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2021

Dr. Willie J. McFadden II, FS Interview (MORS)

McFadden, Willie J. II

Military Operations Research Society (MORS)

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Military Operations Research Society (MORS) Oral History Project Interview of Dr. Willie J. McFadden II, FS

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INTRODUCTION

Oral Histories represent the recollections and opinions of the person interviewed, and not the official position of MORS. Omissions and errors in fact are corrected when possible, but every effort is made to present the interviewee's own words.

Dr. Willie J. McFadden II served as President of MORS from 2003 to 2004. He was elected a Fellow of the Society (FS) in 2008. Willie was Director of the Engineering Management Program, Department of Systems Engineering, at the US Military Academy. Dr. McFadden is Senior Director, Army & Missile Defense Solutions Intelligence & Security. The interview was conducted on 21 December 2021 via Zoom.

MORS ORAL HISTORY

Interview with Dr. Willie J. McFadden II, FS
Mr. Bill Dunn, FS, and Dr. Bob Sheldon, FS, Interviewers

Bob Sheldon: This is December 21, 2021. We're here for an oral history interview of Willie McFadden. From the background behind you on this Zoom call, I assume you're working from home.

Willie McFadden: No. As a matter of fact, I'm in the office. I try to decorate it like home because I'm here all the time.

Bob Sheldon: Tell us your parents' names and where you were born and raised.

Willie McFadden: My parent's names are Willie James McFadden and Gloria Jeanette McFadden. I was born in Frankfurt, Germany. As matter of fact, I was actually a German citizen for 16 years, and then I had to be naturalized. I was naturalized in 1977.

Bill Dunn: Let me just ask a question about your name. You and your dad are both named Willie, not William. And Willie didn't come from William.

Willie McFadden: Yes. Both of us are Willie's, and both of us are James, so I'm the second.

Bob Sheldon: Tell us about your parents and how they influenced you.

Willie McFadden: My dad influenced me as a military officer. I liked the way he did things, the organization he brought to things, and I just liked the career path he was on. So I followed that career path. He was a Field Artillery officer, and I followed that same career path as a Field Artillery officer. My mom graduated with a degree in home economics. She was probably the biggest influence on me, because my mom was very aggressive about getting things done. She was one of those who drove you to excellence and ensured that you did everything exceptionally. Doing things like keeping my grades up, learning how to write legibly, and things of that nature. She is a stickler for perfection. She's the one who really pushed me to make sure I did all those things.

Bob Sheldon: Can you give us an overview of your dad's career in the Army?

Willie McFadden: My father was commissioned as a second lieutenant in the Air Defense Artillery at Florida Agricultural and Mechanical (A&M) University in 1955. His early career started at Fort Bliss, Texas as a Reserve officer. He then moved to Chicago, Illinois. From Chicago, his next career move was to Germany followed by a tour of duty at Fort Lewis, Washington. After his tour in Fort Lewis, he attended the Field Artillery Advanced Course and was branch transferred to the Field Artillery at Fort Sill, Oklahoma. He then had his first tour in Vietnam; then was stationed at Fort Riley, Kansas; back to Germany and then his second tour in Vietnam. While my Dad was on his second tour in Vietnam, our family was stationed in Roswell, New Mexico. It was in Roswell where I began to understand what my dad did during his military career. My mom would always talk about Vietnam and when my dad was expected to return. He served his duty tours in Vietnam and became fluent in Vietnamese. When he PCS'd back to the States, our family moved to Fort Bliss, Texas. While at Fort Bliss, my dad served as a nuclear weapons instructor and as a Group S4, along with other assignments. Upon completing his tour at Fort Bliss, we moved to Patrick Air Force Base (AFB), Florida. Here, my father served as an artillery advisor to the Florida National Guard. My father's next tour was with the Operational Test and Evaluation Agency (OTEA) in Falls Church, Virginia. I believe his tour of duty at OTEA provided him with a sense of mission enjoyment. He really enjoyed testing and evaluating weapon systems. At this point, as a junior in high school, is when I started to hear more about his career. He would travel to conduct evaluations of the Tactical Fire Direction System (TACFIRE)

system for the artillery, as well as other operational tests that he would run and work on while at OTEA. As a teenager, I thought all that stuff was really cool. While at OTEA, my father served as a test officer and then became the chief evaluation officer. I may not have remembered everything he did, but it had an effect where I really was interested in the operational research type of stuff, because I would hear him talk about certain testing that he would do on different systems. I was always very good at math, so I could understand some of the mathematics that he would talk about.

Bob Sheldon: What grade did he retire at?

Willie McFadden: He retired as a lieutenant colonel with over 25 years of service.

Bill Dunn: You're talking about OTEA. I used to work for them, so I know them quite well.

Bob Sheldon: What was your dad's undergraduate degree?

Willie McFadden: My father began his undergraduate career at Florida A&M, where he was studying mathematics. He then went in the military and became an officer. While as an active duty officer stationed with the Big Red One (1st Infantry Division), he graduated from the University of Nebraska at Omaha with a bachelor's degree in mathematics.

Bob Sheldon: Tell us where you went to school - your elementary school, junior high, and high school.

Willie McFadden: I went to elementary school in Fort Bliss, Texas. Then when we moved to Florida, I went to DeLaura Junior High School in Satellite Beach, Florida, and then one year at Satellite Beach High School. I finished up and graduated from Chantilly High School in Virginia. My dad had moved up to Virginia and started working with OTEA. He retired in Virginia in 1980. So that's where I graduated from high school and I went to West Point and graduated in 1983. Then I got my operations research degree from the Naval Postgraduate School (NPS) in 1993 and received my PhD from Old Dominion University (ODU) in 2000.

Bob Sheldon: What were your favorite activities in high school?

Willie McFadden: Sports. I played all the sports. Baseball, football, basketball, and track. At that time, my life revolved around sports. That was probably the biggest thing, but math was always a great interest of

mine. I was always very good at math. I loved my math classes. I didn't care for English too much, but you have to learn how to write - it is important.

Bob Sheldon: Did you apply to any other colleges or just to West Point?

Willie McFadden: I actually applied to Georgia Tech. That's where I wanted to go. I got accepted to Georgia Tech. I got accepted to the Naval Academy Prep School. And then I got accepted to West Point. I also got accepted to some other small schools in the area. Ferrum College in Virginia was going to give me a basketball scholarship, but I asked them, "Do you have an engineering program?" The coach there said, "We're bringing you here to play basketball - not to do engineering." I said, "I'm not going pro. I've got to have a life afterwards. So if you don't have an engineering degree program, I can't come to your school." He was dumbfounded. But my high school basketball coach said, "I've never been more proud of you than today, when you turned down a basketball scholarship, by understanding what's best for your future."

I went to West Point in 1979 and I enjoyed it there. I didn't always enjoy the regimentation that you had to deal with. But West Point was a great experience, and I liked the math and science courses.

Bill Dunn: Did West Point have an engineering degree at that time?

