

**Narrator: Gen John W. Vessey, Jr**

**Interviewer: Thomas Saylor, Ph.D.**

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Avis Vessey comments at times during recordings. Identified: AVIS

TS: Today is Saturday, 15 December 2012. This is another of our interviews with General John W. Vessey, Jr. My name is Thomas Saylor. Today we're once again at the Vessey residence in North Oaks, Minnesota.

General Vessey, today we agreed our topic would be the modernization of the United States Army. For the record, one of the sources that I've referred to and will quote from today is one by John L. Romjue. The study is called "The Army of Excellence: The Development of the 1980s Army." It was published by the Office of the Command Historian United States Army Training and Doctrine Command, Fort Monroe, Virginia, 1993, and it is available online as well.

Let me start with a quote from this "The Army of Excellence" study and see if this provides a context for us. The author says the following: "The antecedent causes of the historic developments of the decade of modernization period, from the mid-1970s to the late-1980s of the United States Army, are well known: first, the developmental neglect in new weaponry during the ten years of the preceding 'Vietnam decade' and second, the impact of the 1973 Mideast war and its lessons."

So first, the author identifies the so-called decade of modernization, from approximately the mid-'70s to the late-'80s, but he has two specific antecedent causes that he wants to place on the record. So let me start perhaps with that and ask you in what ways you agree or disagree with the author's assessment of these causes.

JV: Certainly the first, that is the neglect of modernization during the Vietnam War, is certainly reasonably true – although there were indeed efforts at modernization, or continuing particularly weapons programs that had been started earlier, that were fielded during the Vietnam War. Helicopter development proceeded greatly during the Vietnam War. Some of the other programs didn't seem necessary for the fight that was going on in Vietnam, such as armor, anti-armor, anti-aircraft, things like that, particularly for the ground forces. Air to air did indeed have a lot of importance, and that of course goes beyond the study you mentioned. It covers I think only the Army. But in fact the whole of the armed forces were involved in both what was going on in Vietnam, what was learned from the [1973] Israeli-Egyptian conflict, and what happened later. So I don't think that the Israeli-Arab conflict in the '70s had as much to do with the overall thrust for the armed forces of the United States as it did for the United States Army, and particularly with the armor, anti-armor situation. But what he says is generally true, I would say.

TS: Should we draw the conclusion then that research and development during the perhaps decade of the Vietnam War period was neglected?

JV: No, I don't think that's true. Certainly one would have to go back and look at specific programs and what the services asked for and how much money the Congress put into it, but I'm sure that because the day to day operations were costing so much, that things were trimmed out of other budgets. Certainly we know that, certainly out of research and development, out of maintenance of the infrastructure in the United States. All those things were trimmed to provide money for the operations in Vietnam. That happens during war. It happened during World War II, it happened during the Korean War, and I'm sure it's going on right now as we have finished our involvement in Afghanistan and certainly it has been going on for the last ten years. The immediate operations take precedence over whatever else is going on.

TS: Right. The 1973 Mideast War, we talk about the lessons of that for the United States military or more specifically the United States Army. How would you elaborate on those? Why would that be such a specific antecedent cause?

**(07:00)**

JV: I'm not so sure that it was an antecedent cause as it was in verifying the ideas of many on what was successful with armored forces on the battlefield. Our main enemy at the time was the Soviet Union in Central Europe, and what we needed to do was field a force to deter them from attacking. Their force had grown out of what had succeeded against the Germans in World War II, and that had grown out of the success that the Germans had had in the early days of World War II. So it was a combination of air-ground operations, primarily armor operations, supported by air. Of course we had a lot of very good people that studied those operations, our own operations during World War II. We came out the victors in World War II, but in terms of the capabilities of individual tanks, the Germans still had better tanks than we did at the end of World War II. They were still producing better tanks. We fortunately could out-produce them.

TS: We had, in other words it was a quantity as opposed to quality?

JV: Right. And quantity has a great value. But quality also has a value, and those curves cross someplace.

TS: Right. And where those curves cross is the crucial point, right?

JV: Exactly. And certainly what we learned during the Israeli-Arab battles of the '70s is a lot about quality.

TS: And what is it that we learned about quality that we felt we wanted to take to heart, or needed to take to heart?

JV: The importance of success of the first shot in a tank battle. All that means better target detection, better range finding. If your infrared capabilities have a hundred yard advantage on those of your enemy, you've got a significant advantage. But if you can't punch a hole in

the other guy with your first shot, you lose anyway if he can punch a hole in you. So it's the quality of the armor, the quality of the fire control business, and the capabilities of the gun. That moved us in all of those areas, I would say, as far as armor is concerned.

TS: From your perspective, within the U.S. Army leadership, what kind of consensus was there about the lessons from this 1973 Mideast war?

JV: My own idea, and I'm sure there are people who will argue with me on this, is that it bore out the conclusions to which we had already arrived on what we needed to do. But the Egyptians were equipped with modern Soviet tanks, [and] we learned a lot about both their capabilities and limitations and what we needed to do to defeat a force that was equipped in the same fashion.

TS: You say some may disagree with you.

*(telephone ringing)*

JV: I think, as I tried to imply earlier, that some would believe that we didn't know any of these things until the Arab-Israeli War, but I would argue otherwise. It refined our knowledge and was certainly very helpful and gave us a lot of information particularly about Soviet armor.

TS: And the fact that the Israelis were equipped with our weapons. So in a sense this sounds like the ultimate proxy war. How often did we have a chance to observe really the industrial output, whether it's tanks and high-tech weapons one-on-one like this?

JV: Right. Lessons were important and helpful to us, but it wasn't as though we had discovered some great light or something like that that we didn't know existed before.

TS: So in a sense it sounds like we had almost confirmation of arguments about weapons systems, as well as the tailing off of our commitment in Southeast Asia almost at the same time.

JV: Yes. And I would point out that for the Army itself, the major parts of our modernization were already underway. That is, the Patriot missile, the Abrams tank, the Bradley fighting vehicle.

TS: Even by the early 1970s.

JV: Yes. These things were all in the research and development phase, in the late '70s certainly.

TS: Yes. I want to ask about those specifically in a little bit. Let's move on then. The United States Army Training and Doctrine Command, is the acronym TRADOC?

JV: TRADOC.

TS: Thank you. So if we refer to TRADOC, we're referring to that Training and Doctrine Command. I have a name here, General William E. Depuy.

JV: Depuy. Right.

TS: Again, let me refer to this study, "The Army of Excellence." "General William Depuy, first commander of TRADOC, presented a conception of how all the elements of change that were sorely needed after Vietnam went together: weapons, training, leader development, tactics and doctrine, and organization. Looking back on the period in a 1993 oral history interview conducted by TRADOC historians, General Depuy's co-planner and successor at TRADOC, General Don Starry, believed 'for the first time in history, the United States Army reformed itself from within.'" That from page 3. Let's go back and sort of parse this apart if we can. First, can you explain for a lay person what TRADOC is and what its mission was?

JV: It was part of the Abrams' post-Vietnam reorganization of the Army, and we've discussed this before I'm sure.

TS: Abrams? Yes.

JV: Yes, and Abrams' vision. Depuy was Abrams' choice to head the Training and Doctrine Command, and Dutch Kerwin his choice to head the Forces Command, which took over all the general reserve operational forces in the United States, and was responsible for their training. Depuy was charged with overseeing all the training establishment, everything except West Point: [from] basic and advanced individual training to the schools that trained officers for first assignments and higher command positions and so forth. So it was a significant change, and Depuy was the right guy for the job.

Of course they were adjacent to the Air Combat Command of the Air Force. A general named [Robert J.] Dixon was the head of the Air Combat Command at that time, instituting lessons learned in Vietnam. The Air Force got a lot of air-to-air lessons in Vietnam. And also we learned a lot about air-ground operations that is air support to ground operations. Depuy and Dixon set up the coordination between the Air Force and the Army for advancing those lessons and moving them into the force at large.

