structural point of view?

Kilsheimer: Yes.

Landa: You were given responsibility to try to ensure that the structure would be safe and stable as soon as possible?

Kilsheimer: I think my first role was to assist the emergency teams and the FEMA teams in making those determinations since they had a little different experience than I had. So I was assisting each of those teams during that process. At the same time, formulating ideas on what the condition of the overall building was, not withstanding the immediate situation. I was then asked to assist the FBI, the DPS and the U.S. Marshals Service to determine what areas were safe for their people to go into after the fire was pretty much put out. And to go with them when they had to go places that I felt were unsafe. So I did that with the Navy, Army, the Marine Corps, the DPS and the FBI. My role was to take them as far as I felt was comfortable. Then I asked them what they wanted. I made them stay there and I got what they wanted for them.

Landa: What was your initial reaction, compared to anything that you had seen before?

Kilsheimer: It compared to everything that I had seen before. The one thing that didn't compare was usually when there are dead bodies where I am they are crushed and mangled or something. There were [three] guys that looked like they had just fallen over. You wanted to say, "Get up," because they looked fine. So that was the hard part—the look on their faces and the fact that they were absolutely untouched. They were just dead.

Cameron: How did that happen, do you think?

Kilsheimer: It was due to concussions, essentially. It was clear that one guy just got knocked flat. He had a little bit of blood out of his mouth and nose, so he probably had a fractured skull. I didn't see anything wrong with the other guy. Their faces were all waxy, which is what happens when you get really hot before you start burning. There were lots of skeletons. It is terrible, but that wasn't a problem, because it looked like a skeleton that you would see in a museum or on television. That wasn't the issue. Those [three] guys were a particular problem.

Landa: Had you had any previous experience with bombings?

Kilsheimer: I was in Oklahoma City—well this wasn't a bombing, this was totally different. We were designing the headquarters building for the Patent and Trade Office, which is five and a half million feet. We had been designing parts of that for [glass resistance]. So we have been focusing on that recently.

Cameron: Was the structure of the Pentagon similar to that of the Federal Building?

Kilsheimer: It was built in 1941. Do you know when they broke ground?

Cameron: September 11, 1941. Was the Pentagon designed so that it would collapse differently from a more recent structure?

Kilsheimer: It did wonderfully, given what happened to it. It did that for a number of reasons. The main reason is where the guy hit. I believe they were incredibly organized and knew what they were doing and had structural engineers telling them where to hit. I don't think that they realized that they were hitting an expansion joint. So the photographs that you saw for a long time showed a very neat, clean line, and that was because that was an expansion joint. It hit to the right of the expansion joint at an angle. So that expansion joint saved a lot of people, because it knocked down one side of the expansion joint but since they are not connected, it didn't knock down the other part. The next thing is that the columns, the vertical members of the building, are [spirally] enforced, which we stopped doing probably in the 60s. We do that on some buildings because it gives them substantially extra strength, but we do it now because we need it. Back then they did it because that was the way you did things. The [spiral] enforcing held a lot of these columns together that made the building stay there longer than it would have. In fact, it held up when, even if it were today's columns, a lot more of the building would have come down.

Cameron: Why do you think structural engineers were part of the attack? Wouldn't engineers have known about the expansion joints? Wouldn't they have gone in at a different place than the new section?

Kilsheimer: I don't think they knew anything about the fact that it was remodeled or not, or occupied or not. The expansion joint was built in 1941. I don't think

they realized that. At the same time, I talked to a couple of people that were outside—one guy was running and one guy was in the gas station. The pilot came over the Radison and went down and then banked going into the building and hit a light pole. It was possible that when he banked he didn't bank far enough and he really wanted to hit further to the left than where he hit. Maybe he was trying to miss the expansion joint. It just so happened that he didn't. In New York they hit it where one would hit it if one wanted to do what they did.

Landa: The other thing is that that area is largely unoccupied.

Kilsheimer: I don't think they knew that. But clearly in my mind—I was up at the World Trade Center for that first bombing—clearly, they either had an engineer working with them or they knew enough, because another twenty feet over and they would have brought the building down then. These people, if they were running companies, would be in the Fortune 500 from that vantage point.

Cameron: There is some indication that they circled around to hit where they did. Your surmise, though, is that they were thinking in structural terms in order to do damage rather than to avoid the surrounding buildings?

Kilsheimer: I think from talking to people—again the guy who was running and the guy at the gas station—that they actually came in low over 395 and were hiding behind the buildings, including the Radison Hotel so they couldn't be seen. Then they came up by the Radison and dropped straight down. They could have gone up the river where there were no buildings in the way. Buildings do not encumber all of the other sides of the Pentagon. This guy came over the buildings. In my mind it was to hide behind the buildings. Whether he was hiding

behind the buildings and then hit whatever he could after he got over the buildings or not, I don't know. Again, the guy who was running told me that he heard this plane and turned around and he thought the nose was going to hit him in the head. He hit the ground and something on the plane ripped his shirt off and he turned to see the plane bank and go into the building. Then the light pole was taken off. The guy in the gas station who was filling up his car was not only an amateur pilot, he was also a cop. He had a similar description. Now, do they remember what they saw? I don't know. It was a pretty traumatic experience for everybody.