Willie McFadden: They were giving a general Bachelor of Science engineering degree when I graduated. I believe West Point began having majors and fields of study sometime around 1985-1986.

Bob Sheldon: Do you remember any of your math professors from West Point?

Willie McFadden: No, I really don't.

Bob Sheldon: Was Vern Bettencourt there?

Willie McFadden: Vern Bettencourt was there, but he was in the Engineering Department. I had him for Patterns of Problem Solving and a couple other courses.

Bill Dunn: What about Jim Kays?

Willie McFadden: Jim Kays was there. He was in the Math Department, and he was also in the Department of Systems Engineering. He was the first Director of the Department of Systems Engineering. But I got to know him because he was the 150-Pound Football Officer-in-

Charge (OIC). A funny story with Jim. I wanted to come back to West Point when I was a captain to be on the academic side. He said, "I don't know if you've changed." [*Laughing*] I said, "Sir, I really have gotten better." He said, "I'm not quite sure yet." That was the first time I tried. The next time I tried, he said, "I think you really have changed. I've gotten a couple calls from your battalion commander (LTC Valenzuela)."

Bob Sheldon: What sports did you do while you were at West Point?

Willie McFadden: I played 150-Pound Football and intramurals.

Bob Sheldon: What is 150-Pound Football?

Willie McFadden: That was the 150-Pound Football team. (Editor's note: It was founded as the Eastern 150-Pound Football League in 1934; West Point joined the league in 1957, and it was later called the Collegiate Sprint Football League.) Jim Kays was the OIC of that as a lieutenant colonel and then colonel. Basically, it's like a weight limit. When I played, you had to weigh 158 pounds 48 hours before the game. But at game time, you could weigh whatever you want.

Bill Dunn: You can't weigh any more than 158 pounds.

Willie McFadden: At game time, you can. But 48 hours before, you had to weigh in at 158 or less.

Bob Sheldon: What other colleges did you play in that league?

Willie McFadden: We played the Naval Academy, Cornell, Rutgers, and Yale. There are a couple others, but those are the ones I remember.

Bill Dunn: When you were playing against Rutgers, you were playing against their varsity or junior varsity, or did they have 150s?

Willie McFadden: They had 150s as well.

Bob Sheldon: When you were getting near graduation, did you get to pick your career field in the Army?

Willie McFadden: As matter of fact, we got the chance to pick. I was not at the top of the class, but I was around the middle of the class, so I was able to pick my branch, which was Field Artillery, which is where I always wanted to go. And I got to pick my assignment - Fort Campbell, Kentucky.

Bill Dunn: The most popular branch selection was Infantry – right?

Willie McFadden: I think Infantry was always the largest. A lot of folks, even at the top of the class, would pick Infantry. It's always a popular one for everybody to pick. Field Artillery would go out usually about two-thirds of the way through. Medical School would go out way up front. Some of the smaller branches would as well. But the Infantry, Armor, and Artillery had the largest number of slots.

Bob Sheldon: At MORS, we get to go back to West Point about every five years for our annual symposium. Do you have pangs of nostalgia when you go there, or do you cringe every time you show up on campus?

Willie McFadden: I love going back. It is great being a grad; as a cadet not always as much. *[Laughing]* Going back and getting to see the Corps and the changes that they've made to the campus there and the facilities, it's been wonderful. It's always great to go back to see the cadets. That's one of the things I've always loved is going back to see the cadets, especially during the MORS Symposium (MORSS). Also, I was on the Department of Systems Engineering's Board of Advisors. I like going back to see and talk with the cadets, talk with the faculty, see their curriculum and how it's matriculated over the years, and what are the new areas of study the faculty needs to incorporate into the curriculum, and also just understand the difference in how the cadets feel about the academics and the Academy.

Bill Dunn: Did you have to “walk the area” (punishment for excess demerits)?

Willie McFadden: Yes, I did. I walked the area some. But I actually sat in my room longer than walking because the 150-Pound Football team was considered a Corps Squad sport. Playing competitive sports required you to develop your muscles for that sporting competition, so walking area tours was not good for conditioning your muscle memory. We would have to sit in a room. For every hour you would do walking, you had to sit three hours in the room. So I did a lot of that too.

Bill Dunn: How was your social life at the Academy?

Willie McFadden: It was good.

Bill Dunn: With women, I mean.

Willie McFadden: Well, you put that qualifier there. *[Laughing]* I made a lot of friends. To this day, I get to see some of my old classmates and buddies from other classes at times. Dating and stuff like that, really none of that while I was there. Not really much. I did have one girlfriend during that time period. Thank God that didn't work out.

Bill Dunn: Was she a cadet too?

Willie McFadden: No, she was not. She was down in New York City.

Bill Dunn: Did you buy a new car when you go out of West Point?

Willie McFadden: I didn't buy a new car. I bought an older model Audi 5000. I got a \$7,000 loan, and I was determined not to go into debt. Some of the cadets would buy all these fancy sport cars, and they would be in debt. I said, "No. I'm getting a \$7,000 loan, and I'm only going to spend \$7,000 - and I did. I loved that car. But when I bought it, I didn't know that it had a warped head, so I was driving this thing and doing great things with it, and I thought it was fantastic until that head overheated and it threw a rod. It lasted me for about three or four years, and then I was able to buy a new car after that.

Bill Dunn: In your third year, you get to go off and do some military thing, like go to Ranger school or things like that. Did you do any of that?

Willie McFadden: I didn't do that piece of it. I wanted to wait until I got out of West Point and go to Ranger, Airborne, and Air Assault schools when I was a lieutenant. But we did do what they called Cadet Troop Leader Training (CTLT). I went out to Fort Sill and started working with one of the 105mm firing batteries out there. That was an experience I, to this day, loved. And it was one of the main reasons that kept me on the track to go Field Artillery. Going out there, working on the gun line. They taught me how to do the aiming circle and lay the battery. They taught me how to do gunnery fire while I was there. They taught me all about the fuses, the fuse bags, and the things on the 105mm towed howitzer that we had. I just loved it. So that solidified my desire to go to the Field Artillery. My dad was Field Artillery, my brother who graduated from West Point in 1977 went Field Artillery. I always had planned to do it, but CTLT made it real. Then when I graduated, I did go to Air Assault school. I went to Jump School, but I went as a lieutenant and captain, respectively.

Bill Dunn: What was your first assignment?

Willie McFadden: My first assignment was one of the best assignments I've ever had. I was a 150-Pound Football assistant coach for six months, as a second lieutenant. I coached football for the first six months of my career. Then I went to the Field Artillery Basic Course after that.

Bill Dunn: Was that common?

Willie McFadden: No, it's not. Usually only two cadets a year get to do that for different sports. The varsity team gets to do that, and some of the other bigger sports like basketball get to do it as well. But I was one of the ones picked for the 150-Pound Football team, and that was a great job – coaching. To this day, I love coaching. I coached my son and all his little leagues, as he grew up through the years.

Bill Dunn: So then you went to the Basic Course at Fort Sill. How did that work?