TS: Would you say that TRADOC is more a way of repackaging and refining what the United States Army's already doing? Or is this an entirely new set, new type of training?

**(19:00)**

JV: Both. Depuy was a forward-looking guy, and he hired forward-looking people to work for him. There was a lot done in training research, and this was pushed by General Abrams before he died, and by General Fred Weyand, who succeeded him as Chief of Staff of the Army.

Depuy had been a member of, I've forgotten whether it was the 106<sup>th</sup> Division, [but] a division that went into combat in World War II and did very poorly, with huge casualties when it first went into combat. Primarily it was a combination, apparently, of poor leadership and poor training and Depuy, like many of us who were World War II veterans,

was convinced that we should never let American soldiers be in those positions again when they first went into combat.

The whole thrust was winning on the first day. That is, the lessons from World War II and the subsequent wars, Korea and Vietnam, were that new units, their introductions to combat brought on fairly high levels of casualties and as they became more accustomed to fighting the number of casualties was reduced and the effectiveness increased. So the idea of Abrams, and certainly of Depuy, was to overcome those first day losses and have a significant advantage over the enemy on day one.

TS: In a sense that reflects what you opened with, by talking about armor and winning on the first shot in a sense, isn't it?

JV: Yes. Right.

TS: The wars of attrition in the end are counterproductive.

JV: Right. You want the attrition to be on the other side.

TS: Right. I mean, as an historian I think of how the lessons of Vietnam might have been internalized. If we think about Vietnam as a long, drawn out attritional battle war in many respects, right, that this is almost the antithesis of that, saying instead of fighting for years, if we can win in a day, that's great.

JV: Right. Right.

TS: As General Depuy identified then the elements of change that were sorely needed, and again just let us pick at those five things that he mentioned. I'll have you talk about whether you think he got them right: weapons, training, leader development, tactics and doctrine, and organization. Is there an order we should put them in anyway?

JV: Those are all intertwined. You have to do all of them. You can have the best weapons in the world, and if you haven't developed the leaders or the training or the doctrine... Certainly one can look at the history of warfare and see evidence of that, where well-equipped forces or numerically superior forces have been defeated by smaller forces that have been better led – even though they may have had poorer weapons.

TS: Accepting that, how do we parse these apart though and deal with them? Because in a sense, they're enormous concepts that would demand focus and resources and time and personnel. I mean, if we're trying to commit budget or to beg for budget, how do we look at these and decide where to start?

JV: Again, you have to look at the end state. What do you want to achieve? What's the ultimate goal? Certainly if it takes five years to develop a tank and field it or something like that and it takes only six weeks to train the soldier to drive and shoot the tank, you have to work on the tank first and then recognize that at a certain time you have to start training soldiers to man the tank. Some things even take longer than the tank, like leader

development. You can't start at the beginning of the five years to develop the tank to develop the battalion and division and brigade commanders that are going to command tank forces. They have to come much earlier. So all these things go on at the same time and you have to look at all of them at the same time.

TS: Were these some of the challenges that you were facing by the early to mid-1980s where you were Chairman?

JV: Indeed. These were broad challenges and covered all four of the armed services and the whole Department of Defense.

TS: How far had we progressed? I mean these ideas are being discussed and laid out in the late 1970s. By the 1982-85 period [when you were Chairman], how far along a trajectory were we in achieving some of these goals?

JV: By 1980 when the Reagan administration was inaugurated, [January] 1981 actually, as we discussed before, many of the weapons programs, not only in the Army but in the Air Force and the Navy, had long been in research and development.

TS: These research and development phases went on for years and years and years. And you also described it, almost in fits and starts, funding would come and these programs might get to a certain point and then funding would be frozen or withdrawn and then they would sit. So it sounds like we had a development that was an ongoing concern.

JV: Yes. When the Reagan administration came in the money came to either put programs into production or to accelerate production, complete the research or whatever it happened to be, whether it was anti-aircraft, armor, stealth for the Air Force ...

TS: There were significant financial resources made available.

JV: That had not been available before. And I would say that as a consequence, in my time as Chairman, that the influx of money during the Reagan administration, and obviously this is supported by the Congress. It couldn't have been done without the support of the Congress. We wound up improving every single facet of the Defense establishment.

TS: Those things that General Depuy mentioned.

JV: Yes. All the things that Depuy mentioned, but not only that: it was fixing the leaks on the barracks roofs and things like that that caused soldiers to re-enlist and stay in, and recruit high quality soldiers, sailors, airmen and Marines. All that is part of it, to improving almost every facet, from the nuclear deterrent force on to the ground combat force, the Navy, the Air Force.

**(30:00)**

TS: If we look at General Don Starry's 1993 comment then, that "for the first time in history the Army reformed itself from within." What would you say to that?

JV: I think Don Starry might have been blowing his own horn a little louder than he needed to. I think the Army has reformed itself a number of times in history. It was a big operation.

TS: And the 1980s were successful if we look at this period of reform?

JV: Indeed.

TS: How does this link up with the concept of the Army of Excellence, or AOE?

JV: I will tell you very frankly that gimmicky terms like the Army of Excellence and those sorts of things rub me the wrong way. I'd say that from 1775 until today that through ups and downs and good years and bad and high budgets and low budgets, you've had soldiers, sailors, airmen and Marines who have been out there straining to make the defenses of the United States as good as they can possibly make them with the resources available to them. No matter how good the Army is today, it is not inhibited by lack of room for improvement. That will be true tomorrow and the next day and ten years from now and the same has been true in the past. And to suggest that we have somehow reached heights that have never been reached before I think is first egotistical and (*chuckles*) fails to recognize the efforts of those that have gone before us.

TS: And yet we're challenged, whether it's the field of education or the military, to package things and to present them in a way that either politicians or legislators or the public can get a handle on what we're trying to do.

JV: Indeed. Nothing wrong with the word excellence.

TS: No. It's a superlative. We see it in our profession [higher education] a lot shall we say, and sometimes perhaps too much, but that's not our topic for today, thank goodness. (*chuckles*) But a concept, an umbrella under which these many different facets of modernization can take place: this sounds like a term that you were familiar with during your time as Chairman.

JV: Yes.

TS: You didn't select the term. That's what I'm guessing here.

JV: Indeed.

TS: So how did you understand what needed to be done or what you wanted to do around this concept, since it was already there?

JV: I guess it's back to what you're trying to do. You're trying to produce a force that's going to win on the battlefield and recognize that it involves all those facets that Deputy pointed out in the study that you cited. But fallibility will not disappear, no matter how much emphasis we put on it, and failing to recognize that it is going to appear endangers

ourselves in my view. It's sort of like the boxer who trains and has his picture on the front of *Sports Illustrated*<sup>1</sup> and he looks like Charles Atlas,<sup>2</sup> but with agility, and then steps into the ring and wham! He gets one on the chops that sends him to the deck. (*chuckles*)

TS: Because it's more than good looks, right?

JV: Right. He'll find out that there's another side to this world and that there are a lot of people that may not want you to succeed.

TS: And by that do you mean both outside the United States and within?

JV: More outside the United States, I would say.

TS: At the same time you as Chairman have a leadership role, whether it's acquisition of resources or how these resources are going to be divvied up, a hierarchy of goals of what you would like to see the armed forces work towards.

JV: Yes.

TS: So was a concept like this, having something that the Army could talk about, this Army of Excellence as a concept....how was that helpful when you're dealing with politicians or people inside the beltway and how is it maybe not helpful? Because it's a term we can toss around, right?

JV: Give you a couple of small examples.

TS: Good.