Cameron: So back to what you did the first day. Basically you were helping the emergency operation?

Kilsheimer: Yes, giving them my advice and helping them decide where to do things.

Cameron: At what point did that job change to some other function?

Kilsheimer: They added FBI to it the next day and the Navy and Marines were just... I became apparently known on the site as the guy you went to to get something done. So they would come directly to me to get their files—saving hard drives was what we were doing the most.

Cameron: For the services and other offices?

Kilsheimer: Yes, on the edges of where it was collapsed.

Cameron: Whom did you use for assistance and crew? You didn't bring your own people with you?

Kilsheimer: Me. I didn't want to risk anybody else.

Cameron: You didn't work with the PenRen or the joint venture people?

Kilsheimer: No, I didn't ask anybody else. I have been doing this for a long time, and you get a feeling in the pit of your stomach that is either good or bad. When it's my time, it's my time. I don't need to take other people with me.

Cameron: So you were literally in there by yourself.

Kilsheimer: Most of the services had their guys that went with me to a point. I would ask them to stop. I would ask them what they wanted and I would give it to them. There was one Navy area where there was a hole with two slabs over my head that was being held up by a computer frame. I had to get the door open to get the hard drives out. That was touchy.

Cameron: When did more of the structure begin to fall?

Kilsheimer: There were pieces that came down all the time. By then, the major collapse had occurred.

Cameron: So there was no more collapse until the Pentagon folks or whoever began to do demolition on the site?

Kilsheimer: That was me actually. After we got through the first, second and third group—it was a week and a half or two weeks later. Actually, on the 13th, I took a piece of plywood and marked where I thought the area was that was structurally damaged and had to come down. I'm giving that to Lee Evey on Wednesday. I thought he'd like to have that. Then I was studying drawings. They were giving me drawings as fast as they could. We set up a computer in the Heliport. I was looking at things as fast as I could to try and understand. I pretty much decided then, based on what I had seen, what I thought the area

was that had to come down. The deal was we had to take down part of the area to make it safe to be able to take down other parts. That's when we had that flare-up of the fire again on Thursday or Friday—I lost track of time. FEMA had called for about a 72-inch pulverizer. There are only two in the country. One is in New York now, one is what we've got here. A firm called Potts & Callahan had that one. I went out there, I don't remember what night it was. It was probably the 13th, to ask the operator, because I was worried, if he had done anything like this before. He said, "No." I asked him if he felt uncomfortable doing it and he said, "Yes." These were all honest answers. He is the best operator I have ever seen. So we actually kept that machine on site, and he's back doing what we are doing now. He is a very talented machine operator. We are very lucky. He can pick a piece of paper right off his desk.

Landa: You said that you were in Oklahoma City afterwards. How did the response of Defense officials, FEMA and other federal agencies in the Oklahoma City disaster compare to the response to the Pentagon disaster?

Kilsheimer: I don't know if I can separate that out. Here we had several thousand service personnel. The construction community here as well as the services here and whoever else was here—I have never had so many people offering so many things, no questions asked. When I do these things, usually I get calls from contractors that say, "Whatever you need we will give you. Don't worry about it." Nobody ever asks for money. I'm sure that money happens later. Here, I had to turn people away because I couldn't use them. Like Home Depot who would say, "What do you need?" I would say, "We're almost out of

flashlights." An hour later, we had a truckload of flashlights. More lumber than you can imagine, and labor offers. My best friend owns the largest concrete company in the country, and he kept calling my wife saying, "I want to help and there is nothing I can do." She said, "Well, he broke his toe the first night because he didn't have his boots." She said that the next day there were twelve pairs of boots at our house. People still want to help, because they want to be involved.

Landa: How about the coordination and direction? Do you want to say anything at all about that?

Kilsheimer: No.

Cameron: When did you assume a more official role?

Kilsheimer: Once the emergency and fire people left, the site was turned over to the building management, General Jackson and his group (everybody used their initials out there). Then General Jackson turned it over to the FBI. So I was then doing just the FBI stuff, but at the same time we were working for PenRen determining how to fix what we had. When the FBI left, the building was turned back over to General Jackson who turned it back over to PenRen. The area with structural damage was turned over for me to tell people what I wanted done.

Cameron: Are you the main design or construction guru?