Willie McFadden: It was good. I won the gunnery contest for Field Artillery. I was the top gunnery student in the class. I've always loved the Field Artillery. I learned about the aiming circle, how a firing battery functions and the whole works. I met some really good people that I'm still friends with today. I was behind two classes of my cadet peers. There were only a couple of other people that I knew that were cadets. Most of my class were Reserve Officers' Training Corps (ROTC) and Officer Candidate School (OCS) grads.

Bill Dunn: Ted Smyth, a Marine Corps officer, spent a fair amount of time at Fort Sill. Did you ever run into him?

Willie McFadden: I did not. I didn't know Ted Smyth there. There was another Marine, a captain. He was my gunnery instructor. Captain Don Gevin. I'll never forget him. A great guy. He was a real hard-charging straight-laced, the typical Marine that you see when you think of a Marine. He was a great instructor. He had a tremendous effect on my career and how I thought about things as I grew up in the military.

Bill Dunn: After graduation, where did they send you?

Willie McFadden: After graduation, I went to Fort Campbell, Kentucky, because I picked Fort Campbell as my first duty location.

Bill Dunn: Just like you wanted.

Willie McFadden: Just like I wanted. I really wanted to go to Korea, but it went out before I could select it. When I got to the Field Artillery Basic Course, I worked with another fellow student to switch location assignments. However, the way West Point does their selection process, we cannot switch with anybody. I had picked Fort Campbell purposely because the woman that I wanted to marry was in Nashville. Most of my classmates could not understand how the most un-military person they knew at the Academy picked Fort Campbell. They said, "Why would you do that?" They found out later. *[Laughing]* Because we did get married.

Bill Dunn: What did you do at Fort Campbell?

Willie McFadden: I started out as a Fire Support Team (FIST) Chief in the 1st Battalion 321st Field Artillery. The Battalion was later re-designated the 1st Battalion 320th Field Artillery Regiment. I started as FIST chief, and then moved to be a Fire Support Officer (FSO) for a short time. I was then reassigned as a Fire Direction Officer (FDO) for one of the firing batteries. I really enjoyed being the FDO in Charlie Battery 1/320th Regiment. Then I moved to be the Executive Officer (XO) of the same battery, and I just loved it. Being in a Firing Battery was a career highlight. My Battery Commander and I got along great, and my battalion commanders and I got along well. Fort Campbell was a great tour of duty. Then after finishing my XO stint, I was reassigned as a FSO back at the battalion level. I ended up my time at Fort Campbell as an FSO and then went to the Advanced Course.

Bill Dunn: That was with the 101st.

Willie McFadden: That was all with the 101st. While I was there at the 101st, I got a chance to go to Northern Warfare School. I got a chance to go to the Jungle School. I got deployed to Somalia, Africa. We were supporting the Somali government against the Ethiopian government when they were at war during the Reagan Presidency. While in Somalia, I did a lot of different gunnery type of missions. Fort Campbell was just a great tour of duty.

Bill Dunn: What happened after Fort Campbell?

Willie McFadden: After Fort Campbell, I went to the Field Artillery Advanced Course. My wife and I had our son there at Fort Sill, our first child. Then we went to Germany, where I was in the 7th Corps Artillery Headquarters. I became one of the S3 Plans officers for 7th Corps Artillery.

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Bill Dunn: Where was that?

Willie McFadden: That was an Augsburg, Germany. I had a great tour there too. I enjoyed it. While there, I worked for General Del Rosso. My direct boss at the time was Major Ed Flynn. Major Flynn taught me strategy and planning, things I remember and use today. Then I moved to work as the acting aide for General Del Rosso. I learned a lot from him. Then I was assigned as the Commander Charlie Battery 1/36th Field Artillery, an 8-inch Battery. Lieutenant Colonel Valenzuela was my Battalion Commander. I had a great tour there for a little over a year and then I went back up to 7th Corps Artillery and took over as the Commander, Headquarters and Headquarter Battery (HHB) 7th Corps Artillery underneath General Creighton Abrams, Jr. I was his Battery Commander when we also deployed to Desert Storm. That was the first time the HHB, 7th Corps rolled out of the motor pool all as one battery.

Bill Dunn: What rank were you then?

Willie McFadden: I was a captain during that whole period. I spent the next five to seven months in Desert Storm. I deployed them to Desert Storm and did everything to bring them back. I changed out command in April 1991. I gave my command over to Captain Rachel Peeler. I believe she was the first woman to take over a battery in the artillery. She finished re-deploying the unit back to Germany, then the 7th Corps Artillery was deactivated.

Bill Dunn: What kind of action did you see in Desert Storm?

Willie McFadden: Being at the HHB, I didn't see any actual action myself.

Bill Dunn: You said you had bought an Audi when you left West Point. It's no coincidence that Augsburg, Germany is where Audis were made. Correct?

Willie McFadden: Yes.

Bill Dunn: Did you go to the Audi factory while you were there?

Willie McFadden: No, I didn't go to the factory. While we were there, we toured all over Germany. We went to all the different castles we could go to and all the gasthauses we could go to. We decided that we were not going to be stuck on the Kaserne and live in "Little America." We got out on the economy and went everywhere. Every weekend we were going someplace, whether it was Nuremberg or

Heidelberg or Garmisch or Munich, or just in town. We did a lot of different things. We really enjoyed traveling in Europe. While in Germany, my wife fell in love with Volvos. So, we bought a Volvo, and worked a deal where we were supposed to go to the Volvo factory in Sweden to pick up our car. You buy the Volvo, you get to go to the Sweden factory, they give you a tour, they bring you to your car, and they show you how to operate your car. They take you through everything, and then you drive onto the ferry, and they bring you back to German soil, and you drive home. It was a two-day, all-expenses-paid, part of the deal. I was supposed to go with my wife, but I got deployed to Desert Storm. My wife got to go with one of her girlfriends - and not me.

Bob Sheldon: I did that when I was stationed at Ramstein in the early 1980s.

Willie McFadden: I was looking forward to the trip, but never got a chance to go.

Bill Dunn: When you came back to the States, what was next?

Willie McFadden: I went to the Naval Postgraduate School (NPS).

Bill Dunn: Was that your choice, or how did that happen? You brought up Georgia Tech earlier.

Willie McFadden: Actually, I wanted to go to NPS. I chose that. I had taken the GRE before I went to Desert Storm, and I had done well on the test. I had already talked with Branch. While I was at Desert Storm, everything was working through the system, and I got selected to go back to Advanced Civil Schooling (ACS). So when I got back from Desert Storm, we packed up and went to California. That was the strangest country I've ever been to in my life. I was more comfortable in Germany and Saudi Arabia than I was in California. [*Laughing*]

Bill Dunn: Did you know you were going into operations research, or did you think you were going to get something in engineering or communications?