JV: During my time as Chairman a lot of great things were happening in the armed forces of the United States. We were in fact improving, as I said, almost every facet of the defense establishment of the United States, from conditions for the individual soldier on up to the Pershing II and the ground launched Cruise Missile, new nuclear weapons, the Trident Submarine, new fighters in the Air Force, the Abrams tank and Bradley fighting vehicle, and the Patriot, Blackhawk and Apache helicopters in the Army.

Yet when somebody, I've forgotten whether it was the GAO or somebody in the Congressional staff, found a voucher that a defense contractor had submitted for some minor tools and discovered that the Defense Department had paid \$13.00 for a claw hammer, at least or a hammer that was on that particular voucher, we wound up with the Secretary of Defense and certainly the Chairman of the Joint Chiefs of Staff and innumerable staff officers spending hours not only explaining but finding out what had happened and enduring weeks on end of cartoons.

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<sup>1</sup> Sports Illustrated: weekly U.S. sports magazine. First issue published in 1954.

<sup>2</sup> Charles Atlas (1892-1972); U.S. bodybuilder and businessman.

TS: I remember some of those, about the toilet seats and screwdrivers.

**(39:00)**

JV: The other one was the toilet seat. (*chuckles*) That was during my time as Chairman, needless to say. Of course what I had our people find out was, how much did we pay for hammers, for how many hammers in the Defense Department. It turns out that we paid, I've forgotten the number of hammers that we bought, but we bought an awful lot of hammers that year. And we paid an average of about thirty percent less than you could buy your best hammer that Sears and Roebuck sold at the time. By and large we did all right with our hammers, even if we paid \$13.00 for one.

And the so-called \$300.00 toilet seat, it turned out it was the commode operations on the Navy's P-3 anti-submarine warfare plane. I went out and flew a mission with the P-3 folks while they were actually tracking a Soviet submarine at low altitude on a stormy day, and if it cost \$300.00 to keep those sailors from sloshing around in their own waste it was well worth it. So when you talk about the Army of Excellence and so forth and somebody says well, these dummies paid twice what they should have paid for a hammer or five times what I could buy a toilet seat cover for, (*chuckles*) how excellent can they possibly be?

TS: And you're saying, let's look at the macro and not the micro.

JV: Right. My own view is, avoid the superlatives.

TS: And yet the superlative is there, so you have to live with this in a sense, right, because it's out there.

JV: Yes.

TS: You know, you've talked about the change in finances that came with the new Reagan administration in January of 1981. Skeptics might say all this progress we made was maybe just a function of lots of extra money and maybe more than the hard work that went into it. That's maybe simplistic, but did you hear that kind of criticism, that gosh, it's just the money?

JV: Indeed.

TS: How did you respond to that?

JV: First, you have to understand the system. The Reagan administration provided some wonderful impetus for improving the defenses of the United States, and gets a lot of credit for it. On the other hand, they could only build on what had been left them by previous administrations. We've talked before about the Carter administration, which immediately preceded President Reagan's first years, and the fact that defense budgets were low. President Carter inherited lower defense budgets, but he lowered them even more because of conditions that existed in the country at the time and it certainly was supported by the Congress at that time.

Yet a very good Secretary of Defense, Harold Brown, made sure that the research and development funds that were needed to keep the programs that really were important for the country, that they got the money that they needed. So the Secretary of Defense ten years from now and the President ten years from now will face some international crisis, but what they can do about it depends not only on what's being done today but what was done four or five years ago. It's nice to be around when things are going well, and you can take credit for it, but you have to remember that you're building on whatever was done by the people who preceded you.

TS: Well put. Just to stay on this topic for another minute. The Romjue study, "The Army of Excellence," in talking about that says the following: "Central historical question pertinent to the Army of Excellence of the 1980s, as to any military fighting force, was the following: was the military design right for its time? In the context of the American Army of the 1980s that question was pertinent at both the doctrinal organizational level and the national policy level." That's from page 125. So was the military design right for its time? And he wants to point to doctrinal organizational levels and national policy levels. Is he on the right track here?

JV: Yes. At the time, the principle threat to the United States appeared to be the Soviet Union. Certainly strengthening NATO and the armed forces of the United States and its contribution to NATO was uppermost in both the doctrine and policy decisions.

TS: This concept, which is a lot of what this book is talking about, says the following too. Do you want to say anything about General John A. Wickham?<sup>3</sup> Someone you knew?

JV: Yes. John Wickham succeeded me in Korea and then he succeeded Shy Meyer as Chief of Staff of the Army. He remains a good friend today.

TS: I knew we had mentioned him, had had him before in our conversations.

JV: As matter of fact I just finished writing my Christmas card to John Wickham.

**(46:30)**

TS: This Army of Excellence study, the Romjue study, says "General John A. Wickham laid the groundwork for the Army of Excellence initiative as early as April 1983, while still Vice Chief of Staff of the Army. That month" – and you're Chairman of the Joint Chiefs at the time – "the announcement of his selection as Chief of Staff came and Wickham formed a small group of officers under Brigadier General Colin Powell to identify issues he expected to face in three areas. There were fourteen officers in this group, known as Project Fourteen, and Project Fourteen looked at the three areas which were transition matters, needed policy changes and new initiatives." That's from page 24. So here's another new initiative and it's all about this Army of Excellence thing. So you know General John Wickham. Is this something that you were aware of, involved in, or happily aloof from, this identifying areas in Project Fourteen?

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<sup>3</sup> John A. Wickham, Jr. (b. 1928); U.S. Army general. Army Chief of Staff, 1983-87.

JV: I was Chairman at the time and that was Wickham running the Army.

TS: Were you privy to these kind of conversations? Did you influence these conversations or participate in them?

JV: I did not participate in any of the conversations about Wickham's interior operations in the Army. I was apprised of them.

TS: And for the lay person, would you have been able to involve yourself in those discussions? Or were those not your business anymore?

JV: They really weren't my business unless they were interfering with the defense of the United States and the Army's ability to carry out its role. What Wickham was trying to do was improve the Army.

TS: As you understood this then or now, was Wickham on the right track or pursuing things that you would have pursued yourself?

JV: Yes.

TS: Just for clarification. One of the things, concepts mentioned in this study relating to this Army of Excellence model is something called Army 86. I'm wondering if you could say anything about that?

JV: I can't. That doesn't ring a bell.

TS: It was just alluded to, and so I wanted to see. But apparently not. Good enough.

You've touched on this already, discussions of the modernization of the United States Army do talk about weapons systems pretty extensively, and you've alluded to this more than once. So I want to spend some time talking about this. Again, for context, "The Army of Excellence" says the following: "Based on intensive weapon development programs through the 1970s, delivery to the field of virtually an entire new generation of modern weaponry began in 1978, reaching a so-called bow wave in 1983, cresting in 1985 and continuing through the end of the decade." This sort of gets at what you were talking about earlier, weapons systems, is that it's not possible to develop them looking at your watch and saying here we go, but there is a longer timeline and that R and D had been active well before your time as Chairman.

JV: Yes.

TS: This time period of this so-called bow wave and this cresting of generation of modern weaponry does coincide of course with your period as the JCS Chair. When we think about modern weaponry we know things now. Things have been in the R and D phase. There's now finances made available, and so when you become Chairman in 1982, what is the situation? I mean you've described a trajectory that's constantly moving, and as you get on

this sidewalk, how do you take stock of things from the beginning, of looking at what we have, what I want to happen and what I think is reasonable to accomplish?

JV: You have to get back to the role of the Chairman and the JCS. Of course number one is to provide military advice to the Secretary and the President and the National Security Council. Some of that is advice on what to do today, for the crisis of the moment, and the other is what to do for building defense forces through defense budgets for the long run. The duty of the services, the Army, Navy, Air Force and Marine Corps, is to recruit, train, enlist, equip and deploy capable forces. You wind up with the commanders of the Unified and Specified Commands saying, telling the JCS, what they want those forces to do, and the JCS telling the services what the forces ought to be able to do and then the services themselves responding to that.