Kilsheimer: At some time during the night on a Sunday night after this incident, PenRen decided that they wanted me to put together the team to redesign this area of the Pentagon. I really didn't want to do that, but they persuaded me. So I told them, "Fine, but I don't want to pay anybody. I don't want to be in the

middle of that.” So I put together the team of architects and engineers—people that I have worked with before that I felt I could control, do what I want and play by my rules, which are the only rules, my rules. That’s the team we have and we have been working well together. I was asked to be able to utilize the contractors on site. So we have done that and there is a very close relationship between me and several of the subs that are doing work right now. The general contractor is there, but he isn’t doing a lot of stuff on my team. We are meeting this afternoon and we have issued preliminary drawings and we are going to start doing concrete construction in probably three weeks—a year ahead of where you would be in the private sector. It is really unusual for a government job. That is because they said, “Whatever you want, you get, and everybody else get out of your way.” And they have done that, which is pretty exceptional.

Cameron: Were there people in the original design process who are now not part of this redesign that you are doing?

Kilsheimer: We had institutional history available. We brought all of those people in as consultants so we could get previous information as quickly as we could. So they were all involved but at a different level than they were before.

Cameron: Have you had any difficulty in dealing with those folks?

Kilsheimer: Absolutely not.

Cameron: Nobody has been unhappy that you have taken over?

Kilsheimer: Oh, I’m sure they have.

Cameron: But they are not expressing it?

Kilsheimer: Most people don't give me any grief. There are a couple of hiccups with some other remodeling people, but PenRen has kept those people out of my hair. All of the people that were on the initial design—the whole team is really able. There is one guy that I recommended that wasn't doing what I wanted, so the next day I fired him. There are a lot of political hiccups that you go through that I never imagined would happen, but they are getting solved.

Landa: One of the things the military is very keen on is learning lessons—battles, actions, incidents.

Kilsheimer: Don't give machine guns and rocket launchers to eighteen-year-olds. Go ahead.

Landa: From your experience, which is broad, what lessons might you draw in the way of preventing these kinds of attacks, or minimizing the structural damage, or improving the response?

Kilsheimer: From airborne as compared to ground?

Cameron: However you see it.

Landa: Maybe both.

Kilsheimer: I think the first issue that we all learned was that in this building—do you see that exit light up there? When the smoke is so thick you can't see anything and you are crawling on the floor, you don't know where that is. In fact, we are taking steps now to deal with that. That is the first thing that I think was learned. The second thing I think was learned is that stair pressure is [inconsistent]—which you have in this building and most modern buildings and is really helpful—but what happened there is when you opened the doors, the stairs

did great, but smoke went into the stairs and stayed in the stairs. [CK ABOVE SENTENCE FOR CORRECT MEANING] When you have a negative pressure in the stairwell, it sucks all of the smoke out of the top. That didn't happen here. That made it more difficult to get out. I think from the standpoint of prevention of these kinds of things, some missile outside around the building would have taken care of a few things! But you can't prepare for every eventuality. Certainly, the blast windows and blast wall that had been installed in Wedge 1 did a great deal to delay the building's response to the impact, therefore allowing more people to get out. The second night I was up on the 5th floor with these Navy guys, Navy Seals and I didn't understand why they were so nervous. When we got downstairs, I said, "How come you guys are so nervous?" One said, "That was my office, I was sitting at my desk." Those guys would have been wiped out. The building took twenty minutes or so before it actually dropped. I think that the impact—it is like the blast design—you are asked to design for a certain magnitude of explosive at a certain distance. You can design a building that will react to that explosive at that distance. If you put more explosive closer, it doesn't react the same way. So you can't design for an infinite amount of explosive at a zero distance. After Oklahoma City, we were designing the FBI Building downtown and we stopped and we retrofitted it during construction to be able to handle forces. We're doing some construction for two other government agencies. What we are suggesting to one of them is that while you design the extra wall for a blast, you build outside of that another device that will deflect the

glass vertically so that the blast doesn't get there. But flying a plane into the building....

Landa: That's a different story.

Kilsheimer: If this had been a steel building, we would have had something similar to the World Trade Center. Concrete does really, really well. It takes a long time to fall. There was a tremendous amount of failure that was caused by the actual vehicle. There was a tremendous amount of failure caused by the blast and the gases that went ahead of the fireball. There was a tremendous amount of damage caused by the fireball. The stuff that was caused by the fireball is still up in the air. We can't use it. We have to take it down. It is all [microfractured]. But it stayed there.

Cameron: I don't understand.

Kilsheimer: The slabs are still there. They can't carry a load anymore. They are working only because of the grace of God. You can't prove that they would work, but they are still there. In a steel building that wouldn't happen. In New York, when the planes hit, they blew the fireproofing off the steel—1500 to 1800 degrees, it melted the steel. The columns were two stories tall. It melted them. Then you had the impact of all of the floors coming down. It is not designed for that.