Willie McFadden: I didn't know I was going into operations research at the time. At that time, it was just our Functional Branch assignment, and you got to pick your function. So I picked Functional Area (FA) 49 for all the same reasons we talked earlier. I love math. I love the research portion of it. I love doing the analysis type stuff, so that to me was just the logical choice. I was lucky enough and blessed enough to get picked for Advanced Civil Schooling. While I was at NPS, I worked on my Operations Research/Systems Analysis

(ORSA) studies for two years. It was a great assignment and a great tour for my wife and me. I was there in school and got to meet a lot of great Navy, Army, and Marine officers. I made some good friends there. I worked with TRAC (then known as the TRADOC Analysis Center – now known as The Research and Analysis Center) Monterey for my master’s thesis. Bard Mansager was the TRAC Director during that time. That worked out extremely well, and it was a really great assignment to be at.

Bill Dunn: Did you have any favorite instructors at NPS?

Willie McFadden: Even though Bard Mansager was not one of my instructors there, he had been one of my instructors at West Point. He and I knew each other, and I really liked him. He really helped me out a lot working on and understanding what type of research project I would do while at NPS. Probably my best professor there was Bill Kemple. Dr. Bill Kemple was my advisor for my master's thesis as well. He’s a former Marine. A great guy and a really great professor there at NPS.

Bill Dunn: What was the title of your thesis.

Willie McFadden: “Comparison of Janus(A) Simulated Terrain Vegetation Codes to Modified Janus(A) Terrain Vegetation Codes for the Javelin Antitank Operational Test.” It was an analysis of how vegetation issues can affect an operational test and subsequently combat effectiveness.

During that time period, I realized that I needed to make a choice: either go back into the Artillery or stay FA49. From NPS, I went to Training and Doctrine Command (TRADOC) where I was in the Resource Management field. They had ORSA positions, so I was doing analysis on programs, program elements (PEs), and funding issues. After about a year, I moved to a new organization – Battle Labs Integration Technologies and Combat Development (BLIT-CD) Directorate. I moved over there and started working Force XXI, an effort to digitize the Army. That's where I really got into doing a lot more of the ORSA work associated with TRAC, especially TRAC Leavenworth with Mr. Mike Bauman. That is where I got to know Mr. Walt Hollis. He would come down to get briefed on Force XXI, and a lot of times, I was the Force XXI briefer.

Bill Dunn: That was at Fort Monroe. Right?

Willie McFadden: Yes. That was at Fort Monroe, Virginia.

Bill Dunn: You were at Fort Monroe and you worked with the battle labs and Force XXI. Then what happened?

Willie McFadden: After I finished that tour, this is where I started talking to Branch again. They wanted me to go to Korea, and I said, "I don't want to go to Korea." I got accepted to go to Command and General Staff College (CGSC), so I went off to CGSC (1996-1997). I continued my discussion with Branch while at CGSC and decided to switch permanently to Operations Research and be a FA49.

Bill Dunn: What rank were you when you made that decision?

Willie McFadden: I was a major.

Bill Dunn: Was your next assignment a FA49 assignment?

Willie McFadden: As a matter of fact, my next assignment was not a FA49 assignment. My next assignment was I got accepted back into Advanced Civil Schooling, to pursue my PhD. So I left Fort Leavenworth, Kansas and completed my PhD in Engineering Management at Old Dominion University, Norfolk, Virginia. I was scheduled at that time to go back and work for Mr. Hollis, but Brigadier General Kays, at the time Colonel Kays, called me and said, "Well, maybe you have grown up at this point. Would you consider coming to West Point to be an instructor?" I said, "Well, I've never been there as a captain. I thought you had to come there as a captain first." He said, "No. You can come here as a lieutenant colonel." So I said I'd apply, and I did. Then he called me back and said, "We'd like you to apply to be an Academy Professor." I read all about it, and then he told me that he was going to be retiring and Colonel Mike McGinnis was going to be taking over the Department of Systems Engineering (DSE) at USMA. I told BG Kays that wasn't our deal. I said, "Our deal was I was going to come there and work for you." We had a long talk and he told me that this would be a really good assignment for me, and they could really use me up there. So I got my paperwork in, and I interviewed for the Academy Professor position, and I got it on the first selection. So I went to West Point, and I stayed there from 2000 to 2006 as an Academy Professor in DSE.

Bill Dunn: Mike Kwinn was there.

Willie McFadden: Mike Kwinn was there. Mike McGinnis was there as well as Simon and Niki Goerger. I helped bring Simon and Niki into DSE. There were a number of people who matriculated into MORS from

West Point who we worked with, on the Math side as well, as the Department of Systems Engineering.

Bill Dunn: Did you pick Old Dominion because you were already in the Fort Monroe area and figured that'd be the easiest on you? Or you went there because you wanted to go to ODU?

Willie McFadden: It was Engineering Management (EM). I had looked at the Operations Research track. I had looked at the Systems Engineering track, and Systems Engineering wasn't quite as big back then as it is now. I looked at it and said, "What is the one that's going to give me the broadest amount of capability to do what I do?" Meaning, I can do the technical piece. I would have to learn models and simulations. I would have to do analysis, but I also would have to do the management and leadership issues as well. Engineering Management was the field that I saw, and it was ABET (Accreditation Board for Engineering and Technology) accredited. I thought that was the perfect way to mix all of it together, that would fit for me. So I applied and was accepted into the EM program. While I was there, I actually finished my studies and dissertation in three years. It was really the perfect program for me. It fit the way I think. It fit the way I would like to do things, and it gave me the mix of the technical, as well as the management and leadership path and how to link those together, to not only run a program, but run a business and run a portfolio of businesses as well.

Bob Sheldon: One of the reasons I was able to finish at Cornell so quickly was my dissertation advisor had a topic in mind, and that really helped me. Was it the same for you?

Willie McFadden: It was absolutely the same. I had talked to some other people who had gone through Advanced Civil Schooling, and they said, "Do not pick your topic. You let your advisor tell you your topic." So I got linked up with Dr. Chuck Keating at ODU. He was a class of 1979 graduate from West Point. He told me what he wanted me to work on - it was the representation of knowledge management structures, and I've loved it. The requirement for my written exams was to respond to six questions associated with my topic, and normally they want one page per question. My response was 56 pages long. All my fellow classmates were like, "You're busting the curve here. What is wrong with you?" *[Laughing]* I just started writing and it just flowed. And for laying out our dissertation, they only want three to five pages. Mine was 80 pages, because I had been working with Dr. Keating and I knew what I wanted to do and what he was expecting from me. We had

gone through a lot of stuff, so I just expanded greatly, and it really turned out well. He was a great dissertation advisor, and one of my instructors for three or four of my classes. Just a great man. Academically, ODU was probably the place where I felt the most comfortable, and I enjoyed academics more there than anywhere else.

Bill Dunn: What kind of projects did you do while you were at West Point?