So the Chairman's role, in terms of modernizing the armed forces, with the JCS themselves, is to examine how that's going and does it need to be changed. Is it adequate? Just as an example, and this is far away from what you were raising with the Army but this happens to be with the Air Force. The Air Force of course was responsible for all those things that the Air Force has to do, that is, provide tactical battlefield support to the deployed forces as well as the strategic forces that carry the nuclear weapons, either by bombers or by missiles.

But it also has to do with warning about an enemy attack. When I became Chairman we had a lot going on in improving the offensive part of the Air Force's strategic deterrent, both in missiles and in improving the bomber force, but I looked at these various things and asked myself, how good is our detection force? I knew that we had three major ballistic missile detection radars, one in England, one in Greenland, and one in Alaska. I had never visited any of these before and didn't know what went on at them. So I said, let us set up a visit so that I can visit these and see how they work and what their contribution is, because certainly it is key to however we respond to any indication. I went to the one in Greenland first.

TS: This is a point of information. When as the Chairman you visited someplace like this, were these announced ahead of time so these places could plan for your visit, or did you just show up?

JV: You can't just show up. When I was a division commander I could get up early in the morning and go to the breakfast at some particular company battery or troop in the division and it could indeed be a surprise. I'm not sure even then if you could make it much of a surprise, because usually unless you drove yourself your car had to come and he had to know and so forth and you don't know how much gets passed out. But anyway, you don't go to the northern tip of Greenland without a whole lot of people knowing. *(both laugh)*

TS: I was actually just curious whether it's something where you can just go on the phone and say, "I want to go to visit that." Because you could do that.

JV: Yes. It was pretty close to that. It wasn't as though they could reconstruct the place or anything like that.

TS: Okay. So it was enough time to know that a guest is coming, but not six months where they could basically redo the whole place.

JV: Right.

TS: Sorry about the interruption. I was just curious.

**(58:30)**

JV: I found conditions not particularly good. That is, the morale was not high. These folks who were in that particular radar business were a crew unto themselves actually. You took an armored division or something like that, you could be in a tank battalion in Europe, you could be in a tank battalion close to the DMZ in Korea, but you could also come back from that place and go to a tank battalion at Fort Hood, Texas, and practice your trade daily and be ready to go to any one of these others. On the other hand, when there's only three radars like that in the world, you're either going to be at one of those three or doing something else.

So I found morale not particularly high among both the enlisted force and the officers at those places. The food was okay. Sleeping conditions were okay and so forth, but promotions were a little slow for those folks. And particularly morale was not high. They thought they were playing second fiddle to the fighter pilots and the bomber crews.

Of course I came back and addressed that with the Chief of Staff of the Air Force, who was then Charley Gabriel, who got right on it. He himself recognized that it was something that needed to be fixed and he did get on it and get it fixed. I just sort of cite that as one of the loose ends that the Chairman can get involved in and one of the things that the JCS themselves have to be involved in to see that the whole mechanism is in fact whole. But you don't take over the duties of the services.

TS: At the same time, from the example you gave, there's influence you can exert.

JV: Yes. One of the other things, communicating with ballistic missile submarines, with submarines under water, is difficult. At that particular time you used very low frequency radio, which would penetrate the water. We wound up, I've forgotten what the acronym stands for, but TACAMO was the acronym that described the bird. The Navy used a C-130, which is a [turboprop], four engine transport plane. It's still in service. But not as a TACAMO.

What it did was, it had a long wire antenna, which is about a mile long, that reeled out in order to send a message to the submarine. These were the messages that were to control the nuclear fire of the ballistic missile submarines. It was one of the things, part of the nuclear deterrent force, that I needed to look at, that I knew nothing about. So I scheduled a trip on a TACAMO operational mission. Ride along and see how it went. The airplane was not particularly well suited for the mission that it had. It was overloaded with communications equipment and with this reel to dispense the antenna.

The thing was crowded and looked like it was almost disorganized, although I must say that the sailors understood the importance of the mission and were really gung-ho to make it work. But [they] were overstrained with the conditions on that airplane. Fortunately I brought my camera along and took some pictures inside of the airplane. It was after the integration of women into that part of the force, so the crew was a mixed sex

crew. There were no plumbing facilities aboard except there was sort of a porta-potty with a little screen around it that could be used.

The Chief of Naval Operations wanted to get a better airplane, but the Secretary of the Navy was against putting more money into this. John Lehman<sup>4</sup> was pushing a 600 ship navy and anything that took away from building ships for his 600 ship navy was not on his agenda, including a new communications airplane for the ballistic missile submarines.

So when it came time to go to the Defense Resources Board, and that particular issue was being addressed, I brought along my pictures of the inside of the airplane and Secretary Weinberger called on me last as was his mode of operation usually in that meeting. So I was able to ask the question, "How many in the room have ever flown on a TACAMO airplane during an actual mission?" Of course I was the only one who had. Then I explained what went on, on the TACAMO airplane, and passed the pictures to Secretary Weinberger who passed them around the room. Of course the money for the new airplane was immediately approved, although it looked as though it was going down the tube up until Secretary Weinberger called on me.

TS: What that suggests is that it was possible to make an individual difference. At the same time what that makes me think about is there must be thousands of programs like that out there and it's not possible to observe and change each individual one.

JV: No, no. You have to count on the services, and they have wonderful organizations in all the services to do that.

TS: That means directions have to be a set of larger goals, right.

JV: Right. So basically the point was for me to look at all facets of the nuclear deterrent force, not just the bombers and the missiles.

TS: But those are the sexy pieces in a way, though, that are very visible.

JV: Right. But if the detection force doesn't work, it doesn't make any difference how good our response force is. And if we can't get the message to the ballistic missile submarines, it doesn't make any difference how good they are.

TS: Right. Now does that mean in a sense that you were a person who wanted to look past the kind of headline programs and ensure that we were paying attention to the nuts and bolts issues?

JV: Indeed.

TS: So the people that you either put in place or encouraged into positions were of that mindset as well?

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<sup>4</sup> John F. Lehman, Jr. (b. 1942); investment banker. Secretary of the Navy, 1981-87.

JV: Yes. Or you encourage them to be of that mindset. (*chuckles*) Charley Gabriel is Chief of Staff of the Air Force. He was a fighter pilot. He had worked for me a couple of times before and was a wonderful officer and certainly worked very hard to make everything work. If I were to find something that wasn't working quite right, Charley was going to fix it.

TS: Now, it means by the time you exited as Chair, I mean during those three years as Chairman, all four of those service chiefs turned over at least once.

JV: Yes.

TS: So you had input into who that next person was going to be.

JV: Right.

TS: Ensuring that the person who came after you would inherit your people, the same way you inherited someone else's people.

JV: Yes.

TS: Now our "Army of Excellence" study for today, talking about weapons systems which are kind of the core of our discussion even today, on pages 3 and 4 says, "By the end of the '80s a new generation of weaponry and equipment was standard in the majority of the United States Army fighting units. Systems, the most prominent of which were the Abrams tank, Bradley fighting vehicle, Blackhawk and Apache helicopters, multiple launch rocket system and the shoulder fired Stinger Air Defense Missile and Patriot Air Defense System. Observers viewed a fighting force at the end of the 1980s transformed in all its essentials from the Army of the immediate post-Vietnam years." Those are the pieces and this suggests that if this was a 1980s transformation, that you played a fundamental role in ensuring we got that.

JV: All of those things, as we discussed when we talked about my days as Vice Chief of the Army, all of those major programs were things that I was directed to pay attention to and make sure that they stayed within the budget and stayed on time and were available for fielding. And indeed we were able to do that.