Cameron: So concrete will remain intact under intense heat for a longer time?

Kilsheimer: Yes. We used to fireproof steel with concrete, but that became too expensive and time consuming. So now it is done with the spray stuff. The spray stuff works but if you blow it away, like with a plane, it is not there anymore.

Cameron: In the new redesign, besides the blast wall, will there be an additional protection of some sort.

Kilsheimer: Not at this point. But there are other discussions that are going on around the Pentagon about other things. This other agency that we are working for, their issue is that there is a road that goes very near their building, so how do they protect the building? We suggested that they build a wall that will deflect the force upward. You can't stop the vehicle from going against that wall, but you can deflect the force upward, which is what happened at the Pentagon. There is no way to prove this, but had the A&E road had a slab over it like the other light wells did, I believe the vehicle would have gone all the way to the courtyard. Had the other light wells not had slabs, I believe they would not have gone as far as they did, because what happened was that the force ahead of the vehicle was blowing everything out of the way. That force relieves itself as soon as it gets to air. That's why the roof lifted up on a lot of the building, because that force would get through shafts and stuff and start to go up. When it got to A&E road, all of that force was able to go straight up. When it went to A&E road, the windows on one side were blown in and the windows on the other side were sucked out. That is because the force had gone up between them. We talk about ways to relieve pressure in buildings when explosions happen, but that only works if you can get the force to the area that you are relieving the pressure from. How do we do that? How do we know where it's going to [hit]?

Cameron: Is there discussion of some new security measures to be added to the redesign?

Kilsheimer: I'm staying out of the "security" measures. I'm staying with the structural ways to make events like this less damaging. So yes, we are looking at lots of different issues.

Cameron: Will your role continue during the design and reconstruction?

Kilsheimer: Yes. We will be observing and supervising construction. While there is contracting, we don't do contracting work. We have guys full-time at the site to make sure that they build what we want, where we want it.

Cameron: Those guys are from your company.

Kilsheimer: Yes.

Cameron: So basically, you are working as a consultant with PenRen to oversee this?

Kilsheimer: I guess, I have no idea. I believe that I was hired by the Department of Defense to do all of the things that I have just described to you. They wanted a letter of contract. I still don't know why. So I signed the letter of contract that Sunday night, maybe the 17th, I have forgotten, that says I will do all of the things I just described. In very short form, I'll do what I want.

Cameron: What timeframe do you think that you are working with here?

Kilsheimer: For which part of it?

Cameron: Any.

Kilsheimer: I promised that there will be people in the E-ring where the building is demolished looking out at a ceremony that will be held on September 11, 2002, at 9:38 in the morning. I didn't say that they will be sitting on chairs or have phones, but they will be in there looking out.

Cameron: You will direct the contractors?

Kilsheimer: I'll probably make them work twenty-four hours a day, seven days a week. If nobody gets in our way, we can do that. They just need me occasionally to beat on them. This crusher has helped me a lot because they are taking the limestone off of the building in some places, and the stone guys weren't moving fast enough. And I told the guy with the crusher to kind of get near them so that they could see the crusher biting at this concrete. That made them move much faster. I did the same thing on Sunday with the guys taking out the hazardous material. All of a sudden they started moving much faster. I believe that what happened was that in the beginning everybody thought that I was a crazy son-of-a-bitch and that there was no way that we could pull this off. Now they know that I am crazier than they thought I was, but it can be pulled off. Everybody is buying into this as much as possible. The more that they are buying into it, the less obstacles are being placed in the way of the work.

Cameron: Who do you inform or consult with in the Pentagon?

Kilsheimer: Once Jackson turned it back over to PenRen, from my vantage point the Pentagon is out of it. PenRen is in control. So there are briefings every morning at 8:00 that I go to. I do a little spiel there and everybody else that is doing other work does a little spiel. I am constantly talking to Lee Evey.

Cameron: So Lee Evey is your most senior point-of-contact?

Kilsheimer: He has about thirty guys in his briefing, but yes, he is the one that I really talk to. There are a lot of other folks there. Lee said that they consider me

scheduled for a computer upgrade on the 15th or the 20th of September and they decided to go ahead and do that. So that slowed down all of the badges for a long time. If I were to pick the one thing: maybe you shouldn't change your computer system when you are in the middle of something like that. Everybody was exceptional, given the circumstances.

Cameron: It sounds like the Defense Department is fortunate to have you to call upon.

Kilsheimer: I'm sure there are other people who could do the same thing. They are not as old and dumb as I am. Most people would take a very long time to do what I am doing. They probably would do a better job. They probably would do it cheaper. They probably would be able to write a better report. I'm not into any of that stuff. I'm into September 11th, 2002. That's it.

Landa: I look forward to that date.

Kilsheimer: It will be there.

Cameron: We'll be there.