Willie McFadden: While I was at West Point, I ran the Engineering Management program for the Department of Systems Engineering. I established an honor society Epsilon Mu Eta for the Engineering Management Program at the Academy, for my discipline for my cadets. I sat on the Board for the American Society for Engineering Management (ASEM). While on the MORS Board, I served as President, Past President, and Fellow of that Society, as well as other positions. I was also an officer representative for the Army Women's Basketball team. I ran the chapter of the National Society of Black Engineers (NSBE), while at the Academy. I served on curriculum review committees while I was there. I was the Chief Technology Officer for our Department of Systems Engineering, so I standardized the Department's server systems, their laptop systems, and all the technology systems. I got rid of the chalk boards and whiteboards and brought in electronic whiteboards for everybody. I established a 3D immersive lab. The 3D lab allowed students and faculty to explore the use of 3D immersive technology and 3D printing as applied to systems engineering aspects for classroom learning. For instance, one of my classes, I had one group of cadets, broke them up into four different groups, and two groups were combined together. One group would build a 3D bolt, and another group would build a 3D nut; and I would tell them to put them together. Then they would say, "It doesn't work." "Well, it doesn't work because you all didn't coordinate together, and that's what happens with a lot of programs." The idea was to show that the systems engineering process requires coordination and collaboration to ensure that what you're building will integrate with something else. They got to see that from a simple example. Now the teams would talk and coordinate on how big the bolt should be. How wide are the threads on the bolt? How big should they design the nut? How wide are the threads on the nut? So you can put the nut and bolt together and work. We would do the different 3D prints. First, we would do it in Computer-Aided Design (CAD), teach them all those types of things, and then teach them to do that in 3D printing as well.

I taught modeling and simulation (M&S) courses there as well, one in system dynamics, and another in combat models. I really enjoyed the technical side of the house. One thing that I was able to do there, besides just the technology, was to transform my Engineering Management courses (exercises and tests) from a lot of things done by hand or calculator computations to spreadsheets and mathematical problems done on the computer. So the cadets would have to master mathematical representations (e.g., queuing theory, etc.) via Excel and build Excel representations/models and solve the problems in Excel. Instead of doing a queuing model by hand, you actually build it in Excel and let Excel run it, so you could understand not only Excel, but you also understand how a queuing system works, and then you can do your excursions off of that, instead of doing it by hand, where you just do it one time and that's it.

Bill Dunn: Up to this point, have you done any Joint work?

Willie McFadden: No. I had not done any Joint work. Unfortunately, I never was in a Joint Staff type position. Once I got to the Academy as an Academy Professor, that's where I ended up staying for the remainder my active-duty career.

Bill Dunn: What happened after Systems Engineering?

Willie McFadden: After I'd worked in the Systems Engineering Department, I retired in 2006 and moved down to Huntsville, Alabama and started working for Booz Allen Hamilton.

Bill Dunn: Why did you choose Huntsville? How long have you been there?

Willie McFadden: I had heard a lot of great things about Huntsville. I've been down here now for 15 years. When I retired, I came down and started working with Booz Allen and then I jumped companies every four or five years. My family and I love it here because it's just been a great place to be.

Bill Dunn: Are you from Alabama?

Willie McFadden: No, I'm not. I'm actually from Virginia. I started coming down here for different things, and I got to learn what Huntsville was all about, and I just love it. So I convinced my wife to come down here and my daughter, and now nobody wants to leave, which I'm happy about.

Bill Dunn: I think Huntsville is a great town, the greatest in Alabama in my opinion.

Willie McFadden: Well, I have to admit, I agree with that feeling, because all of the other places I've been to in Alabama, it's not the same. This has just been a perfect community to live in. My daughter came to Alabama when she was in third grade and went all the way up and graduated from UAB (University of Alabama at Birmingham) with her bachelor's and master's degrees. She will tell you she's an Alabama girl. It's just a perfect place to be.

Bill Dunn: UAB just won their bowl game.

Willie McFadden: Yes. As a matter of fact, this area just won the best place to raise a child in the US. My daughter's been to NASA's Space Camp and Aviation Challenge six times.

Bill Dunn: What was your role at Booz Allen Hamilton when you first moved there?

Willie McFadden: My task was to build an M&S business for Booz Allen in Huntsville. I went from two people to 16 people in four years. I built an M&S business that way and grew from zero revenue to over \$10 million in revenue when I finished that stint. Then I moved to a small company, Ares Corporation, where I did some more risk analysis and more FMEA (failure mode and effects analysis) and FMECA (failure mode effects and criticality analysis) type work for that company. Then I moved to Teledyne Brown Engineering with Roy Rice, where I became the Director in charge of the Objective Simulation Framework program for Teledyne. Our task was to build an M&S test harness for ground tests and flight tests for the Missile Defense Agency.

Bill Dunn: Are you still at Teledyne Brown?

Willie McFadden: No. Then I did something that was non-traditional, where I moved away from my M&S roots. I moved to a company called Hexagon, because I wanted to see a different side of the business. They are a Swedish company, but they had a US affiliated arm. I was working in their subsidiary, Hexagon US Federal (HexFed), and we did DoD type work. I took over the Army programs there and started running Army programs that I really was not accustomed to running. For instance, one Army program was doing work with the Assistant Chief of Staff for Information Management (ACSIM). That was a smaller effort. I also had another effort where we were doing records management, and they had IT

systems along with the declassification work. It was completely different from the operations research, M&S, analysis, and consulting type work that I'd done with my first three companies. I ended up moving internally within HexFed from just doing the Army programs to taking over all of their DoD programs. I went from about a \$16 million annual business to a \$40 plus million dollar annual business. I ran their Army, Navy, and Air Force Services' business across the company. I really enjoyed that. It was a great job. Around my five year point, I started looking for the next challenge and learning experience. I narrowed in on BAE Systems and Raytheon. These were two companies I would want to go to because some of the things they were doing. BAE Systems was looking for a director to come in and run and build a business. "I can do that. At least, I think I could do that." So I applied and got the job. My job is now to grow the company's Army and Missile Defense business. We're starting out very small but are quickly ramping up. We'll execute proposals this coming year that will have a major increase in the top and bottom lines going forward. Next year, it will be the same or a little bit more. So we have the chance to grow a significant business, and that's something I've always wanted to accomplish. I like doing that, growing different businesses from scratch and fixing things. The challenge of each really interests me and that led me to BAE Systems.

Bob Sheldon: Does your technical background help you there? You're a manager now. Do you do much technical stuff yourself, or do you just supervise technical people?

Willie McFadden: I supervise technical people. All through these years, I've always supervised technical people. I am also blessed that there are times when I'm able to actually work on a project as well. I have to admit it's getting harder and harder to do that because I don't stay as fresh with some of the capabilities and technologies. I spend a lot of time on contractual, people and fiscal issues. They are challenging and important. *[Laughing]* I deal with these issues every day.

Bob Sheldon: We've walked you through most of your professional career. Now let's backtrack and cover your MORS career. When did you first get exposed to MORS?

Willie McFadden: I got exposed to MORS when I was out at NPS getting my master's degree.

Bob Sheldon: Did you go to MORSS as a tourist, or did you present a paper?