TS: Just for the record here, let's allow you to talk a little bit about each of these weapons systems so people consulting these [transcripts] in the future can sort of have your ideas of how you not only describe these but how you conceived of these systems and what their importance was. The Abrams tank is first. So I guess from a half-lay perspective, let me ask you to describe what made the Abrams tank fundamentally different or better than what preceded it.

JV: First, it had the more modern armor on it, which gave it much greater protection. Secondly, it had a better gun, the 120, which ensured that if it hit something it was going to make a hole in it.

TS: Is that muzzle velocity or projectile?

JV: Both muzzle velocity, and it used a depleted uranium flechette, or projectile. Then thirdly, its fire control was a stabilized fire control system. Fourth, it was fast – it was equipped with a turbine engine. The first time we'd equipped a major ground fighting vehicle with a turbine engine. So it had speed, agility, protection, fire power and fire control systems all much improved over the tank that it replaced.

TS: Again, for a lay person, would you describe this Abrams tank as a new model of tank or a new generation of tank?

JV: It was a new generation of tank. Of course we, the Germans and the Soviets were all working on better tanks. So the Germans were fielding their new Leopard tank, which was a superbly engineered tank. It had a diesel engine in it, but it was a very modern diesel engine. It had the new so-called Chobham armor, which gave it protection. The Soviets were fielding their T-72, which was a new version of their tank. So we were all battling to come up with a new and better tank. I think that whole generation of tanks was a sizeable jump. The early tanks were slow movers. For the Americans, the Abrams was lower than the tank it preceded, but not as much as we would have liked. Both the German and Soviet tanks had a lower profile.

**(1:15:00)**

TS: They stood literally lower to the ground?

JV: Right. Anyway, it was still a tank.

TS: So recognizably, for the lay person looking at it, it was still a tracked vehicle with a turret and a gun.

JV: Right.

TS: How about the Bradley fighting vehicle? Provide a brief description of that and then talk about how it is fundamentally different than what it replaced.

JV: The development of infantry and armored vehicles to accompany tanks... Tanks by themselves are very good for fighting other tanks and fortified positions and things like that. But tanks that get out without infantry protection can be defeated by other infantrymen that are very brave and can disable the tanks with shoulder fired weapons into the propulsion system and things like that. So the idea of having armored infantry accompany tanks in attacks has been with us since World War I. But World War I, the infantry were not protected, but accompanied the tanks. The tanks didn't go any faster than the infantry marched in those days.

But from the early days of World War II and the German attacks, the Blitzkrieg attacks into France [in 1940] and into Poland [in 1939], they had infantry with some armor protection accompanying the tanks. You see the different concept in the Bradley fighting vehicle, just in the term "fighting vehicle." The vehicle that it replaced was an armored

personnel carrier. Up until that time the armored infantry in the American Army went in the model 113 armored personnel carrier, which was a light, aluminum armored, tracked vehicle with a machine gun on it. The Bradley had heavier armor, more protection for the infantry, but it also had a light cannon in a turret on the vehicle and was capable of being used as the earlier tanks were, against infantry. It had all those same capabilities that the earlier light tanks had, but it still had the ability to carry an infantry squad inside it. So that was a change in concept as well as an improvement in the vehicle itself.

TS: These first two examples, the Abrams tank, the Bradley fighting vehicle, were they envisioned primarily for use with NATO in Europe?

JV: Indeed.

TS: You've mentioned repeatedly that that was our main focus during the Cold War period. So as we look at weapons systems, is that like the first default for when we think, do we need this or how are we going to use this? Do we think first and foremost how is this going to play?

JV: At that time.

TS: At that time. Yes, of course. So other conflicts were necessarily second or below that on the list of how we developed weapons systems or the funding to procure....

JV: As the quasi-legal term goes, they were lesser included defenses.

TS: Got it. But those two were specifically examples that were seen as for combating an enemy that itself had armor or mobile fighting capabilities.

JV: Right.

TS: A couple of helicopters: the Blackhawk and the Apache. You've already mentioned how helicopter technology was one thing that did develop and move forward during the Vietnam conflict, and obviously I guess when you look at reports of that war. How are the Blackhawk and Apache helicopters now new generations of that particular technology?

JV: Greater range. For example the Blackhawk replaced the UH-1 [Huey] and the various models. The UH-1 had models A through H.

TS: So it had gone through eight different versions or upgrades, as the case may be.

JV: Right. And the Blackhawk wound up with greater range, more carrying capacity, higher altitude capability, improvements all the way around.

TS: For the lay person, what was the Blackhawk helicopter designed to do?

JV: It's a utility helicopter designed to carry troops or supplies in a combat situation. So it had the ability to carry guns on it for protection, but primarily to carry troops into combat or supply troops that were already in combat.

TS: Along with these first two, the Abrams and the Bradley fighting vehicle, including the Blackhawk, were these designed exclusively for use by the United States Army or could these be used by other branches of the U.S. military or foreign military forces?

JV: All of the above. The Army developed it, but it was certainly the hope that others would buy it to help reduce the development cost.

TS: Okay. So from the very beginning it was clear that if we could sell this as a weapons system, we'd be prepared to do that, to the right people.

JV: Yes. And first and foremost to the other armed services – and in fact they did. The MH-60,<sup>5</sup> I was just reading the new *Proceedings* and the Coast Guard talking about their version of the MH-60 landing on such and such a cutter,<sup>6</sup> and there's other evidence that the Navy uses it for anti-submarine...

TS: So some thirty years later some version of this Blackhawk helicopter is still being used.

JV: Indeed.

TS: Okay. So that's a new generation again, I think we would call that, as opposed to an upgrade.

JV: Yes. Right.

TS: Would we talk about the Apache helicopter the same way?

JV: Indeed. The Apache, first it carried bigger and better weapons. It was primarily built to be an anti-tank helicopter. And the missile development that went with the development of the Apache went right along with the development of the Apache. The Hellfire Missile that you now hear being used from the UAVs, the unattended air vehicles, in Afghanistan, that Hellfire Missile, a very accurate missile, was designed to be an anti-tank missile in the beginning, and would be the major weapon carried on the Apache. Although it also had a gun and could carry other rockets and so forth.

But it also was much faster, and of course one of the major objectives is to keep the crew alive. In Vietnam the loss of crews was a much greater cost to us than the cost of helicopters, when the crews from the helicopters were shot down. So the idea with the Apache was to keep the crew alive to fight another day. You could envision, one Apache

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<sup>5</sup> UH-60 Black Hawk: twin-engine, medium-lift utility helicopter, first used by the U.S. Army in 1979.

<sup>6</sup> Cutter: class of Coast Guard vessels a minimum of 65 feet in length, with a permanently assigned crew.

could destroy a company's worth of T-72s on one mission, and then with the speed that it had it could be rearmed and refueled and out taking on another company's worth of Soviet tanks in an hour or so. You figure that's a crew of two, of course it's got a lot of support people behind it. But it's certainly a cost effective way of fighting armor forces.

TS: Sure. And with this too, did it have an antecedent, something that it replaced or was this a new concept, the attack helicopter?

JV: Well, by that time we had developed the Cobra as an anti-tank weapons system and it used originally the TOW missile, which was a wire guided missile. The Cobra was the antecedent to the Apache, but it was sort of like jumping from the horse and buggy to the Porsche 911 [sports car] or something like that.

TS: That sounds like a quantum leap in technology here.

JV: Yes.

**(1:27:50)**

TS: Just already in your description of these four weapons systems, Abrams tank, Bradley fighting vehicle, the Blackhawk and Apache helicopters, they sound like qualitatively substantial upgrades, or entirely new generations.

JV: Indeed.

TS: Then as the lay person, and I'll put myself as the lay person here, this kind of begs the question, if these were such qualitative improvements, why did it take so long for us to develop and procure them?

JV: First, it was new technology. There are a whole lot of developments that came along at the same time. Cheap transistors and computing power gave you the opportunity to have capabilities that you couldn't have before. You could fly helicopters lower to the earth in the night time if you had very capable pilots with much better than average vision, but it was still a dangerous thing to do. But once cheap transistors gave you the power to have the night vision capabilities that enabled you to improve the controls and improve the sensing and so forth.... So all of these things came along at about the same time fortunately.

TS: Does that mean it was a question of feasibility of these particular systems?

JV: Yes. Right.

TS: So not just the cost or the financial commitment that the government needed to make.

JV: No, no. It was the ability, like the Abrams: it was the armor, the advanced armor, the ability to make it, the ability to build the gun, the ability to build the ammunition itself. What you had is a 120 millimeter gun. We've had 120 millimeter guns for a long time, but having a projectile that could produce the muzzle velocity that this thing had and then

having the ability to peel off the outside of it so that what hit the target was a flechette that was about that big around...

TS: So a fifty cent piece maybe in diameter.

JV: Yes. And penetrate. We didn't know how to do those. It took a lot of experimentation and work to do that.

TS: So it was a combination of technical ability and new technologies combined with the finances to actually bring these into production.

JV: Combined with the finances and combined with the operational concepts that would make this thing effective on the battlefield.

TS: Which sort of puts pay to the argument that it was simply the finances of the Reagan administration that brought these to fruition.

JV: Right. Right.

TS: And that's important. As just a slight aside, the depleted uranium shell you're talking about, that ammunition is still around today.

JV: It is.

TS: As armor killer essentially, if I understand it correctly.

JV: Yes.

TS: How does that work? I mean what is it about depleted uranium?

JV: It's harder.

TS: So if armor is steel or whatever, it can simply go through that?

JV: Right.

TS: Is it the projectile itself or is it the velocity with which it's shot?

JV: It's a combination of the two.

TS: I read that as a lay person, as an historian, and I say, what I really wouldn't want to be anymore is a tank crewman. Is that right?

JV: You want to have a better tank than the other guy has. *(chuckles)*

TS: These depleted uranium shells, I mean even lay descriptions, these are pretty amazing weapons.

JV: Yes. But you have to hit the target.

TS: You have to hit it. That's kind of where we started which was, get off the first shot because otherwise...

JV: Get off the first shot and hit.

TS: The downside that I've also read about with depleted uranium ammunition is, it's radioactive, right?

JV: Yes. It is. But there's great debate on how much radioactive. It's not very radioactive. The argument for its use is that there's more radioactivity in the general atmosphere than you'll deal with, with the depleted uranium projectile. The truth of that, it's still being studied. I don't know what the answers are. But at the time, when we deployed it originally and decided to do it, we were convinced that it was safe.

TS: So you were aware of the arguments of the potential perils of that type of ammunition.

JV: Indeed. Indeed.

TS: Given the possible radioactivity concerns, were there restrictions on storage or use or battlefield applications at all or was it simply use it as much as you want?

JV: No. Well, you say use it as much as you want.

TS: Without restrictions because of radioactivity concerns, I mean.

JV: Yes, right.

TS: So at any training range where those guns were employed that ammunition could be employed too, without concern?

JV: Yes. But it wasn't. It's very expensive, to begin with. So when you have expensive munitions you use cheaper substitutes whenever possible. That's been true whether no matter what the ammunition is. If you can train with a sub-caliber device, use the sub-caliber device because it's cheaper and costs less for the taxpayer, and you can use more of it.

TS: Right. Curiously enough this brings us back to Puerto Rico, which we were talking about prior to taping. I met some people there and one of the things they brought up was the U.S. military's long presence on Puerto Rico, and one of the aspects of that was the United States Navy had formerly used Vieques Island, off the eastern coast of Puerto Rico, as a firing range. One of the things that came up as possibly having been fired there –

complex construction – was depleted uranium munitions. Now the U.S. Navy no longer uses that eastern half of Vieques Island, but there are some claims that the actual land there is contaminated because of some use of depleted uranium ammunition.

JV: I think it would be more likely that the dangers would be unexploded conventional or improved conventional munitions. I don't think that depleted uranium would be... I think the number one danger would be unexploded conventional or more likely the improved conventional munitions.

TS: When you say unexploded, is that the duds? Things that were fired that for whatever reason didn't explode?

JV: Yes. Right.

TS: And that kind of cleanup must be time consuming and expensive?

JV: Time consuming and expensive. And dangerous.

TS: So when we leave any place that has formerly been used as a practice range, we have a lot of work on our hands.

JV: Yes. Right. Or even where munitions were being built and tested. Such as Ramsey County [Minnesota] has just purchased the old Twin Cities Army Ammunition Plant,<sup>7</sup> or a portion of it up here, and I'm sure there are test sites and residue of manufacturing mistakes.

TS: I understand they've allocated a pretty sizeable amount of money just for the cleanup they expect to find when they go to work there.

JV: Yes. Right.

TS: We talked about Abrams, Bradley, the Blackhawk and the Apache. A couple of rocket or missile systems: the multiple launch rocket system is also something new.

JV: Yes.

TS: Can you again briefly describe what it is, what it's supposed to do, and how it is a qualitative upgrade?

JV: The multiple launch rocket system that we fielded at this particular time grew out of the rocket systems that had been used in World War II. I remember well seeing the Germans fire their first ones that we saw, that is, the so-called *Nebelwerfer*, at the battle of Cassino.

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<sup>7</sup> Originally known as Twin Cities Ordnance Plant, it opened in 1942 to produce small arms ammunition. Production ceased after the Vietnam War. Designated a Superfund site in 1983.

Fired it in our general area, as I remember. It was a scary sort of thing both to see it fired but also when it landed, because they had a higher packing of high explosive in the shell than the normal cannon shell. It turns out they weren't as dangerous when they hit, because the fragmentation wasn't as great or as dangerous but anyway, it made a bigger noise.

TS: So this idea, I think the Soviets had one too, didn't they?

JV: The Soviets had and we had one. We built one. It wasn't very good.

TS: So the concept has been around for a long time.

JV: The concept had been around for a long time.

TS: Is this a weapons system that we in the United States employed in Vietnam at all? Was it appropriate there?

JV: No. Oh, no, no. No.

TS: How come?

JV: We didn't have it. The version we had, the World War II version – and I don't know the exact history, I suspect the Germans were probably first and that we copied, but I don't know the answer to that, whether that's true or not. But at any rate, the one we had wasn't particularly effective and we didn't spend any more time on it.

But the multiple launch rocket system that we fielded in the '80s was a completely new concept. The idea was multiple rockets on the same launcher, the same idea as the *Nebelwerfer*, but this thing, again, employed these other new technologies. For field artillery before, knowing the accurate location of the cannon was an important part of accuracy and precision on the target. So what you did is, you surveyed into a position where you had either in World War II days four guns and later on six guns, and you fired from there. You had the same idea as a multiple launch rocket system, but you had six different crews having ten men on each, so you had a total of sixty men out there. They could fire six rounds at the same time and continued doing that at three rounds per gun per minute all day long, or an hour or two at any rate.

But the multiple launch rocket system, you had a crew of two. I've forgotten how many tubes we had on it, but I think it was six. So you had the same effect as the battery of sixty men spread out there, and this thing was able to survey itself and locate itself using GPS. So suddenly you've eliminated the surveyors locating the battery and you've eliminated fifty-eight other guys, too.

TS: So an artillery unit that, as you described in World War II, with surveyors and with crews, the personnel requirements and the complex nature has been reduced substantially.

JV: Exactly.

TS: It occurs to me when you talk about reduced personnel requirements, and that's the second time that's come up in this list of weapons systems here. It's the same with the Apache I think, right? Where it was only two guys. How much of the advance of these programs is linked to a new military that has fewer people in it now?

JV: Almost all of them.

TS: Was that a driving force or just another positive outcome?

JV: Some of each.