Willie McFadden: No, I actually didn't go to MORSS. I was told about MORS, and I really liked what I heard about MORS. When I got to TRADOC, I would talk with Mr. Hollis a lot, and he would tell me about MORS. Then I got reconnected with Vern Bettencourt. Vern would tell me about MORS. So they asked me, "Are you interested?" I said, "Yes. I'm very interested. That's the profession I want to be in now." I wanted to hear more about it, so I started working on a couple of the working groups. They got me hooked up with one of the working groups for one of the symposiums. And from that point I just loved it and just started working as a member of MORS, and then slowly moved onto the Board.

Bob Sheldon: When did you first get recruited to be a worker bee in MORS?

Willie McFadden: It was while I was at TRADOC. It was Vern Bettencourt and Mr. Mike Baumann who first recruited me to do some work with MORS on one of the working groups. I really took off in MORS when they asked me to help out with the Education Colloquium. I can't remember who it was I worked with on that. But it was part of the Education Committee.

Bob Sheldon: What were your early impressions of attending MORSS?

Willie McFadden: It was eye opening. I did not know all the things the military was doing. I didn't know the type of technical depth that we were doing. It was an eye opener for me to see the civilian and contractor presence - because remember, as a major, you don't see a whole lot of civilians working, because you're usually battalion and below. So it's mainly uniformed personnel that you see. So I saw all these civilians working and saw all these retirees, and then I saw even the military, doing all this technical type work. And it opened my eyes that what's important to the military is not just the warfighter, but it's also the pieces that support the warfighter. Yes, the warfighting is critical. I don't deny that, and I fully believe that, but there's so many other things that are important to make that warfighting go well. As I started to get more deeply into MORS when I was at TRADOC, I started to understand the importance of Analysis of Alternatives (AOA). AOAs were for the weapon systems or the other type of technology or integrating type software systems that we were bringing into the force and why they were important. My operations research background helped me understand that technical side.

Bob Sheldon: You were talking about the various M&S jobs you had. Did you use your Army Artillery background as a subject matter expert (SME) or were you a coder or supervisor of coders? What was your role in the M&S part of your Army career?

Willie McFadden: When I was in the military doing M&S, it was more as an artillery SME, or an operations or planning SME. I was never really a coder, actually building models and running them. I would tell folks, "I'm a statistician; and if you're expecting me to actually write code, I'm the wrong person to write code. I probably could do it, and I have done it in my academic classes when it's necessary. But that's just not my forte. But if you want me to evaluate it, and if you want me to work with coders and how their code is going to support soldiers and military leaders, I can help you extensively with that."

Bob Sheldon: When did you first come on the MORS Board of Directors? In the MORS records, you came on the Board in either 1995 or 1996. There were December Board meetings and June Board meetings where they voted in new Directors - most of them in June.

Willie McFadden: When I first came onto MORS, I was not a Director. I was introduced to Natalie and to Dick Wiles. So I was allowed to sit in. So that's why you may have different dates on that. Then later down the line, I got voted in.

Bob Sheldon: Since you mentioned Dick Wiles, Dick used to joke that Artillery guys are all hard of hearing. Is your hearing okay?

Willie McFadden: Absolutely. That's always been one of the things that the doctors could not understand. That's the one thing on me that still works. *[Laughing]* I can still hear, but everything else is broken.

Bob Sheldon: Let's walk you through your MORS career. You became a Director somewhere around 1996. What roles did you play when you were initially a MORS Director? I assume you were on the Prize Committee.

Willie McFadden: The Prize Committee and the Education Committee as well. I really liked the Education Committee. I didn't do as many things in those early days in the MORSS working groups. I stayed more on the Education Committee.

Bob Sheldon: According to my records, your first MORS Vice President (VP) position was VP of Finance from 2000 to 2001. Did you volunteer

for that, or did someone twist your arm so you could learn about MORS finances?

Willie McFadden: That was interesting. Dick Wiles and I had talked about that. Normally they would not let a uniformed officer serve as the Finance VP. For some reason, the MORS Sponsors were okay with me being the VP of Finance, because I would not be making decisions for how to spend the money. I would just be tracking and monitoring how things were going. Dick with Natalie made those decisions.

Bob Sheldon: What happened the year you were VP of Finance?

Willie McFadden: Nothing really exciting that I can remember. To me, it was a really big learning experience of how the Board works. I would watch how Roy Rice would run things and how Dick Wiles would run things. I watched how Ted and other Board members work through and make things work with the Sponsors to get guidance for what direction they wanted us to go. So it allowed me to see the structure of how MORS functions and what it takes to keep an organization like that going.

Bob Sheldon: Did you consider yourself lucky to be a VP of Finance before the financial problems MORS had a few years later?

Willie McFadden: Yes, I did. When I was there, just like the folks who preceded me, we had a very solid financial backing from the Sponsors. So it was not as tenuous as the VP of Finance, as some later had when some Sponsors were falling out.

Bob Sheldon: When did you finish your PhD dissertation?

Willie McFadden: In May 2000.

Bob Sheldon: That's about the time you were MORS VP of Finance. When you finished your PhD dissertation, was that a big load off your back?

Willie McFadden: Yes. A tremendous relief. Even though I loved my education, dissertation, and my PhD time, because it was really more of a joy to do it than it was work, because I really was into it. But having that time back was a relief. I was now at the Academy and could focus on the Academy issues, teaching and doing all of the things you do, and not having to finish my dissertation. Finishing my dissertation did take a lot off my plate and allowed me to concentrate more on becoming a professor and learning how to teach and teach well, and run an academic program and all the

issues associated with that, and then also do the extracurricular professional activities like MORS. Then I also got involved in ASEM as well.

Bob Sheldon: Then you went from VP Finance to VP Professional Affairs. What happened that year?

Willie McFadden: One of the most exciting ones that I liked was when we started to do some of the mini-symposiums, especially the Education Colloquiums as part of that. I really enjoyed doing those. One that I remember vividly was when we did an AI type symposium where we had different AI software tools that we were testing, and we had papers and briefings that were presented on AI type systems. When I say AI, artificial intelligence, let me say it better as agent-based systems, what we were working on. I really enjoyed that mini-symposium. If I remember right, that was at Quantico.

Bob Sheldon: After that, you became MORS President-Elect. Did you apply for that job, so to speak?

Willie McFadden: I was asked. Bill Lese and Roy Rice asked me if I was interested and I said, "Yes, I would definitely love to matriculate to be the President." Getting to the level of President, that was something I always wanted to do. To run an organization or to lead an organization like MORS, the more I started to meet everybody and get to know folks like you, Bill Dunn, and others, to me that was like a pinnacle for me. So yes, I really wanted that.

Bob Sheldon: I was the first MORS President-Elect four years before you were. One of the reasons they created that position was so you could have a year to get yourself psyched up and formulate a strategic plan for what you wanted to do when you become President. What was your strategic planning focus?