**(1:44:20)**

TS: As you've described this cut in forces in the 1970s, drastic reduction in the number of people in the United States Army, I was reading some of our interviews and it's clear you've got fewer people now.

JV: Indeed. You can have more capable...

TS: Yes, but you have to make them more capable almost.

JV: Yes. Right.

TS: So if you want to dedicate sixty guys to a crew of six guns, then that's fifty-eight guys that you can't put somewhere else.

JV: Right.

TS: When you had to go before congressional subcommittees or hearings or whatever and make the case for these weapons systems, what kind of arguments could or did you use in front of Congress or hearings?

JV: Of course battlefield effectiveness is argument number one. Preserving the lives of American servicemen and women is argument number two. And cost effectiveness of the overall system.

TS: I recall, and in some of the reading I've checked on, there were detractors for these weapons systems in Congress.

JV: Indeed. Indeed.

TS: Abrams wasn't something that everybody jumped all over.

JV: No. In fact I think we've already discussed the crucial hearing for the Abrams tank.

TS: Right. So these were things that, even though they were technologically advanced ...

JV: The individual costs were much higher than the things they replaced. I recall a hearing on the Apache. The point was, one of these would buy X number of Cobras. "Why don't you instead of buying these buy two and a half times the number of Cobras, and you'd be better off?" Of course the answer is that they can't do on the battlefield what the Apache can do and secondly, they don't keep the crew alive. So you have to go through the expensive business of training additional crews and explaining to families that their crews hadn't survived.

TS: So there's the cost aspect both in human lives and in dollars. So those arguments, there has to be some way of coming to some kind of agreement on those two.

JV: Yes.

TS: Money. When we purchase weapons systems like this, there's the upfront cost. I think of Concordia University, for us with the Gangelhoff Center that we were gifted some twenty years ago [it opened in 1993]. What we realized after the fact was hey, there's maintenance costs here, there's insurance costs. Somebody giving you something for free doesn't mean it isn't going to cost you money in the long run. We now understand that when it comes to the new football stadium we have. Same thing here? I mean there is the sticker price, but are there also long term sunk costs?

JV: Yes. And of course we have learned to examine those as we develop the weapons systems. What is going to be the cost, the long term cost of this thing? What you try to do is develop something that's going to be easier and less costly to maintain and is going to last longer than the thing that it replaced.

TS: That's an ideal. There's a balance somewhere between additional outlay and efficiency and maintenance, long term maintenance. Does the same equation work with these weapons systems too?

JV: Indeed.

TS: The last couple, the Stinger Air Defense Missile and the Patriot Air Defense System. Again if you could just briefly describe what they do and how they are qualitative upgrades.

JV: The Patriot System was a huge jump over the system it replaced. It was better missiles, better rockets, better guidance system, better radar, much higher altitude, the ability to intercept higher speed things, perhaps even rockets or missiles. The Stinger, of course, was a heat seeking missile that was shoulder fired. It reduced the amount of training required by the soldier firing it, but vastly increased his ability to hit the target with the heat seeker.

TS: Those were employed in Afghanistan in the 1980s, weren't they?

JV: Indeed.

TS: And the equipping of Afghan mujahedeen units, if we will, with these weapons, something that we did by design or happened in some other way?

JV: We did it by design but with much debate, because we were exposing the world to a technology that you didn't want in the hands of people that weren't friendly to you.

TS: But isn't there something with all these systems, technologically to stay ahead of the curve is to not let the technology out, right?

JV: But you don't stay ahead very long. You have to recognize that.

TS: And is that something that you know going into these kind of discussions and developments?

JV: Right. Sooner or later, and you hope it's later, the technology is going to be available to whomever wants it.

TS: And by then we hopefully have moved on to one additional generation of system?

JV: Yes. Right. Or have ways to defeat it ourselves.

TS: Were both of those, the Patriot and the Stinger, designed also primarily for use in Europe?

JV: Yes.

TS: It suggests that, if we look at the transformation, those are some major weapons programs that would allow us to maybe conclude that the United States Army has fundamentally transformed its fighting capability with the adaption of these technologies and the equipment of units?

**(1:53:25)**

JV: Again, unless you've trained the users, the soldiers and the leaders, and have an employment concept to defeat the enemy that you want to defeat, they're just nice pieces of technology.

TS: Let me follow up and ask you, how well did we do that piece in the 1980s?

JV: Look at the Gulf War [of 1990-91]. There's your answer.

TS: Again, my understanding of that conflict is that many of these were frontline systems that were used with brutal effectiveness.

JV: Yes.

TS: There's my answer, right?

JV: Right.

TS: How much of the credit do you want to take for those successes? You personally.

JV: I don't know that I would want to take any, other than I had a role in it, that I was part of the team that did this. But so were thousands of other people.

TS: Weren't you the head of the team?

JV: Yes, but (*chuckles*) if you get out there and shout follow me and look around and there's nobody behind you, it's a lonely day.

TS: Did you have lonely days as Chairman?

JV: Oh, yes.

TS: But it sounds like when you said follow me on these things and the training, that some people were there saying, I'm with you.

JV: Yes. On the training, and for all the armed services and particularly for the Army: the Army made huge leaps in training. And the development of the National Training Center. We talked about that earlier. And the whole idea of removing the "bang bang, you're dead" from the concept of ground force training was essential. It was a huge leap forward.

TS: You talked about holler and follow me, and no one's there. What were some of the difficult moments you had as Chairman, where you did have an idea and it didn't go anywhere?

JV: I don't think we had any that didn't go anywhere, but we had a number of them that looked like they were going to go around the globe and went maybe a half a mile.

TS: So things for which you maybe had expectations that were disappointing or programs that you wanted to move forward that just didn't make it.

JV: Particularly at that time the whole idea that we have discussed before, of Dave Jones proposing reform, changing – I don't like the word reforming, but it was used at the time. As I pointed out in our earlier discussions, the chiefs alone addressed these issues and worked very hard on it and laid out some broad ideas to Caspar Weinberger, with which he generally agreed. Then they got parsed out to staffs, and we didn't do enough training and marketing to get enough broad support for the ideas.

The general idea was to clarify the duties between the Secretary's civilian staff and his military staff. I think as we discussed earlier that the mixture of who's on the staffs and what they do, there's an awful lot of paper that gets moved back and forth between the second floor and the third floor [of the Pentagon]. I remain convinced that that could be reduced and that the staffs could be smaller and their duties clearer and the ultimate effectiveness increased, if that were to happen. We got some parts of it done that later

became codified in the so-called Goldwater-Nichols Bill, and continued to be practiced today. But I think if you go there today you'll find that the staffs are larger today than they were in my time. And yet, the fighting edge of the armed forces, even though we're involved in a war, is considerably smaller than it was at that time. So I'd say the idea seemed great at the time. In fact, over the long run enough of a counter wave came up to the point where I actually got an order from the Deputy Secretary of Defense that I interpreted as telling me not to do my job. That perhaps was the lowest in my time as Chairman.

TS: Want to say a little more about that?

**(2:01:05)**

JV: It's difficult to say in looking back on it exactly what the general cause was, but it was this lack of clarification of roles between and among the staffs and who was responsible for what. I think it was the feeling then on the part of a number of people in the office of the Secretary of Defense that the Chairman and the JCS were taking on more responsibility than was dutifully theirs.

Will Taft, who was then the Deputy Secretary of Defense, sent me a memorandum and sent out a message to the Unified and Specified Commands explaining how communications on budgets and policies and so forth would come, and they would not go through the JCS or the Chairman and that those commanders were to communicate directly with the Defense Department.

I called my old friend Zane Finkelstein, who had been the legal advisor to Tom Moorer when Moorer was the JCS Chairman, and had later been my legal advisor when I was commander in Korea. Zane had been on the faculty of the Army War College and retired in the Carlyle area. I asked Zane to come to Washington and help me reply to this thing. So with Zane's help, a lot of Zane's help, I spent the weekend writing a reply to the Deputy Secretary. In fact it's in that book.