Willie McFadden: My strategic planning focus was to try to make sure that we had a good educational background for the MORSians, especially the junior operations research analysts who were growing up in the discipline. So I focused a lot on that and made that a focus area in my strategic plan.

Bob Sheldon: Who was your predecessor as MORS President?

Willie McFadden: Ted Smyth.

Bob Sheldon: How did you support Ted while he was President?

Willie McFadden: I remember telling Ted, "I will do whatever you need me to do." He gave me a few tasks. I can't recite the details of them. Ted was a great guy to follow, a great guy to watch him work, and how he managed things, and how he led people. Roy Rice taught me as well - how he dealt with people was tremendous. And Bob, when you would deal with people, it was always in the same tone of voice that you have right now. It was always very calm, and it was always very reassuring. Roy was always very upbeat and excitable and, "It's a great day to be in MORS!" And Ted was always that calm officer, but direct. So I learned from all you guys about how to be the right person in that role.

Bob Sheldon: Then you had the symposium at Quantico, where you picked up your role as MORS President. It's a huge jump in workload when you go from being President-Elect to being President. How was your transition?

Willie McFadden: One of the biggest things that struck me when I took over, I also got very sick during that year. I took over in June 2003. In July 2003, I had a pulmonary embolism, so I had open chest surgery. I was recovering at the same time that we were planning and preparing for MORS and for the symposium. We were planning for the MORSS in Monterey in 2004. It took me a while to get back in the saddle. I didn't have to teach the first semester that year at West Point. That allowed me to be able to do a lot of the things I needed to do for MORS, because there were days I could hardly function, because I would be so tired recovering from pulmonary embolism surgery. So I was recovering, and I wanted to make sure no one really knew I was kind of incapacitated during that time. But that was the time when Mike Kwinn helped me a lot on some things. Natalie did as well. Natalie and I were on the phone an awful lot to work things. I couldn't travel early on. But I got strong enough during the first six months, that in the second six months, I was able to do a lot more of the events associated with MORS, and I was able to get to the symposium and do the symposium in 2004.

Bob Sheldon: Brian Engler had taken over from Dick Wiles a couple years earlier and was your MORS Executive Vice President (EVP). Was he easy to work with?

Willie McFadden: He was. I remember that first year when Brian took over, and Natalie was not quite sure how it was going to work out, but it did work out okay. Brian and I got along and worked real well. I have to admit that was one of the times I felt in my career the most apprehensive, because I did not want to screw this up. It was very

important to me that MORS does well. I had watched over the first almost six years by that time in MORS how well “the machine” worked and how dedicated everybody was, and I was not going to be the one who was not going to do things right. So, I had a little apprehension during that time period, but everybody worked with me really well and supported all the different things we were doing. The Lord was with me, and it worked out well. I really enjoyed that. That was a great year.

Bob Sheldon: Let's talk about your annual symposium at NPS at the end of your year as President. What were your highlights from that symposium?

Willie McFadden: Part of the highlights were seeing all the folks come back and getting to talk with everyone. I don't know whether Mr. Hollis was there, but there were many alumni at the Symposium because it was at Monterey, and Monterey was normally one of the bigger ones that everybody wanted to attend. So it was a big MORSS and we got to go all around NPS. It was nice being back in that environment because I hadn't been back there since I graduated from NPS. My wife was able to come with me, and it was just like old home week, because I got to see everybody. I felt good. All the MORS events of the year had happened, and it had gone relatively well. It was just a good environment. The weather was great, and I was feeling good during that time period.

Bob Sheldon: Then you were Immediate Past President (IPP) for a year. One of the responsibilities of the IPP is to lay out the slate of new Executive Council (EC) candidates and new Directors. How easy was that recruiting job for you?

Willie McFadden: It actually was pretty easy to recruit folks during that time period. Andy Loerch and I had talked, also Ted and others. We had talked about a lot of different things that were going on during that time. During that period, MORS had a nice upswing of new young analysts in the military and on the commercial side who were coming into MORS. So it was not difficult finding a good slate of potential Directors, as well as workers, to come in and do things for MORS. I found that during my tenure, I did have to call and ask people, but I had nobody that when you asked them to apply and that they would be good at this, and you see them moving forward in the organization, there wasn't a single person who said, “No, I don't want to do it.”

Bob Sheldon: Good. You're lucky.

Willie McFadden: I was very lucky.

Bob Sheldon: After you finished up as IPP, how did you continue your involvement in MORS?

Willie McFadden: I kept coming to the symposiums. However, when I moved to that non-traditional company, and it did start a little bit at Teledyne Brown, my VP said he didn't see the value in MORS. I just couldn't believe that. So, I paid for that symposium myself and took leave to attend. But when I moved to the non-traditional company, it wasn't in their business plan or what they were doing. That bothered me. So, for five years, I have not been able to go. But now that I'm back at BAE running the Army and Missile Defense business, I'm now able to get back into MORS. MORS is something I've always missed. During those five years, being away, because the business focus of where I was with Hexagon US Federal was just not focused on operations research or analysis in models and simulations.

Bill Dunn: Are you an advocate to send people from BAE to MORS?

Willie McFadden: Oh absolutely. I have already been talking to folks about that.

Bob Sheldon: You were inducted as a MORS Fellow in 2008 at the Coast Guard Academy. What were your thoughts about getting voted in as a MORS Fellow?

Willie McFadden: That was unexpected. I never thought I measured up. I always feel like I do everything. I could do the job and do it well and do my very best at everything. But I was not expecting to be voted in as a Fellow. When I compare myself to you guys and I compare myself to Dick Wiles and Walt Hollis and Vern Bettencourt and Mike Bauman, I'm like, "I don't know if I measure up."

Bob Sheldon: The MORS Board of Directors thought so.

Willie McFadden: I can say I'm definitely honored to be part of the Fellows, and that really is a great honor. But you guys are giants in the OR field, and everybody knows your names.

Bob Sheldon: You have insight into another professional society related to Engineering Management. What was your role in that professional society?

Willie McFadden: Yes. The American Society for Engineering Management (ASEM). I was part of that society as well, and I ended up

President and now a Past President and Fellow of that society as well.

Bob Sheldon: How large is ASEM compared to MORS?

Willie McFadden: It's much smaller. It's probably a tenth of the size. I remember the size of MORS was somewhere around 1,100 to 1,400 folks. ASEM is more of an academic society, really run by the graduate-level engineering management programs across the country. Not all of them are in ASEM. There's probably about seven or eight. It's probably has about 200 to 300 members.

Bob Sheldon: Is it a subset of the Institute for Operations Research and the Management Sciences (INFORMS), or is it a society unto itself?

Willie McFadden: It's a society unto itself, but it coordinates with some things in INFORMS. ASEM is very proud of its ABET-accredited programs, and Engineering Management was accredited well before systems engineering. There's always been a struggle for that society and that discipline to make its own way. A number of the aspects that we had to work through was to develop professional type programs. One was developing the society itself, not the ASEM, but the academic honor society, like Epsilon Mu Eta that we had at West Point. But also, as part of the body of knowledge, get set up so that we could become recognized as engineering and training, instead of doing an engineering training for most of the engineering degrees. But to also establish where engineering management has a professional engineering management certification as well. So we spent a lot of time, a lot of work, developing the products, the background, and the body of knowledge to develop that for the society.