TS: Did you have the feeling that these ideas were coming from the Secretary's office?

JV: I didn't know. So what I did is I wrote this thing and addressed it to the Deputy Secretary, but then I took it to the Secretary. As we've discussed before, I met every day with him.

TS: Yes. This wasn't written, this was a conversation you were going to have with him. It was in written form to the Deputy Secretary.

JV: Right. It was written form to the Deputy Secretary. So I brought the written paper into Caspar Weinberger, and I told him I'd received this message, this memorandum from Will. I showed him first that and I said, "This has been sent out to the Unified and Specified Commands, and I think this is wrong. Here is the way I intend to reply to Will, but I don't want to send it to him until you've seen it and understand what I'm sending to Will." *(chuckles)* And Cap Weinberger read it and said, "That's an excellent legal brief. You just go ahead and send that to Will." And I did. A couple of days later a message went out from the office of the Secretary of Defense rescinding the policy that had been enunciated. *(chuckles)* So I don't know what went on between Will and Cap.

TS: I know the outcome, and I can add two and two.

JV: I know the outcome, and I changed my mind about resigning.

TS: You were upset by that.

JV: I was upset indeed.

TS: Did Will Taft stay in his position as well?

JV: He did indeed. He stayed and we have been friends. In fact his wife, who has since died, was a wonderful woman who did a lot of wonderful NGO work in relieving humanitarian malfeasance around the world, she was on my advisory council for the Center for Preventive Action at the Council on Foreign Relations.

TS: And one more thought I want to complete this conversation about modernization. Looking back at this decade of transformation and modernization, and again one final quote from this study that I've been quoting liberally from today, the "Army of Excellence" study from 1993. It said, "The statistics on the Army of Excellence program told a two-sided story about the 1980s transition of the U.S. Army's tactical units to their AOE forms. Whereas the great bulk of the active Army had successfully converted by the close of the decade, the conversion of the reserve components integral to the concept of an interdependent Total Army, measured a much smaller success rate." That from page 108. Should we look at the reserve component and say that we had work, that we didn't get that completely right in 1980s?

JV: I don't know that you can say we didn't get it completely right. There's always been a little bit of "how do we do this?" with the reserve components. In peacetime the reserve components train thirty-nine days a year. That's their annual training. The active force trains, in theory, 330 days, that is, each soldier getting a month of leave. Actually it's less than that because most weekends they don't train. At least in our time it was Sundays and Saturday afternoons they didn't train always, but occasionally did. So generally the active force would spend about eight times as much time as the peacetime reserve component forces would in training. So you expect them to be down the food chain in terms of readiness.

For years in terms of equipping the reserve components the idea was well, the new equipment will go to the active force and the equipment that its replacing will go to the reserve components. So they were usually one set of equipment older than the active force. But in the post-Vietnam world we tried to change that. We talked earlier about the so-call Round Out concept. We rounded out three of the active divisions with reserve component brigades and in that fashion tried to generally buck up the reserve components.

When we restructured the Army following 1973, the idea was to integrate the reserve components with the active Army so that we couldn't go to war without the reserve components. It was clear in Abrams's mind that requiring a president in order to go to war to activate the reserve components would make sure that he had the people of the United

States behind him if he were going to send the country to war. So we worked very hard on integrating the reserve components, and that carried over. But it's had its ups and downs through the years since then. The keener observers of the present day can give you a better idea, [but] during Iraq and Afghanistan they couldn't have operated if it were not for the reserve components. The reserve components carried certainly at least their share of the load. In fact, more than their share of the load. You look at right here in Minnesota, the First Brigade of the 34<sup>th</sup> Division, since 9/11 [2001], has been deployed at least three times.

TS: You made me think about weapons too and how, if in the past this idea was that the newest equipment goes to the active duty units and the reserves train with essentially what's being replaced. If those reserve units have to then join or go to active duty, they've never seen the weapons systems or worked with the weapons systems that they're supposed to be using.

JV: Yes. It's a bad idea. And of course our idea in the early '70s was to change that. The integrated units at least would have exactly the same equipment that their active duty counterparts had. But you can't go to Wal Mart and ask for fifteen divisions worth of tanks and have them wrap them up and give them to you. (*chuckles*) So the new stuff is going to come out, off a production line, one at a time at some speed. So you can't equip everybody with the newest thing at the same time.

TS: Right. Even if you wanted to.

JV: Right.

TS: Were you satisfied with the progress that was made during your time as Chairman with how we integrated and modernized our reserve components?

JV: Yes. Well, I don't know if I was satisfied, but we did a lot. In fact by that time the active force had learned a lot about using the reserves, particularly both the Army and the Air Force. The Air Force particularly did a great job of integrating the reserves. They were able to integrate air defense units. In fact many times the winners of certain competitions in the Air Force would always be reserve units, because they had more stability than the active force had. Their maintenance was better, because the same people were maintaining the equipment for longer periods of time. They weren't being rotated to go to Korea or to Europe or someplace like that.

TS: I hadn't thought about that, but you're right.

JV: I remember one time flying on a C-5<sup>8</sup> to Europe. I wanted to go to Europe and the Air Force had what they called the Channel Run, that left from Dover, Delaware, and went into Frankfurt. I've forgotten whether it was three times a week or something like that. But hauling priority equipment and parts and stuff like that. I had never ridden on a C-5 and

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<sup>8</sup> Lockheed C-5 Galaxy: large military transport aircraft of the U.S. Air Force. Introduced 1970.

thought this is a great opportunity to get a ride on this magnificent, huge airplane. So I went to Dover to get my ride to Europe and the crew invited me up into the cockpit. I was told beforehand that it was an all-reserve crew flying the plane. They were getting in their training time by actually flying an active mission for the Air Force. I sat down in the jump seat and I turned and I assumed that after a wonderful takeoff and [with] obviously a very professional looking crew that the pilot was probably a pilot of some airline of some kind. So I said, "What airline do you work for?" He said, "I don't work for an airline, General. I own a filling station in Pittsburgh, Pennsylvania." (*chuckles*)

TS: That must have made you feel pretty good about your reserves, in any case.

JV: Indeed it did.

TS: As a point of information, whenever you went on trips as the Chairman, was there an entourage that always went with you?

JV: Yes. Communicators for instance. You had to be in communication, so you always had the communicators along.

TS: So on this trip you're just mentioning, how many people had to travel with you in order for you to go?

JV: Probably five.

TS: And was that pretty standard any time you went somewhere you had those people?

JV: Yes.

TS: Did you find that made your life more bulky or more complicated? If you wanted to do something, you had to have it arranged and have this team of people.

JV: It's more complicated. On the other hand, if you're going to do what you're supposed to do, you can't do it without them.

TS: True enough. Gone are the days when you were a junior officer, when you could travel somewhere by yourself. Now it seems you can't do anything by yourself.

JV: And the wonderful part of that is that, this last summer, part of that enlisted support staff came to visit me up at our place at the lake. They have done that every year for the last few years, and you realize or you remember how important they were to whatever success you had in this highfaluting job that you had.

TS: It must make you feel pretty good that years later that these people still respect you enough and enjoyed serving with you enough that they look you up, because they needn't do that.

JV: Right. Yes. Indeed it does. Usually they send me a CD or DVD or whatever they are with the pictures and so forth on it. It's always labeled the "A Team." *(chuckles)*

TS: On that happy note then I'll close our conversation today, which dealt with modernization of the armed forces. I'll turn this machine off.

**END OF INTERVIEW**

Sources quoted or directly referenced during this interview

John L. Romjue, "The Army of Excellence: The Development of the 1980s Army." Fort Monroe, Virginia: Office of the Command Historian, United States Army Training and Doctrine Command, 1993.