Bill Dunn: Was Old Dominion in that?

Willie McFadden: Old Dominion was definitely in that.

Bob Sheldon: You mentioned Vern Bettencourt. When Vern was teaching at West Point, they were worried about ABET accreditation, so a bunch of West Point military professors had to get their professional engineering licenses in order for the engineering programs at West Point to be accredited. Did they promote anything like that for your Engineering Management faculty to become licensed?

Willie McFadden: They didn't have to be licensed professional engineers. One of the things that we struggled with at the Academy - I'll say I as

Engineering Management - was all the other professional societies had certifications - for electrical engineering, civil, mechanical engineering, and nuclear engineering - all those. They said, "You're not an engineer unless you're taking those courses." Engineering Management is its own engineering profession, and it takes some of those courses, and it takes other courses as well. Some of them are management courses, some are financial courses as well. So we had to really lay out - I did in my program - to really instantiate Engineering Management as a separate engineering degree. Even though EM was an accredited engineering discipline, I had to comply like other engineering programs in the Academy to show where my program had the engineering design and engineering science courses to measure up to the Academy requirements, as well as the ABET requirements. So that mix became a major issue for me, but I was able to solve that so that the other Engineering Management directors who came after me would hopefully not have to wrestle with the same struggles. For Engineering Management that was a big victory. EM majors could still take some number of courses in other engineering disciplines. I structured the EM curriculum and coursework, where the cadets needed to understand models and simulations. How to build models of things and how to build simulations of things, so that you can flow to any one of the other engineering disciplines. You can have a circuit model - we all know that. Electronics via a digital model as well as on a breadboard. You can have a combat model as well. But there's a science behind computer science and scientific computation behind the combat model as well. You can have simulations of things also and you have to make sure those simulations in some cases conform appropriately to the real world (part of what we call VV&A – verification, validation, and accreditation), so they've got to be physics-based. This ensured that our students understood the basic sciences, but were also able to apply it in an Engineering Management fashion. The Cadets would then apply the people issues, the financial issues, more on a project management scale; the whole thing. That's where I took the EM program curriculum.

Bob Sheldon:

During your active-duty Army career, did you take any professional military education (PME), like War College?

Willie McFadden:

I did the CGSC in residence. I did not do the War College.

Bill Dunn:

Did you retire as a lieutenant colonel or as a colonel?

Willie McFadden:

Lieutenant colonel.

Bob Sheldon: What professional reading do you like to keep up with?

Willie McFadden: The professional reading I do right now is mainly on the business side of the house. I read a lot of different articles on what are the best business areas for us to build, to go into, because a lot of things I have to do is from a business development side, proposals and things of that nature, to grow the business. That's where I am at this point. I do a lot of reading to understand what the Army's doing, like the JADC2 (Joint All Domain Command and Control) and JADO (Joint All Domain Operations) type operations. What are the concepts that are important? What would be the M&S, or IT, cloud, cyber issues associated with that. I'm now starting to get back into the synthetic training aspects as well. Like I said, doing a lot of cyber issues. But from our professional reading side, I read a lot of things about leadership. A lot of articles and the books that really focus on how to be a better leader, how to be a better mentor, how to think about the business appropriately, and grow a business and leave a thriving business. I read a lot of articles about entrepreneurship. I've watched companies that do a great job of winning a lot of work; and then they stop, and they start working the program. But they forget that there's an entrepreneurial piece that you have to have. It's like playing golf. You can know the mechanics of the game, and you can know what you need to do, but if you haven't practiced it in a while, you are not going to play well. So you have got to be involved with the entrepreneurship - growing business, executing new business, managing business and governance of the business. All of these aspects of business must be continually worked via steady, consistent leadership, processes, procedures and a supportive environment and culture to achieve and maintain. My professional reading is focused in these areas.

Bob Sheldon: What are your plans for the near future?

Willie McFadden: Well, I crossed that 60-year-old threshold.

Bill Dunn: That's why everything is broken.

Willie McFadden: *[Laughing]* So, as I think about it, probably the biggest thing that I think about now and what I plan for is how do I leave a legacy of a solid business capability here. That's why I came to BAE - to grow a new business. That's the biggest thing I think about. I'm not talking about legacy of "me" of what I did, but when I leave this company, I want to have built a business unit that is thriving. I want it to have solid junior and senior representation across it, and I want it to continue, where folks don't come in, and we have a big

revenue stream, and people just sitting on it. They understand why we built it, how we built it, and they understand what it takes to keep it going. So that's the biggest thing that I think of and I'm planning. I have a mission and a job. I know what to do, and I plan to do it. But I don't want it to be a one trick pony. I don't want it tied to me. I've got to build it in such a way that if I leave, it doesn't matter. If someone else leaves, it doesn't matter. It's built well enough, it functions well enough that it will be enduring.

It's really good to see you guys. I've missed being at MORS. I think about it every single year. I still get all the MORS *Phalanx* and I still go through the *Phalanx* religiously every time I get it. I told my wife, "I'm going to get back into that, now that I don't have restrictions that I had before."

Bob Sheldon: I have a saved round. You mentioned earlier that you had fostered a group of black students in STEM (science, technology, engineering, and mathematics) at West Point. Is that the way you stated it?

Willie McFadden: Yes. It's another society called NSBE, the National Society of Black Engineers. I did that while I was at West Point. Then here in Huntsville a little bit as well - they have a chapter here.

Bob Sheldon: We have a Women in MORS (WIM) Community of Practice. For women and other minorities, one of the ongoing problems is recruiting people to STEM fields. Do you have any suggestions or magic solutions for that, or is it just one of these issues that needs to be continuously worked?

Willie McFadden: I've found it's more of a constant thing that needs to be worked. The numbers in this community, there's a number of black engineers, young and old, but most of them are not exposed to MORS down here. There's only a few that are exposed. NSBE is a big organization. A lot of the young black engineers and older ones are part of it. The Women in Missile Defense, Women in Engineering is down here as well. So they're exposed as well to other things associated with the business, but not necessarily the professional organizations like MORS.

Bill Dunn: Do you watch *Jeopardy*?

Willie McFadden: I do.

Bill Dunn: Did you know that Sam Buttrey won the *Jeopardy* Tournament of Champions for professors?

Willie McFadden: No. Someone sent me a note about that. I didn't get a chance to watch that that one.

Bill Dunn: That was a big deal.

Willie McFadden: Having someone like him at NPS, I've met some tremendously smart folks out there. One guy I went to classes with was just a bona fide genius, a Navy officer. He maxed every single test that we had. He was truly a genius and just a great guy. Huntsville is a community that embraces models, simulations, and analysis. Huntsville should be a target rich environment for MORS memberships.